

PS-242

*US Model
AEP Model
E Model*



STEREO TURNTABLE SYSTEM

Turtable section

Platter	31 cm (12 $\frac{1}{4}$ inches) diameter Diecast aluminum-alloy
Motor	Linear BSL (brushless and slotless) DC servo-controlled motor
Drive system	Direct drive
Speed	33 $\frac{1}{3}$ rpm, 45 rpm
Wow and flutter	0.025% (WRMS)*, 0.03% (WRMS) $\pm 0.045\%$ (DIN)
Signal-to-noise ratio	Better than 75 dB (DIN-B)
Automatic system	Reject, return

Tonearm section

Type	Statically balanced, universal type
Pivot to stylus length	216.5 mm (8 $\frac{1}{2}$ inches)
Overall arm length	283 mm (11 $\frac{1}{8}$ inches)
Overhang	16.5 mm
Tracking error	+3° to -1°
Tracking-force adjustment range	0 to 3 g
Acceptable range of total weight of shell and cartridge	12 to 18 g

Cartridge VL-37G

Type	Moving magnet type
Frequency response	10 Hz to 20 kHz
Channel separation	20 dB at 1 kHz
Output voltage	3 mV at 1 kHz, 5 cm/sec., 45°
Load impedance	50 to 100 kilohms
Tracking force	1.5 to 2.5 g (2 g recommended)
Stylus	Sony ND-137G (Conical 0.6 mil diamond)
Weight	13 g (including shell)

General

Power requirements	220 V ac, 50/60 Hz (AEP model) Adjustable to 110 – 120 V or 220 – 240 V ac, 50/60 Hz (E model) 120 V ac, 60 Hz (US model)
Power consumption	6 watts (US model) 8 watts (AEP, E model)
Dimensions	Approx. 430 x 130 x 370 mm (w/h/d) (17 x 5 $\frac{1}{8}$ x 14 $\frac{5}{8}$ inches) including projection parts and controls
Weight	Approx. 6.1 kg (13 lb 1 oz) net Approx. 7.5 kg (16 lb 8 oz) in shipping carton

* This new measuring method concerns only the turntable assembly, including the platter. It excludes wow and flutter caused by the tonearm, the cartridge, or the record. Measured by obtaining signal from magnetic pickup head.

SAFETY-RELATED COMPONENT WARNING!!

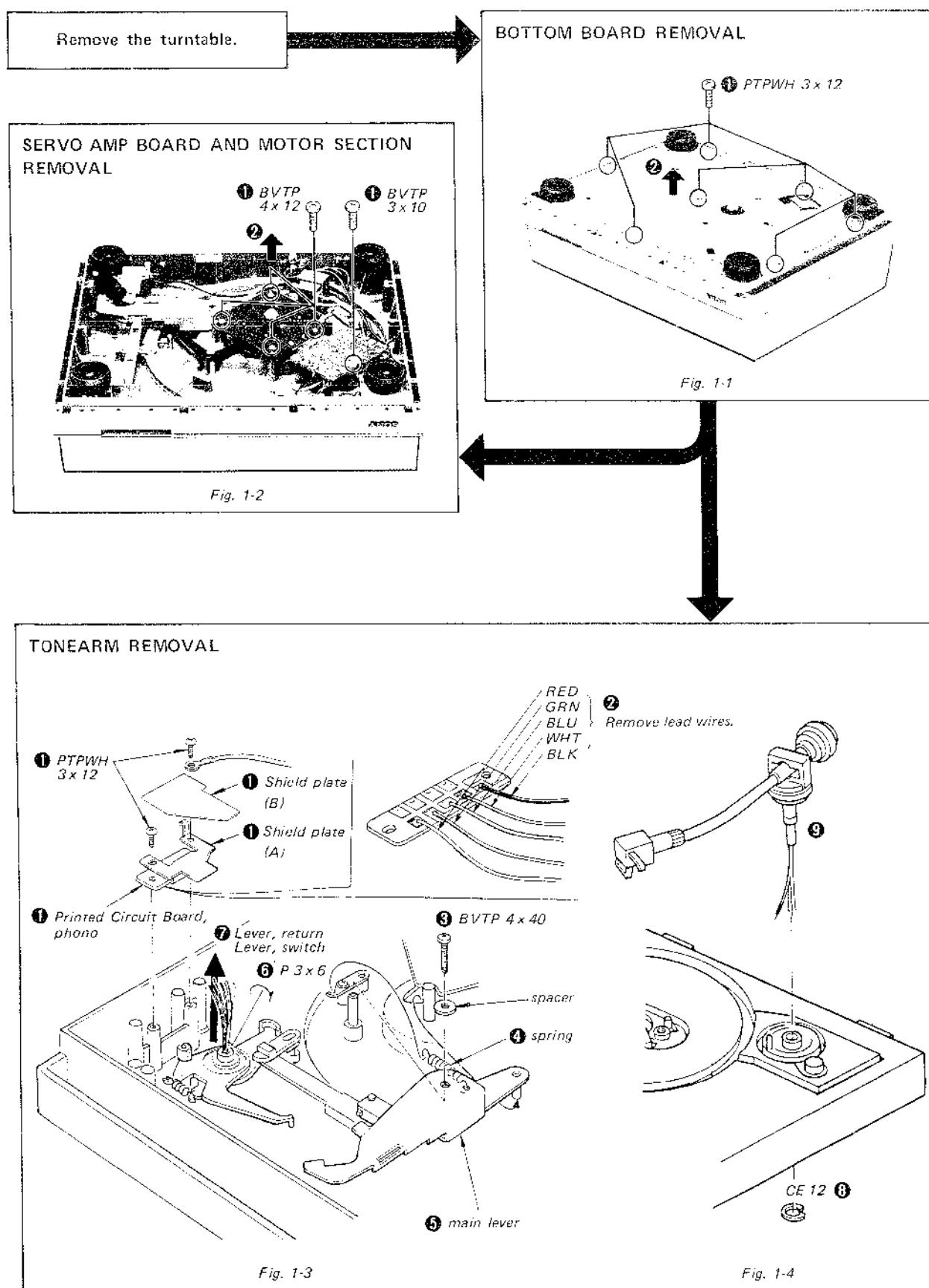
COMPONENTS IDENTIFIED BY SHADING AND MARK ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SONY®
SERVICE MANUAL

SECTION 1

DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.



SECTION 2 ASSEMBLY

TONEARM ASSEMBLY

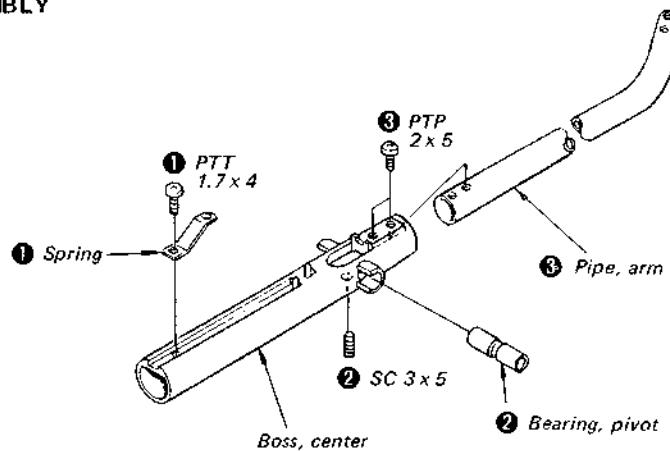


Fig. 2-1

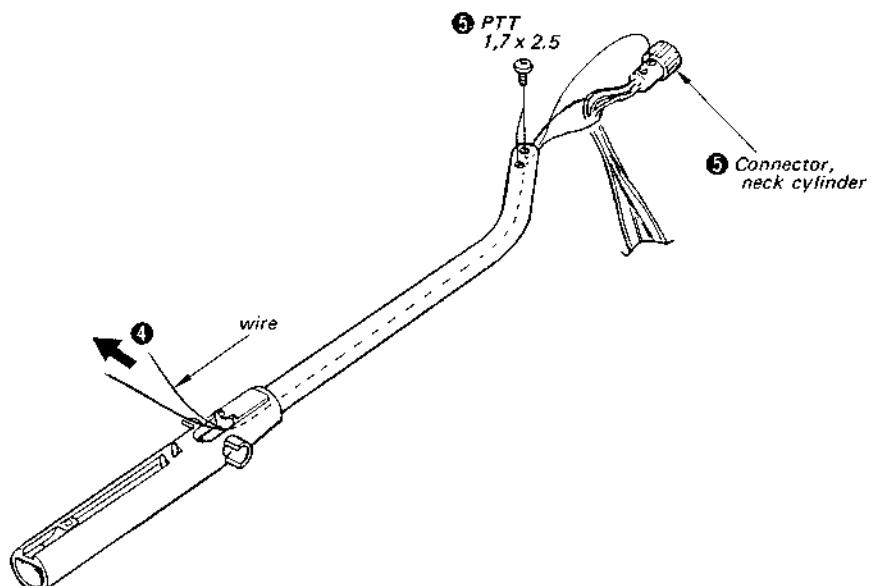


Fig. 2-2

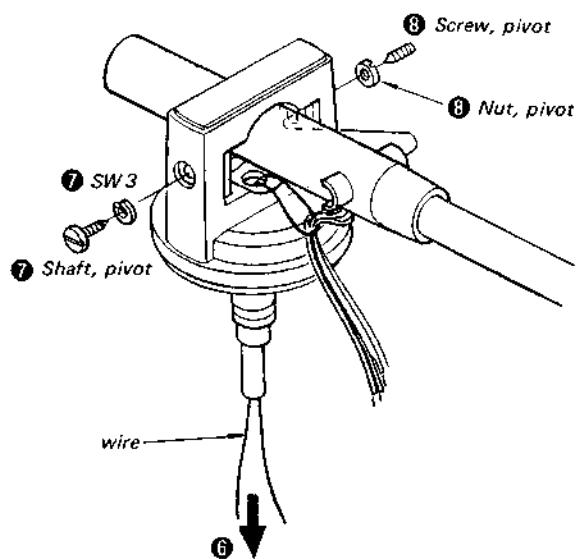


Fig. 2-3

SECTION 3 MOTOR REPAIRING

MOTOR INSTALLATION

The motor and the servo amp board are assembled together. If found defective, disassemble the motor block as shown in Fig. A and repair it.

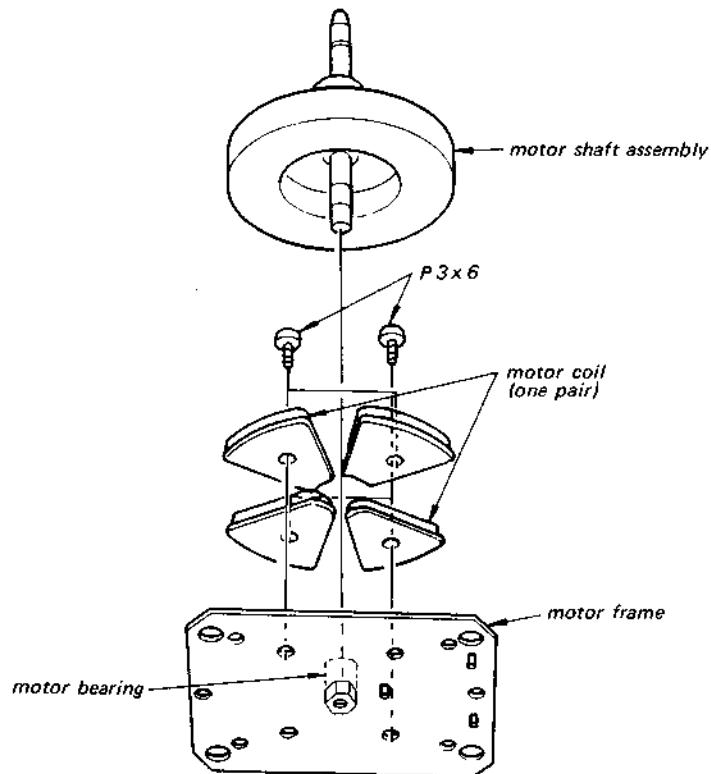


Fig. A

1. When the motor shaft is replaced, apply two drops of the SONY oil (OL-2KA) as shown below.
2. When the motor bearing and the thrust retainer plate are replaced, apply two drops of the SONY oil (OL-2KA) as shown below.

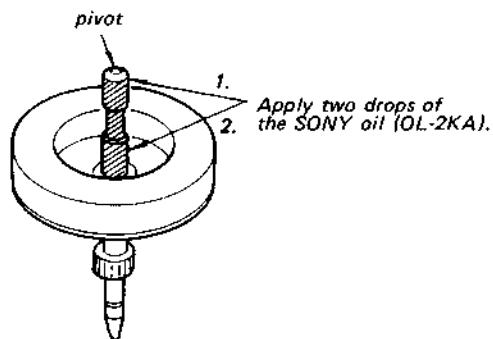


Fig. B

3. The motor coils are composed of two pairs.
 a). Mount the coils on the motor frame so that the boss of the coil is placed in the hole of the frame as illustrated in Fig. C.
 b). Push the coils in the direction of arrow and tighten the screws.

c). Lay the leads of the coils as shown in Fig. D and fix the leads in the slot between the portions marked by * in Fig. E.

4. Insert the motor shaft assembly slowly in the motor bearing so that the motor shaft is not attracted by strong magnetic field strength.

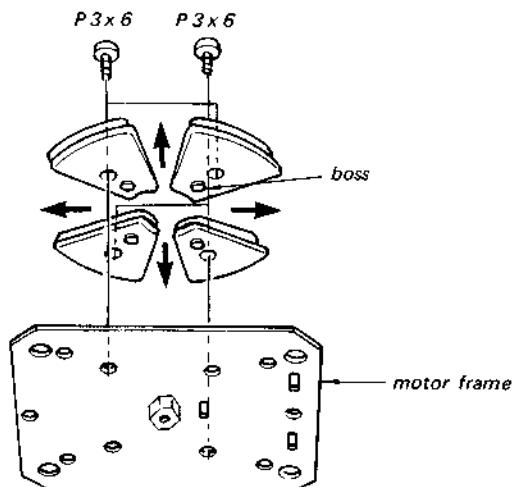


Fig. C

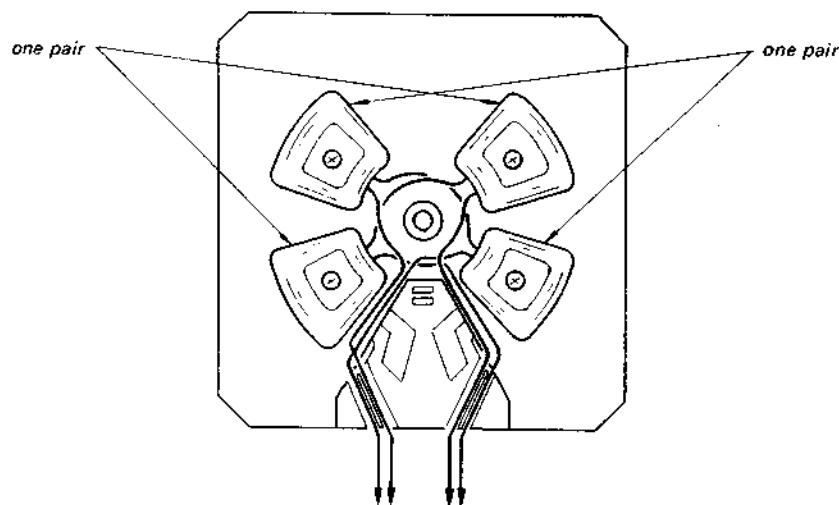


Fig. D

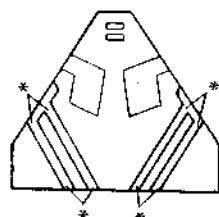


Fig. E

SECTION 4 ADJUSTMENTS

4-1. MECHANICAL ADJUSTMENTS

Speed Detecting Head Output Level Adjustment

1. Set the head deck as shown.
2. Make sure that the VTVM reading is more than 20 mV ac.
3. If necessary, adjust the position of the head deck by loosening the adjustment screw.

Note: Make sure that the head does not touch the turntable.

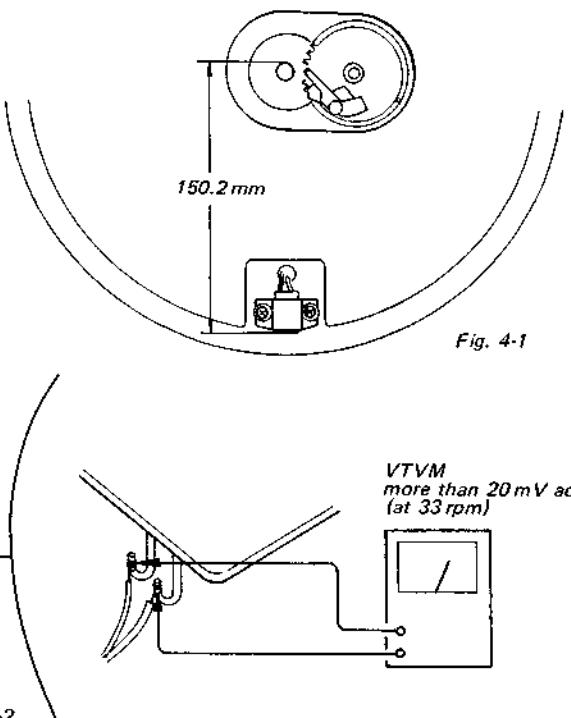


Fig. 4-1

Fig. 4-2

VTVM
more than 20 mV ac
(at 33 rpm)

Longitudinal Sensitivity Adjustment

1. Make the longitudinal balance adjustment of tonearm.
2. Repeating the following procedures, adjust the pivot screw and the lock nut.
 - a. When the 70 mg weight is placed on the top of the shell, the tonearm sinks more than 5 mm (measured at stylus-tip.).
 - b. When the weight is removed, the tonearm returns horizontally.

Note: Rotate the left and right pivot screws by same numbers of turns.

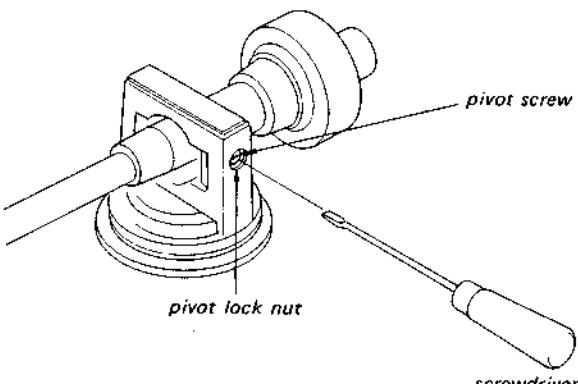


Fig. 4-3

screwdriver

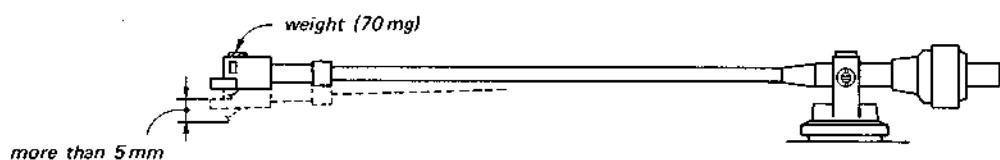


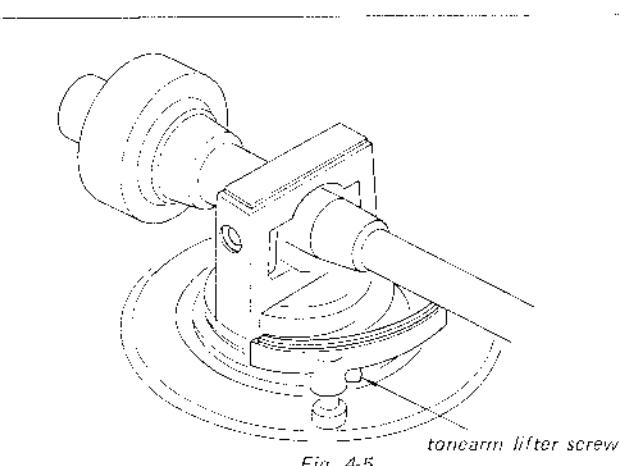
Fig. 4-4

4-2. ELECTRICAL ADJUSTMENTS

Tonearm Height Adjustment

A)

1. Bring the tonearm toward the inner of the record and put the stylus in the last groove of the record.
2. Slowly turn the turntable by hand to lift the tonearm.
3. Make sure that the clearance between the stylus tip and the record is approx. 7 mm.
4. If necessary, adjust the height of the tonearm by turning the tonearm lifter screw.
5. After the adjustment, make sure that the tonearm smoothly returns to the tonearm rest.



B)

1. Loosen the screw (A) counterclockwise.
2. Set the arm lift-up button to up position and adjust the screw (B) so that the clearance between the stylus tip and the record surface is 7 mm.
3. Turn again the screw (A) clockwise until the screw (A) touches the boss.
4. Push the arm lift-up button and check the arm operation. If the tonearm does not drop smoothly, adjust by turning again the screw (A).
5. When the stylus drops out of the turntable, confirm that the stylus tip is more than 1 mm below the surface of the turntable mat.
6. After the adjustments, apply a drop of locking compound to the screws (A) and (B).

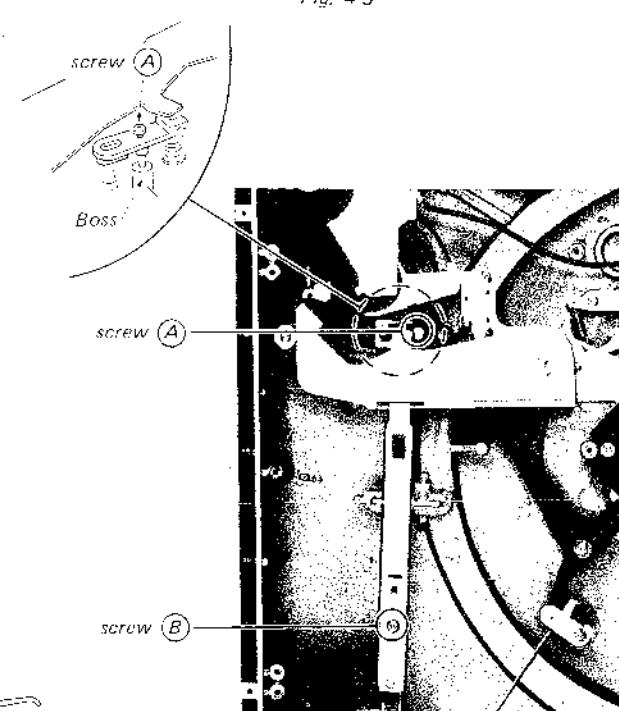


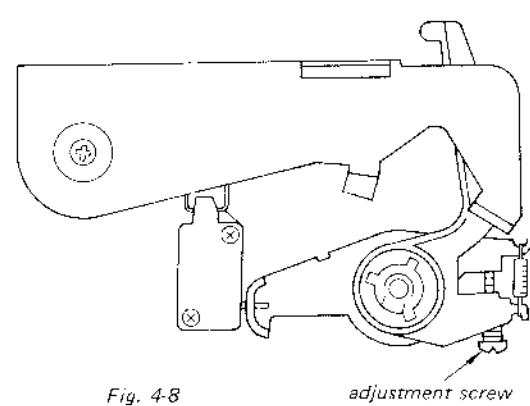
Fig. 4-7

Disc Approx. 7 mm Mat, turntable
Mat, turntable Turntable more than 1 mm
Turntable

Automatic Return Position Adjustment

1. Reject the tonearm by REJECT lever.
2. Bring the tonearm to the automatic-return test groove (inside portion) of the test record (YFSB-6), and adjust the screw for returning the tonearm at count 15~17.

Turning direction	Automatic return
clockwise	late
counterclockwise	early



Motor Amp Offset Adjustment and Hall Device Gain Adjustment

1. Short the terminal pins as shown.
2. Connect three diodes (10E2) as shown.
3. Connect VTVM ② or oscilloscope to H1 and adjust RV6 for 0 V dc VTVM reading or so that the waveform on oscilloscope becomes as shown.
4. Connect VTVM ① to H1 and adjust RV4 for 1.27 V ac reading on VTVM.
5. Connect VTVM ② or oscilloscope to H2 and adjust RV7 for 0 V dc VTVM reading or so that the waveform on oscilloscope becomes as shown.
6. Connect VTVM ① to H2 and adjust RV5 for 1.27 V ac reading on VTVM.

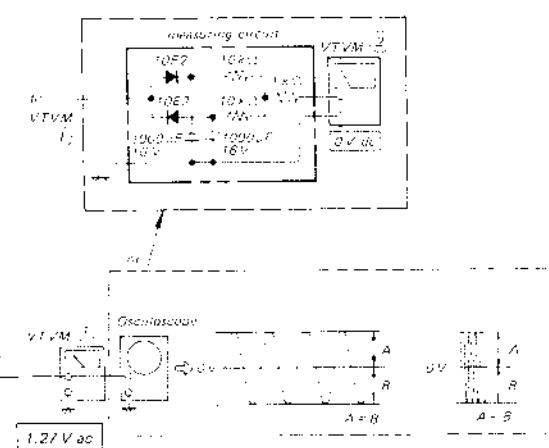
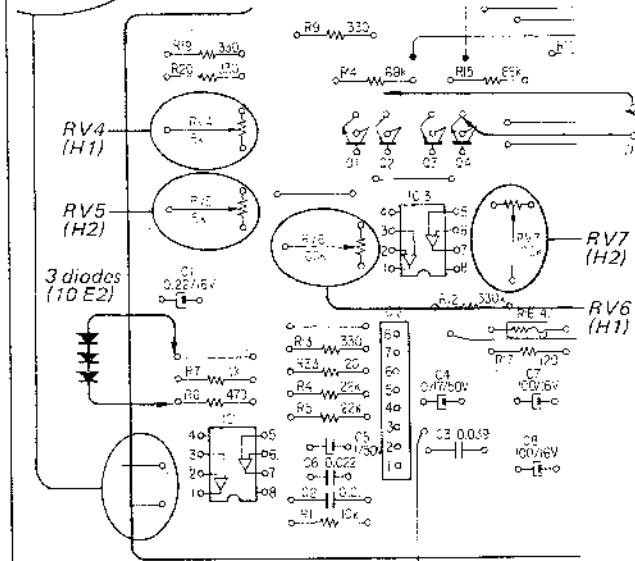
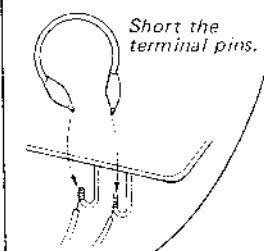


Fig. 4-9

Turntable Speed Adjustment

If correct speed cannot be obtained by adjusting the PITCH control knob, adjust RV1 or RV2.

1. Set the PITCH control knob to the mechanical-mid position.
2. Set the SPEED selector knob to "45" or "33" position and adjust RV1 or RV2 so that the stroboscope pattern appears stationary.

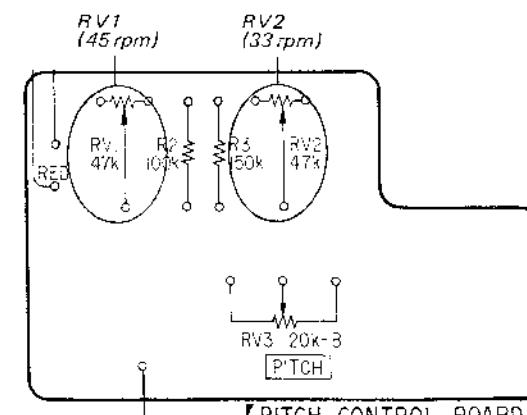
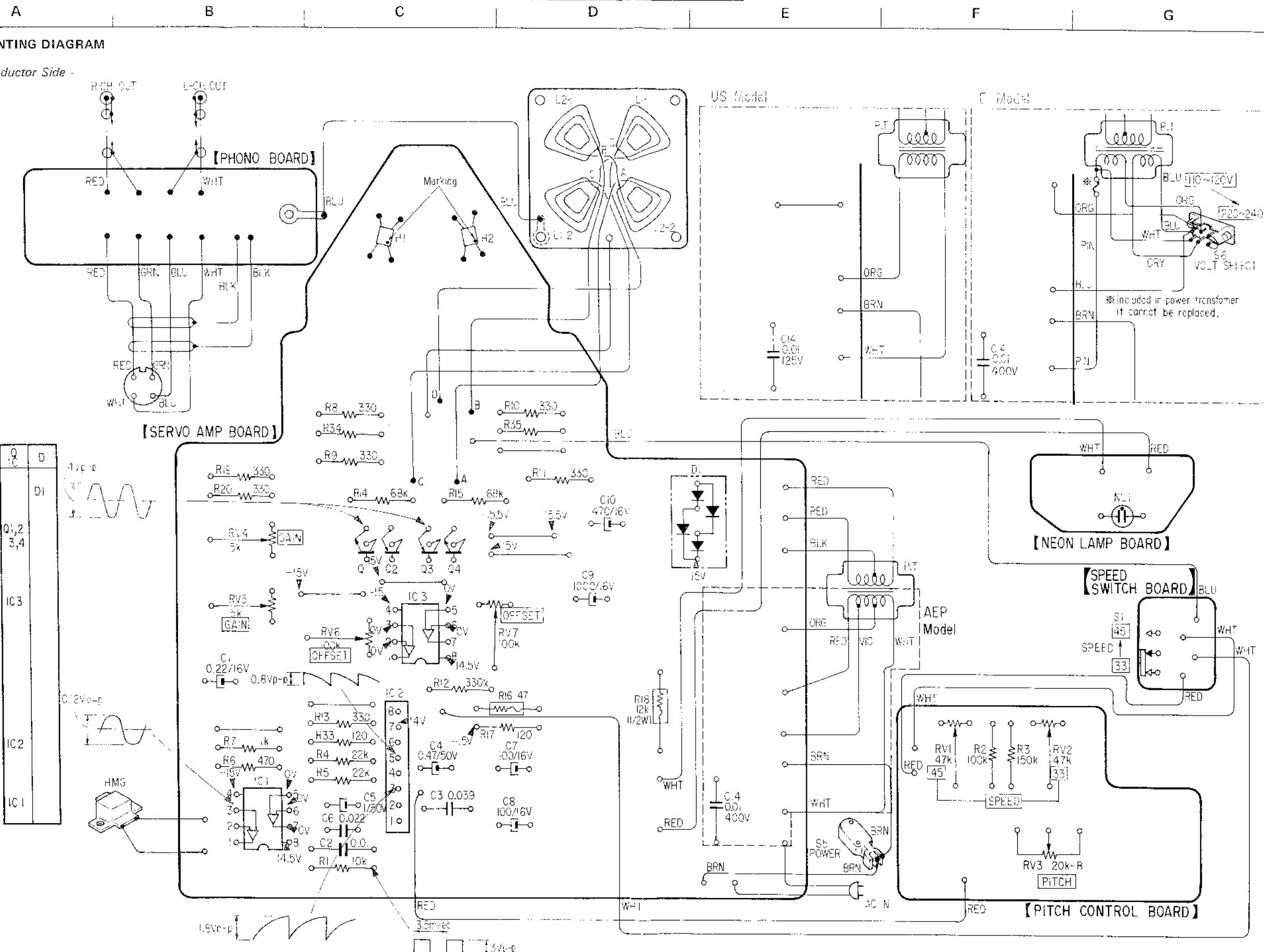


Fig. 4-10

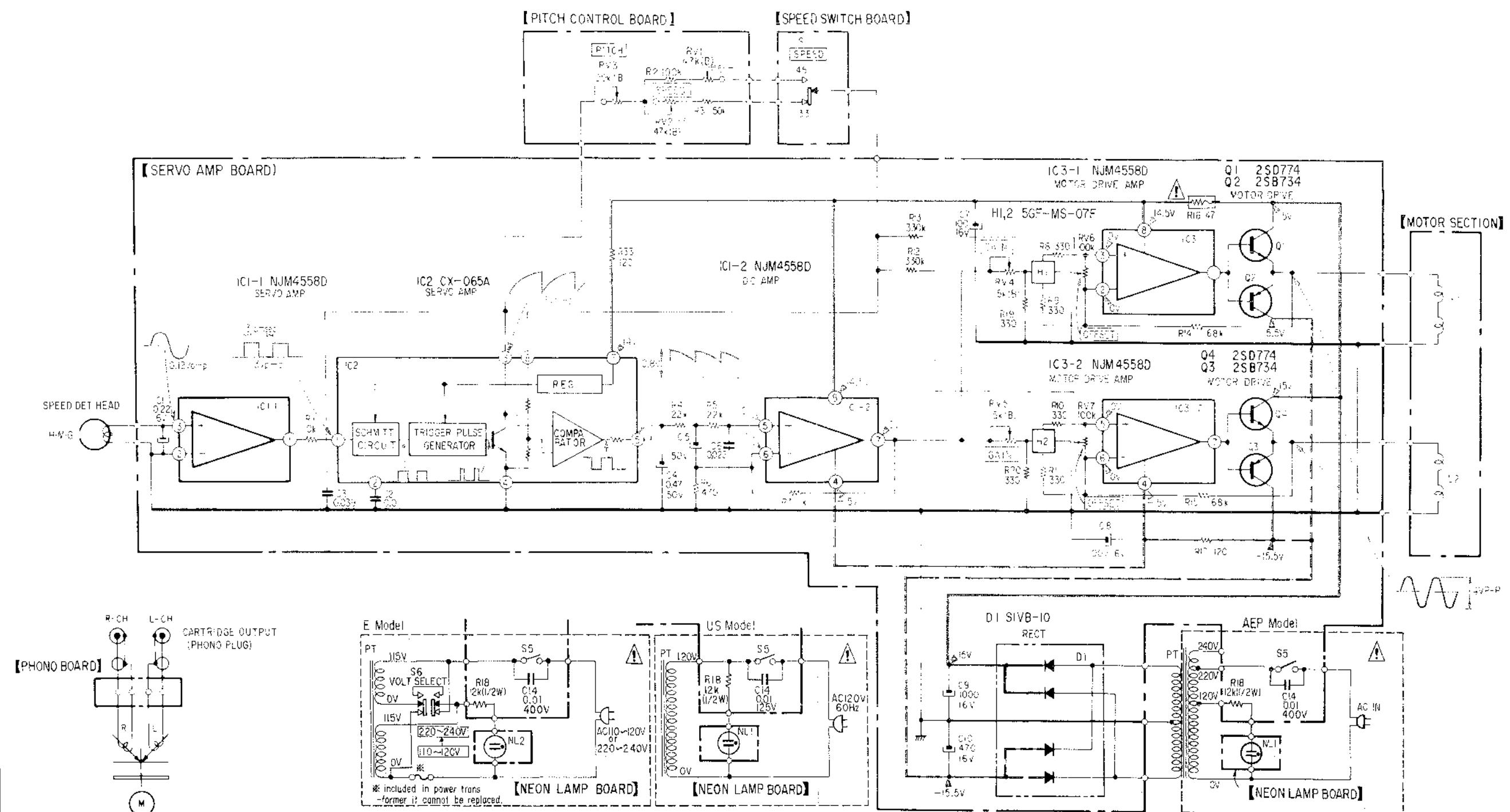
SECTION 5 DIAGRAMS

PS-242 PS-242



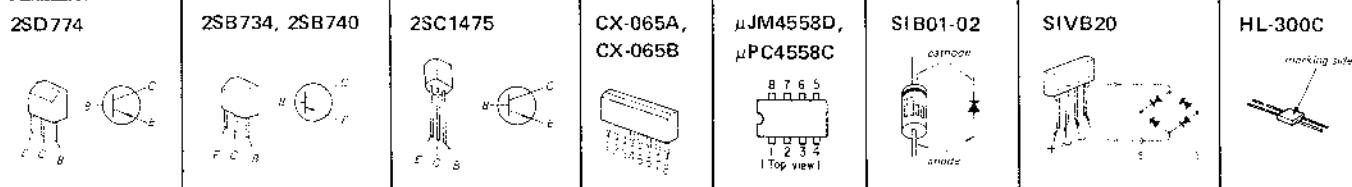
A B C D E F G H

5-2. SCHEMATIC DIAGRAM



Replacement Semiconductors

For replacement, use semiconductors except in ().



Note:

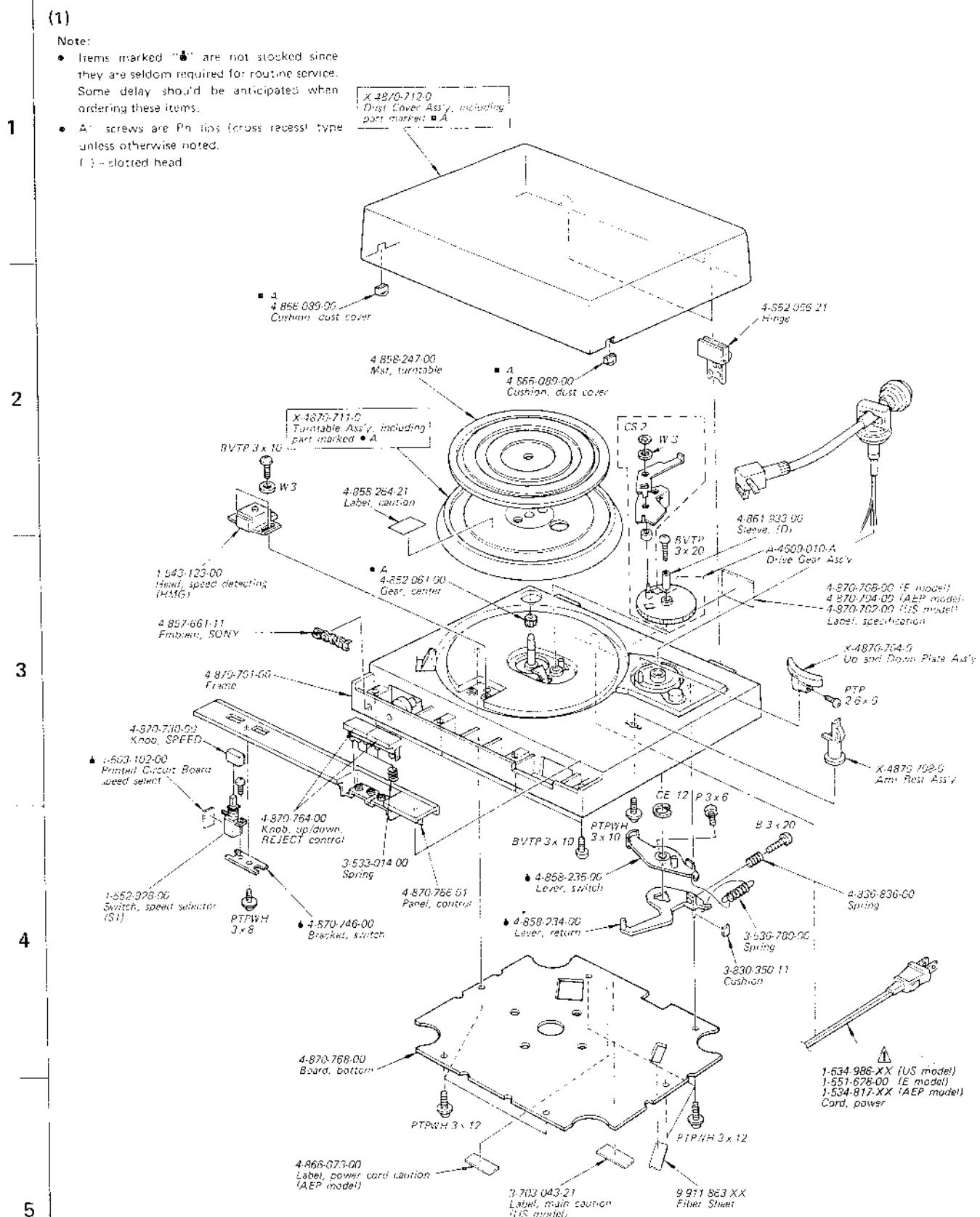
- All capacitors are in μF unless otherwise noted. pF : μpF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, $\frac{1}{2}\text{W}$ unless otherwise noted. $\text{k}\Omega$: $1000\ \Omega$, $\text{M}\Omega$: $1000\text{ k}\Omega$
- : panel designation.
- : adjustment for repair.
- : B+ bus.
- : B- bus.
- Voltages are dc with respect to ground unless otherwise noted.

Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

SECTION 6 EXPLODED VIEWS

PS-242 PS-242

A B C D

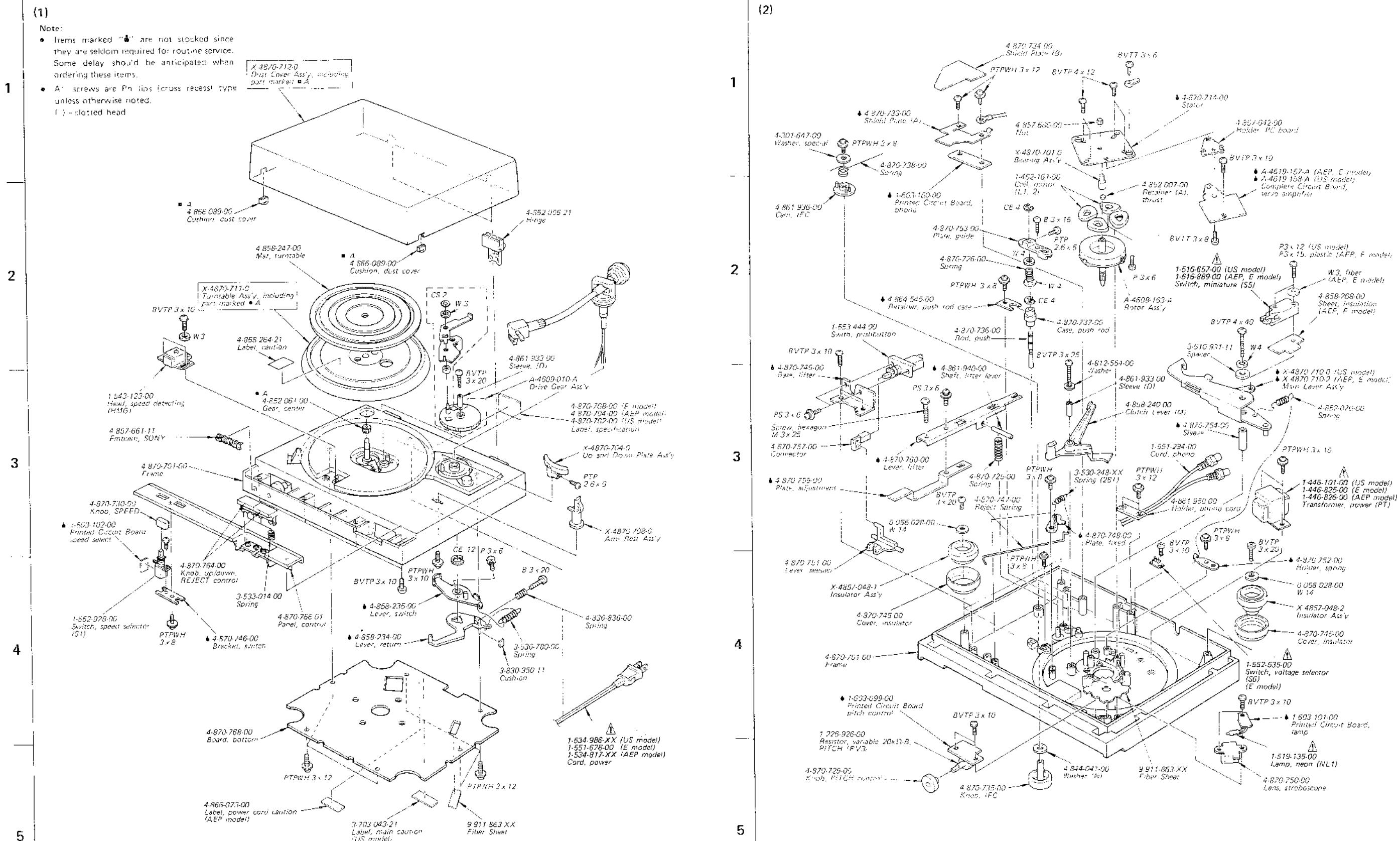


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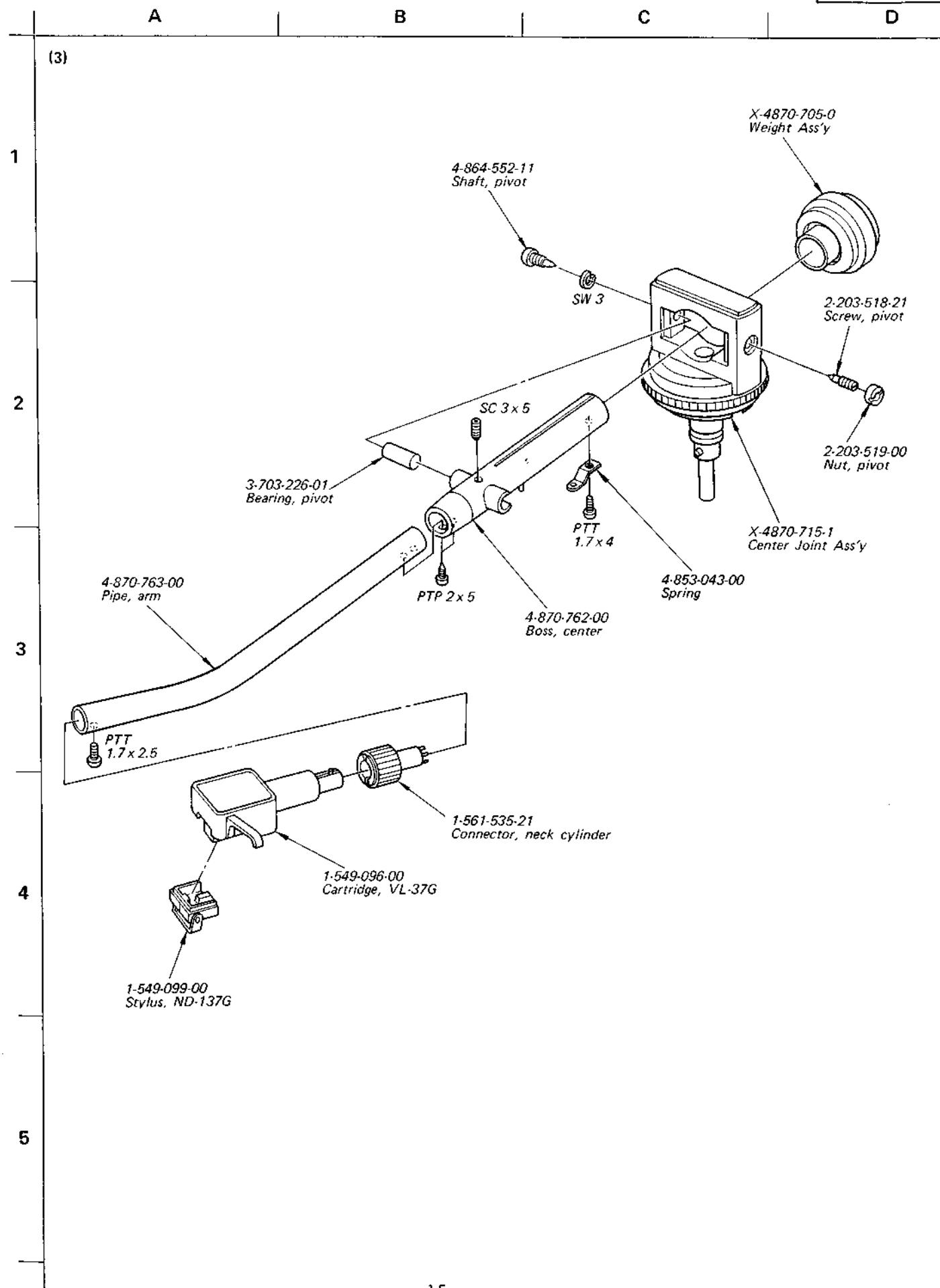
are critical for safety. Replace only with part number specified.

-- 13 --

-- 14 --



-- 14 --



SECTION 7

ELECTRICAL PARTS LIST

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
SEMICONDUCTORS					
Transistors					
Q1	8-760-413-10	2SC1475		▲ 1-534-817-XX	Cord, power (AEP model)
Q2,3	8-729-374-02	2SB740		▲ 1-534-986-XX	Cord, power (US model)
Q4	8-760-413-10	2SC1475		1-549-096-00	Cartridge, VL-37G
ICs					
IC1	8-759-145-58	μPC4558C		1-549-099-00	Stylus, ND-137G
IC2	8-759-602-65	CX065B		1-551-294-00	Cord, phono
IC3	8-759-145-58	μPC4558C		▲ 1-551-628-00	Cord, power (E model)
Diode					
D1	▲ 8-719-511-20	S1VB20		1-553-444-00	Switch, pushbutton
Hall Element					
H1,2	8-719-903-00	HL300C		1-561-535-21	Connector, neck cylinder
CAPACITORS					
All capacitors are in μF. Common capacitors are omitted.					
Refer to the lists on pages 17 and 18 for their part numbers.					
C14	▲ 1-161-744-00	0.01 400 V ceramic (AEP, E model)		▲ A-4619-157-A	Servo Amp (AEP, E model)
C14	▲ 1-161-749-00	0.01 125 V ceramic (US model)		▲ A-4619-158-A	Servo Amp (US model)
RESISTORS					
All resistors are in ohms. Common 1/4W carbon resistors are omitted.					
Refer to the lists on page 19 for their part numbers.					
R16	▲ 1-217-395-00	47 fusible		Part No.	Description
R18	▲ 1-244-899-00	12 k 1/2W carbon	▲ 1-526-565-00	AC plug Adaptor (E model)	
RV1,2	1-226-238-00	50 kΩ-B adjustable; SPEED	3-701-616-00	Bag, polyethylene	
RV3	1-226-926-00	20 kΩ-B adjustable; PITCH	3-701-630-00	Bag, polyethylene	
RV4,5	1-226-235-00	5 kΩ-B adjustable; GAIN	3-701-634-00	Bag, polyethylene	
RV6,7	1-226-239-00	100 kΩ-B adjustable; OFFSET	3-701-806-00	45 rpm Adaptor	
MISCELLANEOUS					
H-M-G	1-543-123-00	Head, speed detecting	3-783-286-11	Instruction Manual (AEP, E model)	
L1,2	1-462-161-00	Coil, motor	3-783-286-21	Instruction Manual (US model)	
NL1	▲ 1-519-135-00	Lamp, Neon	3-794-996-11	Leaflet (AEP model)	
PT	▲ 1-446-101-00	Transformer, power (US model)	4-857-657-00	Bag, protection	
PT	▲ 1-446-825-00	Transformer, power (E model)	4-862-043-00	Cushion, arm	
PT	▲ 1-446-826-00	Transformer, power (AEP model)	4-870-775-00	Holder, turntable	
S1	1-552-928-00	Switch, speed selector	4-870-776-00	Plate, protection	
S5	▲ 1-516-657-00	Switch, miniature (US model)	4-870-777-00	Cushion, lower	
S5	▲ 1-516-889-00	Switch, miniature (AEP, E model)	4-870-778-00	Cushion, upper (left)	
S6	▲ 1-552-535-00	Switch, voltage selector (E model)	4-870-779-00	Cushion, upper (right)	
			4-870-782-00	Carton	

Note: The components identified by shading and mark  are critical for safety. Replace only with part number specified.

- Items marked “♦” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

ELECTROLYTIC CAPACITORS

CAP. (μF)	RATING					
	6.3 VOLT.	10 VOLT.	16 VOLT.	25 VOLT.	35 VOLT.	50 VOLT.
PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.47					→	I-121-726-00
1.0					→	I-121-391-00
2.2					→	I-121-450-00
3.3	→	→	→	I-121-392-00	→	I-121-393-00
4.7	→	→	→	I-121-395-00	→	I-121-396-00
10	→	→	I-121-651-00	I-121-398-00	→	I-121-738-00
22	→	→	I-121-479-00	I-121-480-00	I-121-662-00	I-121-152-00
33	→	→	I-121-403-00	I-121-404-00	I-121-652-00	I-121-405-00
47	→	I-121-352-00	I-121-409-00	I-121-410-00	I-121-653-00	I-121-411-00
100	→	I-121-414-00	I-121-415-00	I-121-416-00	I-121-357-00	I-121-417-00
220	I-121-419-00	I-121-420-00	I-121-421-00	I-121-422-00	I-121-261-00	I-121-423-00
330	I-121-751-00	I-121-805-00	I-121-521-00	I-121-654-00	I-121-655-00	I-121-656-00
470	I-121-424-00	I-121-425-00	I-121-426-00	I-121-733-00	I-121-361-00	I-121-810-00
1000	—	I-121-736-00	I-121-245-00	I-121-657-00	I-121-388-00	I-123-061-00
2200	I-121-658-00	I-121-659-00	I-121-660-00	I-123-067-00	I-121-984-00	—
3300	I-121-661-00	I-123-075-00	I-123-071-00	—	—	—

CAP. (μF)	100 VOLT.		160 VOLT.		250 VOLT.		350 VOLT.	
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.47								
1.0	I-123-249-00	I-123-252-00	I-123-003-00	I-121-168-00				
2.2	I-123-250-00	I-123-026-00	—	I-123-028-00				
3.3	I-121-995-00	—	I-123-004-00	I-123-006-00				
4.7	I-123-255-00	I-121-246-00	I-121-759-00	I-123-007-00				
10	I-121-126-00	I-121-999-00	I-123-254-00	I-123-008-00				
22	I-121-996-00	I-123-253-00	I-123-005-00	I-123-022-00				
33	I-121-997-00	I-121-757-00	—	—				
47	I-123-251-00	I-121-919-00	—	—				
100	I-123-084-00	—	—	—				

CERAMIC CAPACITORS

CAP. (pF)	RATING					
	50 VOLT.	CAP. (pF)	50 VOLT.	CAP. (pF)	50 VOLT.	CAP. (pF)
PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.5	I-101-837-00	22	I-102-959-00	150	I-101-361-00	0.001
0.75	I-101-586-00	24	I-102-960-00	160	I-101-367-00	0.0012
1.0	I-102-934-00	27	I-102-961-00	180	I-102-976-00	0.0015
1.5	I-101-576-00	30	I-102-962-00	200	I-102-977-00	0.0018
2.0	I-102-935-00	33	I-102-963-00	220	I-102-978-00	0.0022
3	I-102-936-00	36	I-102-964-00	240	I-102-979-00	0.0027
4	I-102-937-00	39	I-102-965-00	270	I-102-980-00	0.0033
5	I-102-942-00	43	I-102-966-00	300	I-102-981-00	0.0039
6	I-102-943-00	47	I-101-880-00	330	I-102-820-00	0.0047
7	I-102-944-00	51	I-101-882-00	360	I-102-821-00	0.0056
8	I-102-945-00	56	I-101-884-00	390	I-102-822-00	0.0068
9	I-102-946-00	62	I-101-886-00	430	I-102-823-00	0.0082
10	I-102-947-00	68	I-101-888-00	470	I-102-824-00	0.01
11	I-102-948-00	75	I-101-890-00	510	I-101-059-00	0.022
12	I-102-949-00	82	I-102-971-00	560	I-102-115-00	0.047
13	I-102-950-00	91	I-102-972-00	680	I-102-116-00	
15	I-102-951-00	100	I-102-973-00	820	I-102-117-00	
16	I-102-952-00	110	I-102-815-00			
18	I-102-953-00	120	I-102-816-00			
20	I-102-958-00	130	I-101-081-00			

0.001 μF = 1,000 pF

CERAMIC (SEMICONDUCTOR) CAPACITORS

CAP. (μF)	RATING					
	25 VOLT.	50 VOLT.	CAP. (μF)	25 VOLT.	50 VOLT.	CAP. (μF)
PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.001	→	I-161-039-00	0.018	I-161-016-00	I-161-054-00	
0.0012	→	I-161-040-00	0.022	I-161-017-00	I-161-055-00	
0.0015		I-161-041-00	0.027	I-161-018-00	I-161-056-00	
0.0018		I-161-042-00	0.033	I-161-019-00	I-161-057-00	
0.0022		I-161-043-00	0.039	I-161-010-00	I-161-058-00	
0.0027	→	I-161-044-00	0.047	I-161-021-00	I-161-059-00	
0.0033	→	I-161-045-00	0.056	→	I-161-060-00	
0.0039	→	I-161-046-00	0.068	→	I-161-061-00	
0.0047	→	I-161-047-00	0.082	I-161-024-00	I-161-062-00	
0.0056	→	I-161-048-00	0.1	I-161-025-00	I-161-063-00	
0.0068	→	I-161-049-00				
0.0082	I-161-012-00	I-161-050-00				
0.01	I-161-013-00	I-161-051-00				
0.012	→	I-161-052-00				
0.015	I-161-015-00	I-161-053-00				

MYLAR CAPACITORS

RATING											
CAP. (μ F)	50 VOLT.	100 VOLT.	200 VOLT.	CAP. (μ F)	50 VOLT.	100 VOLT.	200 VOLT.	CAP. (μ F)	50 VOLT.	100 VOLT.	200 VOLT.
	PART No.	PART No.	PART No.		PART No.	PART No.	PART No.		PART No.	PART No.	PART No.
0.001	I-108-227-00	I-108-365-00	I-108-409-00	0.01	I-108-239-00	I-108-377-00	I-108-421-00	0.1	I-108-251-00	I-108-389-00	I-108-433-00
0.0012	I-108-351-00	I-108-366-00	I-108-410-00	0.012	I-108-357-00	I-108-378-00	I-108-422-00	0.12	I-108-363-00	I-108-390-00	I-108-434-00
0.0015	I-108-228-00	I-108-367-00	I-108-411-00	0.015	I-108-240-00	I-108-379-00	I-108-423-00	0.15	I-108-252-00	I-108-391-00	I-108-435-00
0.0018	I-108-352-00	I-108-368-00	I-108-412-00	0.018	I-108-358-00	I-108-380-00	I-108-424-00	0.18	I-108-364-00	I-108-392-00	I-108-436-00
0.0022	I-108-230-00	I-108-369-00	I-108-413-00	0.022	I-108-242-00	I-108-381-00	I-108-425-00	0.22	I-108-254-00	I-108-393-00	I-108-437-00
0.0027	I-108-353-00	I-108-370-00	I-108-414-00	0.027	I-108-359-00	I-108-382-00	I-108-426-00	0.27	I-108-854-00	—	—
0.0033	I-108-232-00	I-108-371-00	I-108-415-00	0.033	I-108-244-00	I-108-383-00	I-108-427-00	0.33	I-108-855-00	—	—
0.0039	I-108-354-00	I-108-372-00	I-108-416-00	0.039	I-108-360-00	I-108-384-00	I-108-428-00	0.39	I-108-856-00	—	—
0.0047	I-108-234-00	I-108-373-00	I-108-417-00	0.047	I-108-246-00	I-108-385-00	I-108-429-00	0.47	I-108-857-00	—	—
0.0056	I-108-355-00	I-108-374-00	I-108-418-00	0.056	I-108-361-00	I-108-386-00	I-108-430-00	—	—	—	—
0.0068	I-108-237-00	I-108-375-00	I-108-419-00	0.068	I-108-249-00	I-108-387-00	I-108-431-00	—	—	—	—
0.0082	I-108-356-00	I-108-376-00	I-108-420-00	0.082	I-108-362-00	I-108-388-00	I-108-432-00	—	—	—	—

TANTALUM CAPACITORS

CAP. (μ F)	RATING						PART No.
	3.15 VOLT.	6.3 VOLT.	10 VOLT.	16 VOLT.	20 VOLT.	25 VOLT.	
PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	
0.01	—	—	—	—	—	→	—
0.015	—	—	—	—	—	→	—
0.022	—	—	—	—	—	→	—
0.033	—	—	—	—	—	→	—
0.047	—	—	—	—	—	→	—
0.068	—	—	—	—	—	→	—
0.1	—	—	—	—	—	→	—
0.15	—	—	—	—	—	→	—
0.22	—	—	—	—	—	→	—
0.33	—	—	—	—	—	→	—
0.47	—	—	—	—	—	→	—
0.68	—	—	—	—	—	→	—
1.0	—	—	—	—	—	→	—
1.5	—	—	—	—	—	→	—
2.2	I-131-424-00	—	—	—	—	→	—
3.3	—	I-131-422-00	—	—	I-131-417-00	I-131-362-00	I-131-356-00
4.7	I-131-425-00	—	I-131-420-00	I-131-369-00	I-131-363-00	I-131-357-00	I-131-351-00
6.8	—	I-131-423-00	I-131-376-00	I-131-370-00	I-131-364-00	I-131-358-00	I-131-352-00
10	I-131-426-00	I-131-383-00	I-131-377-00	I-131-371-00	I-131-365-00	I-131-359-00	I-131-353-00
15	I-131-390-00	I-131-384-00	I-131-378-00	I-131-372-00	I-131-366-00	I-131-360-00	—
22	I-131-391-00	I-131-385-00	I-131-379-00	I-131-373-00	I-131-367-00	—	—
33	I-131-392-00	I-131-386-00	I-131-380-00	I-131-374-00	—	—	—
47	I-131-393-00	I-131-387-00	I-131-381-00	—	—	—	—
68	I-131-394-00	I-131-388-00	—	—	—	—	—
100	I-131-395-00	—	—	—	—	—	—

TANTALUM CAPACITORS

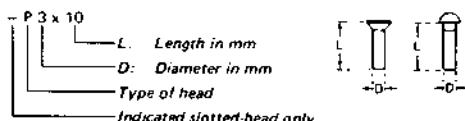
CAP. (μ F)	RATING						PART No.
	3 VOLT.	6.3 VOLT.	10 VOLT.	16 VOLT.	20 VOLT.	35 VOLT.	
PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	
0.033	—	—	—	—	—	—	I-131-273-00
0.047	—	—	—	—	—	—	I-131-274-00
0.068	—	—	—	—	—	—	I-131-275-00
0.1	—	—	—	—	—	—	I-131-276-00
0.15	—	—	—	—	—	—	I-131-277-00
0.22	—	—	—	—	—	—	I-131-278-00
0.33	—	—	—	—	—	—	I-131-279-00
0.47	—	—	I-131-169-00	—	—	—	I-131-264-00
0.68	—	—	—	—	I-131-258-00	—	I-131-265-00
1.0	—	—	I-131-254-00	—	—	—	I-131-266-00
1.5	—	I-131-250-00	—	—	—	I-131-267-00	I-131-283-00
2.2	—	—	—	I-131-259-00	—	I-131-268-00	I-131-284-00
3.3	—	—	I-131-255-00	—	—	I-131-269-00	—
4.7	—	I-131-251-00	I-131-171-00	—	—	I-131-270-00	—
6.8	—	—	—	I-131-260-00	—	I-131-271-00	—
10	—	—	I-131-256-00	—	—	I-131-272-00	—
15	—	I-131-252-00	—	I-131-261-00	—	—	—
22	—	—	I-131-257-00	—	—	—	—
33	I-131-176-00	I-131-253-00	I-131-173-00	—	—	—	—
47	I-131-288-00	I-131-174-00	—	—	—	—	—
100	I-131-177-00	—	—	—	—	—	—

1/4 WATT CARBON RESISTORS

Ω	Part No.												
1.0	1-246-401-00	10	1-246-425-00	100	1-246-449-00	1.0k	1-246-473-00	10k	1-246-497-00	100k	1-246-521-00	1.0M	1-246-545-00
1.1	1-246-402-00	11	1-246-426-00	110	1-246-450-00	1.1k	1-246-474-00	11k	1-246-498-00	110k	1-246-522-00	1.1M	1-210-814-00
1.2	1-246-403-00	12	1-246-427-00	120	1-246-451-00	1.2k	1-246-475-00	12k	1-246-499-00	120k	1-246-523-00	1.2M	1-210-815-00
1.3	1-246-404-00	13	1-246-428-00	130	1-246-452-00	1.3k	1-246-576-00	13k	1-246-500-00	130k	1-246-524-00	1.3M	1-210-816-00
1.5	1-246-405-00	15	1-246-429-00	150	1-246-453-00	1.5k	1-246-577-00	15k	1-246-501-00	150k	1-246-525-00	1.5M	1-210-817-00
1.6	1-246-406-00	16	1-246-430-00	160	1-246-454-00	1.6k	1-246-578-00	16k	1-246-502-00	160k	1-246-526-00	1.6M	1-210-818-00
1.8	1-246-407-00	18	1-246-431-00	180	1-246-455-00	1.8k	1-246-579-00	18k	1-246-503-00	180k	1-246-527-00	1.8M	1-210-819-00
2.0	1-246-408-00	20	1-246-432-00	200	1-246-456-00	2.0k	1-246-580-00	20k	1-246-504-00	200k	1-246-528-00	2.0M	1-210-820-00
2.2	1-246-409-00	22	1-246-433-00	220	1-246-457-00	2.2k	1-246-581-00	22k	1-246-505-00	220k	1-246-529-00	2.2M	1-210-821-00
2.4	1-246-410-00	24	1-246-434-00	240	1-246-458-00	2.4k	1-246-582-00	24k	1-246-506-00	240k	1-246-530-00	2.4M	1-244-754-00
2.7	1-246-411-00	27	1-246-435-00	270	1-246-459-00	2.7k	1-246-583-00	27k	1-246-507-00	270k	1-246-531-00	2.7M	1-244-755-00
3.0	1-246-412-00	30	1-246-436-00	300	1-246-460-00	3.0k	1-246-584-00	30k	1-246-508-00	300k	1-246-532-00	3.0M	1-244-756-00
3.3	1-246-413-00	33	1-246-437-00	330	1-246-461-00	3.3k	1-246-585-00	33k	1-246-509-00	330k	1-246-533-00	3.3M	1-244-757-00
3.6	1-246-414-00	36	1-246-438-00	360	1-246-462-00	3.6k	1-246-586-00	36k	1-246-510-00	360k	1-246-534-00	3.6M	1-244-758-00
3.9	1-246-415-00	39	1-246-439-00	390	1-246-463-00	3.9k	1-246-587-00	39k	1-246-511-00	390k	1-246-535-00	3.9M	1-244-759-00
4.3	1-246-416-00	43	1-246-440-00	430	1-246-464-00	4.3k	1-246-488-00	43k	1-246-512-00	430k	1-246-536-00	4.3M	1-244-760-00
4.7	1-246-417-00	47	1-246-441-00	470	1-246-465-00	4.7k	1-246-489-00	47k	1-246-513-00	470k	1-246-537-00	4.7M	1-244-761-00
5.1	1-246-418-00	51	1-246-442-00	510	1-246-466-00	5.1k	1-246-490-00	51k	1-246-514-00	510k	1-246-538-00	5.1M	1-244-762-00
5.6	1-246-419-00	56	1-246-443-00	560	1-246-467-00	5.6k	1-246-491-00	56k	1-246-515-00	560k	1-246-539-00		
6.2	1-246-420-00	62	1-246-444-00	620	1-246-468-00	6.2k	1-246-492-00	62k	1-246-516-00	620k	1-246-540-00		
6.8	1-246-421-00	68	1-246-445-00	680	1-246-469-00	6.8k	1-246-493-00	68k	1-246-517-00	680k	1-246-541-00		
7.5	1-246-422-00	75	1-246-446-00	750	1-246-470-00	7.5k	1-246-494-00	75k	1-246-518-00	750k	1-246-542-00		
8.2	1-246-423-00	82	1-246-447-00	820	1-246-471-00	8.2k	1-246-495-00	82k	1-246-519-00	820k	1-246-543-00		
9.1	1-246-424-00	91	1-246-448-00	910	1-246-472-00	9.1k	1-246-496-00	91k	1-246-520-00	910k	1-246-544-00		

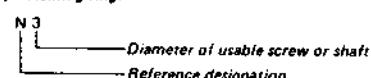
HARDWARE NOMENCLATURE

Screw:



Unless otherwise indicated, it means cross-recessed head (Phillips type).

Nut, Washer, Retaining ring:

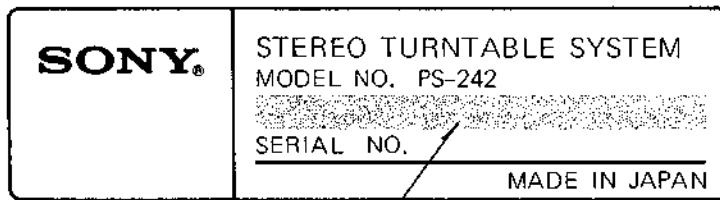


Reference Designation	Shape	Description	Remarks
SCREWS			
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-filister-head screw	
RF		filister-head screw	
BV		braizer-head screw	

Reference Designation	Shape	Description	Remarks
SELF-TAPPING SCREWS			
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self-tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
SET SCREWS			
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
NUT			
N		nut	
WASHERS			
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
RETAINING RINGS			
E		retaining ring	
G		grip-type retaining ring	

MODEL IDENTIFICATION

— Specification Label —



US model: AC 120 V 60 Hz 6W

AEP model: AC 220 V ~50/60 Hz 8W

E model: AC 110 – 120, 220 – 240 V ~50/60 Hz 8W