

SERVICE
MANUAL

TT6200



marantz®

model TT6200

Turntable

Version	Destination
N	Europe (220V 50 Hz)
T	England (240V 50 Hz)
A	Australia (240V 50 Hz)
C/U	North America (120V 60 Hz)
E	General (110/220V 50/60 Hz)
AE	General (110/220V 50/60 Hz)

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(1) ADJUSTMENTS

1. Tools required for adjustment

- (1) Phillips-head screwdrivers (for M3 and M4)
- (2) Slotted-head screwdrivers (medium and small sizes)

Caution for adjustments

- (1) Plug off the AC power supply cord.
- (2) Return the tonearm to tonearm rest and fix the tonearm to the tonearm rest with the lock-lever.
- (3) Remove the turntable platter and mat.
- (4) Set the cueing knob to the ∇ position.

2. Turntable platter height and level adjustments

- (a) Install the turntable in a servicing jig and remove the turntable mat and platter, if installed. Place the turntable upside down to remove bottom cover (Fig. 1).
- (b) Remove with a Phillips-head screwdriver the eight screws which hold the bottom base. (Fig. 2)
- (c) Re-set the unit for normal use on the table.
- (d) Remove the transit screws (red). (Fig. 3)
- (e) Replace the turntable platter, mat and install a record. Move the turntable shaft by your hand vertically and horizontally to make sure that the sub-chassis is suspended from the cabinet.
- (f) Measure from the surface of the cabinet to the height of the installed record. This dimension should be within 20.5–22.0 mm (0.807–0.870 in.). Adjust the sub-chassis suspension screws to acquire this distance. Refer to Fig. 5.

3. Stylus clearance adjustment

- (a) Set the cueing knob to ∇ position and move the tonearm over the record surface (Fig. 6). The clearance between the stylus point and the record should measure between 6–10 mm (0.24–0.39 in.). This dimension is set by screw A (Fig. 6).
- (b) Move the tonearm to the end of the record and slowly rotate the turntable platter until the tonearm starts returning. Stop the platter rotation when the tonearm is in the approximate position as above. Again measure the distance between the stylus point and the record surface. This measurement should be approximately the same clearance 6–10 mm (0.24–0.39 in.). If the height needs to be adjusted, adjust screw B (Fig. 6).

4. Auto-return ratchet adjustment

- (a) Adjust the gap between the turntable gear hook (Fig. 7) and the ratchet trigger for 0.3–0.4 mm (0.012–0.015 in.) by turning the adjusting pin.

5. Auto-return adjustment

- (a) Set the cueing knob to the ∇ position.
- (b) Move the tonearm to the end of the record disc so that the end of the program is just occurring. Rotate the adjusting screw so that the ratchet trigger does not engage the turntable gear hook until complete record ends (Fig. 8).
- (c) After this adjustment, check that the tonearm returns at the end of the completed program on the disc. We recommend to use a test record comparable to stock No. RG-800 for this check.

6. Seesaw arm assy. adjustment

- (a) Remove turntable platter and mat. Place turntable in a servicing jig and turn turntable upside down.
- (b) Rotate the drive gear in direction of normal play. Continue gear rotation until seesaw arm assy. is aligned as shown in Fig. 9.
- (c) Adjust seesaw shaft for dimension at point "A" in Fig. 10 1.0–1.5 mm (0.040–0.060 in.). After this adjustment tighten lock nut.

7. Start-switch adjustment

- (a) Set start/stop knob to start position.
- (b) Adjust gap between operating plate assy actuator and switch contact for dimension specified in Fig. 11. Note that two different types of micro-switches can be used during model assembly. Determine vendor type micro-switch and adjust to dimension specified.

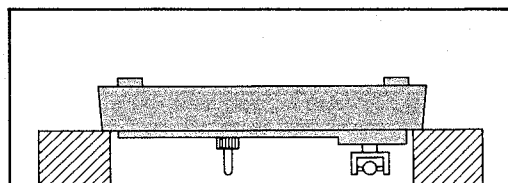


Fig. 1

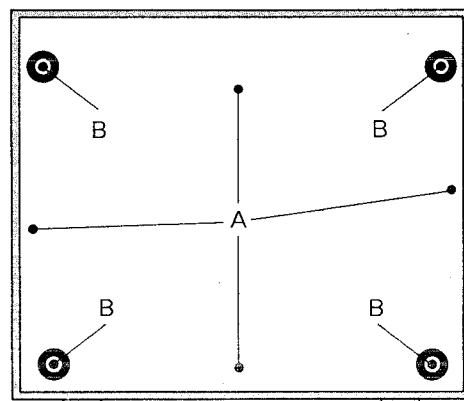


Fig. 2

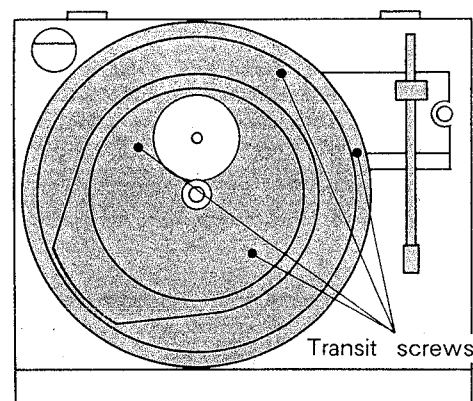


Fig. 3

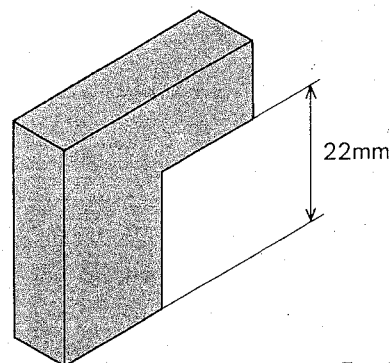


Fig. 4

8. Stop-switch adjustment

- Return tonearm to its rest and lock in place.
- Adjust gap between tone arm fixing plate and micro-switch for dimension specified (Fig. 12). Note that two different vendor type micro-switches can be used for this model. Determine vendor type and adjust to dimension specified.

9. Lead-in adjustment

- Check to see that the tonearm fixing plate assy. is in the condition as shown in Fig. 12 when the tonearm returns to tonearm rest.
- Set the lead-in adjusting pin to the position as shown in Fig. 13.
- Place the LP (30cm) record. Set the size-selector knob to 30 and the speed selector knob to 33.
- Set the cueing knob to the ∇ position and start-stop knob to the start position. Slowly rotate the turntable platter so that tonearm moves to the record.
- Rotate the adjusting pin for 30cm in Fig. 13 so that stylus falls onto the first non-sound grooves of the record upon automatic start.
- Place the EP (17cm) record. Set the size-selector knob to 17 and the speed selector knob to 45.
- Set the cueing knob to the ∇ position and start-stop knob to the start position. Slowly rotate the turntable platter so that tonearm moves to the record.
- Rotate the adjusting pin for 17cm in Fig. 13 so that stylus falls onto the first non-sound grooves of the record upon automatic start.
- If stylus set-down position can not be adjusted within the possible extent of rotation of adjusting screws, adjust the position of tonearm fixing plate after checking that tonearm has been mounted securely.

10. Speed adjustment

- Plug in AC power cord.
- Set the pitch control knob to the center.
- Set cueing knob to ∇ position and move tonearm over the turntable platter. Turntable platter should be rotating. Adjust variable resistors (Fig. 14) so that strobe index on the edge of platter stops and holds completely still. Speed should be checked or adjusted for both modes (33 and 45 rpm).

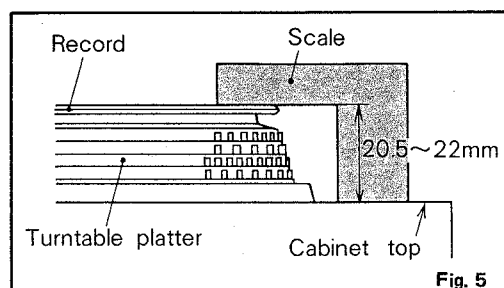


Fig. 5

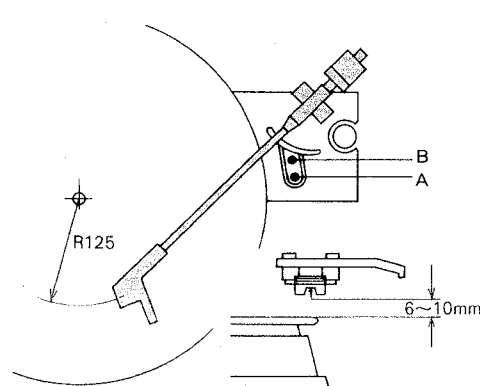


Fig. 6

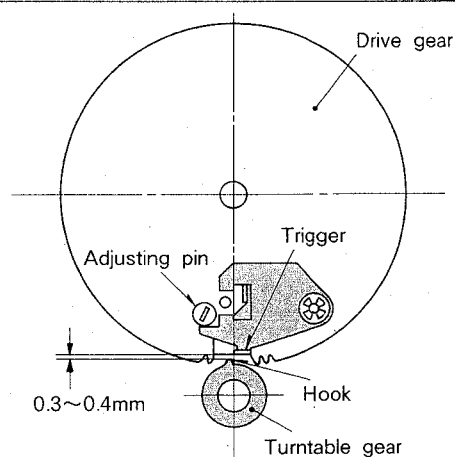


Fig. 7

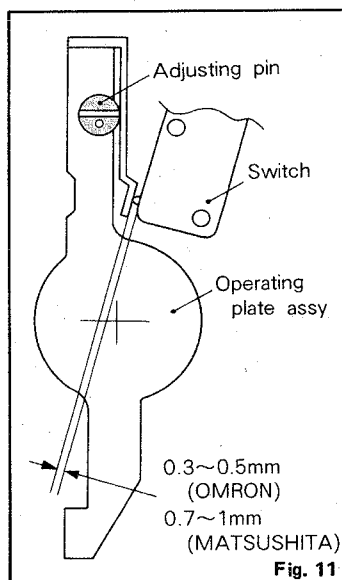


Fig. 11

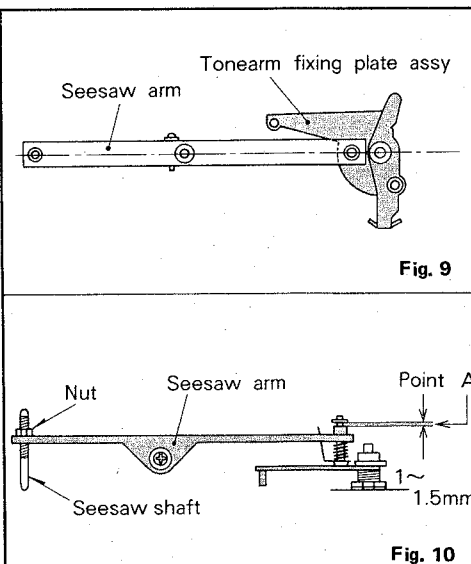


Fig. 9

Fig. 10

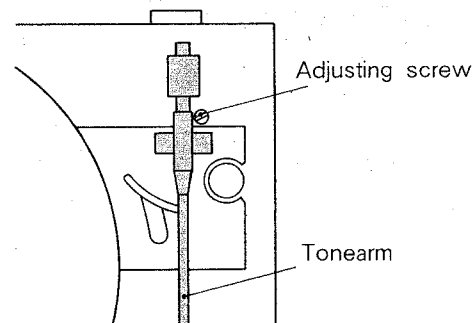


Fig. 8

(2) TROUBLESHOOTING

1. The tonearm will not automatically start.

Check to see that turntable platter starts rotation when start/stop knob is moved to start position.

[No: See next step (2).

[Yes: Check to see that drive gear will rotate.

[Yes: Check to see that moving cap assy. moves connecting to tonearm fixing plate.

[Yes: Tonearm sensitivity on horizontal movement is not enough.

[No: Moving cap is removed or grease is adhered to the cap.

[No: Move the start/stop knob to stop position. Check to see that drive gear rotates when turntable shaft is rotated by hand.

[No: Seesaw shaft is out of the groove in drive gear.

[Yes: Check to see that drive gear is correctly mounted referring to Adjustment 4.

[Yes: Ratchet is not correctly mounted or ratchet is defective.

[No: Moving plate is not correctly mounted or moving plate is defective.

2. The turntable platter will not rotate even though start/stop knob is moved to start position.

Check to see that turntable platter starts rotation when tonearm is moved above the record by hand.

[Yes: Check to see that the gap between operating plate and microswitch is adequately adjusted.

[Yes: Microswitch is defective.

[No: Adjust the gap.

[No: Check to see that the voltage is supplied between (3) and (4) terminals in Power supply printed circuit board.

[No: AC power supply cord is defective.

[Yes: Check to see that the voltage is supplied to the primary terminal of power transformer.

[No: Fuse or microswitch is defective.

[Yes: Check to see that the voltage is supplied between (16) and (17) terminals.

[No: Power transformer is defective.

[Yes: Check to see that the voltage is supplied between (11) and (12) terminals.

[Yes: Motor is defective.

[No: The rectification circuit is defective.

3. The tonearm will not automatically return.

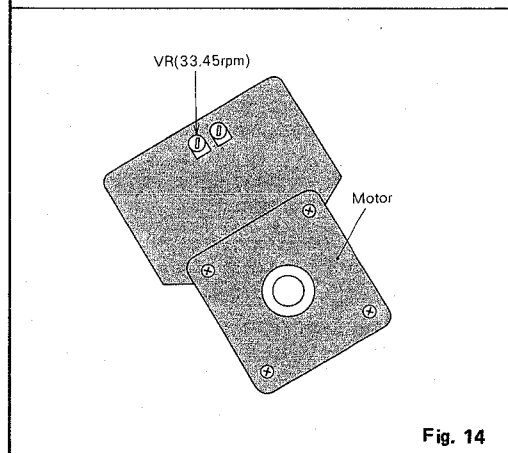
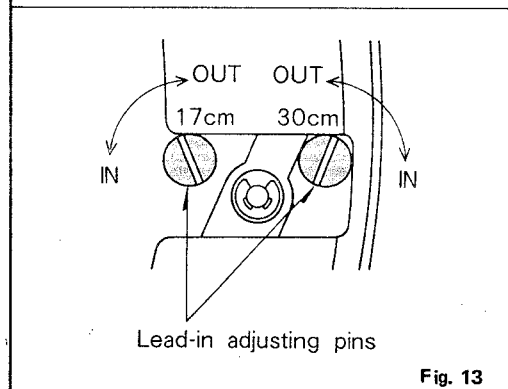
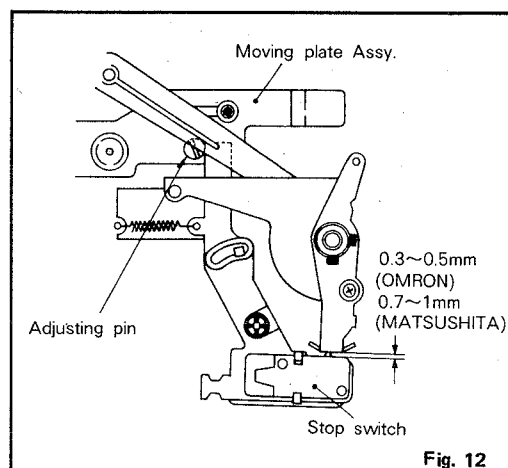
Check to see that the gap between turntable gear and ratchet is adequate referring to Adjustment 4.

[No: Adjust the gap.

[Yes: Check to see that tonearm returns when tonearm is moved to the most inner position of turntable.

[No: Tonearm fixing plate assy. is not correctly mounted, or drive gear assy. is not laterally mounted.

[Yes: Adjust return position referring to Adjustment 5.



4. The turntable platter will not stop rotating.
Check to see that the knob of microswitch is sufficiently pushed by tonearm fixing plate assy. when tonearm returns to tonearm rest.

[No: Tonearm fixing plate assy. is not correctly mounted.
[Yes: Check to see that the gap between tonearm fixing plate assy. and microswitch is adequate referring to Adjustment 8.
[No: Adjust the gap.
[Yes: Microswitch is defective.

5. The stylus set-down position is not correct on automatic start.
Check to see that the position of cam for automatic start is correct referring to Adjustment 9.

[No: Return tonearm to tonearm rest and adjust the position of cam.
[Yes: Check to see that the mounting position of cartridge is correct.
[No: Adjust the position of cartridge.
[Yes: Adjust the position of tonearm fixing plate assy.

6. The strobe light will not turn on.
Check to see that the supplied voltage between (6) and (8) terminals is adequate when tonearm moves above the record.

[Yes: Neon lamp is defective.
[No: Resistor for voltage adjustment is defective.

7. No sound from the speaker.
Remove headshell. Touch the upper two terminals (L+ and R+) at the end of the tonearm with a metallic screwdriver and listen for the speaker to produce a humming noise. (Fig. 15)

[Yes: Cartridge or headshell lead-wires is defective.
[No: Perform continuity test between tonearm end and output shielded cord on dead channel. (Fig. 16)
[Yes: ⊕ and ⊖ cables are not isolated.
[No: Plug of output shielded cord or terminal is wrong connected. Perform continuity test of input terminal of amplifier (receiver).

8. The tonearm restarts after automatic return even though repeat knob is placed to OFF.
Check to see that the gap between ratchet and turntable gear is adequate referring to Adjustment 4.

[No: Adjust the gap.
[Yes: Check to see that return arm returns to original position after that return arm is pushed by drive gear.
[No: The drive gear is not laterally mounted.
[Yes: The return arm is connecting with other parts.

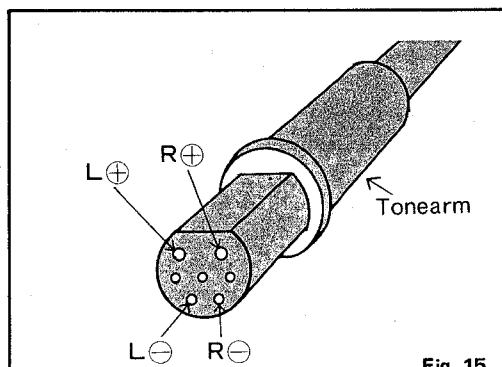


Fig. 15

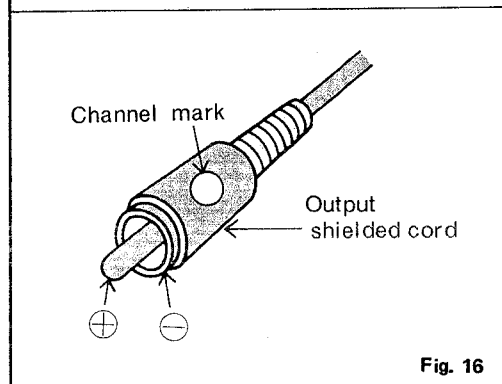
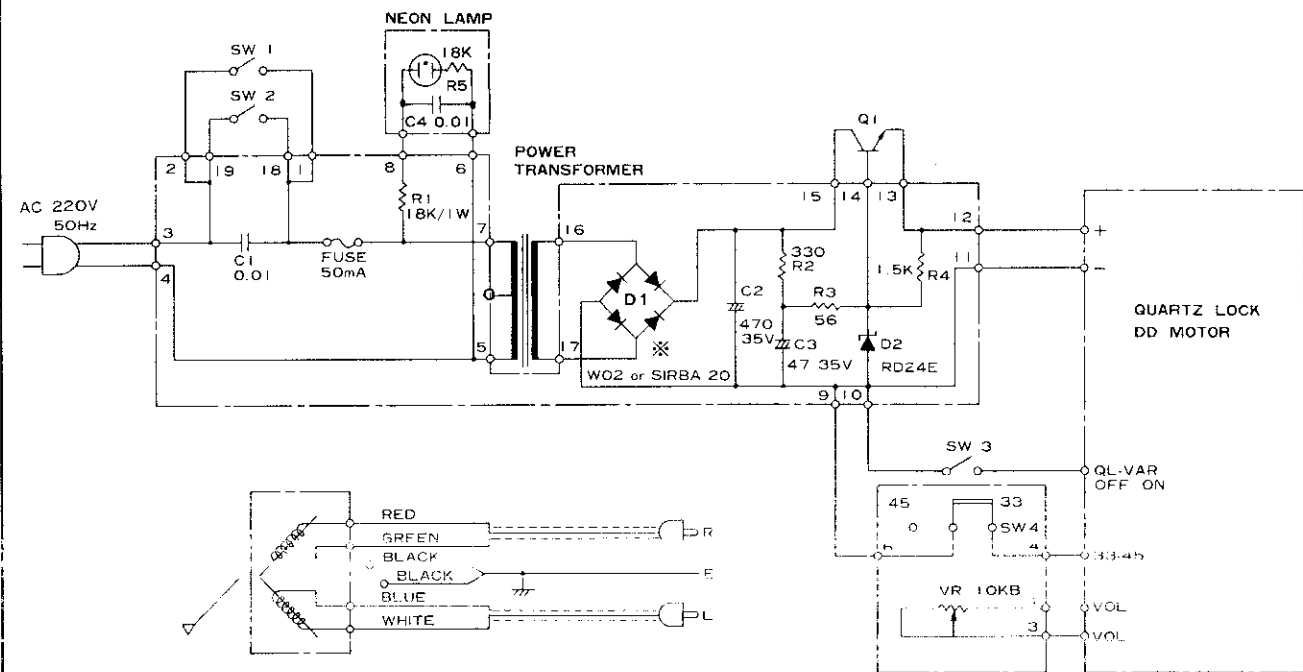


Fig. 16

(3) DIAGRAMS

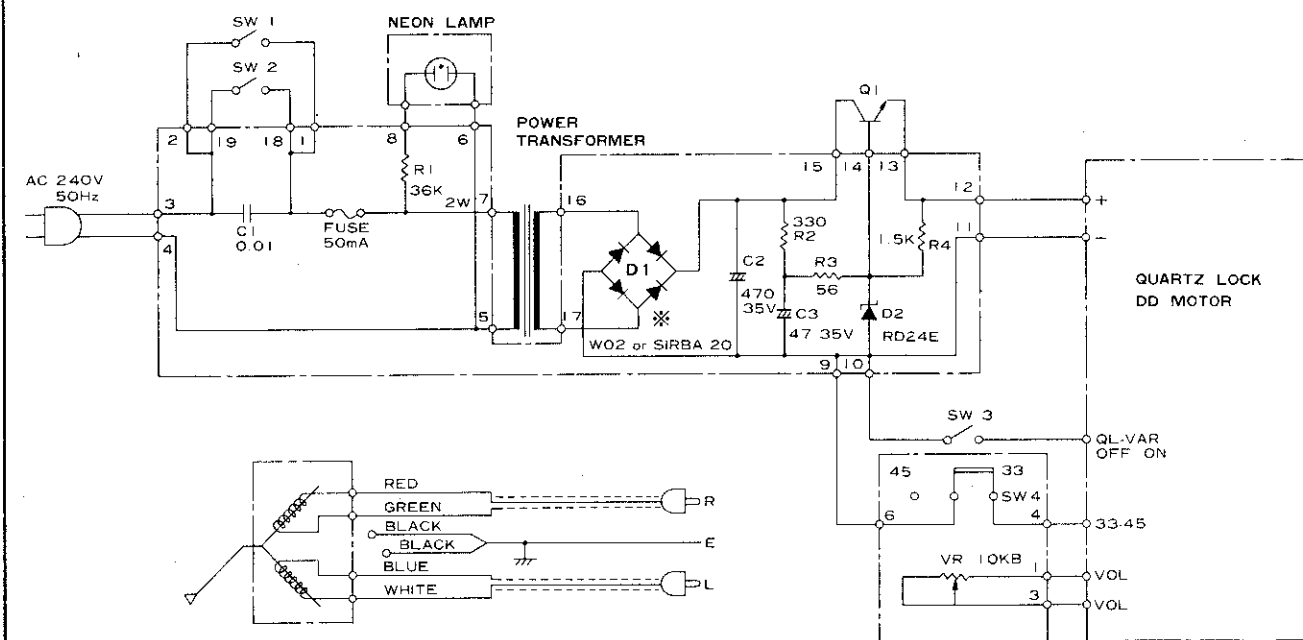
(3)-1 Circuit Diagrams

Version N



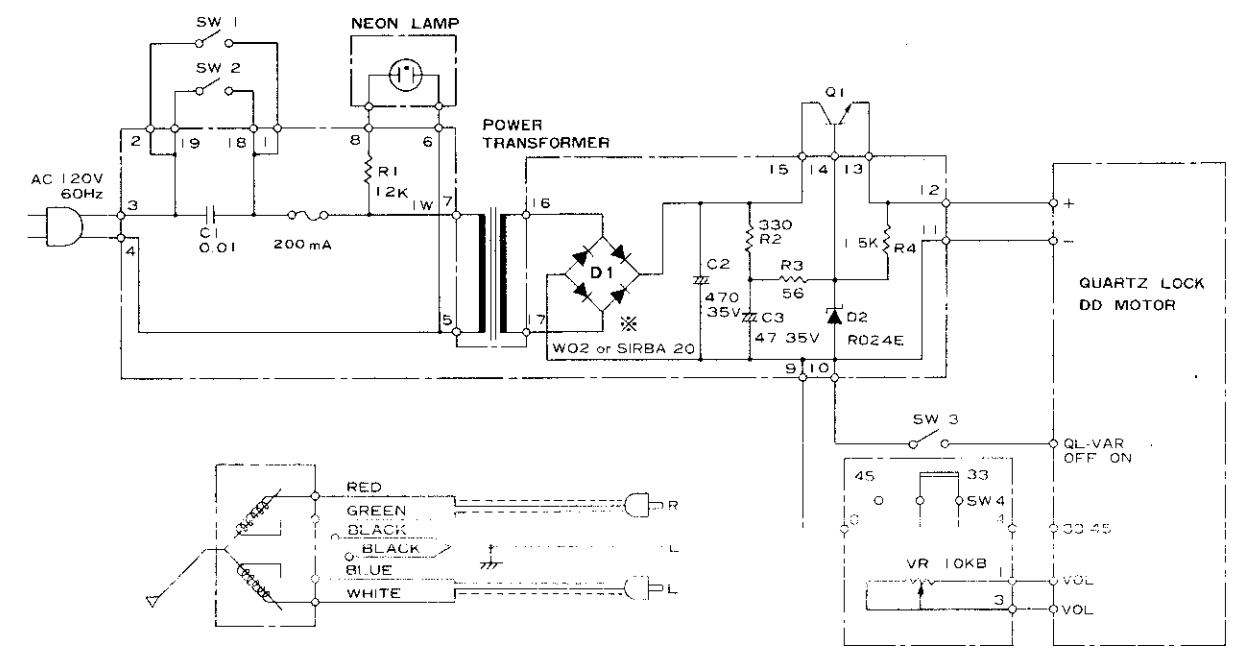
※ Alternative Use

Version T,A



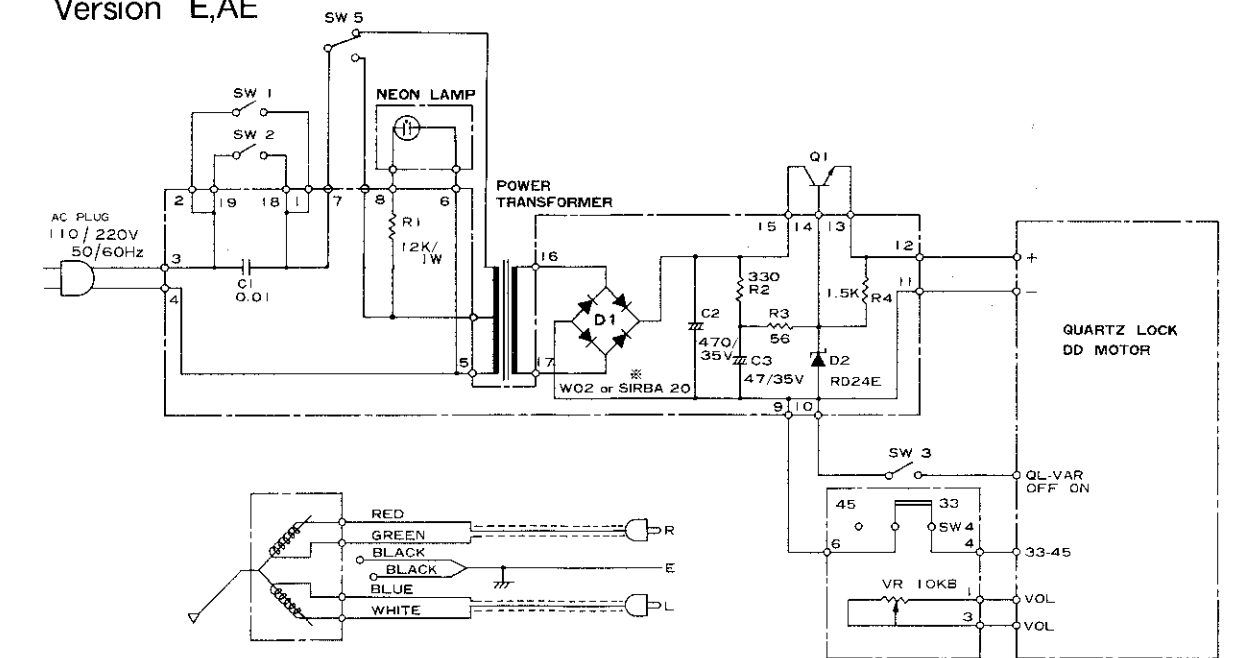
※ Alternative Use

Version C/U



※ Alternative Use

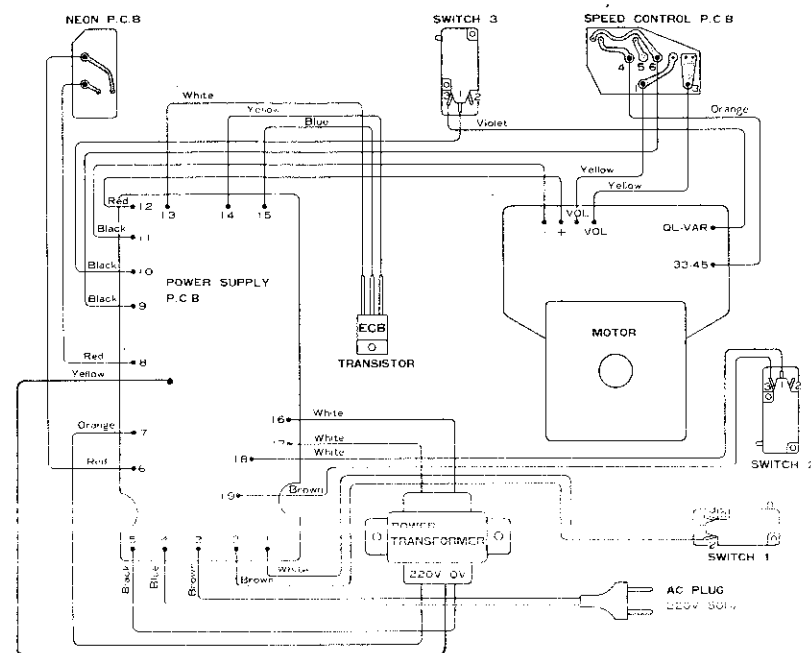
Version E,AE



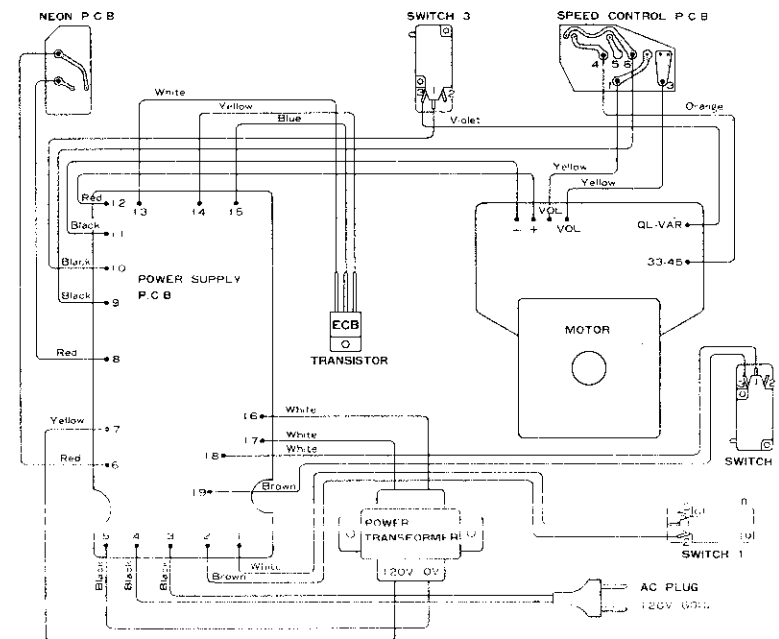
※ Alternative Use

(3)-2 Wiring Diagrams

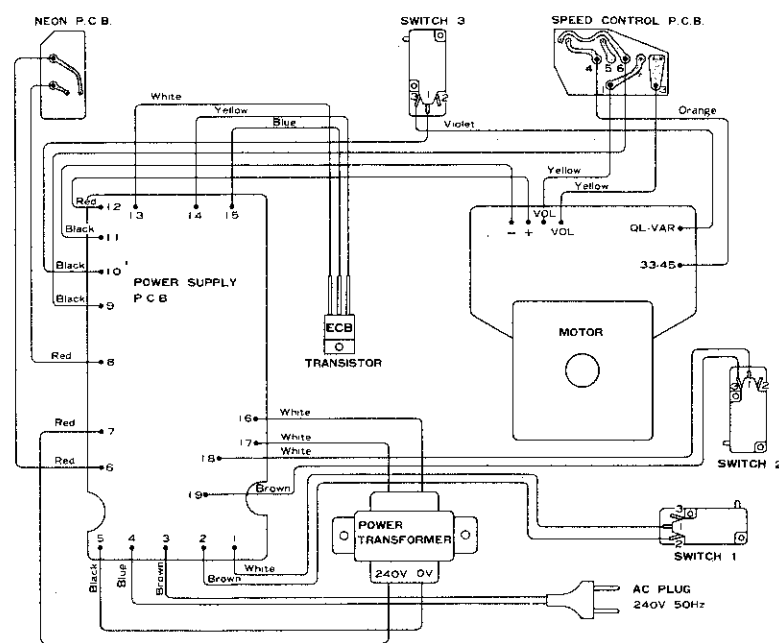
Version N



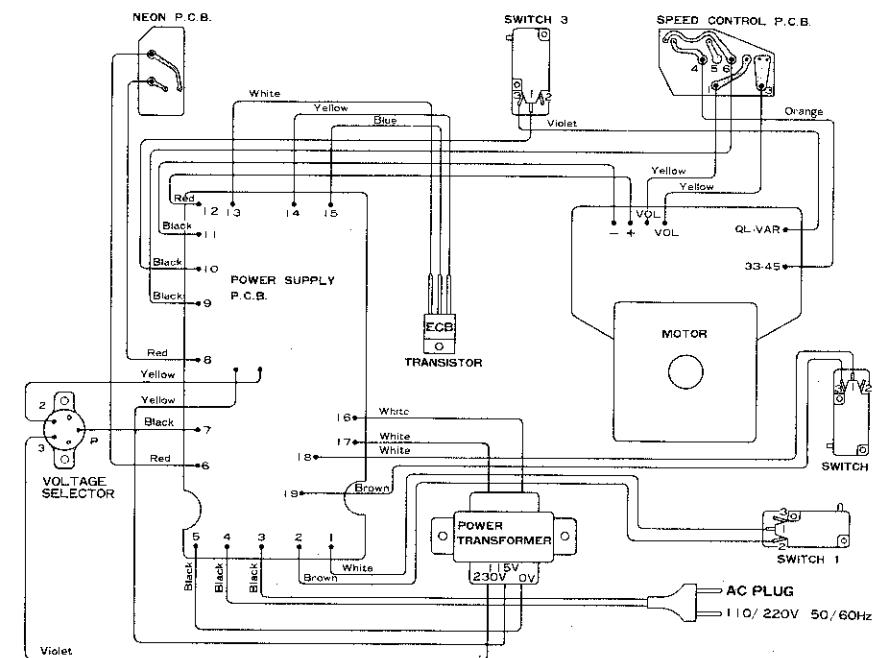
Version C/U



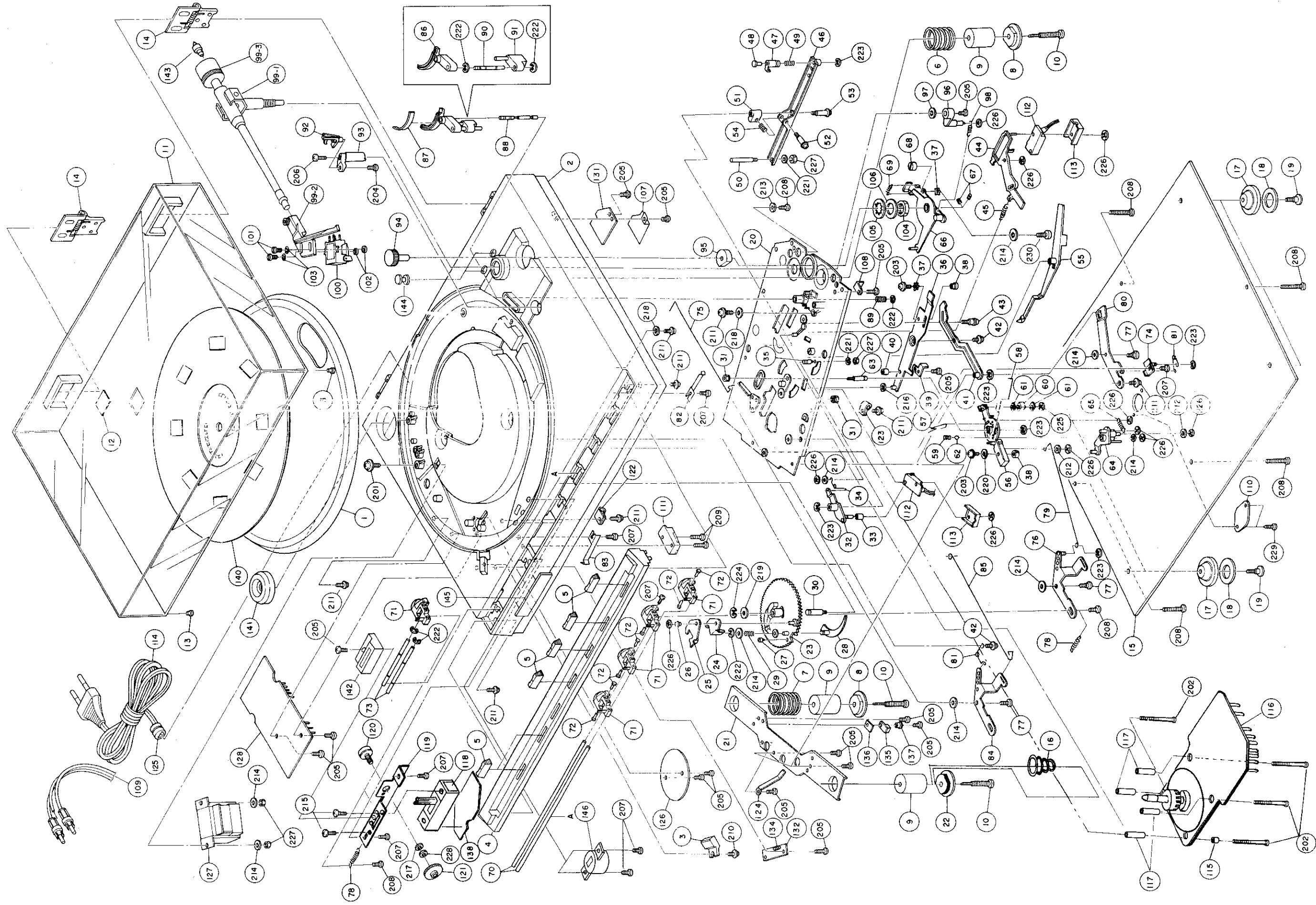
Version T,A



Version E,AE



4)EXPLODED VIEW



(5) PARTS LIST

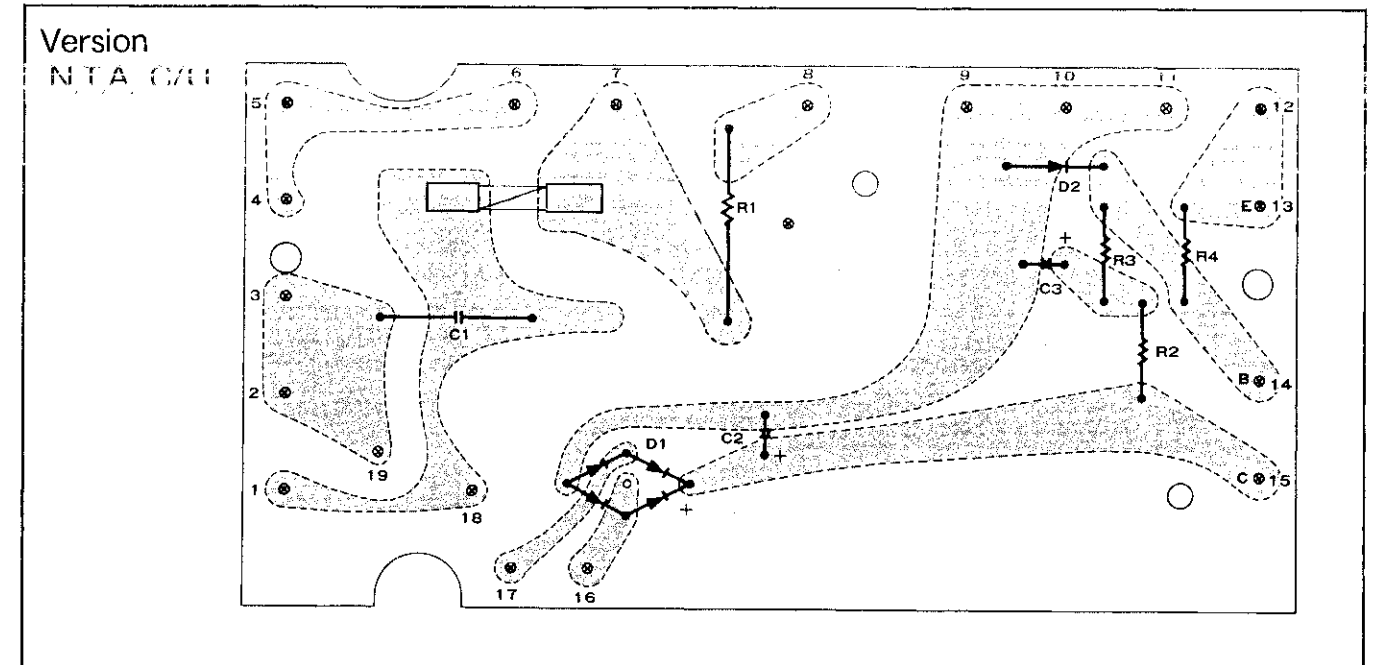
Version	Destination
N	Europe (220V 50 Hz)
T	England (240V 50 Hz)
A	Australia (240V 50 Hz)
C/U	North America (120V 60 Hz)
E	General (110/220V 50/60 Hz)
AE	General (110/220V 50/60 Hz)

Ref. No.	Parts No.	Description	Version	Ref. No.	Parts No.	Description	Version
1	2045101CEC	Turntable platter	N.E.T.A. C/U. AE.	99-1	3164202CEC	Tonearm	N.E.T.A.
2	1004824CEC	Cabinet		99-1	4834601CEC	Tonearm	C/U.
3	4796701CEC	Strobe filter		99-2	4834600CEC	Headshell	N.E.T.A.
4	2086303CEC	Control plate	99-3	99-3	4733300CEC	Headshell	C/U.
5	4834500CEC	Knob		100	4837400CEC	Counterweight	N.E.T.A.
6	4799600CEC	Float spring		101	2420111313	Cartridge	
7	2510214000	Float spring	102	4321300CEC	Cartridge mounting screw	N.E.T.A.	
8	2210611300	Holder	103	4321400CEC	Cartridge mounting nut		
9	2520512900	Cushion	104	4728400CEC	Cartridge mounting washer		
10	2420121800	Screw	105	2420320200	Nut M12	N.E.T.A. AE.	
11	2090801CEC	Dust cover	106	4655600CEC	Washer		
12	4835600CEC	Dust cover logo	107	4780500CEC	Shield cover		
13	4420500CEC	Dust cover cushion	108	4237921520	Terminal lug	N.E.T.A. AE.	
14	4788900CEC	Hinge	109	3132403CEC	Output shielded cord		
15	3162601CEC	Bottom base	110	3165200CEC	Output shielded cord		
16	4815100CEC	Float spring	110	4433600CEC	Blind	N.T.A.	
17	4783700CEC	Insulator	111	4231921995	Microswitch		
18	4783701CEC	Insulator	111	4231921993	Microswitch		
19	4783800CEC	Felt	112	4231921994	Microswitch	N.T.A. AE.	
20	4797400CEC	Screw	112	4231921991	Microswitch		
21	2090902CEC	Subchassis	113	2140110300	Microswitch		
22	3138100CEC	Spring mounting plate	114	4243200071	Cover	E.C/U. AE.	
23	4815800CEC	Holder	114	4771100CEC	AC power supply cord		
24	2411011500	Drive gear	114	3136803CEC	AC power supply cord		
25	2412211700	Ratchet	114	4771001CEC	AC power supply cord	T.	
26	2410712900	Ratchet	114	4756200CEC	AC power supply cord		
27	2410918500	Ratchet collar	115	4712106CEC	AC power supply cord		
28	0602811000	Pin	115	2095000CEC	Spacer	C/U.	
29	2510121700	Cam assy.	116	4825100CEC	Motor assy.		
30	2410627100	Spring	117	3150400CEC	Spacer		
31	2420216301	Shaft	118	4810600CEC	Slide switch	N.	
32	4786500CEC	Nut	119	4222201220	Variable resistor mounting plate		
33	4792400CEC	Reversed lever assy.	120	4342902CEC	Variable resistor		
34	4791900CEC	Sleeve	121	2360812400	Pitch control knob	E. AE.	
35	2410626200	Spring	122	2360812405	Clamp wire		
36	4786700CEC	Shaft	123	0301610400	Clamp wire		
37	2420317501	Moving plate assy.	124	2611121300	Clamp wire assy.	T.	
38	2412412200	Wave washer	125	4442100CEC	Bushing		
39	2410828700	Cam	126	4351701CEC	Strain relief		
40	2420836500	Plate	127	3138800CEC	Blind	N.	
41	0600914300	Spacer	127	3162800CEC	Power transformer		
42	2420121000	Lead-in arm assy.	127	3162400CEC	Power transformer		
43	2420113400	Screw	127	3155100CEC	Power transformer	C/U.	
44	2410828800	Switch plate	128	3156801CEC	Power transformer		
45	4792300CEC	Spring	128	3165600CEC	Power PCB assy.		
46	0600914500	Seesaw arm assy.	128	3161600CEC	Power PCB assy.	N.T.A.	
47	0602711800	Moving pole assy.	129	3155000CEC	Power PCB assy.		
48	2410210400	Lifter cap	129	3165700CEC	Power PCB		
49	2510133700	Spring	R1	XBJ183ACEC	Power PCB	N.T.A. C/U.	
50	2410627400	Seesaw shaft B	R1	XBJ363ACEC	OMF resistor 18 Kohm 1W		
51	2411711000	Cross bearing	R1	XBJ123ACEC	OMF resistor 36 Kohm 2W		
52	2410622200	Shaft	R2	DPJ331ACEC	OMF resistor 12 Kohm 1W	E.C/U. AE.	
53	2410622201	Shaft	R2	DPJ560ACEC	Carbon resistor 330 ohm 1/4W		
54	2510133300	Spring	R3	DPJ152ACEC	Carbon resistor 560 ohm 1/4W		
55	2412320700	Return arm	R4	DPJ152ACEC	Carbon resistor 1.5 Kohm 1/4W	N.	
56	3138700CEC	Operating plate	D1	W020000CEC	Carbon resistor 1.5 Kohm 1/4W		
57	2411202200	Link A	D2	RD24E00CEC	Bridge diode		
58	4813300CEC	Link B	C1	4807800CEC	Zener diode	N.T.A.	
59	4788900CEC	Spring	C1	HRM103ACEC	Condenser		
60	2630700300	Magnet	C1	FRM103CEC	Condenser		
61	2420321200	Washer	C1	4356200CEC	Condenser	N.T.A.	
62	4789800CEC	Steel ball	C1	4795000CEC	Condenser		
63	2410616800	Shaft	C2	VRE477ACEC	Condenser		
64	2412020700	Switch arm	C3	VRE476ACEC	Electrolytic condenser	E. AE.	
65	2510133500	Spring	130	4234200060	Electrolytic condenser 470µF 35V		
66	4788100CEC	Tonearm fixing plate assy	130	4234200024	Electrolytic condenser 47µF 35V		
67	2420115201	Screw	131	4780600CEC	Fuse	N.T.A.	
68	2412412800	Cam	131	4780600CEC	Fuse		
69	2510133800	Spring	132	0400102950	Shield PCB		
70	4777801CEC	Slide guide A	132	4839600CEC	Neon lamp PCB assy.	E.T.A. C/U. AE.	
71	3135000CEC	Slide lever	132	4226204360	Neon lamp PCB assy.		
72	4798700CEC	Cushion	133	4839400CEC	Neon lamp PCB		
73	4777900CEC	Slide guide B	134	4612920795	Neon lamp PCB	N.	
74	4792000CEC	Plate assy.	R5	XBJ183ACEC	Neon lamp		
75	4778000CEC	Link (L)	R4	FRM103CEC	OMF resistor 18 Kohm 1W		
76	4786200CEC	Lever A assy.	135	5857033040	Condenser	N.	
77	4783500CEC	Screw	135	5857033050	Transistor 2SD 330D		
78	4792500CEC	Spring	136	4497500CEC	Transistor 2SD 330E		
79	4778200CEC	Link (S)	137	4639600CEC	Insulation sheet	N.T.A. AE.	
80	4773900CEC	Connecting plate	138	4821700CEC	Bushing		
81	4805800CEC	Spring	139	4819600CEC	PCB assy.		
82	4798600CEC	Spring	140	2096400CEC	PCB	N.E.T.A. AE.	
83	4784300CEC	Spring	140	2096401CEC	Turntable platter mat		
84	4773300CEC	Lever (A)	141	4310000CEC	Turntable platter mat		
85	4778100CEC	Link (R)	142	4834400CEC	45 rpm adapter	C/U. AE.	
86	3133800CEC	Tonearm support	143	4784900CEC	Guide		
87	4662301CEC	Tonearm support rubber	144	2290411001	Subweight		
88	4772100CEC	Lift bar	145	4835900CEC	Pad	C/U. AE.	
89	4427000CEC	Lifter spring	146	3166100CEC	Cabinet badge		
90	4772200CEC	Adjusting screw	146	3165803CEC	Voltage selector		
91	4772000CEC	Actuator	147	2092103CEC	Plug conversion	E. AE.	
92	4534400CEC	Tonearm rest assy.	148	2092200CEC	Carton box		
93	4771800CEC	Rest arm	148	4840600CEC	Carton box		
94	4805201CEC	Antiskating knob	149		Styrol pad right side	N, E, T, A	
95	4774300CEC	Point	150		Styrol pad left side		
96	4772300CEC	Antiskating lever	151		Owner's manual		
97	4774400CEC	Washer				C/U. AE.	
98	4788700CEC	Antiskating spring					
99	3164201CEC	Tonearm assy.					
99	3164200CEC	Tonearm assy.	N.E.T.A. AE. C/U.				

(6) SCREWS, WASHERS AND NUTS

Ref. No.	Parts No.	Description	Ref. No.	Parts No.	Description
201	2016200CEC	⊗ Pan head Sems screw with spring washer M3x20	214	2146200CEC	Plain washer 3.2φx10φx1t
202	2026200CEC	⊗ Pan head screw M4x30	215	2156200CEC	⊗ Pan head Sems screw M2x5
203	2036200CEC	⊗ Pan head taptite screw B with plain washer φ2.6x6	216	2166200CEC	Plain washer 4.6φx12φx0.3t
204	2046200CEC	⊗ Pan head taptite screw B (Bronze) φ2.6x6	217	2176200CEC	Plain washer 7.2φx12φx0.5t
205	2056200CEC	⊗ Brazier head taptite screw B φ3x8	218	2186200CEC	Nylon washer 3φx12φx1t
206	2066200CEC	⊗ Brazier head taptite screw B (Bronze) φ3x8	219	2196200CEC	Nylon washer 6.2φx12φx1t
207	2076200CEC	⊗ Brazier head taptite screw B φ3x10	220	2206200CEC	Spring washer 2.6φ
208	2086200CEC	⊗ Brazier head taptite screw B φ3x12	221	2216200CEC	Spring washer 3φ
209	2096200CEC	⊗ Brazier head taptite screw B φ3x20	222	2226200CEC	E type washer 2φ
210	2106200CEC	⊗ Brazier head taptite screw B with plain washer φ3x8	223	2236200CEC	E type washer 3φ
211	2116200CEC	⊗ Brazier head taptite screw B with plain washer φ3x10	224	2246200CEC	E type washer 4φ
212	2126200CEC	Plain washer 3φx8φx1t	225	2256200CEC	Stop ring CSTW-2.4
213	2136200CEC	Plain washer 3φx16φx1t	226	2266200CEC	Stop ring CSTW-3
			227	2276200CEC	Hexagon nut M3
			228	2286200CEC	Hexagon nut M7
			229	2296200CEC	⊗ Brazier head tapping screw (class 1) φ3x6
			230	2306200CEC	⊗ Pan head screw M3x4

(7) POWER SUPPLY PRINTED CIRCUIT BOARD



(8) DC VOLTAGES FOR EACH IC PIN

IC-1

IC PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
DC VOLTAGE	0.8V	NC	24.0V	0V	8.3V	22.4V	22.4V	0.93V	0V	70mV	NC	2.5V	2.5V	2.5V	2.5V	NC				

IC-2

IC PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
DC VOLTAGE	1.8V	2.7V	4.1V	8.2V	0V	3.2V	18mV	8.3V												

IC-3

IC PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
DC VOLTAGE	8.2V	8.3V	0V	3.6V	3.5V	12.2V	24.0V													

IC-4

IC PIN NO.	1	2	3
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Version E, AE

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

R1 R2 R3 R4

C1 C2 C3

D1 D2

T1