

HITACHI

TY No.697E

FX-10
[E, Z, B]

SERVICE MANUAL

CAUTION
DANGER Invisible laser radiation when open and interlocks failed or defeated. AVOID DIRECT EXPOSURE TO BEAM.

GEFAHR
Unsichtbare Laser-Strahlung wenn Interlock (Blockierung) funktionsuntüchtig oder abgeschaltet. UNMITTELBAREN KONTAKT MIT DEM STRAHL UNBEDIGT VERMEIDEN.

DANGER
Faire très attention aux radiations émises par le faisceau laser invisible au défaillance du verrouillage. NE JAMAIS S'EXPOSER DIRECTEMENT AU FAISCEAU.

VARNING
När apparaten öppnats och skyddsanordningen felar eller satts ur funktion förekommer osynlig laserstrålning. UNDVIK DIREKTE BESTRÅLING.

ADVARSEL
Når apparatet åbnes og beskyttelsesanordningen ikke virker eller sættes un af funktion, forekommer der usynlig laserstrålning. UNDGÅ DIREKTE BESTRÅLING.

ADVARSEL
Når denne delen er apen som følge av at låsen er utkoplet eller ikke fungerer, eksisterer det usynlig laserstrålning. UNNGÅ Å BLI UTSATT FOR DIREKTE BESTRÅLING!

VARIOITS
Laite lähettää näkymätöntä lasersäteilyä, kun se avataan ja kun sisäiset turvalukot eivät toimi. VARO JOUTUMASTA ALTTIIKSI SÄTEILYLLE.

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SAFETY PRECAUTION

- The following precautions should be observed when servicing.
1. Since many parts in the unit have special safety-related characteristics, always use genuine Hitachi's replacement parts. Especially critical parts in the power circuit block should not be replaced with other makers. Critical parts are marked with Δ in the circuit diagram and printed wiring board.
 2. Before returning a repaired unit to the customer, the service technician must thoroughly test the unit to ascertain that it is completely safe to operate without danger of electrical shock.

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

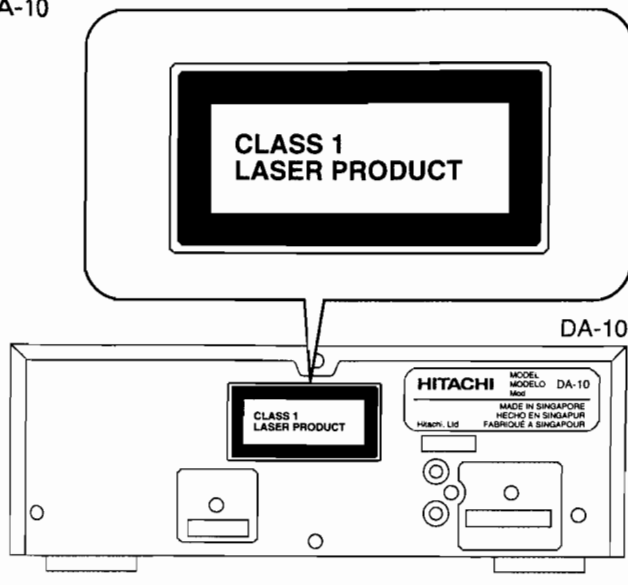
COMPACT DISC STEREO SYSTEM

July 1992

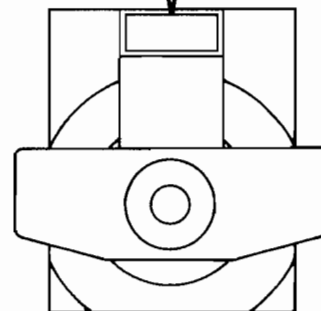
Consumer Electronics Division

The caution labels on laser usage

DA-10



CAUTION: INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
 ADVARSEL: USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERS ER UDE AF FUNKTION. UNDGÅ UDSETTELSE FOR STRÅLING.
 VARO: AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALLTIMA NAKYMATTONALLE LASERSATEILYLLE ALA KATSO SÄTTESEEN!
 VARNING: OSYNLIG LASERSTRÅLNING NÅR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRÄKTA EJ STRÅLEN!



SPECIFICATIONS

● **Preamplifier-Tuner (HPT-10)**

Tuning range: FM : 87.5 to 108.0MHz (50kHz step)
 MW : 522 to 1,611kHz (9kHz step)
 LW : 153 to 281kHz (1kHz step)
 Sensitivity (S/N 26dB): FM : 1.5µV
 MW : 61dB/m
 LW : 68dB/m
 Signal to Noise ratio (mono): 70dB
 Separation (Stereo): 40dB
 Input sensitivity: Aux 300mV/47kohms
 Phono 3mV/47kohms (switchable)
 DAT 300mV/22kohms
 Output/impedance: DAT rec 200mV/1kohms
 Pre out 200mV/1kohms
 Frequency response: 10 to 20,000Hz (DAT)
 Distortion (1kHz): 0.005%
 Signal to Noise ratio: 95dB
 Tone control: Bass +/-8dB (100Hz)
 Treble +/-8dB (10kHz)

● **Tape Deck (D-10)**

Frequency response: Nor : 40 to 15,000Hz
 CrO₂ : 40 to 16,000Hz
 Metal : 40-17,000Hz
 Signal to Noise ratio: 72dB (Dolby C on)
 56dB (Dolby off)
 Wow flutter: 0.08% wrms

● **Power Amplifier (HMA-10)**

Output power: 50W + 50W 0.02% (SINUS)
 Distortion (1/12P): 0.015%
 Frequency response: 10 to 50,000Hz
 Input sensitivity: 200mV/47kohms

Dynamic bass: 70Hz 10 dB
 Signal to Noise ratio: 96dB

● **CD Player (DA-10)**

Frequency response: 5 to 20,000Hz
 Dynamic range: 98dB
 Signal to noise ratio: 103dB
 Distortion (1kHz): 0.007%
 Separation (1kHz): 97dB

● **General Specifications**

Power supply: AC230V, 50Hz [E,Z]
 Power consumption: 330W AC240V, 50Hz [B]
 Dimensions:
 CD Player: 225 (W) x 83 (H) x 262 (D) mm
 Preamplifier-Tuner: 225 (W) x 83 (H) x 275 (D) mm
 Tape Deck: 225 (W) x 115 (H) x 262 (D) mm
 Power Amplifier: 225 (W) x 115 (H) x 321 (D) mm
 Weight:
 CD Player: 2.0kg
 Preamplifier-Tuner: 1.8kg
 Tape Deck: 2.8kg
 Power Amplifier: 5.9kg
 Timer accuracy: Within 60 seconds at monthly rate

● **Speaker System (HS-FX10)**

System: 16cm 3-way speaker system
 Impedance: 6ohms
 Max. Power (Music): 100W
 Dimensions: 199 (W) x 396 (H) x 255 (D) mm
 Weight: 10kg

● **Accessories**

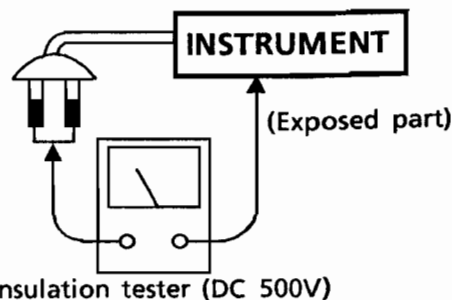
AM loop antenna: 1
 Antenna holder and screws: 1set
 System connector cable (9P): 1
 System connector cable (15P): 1
 Pin cord (2P): 1
 Pin cord (1P): 2
 Remote control (RB-10): 1

Specifications are subject to change without notice for performance improvement.

Check that exposed parts are acceptably insulated from the supply circuit before returning the instrument repaired to the customer.

● **Checking method**

Power (Operate) switch is set to ON.
 Next, measure the resistance value between the both poles of attachment cup (Power supply plug) and the CD OUT terminal of rear plate and check that the resistance value is 500 kohms or more.



DISASSEMBLY INSTRUCTIONS

CASSETTE DECK

1. Open the cassette covers and take out the cassette tapes.
2. Remove five screws (A) holding the metal case.
3. Remove six screws (B) holding the cassette mechanism set.

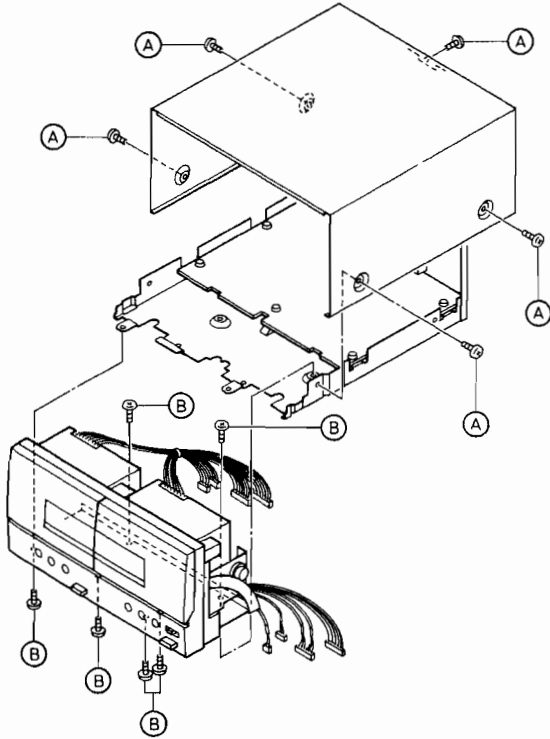


Figure 1

4. Remove eight screws (C) holding the deck amplifier PCB.

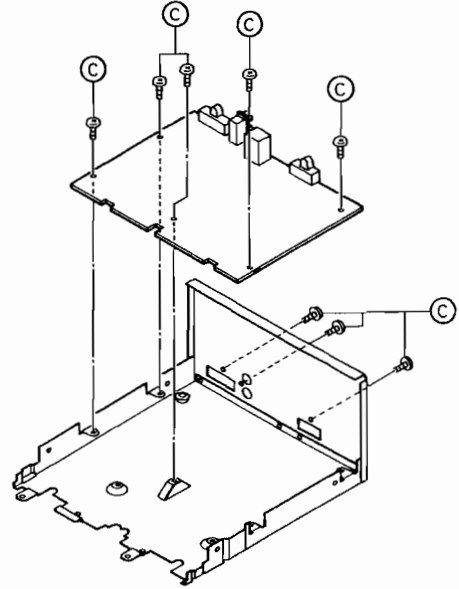


Figure 2

5. Remove a screw (D) and eight screws (E) holding the cassette mechanism.
6. Push two tabs, take out the cassette lid.

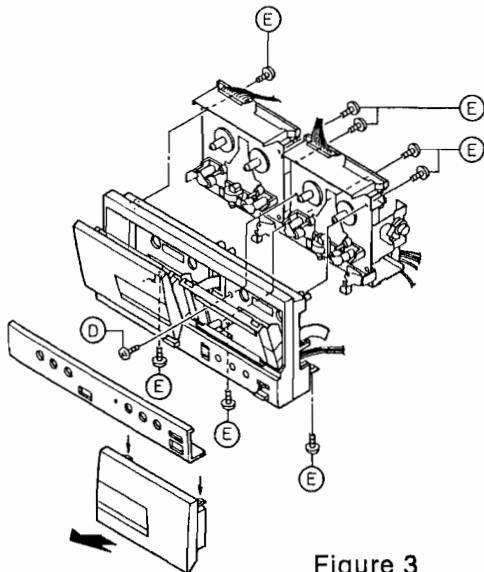


Figure 3

STANDARD MAINTENANCE

Whenever a unit is brought in for service or repair, it should be cleaned and lubricated and the head should be demagnetized.

1. **Cleaning:** Clean the head and all tape handling surfaces using standard cleaner and cotton swabs. Wipe dry.
2. **Demagnetization:** Do not use magnetized tools near the head, since they can magnetize it. With normal use, the head will retain small amounts of residual magnetism which results in increased noise and loss of high-frequency response. Use a standard tape head demagnetizer to demagnetize the playback head.
3. **Lubrication:** Use a high-grade of specially formulated lubricant in the appropriate places. Lubrication is normally required only when parts tend to bind, or after long period of use. Use all lubricants sparingly and avoid contact with other parts.

ELECTRICAL ADJUSTMENT

Pre-Adjustment Procedures

1. Be sure to demagnetize and clean the head before proceeding with head adjustment.
2. Never use a magnetized screwdriver for the head adjustment.

Tape Speed Adjustment (Figure 4)

Step	Connect	Setting	Adjust	Remarks
1	Connect a Frequency Counter to the CN201 of Fig. 4.	Cassette 1 F/R	VR401	<ul style="list-style-type: none"> • Test Tape: MTT-111N • 2940Hz~3060Hz
2		Cassette 2 F/R	VR402	

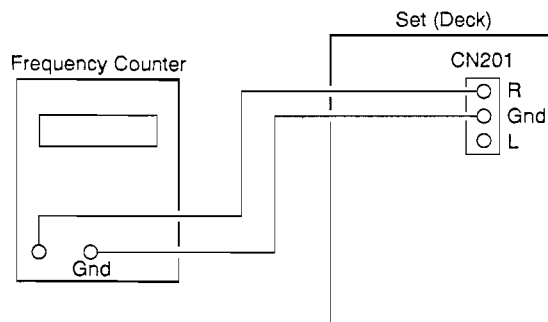


Figure 4

Playback Head Azimuth Adjustment (Cassette 1) (Figures 5 and 6)

1. Connect and output meter or oscilloscope to each of the CN201.
2. Playback and 12.5 kHz test tape and turn the azimuth adjustment screw to obtain the maximum output level of the left and right channels, in the forward and reverse play modes.
3. When the output level of the left and right channels, and forward and reverse position differs, readjust to make the both channels, and both directions at the same level.
4. After adjustment, secure the screw with lock paint or glue.

Record/Playback Head Azimuth Adjustment (Cassette 2)(Figures 5 and 6)

1. Connect and output meter or oscilloscope to each of the CN201.
2. Playback and 12.5 kHz test tape and turn the azimuth adjustment screw to obtain the maximum output level of the left and right channels.
3. When the output level of the left and right channels differs, readjust to make the both channels at the same level.
4. After adjustment, secure the screw with lock paint or glue.

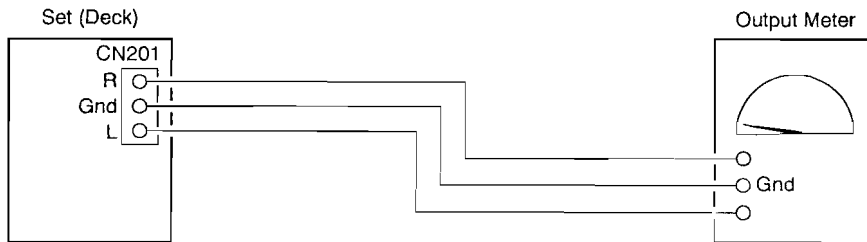


Figure 5

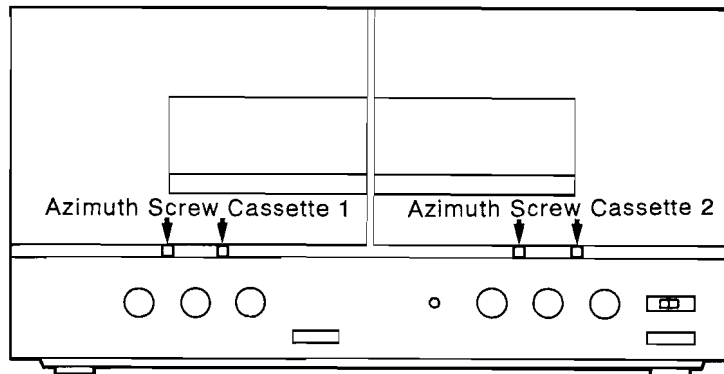


Figure 6

Playback Level Adjustment (Figure 7)

Step	Connect	Setting	Adjust	Remarks
1	Connect a Output Meter to the CN201 of Figure 7.	Cassette 1 L-ch	VR217	<ul style="list-style-type: none"> • Output Level 580mV ±2dB • Test Tape: MTT-150
		R-ch	VR317	
2		Cassette 2 L-ch	VR216	
		R-ch	VR316	

Bias Frequency Adjustment (Cassette 2) (Figures 8 and 10)

Step	Connect	Setting	Adjust	Remarks
1	Connect a Frequency Counter to the TP101 (Bias) and TP102 (Gnd). (Figures 8 and 10)	Metal Position Rec mode	L172	<ul style="list-style-type: none"> • 105kHz ± 1kHz

Recording Level Adjustment (Cassette 2) (Figure 9)

Step	Connect	Setting	Adjust	Remarks
1	Connect a Output Meter to the CN201.			
2	Connect a Audio Signal Generator to the "AUX" terminal of Pre-Tuner section. (Figure 9)	400Hz		
3	Set the Deck REC/ PAUSE mode with normal Tape.			
4	Adjust the level of the Audio Signal Generator.	L/R of 410mV at CN201		
5	Record and playback.	Lch	VR256	<ul style="list-style-type: none"> • REC/Playback Level 410mV ± 0.5dB
		Rch	VR356	

Bias Current Adjustment (Cassette 2) (Figure 9)

Step	Connect	Setting	Adjust	Remarks
1	Connect Output Meter to the CN201.			
2	Connect a Audio Signal Generator to "AUX" terminal or Pre-Tuner section. (Figure 9)	12.5kHz		
3	Set the Deck REC/ PAUSE mode with CrO2 Tape.			
4	Adjust the level of the Audio Signal Generator.	41mV at CN201 L/R.		
5	Record and playback	Lch	VR291	• REC/Playback Level 41mV +0.5dB - 0dB
		Rch	VR391	

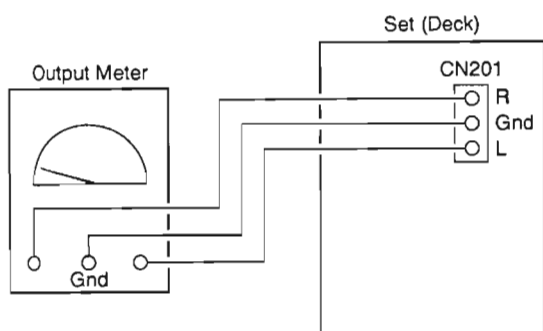


Figure 7

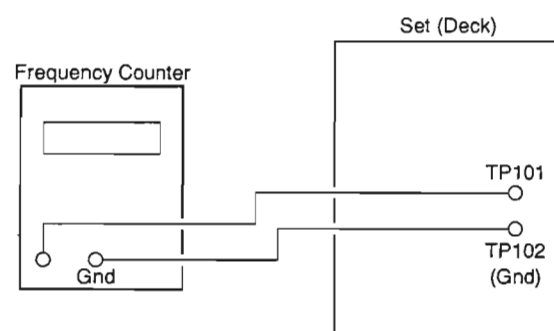


Figure 8

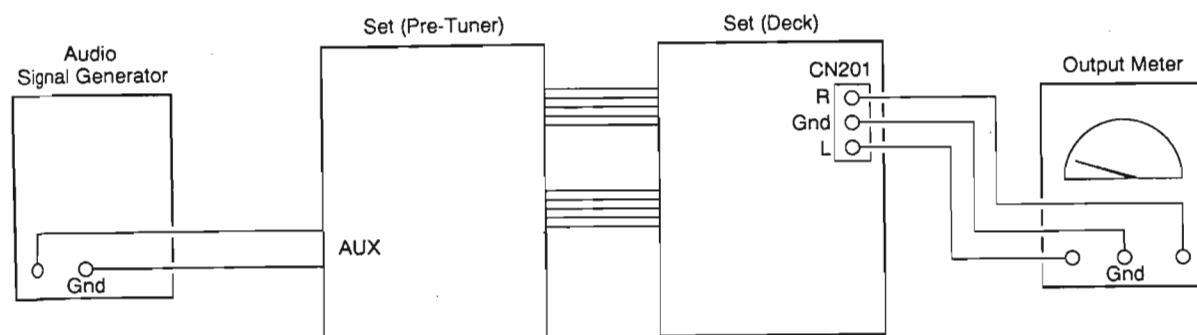


Figure 9

Deck Amplifier PWB Top View

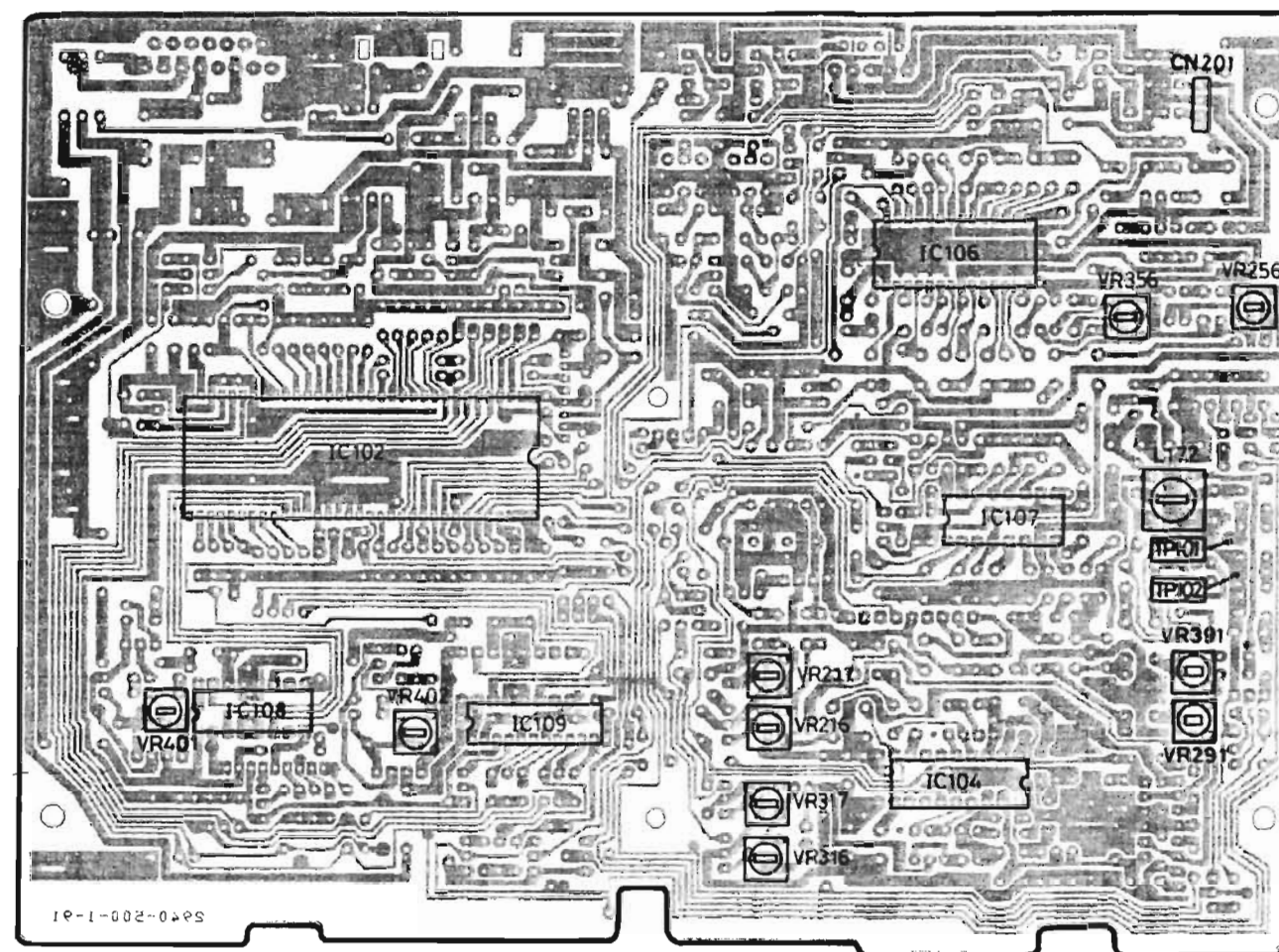


Figure 10

A countermeasure of statical electricity (Figure 11).

Connect a ceramic capacitor 0.1 μF the chassis to deck display PWB.

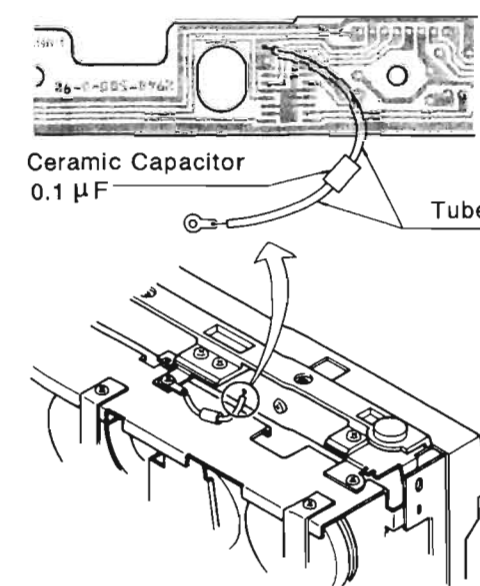


Figure 11

SCHEMATIC DIAGRAM

Cassette Deck

Make leakage current or resistance measurements to determine that exposed metal parts are acceptably insulated from the supply circuit before returning the appliance to the customer.

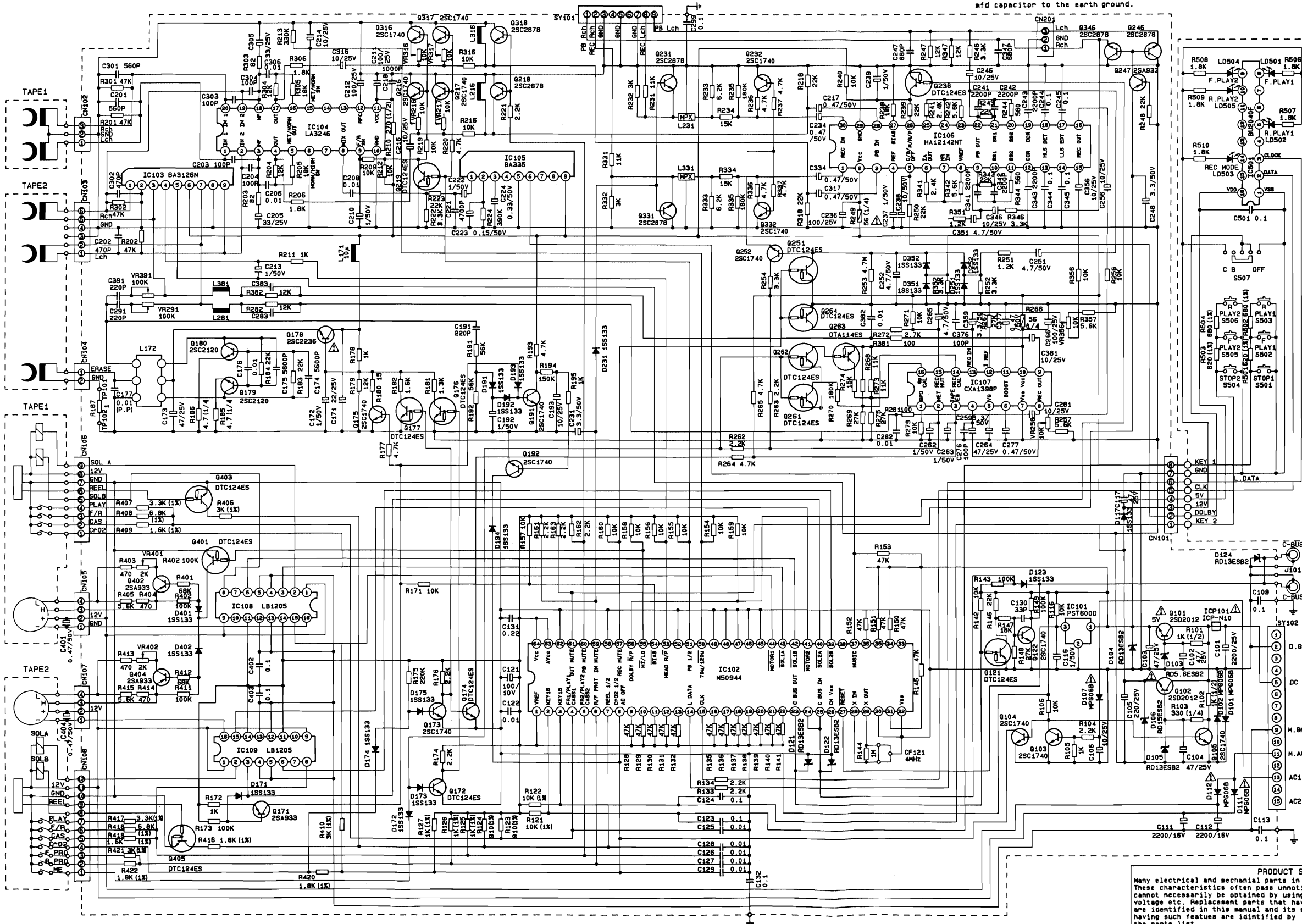
Leakage current from microphone jack and battery terminals should not exceed 0.7 mA as measured through a 2.0 koha resistor paralleled by a 0.15 mfd capacitor to the earth ground.

TAPE 1 ICs Voltage [V]

	IC101	IC103	IC105
1	5.0	0.0	2.0
2	0.0	0.0	-
3	5.0	0.0	2.0
4	0.0	0.0	-
5	0.0	0.0	0.0
6	0.0	12.4	0.0
7	0.0	-	-
8	0.0	-	-
9	0.0	12.4	-

	IC102	IC106	IC104
1	5.0	5.9	0.0
2	5.0	11.8	0.0
3	5.0	5.9	0.6
4	2.7	5.7	4.1
5	5.0	1.4	4.1
6	5.0	5.9	0.0
7	-	5.9	-
8	3.8	5.9	4.1
9	5.0	5.9	0.1
10	0.0	5.9	0.0
11	5.0	5.9	9.8
12	0.0	5.9	9.8
13	5.0	1.9	9.8
14	0.0	5.9	-
15	0.0	5.9	0.0
16	0.0	1.9	4.1
17	0.0	1.9	4.1
18	5.0	1.9	0.6
19	0.0	5.9	0.0
20	5.0	5.9	0.0
21	0.0	5.9	-
22	5.0	5.9	-
23	5.0	5.9	-
24	5.0	5.9	-
25	5.0	5.9	-
26	5.0	0.7	-
27	5.0	0.3	-
28	2.0	5.9	-
29	2.0	0.0	-
30	0.0	5.9	-
31	5.0	-	-
32	0.0	-	-
33	-	-	-
34	5.0	-	-
35	5.0	-	-
36	5.0	-	-
37	0.0	-	-
38	-	-	-
39	4.4	-	-
40	4.7	-	-
41	4.4	-	-
42	4.4	-	-
43	4.4	-	-
44	0.0	-	-
45	0.0	-	-
46	0.0	-	-
47	0.0	-	-
48	0.0	-	-
49	0.0	-	-
50	0.0	-	-
51	1.9	-	-
52	0.0	-	-
53	0.0	-	-
54	3.1	-	-
55	3.7	-	-
56	3.6	-	-
57	3.0	-	-
58	0.0	-	-
59	1.4	-	-
60	0.1	-	-
61	0.1	-	-
62	0.0	-	-
63	5.0	-	-
64	5.0	-	-

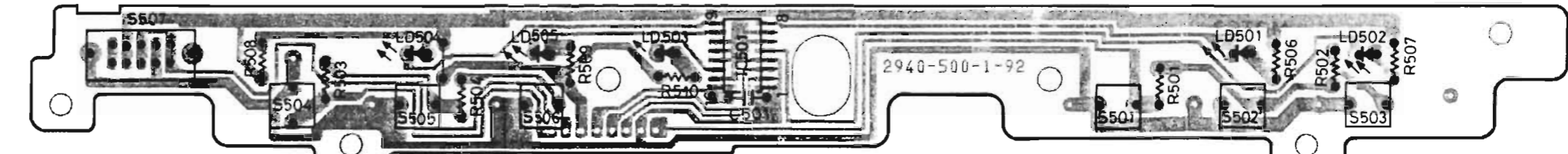
	IC107	IC108	IC109	IC501
1	2.8	13.0	13.3	0.0
2	10.3	13.0	13.3	0.0
3	12.3	4.4	4.7	0.0
4	5.9	0.0	0.0	-
5	5.9	0.0	0.0	10.2
6	5.9	4.4	4.4	-
7	0.0	-	-	-
8	5.9	13.0	13.3	10.0-0.1
9	5.9	13.0	13.3	0.2
10	11.8	-	-	10.2
11	5.9	5.0	5.0	-
12	1.2	0.0	0.0	-
13	5.9	0.0	0.0	-
14	8.0	5.0	5.0	10.4
15	2.7	0.0	4.4	-
16	9.4	0.7	12.3	5.0



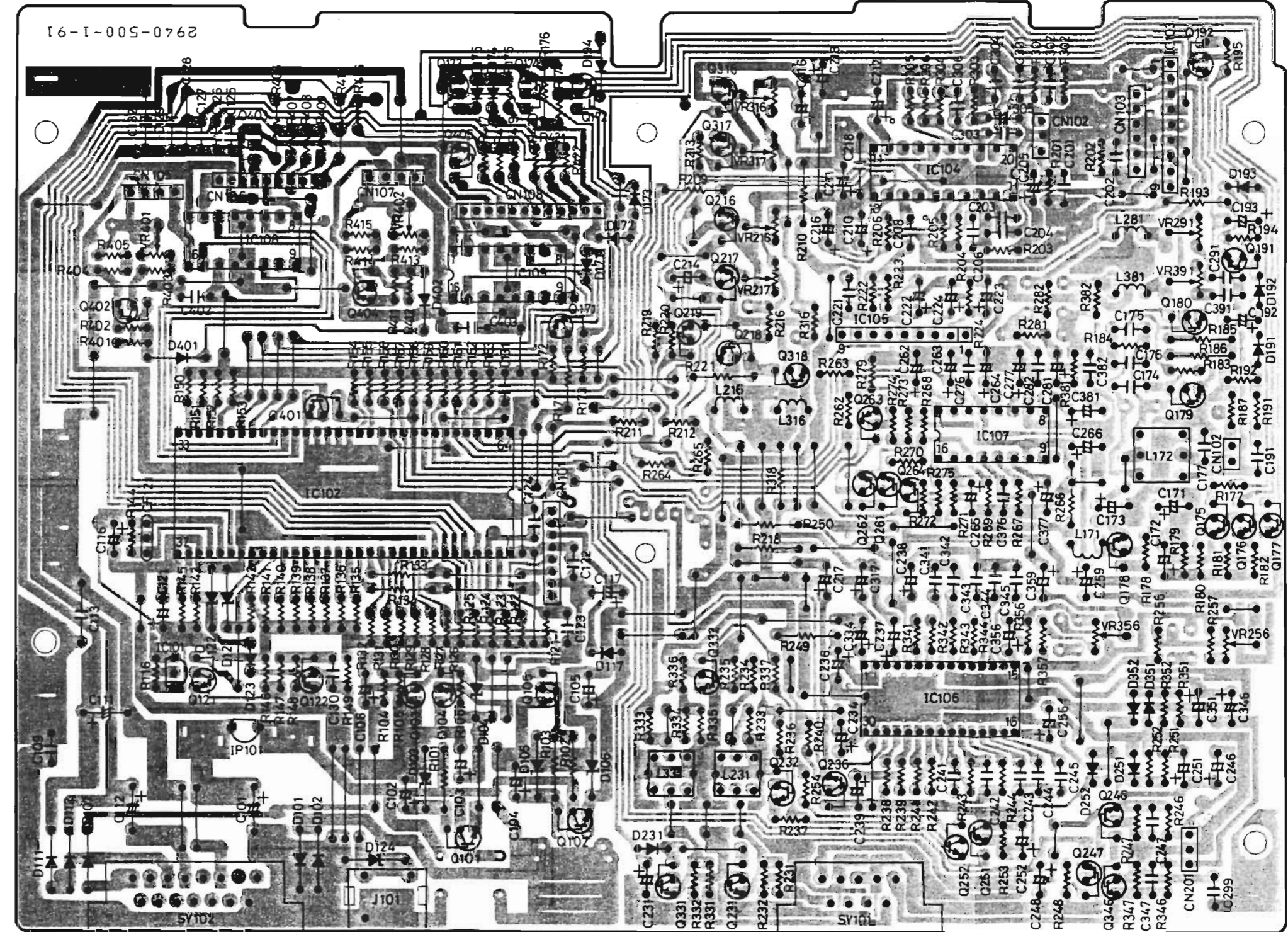
PRODUCT SAFETY NOTICE
 Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements. Electrical components having such features are identified by Δ in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

PWB BOTTOM VIEW

Cassette Deck Switch



Cassette Deck Amplifier



NOTE

The Original PWB Top View.
Electrical capacitors: ● mark is plus side.

TAPE 2 ICs Voltage [V]

	IC101	IC103	IC105
1	5.0	0.0	2.0
2	0.0	0.0	-
3	5.0	0.0	2.0
4	0.0	0.0	-
5	0.0	0.0	0.0
6	12.4	0.0	-
7	0.0	0.0	-
8	0.0	0.0	-
9	0.0	12.4	-

	IC102	IC106	IC104
1	5.0	5.9	0.0
2	5.0	11.8	0.0
3	5.0	5.9	0.6
4	5.0	5.7	4.1
5	2.7	1.4	4.1
6	2.7	5.9	0.0
7	-	5.9	-
8	3.2	5.9	4.1
9	5.0	5.9	5.7
10	0.0	5.9	0.0
11	5.0	5.9	8.8
12	0.0	5.9	8.8
13	5.0	1.9	-
14	0.0	5.9	-
15	0.0	5.9	0.0
16	0.0	1.9	4.1
17	0.0	1.9	4.1
18	5.0	1.9	0.6
19	0.0	5.9	0.0
20	5.0	5.9	0.0
21	0.0	5.9	-
22	5.0	5.9	-
23	5.0	5.9	-
24	5.0	5.9	-
25	5.0	5.9	-
26	0.0	0.7	-
27	5.0	0.3	-
28	2.3	5.9	-
29	2.0	0.0	-
30	0.0	5.9	-
31	5.0	-	-
32	0.0	-	-
33	-	-	-
34	5.0	-	-
35	5.0	-	-
36	5.0	-	-
37	0.0	-	-
38	-	-	-
39	4.4	-	-
40	4.7	-	-
41	0.0	-	-
42	4.4	-	-
43	4.4	-	-
44	4.4	-	-
45	0.0	-	-
46	0.0	-	-
47	0.0	-	-
48	0.0	-	-
49	0.0	-	-
50	0.0	-	-
51	0.0	-	-
52	0.0	-	-
53	0.0	-	-
54	3.1	-	-
55	3.7	-	-
56	3.8	-	-
57	3.0	-	-
58	0.0	-	-
59	1.4	-	-
60	0.1	-	-
61	0.1	-	-
62	0.0	-	-
63	5.0	-	-
64	5.0	-	-

TAPE 1 Transistor Voltage [V]

	B	C	E
Q101	5.6	16.9	5.0
Q102	13.0	16.9	12.4
Q103	0.8	0.0	0.0
Q104	0.0	3.2	0.0
Q105	0.0	14.0	0.0
Q121	5.0	0.0	0.0
Q122	0.0	4.8	0.0
Q171	5.0	1.2	5.0
Q172	7.7	0.0	0.0
Q173	0.6	0.1	0.0
Q174	0.1	12.3	0.0
Q175	0.7	0.1	0.0
Q176	0.0	0.3	0.0
Q177	0.1	0.3	0.0
Q178	0.3	12.4	0.2
Q179	0.2	0.2	0.0
Q180	0.2	0.2	0.0
Q191	0.0	0.1	0.0
Q192	0.1	3.5	0.0
Q218	0.1	0.0	0.0
Q217	0.6	0.0	0.0
Q218	0.1	0.0	0.0
Q219	1.8	0.1	0.0
Q231	0.7	0.0	0.0
Q232	0.0	0.0	0.0
Q236	3.6	0.0	0.0
Q246	0.0	0.0	0.0
Q247	0.0	0.0	0.1
Q251	2.9	0.0	0.0
Q252	0.0	12.4	0.0
Q281	8.2	0.0	0.0
Q282	8.2	0.0	0.0
Q283	0.0	11.8	11.8
Q284	3.0	0.0	0.0
Q316	0.1	0.0	0.0
Q317	0.6	0.0	0.0
Q318	0.1	0.0	0.0
Q331	0.7	0.0	0.0
Q332	0.0	0.0	0.0
Q346	0.0	0.0	0.0
Q401	3.7	0.0	0.0
Q402	11.5	12.1	12.1
Q403	-	-	-
Q404	12.6	13.2	13.2
Q405	0.0	0.0	0.0

TAPE 2 Transistor Voltage [V]

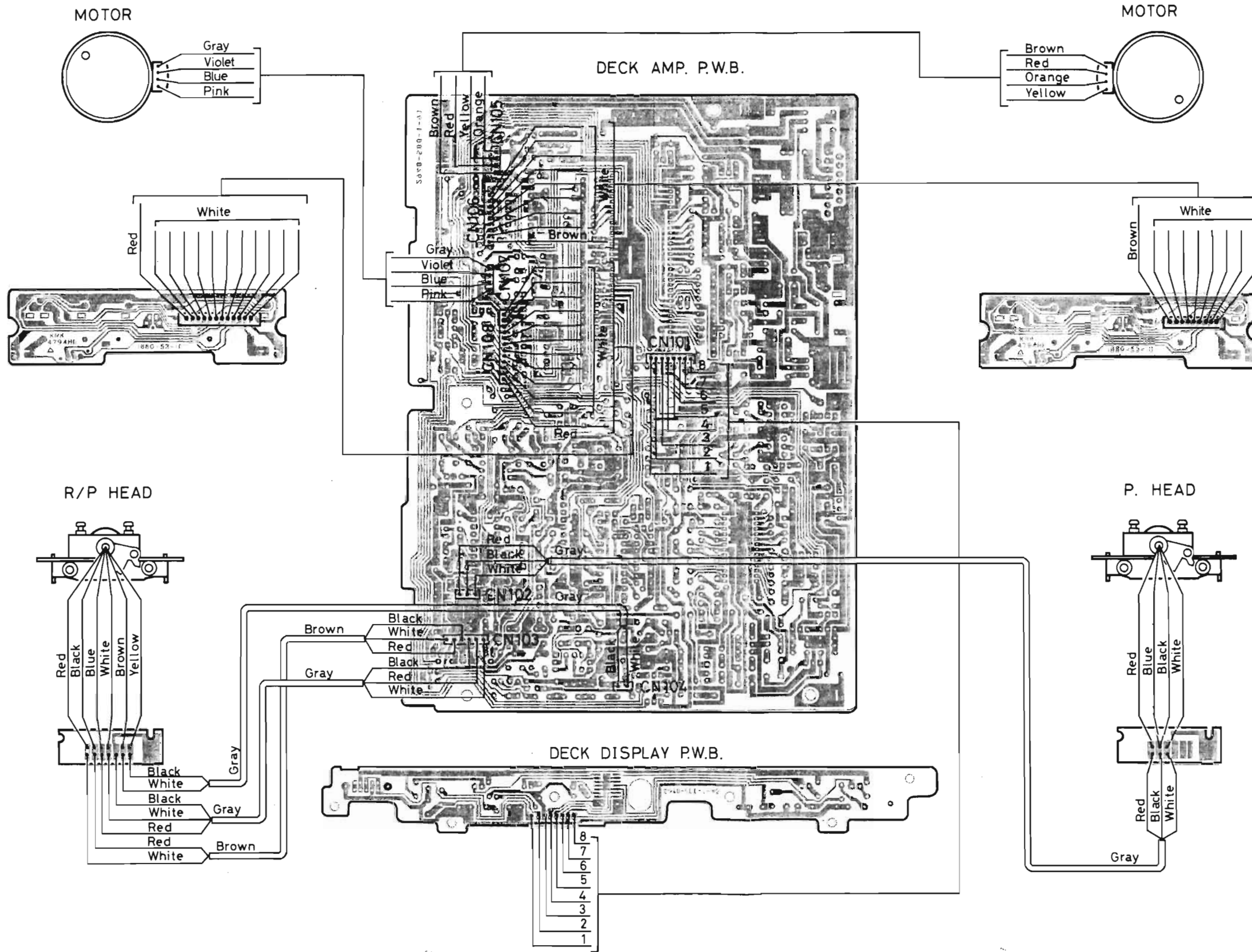
	B	C	E
Q101	5.6	16.9	5.0
Q102	13.0	16.9	12.4
Q103	0.8	0.0	0.0
Q104	0.0	3.2	0.0
Q105	0.0	14.0	0.0
Q121	5.0	0.0	0.0
Q122	0.0	4.8	0.0
Q171	5.0	1.2	5.0
Q172	0.3	4.5	0.0
Q173	0.3	4.5	0.0
Q174	4.9	0.0	0.0
Q175	0.7	0.1	0.0
Q176	4.6	0.0	0.0
Q177	4.3	0.0	0.0
Q178	0.3	12.4	0.2
Q179	0.2	0.2	0.0
Q180	0.2	0.2	0.0
Q191	0.0	0.1	0.0
Q192	0.1	3.0	0.0
Q216	0.6	0.0	0.0
Q217	0.0	0.0	0.0
Q218	0.1	0.0	0.0
Q219	0.0	6.2	0.0
Q231	0.7	0.0	0.0
Q232	0.0	0.0	0.0
Q236	3.6	0.0	0.0
Q246	0.0	0.0	0.0
Q247	0.0	0.0	0.1
Q251	2.9	0.0	0.0
Q252	0.0	12.4	0.0
Q281	8.2	0.0	0.0
Q282	8.2	0.0	0.0
Q283	11.8	8.4	11.8
Q284	3.0	0.0	0.0
Q316	0.6	0.0	0.0
Q317	0.0	0.0	0.0
Q318	0.1	0.0	0.0
Q331	0.7	0.0	0.0
Q332	0.0	0.0	0.0
Q346	0.0	0.0	0.0
Q401	3.7	0.0	0.0
Q402	12.6	13.2	13.2
Q403	0.6	0.0	0.0
Q404	11.4	11.9	11.9
Q405	-	-	-

	IC107	IC108	IC109	IC501
1	2.8	13.3	12.9	0.0
2	8.5	13.3	12.9	0.0
3	8.2	4.4	4.7	0.0
4	5.9	0.0	0.0	-
5	5.9	0.0	0.0	10.2
6	5.9	4.4	4.4	-
7	0.0	-	-	-
8	5.9	13.3	12.9	0.2
9	5.9	13.3	12.9	10.0-0.1
10	11.8	-	-	-
11	5.9	5.0	5.0	-
12	1.2	0.0	0.0	-
13	5.9	0.0	0.0	-
14	8.3	5.0	5.0	10.4
15	2.7	4.4	0.0	-
16	8.4	12.3	0.7	5.0

Voltage check position: Play/Forward position

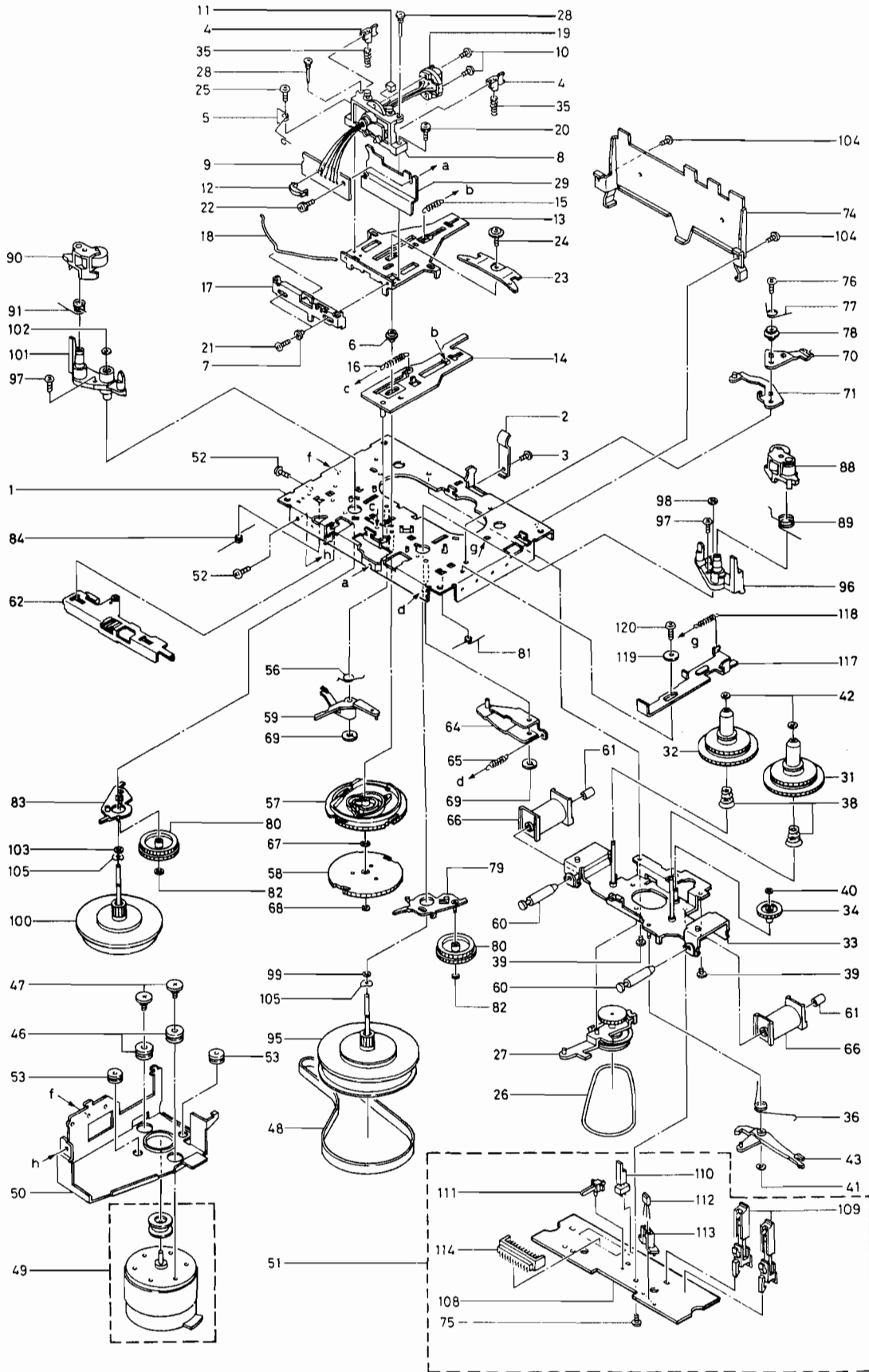
WIRING DIAGRAM

Cassette Deck



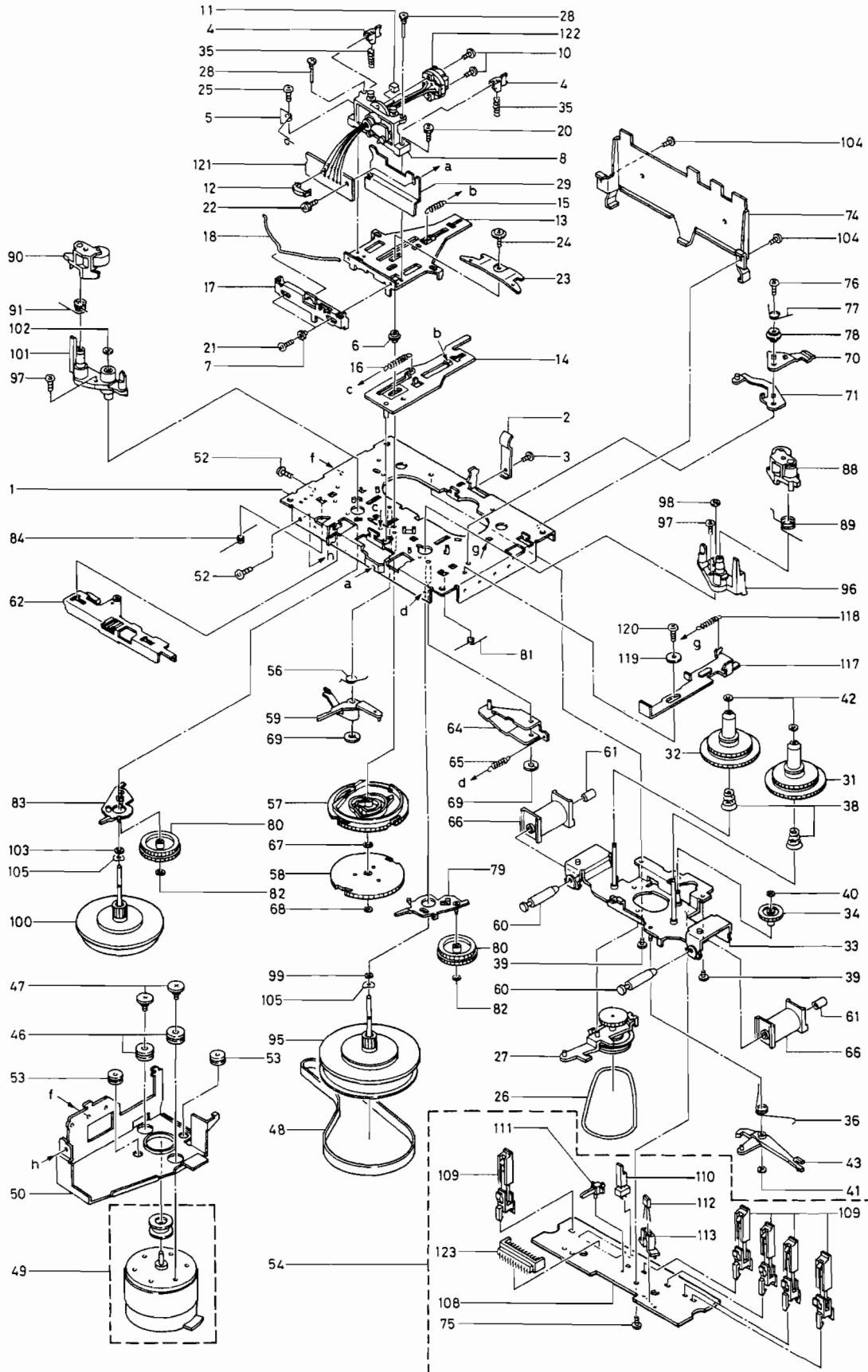
EXPLODED VIEW

Cassette Deck Mechanism(Cassette 1)



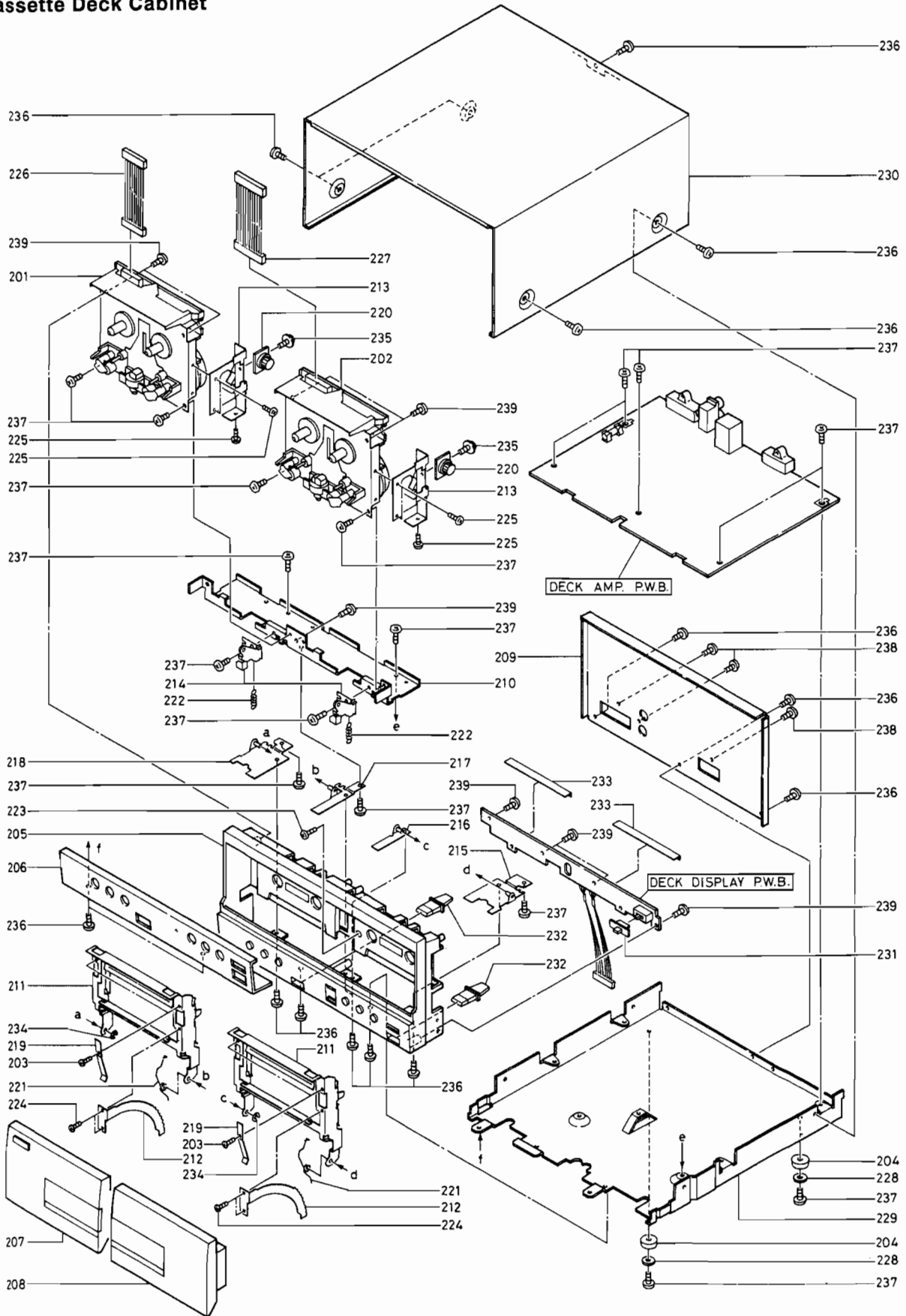
EXPLODED VIEW

Cassette Deck Mechanism(Cassette 2)



EXPLODED VIEW

Cassette Deck Cabinet



PARTS LIST

PRODUCT SAFETY NOTE: Components marked with a \triangle have special characteristics important to safety. Before replacing any of these components, read carefully, the **PRODUCT SAFETY NOTICE** of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

ABBREVIATIONS:	Capacitors.....	CC: Cylindrical ceramic, CD: Ceramic disc, MF: Mylar film, EL: Electrolytic, ST: Styrol
	Resistors.....	CF: Carbon film, RN: Metal film, CS: Oxide metal film, FR: Fuse resistor
	Semiconductor.....	Q: Transistor, D: Diode, IC: IC

Cassette Deck

SYMBOL No.	PART No.	DESCRIPTION	SYMBOL No.	PART No.	DESCRIPTION
PWB ASSEMBLY					
	2940-605-0-00	Deck amplifier PWB ass (with display PWB)	C194 to C200	Not used.	
CAPACITORS					
C101	0937-732-2-26	EL, 2200 μ F \pm 20% 25V	C201	9301-455-6-15	CC, 560 PF \pm 10% 50V
C102	0937-834-7-06	EL, 47 μ F \pm 20% 25V	C202	9301-454-7-15	CC, 470 PF \pm 10% 50V
C103	0937-834-7-06	EL, 47 μ F \pm 20% 25V	C203	9301-451-0-15	CC, 100 PF \pm 10% 50V
C104	0937-834-7-06	EL, 47 μ F \pm 20% 25V	C204	9301-451-0-15	CC, 100 PF \pm 10% 50V
C105	0937-832-2-16	EL, 220 μ F \pm 20% 25V	C205	0937-833-3-06	EL, 33 μ F \pm 20% 25V
C106	0937-851-0-06	EL, 10 μ F \pm 20% 50V	C206	9335-451-0-34	MF, 0.01 μ F \pm 5% 50V
C107	Not used.		C207	Not used.	
C108	Not used.		C208	9335-451-0-34	MF, 0.01 μ F \pm 5% 50V
C109	9302-351-0-49	CC, 0.1 μ F \pm 80/-20% 50V	C209	Not used.	
C110	Not used.		C210	0937-850-1-06	EL, 1 μ F \pm 20% 50V
C111	0937-722-2-26	EL, 2200 μ F \pm 20% 16V	C211	9364-121-0-16	EL, 100 μ F \pm 20% 16V
C112	0937-722-2-26	EL, 2200 μ F \pm 20% 16V	C212	9364-121-0-16	EL, 100 μ F \pm 20% 16V
C113	9302-351-0-49	CC, 0.1 μ F \pm 80/-20% 50V	C213	0937-850-1-06	EL, 1 μ F \pm 20% 50V
C114	Not used.		C214	0937-851-0-06	EL, 10 μ F \pm 20% 50V
C115	Not used.		C215	Not used.	
C116	0937-850-1-06	EL, 1 μ F \pm 20% 50V	C216	0937-851-0-06	EL, 10 μ F \pm 20% 50V
C117	0937-834-7-06	EL, 47 μ F \pm 20% 25V	C217	0937-854-7-96	EL, 0.47 μ F \pm 20% 50V
C118 to C120	Not used.		C218	9301-451-0-25	CC, 1000 PF \pm 10% 50V
C121	0937-811-0-16	EL, 100 μ F \pm 20% 10V	C219	Not used.	
C122	9302-021-0-35	CC, 0.01 μ F \pm 10% 16V	C220	Not used.	
C123	9302-351-0-49	CC, 0.1 μ F \pm 80/-20% 50V	C221	9335-454-7-24	MF, 4700 PF \pm 5% 50V
C124	9302-351-0-49	CC, 0.1 μ F \pm 80/-20% 50V	C222	0937-850-1-06	EL, 1 μ F \pm 20% 50V
C125	9302-021-0-35	CC, 0.01 μ F \pm 10% 16V	C223	0937-851-5-96	EL, 0.15 μ F \pm 20% 50V
C126	9302-021-0-35	CC, 0.01 μ F \pm 10% 16V	C224	0937-853-3-96	EL, 0.33 μ F \pm 20% 50V
C127	9302-021-0-35	CC, 0.01 μ F \pm 10% 16V	C225 to C230	Not used.	
C128	9302-021-0-35	CC, 0.01 μ F \pm 10% 16V	C231	0937-853-3-86	EL, 3.3 μ F \pm 20% 50V
C129	9302-021-0-35	CC, 0.01 μ F \pm 10% 16V	C232	Not used.	
C130	9301-153-3-04	CC, 33 PF \pm 5% 50V	C233	Not used.	
C131	0933-452-2-44	CF, 0.22 μ F \pm 5% 50V	C234	0937-854-7-96	EL, 0.47 μ F \pm 20% 50V
C132	9302-351-0-49	CC, 0.1 μ F \pm 80/-20% 50V	C235	Not used.	
C133 to C170	Not used.		C236	0937-831-0-16	EL, 100 μ F \pm 20% 25V
C171	0937-832-2-06	EL, 22 μ F \pm 20% 25V	C237	0937-850-1-06	EL, 1 μ F \pm 20% 50V
C172	0937-850-1-06	EL, 1 μ F \pm 20% 50V	C238	0937-851-0-06	EL, 10 μ F \pm 20% 50V
C173	0937-834-7-06	EL, 47 μ F \pm 20% 25V	C239	0937-850-1-06	EL, 1 μ F \pm 20% 50V
C174	9335-455-6-24	MF, 5600 PF \pm 5% 50V	C240	Not used.	
C175	9335-455-6-24	MF, 5600 PF \pm 5% 50V	C241	9335-452-2-24	MF, 2200 PF \pm 5% 50V
C176	9335-451-0-34	MF, 0.01 μ F \pm 5% 50V	C242	9335-452-2-24	MF, 2200 PF \pm 5% 50V
C177	9330-671-0-34	MF, 0.01 μ F \pm 5% 100V	C243	9335-452-2-24	MF, 2200 PF \pm 5% 50V
C178 to C190	Not used.		C244	0933-451-0-44	CF, 0.1 μ F \pm 5% 50V
C191	9301-452-2-15	CC, 220 PF \pm 10% 50V	C245	0933-451-0-44	CF, 0.1 μ F \pm 5% 50V
C192	0937-850-1-06	EL, 1 μ F \pm 20% 50V	C246	0937-851-0-06	EL, 10 μ F \pm 20% 50V
C193	0937-851-0-06	EL, 10 μ F \pm 20% 50V	C247	9301-456-8-15	CC, 680 PF \pm 10% 50V
			C248	0937-853-3-86	EL, 3.3 μ F \pm 20% 50V
			C249	Not used.	
			C250	Not used.	
			C251	0937-854-7-86	EL, 4.7 μ F \pm 20% 50V
			C252	0937-854-7-86	EL, 4.7 μ F \pm 20% 50V
			C253 to C255	Not used.	
			C256	0937-851-0-06	EL, 10 μ F \pm 20% 50V

SYMBOL No.	PART No.	DESCRIPTION	SYMBOL No.	PART No.	DESCRIPTION
C257	Not used.		C378	Not used.	
C258	Not used.		to		
C259	0937-853-3-86	EL, 3.3 μ F \pm 20% 50V	C380	Not used.	
C260	Not used.		C381	0937-851-0-06	EL, 10 μ F \pm 20% 50V
C261	Not used.		C382	9302-021-0-35	CC, 0.01 μ F \pm 10% 16V
C262	0937-850-1-06	EL, 1 μ F \pm 20% 50V	C383	to	
C263	0937-850-1-06	EL, 1 μ F \pm 20% 50V	to	Not used.	
C264	0937-834-7-06	EL, 47 μ F \pm 20% 25V	C390		
C265	0937-854-7-86	EL, 4.7 μ F \pm 20% 50V	C391	9301-452-2-15	CC, 220 PF \pm 10% 50V
C266	0937-831-0-16	EL, 100 μ F \pm 20% 25V	C392	to	
C267	to		to	Not used.	
to	Not used.		C400		
C275			C401	0938-954-7-96	EL, 0.47 μ F \pm 20% 50V
C276	9301-451-0-15	CC, 100 PF \pm 10% 50V	C402	9302-351-0-49	CC, 0.1 μ F +80/-20% 50V
C277	0937-854-7-96	EL, 0.47 μ F \pm 20% 50V	C403	9302-351-0-49	CC, 0.1 μ F +80/-20% 50V
C278	to		C404	0938-954-7-96	EL, 0.47 μ F \pm 20% 50V
to	Not used.		C405	to	
C280			to	Not used.	
C281	0937-851-0-06	EL, 10 μ F \pm 20% 50V	C500		
C282	9302-021-0-35	CC, 0.01 μ F \pm 10% 16V	C501	9302-351-0-49	CC, 0.1 μ F +80/-20% 50V
C283	to		RESISTORS		
to	Not used.		R101	0921-521-0-24	CF, 1k ohm \pm 5% SRD 1/2P
C290			R102	0921-521-0-24	CF, 1k ohm \pm 5% SRD 1/2P
C291	9301-452-2-15	CC, 220 PF \pm 10% 50V	R103	0920-813-3-14	CF, 330 ohm \pm 5% SRD 1/4P
C292	to		R104	0920-862-2-24	CF, 2.2k ohm \pm 5% SRD 1/6P
to	Not used.		R105	0920-861-0-24	CF, 1k ohm \pm 5% SRD 1/6P
C298			R106	0920-861-0-34	CF, 10k ohm \pm 5% SRD 1/6P
C299	9302-351-0-49	CC, 0.1 μ F +80/-20% 50V	R107	to	
C300	Not used.		to	Not used.	
C301	9301-455-6-15	CC, 560 PF \pm 10% 50V	R115		
C302	9301-454-7-15	CC, 470 PF \pm 10% 50V	R116	0920-861-0-34	CF, 10k ohm \pm 5% SRD 1/6P
C303	9301-451-0-15	CC, 100 PF \pm 10% 50V	R117	to	
C304	9301-451-0-15	CC, 100 PF \pm 10% 50V	to	Not used.	
C305	0937-833-3-06	EL, 33 μ F \pm 20% 25V	R120		
C306	9335-451-0-34	MF, 0.01 μ F \pm 5% 50V	R121	0926-511-0-32	RN, 10k ohm \pm 1% SRD 1/4P
C307	to		R122	0926-511-0-32	RN, 10k ohm \pm 1% SRD 1/4P
to	Not used.		R123	0926-519-1-12	RN, 910 ohm \pm 1% SRD 1/4P
C315			R124	0926-519-1-12	RN, 910 ohm \pm 1% SRD 1/4P
C316	0937-851-0-06	EL, 10 μ F \pm 20% 50V	R125	0926-511-0-22	RN, 1k ohm \pm 1% SRD 1/4P
C317	0937-854-7-96	EL, 0.47 μ F \pm 20% 50V	R126	0926-511-0-22	RN, 1k ohm \pm 1% SRD 1/4P
C318	to		R127	0926-511-0-22	RN, 1k ohm \pm 1% SRD 1/4P
to	Not used.		R128	0920-864-7-34	CF, 47k ohm \pm 5% SRD 1/6P
C333			R129	0920-864-7-34	CF, 47k ohm \pm 5% SRD 1/6P
C334	0937-854-7-96	EL, 0.47 μ F \pm 20% 50V	R130	0920-864-7-34	CF, 47k ohm \pm 5% SRD 1/6P
C335	to		R131	0920-864-7-34	CF, 47k ohm \pm 5% SRD 1/6P
to	Not used.		R132	0920-864-7-34	CF, 47k ohm \pm 5% SRD 1/6P
C340			R133	0920-862-2-24	CF, 2.2k ohm \pm 5% SRD 1/6P
C341	9335-452-2-24	MF, 2200 PF \pm 5% 50V	R134	0920-862-2-24	CF, 2.2k ohm \pm 5% SRD 1/6P
C342	9335-452-2-24	MF, 2200 PF \pm 5% 50V	R135	0920-864-7-34	CF, 47k ohm \pm 5% SRD 1/6P
C343	9335-452-2-24	MF, 2200 PF \pm 5% 50V	R136	0920-864-7-34	CF, 47k ohm \pm 5% SRD 1/6P
C344	0933-451-0-44	CF, 0.1 μ F \pm 5% 50V	R137	0920-864-7-34	CF, 47k ohm \pm 5% SRD 1/6P
C345	0933-451-0-44	CF, 0.1 μ F \pm 5% 50V	R138	0920-864-7-34	CF, 47k ohm \pm 5% SRD 1/6P
C346	0937-851-0-06	EL, 10 μ F \pm 20% 50V	R139	0920-864-7-34	CF, 47k ohm \pm 5% SRD 1/6P
C347	9301-456-8-15	CC, 680 PF \pm 10% 50V	R140	0920-864-7-34	CF, 47k ohm \pm 5% SRD 1/6P
C348	to		R141	0920-864-7-34	CF, 47k ohm \pm 5% SRD 1/6P
to	Not used.		R142	0920-861-0-34	CF, 10k ohm \pm 5% SRD 1/6P
C350			R143	0920-861-0-44	CF, 100k ohm \pm 5% SRD 1/6P
C351	0937-854-7-86	EL, 4.7 μ F \pm 20% 50V	R144	0920-861-0-54	CF, 1M ohm \pm 5% SRD 1/6P
C352	to		R145	0920-864-7-34	CF, 47k ohm \pm 5% SRD 1/6P
to	Not used.		R146	0920-862-2-34	CF, 22k ohm \pm 5% SRD 1/6P
C355			R147	0920-861-8-34	CF, 18k ohm \pm 5% SRD 1/6P
C356	0937-851-0-06	EL, 10 μ F \pm 20% 50V	R148	0920-862-7-34	CF, 27k ohm \pm 5% SRD 1/6P
C357	Not used.		R149	0920-861-0-44	CF, 100k ohm \pm 5% SRD 1/6P
C358	Not used.		R150	0920-864-7-34	CF, 47k ohm \pm 5% SRD 1/6P
C359	0937-853-3-86	EL, 3.3 μ F \pm 20% 50V	R151	0920-864-7-34	CF, 47k ohm \pm 5% SRD 1/6P
C360	to		R152	0920-864-7-34	CF, 47k ohm \pm 5% SRD 1/6P
to	Not used.		R153	0920-864-7-34	CF, 47k ohm \pm 5% SRD 1/6P
C375			R154	0920-861-0-34	CF, 10k ohm \pm 5% SRD 1/6P
C376	9301-451-0-15	CC, 100 PF \pm 10% 50V			
C377	0937-864-7-96	EL, 0.47 μ F \pm 20% 50V			

SYMBOL No.	PART No.	DESCRIPTION	SYMBOL No.	PART No.	DESCRIPTION
R155	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P	R234	0920-861-5-34	CF, 15k ohm ±5% SRD 1/6P
R156	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P	R235	0920-861-8-44	CF, 180k ohm ±5% SRD 1/6P
R157	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P	R236	0920-864-7-24	CF, 4.7k ohm ±5% SRD 1/6P
R158	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P	R237	0920-864-7-24	CF, 4.7k ohm ±5% SRD 1/6P
R159	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P	R238	0920-861-8-34	CF, 18k ohm ±5% SRD 1/6P
R160	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P	R239	0920-862-2-34	CF, 22k ohm ±5% SRD 1/6P
R161	0920-862-2-24	CF, 2.2k ohm ±5% SRD 1/6P	R240	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R162	0920-862-2-24	CF, 2.2k ohm ±5% SRD 1/6P	R241	0920-862-4-24	CF, 2.4k ohm ±5% SRD 1/6P
R163	0920-862-2-24	CF, 2.2k ohm ±5% SRD 1/6P	R242	0920-865-6-24	CF, 5.6k ohm ±5% SRD 1/6P
R164	Not used.		R243	0920-862-2-34	CF, 22k ohm ±5% SRD 1/6P
R170	Not used.		R244	0920-865-6-14	CF, 560 ohm ±5% SRD 1/6P
R171	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P	R245	Not used.	
R172	0920-861-0-24	CF, 1k ohm ±5% SRD 1/6P	R246	0920-863-3-24	CF, 3.3k ohm ±5% SRD 1/6P
R173	0920-861-0-44	CF, 100k ohm ±5% SRD 1/6P	R247	0920-861-2-34	CF, 12k ohm ±5% SRD 1/6P
R174	0920-862-2-24	CF, 2.2k ohm ±5% SRD 1/6P	R248	0920-862-2-34	CF, 22k ohm ±5% SRD 1/6P
R175	0920-862-2-44	CF, 220k ohm ±5% SRD 1/6P	R249	0921-115-6-04	CF, 56 ohm ±5% SRD 1/4P
R176	0920-862-2-24	CF, 2.2k ohm ±5% SRD 1/6P	R250	0920-862-2-34	CF, 22k ohm ±5% SRD 1/6P
R177	0920-864-7-24	CF, 4.7k ohm ±5% SRD 1/6P	R251	0920-861-2-24	CF, 1.2k ohm ±5% SRD 1/6P
R178	0920-861-0-24	CF, 1k ohm ±5% SRD 1/6P	R252	0920-863-3-24	CF, 3.3k ohm ±5% SRD 1/6P
R179	0920-861-2-34	CF, 12k ohm ±5% SRD 1/6P	R253	0920-864-7-54	CF, 4.7M ohm ±5% SRD 1/6P
R180	0920-861-5-04	CF, 15 ohm ±5% SRD 1/6P	R254	0920-863-3-24	CF, 3.3k ohm ±5% SRD 1/6P
R181	0920-861-3-24	CF, 1.3k ohm ±5% SRD 1/6P	R255	Not used.	
R182	0920-861-6-24	CF, 1.6k ohm ±5% SRD 1/6P	R256	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R183	0920-862-2-34	CF, 22k ohm ±5% SRD 1/6P	R257	0920-865-6-24	CF, 5.6k ohm ±5% SRD 1/6P
R184	0920-862-2-34	CF, 22k ohm ±5% SRD 1/6P	R258	Not used.	
R185	0920-814-7-84	CF, 4.7 ohm ±5% SRD 1/4P	R261	Not used.	
R186	0920-814-7-84	CF, 4.7 ohm ±5% SRD 1/4P	R262	0920-862-2-24	CF, 2.2k ohm ±5% SRD 1/6P
R187	0920-860-1-04	CF, 1 ohm ±5% SRD 1/6P	R263	0920-862-2-24	CF, 2.2k ohm ±5% SRD 1/6P
R188	Not used.		R264	0920-864-7-24	CF, 4.7k ohm ±5% SRD 1/6P
R190	Not used.		R265	0920-864-7-24	CF, 4.7k ohm ±5% SRD 1/6P
R191	0920-865-6-34	CF, 56k ohm ±5% SRD 1/6P	R266	0921-115-6-04	CF, 56 ohm ±5% SRD 1/4P
R192	0920-865-6-34	CF, 56k ohm ±5% SRD 1/6P	R267	0920-862-7-34	CF, 27k ohm ±5% SRD 1/6P
R193	0920-864-7-24	CF, 4.7k ohm ±5% SRD 1/6P	R268	0920-861-1-34	CF, 11k ohm ±5% SRD 1/6P
R194	0920-861-5-44	CF, 150k ohm ±5% SRD 1/6P	R269	0920-862-7-34	CF, 27k ohm ±5% SRD 1/6P
R195	0920-861-0-24	CF, 1k ohm ±5% SRD 1/6P	R270	0920-861-8-44	CF, 180k ohm ±5% SRD 1/6P
R196	Not used.		R271	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R200	Not used.		R272	0920-862-7-24	CF, 2.7k ohm ±5% SRD 1/6P
R201	0920-864-7-34	CF, 47k ohm ±5% SRD 1/6P	R273	0920-861-1-34	CF, 11k ohm ±5% SRD 1/6P
R202	0920-864-7-34	CF, 47k ohm ±5% SRD 1/6P	R274	0920-861-5-34	CF, 15k ohm ±5% SRD 1/6P
R203	0920-868-2-04	CF, 82 ohm ±5% SRD 1/6P	R275	0920-862-7-34	CF, 27k ohm ±5% SRD 1/6P
R204	0920-861-2-34	CF, 12k ohm ±5% SRD 1/6P	R276	Not used.	
R205	0920-861-8-34	CF, 18k ohm ±5% SRD 1/6P	R277	Not used.	
R206	0920-861-8-24	CF, 1.8k ohm ±5% SRD 1/6P	R278	Not used.	
R207	Not used.		R279	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R208	Not used.		R280	Not used.	
R209	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P	R281	0920-861-0-14	CF, 100 ohm ±5% SRD 1/6P
R210	0921-522-7-14	CF, 270 ohm ±5% SRD 1/2P	R282	0920-861-2-34	CF, 12k ohm ±5% SRD 1/6P
R211	0920-861-0-24	CF, 1k ohm ±5% SRD 1/6P	R283	Not used.	
R212	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P	R300	Not used.	
R213	0920-863-3-44	CF, 330k ohm ±5% SRD 1/6P	R301	0920-864-7-34	CF, 47k ohm ±5% SRD 1/6P
R214	Not used.		R302	0920-864-7-34	CF, 47k ohm ±5% SRD 1/6P
R215	Not used.		R303	0920-868-2-04	CF, 82 ohm ±5% SRD 1/6P
R216	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P	R304	0920-861-2-34	CF, 12k ohm ±5% SRD 1/6P
R217	Not used.		R305	0920-861-8-34	CF, 18k ohm ±5% SRD 1/6P
R218	0920-862-2-34	CF, 22k ohm ±5% SRD 1/6P	R306	0920-861-8-24	CF, 1.8k ohm ±5% SRD 1/6P
R219	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P	R307	Not used.	
R220	0920-864-7-24	CF, 4.7k ohm ±5% SRD 1/6P	R315	Not used.	
R221	0920-862-2-24	CF, 2.2k ohm ±5% SRD 1/6P	R316	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R222	0920-863-3-24	CF, 3.3k ohm ±5% SRD 1/6P	R317	Not used.	
R223	0920-862-2-34	CF, 22k ohm ±5% SRD 1/6P	R318	0920-862-2-34	CF, 22k ohm ±5% SRD 1/6P
R224	0920-863-9-44	CF, 390k ohm ±5% SRD 1/6P	R319	Not used.	
R225	Not used.		R330	Not used.	
R230	Not used.		R331	0920-861-1-34	CF, 11k ohm ±5% SRD 1/6P
R231	0920-861-1-34	CF, 11k ohm ±5% SRD 1/6P	R332	0920-863-0-24	CF, 3k ohm ±5% SRD 1/6P
R232	0920-863-0-24	CF, 3k ohm ±5% SRD 1/6P	R333	0920-866-2-24	CF, 6.2k ohm ±5% SRD 1/6P
R233	0920-866-2-24	CF, 6.2k ohm ±5% SRD 1/6P	R334	0920-861-5-34	CF, 15k ohm ±5% SRD 1/6P

SYMBOL No.	PART No.	DESCRIPTION
R335	0920-861-8-44	CF, 180k ohm ±5% SRD 1/6P
R336	0920-864-7-24	CF, 4.7k ohm ±5% SRD 1/6P
R337	0920-864-7-24	CF, 4.7k ohm ±5% SRD 1/6P
R338	Not used.	
R340	Not used.	
R341	0920-862-4-24	CF, 2.4k ohm ±5% SRD 1/6P
R342	0920-865-6-24	CF, 5.6k ohm ±5% SRD 1/6P
R343	0920-862-2-34	CF, 22k ohm ±5% SRD 1/6P
R344	0920-865-6-14	CF, 560 ohm ±5% SRD 1/6P
R345	Not used.	
R346	0920-863-3-24	CF, 3.3k ohm ±5% SRD 1/6P
R347	0920-861-2-34	CF, 12k ohm ±5% SRD 1/6P
R348	Not used.	
R350	Not used.	
R351	0920-861-2-24	CF, 1.2k ohm ±5% SRD 1/6P
R352	0920-863-3-24	CF, 3.3k ohm ±5% SRD 1/6P
R353	Not used.	
R355	Not used.	
R356	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R357	0920-865-6-24	CF, 5.6k ohm ±5% SRD 1/6P
R358	Not used.	
R380	Not used.	
R381	0920-861-0-14	CF, 100 ohm ±5% SRD 1/6P
R382	0920-861-2-34	CF, 12k ohm ±5% SRD 1/6P
R383	Not used.	
R400	Not used.	
R401	0920-866-8-34	CF, 68k ohm ±5% SRD 1/6P
R402	0920-861-0-44	CF, 100k ohm ±5% SRD 1/6P
R403	0920-864-7-14	CF, 470 ohm ±5% SRD 1/6P
R404	0920-864-7-14	CF, 470 ohm ±5% SRD 1/6P
R405	0920-865-6-24	CF, 5.6k ohm ±5% SRD 1/6P
R406	0926-513-0-22	RN, 3k ohm ±1% SRD 1/4P
R407	0926-513-3-22	RN, 3.3k ohm ±1% SRD 1/4P
R408	0926-516-8-22	RN, 6.8k ohm ±1% SRD 1/4P
R409	0926-511-6-22	RN, 1.6k ohm ±1% SRD 1/4P
R410	0926-513-0-22	RN, 3k ohm ±1% SRD 1/4P
R411	0920-861-0-44	CF, 100k ohm ±5% SRD 1/6P
R412	0920-866-8-34	CF, 68k ohm ±5% SRD 1/6P
R413	0920-864-7-14	CF, 470 ohm ±5% SRD 1/6P
R414	0920-864-7-14	CF, 470 ohm ±5% SRD 1/6P
R415	0920-865-6-24	CF, 5.6k ohm ±5% SRD 1/6P
R416	0926-511-8-22	RN, 1.8k ohm ±1% SRD 1/4P
R417	0926-513-3-22	RN, 3.3k ohm ±1% SRD 1/4P
R418	0926-516-8-22	RN, 6.8k ohm ±1% SRD 1/4P
R419	0926-511-6-22	RN, 1.6k ohm ±1% SRD 1/4P
R420	0926-511-8-22	RN, 1.8k ohm ±1% SRD 1/4P
R421	0926-513-0-22	RN, 3k ohm ±1% SRD 1/4P
R422	0926-511-8-22	RN, 1.8k ohm ±1% SRD 1/4P
R423	Not used.	
R500	Not used.	
R501	0926-516-2-12	RN, 620 ohm ±1% SRD 1/4P
R502	0926-516-8-12	RN, 680 ohm ±1% SRD 1/4P
R503	0926-516-2-12	RN, 620 ohm ±1% SRD 1/4P
R504	0926-516-8-12	RN, 680 ohm ±1% SRD 1/4P
R505	Not used.	
R506	0920-861-8-24	CF, 1.8k ohm ±5% SRD 1/6P
R507	0920-861-8-24	CF, 1.8k ohm ±5% SRD 1/6P
R508	0920-861-8-24	CF, 1.8k ohm ±5% SRD 1/6P
R509	0920-861-8-24	CF, 1.8k ohm ±5% SRD 1/6P
R510	0920-861-8-24	CF, 1.8k ohm ±5% SRD 1/6P
COILS		
L171	0991-401-0-05	LHL06TB100K, 10 μH

SYMBOL No.	PART No.	DESCRIPTION
L172	0015-089-0-00	DSC trans-10
L216	0014-790-0-00	Trap coil
L231	0039-894-0-00	MPX filter
L281	0014-789-0-00	Trap coil
L316	0014-790-0-00	Trap coil
L331	0039-894-0-00	MPX filter
L381	0014-789-0-00	Trap coil
FILTER		
CF121	0038-911-0-00	Ceramic, resonat, CST4MGW
DIODES		
D101	0915-005-2-02 or 0915-005-2-04	MPG06B MPG06D
D102	0915-005-2-02 or 0915-005-2-04	MPG06B MPG06D
D103	0915-007-4-02 or 0915-007-4-03	RD5.6ESB2 RD5.6ESB3
D104	0915-010-6-02	RD13ESB2
D105	0915-010-6-02	RD13ESB2
D106	0915-010-7-02 or 0915-010-7-03	RD15ESB2 RD15ESB3
ΔD107	0915-005-2-02 or 0915-005-2-04	MPG06B MPG06D
ΔD111	0915-005-2-04 or 0915-005-2-02	MPG06B MPG06B
ΔD112	0915-005-2-04 or 0915-005-2-02	MPG06B MPG06B
D117	0915-003-9-00	1SS133
D121	0915-010-6-02	RD13ESB2
D122	0915-010-6-02	RD13ESB2
D123	0915-003-9-00	1SS133
D124	0915-010-6-02	RD13ESB2
D171	0915-003-9-00	1SS133
D172	0915-003-9-00	1SS133
D173	0915-003-9-00	1SS133
D174	0915-003-9-00	1SS133
D175	0915-003-9-00	1SS133
D191	0915-003-9-00	1SS133
D192	0915-003-9-00	1SS133
D193	0915-003-9-00	1SS133
D194	0915-003-9-00	1SS133
D231	0915-003-9-00	1SS133
D251	0915-003-9-00	1SS133
D252	0915-003-9-00	1SS133
D351	0915-003-9-00	1SS133
D352	0915-003-9-00	1SS133
D401	0915-003-9-00	1SS133
D402	0915-003-9-00	1SS133
LD501	0916-029-3-00	LED, SLR-57MC3F
LD502	0916-029-3-00	LED, SLR-57MC3F
LD503	0916-029-2-00	LED, SLR-57VC3F
LD504	0916-029-3-00	LED, SLR-57MC3F
LD505	0916-029-3-00	LED, SLR-57MC3F
ICS and TRANSISTORS		
IC101	0911-153-5-00	PST600D
IC102	0037-163-0-00	M50944-179SP
IC103	0911-153-1-00	BA3126N
IC104	0911-152-7-00	LA3246
IC105	0911-153-0-00	BA335
IC106	0911-153-4-00	HA12142NT
IC107	0911-153-6-00	CXA1398P
IC108	0911-152-8-00	LB1205
IC109	0911-152-8-00	LB1205
IC501	0911-153-2-00	BU2040

SYMBOL No.	PART No.	DESCRIPTION
△Q101	0903-008-1-00	2SD2012
△Q102	0903-008-1-00	2SD2012
Q103	0906-203-3-19	2SC1740S-S
Q104	0906-203-3-19	2SC1740S-S
Q105	0906-203-3-19	2SC1740S-S
Q121	0906-203-1-00	DTC124E
	or 0906-209-0-00	BA1F4M
	or 0906-205-0-00	RN1203
Q122	0906-203-3-19	2SC1740S-S
Q171	0906-203-4-19	2SA933S-S
Q172	0906-203-1-00	DTC124ES
	or 0906-209-0-00	BA1F4M
	or 0906-205-0-00	RN1203
Q173	0906-203-3-19	2SC1740S-S
Q174	0906-203-1-00	DTC 124ES
	or 0906-205-0-00	RN1203
	or 0906-209-0-00	BA1F4M
Q175	0906-203-3-19	2SC1740S-S
Q176	0906-203-1-00	DTC124ES
	or 0906-209-0-00	BA1F4M
	or 0906-205-0-00	RN1203
Q177	0906-205-0-00	RN1203
	or 0906-209-0-00	BA1F4M
	or 0906-203-1-00	DTC124ES
△Q178	0902-005-1-25	2SC2236-Y
Q179	0906-207-3-25	2SC2120-Y
Q180	0906-207-3-25	2SC2120-Y
Q191	0906-203-3-19	2SC1740S-S
Q192	0906-203-3-19	2SC1740S-S
Q216	0906-203-3-19	2SC1740S-S
Q217	0906-203-3-19	2SC1740S-S
Q218	0906-203-5-02	2SC2878-B
Q219	0906-203-1-00	DTC124ES
	or 0906-209-0-00	BA1F4M
	or 0906-205-0-00	RN1203
Q231	0906-203-5-02	2SC2878-B
Q232	0906-203-3-19	2SC1740S-S
Q236	0906-203-1-00	DTC124ES
	or 0906-205-0-00	RN1203
	or 0906-209-0-00	BA1F4M
Q246	0906-203-5-02	2SC2878-B
Q247	0906-203-4-19	2SA933S-S
Q251	0906-209-0-00	BA1F4M
	or 0906-205-0-00	RN1203
	or 0906-203-1-00	DTC124ES
Q252	0906-203-3-19	2SC1740S-S
Q261	0906-203-1-00	DTC124ES
	or 0906-205-0-00	RN1203
	or 0906-209-0-00	BA1F4M
Q262	0906-209-0-00	BA1F4M
	or 0906-203-1-00	DTC124ES
	or 0906-205-0-00	RN1203
Q263	0906-208-3-00	BN1A4M
	or 0906-208-7-00	DTA114ES
Q264	0906-203-1-00	DTC124ES
	or 0906-205-0-00	RN1203
	or 0906-209-0-00	BA1F4M
Q316	0906-203-3-19	2SC1740S-S
Q317	0906-203-3-19	2SC1740S-S
Q318	0906-203-5-02	2SC2878-B
Q331	0906-203-5-02	2SC2878-B
Q332	0906-203-3-19	2SC1740S-S
Q346	0906-203-5-02	2SC2878-B
Q401	0906-203-1-00	DTC124ES
	or 0906-209-0-00	BA1F4M
	or 0906-205-0-00	RN1203
Q402	0906-203-4-19	2SA933S-S
Q403	0906-205-0-00	RN1203
	or 0906-209-0-00	BA1F4M
	or 0906-203-1-00	DTC124ES

SYMBOL No.	PART No.	DESCRIPTION
Q404	0906-203-4-19	2SA933S-S
Q405	0906-205-0-00	RN1203
	or 0906-203-1-00	DTC124ES
	or 0906-209-0-00	BA1F4M
JACK		
J101	0034-004-0-00	Pin 2P, YKC21-3085
SWITCHES		
S501	0028-855-0-00	Tact
S502	0028-855-0-00	Tact
S503	0028-855-0-00	Tact
S504	0028-855-0-00	Tact
S505	0028-855-0-00	Tact
S506	0028-855-0-00	Tact
S507	0028-306-0-00	Slide
VARIABLE RESISTORS		
VR216	0031-835-1-03	SF volume control, 10k ohm
	or 0031-837-1-03	SF volume control, 10k ohm
VR217	0031-837-1-03	SF volume control, 10k ohm
	or 0031-835-1-03	SF volume control, 10k ohm
VR256	0031-835-1-03	SF volume control, 10k ohm
	or 0031-837-1-03	SF volume control, 10k ohm
VR291	0031-837-1-04	SF volume control, 100k ohm
	or 0031-835-1-04	SF volume control, 100k ohm
VR316	0031-835-1-03	SF volume control, 10k ohm
	or 0031-837-1-03	SF volume control, 10k ohm
VR317	0031-837-1-03	SF volume control, 10k ohm
	or 0031-835-1-03	SF volume control, 10k ohm
VR356	0031-835-1-03	SF volume control, 10k ohm
	or 0031-837-1-03	SF volume control, 10k ohm
VR391	0031-837-1-04	SF volume control, 100k ohm
	or 0031-835-1-04	SF volume control, 100k ohm
VR401	0031-837-2-02	SF volume control, 2k ohm
	or 0031-835-2-02	SF volume control, 2k ohm
VR402	0031-837-2-02	SF volume control, 2k ohm
	or 0031-835-2-02	SF volume control, 2k ohm
CONNECTORS		
CN101	0034-750-0-08	Pin, 8 pin
CN102	0034-700-0-03	Pin, 3 pin
CN103	0034-700-0-06	Pin, 6 pin
CN104	0034-700-0-02	Pin, 2 pin
CN105	0034-700-0-04	Pin, 4 pin
CN106	0034-750-0-09	Pin, 9 pin
CN107	0034-700-0-04	Pin, 4 pin
CN108	0034-750-0-12	Pin, 12 pin
CN201	0034-700-0-03	Pin, 3 pin
SY101	0034-007-0-15	System connector pin, 15P
SY102	0034-007-0-09	System connector pin, 9P
OTHER		
△IP101	0045-802-0-10	ICP-N10
ACCESSORIES		
	2940-910-0-01	Gift box
	2920-915-0-00	Mirror mat
CASSETTE MECHANISM		
1	1880 01 504	Chassis ass
2	1880 01 02	Pack spring

SYMBOL No.	PART No.	DESCRIPTION
3	9178 00 00	C tapping screw M2x3 (special)
4	1865 02 50A	Tape guide
5	1865 02 60	Clamp spring (V)
6	1880 02 19	Panel collar (A)
7	1865 02 28	Chp lever collar
8	1880 02 25	Head base ass
9	1865 02 34	Relay board (C1)
10	9999 18 17	Head collar screw C
11	1865 09 61	Spacer
12	1865 02 49	Wire clamp
13	1880 02 01	Head panel (A)
14	1880 02 501	Head panel (B) ass
15	1880 02 04	RC spring
16	1880 02 05	Panel spring
17	1880 02 06	Chp lever
18	1880 04 05	Pinch roller spring
19	6204 03 20	Head HD42251S (C1)
20	9078 00 00	Tams screw M2x5
21	9547 00 00	Screw (for camera) M17x3
22	9999 20 20	S tapping tams screw M2x5
23	1880 02 16	Panel spring plate
24	9999 18 16	Cup (for camera) S tapping screw M2x5
25	9117 00 00	Blind screw M2x5
26	1880 07 08	RF belt
27	1880 07 305	RF clutch a ss
28	1865 02 52	Guide screw
29	1880 02-26	Shield plate
30	Not used.	
31	1880 05 325	T reel ass (F)
32	1880 05 323	T reel ass (R)
33	1880 05 501	Reel base ass
34	1880 05 08	FF gear
35	1865 02 54	Guide spring
36	1880 05 17	FR trigger arm spring
37	Not used.	
38	1880 05 22	B.T spring (R)
39	9180 00 00	C tapping screw M2x4
40	9421 00 00	P washer cut 1.2x3x0.25
41	9876 00 00	P washer cut 2.2x5x0.5
42	9999 70 03	HL washer cut 1.4x3.2x0.4
43	1880 05 15	RF trigger arm
44	Not used.	
45	Not used.	
46	1821 12 66	Motor rubber
47	1851 14 18	Motor collar screw
48	1880 09 66	Main belt
49	1880 09 341	Assembly, motor with pulley
50	1880 09 60	Motor bracket
51	1880 53 109	Assembly, mechanism PCB (C2)
52	9179 00 00	C tapping screw M2x3
53	1510 10 03	Rubber
54	1880 53 108	Assembly mechanism PCB (C1)
55	Not used.	
56	1880 01 06	M trigger arm spring
57	1880 21 15	M gear
58	1880 21 16	RF cam gear
59	1880 21 03	M trigger arm
60	1880 21 05	Plunger
61	1880 21 06	Plunger holder
62	1880 21 504	Channel slide lever ass
63	Not used.	
64	1880 21 503	P kick lever ass
65	1880 21 11	PK lever spring
66	1880 21 25	Solenoid
67	9502 00 00	E ring ø2
68	9999 70 06	HL washer cut 1.55x3.5x0.5
69	9999 70 04	HL washer cut 2.1x5x0.4
70	1880 13 28	E stopper A
71	1880 13 29	E stopper B
72	Not used.	

SYMBOL No.	PART No.	DESCRIPTION
73	Not used.	
74	1880 53 88	Switch protector
75	9180 00 00	C tapping screw M2x4
76	9985 00 00	Camera S tapping screw M2x5 guide
77	1880 13 31	E stopper spring M (F)
78	1880 13 05	E stopper collar
79	1880 05 502	T gear arm (F) ass
80	1880 05 36	T gear (A)
81	1880 05 46	TG spring M (F)
82	9421 00 00	P washer cut 1.2x3x0.25
83	1880 05 503	T gear arm (R) ass
84	1880 05 47	TG spring M (R)
85		
to	Not used.	
87		
88	1880 04 301	Pinch roller arm (F) ass
89	1880 04 03	P arm (F) spring
90	1880 04 302	Pinch roller arm (R) ass
91	1880 04 04	P arm (R) spring
92		
to	Not used.	
94		
95	1880 09 307	Flywheel (F) ass
96	1880 09 08	Flywheel metal ass (F)
97	9182 00 00	C tapping screw M2x6
98	9999 70 07	HL washer cut 1.8x4x0.5
99	9999 60 03	HL washer 2.3x3.8x0.3
100	1880 09 308	Flywheel (R) ass
101	1880 09 21	Flywheel metal ass (R)
102	9999 70 06	HL washer cut 1.55x3.5x0.5
103	9999 60 02	HL washer 2.1x3.5x0.3
104	9279 00 00	C tapping screw M2x3
105	9W17 00 030	Wave washer
106	Not used.	
107	Not used.	
108	1880 53 107	PC board
109	6401 01 173	Leaf switch MTS-10250MVJO
110	6401 01 188	Leaf switch MSW-1699CF
111	6401 01 189	Leaf switch MSW-17944MVDO
112	6804 06 04	Hall IC LB9050TN
113	1880 53 03	IC protector
114	6815 02 03	Connector TXL-P09PM1 (C1)
115	Not used.	
116	Not used.	
117	1880 13 30	Eject lever
118	1880 13 32	Eject lever spring
119	1880 13 11	E kick lever collar
120	9999 20 20	S tapping tams screw M2x5
121	1865 02 66	Relay board (C2)
122	6204 06 06	Head HD425569 (C2)
123	6815 02 06	Connector TXL-P12PM1 (C2)
CABINET		
201	2940-606-0-00	Mecha ass (C1)
202	2940-607-0-00	Mecha ass (C2)
203	0974-355-2-08	Screw, SEI3 BT2.0x2.0-SBK
204	2501-866-0-00	Foot
205	2940-600-0-01	Sub panel ass
206	2940-604-0-01	Operation panel ass
207	2940-601-0-01	Lid panel L ass (C1)
208	2940-602-0-01	Lid panel R ass (C2)
209	2940-603-0-01	Back panel ass
210	2940-106-0-00	Mecha supporter
211	2940-108-0-00	Cassette holder set
212	2940-130-0-00	Gear arm
213	2940-131-0-00	Damper supporter
214	2940-134-0-00	Eject arm set
215	2940-145-0-00	Pivot base A set
216	2940-149-0-00	Pivot base B set

SYMBOL No.	PART No.	DESCRIPTION
217	2940-147-0-00	Pivot base C set
218	2940-150-0-00	Pivot base D set
219	2940-180-0-00	Cassette spring
220	2940-310-0-00	Damper
221	2940-421-0-00	Spiral spring
222	2940-422-0-00	Extension spring
223	0977-220-0-63	DT screw, P2x6-SBK
224	0974-355-3-09	Screw, SEI3, BT2.0x3.0-SN
225	0974-355-4-07	Screw, SEI3, ST2.0x4.0-SK
226	2940-535-0-00	Wire connector 9P (C1)
227	2940-536-0-00	Wire connector 12P (C2)
228	2501-881-0-00	Foot R
229	2940-811-0-00	Bottom chassis
230	2940-812-0-01	Metal case
231	2940-873-0-01	Slide knob
232	2940-874-0-01	Eject button
233	2940-880-0-00	LED cover
234	0981-102-0-14	E ring, ZR2-SU
235	0972-430-0-51	Screw, P3x5-SN-WS
236	0972-730-0-63	ST screw, B3x6-SBK
237	0972-730-0-65	ST screw, B3x6-SK
238	0973-230-0-83	BT screw, B3x8-SBK
239	0973-230-0-85	BT screw, B3x8-SK

DISASSEMBLY INSTRUCTIONS

POWER AMPLIFIER

1. Remove six screws (A) holding the metal case.
2. Remove five screws (B) holding the sub panel assembly.
3. Remove three screws (C) holding the power meter PWB.
4. Remove two screws (D) holding the heat sink cover assembly.
5. Remove fifteen screws (E) holding the power amplifier PWB and back panel.
6. Remove four screws (F) holding the power transformer.

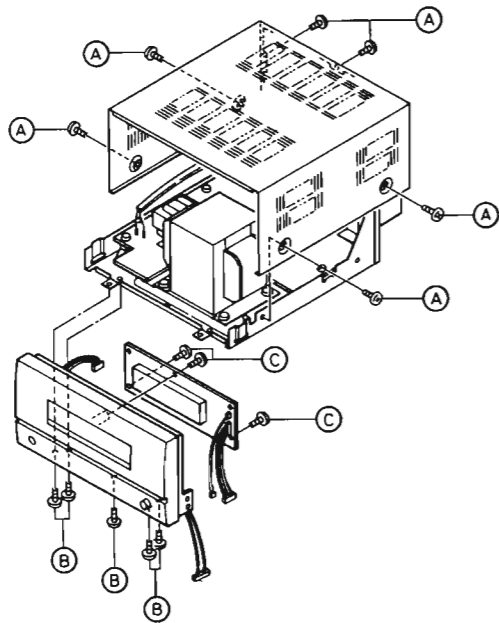


Figure 1

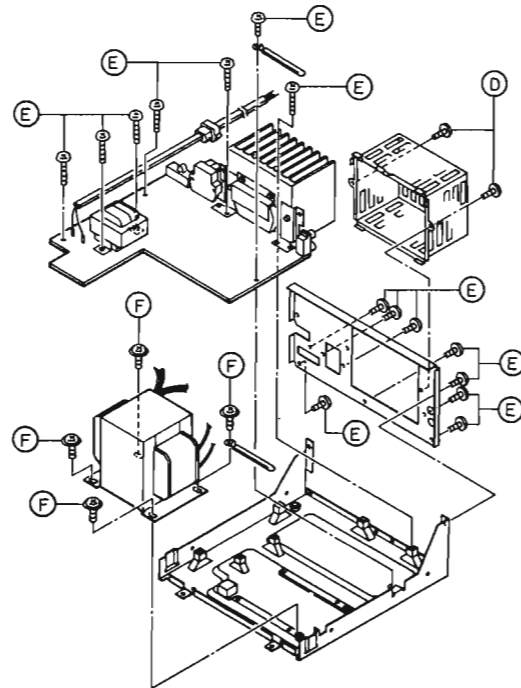


Figure 2

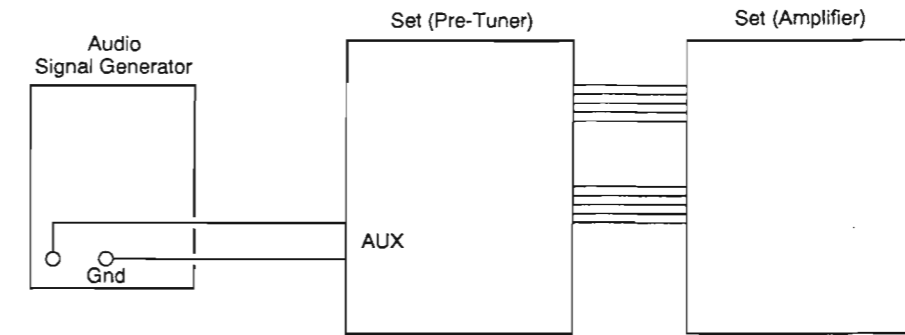


Figure 3

Power Meter PWB Top View

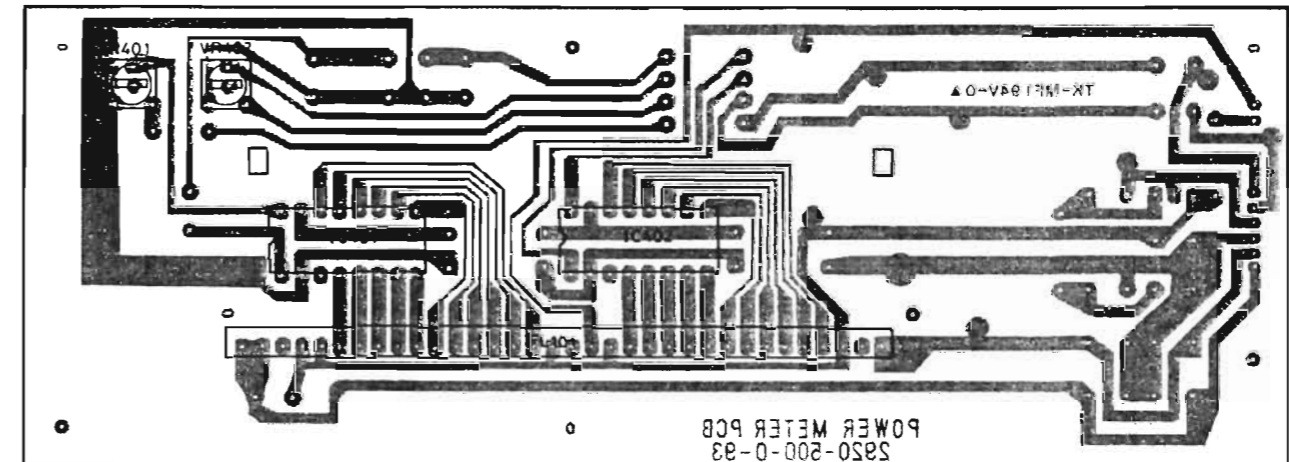


Figure 4

ADJUSTMENT

Power Meter Adjustment (Figures 3, 4 and 5)

Step	Connect	Setting	Adjust	Remarks
1	Connect a Audio Signal Generator to the "AUX" terminals of Pre-Tuner section.	1 kHz 200mV		"AUX" mode
2	Adjust the level of the Audio Signal Generator.	2.5V at speaker terminals. L/R		
3	Adjust the level until the 3W line of FL Meter become just "OFF"	Lch	VR401	• See Figures 3, 4 and 5.
		Rch	VR402	

Power Meter

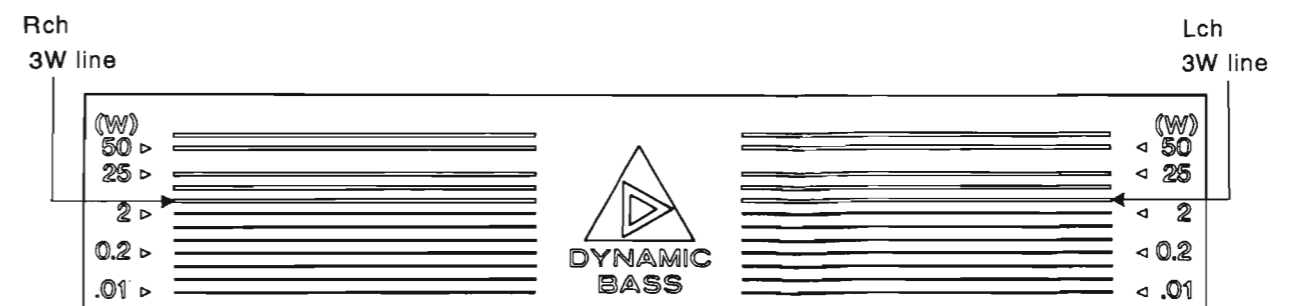
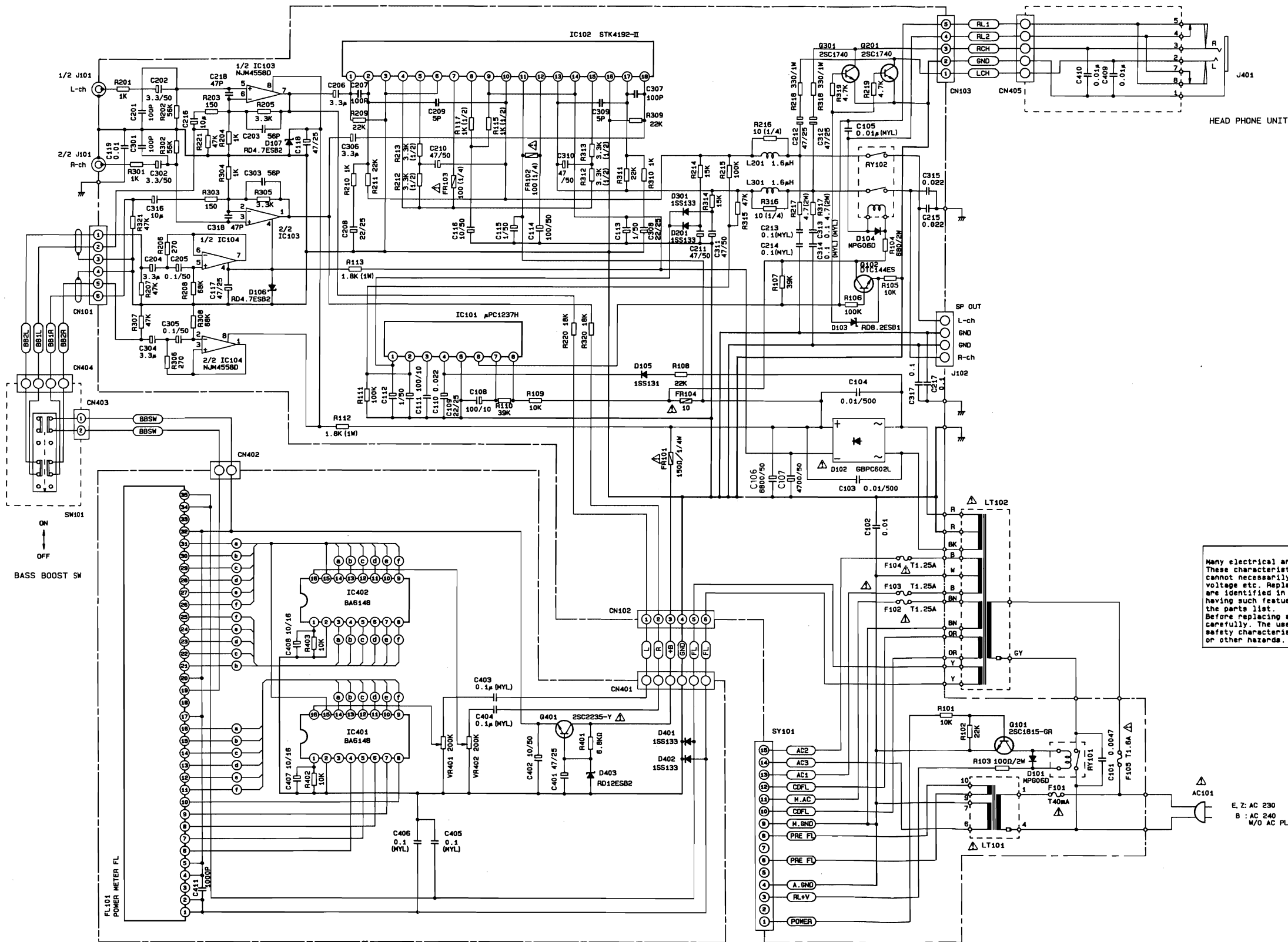


Figure 5

SCHEMATIC DIAGRAM

Power Amplifier



ICs Voltage [V]

	IC101	IC102	IC103	IC104	IC401	IC402
1	0	0	0	0	0	0
2	0	-0.1	0	0	0	0
3	0	0	0	0	0	0
4	1.9	-38	-4.8	-4.8	0	0
5	0	-1.4	0	0	0	0
6	0.8	0	0	0	0	0
7	2.2	-40	0	0	0	0
8	3.4	-40	4.9	4.9	0	0
9	-41				0	0
10	0				0	0
11	40				0	0
12	39				0	0
13	0				0	0
14	-41				0	0
15	-1.3				11.5	11.5
16	0				0	0
17	0					
18	0					

Transistors Voltage [V]

	B	C	E
Q101	0.7	0.6	-0.1
Q102	0	40	0.01
Q201	0	0	0
Q301	0	0	0
Q401	12	37	11.4

PRODUCT SAFETY NOTICE
 Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by Δ in the schematic diagrams and the parts list.
 Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

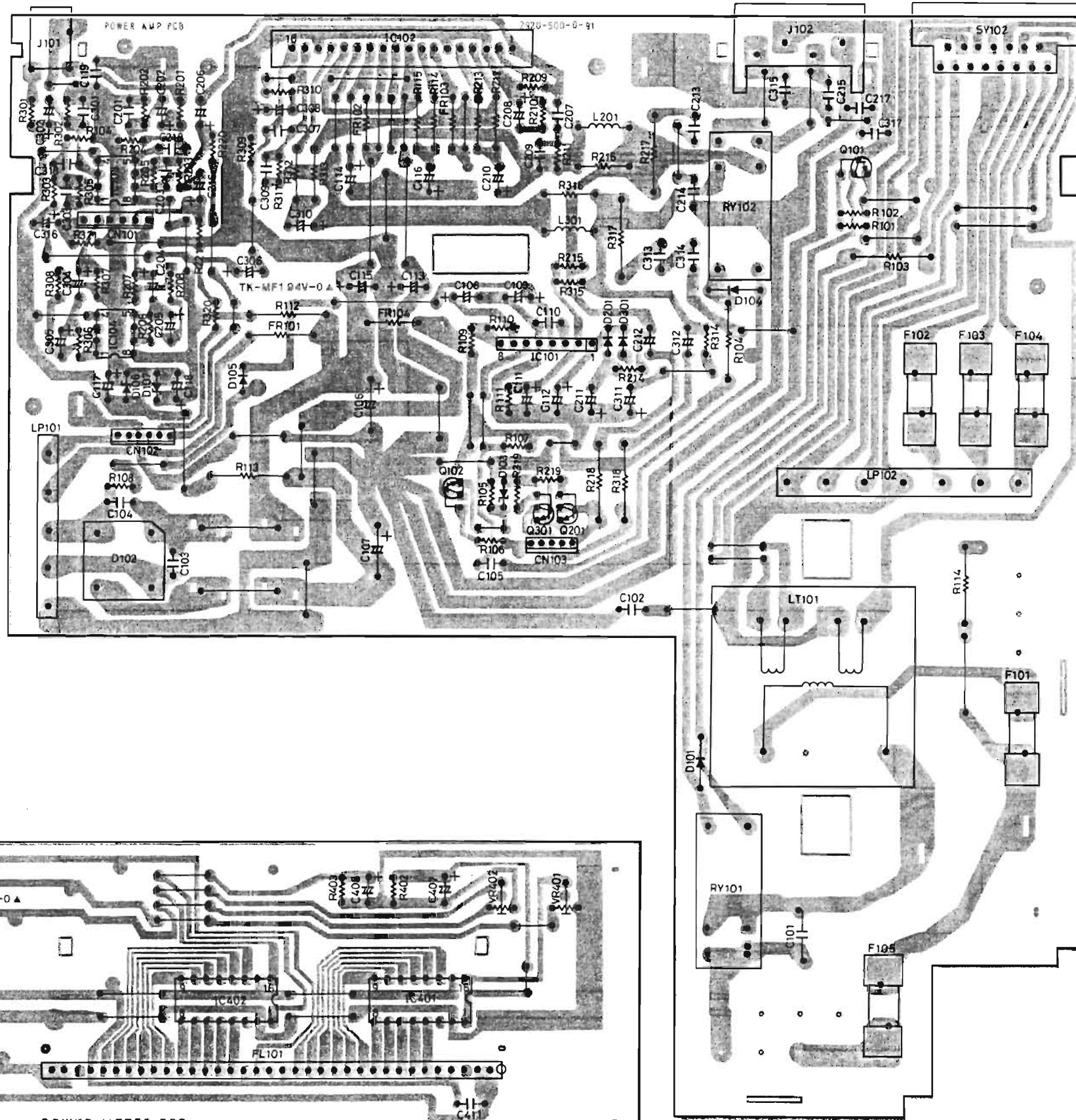
Make leakage current or resistance measurements to determine that exposed metal parts are acceptably insulated from the supply circuit before returning the appliance to the customer.

Leakage current from microphone jack and battery terminals should not exceed 0.7 mA as measured through a 2.0 kohm resistor paralleled by a 0.15 mfd capacitor to the earth ground.

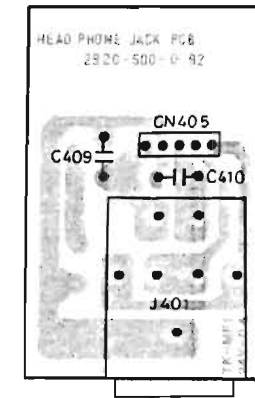
E: AC 230
 B: AC 240
 W/O AC PLUG

PWB BOTTOM VIEW

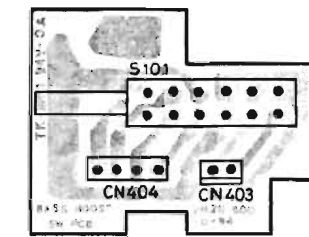
Power Amplifier



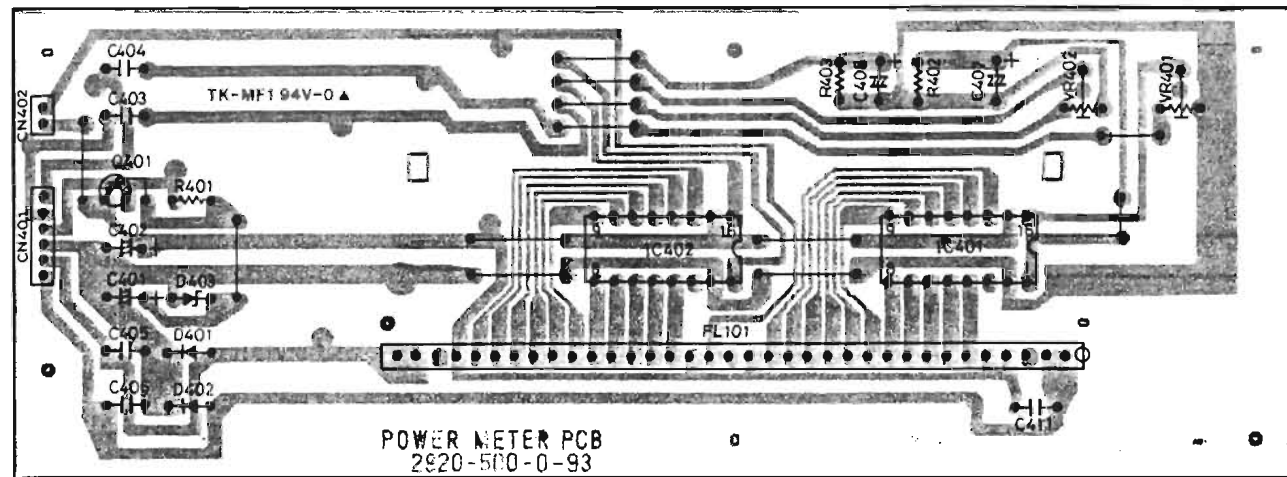
Headphone



Bass Boost Switch



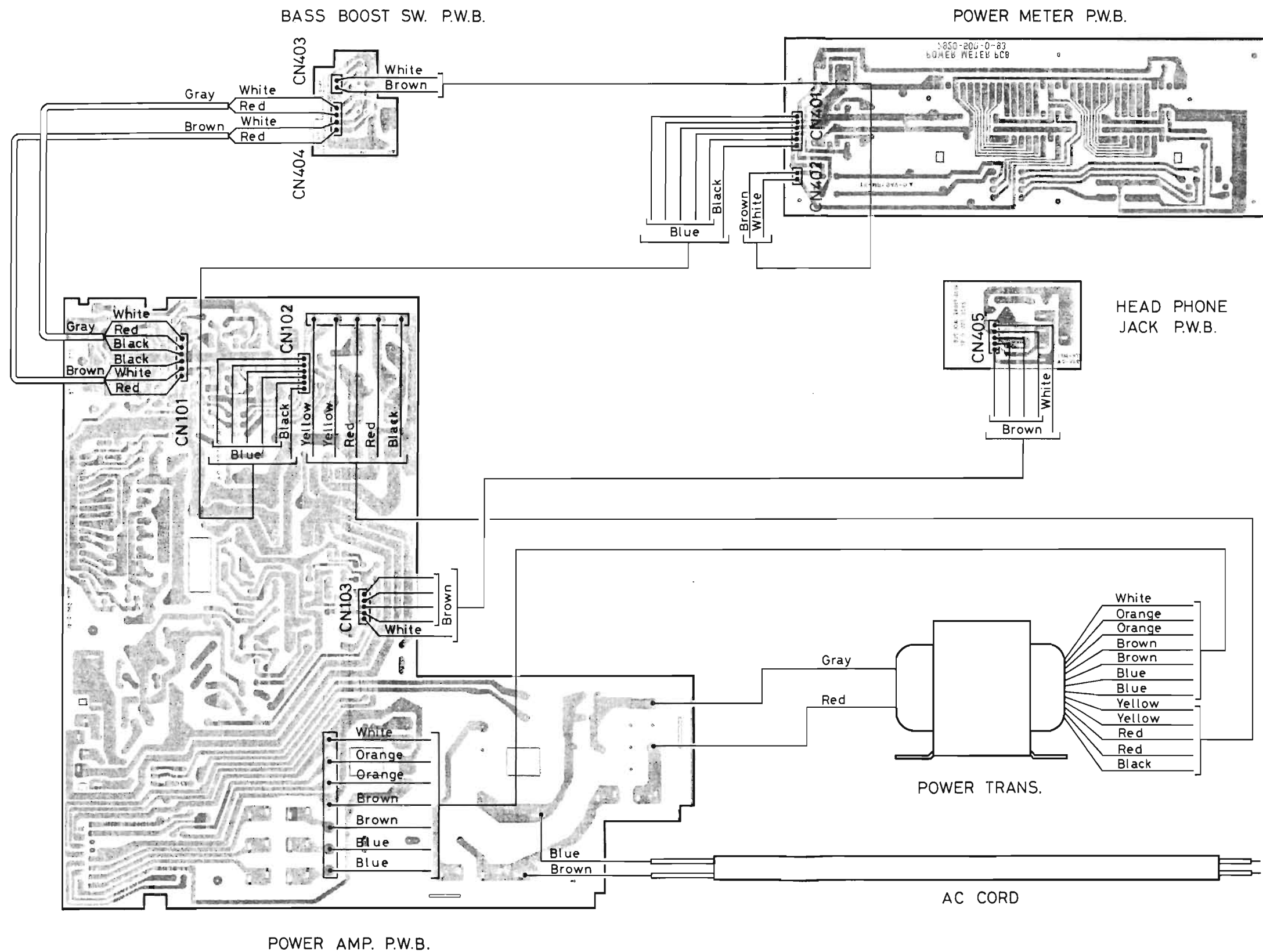
Power Meter



NOTE
The Original PWB Top View.
Electrical capacitors: ● mark is plus side.

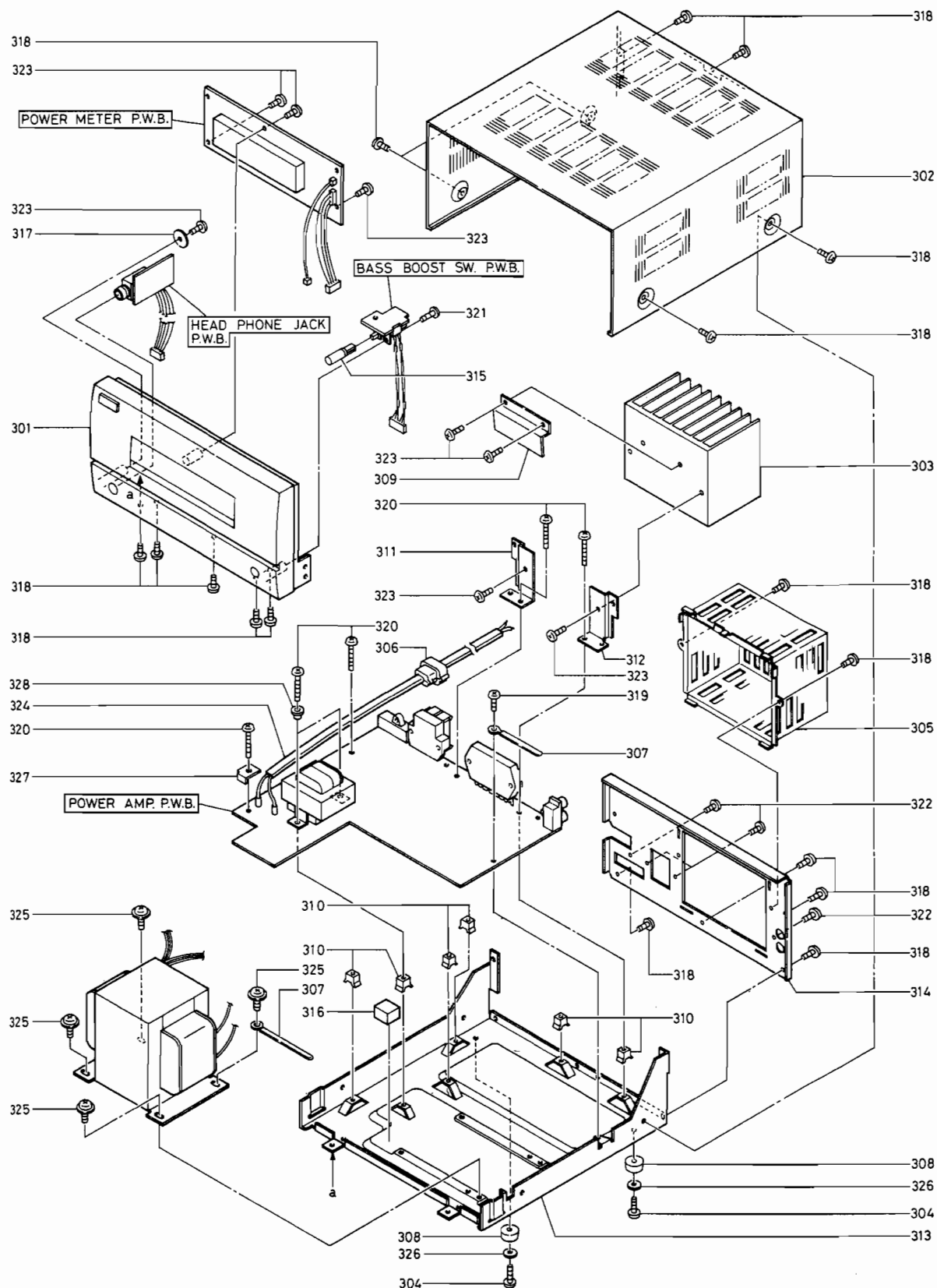
WIRING DIAGRAM

Power Amplifier



EXPLODED VIEW

Power Amplifier Cabinet



PARTS LIST

Power Amplifier

SYMBOL No.	PART No.	DESCRIPTION	SYMBOL No.	PART No.	DESCRIPTION
PWB ASSEMBLY					
	2920-605-0-00	Power amplifier PWB ass [for E(BS)]	C312	9363-234-7-06	EL, 47 μ F \pm 20% 25V
	2920-604-0-00	Power amplifier PWB ass [for E, E(Z)] (with Headphone jack PWB, Power meter PWB, Bass boost switch PWB)	C313	9335-451-0-44	MF, 0.1 μ F \pm 5% 50V
CAPACITORS					
C101	0039-922-0-00	CK, 4700 PF 125V/250V	C314	9335-451-0-44	MF, 0.1 μ F \pm 5% 50V
C102	0931-551-0-39	CD, 0.01 μ F +80/-20% 50V	C315	0931-552-2-39	CD, 0.022 μ F +80/-20% 50V
C103	0931-481-0-39	CD, 0.01 μ F +80/-20% 500V		0931-452-2-39	CD, 0.022 μ F +80/-20% 50V
C104	0931-481-0-39	CD, 0.01 μ F +80/-20% 500V		0937-851-0-06	EL, 10 μ F \pm 20% 50V
C105	9335-451-0-34	MF, 0.01 μ F \pm 5% 50V	C317	0939-904-7-00	CD, 0.1 μ F +80/-20% 50V
C106	0939-925-8-00	LP, 6800 μ F \pm 20% 50V		0939-900-7-00	CD, 0.1 μ F +80/-20% 50V
C107	0939-925-9-00	LP, 4700 μ F \pm 20% 50V	C318	0930-204-7-04	CD, 47 PF \pm 5% 50V
C108	0937-811-0-16	EL, 100 μ F \pm 20% 10V	C319		Not used.
C109	0937-832-2-06	EL, 22 μ F \pm 20% 25V	C400		
C110	0933-452-2-34	CF, 0.022 μ F \pm 5% 50V	C401	0937-834-7-06	EL, 47 μ F \pm 20% 25V
C111	0937-811-0-16	EL, 100 μ F \pm 20% 10V	C402	0937-851-0-06	EL, 10 μ F \pm 20% 50V
C112	0937-850-1-06	EL, 1 μ F \pm 20% 50V	C403	9335-451-0-44	MF, 0.1 μ F \pm 5% 50V
C113	0937-850-1-06	EL, 1 μ F \pm 20% 50V	C404	9335-451-0-44	MF, 0.1 μ F \pm 5% 50V
C114	0937-851-0-16	EL, 100 μ F \pm 20% 50V	C405	9335-451-0-44	MF, 0.1 μ F \pm 5% 50V
C115	0937-850-1-06	EL, 1 μ F \pm 20% 50V	C406	9335-451-0-44	MF, 0.1 μ F \pm 5% 50V
C116	0937-851-0-06	EL, 10 μ F \pm 20% 50V	C407	0936-321-0-06	EL, 10 μ F \pm 20% 16V
C117	0937-834-7-06	EL, 47 μ F \pm 20% 25V	C408	0936-321-0-06	EL, 10 μ F \pm 20% 16V
C118	0937-834-7-06	EL, 47 μ F \pm 20% 25V	C409	0933-451-0-34	CF, 0.01 μ F \pm 5% 50V
C119	0931-551-0-39	CD, 0.01 μ F +80%/-20% 50V	C410	0933-451-0-34	CF, 0.01 μ F \pm 5% 50V
C200		Not used.	C411	9301-451-0-25	CC, 1000 PF \pm 10% 50V
C201	9301-451-0-15	CC, 100 PF \pm 10% 50V	RESISTORS		
C202	0937-853-3-86	EL, 3.3 μ F \pm 20% 50V	R101	0920-861-0-34	CF, 10k ohm \pm 5% SRD 1/6P
C203	0930-205-6-04	CC, 56 PF \pm 5% 50V	R102	0920-862-2-34	CF, 22k ohm \pm 5% SRD 1/6P
C204	0937-853-3-86	EL, 3.3 μ F \pm 20% 50V	R103	0925-441-0-14	RS, 100 ohm \pm 5% SRD 2P
C205	0937-851-0-96	EL, 0.1 μ F \pm 20% 50V	R104	0925-446-8-14	RS, 680 ohm \pm 5% SRD 2P
C206	0937-853-3-86	EL, 3.3 μ F \pm 20% 50V	R105	0920-861-0-34	CF, 10k ohm \pm 5% SRD 1/6P
C207	9301-451-0-15	CC, 100 PF \pm 10% 50V	R106	0920-861-0-44	CF, 100k ohm \pm 5% SRD 1/6P
C208	0937-832-2-06	EL, 22 μ F \pm 20% 25V	R107	0920-863-9-34	CF, 39k ohm \pm 5% SRD 1/6P
C209	9301-150-5-01	CC, 5 PF \pm 0.5 PF 50V	R108	0920-862-2-34	CF, 22k ohm \pm 5% SRD 1/6P
C210	0937-854-7-06	EL, 47 μ F \pm 20% 50V	R109	0920-861-0-34	CF, 10k ohm \pm 5% SRD 1/6P
C211	0937-854-7-06	EL, 47 μ F \pm 20% 50V	R110	0920-863-9-34	CF, 39k ohm \pm 5% SRD 1/6P
C212	9363-234-7-06	EL, 47 μ F \pm 20% 25V	R111	0920-861-0-44	CF, 100k ohm \pm 5% SRD 1/6P
C213	9335-451-0-44	MF, 0.1 μ F \pm 5% 50V	R112	0925-431-8-24	RS, 1.8k ohm \pm 5% SRD 1P
C214	9335-451-0-44	MF, 0.1 μ F \pm 5% 50V	R113	0925-431-8-24	RS, 1.8k ohm \pm 5% SRD 1P
C215	0931-552-2-39	CD, 0.022 μ F +80/-20% 50V	R114		Not used.
	0931-452-2-39	CD, 0.022 μ F +80/-20% 50V	R115	0921-521-0-24	CF, 1k ohm \pm 5% SRD 1/2P
		[for E(BS)]	R116		Not used.
		[for E, E(Z)]	R117	0921-521-0-24	CF, 1k ohm \pm 5% SRD 1/2P
C216	0937-851-0-06	EL, 10 μ F \pm 20% 50V	R118		Not used.
C217	0939-904-7-00	CD, 0.1 μ F +80/-20% 50V		to	Not used.
	0939-900-7-00	CD, 0.1 μ F +80/-20% 50V	R200		
		[for E(BS)]	R201	0920-861-0-24	CF, 1k ohm \pm 5% SRD 1/6P
		[for E, E(Z)]	R202	0920-865-6-34	CF, 56k ohm \pm 5% SRD 1/6P
C218	0930-204-7-04	CD, 47 PF \pm 5% 50V	R203	0920-861-5-14	CF, 150 ohm \pm 5% SRD 1/6P
C219		Not used.	R204	0920-861-0-24	CF, 1k ohm \pm 5% SRD 1/6P
to			R205	0920-863-3-24	CF, 3.3k ohm \pm 5% SRD 1/6P
C300			R206	0920-862-7-14	CF, 270 ohm \pm 5% SRD 1/6P
C301	9301-451-0-15	CC, 100 PF \pm 10% 50V	R207	0920-864-7-34	CF, 47k ohm \pm 5% SRD 1/6P
C302	0937-853-3-86	EL, 3.3 μ F \pm 20% 50V	R208	0920-866-8-34	CF, 68k ohm \pm 5% SRD 1/6P
C303	0930-205-6-04	CD, 56 PF \pm 5% 50V	R209	0920-862-2-34	CF, 22k ohm \pm 5% SRD 1/6P
C304	0937-853-3-86	EL, 3.3 μ F \pm 20% 50V	R210	0920-861-0-24	CF, 1k ohm \pm 5% SRD 1/6P
C305	0937-851-0-96	EL, 0.1 μ F \pm 20% 50V	R211	0920-862-2-34	CF, 22k ohm \pm 5% SRD 1/6P
C306	0937-853-3-86	EL, 3.3 μ F \pm 20% 50V	R212	0921-523-3-24	CF, 3.3k ohm \pm 5% SRD 1/2P
C307	9301-451-0-15	CC, 100 PF \pm 10% 50V	R213	0921-523-3-24	CF, 3.3k ohm \pm 5% SRD 1/2P
C308	0937-832-2-06	EL, 22 μ F \pm 20% 25V	R214	0920-861-5-34	CF, 15k ohm \pm 5% SRD 1/6P
C309	9301-150-5-01	CC, 5 PF \pm 0.5 PF 50V	R215	0920-861-0-44	CF, 100k ohm \pm 5% SRD 1/6P
C310	0937-854-7-06	EL, 47 μ F \pm 20% 50V	R216	0920-811-0-04	CF, 10 ohm \pm 5% SRD 1/4P
C311	0937-854-7-06	EL, 47 μ F \pm 20% 50V	R217	0925-444-7-84	RS, 4.7 ohm \pm 5% SRD 1P
			R218	0925-433-3-14	RS, 330 ohm \pm 5% SRD 1P

SYMBOL No.	PART No.	DESCRIPTION
R219	0920-864-7-24	CF, 4.7k ohm ±5% SRD 1/6P
R220	0920-861-8-34	CF, 18k ohm ±5% SRD 1/6P
R221	0920-864-7-34	CF, 47k ohm ±5% SRD 1/6P
R222	Not used.	
to R300		
R301	0920-861-0-24	CF, 1k ohm ±5% SRD 1/6P
R302	0920-865-6-34	CF, 56k ohm ±5% SRD 1/6P
R303	0920-861-5-14	CF, 150 ohm ±5% SRD 1/6P
R304	0920-861-0-24	CF, 1k ohm ±5% SRD 1/6P
R305	0920-863-3-24	CF, 3.3k ohm ±5% SRD 1/6P
R306	0920-862-7-14	CF, 270 ohm ±5% SRD 1/6P
R307	0920-864-7-34	CF, 47k ohm ±5% SRD 1/6P
R308	0920-866-8-34	CF, 68k ohm ±5% SRD 1/6P
R309	0920-862-2-34	CF, 22k ohm ±5% SRD 1/6P
R310	0920-861-0-24	CF, 1k ohm ±5% SRD 1/6P
R311	0920-862-2-34	CF, 22k ohm ±5% SRD 1/6P
R312	0921-523-3-24	CF, 3.3k ohm ±5% SRD 1/2P
R313	0921-523-3-24	CF, 3.3k ohm ±5% SRD 1/2P
R314	0920-861-5-34	CF, 15k ohm ±5% SRD 1/6P
R315	0920-864-7-34	CF, 47k ohm ±5% SRD 1/6P
R316	0920-811-0-04	CF, 10 ohm ±5% SRD 1/4P
R317	0925-444-7-84	RS, 4.7 ohm ±5% SRD 1P
R318	0925-433-3-14	RS, 330 ohm ±5% SRD 1P
R319	0920-864-7-24	CF, 4.7k ohm ±5% SRD 1/6P
R320	0920-861-8-34	CF, 18k ohm ±5% SRD 1/6P
R321	0920-864-7-34	CF, 47k ohm ±5% SRD 1/6P
R322	Not used.	
to R400		
R401	0920-866-8-24	CF, 6.8k ohm ±5% SRD 1/6P
R402	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R403	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
△FR101	0921-111-5-14	CF, 150 ohm ±5% SRD 1/4P
△FR102	0921-111-0-14	CF, 100 ohm ±5% SRD 1/4P
△FR103	0921-111-0-14	CF, 100 ohm ±5% SRD 1/4P
△FR104	0921-111-0-04	CF, 10 ohm ±5% SRD 1/4P
COILS		
L201	0013-121-0-00	Coil W/O core
L301	0013-121-0-00	Coil W/O core
DIODES		
D101	0915-005-2-00	MPG06B
	or 0915-005-2-04	MPG06D
△D102	0913-011-7-02	DR GBPC602L-6398
D103	0915-008-5-02	RD8.2ESB2
	or 0915-008-5-01	RD8.2ESB1
D104	0915-005-2-00	MPG06B
	or 0915-005-2-04	MPG06D
D105	0915-008-6-00	1SS131
D106	0915-009-8-02	RD4.7ESB2
	or 0915-009-8-03	RD4.7ESB3
D107	0915-009-8-02	RD4.7ESB2
	or 0915-009-8-03	RD4.7ESB3
D201	0915-003-9-00	1SS133
D301	0915-003-9-00	1SS133
D401	0915-003-9-00	1SS133
D402	0915-003-9-00	1SS133
D403	0915-010-5-02	RD12ESB2
ICS and TRANSISTORS		
IC101	0911-153-3-00	UPC1237H
IC102	0911-153-8-00	STK4192II
IC103	0911-080-9-00	BA4558
	or 0911-006-1-00	NJM4558D

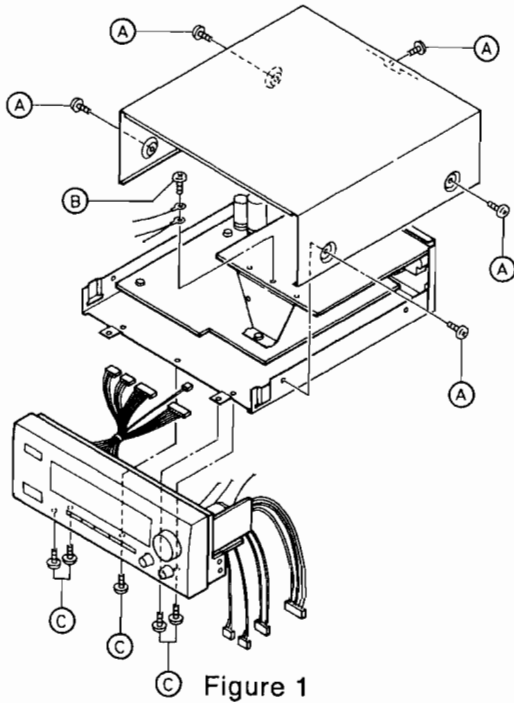
SYMBOL No.	PART No.	DESCRIPTION
IC104	0911-006-1-00	NJM4558D
	or 0911-080-9-00	BA4558
IC401	0911-152-9-00	BA6148
IC402	0911-152-9-00	BA6148
Q101	0906-200-4-55	2SC1815-GR
Q102	0906-208-5-00	BA1L4M
	or 0906-208-9-00	DTC144ES
Q201	0906-203-3-19	2SC1740S-S
Q301	0906-203-3-19	2SC1740S-S
△Q401	0906-229-1-25	2SC2235-Y
JACKS		
J101	0034-005-0-00	Pin 2P
J102	0034-003-0-00	Speaker terminal 4 pin [for E(BS)]
	0033-263-0-00	Speaker terminal 4 pin [for E, E(Z)]
J401	0033-869-0-00	6.3 mm
SWITCH		
SW101	0028-036-0-00	Push, SPPJ24
VARIABLE RESISTORS		
VR401	0031-837-2-04	SF volume control, 200k ohm
	or 0031-835-2-04	SF volume control, 200k ohm
VR402	0031-835-2-04	SF volume control, 200k ohm
	or 0031-837-2-04	SF volume control, 200k ohm
CONNECTORS		
CN101	0034-700-0-06	Pin, 6 pin
CN102	0034-755-0-06	Pin, 6 pin
CN103	0034-755-0-05	Pin, 5 pin
CN401	2920-523-0-00	Pin, 6 pin
CN402	2920-521-0-00	Pin, 2 pin
CN403	0034-755-0-02	Pin, 2 pin
CN404	2920-520-0-00	Pin, 6 pin
CN405	2920-522-0-00	Pin, 5 pin
LP101	0034-739-0-05	Connector pin, 5 pin
LP102	0034-739-0-07	Connector pin, 7 pin
SY101	0034-007-0-15	System connector pin, 15P
FUSES		
△F101	0045-093-0-40	Fuse, T, 40MA/250V
△	or 0045-093-0-41	Fuse, T, 40MA/250V
△F102	0045-020-0-40	Fuse, 1.25A/T 250V
△	or 0045-020-0-41	Fuse, 1.25A/T 250V
△F103	0045-020-0-40	Fuse, 1.25A/T 250V
△	or 0045-020-0-41	Fuse, 1.25A/T 250V
△F104	0045-020-0-40	Fuse, 1.25A/T 250V
△	or 0045-020-0-41	Fuse, 1.25A/T 250V
△F105	0045-017-0-40	Fuse, 1.6A/T 250V
△	or 0045-017-0-41	Fuse, 1.6A/T 250V
OTHERS		
FL101	0040-608-0-00	Display, BJ056GK
△LT101	0019-438-0-00	Power trans EI48x19 [for E, E(Z)]
△	0019-441-0-00	Power trans EI48x19 [for E(BS)]
△LT102	0019-440-0-00	Power trans EI86x65 [for E(BS)]
△	0019-437-0-00	Power trans EI86x65 [for E, E(Z)]
RY101	0026-087-0-00	Relay, VSB-12MB-VD [for E(BS)]
	0026-088-0-00	Relay, VS-12MBU-5-VD9 [for E, E(Z)]

SYMBOL No.	PART No.	DESCRIPTION
RY102	0026-085-0-00	Relay, VB-24MBU-5-VD
ACCESSORIES		
△	0088-016-0-01	Remote controller
	2920-910-0-01	Gift box
	4000-920-0-01	Instruction booklet [for E, E(Z)]
	4000-920-0-02	Instruction booklet [for E(BS)]
	4000-530-0-00	System connector 9 pin
	4000-531-0-00	System connector 15 pin
	4000-550-0-00	Antenna holder
	4000-940-0-00	Packed screw
	2920-915-0-00	Mirror mat
	0046-904-0-00	Loop antenna
	0047-311-0-01	Pin cord
	0047-314-0-01	Pin cord
CABINET		
301	2920-600-0-01	Sub panel ass
302	2920-812-0-01	Metal case
303	2920-730-0-00	Heat sink
304	0972-730-0-65	ST screw B3x6-SK
305	2920-603-0-00	Heat sink cover ass
306	0064-665-0-00	Cord bushing
307	0065-373-0-00	Lead wire clamper
308	2501-866-0-00	Foot
309	1483-877-1-00	Pack holder
310	2380-880-0-00	PCB spacer
311	2920-136-0-00	Fin holder L
312	2920-137-0-00	Fin holder R
313	2920-811-0-00	Bottom chassis
314	2920-814-0-09	Back panel [for E(BS)]
	2920-814-0-08	Back panel [for E, E(Z)]
315	2920-861-0-01	Knob
316	2920-880-0-00	Cushion
317	0987-004-9-00	(Washer) W3.2x15x0.8
318	0972-730-0-63	ST screw B3x6-SBK
319	0972-730-0-85	ST screw B3x8-SK
320	0972-730-1-65	ST screw B3x16-SK
321	0972-926-0-65	PT screw P2.6x6-SK
322	0973-230-0-83	BT screw B3x8-SBK
323	0973-230-0-85	BT screw B3x8-SK
△324	0047-401-0-00	AC cord [for E(BS)]
△	0047-231-1-21	AC cord [for E, E(Z)]
325	0975-140-0-65	ST screw PF4x6-SK
326	2501-881-0-00	Foot R
327	2920-270-0-00	Protector
328	0064-689-0-00	Nylon insulator

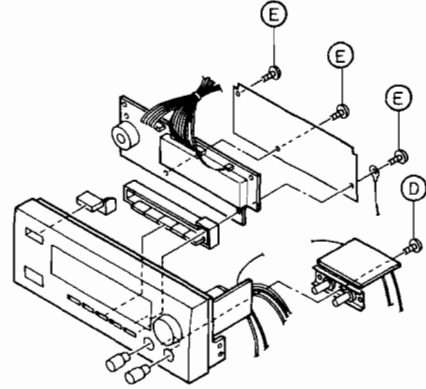
DISASSEMBLY INSTRUCTIONS

PRE-AMPLIFIER/TUNER

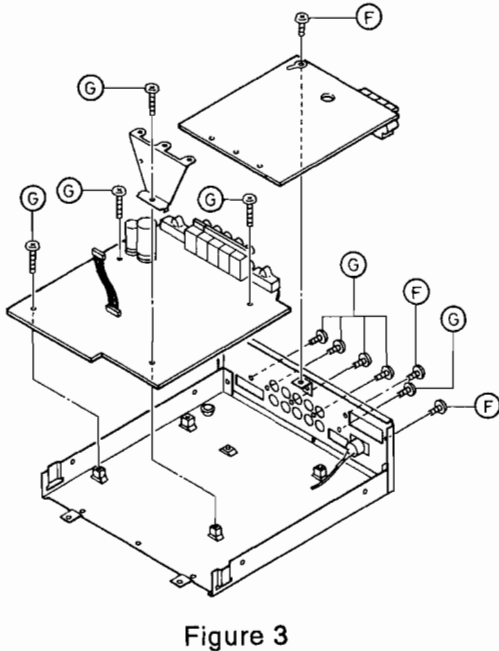
1. Remove five screws (A) holding the metal case.
2. Remove a screw (B) and five screws (C) holding the sub panel assembly.



3. Remove a screw (D) holding the tone control PWB.
4. Remove three screws (E) holding the shield plate and display PWB.



5. Remove four screws (F) holding the Tuner PWB.
6. Remove eight screws (G) holding the PCB supporter and pre-amplifier PWB.

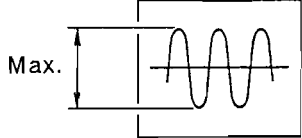


TUNER ALIGNMENT

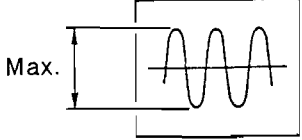
Equipment Required

1. AM S.G.
2. Loop Antenna
3. Output Meter
4. Oscilloscope
5. Frequency Counter
6. FM S.G.
7. Digital Multi Meter (DMM)
8. Dummy Load 47k Ω

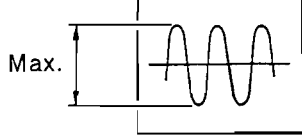
AM IF Alignment (Figures 4 and 5)

Step	Alignment	Frequency of Sweep Generator	Tuning Dial Setting	Adjustment	Remarks
	IF Calibration	999 kHz	999 kHz	L105	Obtain sine-wave and maximum amplitude. 

MW Alignment (Figures 4 and 5)

Step	Alignment	Frequency of Sweep Generator	Tuning Dial Setting	Adjustment	Remarks
1	Tuning Range Calibration	522 kHz	522 kHz	L103	Vt DMM1.1 \pm 0.1V
2					Obtain sine-wave and maximum amplitude. 
3	Adjustment of Tracking	603 kHz	603 kHz	L101	
4		1404 kHz	1404 kHz	TC101	
5	Repeat the above adjustment.				

LW Alignment (Figures 4 and 5)

Step	Alignment	Frequency of Sweep Generator	Tuning Dial Setting	Adjustment	Remarks
1	Tuning Range Calibration	153 kHz	153 kHz	L104	Vt DMM1.44 \pm 0.1V
2					Obtain sine-wave and maximum amplitude. 
3	Adjustment of Tracking	171 kHz	171 kHz	L102	
4		263 kHz	263 kHz	TC102	
5	Repeat the above adjustment.				

FM Alignment (Figures 4, 6, 7 and 8)

Step	Alignment	Frequency of Sweep Generator	Tuning Dial Setting	Adjustment	Remarks
1	IF Calibration	98.0 MHz	98.0 MHz	L106	DMM $0 \pm 30\text{mV}$ $60 \text{ dB } \mu$
2	Tuning Range Calibration	87.5 MHz	87.5 MHz		Receive
3		108.0 MHz	108.0 MHz		
4	VCO	98.0 MHz	98.0 MHz	VR101	F. Counter $19.0 \pm 0.1 \text{ kHz}$ Mode: AUTO $60 \text{ dB } \mu$

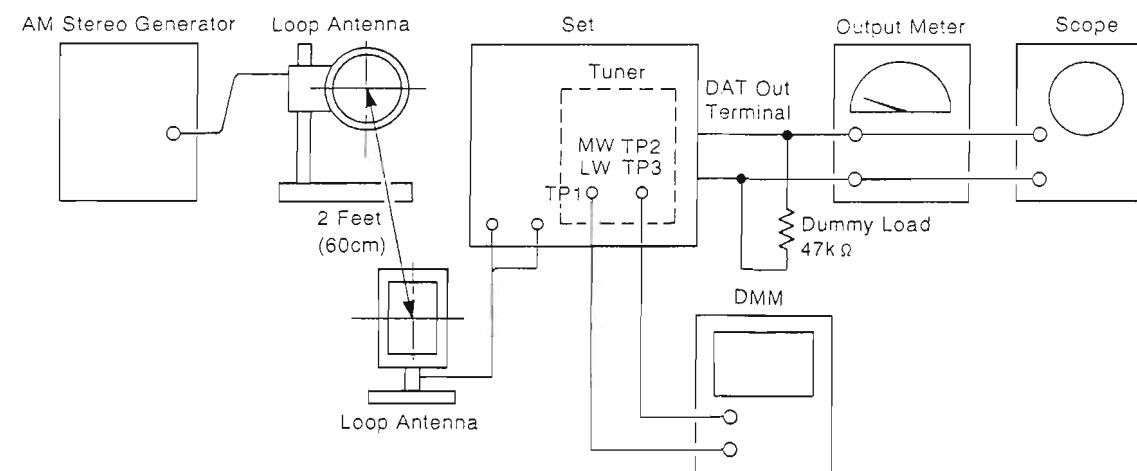


Figure 5

Tuner PWB Top View

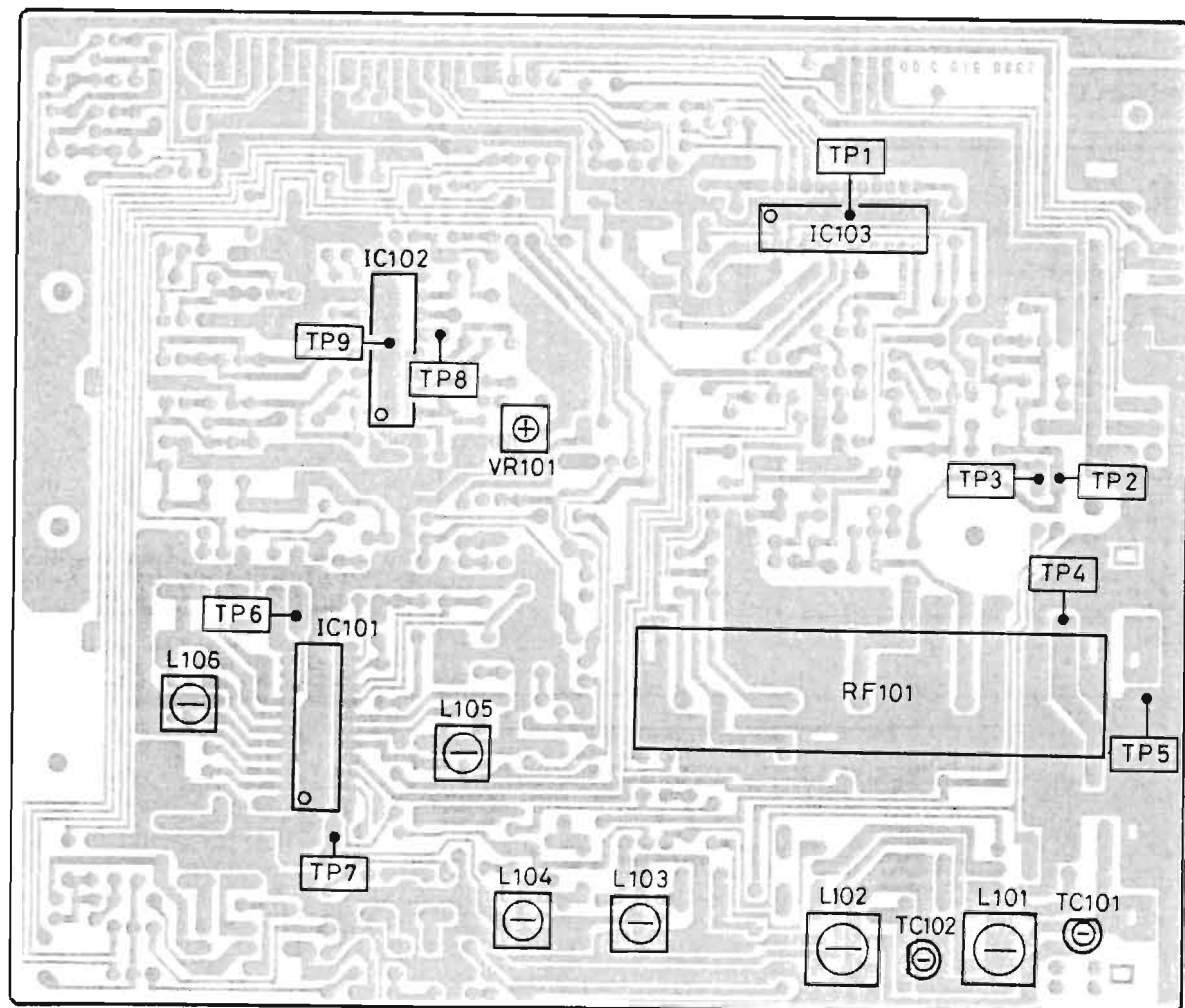


Figure 4

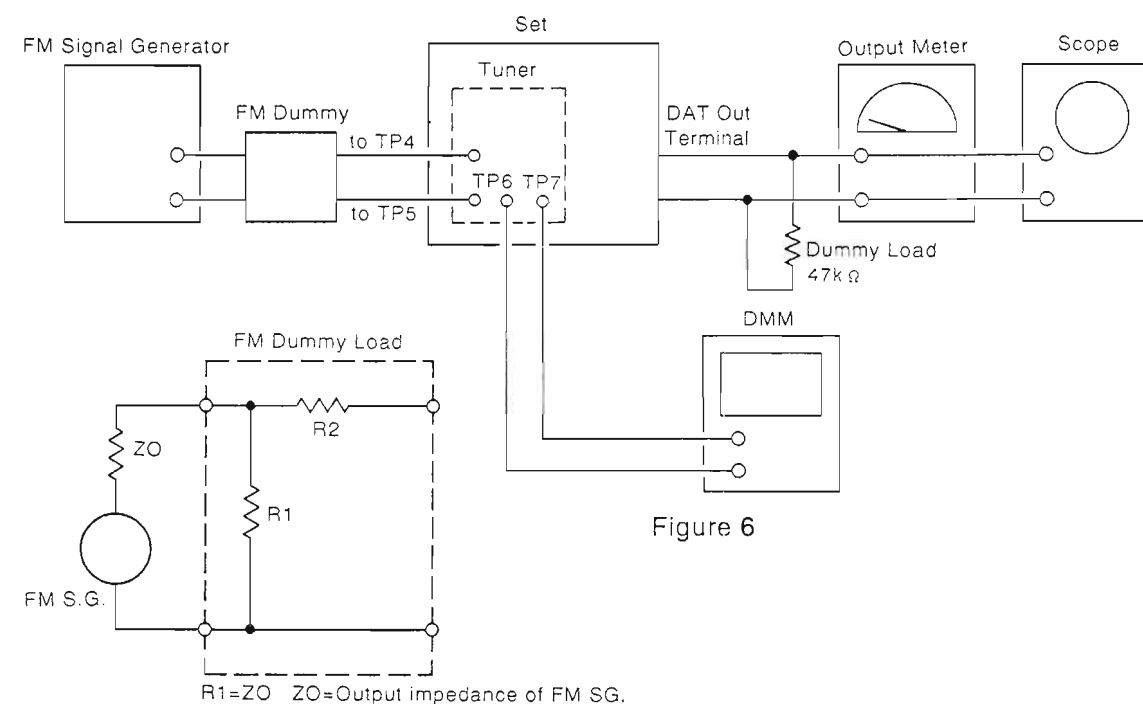


Figure 6

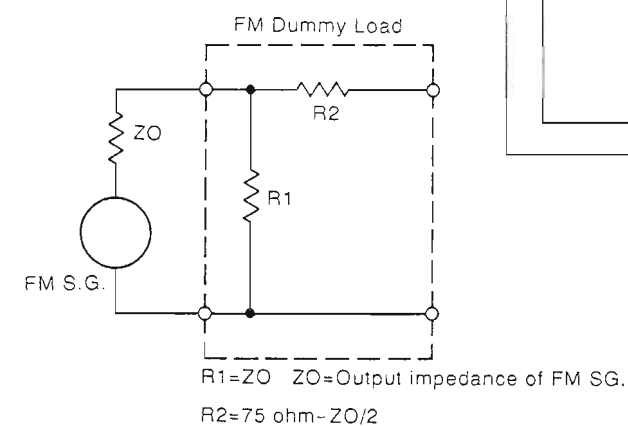


Figure 7

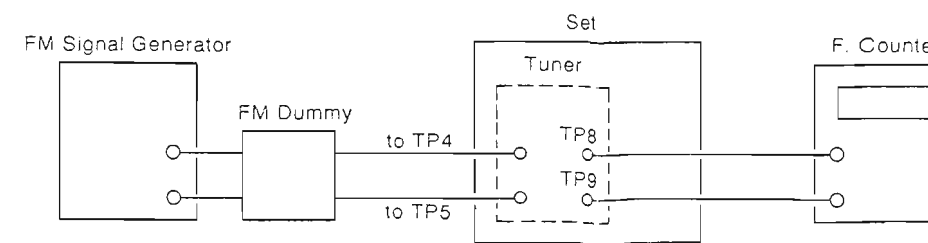
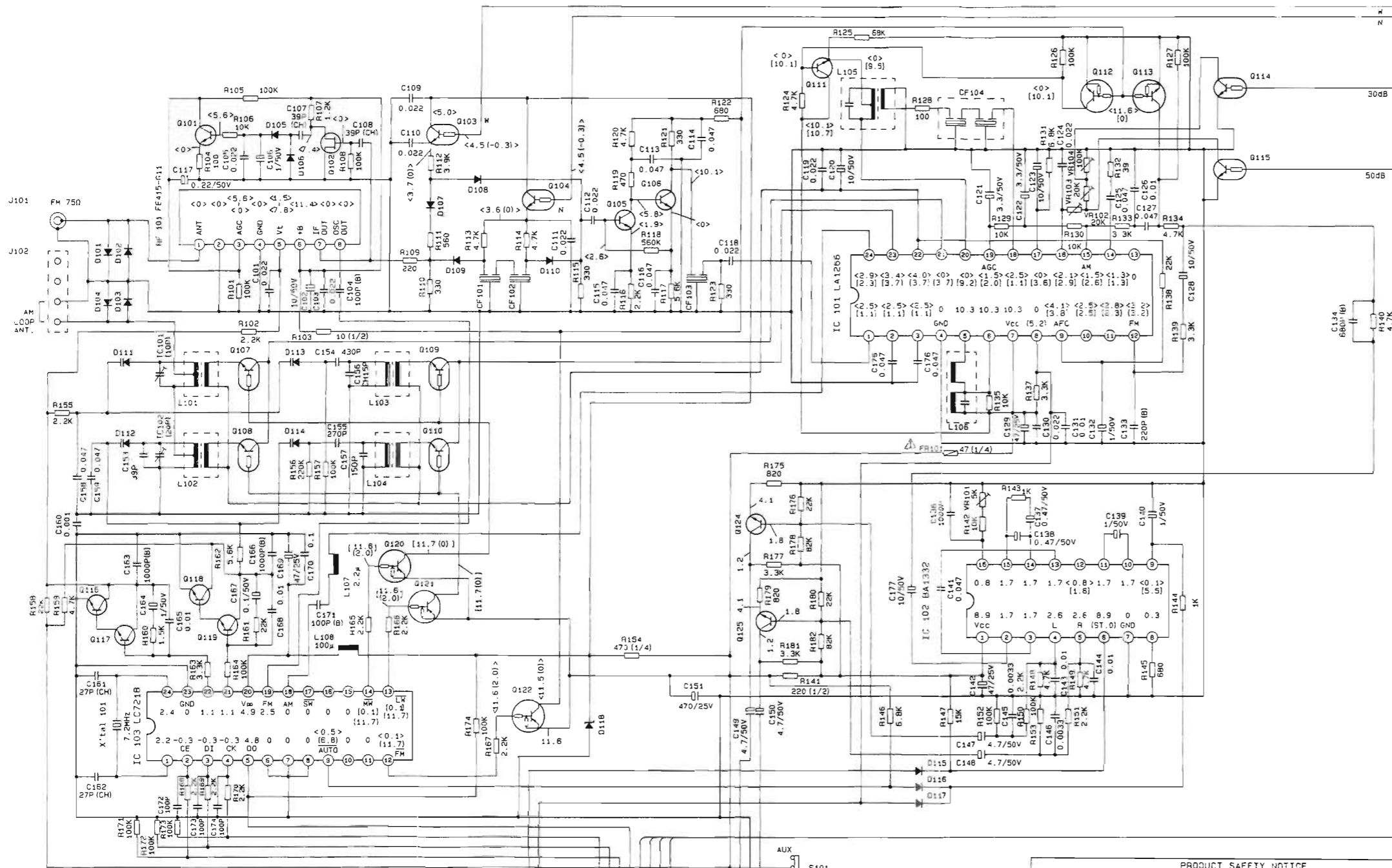


Figure 8

SCHEMATIC DIAGRAM

Tuner [for E, E(BS)]

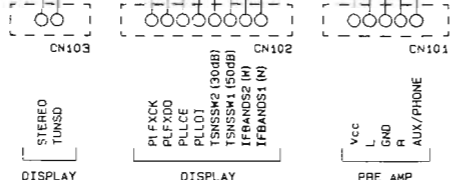


Make leakage current or resistance measurements to determine that exposed metal parts are acceptably insulated from the supply circuit before returning the appliance to the customer.

Leakage current from microphone jack and battery terminals should not exceed 0.7 mA as measured through a 2.0 kohm resistor paralleled by a 0.15 mfd capacitor to the earth ground.

PRODUCT SAFETY NOTICE
 Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by Δ in the schematic diagrams and the parts list.
 Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

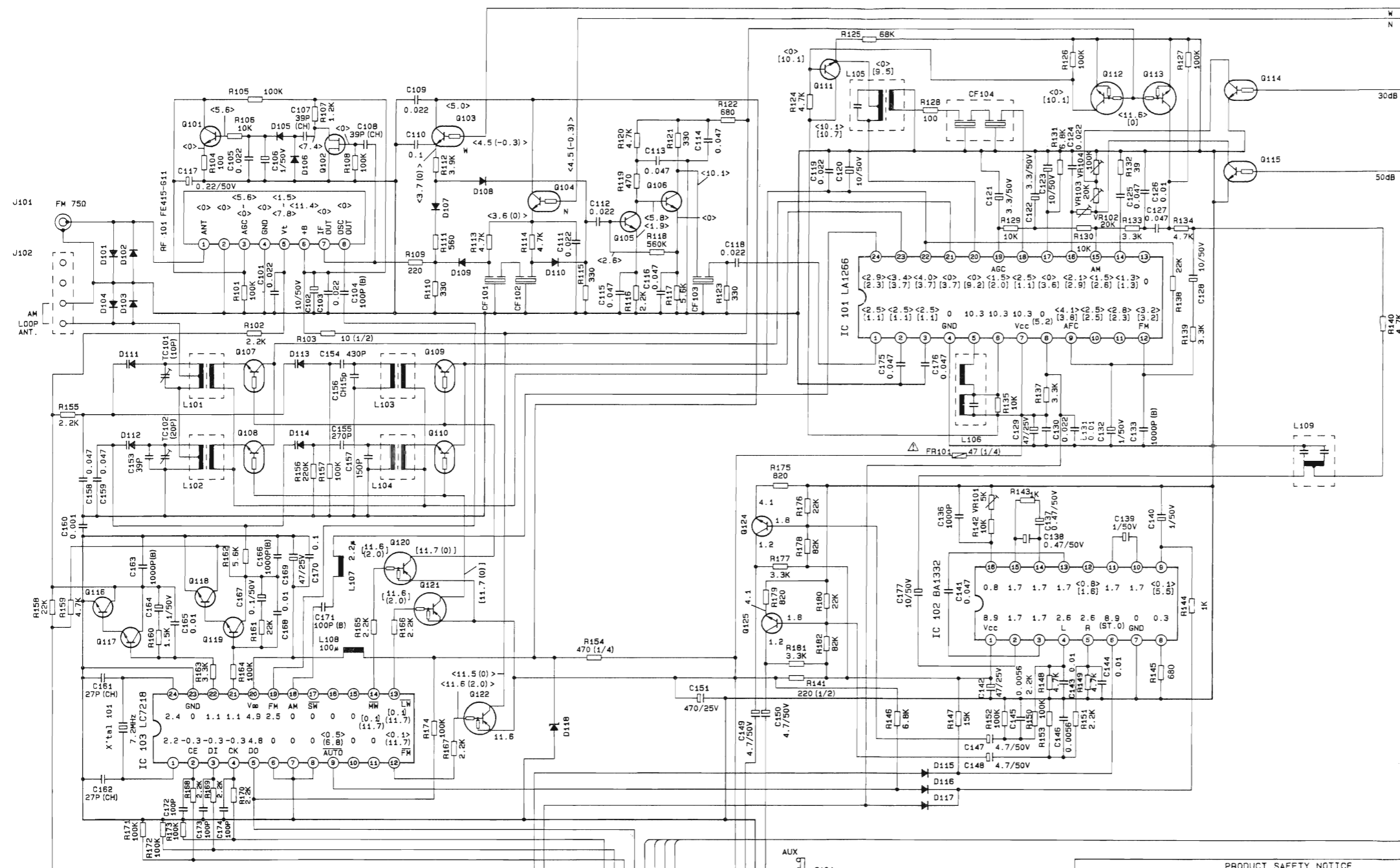
- | | | | |
|---------------------|-----------|---------------------|--------------------|
| D101, 102, 103, 104 | 15S133 | Q101 | 2SC1740LN (S) |
| 107, 108, 109, 110 | | Q102 | 2SK161 (Y) or (SR) |
| 115, 116, 117 | | Q111, 116, 117, 118 | 2SC1740S (S) |
| D105, 106 | MA700A | 119, 124, 125 | |
| C111, 112, 113, 114 | SVC321 | Q105, 106 | 2SC2869 (Y) |
| D118 | RD5.1ESB1 | Q112, 113 | DTC124ES |
| | RD5.1ESB2 | Q120, 121, 122 | DTA114ES |
| | | Q103, 104, 107, 108 | DTC144TS |
| | | 109, 110, 114, 115 | |



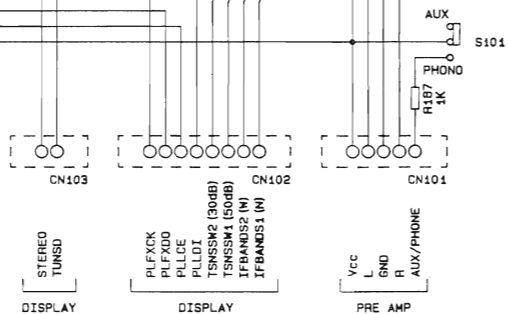
DC VOLTAGE (V)
 < > : FM
 () : AM
 NO MARK : COMMONITY
 () : ACTION

SCHEMATIC DIAGRAM

Tuner [for E(Z)]



- | | | | |
|---------------------|------------------------------|---------------------|--------------------|
| D101, 102, 103, 104 | 1SS133 | Q101 | 2SC1740LN (S) |
| 107, 108, 109, 110 | | Q102 | 2SK161 (Y) or (GR) |
| 115, 116, 117 | | Q111, 116, 117, 118 | 2SC1740S (S) |
| D105, 106 | MA700A | 119, 124, 125 | |
| D111, 112, 113, 114 | SVC321 | Q105, 106 | 2SC2669 (Y) |
| D118 | RD5.1ESB1
or
RD5.1ESB2 | Q112, 113 | DTC124ES |
| | | Q120, 121, 122 | DTA114ES |
| | | Q103, 104, 107, 108 | DTC144TS |
| | | 109, 110, 114, 115 | |



DC VOLTAGE [V]
 - - - - - FM
 AM
 () COMMUNITY
 () ACTION

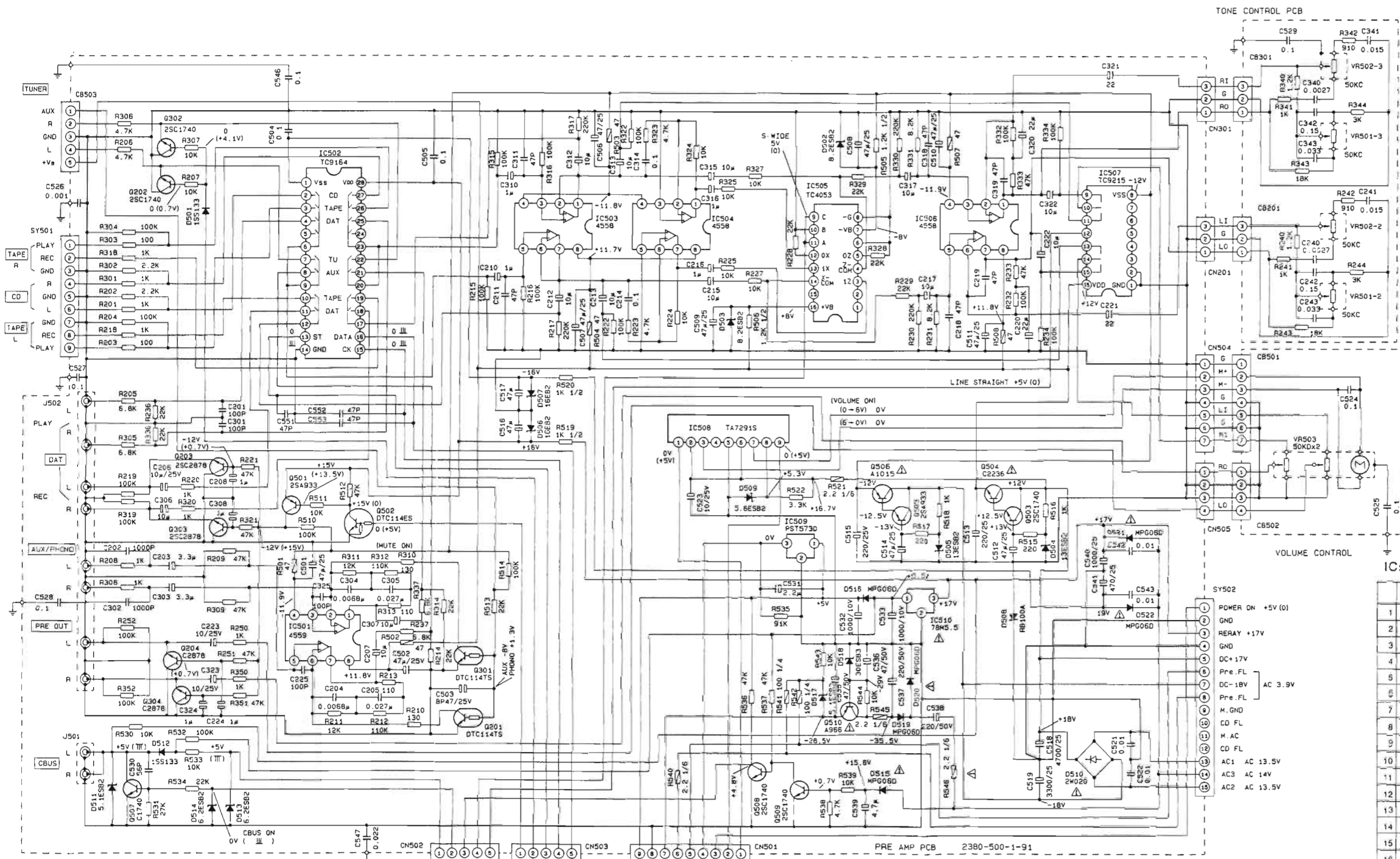
PRODUCT SAFETY NOTICE
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 Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

Make leakage current or resistance measurements to determine that exposed metal parts are acceptably insulated from the supply circuit before returning the appliance to the customer.

Leakage current from microphone jack and battery terminals should not exceed 0.7 mA as measured through a 2.0 kOhm resistor paralleled by a 0.15 μ F capacitor to the earth ground.

SCHEMATIC DIAGRAM

Pre-amplifier



Transistors Voltage [V]

	B	C	E
Q201	-8/+2.3	0	Gnd
Q301	-8/+2.3	0	Gnd
Q202	0	0	Gnd
Q302	0	0	Gnd
Q203	-12	Gnd	0
Q303	-12	Gnd	0
Q204	-12	Gnd	0
Q304	-12	Gnd	0
Q501	15	-12	+15
Q502	0	15.5	Gnd
Q503	+13	+17	+12.5
Q504	+12.5	+17	+12
Q505	-13	-18	-12.5
Q506	-12.5	-18	-12.5
Q507	0	-5V	Gnd
C508	0	+5V	Gnd
Q509	+0.7	0	Gnd
Q510	-29	-35.5	-28.5

ICs Voltage [V]

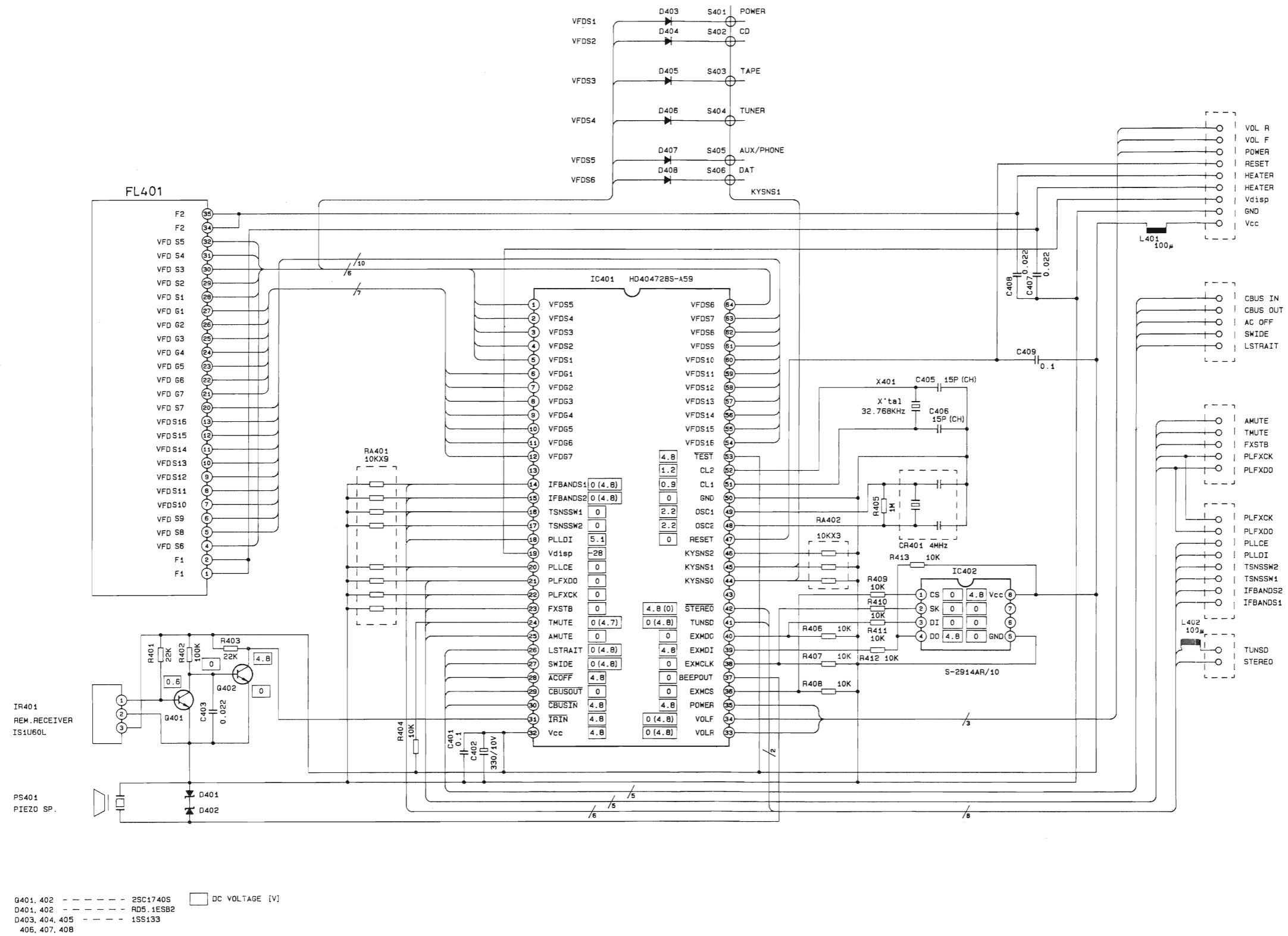
	IC501	IC503	IC504	IC506	IC502	IC505	IC507	IC508	IC510
1	0	0	0	0	-16	Open	Gnd	0	+5.5
2	0	0	0	0	0	Open	Gnd	16.7	Gnd
3	0	0	0	0	0	0	Open	0	+17
4	-11.9	-11.8	-11.8	-11.9	0	0	Open	Open	
5	0	0	0	0	0	Open	0	Open	Gnd
6	0	0	0	0	0	Gnd	Open	16.7	
7	0	0	0	0	0	-8	Open	0	
8	+11.8	+11.7	+11.7	+11.8	0	Gnd	-12	5.3	
9					0	5	0	0	
10					0	0	0		
11					0	0	5		
12					0	0	0		
13					0	0	0		
14					Gnd	0	0		
15					0	Open	0		
16					0	+8	+12		
17					0				
18					0				
19					0				
20					0				
21					0				
22					0				
23					0				
24						Open			
25					0				
26					0				
27					0				
28						+16			

PRODUCT SAFETY NOTICE
 Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements: electrical components having such features are identified by Δ in the schematic diagrams and the parts list.
 Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

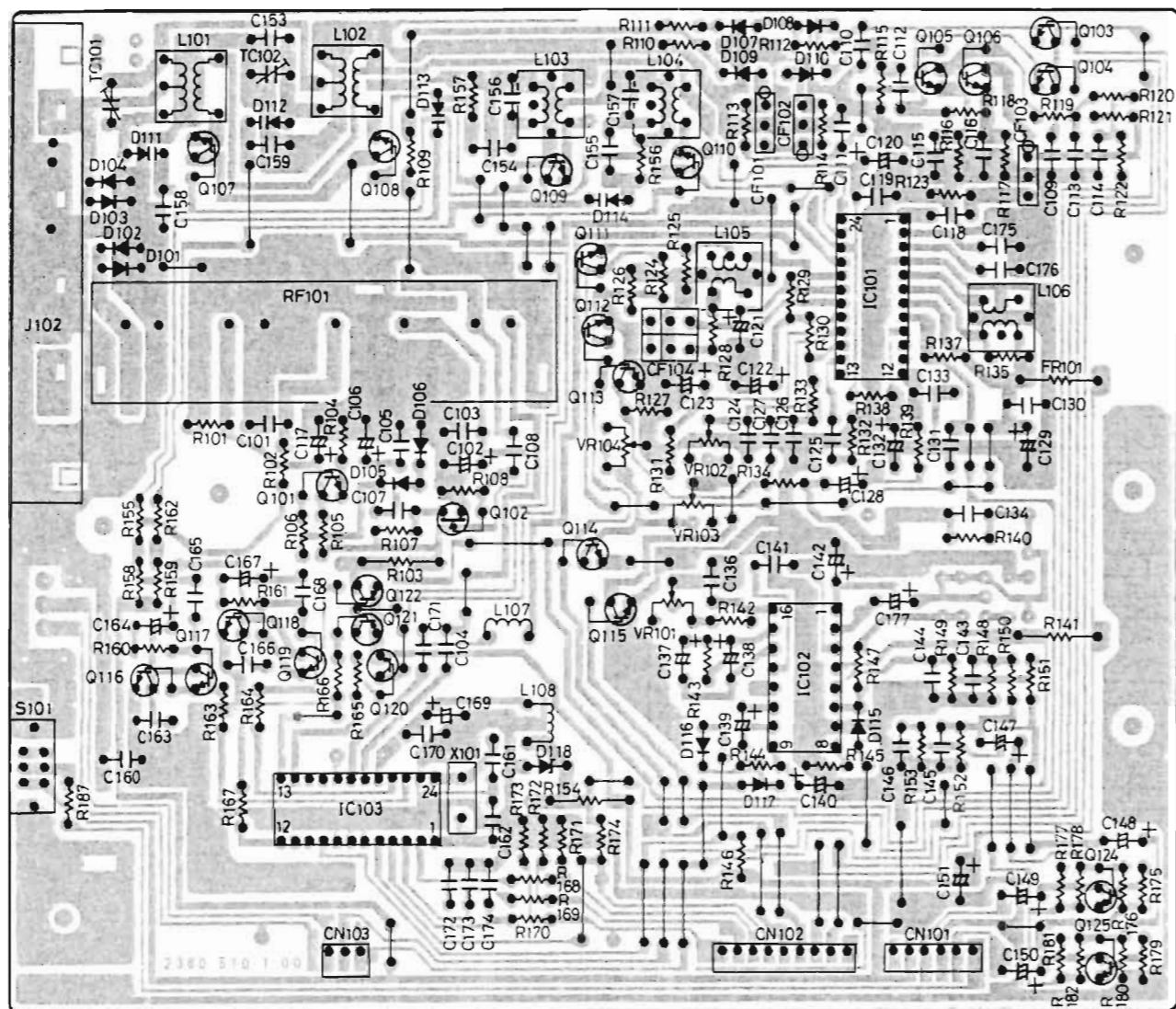
Make leakage current or resistance measurements to determine that exposed metal parts are acceptably insulated from the supply circuit before returning the appliance to the customer.
 Leakage current from headphone jack should not exceed 0.5 mA as measured through a 1.5 Kohm resistor paralleled by a 0.15 mfd capacitor to the earth ground.

SCHEMATIC DIAGRAM

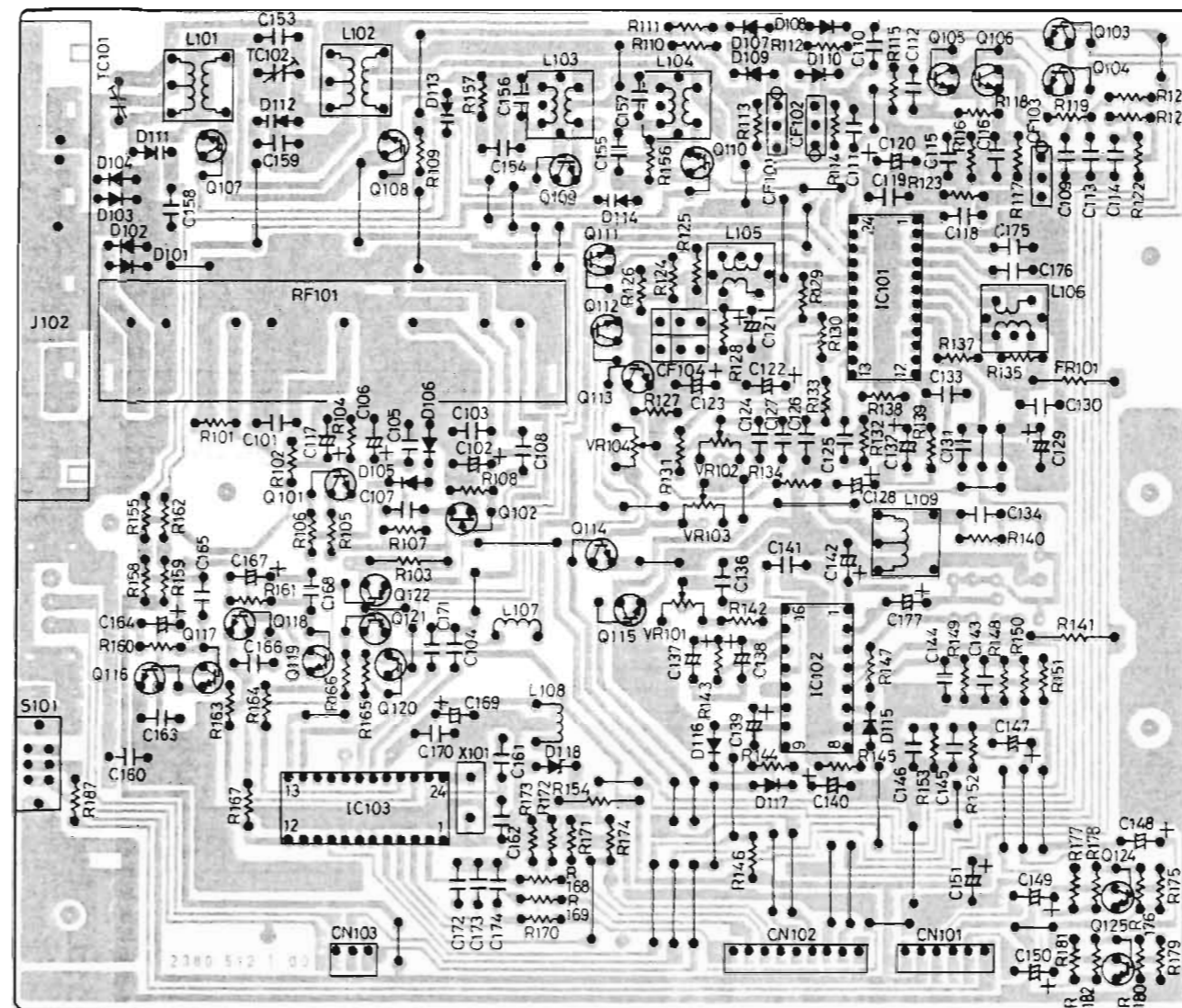
Tuner Display



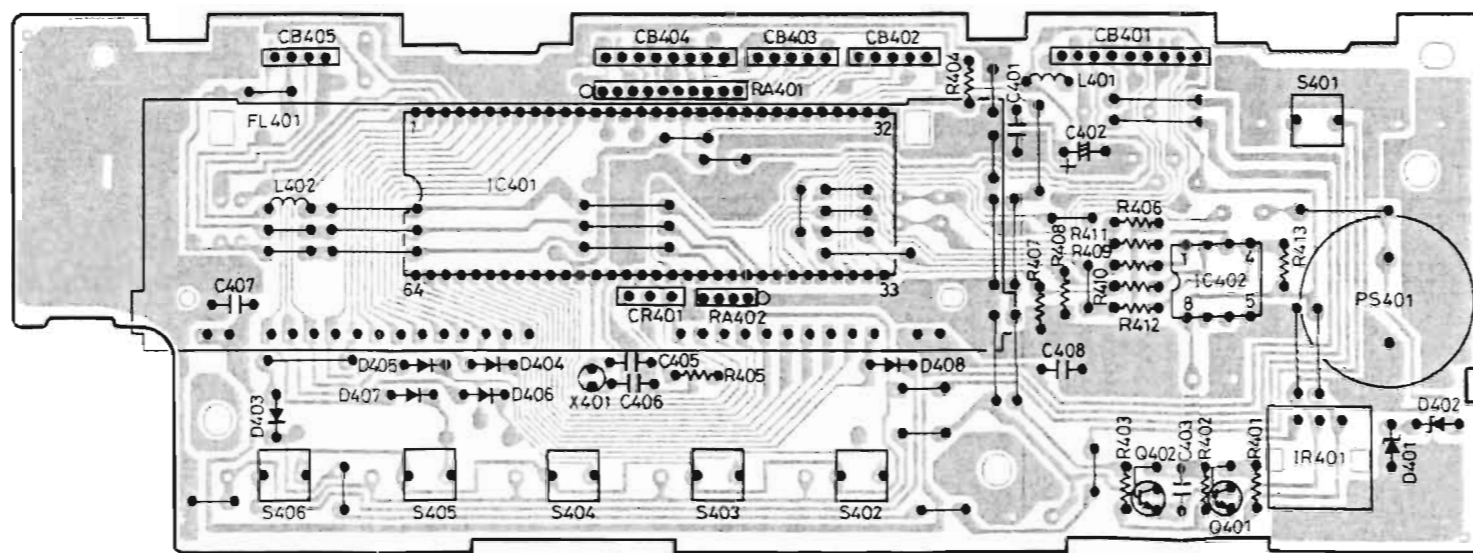
Tuner [for E, E(BS)]



Tuner [for E(Z)]



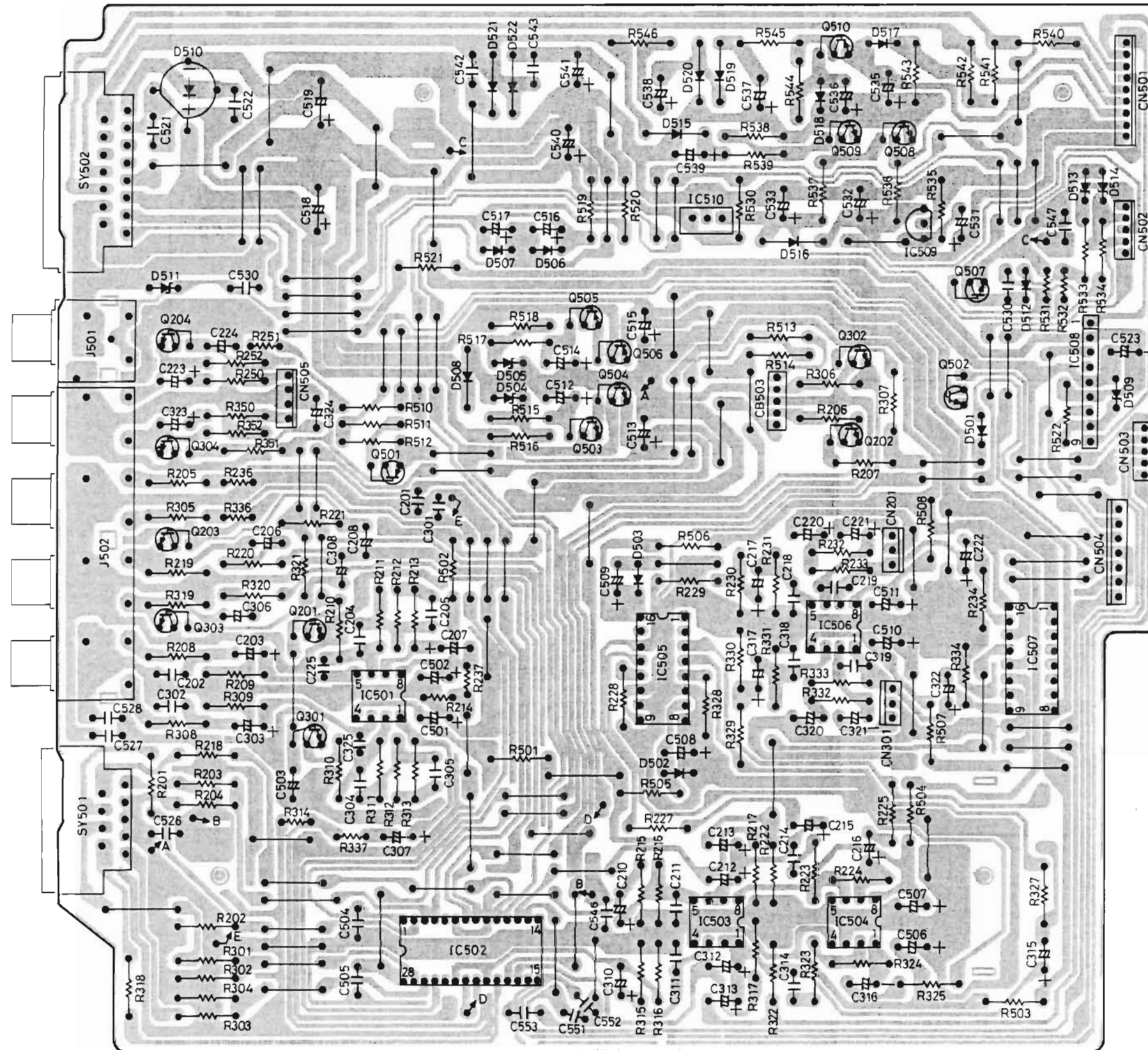
Tuner Display



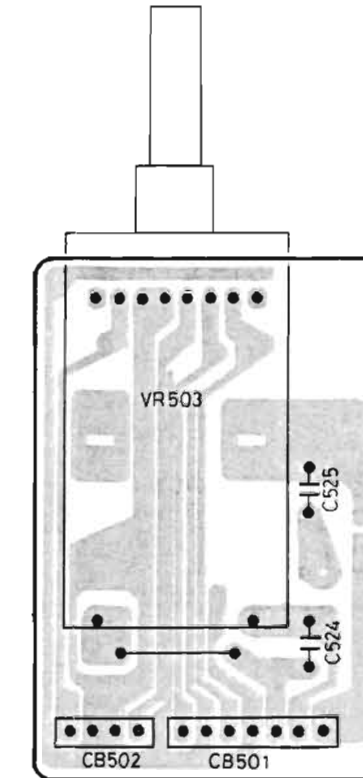
NOTE
The Original PWB Top View.
Electrical capacitors: ● mark is plus side.

PWB BOTTOM VIEW

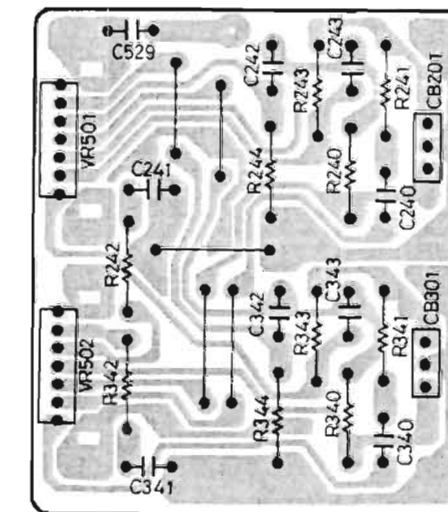
Pre-amplifier



Volume Control



Tone Control

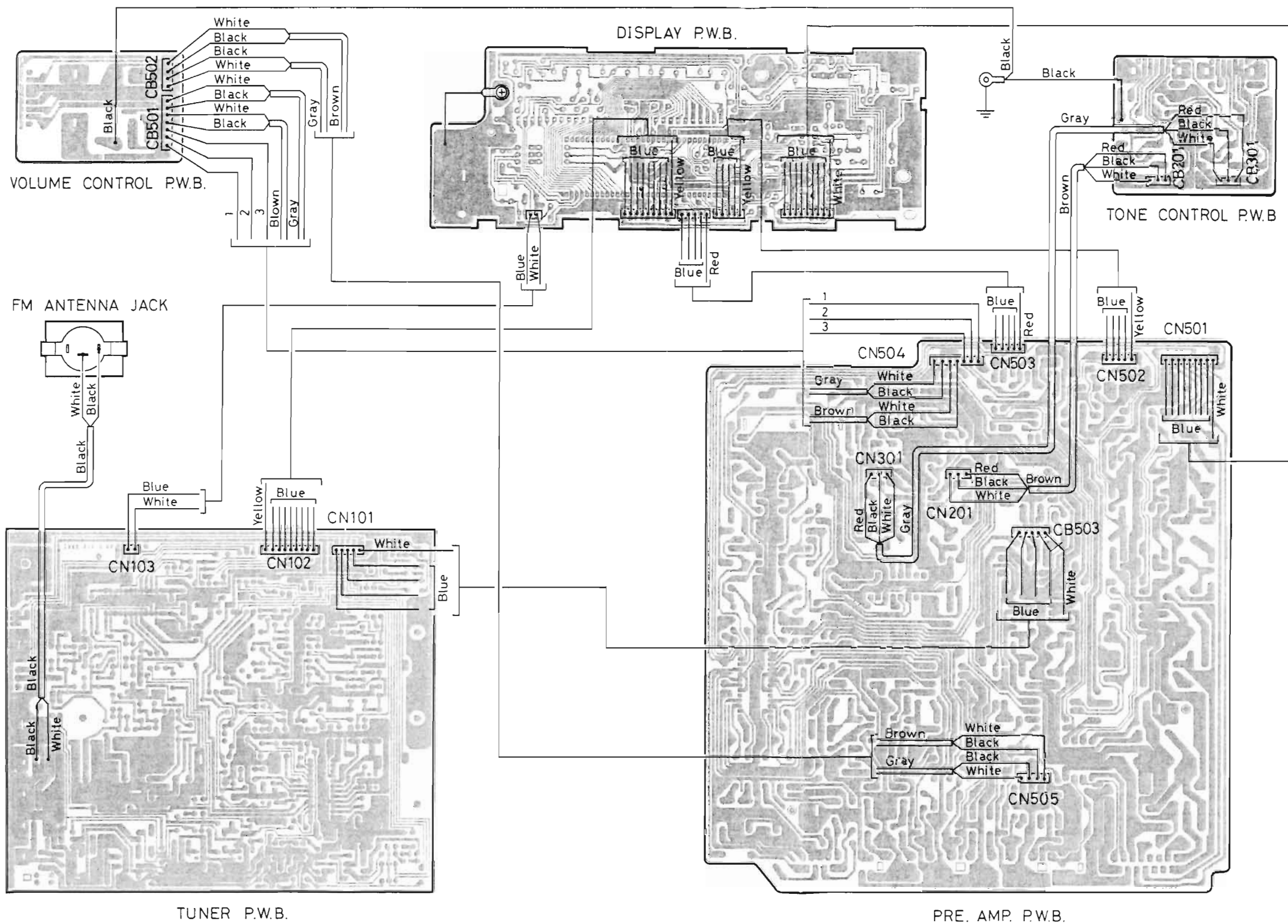


NOTE

The Original PWB Top View.
Electrical capacitors: ● mark is plus side.

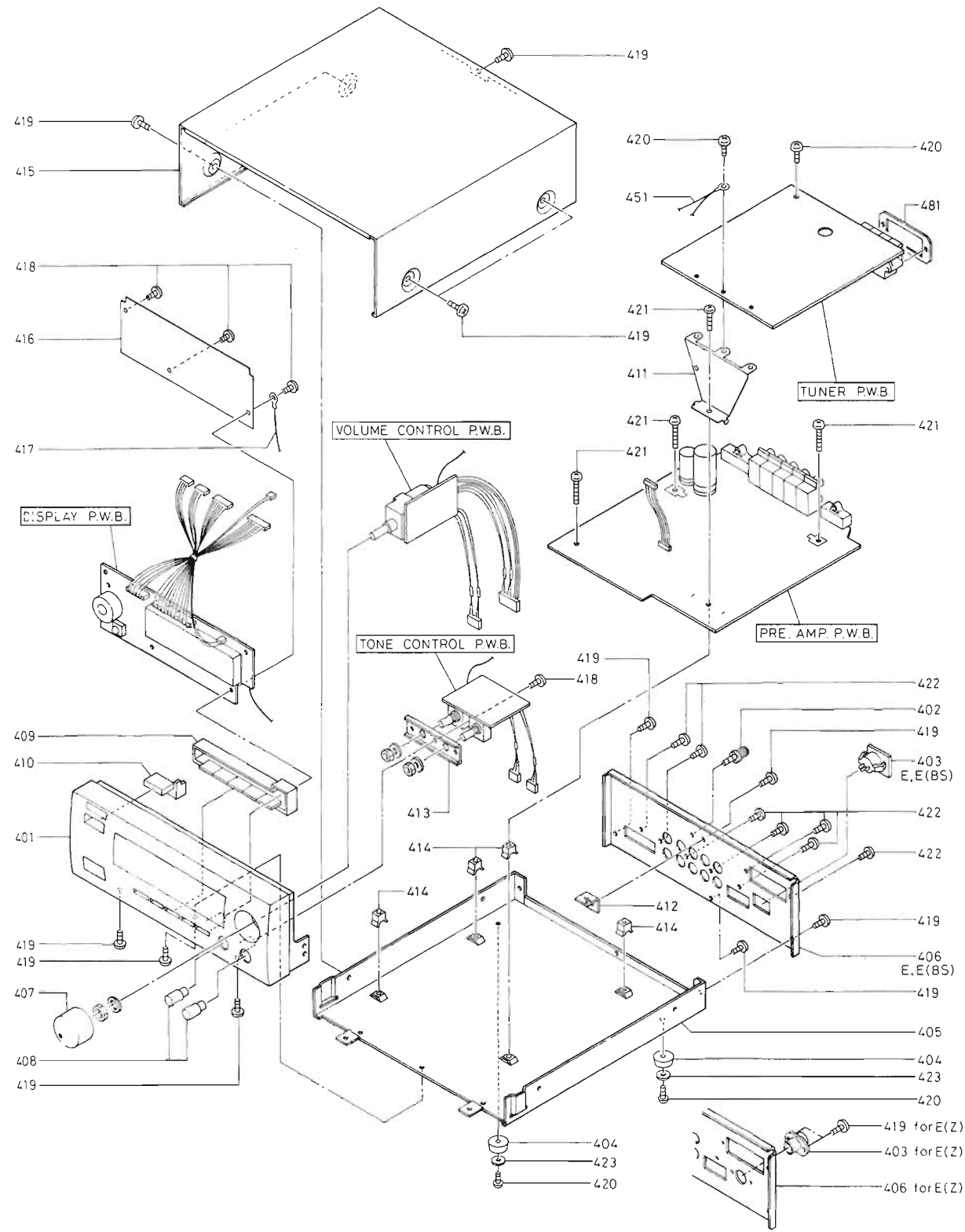
WIRING DIAGRAM

Pre-amplifier/Tuner



EXPLODED VIEW

Pre-amplifier/Tuner Cabinet



PARTS LIST

Pre-amplifier/Tuner

SYMBOL No.	PART No.	DESCRIPTION
PWB ASSEMBLY		
	2380-604-0-00	Tuner PWB ass [for E, E(BS)]
	2380-604-0-01	Tuner PWB ass [for E(Z)]
	2380-601-0-00	Pre amplifier PWB (with Volume control PWB, Tone control PWB)
	2380-605-0-00	Display PWB ass
CAPACITORS		
C101	0931-552-2-39	CD, 0.022 μ F +80/-20% 50V
C102	0937-851-0-06	EL, 10 μ F \pm 20% 50V
C103	0931-552-2-39	CD, 0.022 μ F +80/-20% 50V
C104	9301-451-0-15	CC, 100 PF \pm 10% 50V
C105	0931-552-2-39	CD, 0.022 μ F +80/-20% 50V
C106	0937-850-1-06	EL, 1 μ F \pm 20% 50V
C107	0930-243-9-04	CD, 39 PF \pm 5% 50V
C108	0930-243-9-04	CD, 39 PF \pm 5% 50V
C109	0931-552-2-39	CD, 0.022 μ F +80/-20% 50V
C110	9302-332-2-39	CC, 0.022 μ F +80/-20% 50V
	9302-351-0-49	[for E(BS), E] [for E(Z)]
C111	0931-552-2-39	CD, 0.022 μ F +80/-20% 50V
C112	0931-552-2-39	CD, 0.022 μ F +80/-20% 50V
C113	0931-554-7-39	CD, 0.047 μ F +80/-20% 50V
C114	0931-554-7-39	CD, 0.047 μ F +80/-20% 50V
C115	0931-554-7-39	CD, 0.047 μ F +80/-20% 50V
C116	0931-554-7-39	CD, 0.047 μ F +80/-20% 50V
C117	0937-852-2-96	EL, 0.22 μ F \pm 20% 50V
C118	0931-552-2-39	CD, 0.022 μ F +80/-20% 50V
C119	0931-552-2-39	CD, 0.022 μ F +80/-20% 50V
C120	0937-851-0-06	EL, 10 μ F \pm 20% 50V
C121	0937-853-3-86	EL, 3.3 μ F \pm 20% 50V
C122	0937-853-3-86	EL, 3.3 μ F \pm 20% 50V
C123	0937-851-0-06	EL, 10 μ F \pm 20% 50V
C124	0938-632-2-35	CD, 0.022 μ F \pm 10% 25V
C125	0938-634-7-35	CD, 0.047 μ F \pm 10% 25V
C126	0938-631-0-35	CD, 0.01 μ F \pm 10% 25V
C127	0938-634-7-35	CD, 0.047 μ F \pm 10% 25V
C128	0937-851-0-06	EL, 10 μ F \pm 20% 50V
C129	0937-834-7-06	EL, 47 μ F \pm 20% 25V
C130	0931-552-2-39	CD, 0.022 μ F +80/-20% 50V
C131	0931-551-0-39	CD, 0.01 μ F +80/-20% 50V
C132	0937-850-1-06	EL, 1 μ F \pm 20% 50V
C133	9301-452-2-15	CC, 220 PF \pm 10% 50V
	9301-451-0-25	[for E(BS), E] CC, 1000 PF \pm 10% 50V
C134	9301-456-8-15	[for E(Z)] CC, 680 PF \pm 10% 50V
C135	Not used.	
C136	9330-671-0-24	MF, 1000 PF \pm 5% 100V
C137	0937-854-7-96	EL, 0.47 μ F \pm 20% 50V
C138	0937-854-7-96	EL, 0.47 μ F \pm 20% 50V
C139	0937-850-1-06	EL, 1 μ F \pm 20% 50V
C140	0937-850-1-06	EL, 1 μ F \pm 20% 50V
C141	0938-634-7-35	CD, 0.047 μ F \pm 10% 25V
C142	0937-834-7-06	EL, 47 μ F \pm 20% 25V
C143	0938-631-0-35	CD, 0.01 μ F \pm 10% 25V
C144	0938-631-0-35	CD, 0.01 μ F \pm 10% 25V
C145	0938-633-3-25	CD, 3300 PF \pm 10% 25V
	0938-635-6-25	[for E(BS), E] CD, 5600 PF \pm 10% 25V
		[for E(Z)]

SYMBOL No.	PART No.	DESCRIPTION
C146	0938-633-3-25	CD, 3300 PF \pm 10% 25V
	0938-635-6-25	[for E(BS), E] CD, 5600 PF \pm 10% 25V
		[for E(Z)]
C147	0937-854-7-86	EL, 4.7 μ F \pm 20% 50V
C148	0937-854-7-96	EL, 4.7 μ F \pm 20% 50V
C149	0937-854-7-86	EL, 4.7 μ F \pm 20% 50V
C150	0937-854-7-86	EL, 4.7 μ F \pm 20% 50V
C151	0937-834-7-16	EL, 470 μ F \pm 20% 25V
C152	Not used.	
C153	0930-243-9-04	CD, 39 PF \pm 5% 50V
C154	0932-654-3-14	ST, 430 PF \pm 5% 50V
C155	0932-652-7-14	ST, 270 PF \pm 5% 50V
C156	0930-241-5-04	CD, 15 PF \pm 5% 50V
C157	0930-241-5-14	CD, 150 PF \pm 5% 50V
C158	0938-634-7-35	CD, 0.047 μ F \pm 10% 25V
C159	0938-634-7-35	CD, 0.047 μ F +80/-20% 50V
C160	0931-551-0-29	CD, 1000PF \pm 10% 25V
C161	0930-242-7-04	CD, 27 PF \pm 5% 50V
C162	0930-242-7-04	CD, 27 PF \pm 5% 50V
C163	9301-451-0-25	CC, 1000 PF \pm 10% 50V
C164	0937-850-1-06	EL, 1 μ F \pm 20% 50V
C165	0938-631-0-35	CD, 0.01 μ F \pm 10% 25V
C166	9301-451-0-25	CC, 1000 PF \pm 10% 50V
C167	0937-851-0-96	EL, 0.1 μ F \pm 20% 50V
C168	0938-631-0-35	CD, 0.01 μ F \pm 10% 25V
C169	0937-834-7-06	EL, 47 μ F \pm 20% 25V
C170	9302-351-0-49	CC, 0.1 μ F +80/-20% 50V
C171	9301-451-0-15	CC, 100 PF \pm 10% 50V
C172	9301-451-0-15	CC, 100 PF \pm 10% 50V
C173	9301-451-0-15	CC, 100 PF \pm 10% 50V
C174	9301-451-0-15	CC, 100 PF \pm 10% 50V
C175	0931-554-7-39	CD, 0.047 μ F +80/-20% 50V
C176	0931-554-7-39	CD, 0.047 μ F +80/-20% 50V
C177	0937-851-0-06	EL, 10 μ F \pm 20% 50V
C178	Not used.	
C200	Not used.	
C201	0930-001-0-14	CD, 100 PF \pm 5% 50V
C202	9301-451-0-25	CC, 1000 PF \pm 10% 50V
C203	0937-853-3-86	EL, 3.3 μ F \pm 20% 50V
C204	9336-756-8-24	MF, 6800 PF \pm 5% 50V
C205	9336-752-7-34	MF, 0.027 μ F \pm 5% 50V
C206	9363-231-0-06	EL, 10 μ F \pm 20% 25V
C207	0937-851-0-06	EL, 10 μ F \pm 20% 50V
C208	9363-250-1-06	EL, 1 μ F \pm 20% 50V
C209	Not used.	
C210	0937-850-1-06	EL, 1 μ F \pm 20% 50V
C211	9301-154-7-04	CC, 47 PF \pm 5% 50V
C212	0937-851-0-06	EL, 10 μ F \pm 20% 50V
C213	0937-851-0-06	EL, 10 μ F \pm 20% 50V
C214	0933-451-0-44	CF, 0.1 μ F \pm 5% 50V
C215	0937-851-0-06	EL, 10 μ F \pm 20% 50V
C216	0937-850-1-06	EL, 1 μ F \pm 20% 50V
C217	0937-851-0-06	EL, 10 μ F \pm 20% 50V
C218	9301-154-7-04	CC, 47 PF \pm 5% 50V
C219	9301-154-7-04	CC, 47 PF \pm 5% 50V
C220	0937-822-2-06	EL, 22 μ F \pm 20% 16V
C221	0937-822-2-06	EL, 22 μ F \pm 20% 16V
C222	0937-851-0-06	EL, 10 μ F \pm 20% 50V
C223	0937-851-0-06	EL, 10 μ F \pm 20% 50V
C224	9363-250-1-06	EL, 1 μ F \pm 20% 50V
C225	0930-001-0-14	CD, 100 PF \pm 5% 50V
C226	Not used.	
C239	Not used.	
C240	9336-752-7-24	MF, 2700 PF \pm 5% 50V
C241	9336-751-5-34	MF, 0.015 μ F \pm 5% 50V

SYMBOL No.	PART No.	DESCRIPTION
R331	0920-818-2-24	CF, 8.2k ohm ±5% SRD 1/4P
R332	0920-811-0-44	CF, 100k ohm ±5% SRD 1/4P
R333	0920-814-7-34	CF, 47k ohm ±5% SRD 1/4P
R334	0920-811-0-44	CF, 100k ohm ±5% SRD 1/4P
R335	Not used.	
R336	0920-862-2-34	CF, 22k ohm ±5% SRD 1/6P
R337	0920-866-8-24	CF, 6.8k ohm ±5% SRD 1/6P
R338	Not used.	
R339	Not used.	
R340	0920-811-2-24	CF, 1.2k ohm ±5% SRD 1/4P
R341	0920-811-0-24	CF, 1k ohm ±5% SRD 1/4P
R342	0920-819-1-14	CF, 910 ohm ±5% SRD 1/4P
R343	0920-811-8-34	CF, 18k ohm ±5% SRD 1/4P
R344	0920-813-0-24	CF, 3k ohm ±5% SRD 1/4P
R345		
to	Not used.	
R349		
R350	0920-811-0-24	CF, 1k ohm ±5% SRD 1/4P
R351	0920-814-7-34	CF, 47k ohm ±5% SRD 1/4P
R352	0920-811-0-44	CF, 100k ohm ±5% SRD 1/4P
R353		
to	Not used.	
R400		
R401	0920-862-2-34	CF, 22k ohm ±5% SRD 1/6P
R402	0920-861-0-44	CF, 100k ohm ±5% SRD 1/6P
R403	0920-862-2-34	CF, 22k ohm ±5% SRD 1/6P
R404	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R405	0920-861-0-54	CF, 1M ohm ±5% SRD 1/6P
R406	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R407	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R408	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R409	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R410	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R411	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R412	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R413	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R414		
to	Not used.	
R500		
R501	0926-214-7-04	CF, 47 ohm ±5% SRD 1/4P
R502	0926-214-7-04	CF, 47 ohm ±5% SRD 1/4P
R503	0926-214-7-04	CF, 47 ohm ±5% SRD 1/4P
R504	0926-214-7-04	CF, 47 ohm ±5% SRD 1/4P
R505	0921-521-2-24	CF, 1.2k ohm ±5% SRD 1/2P
R506	0921-521-2-24	CF, 1.2k ohm ±5% SRD 1/2P
R507	0926-214-7-04	CF, 47 ohm ±5% SRD 1/4P
R508	0926-214-7-04	CF, 47 ohm ±5% SRD 1/4P
R509	Not used.	
R510	0920-811-0-44	CF, 100k ohm ±5% SRD 1/4P
R511	0920-811-0-34	CF, 10k ohm ±5% SRD 1/4P
R512	0920-814-7-34	CF, 47k ohm ±5% SRD 1/4P
R513	0920-812-2-34	CF, 22k ohm ±5% SRD 1/4P
R514	0920-811-0-44	CF, 100k ohm ±5% SRD 1/4P
R515	0920-812-2-14	CF, 220 ohm ±5% SRD 1/4P
R516	0920-811-0-24	CF, 1k ohm ±5% SRD 1/4P
R517	0920-812-2-14	CF, 220 ohm ±5% SRD 1/4P
R518	0920-811-0-24	CF, 1k ohm ±5% SRD 1/4P
R519	0921-521-0-24	CF, 1k ohm ±5% SRD 1/2P
R520	0921-521-0-24	CF, 1k ohm ±5% SRD 1/2P
R521	0928-921-7-00	CF, 2.2 ohm SRD 1/6P
R522	0920-813-3-24	CF, 3.3k ohm ±5% SRD 1/4P
R523		
to	Not used.	
R529		
R530	0920-811-0-34	CF, 10k ohm ±5% SRD 1/4P
R531	0920-862-7-34	CF, 27k ohm ±5% SRD 1/6P
R532	0920-861-0-44	CF, 100k ohm ±5% SRD 1/6P
R533	0920-811-0-34	CF, 10k ohm ±5% SRD 1/4P
R534	0920-812-2-34	CF, 22k ohm ±5% SRD 1/4P
R535	0920-819-1-34	CF, 91k ohm ±5% SRD 1/4P

SYMBOL No.	PART No.	DESCRIPTION
R536	0920-814-7-34	CF, 47k ohm ±5% SRD 1/4P
R537	0920-814-7-34	CF, 47k ohm ±5% SRD 1/4P
R538	0920-814-7-24	CF, 4.7k ohm ±5% SRD 1/4P
R539	0920-811-0-34	CF, 10k ohm ±5% SRD 1/4P
R540	0928-912-7-00	CF, 2.2 ohm SRD 1/6P
R541	0926-211-0-14	CF, 100 ohm ±5% SRD 1/4P
R542	0926-211-0-14	CF, 100 ohm ±5% SRD 1/4P
R543	0920-811-0-34	CF, 10k ohm ±5% SRD 1/4P
R544	0920-811-0-34	CF, 10k ohm ±5% SRD 1/4P
R545	0928-912-7-00	CF, 2.2 ohm SRD 1/6P
△R546	0928-912-7-00	CF, 2.2 ohm SRD 1/6P
FR101	0921-114-7-04	CF, 47 ohm ±5% SRD 1/4P
RA401	0924-016-4-00	Array resistor 10k ohm ±5%
or	0924-019-3-00	Array resistor 10k ohm ±5%
RA402	0924-019-1-00	Array resistor 10k ohm ±5%
or	0924-019-2-00	Array resistor 10k ohm ±5%
COILS		
L101	0014-791-0-00	Coil-10
L102	0014-792-0-00	Coil-10
L103	0014-732-0-00	OSC coil-7.5, MW
L104	0014-733-0-00	OSC coil-7.5, LW
L105	0012-282-0-00	AM IFT
L106	0012-199-0-00	FM IFT-7
L107	0991-872-2-85	LAP02TA2R2KT
L108	0991-871-0-15	LAP02TA101KT
L109	0039-872-0-00	Low pass filter, MY-7317-1 [for E(Z)]
L401	0991-401-0-15	LHL06TB101K
L402	0991-871-0-15	LAP02TA101KT
FILTERS		
CF101	0039-089-0-00	Ceramic, SFE107MS2GH
CF102	0039-089-0-00	Ceramic, SFE107MS2GH
CF103	0039-067-0-00	Ceramic, SFE107MA5-A [for E(BS), E]
	0039-115-0-00	Ceramic, SFE107MS3GH [for E(Z)]
CF104	0039-062-0-00	Ceramic, SFZ450 JL
DIODES		
D101	0915-003-9-00	1SS133
D102	0915-003-9-00	1SS133
D103	0915-003-9-00	1SS133
D104	0915-003-9-00	1SS133
D105	0915-015-2-00	MA700
D106	0915-015-2-00	MA700
D107	0915-003-9-00	1SS133
D108	0915-003-9-00	1SS133
D109	0915-003-9-00	1SS133
D110	0915-003-9-00	1SS133
D111	0914-020-1-01	SVC321SPA-A-2
D112	0914-020-1-01	SVC321SPA-A-2
D113	0914-020-1-01	SVC321SPA-A-2
D114	0914-020-1-01	SVC321SPA-A-2
D115	0915-003-9-00	1SS133
D116	0915-003-9-00	1SS133
D117	0915-003-9-00	1SS133
D118	0915-009-9-02	RD5.1ESB2
or	0915-009-9-01	RD5.1ESB1
D401	0915-009-9-02	RD5.1ESB2
D402	0915-009-9-02	RD5.1ESB2
D403	0915-003-9-00	1SS133
D404	0915-003-9-00	1SS133
D405	0915-003-9-00	1SS133
D406	0915-003-9-00	1SS133
D407	0915-003-9-00	1SS133
D408	0915-003-9-00	1SS133

SYMBOL No.	PART No.	DESCRIPTION
D501	0915-003-6-00 or 0915-003-9-00	1SS270 1SS133
D502	0915-008-5-01 or 0915-008-5-02	RD8.2ESB1 RD8.2ESB2
D503	0915-008-5-02 or 0915-008-5-01	RD8.2ESB2 RD8.2ESB1
D504	0915-010-6-02	RD13ESB2
D505	0915-010-6-02	RD13ESB2
D506	0915-010-8-02	RD16ESB2
D507	0915-010-8-02	RD16ESB2
D508	0915-011-9-00	RB100A
D509	0915-007-4-03 or 0915-007-4-02	RD5.6ESB3 RD5.6ESB2
△D510	0913-011-9-00	2W02G
D511	0915-009-9-03 or 0915-009-9-02	RD5.1ESB3 RD5.1ESB2
D512	0915-003-9-00 or 0915-003-6-00	1SS133 1SS270
D513	0915-007-5-03 or 0915-007-5-02	RD6.2ESB3 RD6.2ESB2
D514	0915-007-5-02 or 0915-007-5-03	RD6.2ESB2 RD6.2ESB3
△D515	0915-005-2-04	MPG06D
△	or 0915-005-2-02	MPG06B
D516	0915-005-2-04 or 0915-005-2-02	MPG06D MPG06B
D517	0915-009-9-02 or 0915-009-9-03	RD5.1ESB2 RD5.1ESB3
D518	0915-011-4-03	RD30ESB3
D519	0915-005-2-02 or 0915-005-2-04	MPG06B MPG06D
△D520	0915-005-2-02	MPG06B
△	or 0915-005-2-04	MPG06D
△D521	0915-005-2-04	MPG06D
△	or 0915-005-2-02	MPG06B
△D522	0915-005-2-02	MPG06B
△	or 0915-005-2-04	MPG06D
ICS and TRANSISTORS		
IC101	0911-070-7-00	LA1266
IC102	0911-052-6-00	BA1332
IC103	0911-125-5-00	LC7218
IC401	0037-164-0-00	HD404728S-A59
IC402	0911-152-4-00	S-2914AR/10
IC501	0911-013-1-00	NJM4559D
IC502	0911-098-8-00	TC9164N
IC503	0911-080-9-00 or 0911-006-1-00	BA4558 NJM4558D
IC504	0911-006-1-00 or 0911-080-9-00	NJM4558D BA4558
IC505	0911-044-5-00 or 0911-016-8-00	BU4053B TC4053BP
IC506	0911-080-900 or 0911-006-1-00	BA4558 NJM4558D
IC507	0911-152-3-00	TC9215P
IC508	0911-150-5-00	TA7291S
IC509	0911-153-9-00	PST573D
△IC510	0911-132-3-00	NJM78M56FA
Q101	0906-205-3-19	2SC1740SLN-S
Q102	0906-205-7-25 or 0906-205-7-55	2SK161-Y 2SK161-GR
Q103	0906-229-0-00	DTC144TS
Q104	0906-229-0-00	DTC144TS
Q105	0906-228-9-25	2SC2669-Y
Q106	0906-228-9-25	2SC2669-Y
Q107	0906-229-0-00	DTC144TS
Q108	0906-229-0-00	DTC144TS
Q109	0906-229-0-00	DTC144TS

SYMBOL No.	PART No.	DESCRIPTION
Q110	0906-229-0-00	DTC144TS
Q111	0906-203-3-19	2SC1740S-S
Q112	0906-203-1-00	DTC124ES
Q113	0906-203-1-00	DTC124ES
Q114	0906-229-0-00	DTC144TS
Q115	0906-229-0-00	DTC144TS
Q116	0906-203-3-19	2SC1740S-S
Q117	0906-203-3-19	2SC1740S-S
Q118	0906-203-3-19	2SC1740S-S
Q119	0906-203-3-19	2SC1740S-S
Q120	0906-208-7-00	DTA114ES
Q121	0906-208-7-00	DTA114ES
Q122	0906-208-7-00	DTA114ES
Q124	0906-203-3-19	2SC1740S-S
Q125	0906-203-3-19	2SC1740S-S
Q201	0906-202-2-00 or 0906-206-4-01 or 0906-227-6-00	DTC114TS BA1A4Z RN1211
Q202	0906-203-3-18	2SC1740S-R
Q203	0906-203-5-02	2SC2878-B
Q204	0906-203-5-02	2SC2878-B
Q301	0906-227-6-00 or 0906-206-4-01 or 0906-202-2-00	RN1211 BA1A4Z DTC114TS
Q302	0906-203-3-18	2SC1740S-R
Q303	0906-203-5-02	2SC2878-B
Q304	0906-203-5-02	2SC2878-B
Q401	0906-203-3-19	2SC1740S-S
Q402	0906-203-3-19	2SC1740S-S
Q501	0906-203-4-18	2SA933S-R
Q502	0906-226-6-00 or 0906-206-2-05 or 0906-208-4-00	RN1202 DTC114ESTP BA1A4M
Q503	0906-203-3-18	2SC1740S-R
△Q504	0902-005-1-25	2SC2236-Y
Q505	0906-203-4-18	2SA933S-R
△Q506	0906-200-2-55	2SA1015-GR
Q507	0906-203-3-18	2SC1740S-R
Q508	0906-203-3-18	2SC1740S-R
Q509	0906-203-3-18	2SC1740S-R
Q510	0900-002-4-25	2SA966-Y
JACKS		
J101	0033-257-0-00	Antenna plug [for E(BS), E]
J102	0033-256-0-00	Antenna plug [for E(Z)]
J501	0034-001-0-01	Antenna terminal 4P
J502	0034-004-0-00	Pin 2P, YKC21-3085
J502	0034-006-0-00	Pin 8P, YKC21-3037
SWITCHES		
S101	0028-268-0-00	Slide
S401	0028-855-0-00	Tact
S402	0028-855-0-00	Tact
S403	0028-855-0-00	Tact
S404	0028-855-0-00	Tact
S405	0028-855-0-00	Tact
S406	0028-855-0-00	Tact
VARIABLE RESISTORS		
VR101	0031-837-5-02 or 0031-835-5-02	SF volume control, 5k ohm SF volume control, 5k ohm
VR102	0031-835-2-03 or 0031-837-2-03	SF volume control, 20k ohm SF volume control, 20k ohm
VR103	0031-837-2-03 or 0031-835-2-03	SF volume control, 20k ohm SF volume control, 20k ohm
VR104	0031-835-1-04 or 0031-837-1-04	SF volume control, 100k ohm SF volume control, 100k ohm

SYMBOL No.	PART No.	DESCRIPTION
VR501	0031-602-5-03	Rotary potentiometer
VR502	0031-602-5-03	Rotary potentiometer
VR503	0031-931-5-03	Potentiometer with motor
TRIMMER CAPACITORS		
TC101	0030-058-0-40 or 0030-058-0-00	Capacitor, trimmer
TC 102	0030-057-0-40 or 0030-057-0-00	Capacitor, trimmer
CONNECTORS		
CN101	0034-786-0-05	Pin, 5 pin
CN102	0034-786-0-08	Pin, 8 pin
CN103	0034-786-0-02	Pin, 2 pin
CN201	0034-700-0-03	Pin, 3 pin
CN301	0034-700-0-03	Pin, 3 pin
CN501	0034-755-0-09	Pin, 9 pin
CN502	0034-755-0-05	Pin, 5 pin
CN503	0034-750-0-05	Pin, 5 pin
CN504	0034-700-0-07	Pin, 7 pin
CN505	0034-700-0-04	Pin, 4 pin
SY501	0034-007-0-09	System connector pin, 9P
SY502	0034-007-0-15	System connector pin, 15P
OTHERS		
CR401	0038-911-0-00	Ceramic resonat
FL401	0040-607-0-00	FL display
IR401	0039-625-0-00	Remove receiver, IS1U60L
PS401	0023-834-0-00	Piezo speaker
RF101	0039-624-0-00	RF module, FE415-G11
X101	0038-117-0-00	Crystal 7.2 MHz
X401	0038-063-0-00	Crystal 32.768 kHz
ACCESSORIES		
	2501-910-0-02	Gift box
	2501-915-0-00	Mirror mat
CABINET		
401	2380-600-0-01	Sub panel ass
402	0033-208-0-00	Earth terminal
403	0033-257-0-00	Antenna plug [for E, E(BS)]
	0033-256-0-00	Antenna plug [for E(Z)]
404	2501-866-0-00	Foot
405	2380-811-0-00	Bottom chassis
406	2380-813-0-03	Back panel [for E, E(BS)]
	2380-603-0-02	Back panel ass [for E(Z)]
407	2380-831-0-01	VR knob set
408	2380-861-0-01	Tone knob
409	2380-862-0-01	Function button
410	2380-863-0-01	Power button
411	2380-870-0-00	PCB supporter
412	2380-871-0-00	PCB angle
413	2380-872-0-00	VR bracket
414	2380-880-0-00	PCB spacer
415	2501-812-0-01	Metal case
416	2380-550-0-00	Shield plate
417	2380-546-0-00	Lug washer W/wire, L120
418	0973-230-0-85	BT screw B3x8-SK
419	0972-730-0-63	ST screw B3x6-SBK
420	0972-730-0-65	ST screw B3x6-SK
421	0972-730-1-45	ST screw B3x14-SK
422	0973-230-0-83	BT screw B3x8-SBK
423	2501-881-0-00	Foot R

SYMBOL No.	PART No.	DESCRIPTION
424	Not used.	
to		
450		
451	2380-545-0-00	Lug washer W/wire, L105
452	Not used.	
to		
480		
481	1600-779-0-00	Connector plate SP [for E, E(BS)]

DISASSEMBLY INSTRUCTIONS

COMPACT DISC

1. Remove five screws (A) holding the metal case.

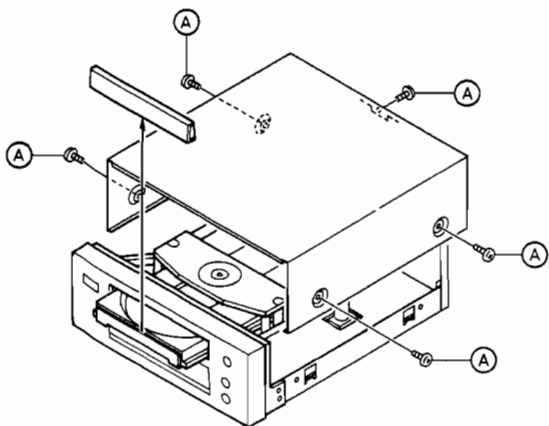


Figure 1

5. Remove ten screws (E) holding the CD amplifier PWB.

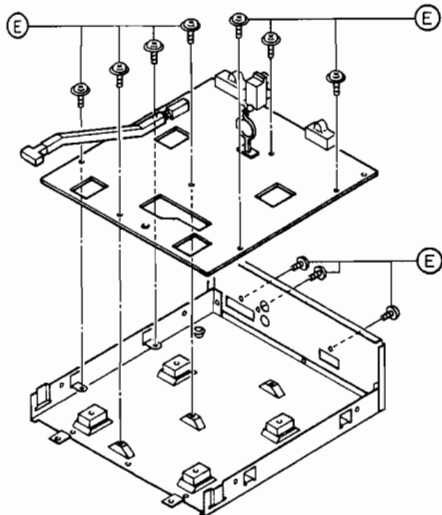


Figure 3

2. Remove five screws (B) holding the sub panel assembly.
3. Remove four screws (C) holding the display PWB.
4. Remove four screws (D) holding the CD mechanism assembly.

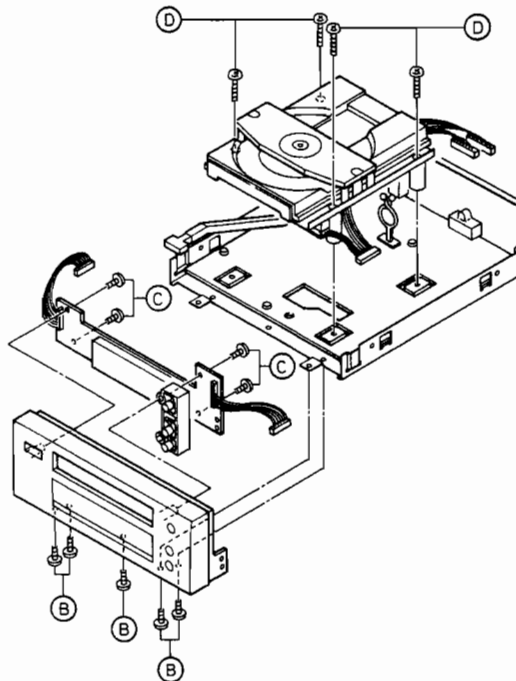


Figure 2

CD Mechanism (Figure 4)

- ① Push the tab to front side.
- ② Take out the stopper upper side.
- ③ Open the two tabs on the main chassis.
- ④ Take out the tray to front side.

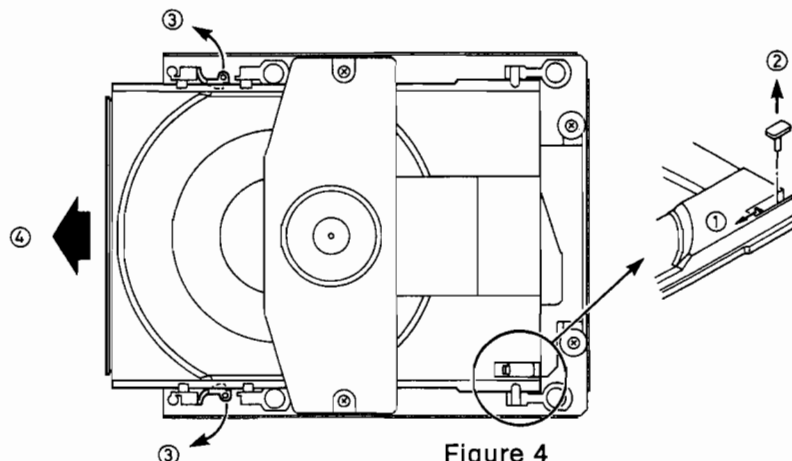


Figure 4

INSTRUCTION FOR HANDLING OPTICAL SYSTEM BLOCK PICKUP

Electrostatic breakdown of the laser diode in the optical system block may occur due to a potential difference caused by electrostatic charge accumulated on clothing, human body, etc. A ground must be provided as follows to prevent any electrostatic charge during unpacking or repair work.

1. Ground for Human Body

Be sure to wear a grounding band (1M ohm) that is properly grounded to remove any static electricity that may be charged on the body.

2. Ground for Work Bench

Be sure to place a conductive sheet (1M ohm) or copper plate with proper grounding on the work bench or other surface on which the pickup is to be placed.

3. Because the static electricity charge on the clothing does not discharge through the body grounding band, do not let clothing contact the pickup unit.

Incorrect

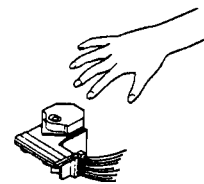


Figure 5

Correct

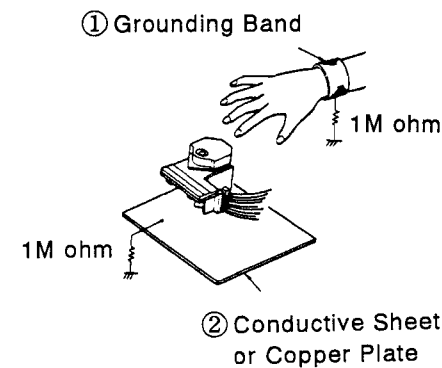


Figure 6

Note: Laser diodes are so susceptible to damage from static electricity that even if a static discharge does not ruin the diode, it can shorten its life or cause it to work improperly.

PRECAUTIONS FOR CHECKING BEAM EMISSION OF LASER DIODE

The laser beam of this unit is focused on the reflecting surface of the objective lens in the optical system block. Therefore, keep your eyes at least 12 inches (30cm) away from the objective lens when the laser diode is ON.

Operation Check Method for Laser Diode and Focus Search Function

When the POWER switch is turned ON after the chucking arm is removed, observe the objective lens and confirm that the following operations are performed properly.

(The optical system block should be at the lead-in area position when it is checked at this time.)

- (1) The disc table should be at the innermost position after the chucking arm is removed.
- (2) This diffused light of the laser beam can be seen when the POWER switch is turned ON.
- (3) Vertical (up and down) movement of the objective lens (2 or 3 times) will take place.

PICKUP REPLACEMENT

Caution:

Laser diodes are extremely susceptible to damage from static electricity. Even if a static discharge does not ruin the diode, it can shorten its life or cause it to work improperly. When replacing the pickup, use a conductive mat, a grounded soldering iron, and so on, to protect the laser diode from static damage.

1. Remove the CD mechanism assembly by referring to Disassembly Instructions.

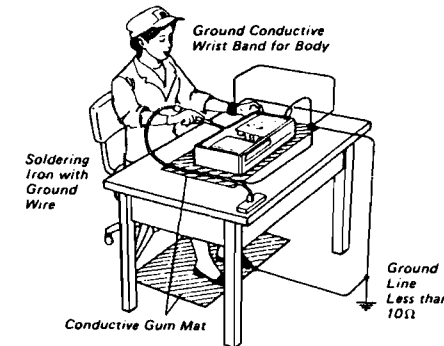


Figure 7

2. Remove a washer (A) holding the gear. (See Figure 8.)

3. Remove two screws (B). (See Figure 8.)

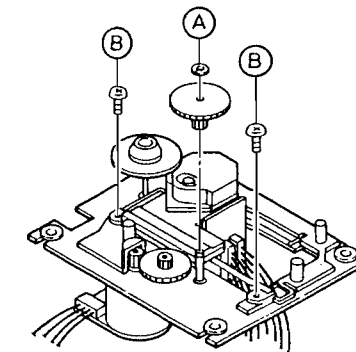


Figure 8

4. Take out the pickup (1). Then pull out the shaft (2). (See Figure 9)

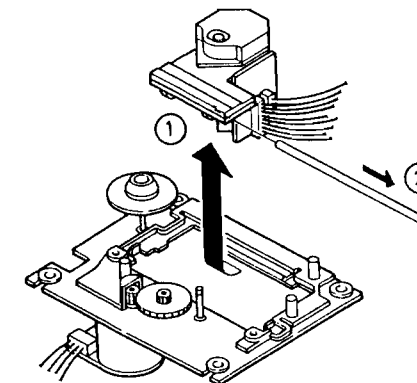


Figure 9

5. After you connect the wire connector, desolder and remove the shorting tab. (See Figure 10)

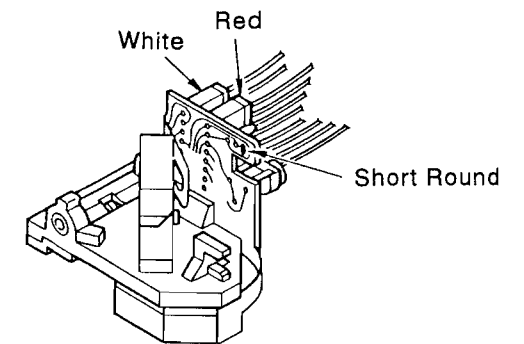


Figure 10-1

6. Refer to the drawings of exploded view of the compact disc mechanism in page 83 for the detailed information.

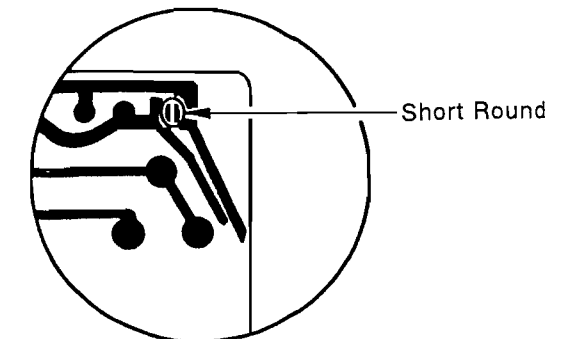


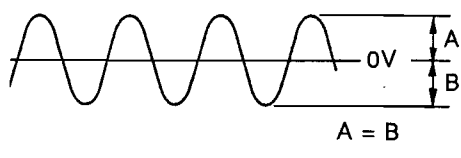
Figure 10-2

CD ADJUSTMENT

PLL (Phase Locked Loop) Adjustment

Step	Connect	Setting	Adjust	Remarks
1	See Figure 11	Push the power switch to on.	VR105	Counter reading to be 4.32MHz. Connect TP104 (ASY) to TP103 (Gnd).

E-F Balance Adjustment

Step	Connect	Setting	Adjust	Remarks
1	See Figure 12	Play the test disc, Sony YEDS-7.		
2		Push the "◀◀" or "▶▶" key on a remote to set to FF or FB mode.	VR101	Tracking error signal (TE).

Focus Servo Offset Adjustment

Step	Connect	Setting	Adjust	Remarks
1	See Figure 13	STOP mode	VR102	Adjust the VR102 to obtain the focus servo offset voltage $250 \pm 20\text{mV}$ at the stop mode.

PLL (Phase Locked Loop) Adjustment

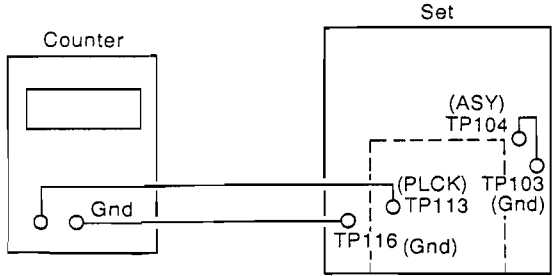


Figure 11

E-F Balance Adjustment

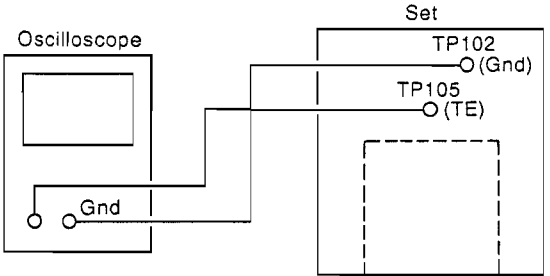


Figure 12

Focus Servo Adjustment

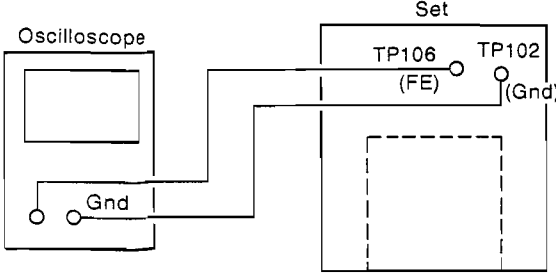
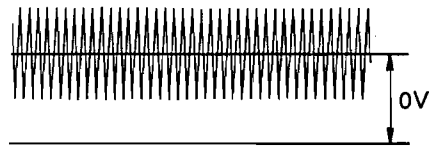
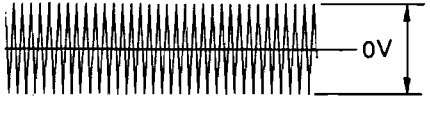


Figure 13

Focus Servo Gain Adjustment

Step	Connect	Setting	Adjust	Remarks
1	See Figure 14	Play the test disc, Sony YEDS-7	VR103	 Focus error signal of about 100mV.

Tracking Servo Gain Adjustment

Step	Connect	Setting	Adjust	Remarks
1	See Figure 15	Play the test disc, Sony YEDS-7	VR104	 Obtain the tracking drive signal of about 1Vp-p.

Focus Servo Gain Adjustment

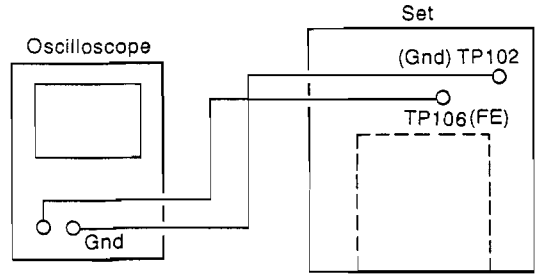


Figure 14

Tracking Servo Gain Adjustment

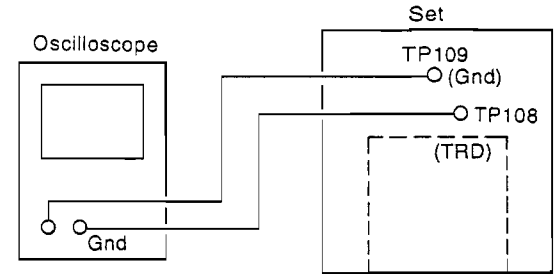
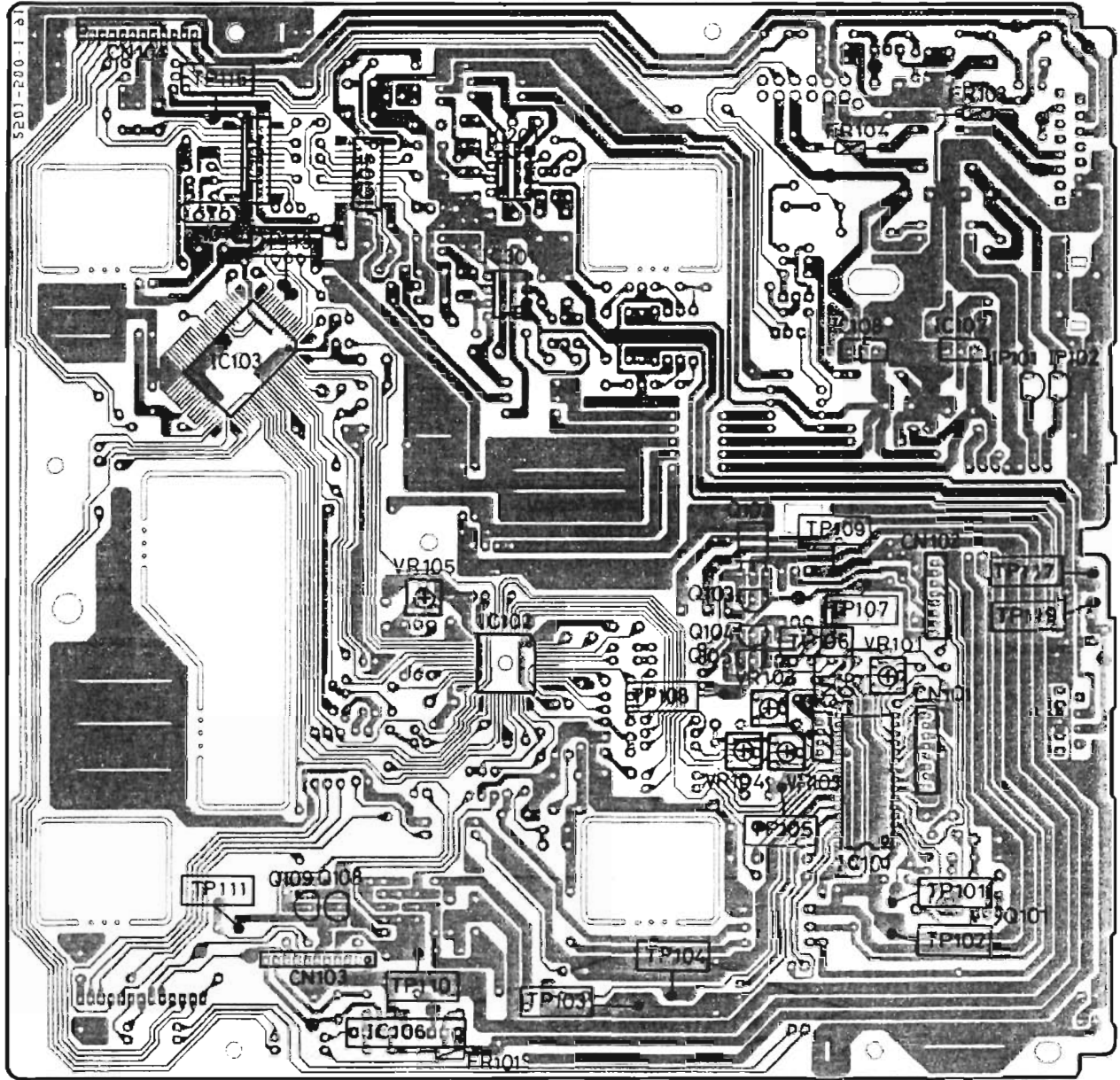


Figure 15

CD PWB Top View



CD Display PWB Top View

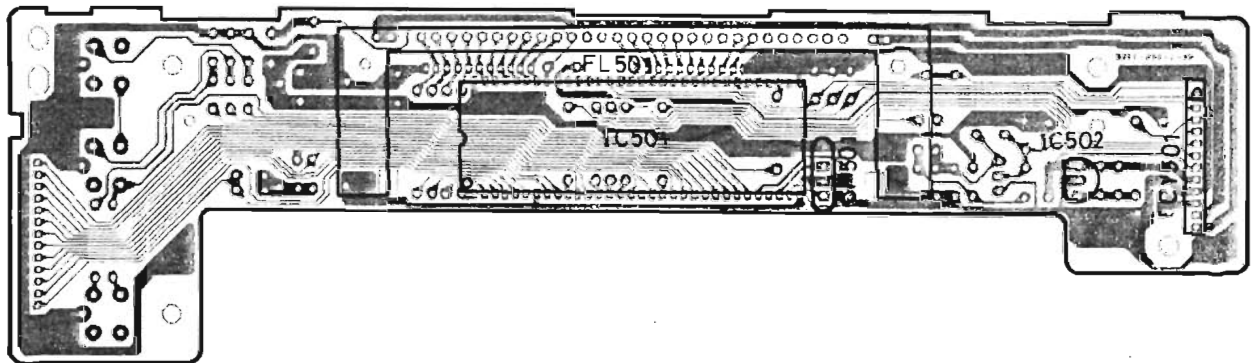
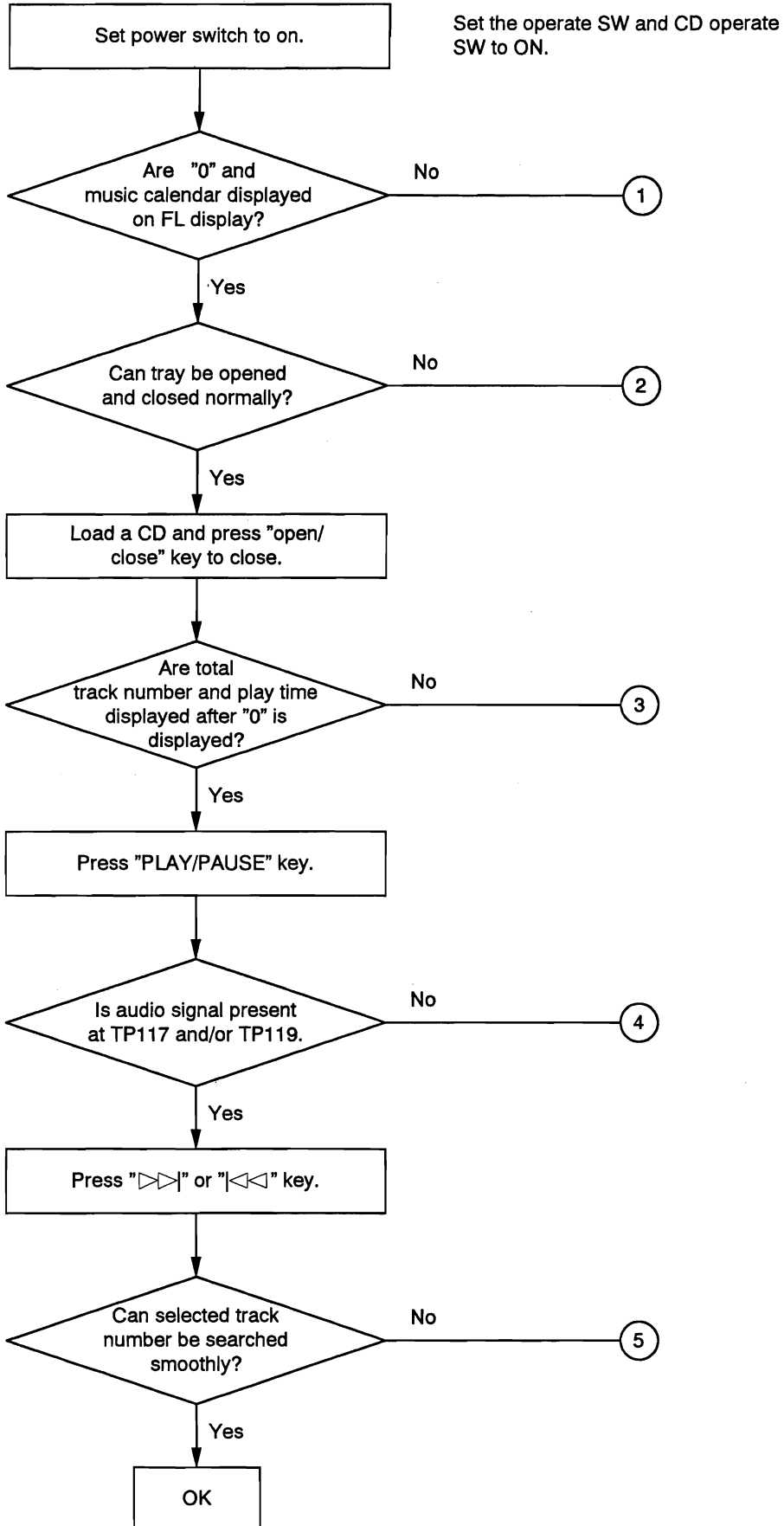


Figure 16

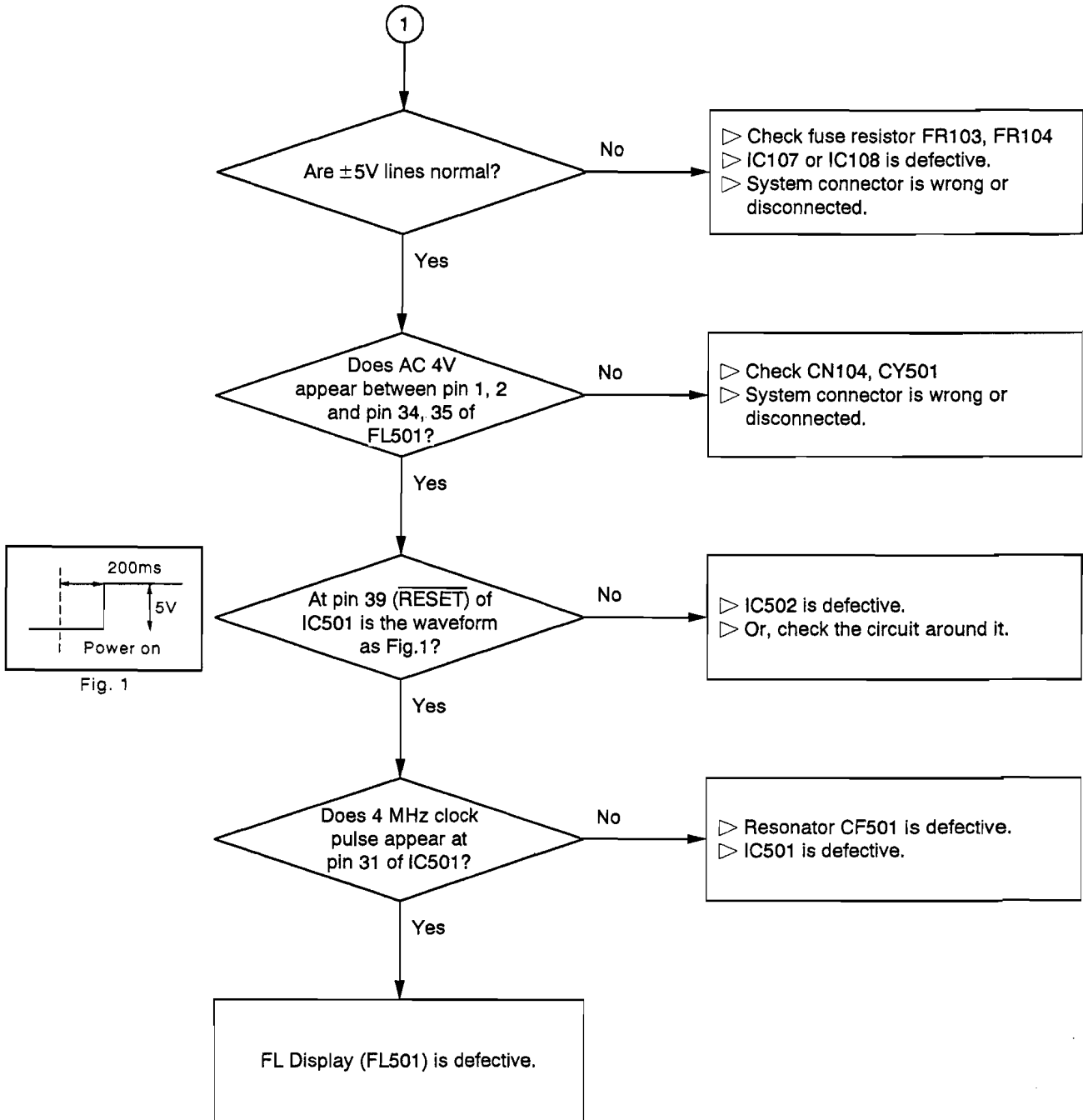
TROUBLESHOOTING

SW → Switch

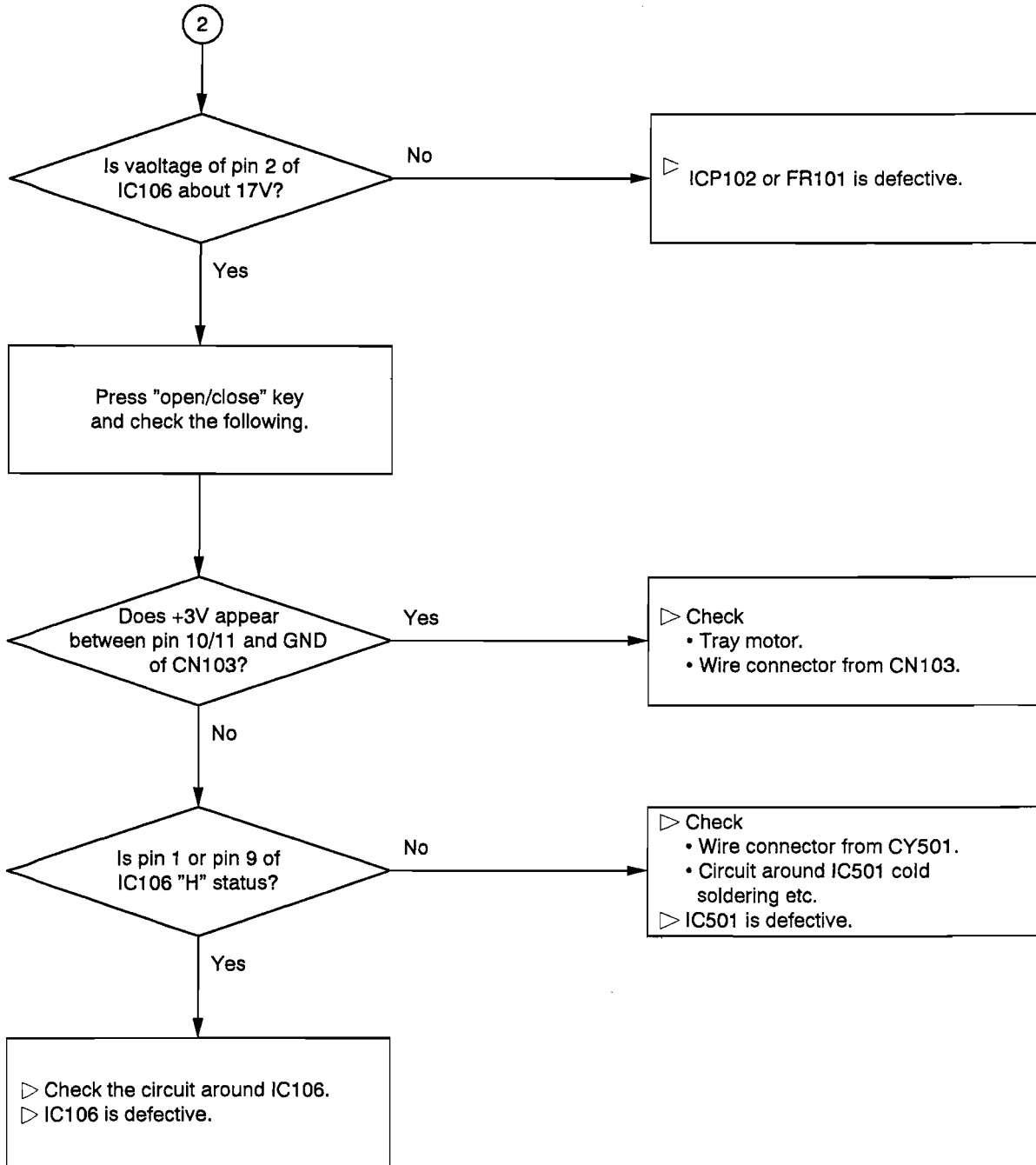
Compact Disc
(See Figure 16)



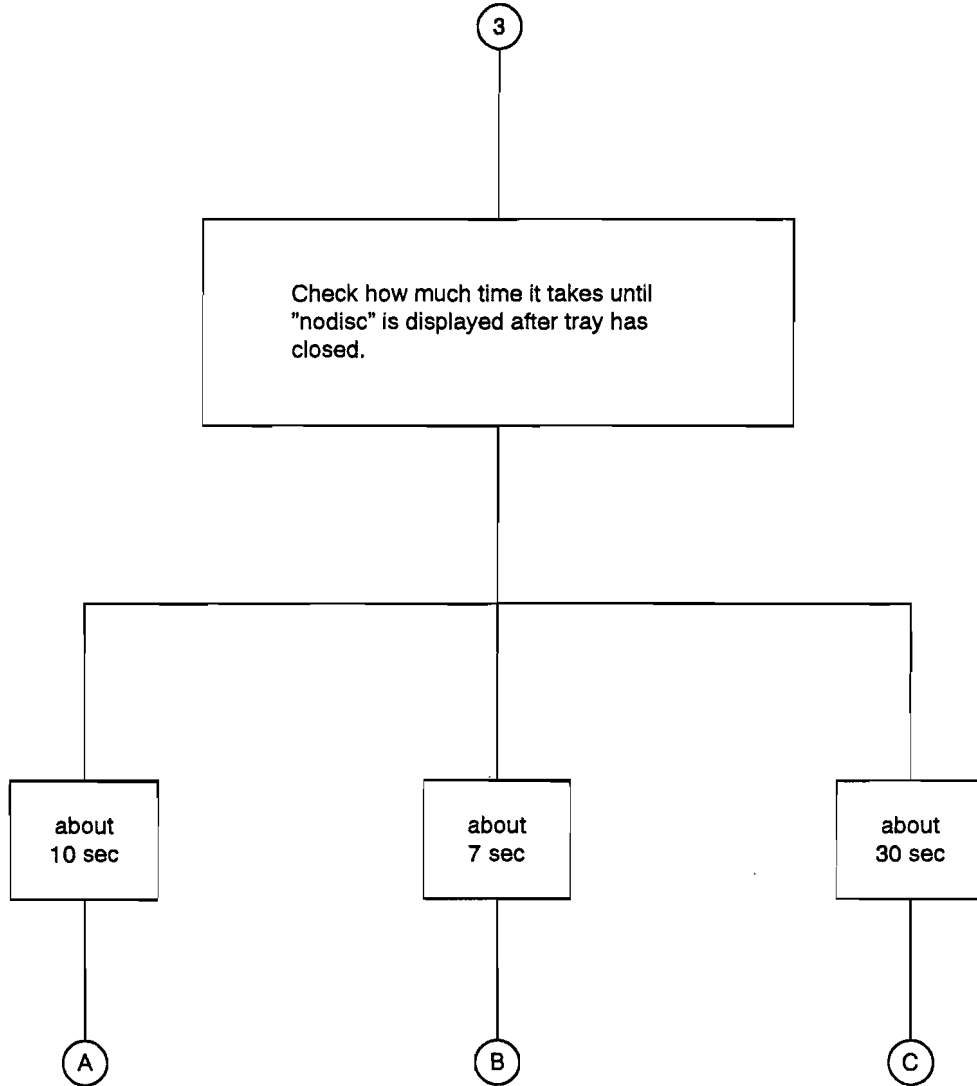
[Repair Item 1] At power on, "music calendar" and "0" are not displayed.



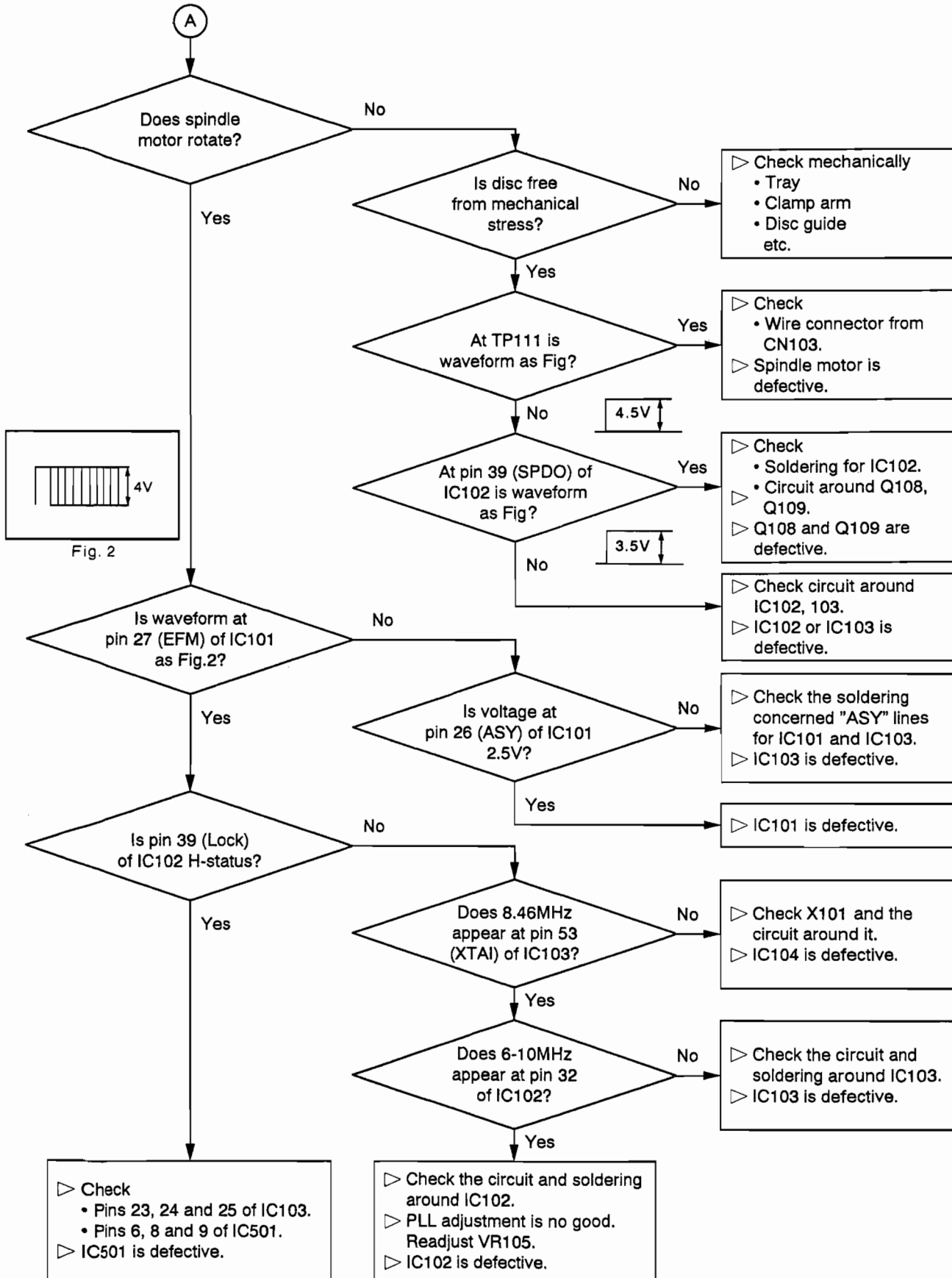
[Repair Item 2] Tray cannot be opened and closed by pressing "open/close" key.



[Repair Item 3] "nodisc" is displayed instead of total track number and play time after "0" is displayed.

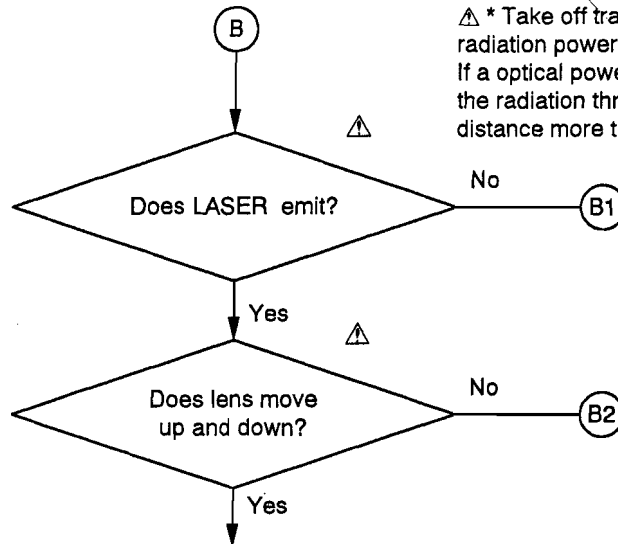


[Repair Item 3-A]



[Repair Item 3-B]

⚠ * Take off tray and clamber arm, and measure radiation power with a optical power meter: If a optical power meter is not available, watch the radiation through the lense of pickup unit with distance more than 30cm from Pickup Unit.



Load a disc and press "open/close" key repeatedly. And check the following.

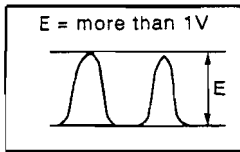


Fig. 3

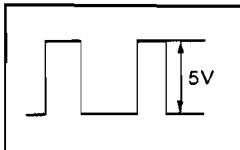


Fig. 4

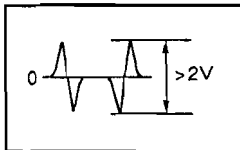


Fig. 5

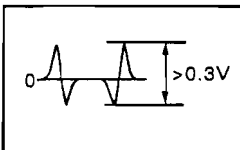
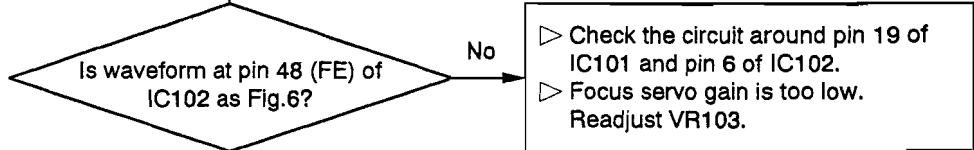
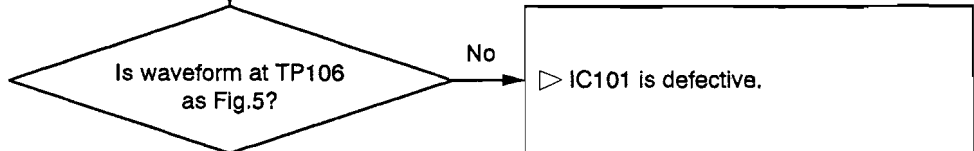
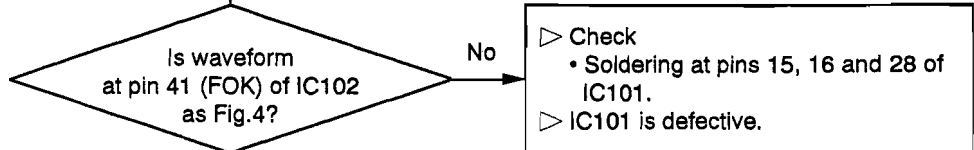
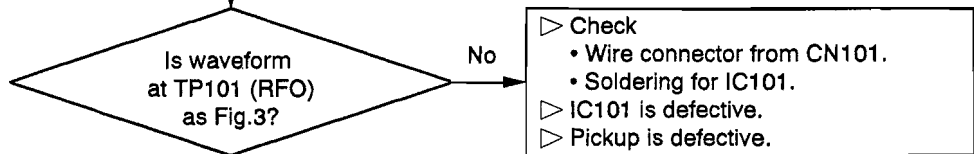
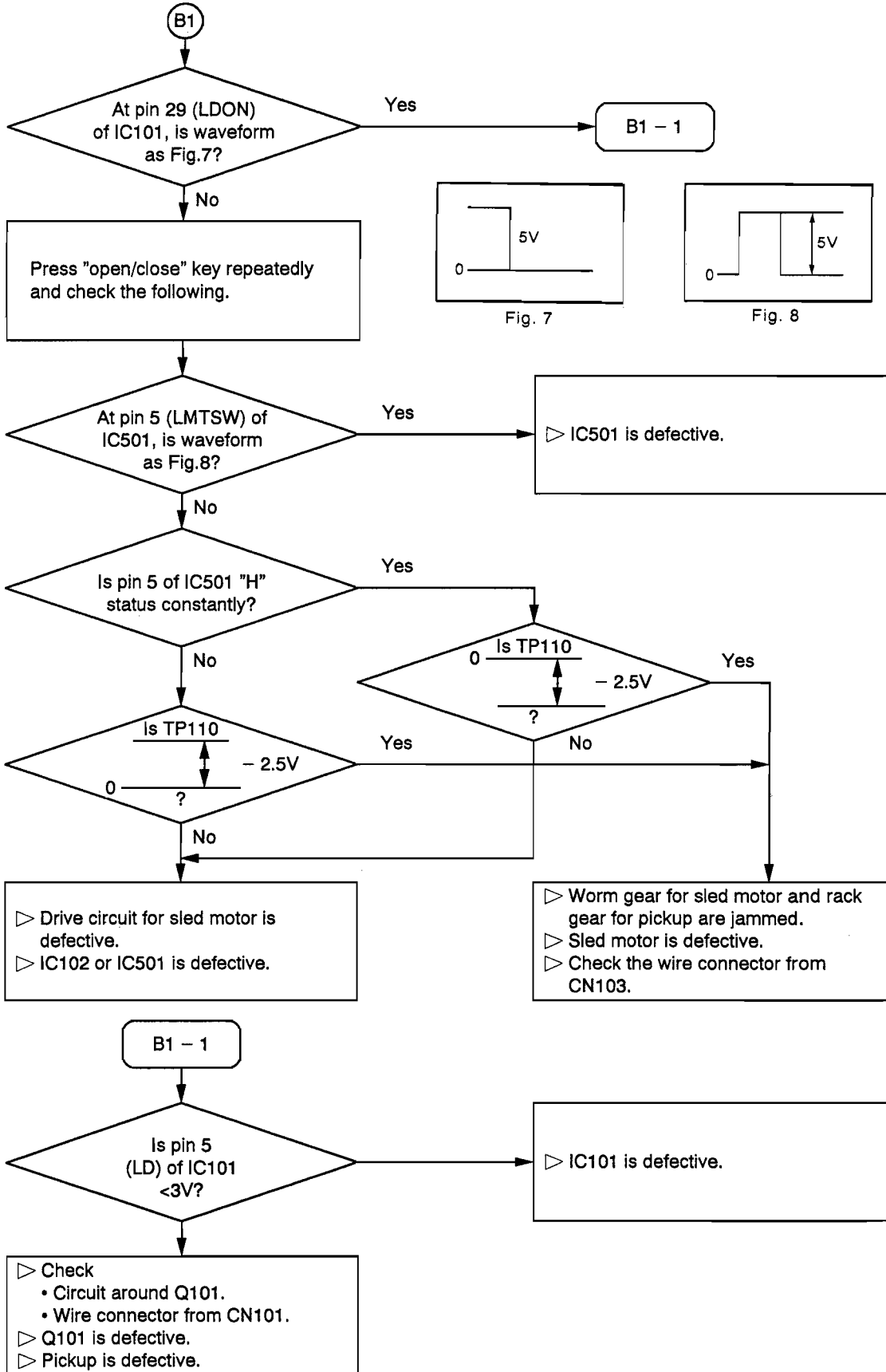


Fig. 6



▷ Check the circuit around IC102.
▷ IC102 is defective.

[Repair Item 3-B1] LASER does not emit.



[Repair Item 3-B2] Object lens of pickup unit does not move up and down.

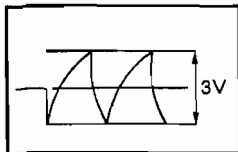
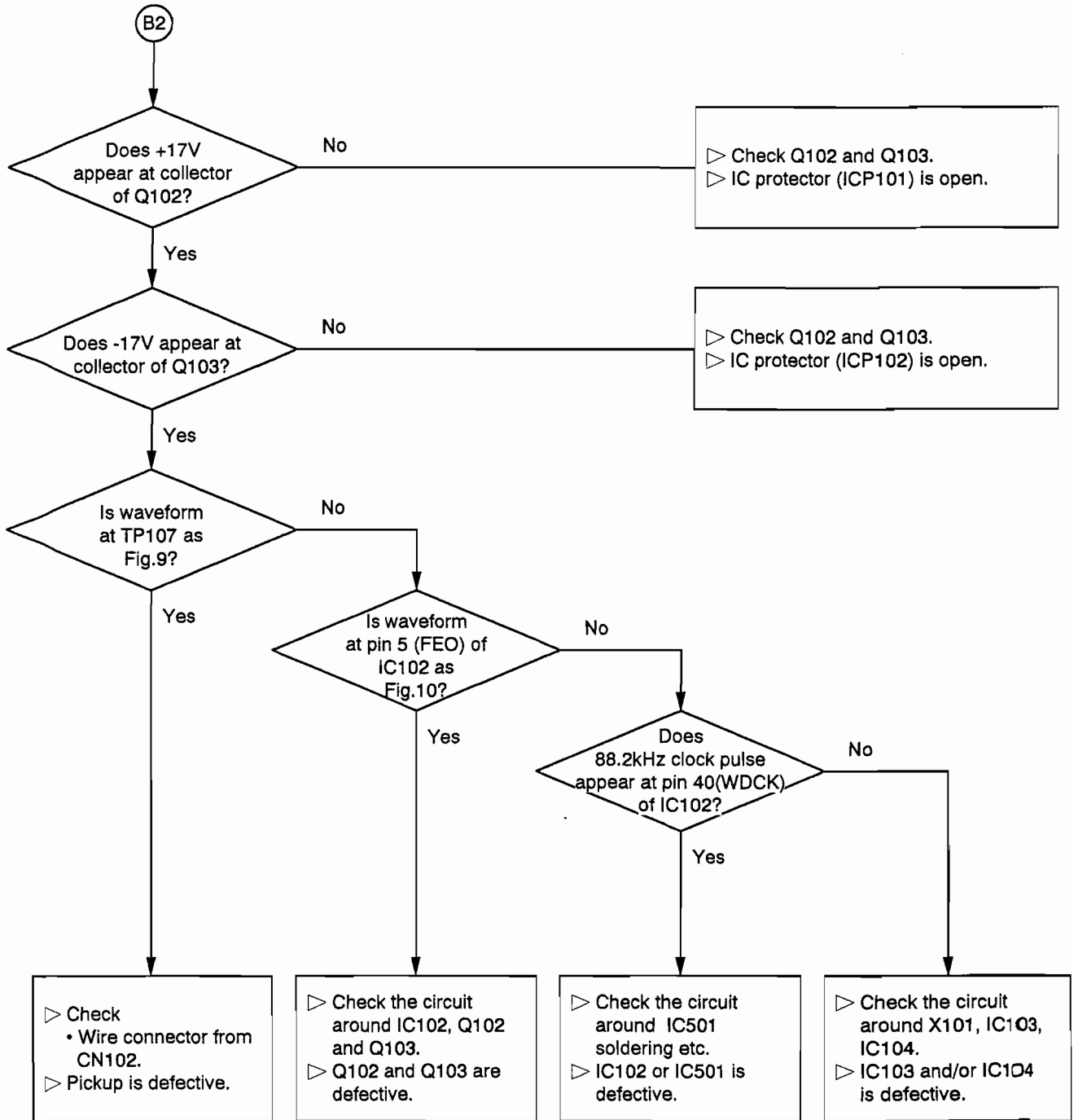


Fig. 9

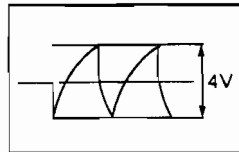
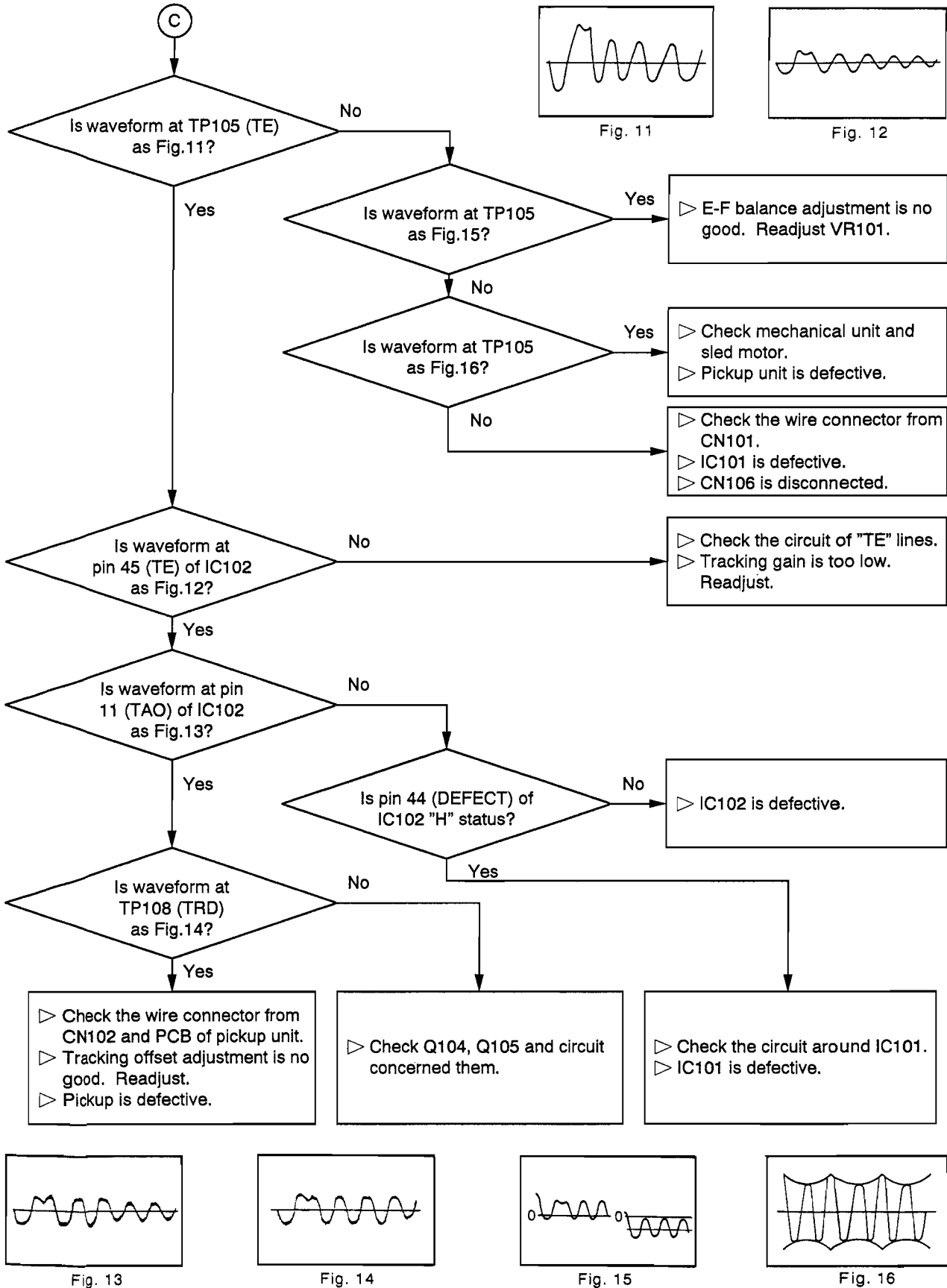


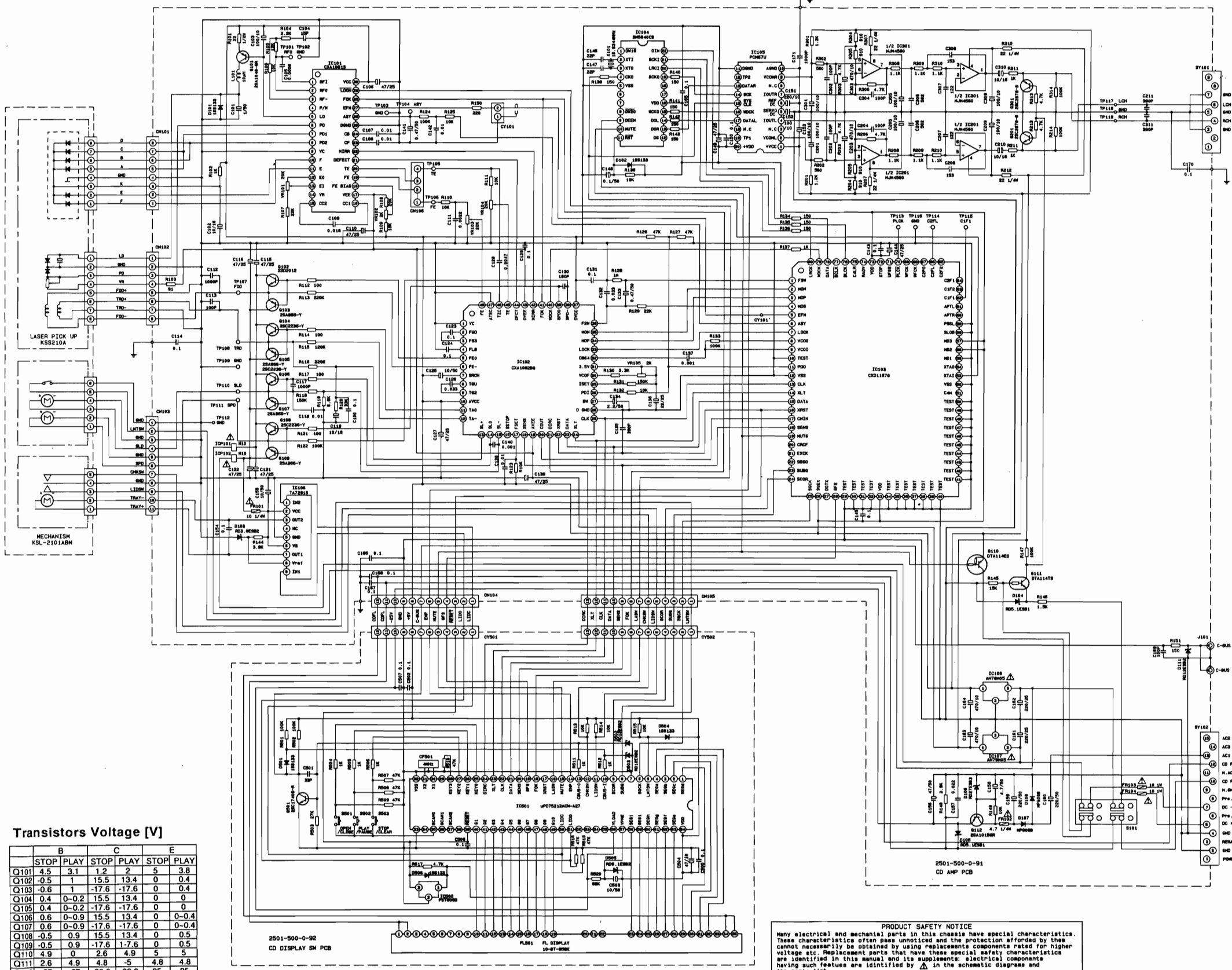
Fig. 10

[Repair Item 3-C]



SCHEMATIC DIAGRAM

Compact Disc



Transistors Voltage [V]

	B		C		E	
	STOP	PLAY	STOP	PLAY	STOP	PLAY
Q101	4.5	3.1	1.2	2	5	3.8
Q102	-0.5	1	15.5	13.4	0	0.4
Q103	-0.6	1	-17.6	-17.6	0	0.4
Q104	0.4	0-0.2	15.5	13.4	0	0
Q105	0.4	0-0.2	-17.6	-17.6	0	0
Q106	0.6	0-0.9	15.5	13.4	0	0-0.4
Q107	0.6	0-0.9	-17.6	-17.6	0	0-0.4
Q108	-0.5	0.9	15.5	13.4	0	0.5
Q109	-0.5	0.9	-17.6	-17.6	0	0.5
Q110	4.9	0	2.6	4.9	5	5
Q111	2.6	4.9	4.8	-5	4.8	4.8
Q112	-27	-27	-33.3	-33.3	-25	-25
Q201	0.7	-2.5	0	0	0	0
Q301	0.7	-2.5	0	0	0	0
Q501	0	0	4.3	4.3	0	0

Make leakage current or resistance measurements to determine that exposed metal parts are acceptably insulated from the supply circuit before returning the appliance to the customer.
Leakage current from headphone jack should not exceed 0.5 mA as measured through a 1.5 Kohm resistor paralleled by a 0.15 mfd capacitor to the earth ground.

PRODUCT SAFETY NOTICE
Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements. Electrical components having such features are identified by Δ in the schematic diagrams and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

ICs Voltage [V]

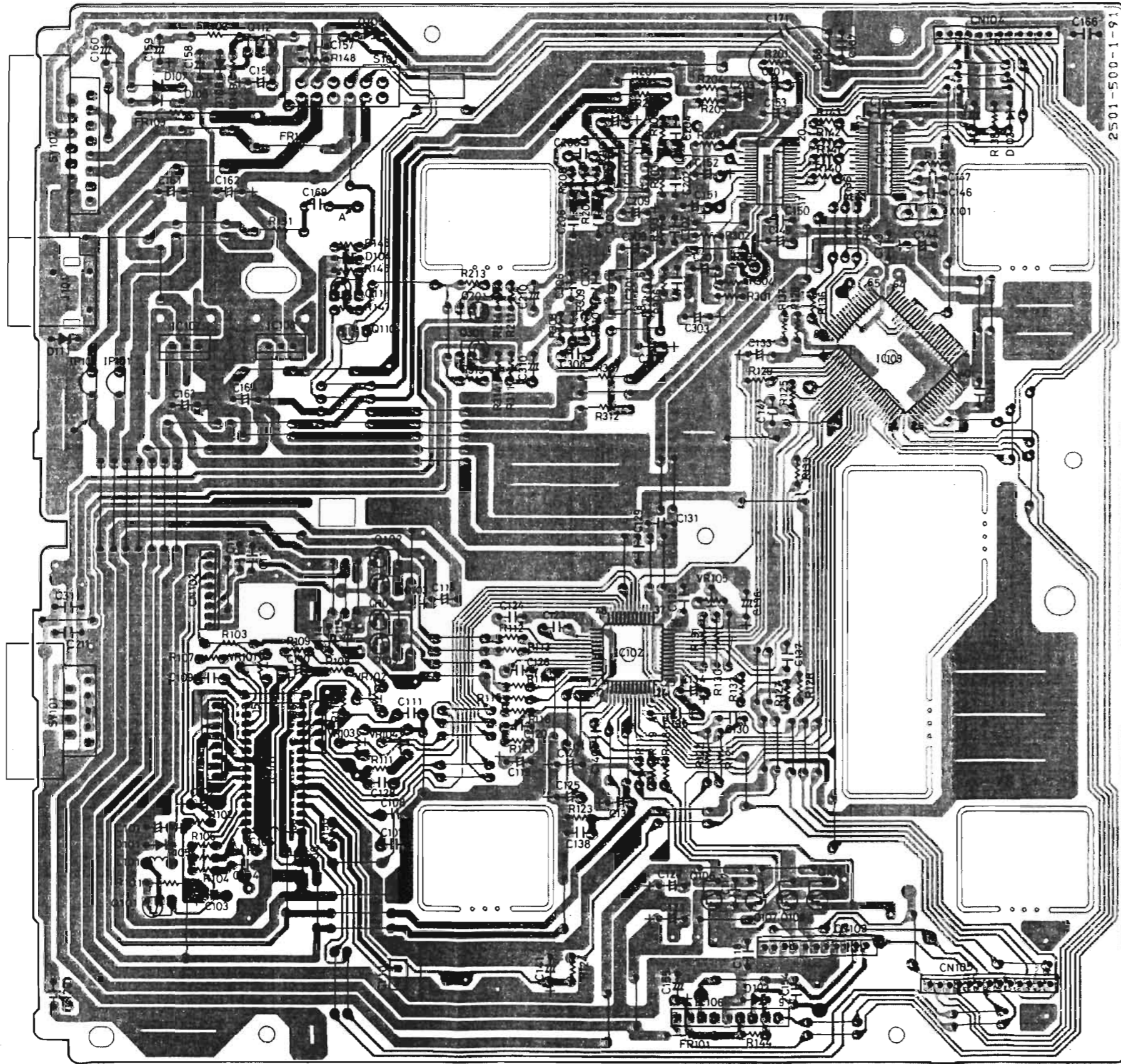
	IC101		IC102		IC103		IC501	
	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY
1	0	0	0	0	0	0	-1.1	-10
2	0	0.7	0	0.01	0	5	0.6	-3
3	0	0	0	0	0	2.7	-1.1	-5.2
4	-	-	0	0	0.1	2.9	0.8	-12
5	4.5	3.1	-0.6	1	2.7	2.7	5	5
6	-5	-4.8	0	0	2.7	2.6	5	5
7	0	0	0.2	0.2	0	5	0	0
8	0	0	0	0	2.5	2.5	0	2.7
9	0	0	0	0	2.5	2.4	0	0
10	0	0	5	5	0	0	4	4
11	0	0	0.4	0-0.2	2.5	2	5	5
12	0	-0.7	0	0	0	0	0	0
13	0	-0.4	0	0	4.4	4.6	0	0
14	-	-	0.6	0-0.9	5	5	0	0
15	-0.7	-0.9	0	0	5	5	5	0
16	1.2	-1	-	-	5	5	5	0
17	-5	-5	-4	-4	0.1	0.1	-	-
18	0.2	0	4	4	4	4	0	4.8
19	0.2	0	5	5	5	5	0	5
20	0	0	0.1	0.1	-	-	4	4
21	-4	-4	5	5	-	-	3.2	4
22	0	0	5	5	-	-	4.4	4.6
23	-0.2	-0.2	3	4	0	2.7	5	5
24	0	-0.3	5	5	0	0.1	5	5
25	0	0	4.4	4.6	5	5	0	0
26	2.5	2.5	0	0	5	5	0	0
27	2.7	2.7	2.8	0	-	-	0	0
28	0	5	2.8	2.5	0	5	0	0
29	5	0	2.2	2.2	0	0	-	-
30	5	5	3.2	2.2	0	0	0.4	0.4
31	-	-	3.6	3.6	0	0	2.5	2.5
32	-	-	2.2	2.2	0	0	0	0
33	0	0	5	5	5	5	0	0
34	0	0	2.7	0	0	-	-	-
35	0	0	5	0	0	1.6	1.6	-
36	0	0	2.6	0	0	-	-	-
37	5	5	0	0	0	-	-	-
38	0	0	0	0	0	-	-	-
39	-	-	-0.5	1	0	0	5	5
40	-	-	2.6	2.6	0	0	-22.5	-22.5
41	-	-	5	0	0	0	-22.5	-22.5
42	-	-	0	0	0	0	-22.5	-22.5
43	-	-	-5	-5	0	0	-22.5	-22.5
44	-	-	-4	-4	0	0	-22.5	-22.5
45	-	-	0	0	0	0	-22.5	-22.5
46	-	-	0	0	0	0	-22.5	-22.5
47	-	-	0	0	0	0	-22.5	-22.5
48	-	-	0	0	0	0	-22.5	-22.5
49	-	-	0	0	0	0	-22.5	-22.5
50	-	-	0	0	0	0	0	0
51	-	-	-	-	0	0	-	-
52	-	-	0	0	-	-	-	-
53	-	-	2.4	2.4	-	-	-	-
54	-	-	-	-	-	-	-	-
55	-	-	0	0	0	0	-	-
56	-	-	5	5	-25	-25	-	-
57	-	-	5	5	-3.8	-3.8	-	-
58	-	-	0	0	-22	-22	-	-
59	-	-	0	0	-25	-25	-	-
60	-	-	-	-	-11.5	-11.5	-	-
61	-	-	-	-	-8.5	-14	-	-
62	-	-	3.9	0	-6	-14	-	-
63	-	-	-	-	-14	-14	-	-
64	-	-	-	-	5	5	-	-
65	-	-	-	-	-	-	-	-
66	-	-	2	0	-	-	-	-
67	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-
69	-	-	-	-	-	-	-	-
70	-	-	2.6	2.6	-	-	-	-
71	-	-	-	-	-	-	-	-
72	-	-	-	-	-	-	-	-
73	-	-	5	5	-	-	-	-
74	-	-	-	-	-	-	-	-
75	-	-	-	-	-	-	-	-
76	-	-	2.4	2.4	-	-	-	-
77	-	-	-	-	-	-	-	-
78	-	-	0	2.5	-	-	-	-
79	-	-	2.4	2.4	-	-	-	-
80	-	-	2.6	2.6	-	-	-	-

	IC104		IC105		IC106		IC201		IC301	
	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY
1	-	-	5	5	0	0.2	0.2	0.1	0.1	0.1
2	0	0	4	4	15.6	13.6	3.1	3.1	0.1	0.1
3	2.5	2.5	-	-	0.5	0.5	3.1	3.1	0.1	0.1
4	2.4	2.4	3.6	3.6	-	-	-4.9	-4.9	-4.9	-4.9
5	0	0	3.4	3.4	0	0	0.2	0.2	3	3
6	-	-	4.6	4.6	15.6	13.6	0.2	0.2	3	3
7	-	-	3.6	3.6	0.5	0.5	0.2	0.2	0	0
8	-	-	-	-	2.9	2.9	4.8	4.8	4.8	4.8
9	0	0	4	4	0	0	-	-	-	-
10	5	0	4	4	0	0	-	-	-	-
11	5	5	0	0	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-
13	0	2.2	0	2.2	-	-	-	-	-	-
14	0	2.2	1.5	1.5	-	-	-	-	-	-
15	4.2	4.2	2.4	2.4	-	-	-	-	-	-
16	5	5	4.2	4.2	-	-	-	-	-	-
17	-	-	0	2.2	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-
19	1.5	1.5	-	-	-	-	-	-	-	-
20	2.5	2.5	5	5	-	-	-	-	-	-
21	2.5	2.5	-	-	-	-	-	-	-	-
22	0	2.5	-	-	-	-	-	-	-	-

	IC107		IC108		IC502	
	STOP	PLAY	STOP	PLAY	STOP	PLAY
1	-5	-5	5	5	5	5
2	-17.6	-17.6	15.5	13.4	0	0
3	0	0	0	0	5	5

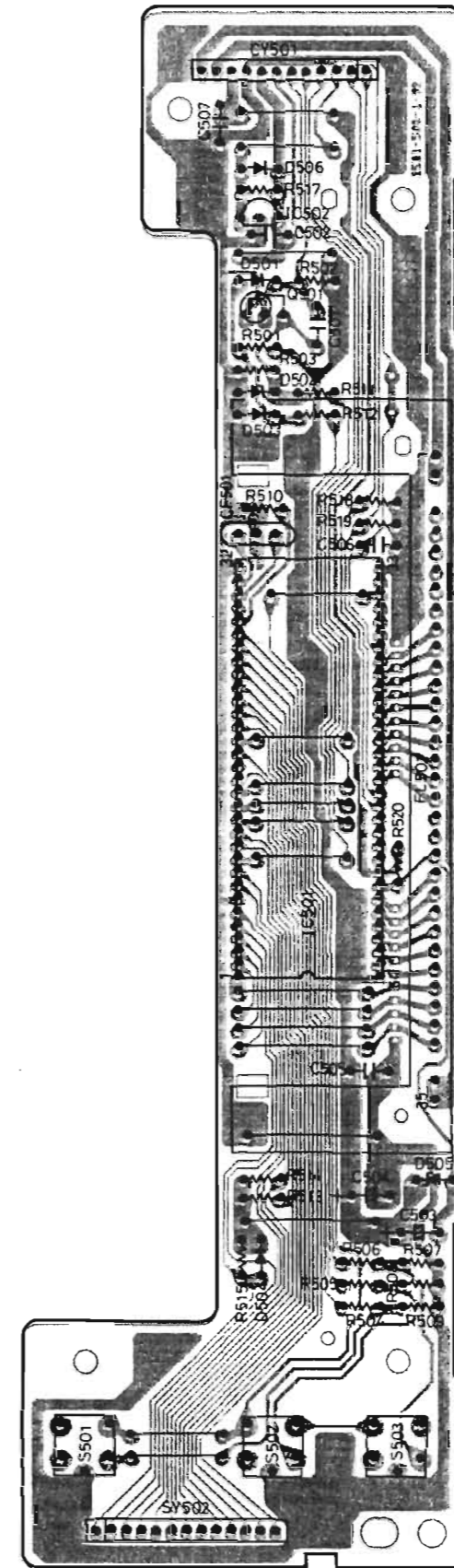
PWB BOTTOM VIEW

Compact Disc



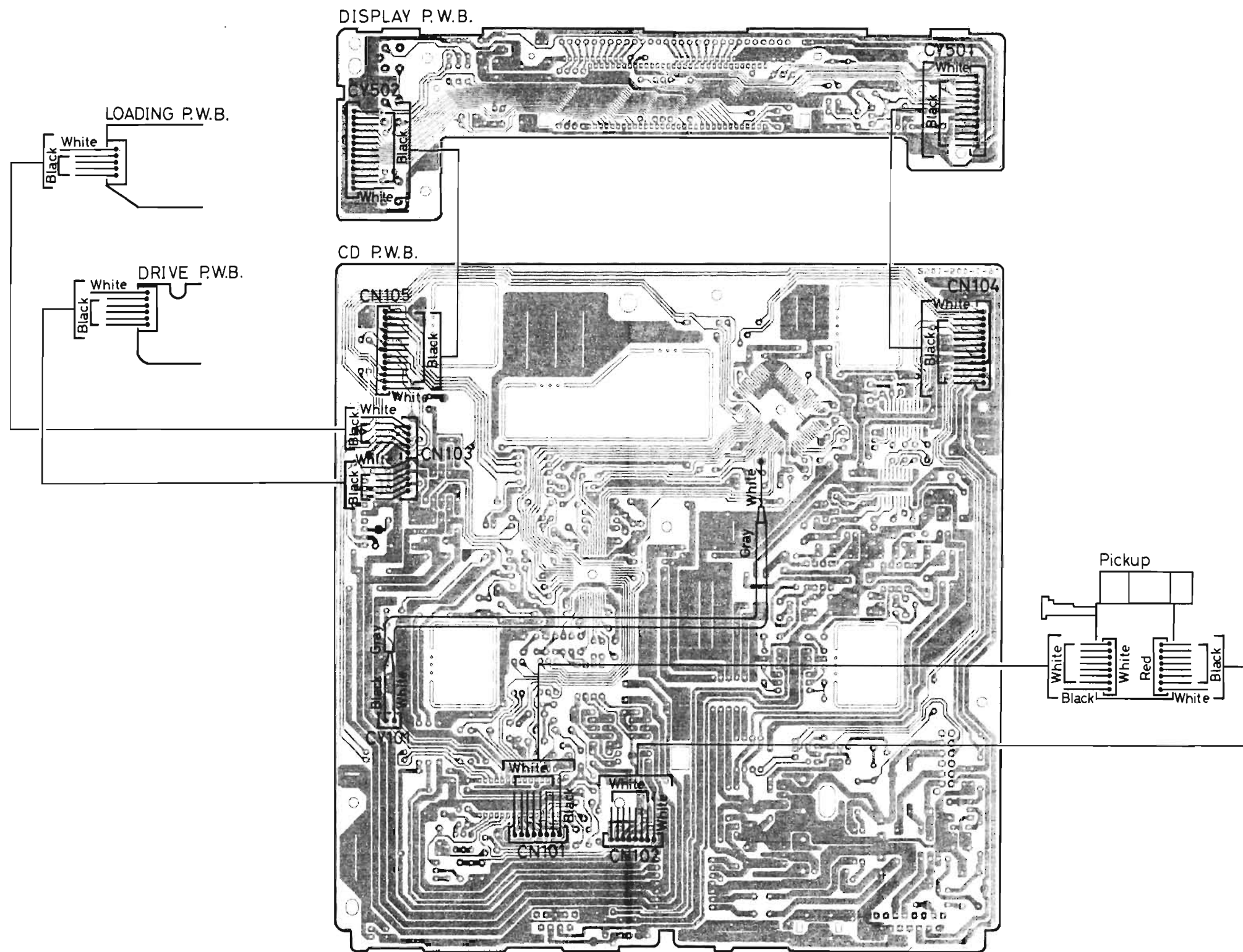
NOTE
 The Original PWB Top View.
 Electrical capacitors: ● mark is plus side.

Compact Disc Display



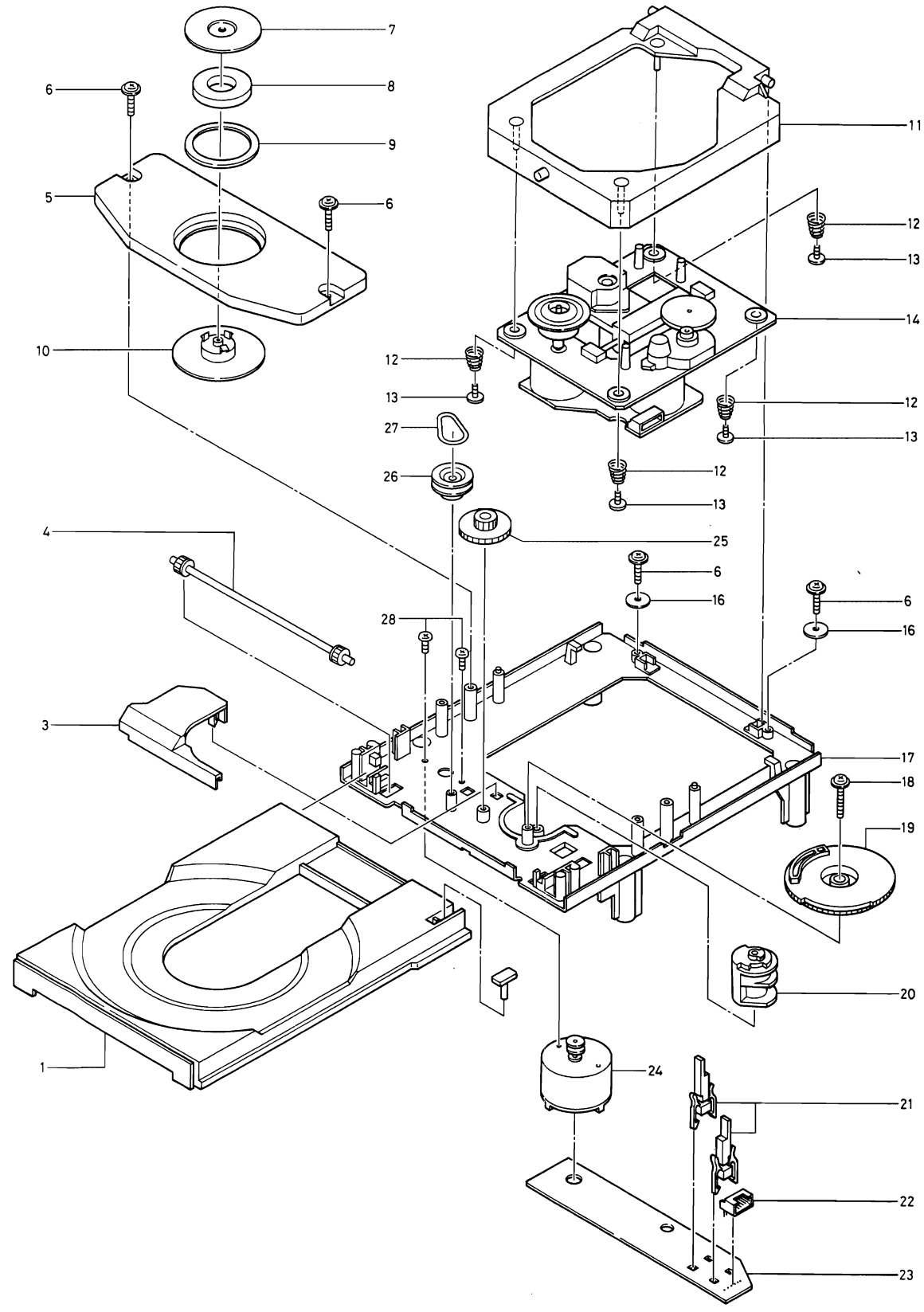
WIRING DIAGRAM

Compact Disc

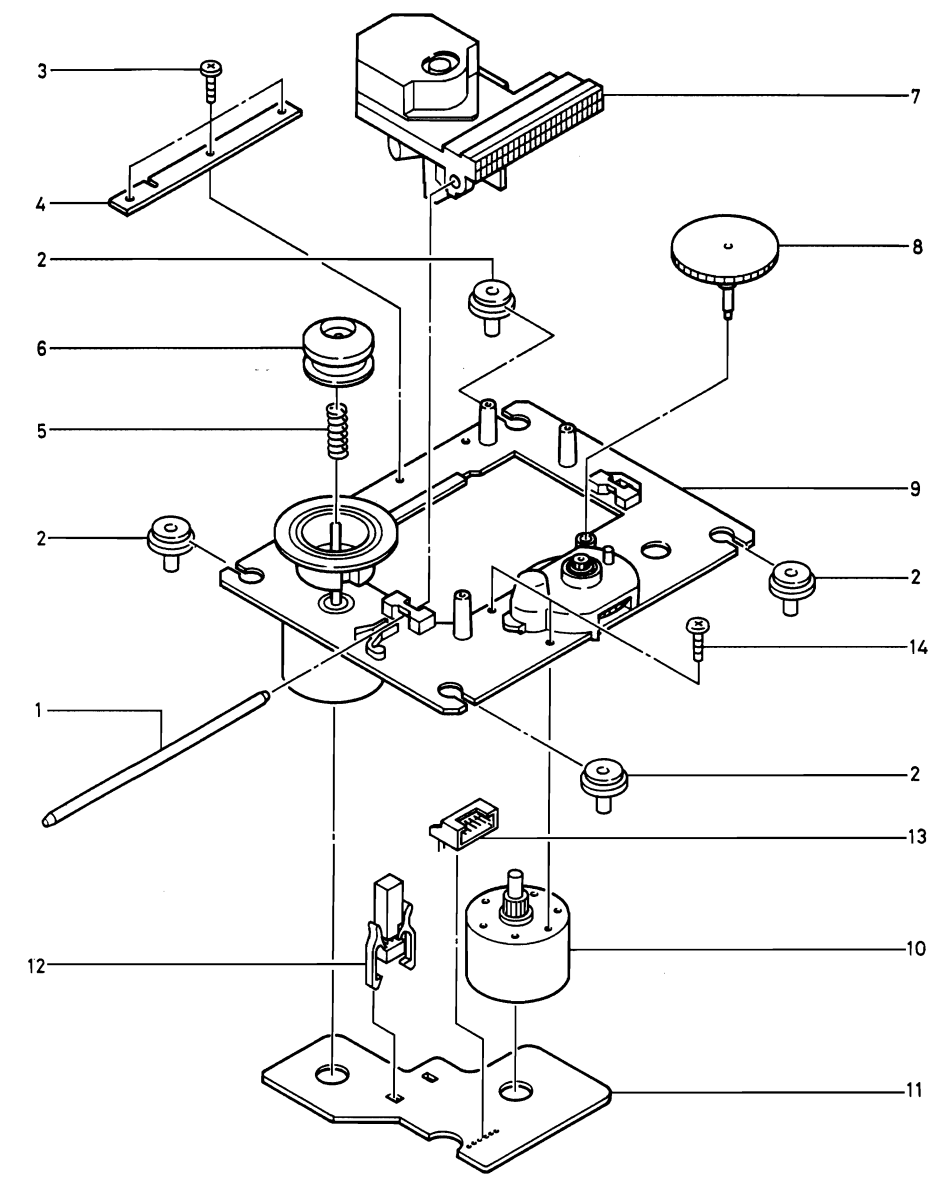


EXPLODED VIEW

Compact Disc Mechanism

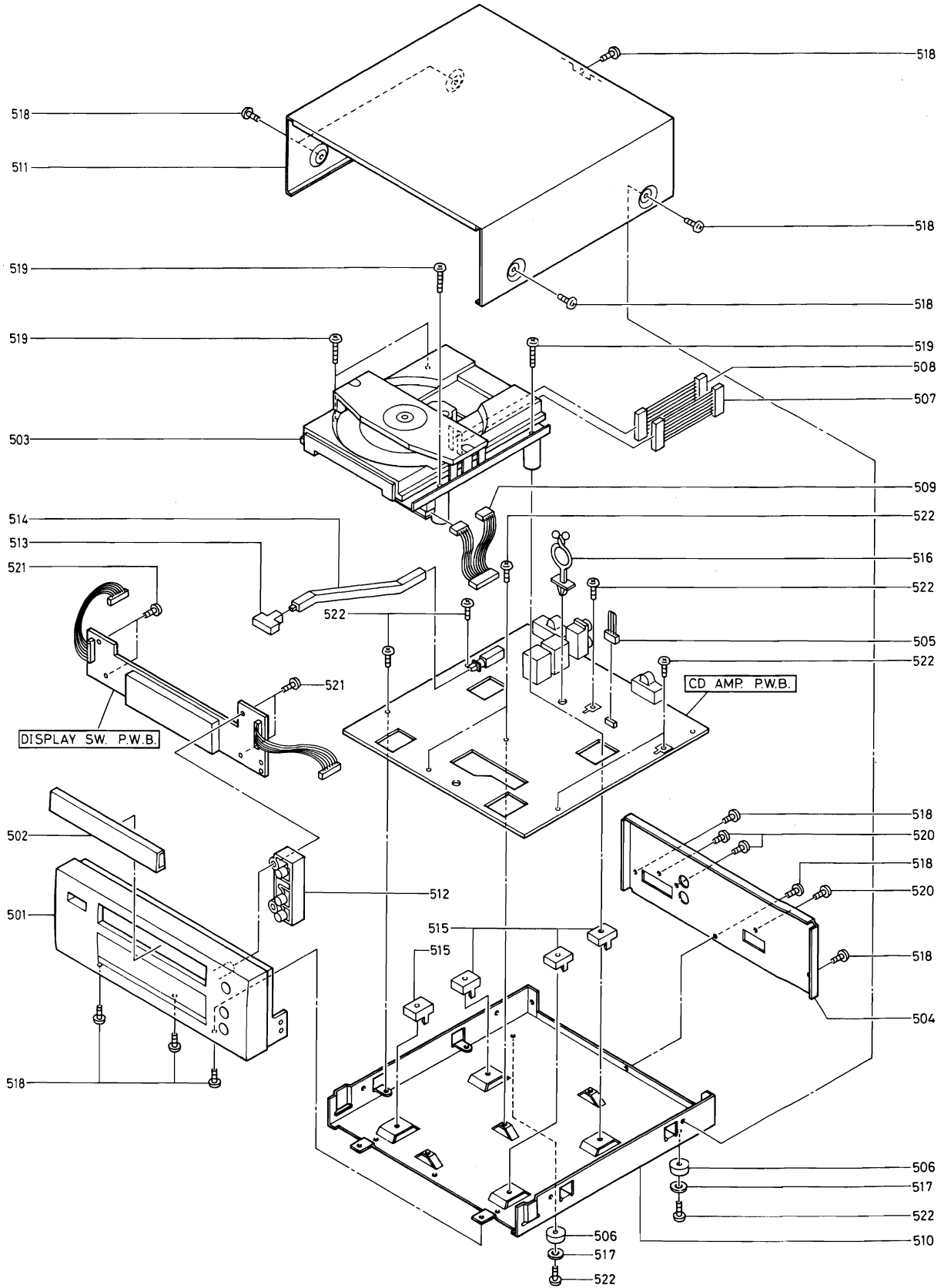


Pickup Mechanism



EXPLODED VIEW

Compact Disc Cabinet



PARTS LIST

Compact Disc

SYMBOL No.	PART No.	DESCRIPTION	SYMBOL No.	PART No.	DESCRIPTION
PWB ASSEMBLY					
	2501-605-0-00	CD amplifier PWB ass (with Display switch PWB)			
CAPACITORS					
C101	0937-850-1-06	EL, 1 μ F \pm 20% 50V	C162	0937-832-2-16	EL, 220 μ F \pm 20% 25V
C102	0937-821-0-06	EL, 10 μ F \pm 20% 16V	C163	0937-814-7-16	EL, 470 μ F \pm 20% 10V
C103	0937-811-0-16	EL, 100 μ F \pm 20% 10V	C164	0937-814-7-16	EL, 470 μ F \pm 20% 10V
C104	9300-251-5-04	CC, 15 PF \pm 5% 50V	C165	9302-351-0-49	CC, 0.1 μ F +80/-20% 50V
C105	9336-755-6-24	MF, 5600 PF \pm 5% 50V	C166	9302-351-0-49	CC, 0.1 μ F +80/-20% 50V
C106	0937-834-7-06	EL, 47 μ F \pm 20% 25V	C167	9302-351-0-49	CC, 0.1 μ F +80/-20% 50V
C107	9336-751-0-34	MF, 0.01 μ F \pm 5% 50V	C168	9302-351-0-49	CC, 0.1 μ F +80/-20% 50V
C108	9336-751-0-34	MF, 0.01 μ F \pm 5% 50V	C169	9301-451-0-15	CC, 100 PF \pm 10% 50V
C109	0933-451-8-34	CF, 0.018 μ F \pm 5% 50V	C170	9302-351-0-49	CC, 0.1 μ F +80/-20% 50V
C110	0937-834-7-06	EL, 47 μ F \pm 20% 25V	C171	9301-251-0-25	CC, 1000 PF \pm 10% 50V
C111	9336-752-2-34	MF, 2200 PF \pm 5% 50V	C172		
C112	9301-451-0-25	CC, 1000 PF \pm 10% 50V		Not used.	
C113	9301-451-0-15	CC, 100 PF \pm 10% 50V	C200		
C114	9302-351-0-49	CC, 0.1 μ F +80/-20% 50V	C201	0937-811-0-16	EL, 100 μ F \pm 20% 10V
C115	0937-834-7-06	EL, 47 μ F \pm 20% 25V	C202	9301-451-0-15	CC, 100 PF \pm 10% 50V
C116	0937-834-7-06	EL, 47 μ F \pm 20% 25V	C203	0938-914-7-16	EL, 470 μ F \pm 20% 10V
C117	9301-451-0-25	CC, 1000 PF \pm 10% 50V	C204	9301-451-0-15	CC, 100 PF \pm 10% 50V
C118	9336-751-0-34	MF, 0.01 μ F \pm 5% 50V	C205	0937-811-0-16	EL, 100 μ F \pm 20% 10V
C119	0937-821-0-06	EL, 10 μ F \pm 20% 16V	C206	9336-755-6-24	MF, 5600 PF \pm 5% 50V
C120	0933-451-0-44	CF, 0.1 μ F \pm 5% 50V	C207	9336-751-2-24	MF, 1200 PF \pm 5% 50V
C121	0937-834-7-06	EL, 47 μ F \pm 20% 25V	C208	0933-451-5-34	CF, 0.015 μ F \pm 5% 50V
C122	0937-834-7-06	EL, 47 μ F \pm 20% 25V	C209	0937-811-0-16	EL, 100 μ F \pm 20% 10V
C123	0933-451-0-44	CF, 0.1 μ F \pm 5% 50V	C210	9363-221-0-06	EL, 10 μ F \pm 20% 16V
C124	0933-451-0-44	MF, 0.1 μ F \pm 5% 50V	C211	9301-453-9-15	CC, 390 PF \pm 10% 50V
C125	0937-851-0-06	EL, 10 μ F \pm 20% 50V	C212		
C126	0933-453-3-34	CF, 0.033 μ F \pm 5% 50V		Not used.	
C127	0937-834-7-06	EL, 47 μ F \pm 20% 25V	C300		
C128	9336-754-7-24	MF, 4700 PF \pm 5% 50V	C301	0937-811-0-16	EL, 100 μ F \pm 20% 10V
C129	9302-351-0-49	CC, 0.1 μ F +80/-20% 50V	C302	9301-451-0-15	CC, 100 PF \pm 10% 50V
C130	9301-451-8-15	CC, 180 PF \pm 10% 50V	C303	0937-814-7-16	EL, 470 μ F \pm 20% 10V
C131	9302-351-0-49	CC, 0.1 μ F +80/-20% 50V	C304	9301-451-0-15	CC, 100 PF \pm 10% 50V
C132	0933-453-3-34	MF, 0.033 μ F \pm 5% 50V	C305	0937-811-0-16	EL, 100 μ F \pm 20% 10V
C133	0937-854-7-96	EL, 0.47 μ F \pm 20% 50V	C306	9336-755-6-24	MF, 5600 PF \pm 5% 50V
C134	0937-852-2-86	EL, 2.2 μ F \pm 20% 50V	C307	9336-751-2-24	MF, 1200 PF \pm 5% 50V
C135	9301-453-9-15	CC, 390 PF \pm 10% 50V	C308	0933-451-5-34	CF, 0.015 μ F \pm 5% 50V
C136	0937-832-2-06	EL, 22 μ F \pm 20% 25V	C309	0937-811-0-16	EL, 100 μ F \pm 20% 10V
C137	9301-451-0-25	CC, 1000 PF \pm 10% 50V	C310	9363-221-0-06	EL, 10 μ F \pm 20% 16V
C138	9336-751-0-34	MF, 0.01 μ F \pm 5% 50V	C311	9301-453-9-15	CC, 390 PF \pm 10% 50V
C139	0937-834-7-06	EL, 47 μ F \pm 20% 25V	C312		
C140	9301-451-0-25	CC, 1000 PF \pm 10% 50V		Not used.	
C141	0937-854-7-96	EL, 0.47 μ F \pm 20% 50V	C500		
C142	9336-751-0-34	MF, 0.01 μ F \pm 5% 50V	C501	9301-153-3-04	CC, 33 PF \pm 5% 50V
C143	9302-351-0-49	CC, 0.1 μ F +80/-20% 50V	C502	9302-351-0-49	CC, 0.1 μ F +80/-20% 50V
C144	0937-834-7-06	EL, 47 μ F \pm 20% 25V	C503	0936-651-0-06	EL, 10 μ F \pm 20% 50V
C145	9302-351-0-49	CC, 0.1 μ F +80/-20% 50V	C504	0936-614-7-06	EL, 47 μ F \pm 20% 10V
C146	9301-152-2-04	CC, 22 PF \pm 5% 50V	C505	9302-351-0-49	CC, 0.1 μ F +80/-20% 50V
C147	9301-152-2-04	CC, 22 PF \pm 5% 50V	C506	9302-351-0-49	CC, 0.1 μ F +80/-20% 50V
C148	0937-851-0-96	EL, 0.1 μ F \pm 20% 50V	C507	9302-351-0-49	CC, 0.1 μ F +80/-20% 50V
C149	0937-834-7-06	EL, 47 μ F \pm 20% 25V			
C150	9302-351-0-49	CC, 0.1 μ F +80/-20% 50V	RESISTORS		
C151	0937-812-2-16	EL, 220 μ F \pm 20% 10V	R101	0921-522-2-04	CF, 22 ohm \pm 5% SRD 1/2P
C152	0937-811-0-16	EL, 100 μ F \pm 20% 10V	R102	0920-861-0-24	CF, 1k ohm \pm 5% SRD 1/6P
C153	0937-811-0-16	EL, 100 μ F \pm 20% 10V	R103	0920-819-1-04	CF, 91 ohm \pm 5% SRD 1/4P
C154	9302-351-0-49	CC, 0.1 μ F +80/-20% 50V	R104	0920-862-2-24	CF, 2.2k ohm \pm 5% SRD 1/6P
C155	0937-851-0-06	EL, 10 μ F \pm 20% 50V	R105	0920-861-2-34	CF, 12k ohm \pm 5% SRD 1/6P
C156	0937-854-7-06	EL, 47 μ F \pm 20% 50V	R106	0920-861-0-34	CF, 10k ohm \pm 5% SRD 1/6P
C157	9302-332-2-39	CC, 0.022 μ F +80/-20% 25V	R107	0920-862-2-34	CF, 22k ohm \pm 5% SRD 1/6P
C158	0937-854-7-86	EL, 4.7 μ F \pm 20% 50V	R108	0920-862-8-34	CF, 20k ohm \pm 5% SRD 1/6P
C159	0937-752-2-16	EL, 220 μ F \pm 20% 50V	R109	0920-861-8-34	CF, 18k ohm \pm 5% SRD 1/6P
C160	0937-752-2-16	EL, 220 μ F \pm 20% 50V	R110	0920-861-0-34	CF, 10k ohm \pm 5% SRD 1/6P
C161	0937-832-2-16	EL, 220 μ F \pm 20% 25V	R111	0920-861-0-34	CF, 10k ohm \pm 5% SRD 1/6P
			R112	0920-861-0-14	CF, 100 ohm \pm 5% SRD 1/6P
			R113	0920-862-2-44	CF, 220k ohm \pm 5% SRD 1/6P
			R114	0920-861-0-14	CF, 100 ohm \pm 5% SRD 1/6P
			R115	0920-861-2-44	CF, 120k ohm \pm 5% SRD 1/6P
			R116	0920-862-2-44	CF, 220k ohm \pm 5% SRD 1/6P
			R117	0920-861-0-14	CF, 100 ohm \pm 5% SRD 1/6P

SYMBOL No.	PART No.	DESCRIPTION
R118	0920-861-5-44	CF, 150k ohm ±5% SRD 1/6P
R119	0920-866-8-24	CF, 6.8k ohm ±5% SRD 1/6P
R120	0920-868-3-34	CF, 33k ohm ±5% SRD 1/6P
R121	0920-861-0-14	CF, 100 ohm ±5% SRD 1/6P
R122	0920-861-0-44	CF, 100k ohm ±5% SRD 1/6P
R123	0920-865-1-44	CF, 510k ohm ±5% SRD 1/6P
R124	0920-861-0-44	CF, 100k ohm ±5% SRD 1/6P
R125	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R126	0920-864-7-34	CF, 47k ohm ±5% SRD 1/6P
R127	0920-864-7-34	CF, 47k ohm ±5% SRD 1/6P
R128	0920-861-0-54	CF, 1M ohm ±5% SRD 1/6P
R129	0920-862-2-34	CF, 22k ohm ±5% SRD 1/6P
R130	0920-863-3-24	CF, 3.3k ohm ±5% SRD 1/6P
R131	0920-861-5-44	CF, 150k ohm ±5% SRD 1/6P
R132	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R133	0920-861-0-44	CF, 100k ohm ±5% SRD 1/6P
R134	0920-861-5-14	CF, 150 ohm ±5% SRD 1/6P
R135	0920-861-5-14	CF, 150 ohm ±5% SRD 1/6P
R136	0920-861-5-14	CF, 150 ohm ±5% SRD 1/6P
R137	0920-861-0-24	CF, 1k ohm ±5% SRD 1/6P
R138	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R139	0920-861-5-14	CF, 150 ohm ±5% SRD 1/6P
R140	0920-861-5-14	CF, 150 ohm ±5% SRD 1/6P
R141	0920-861-5-14	CF, 150 ohm ±5% SRD 1/6P
R142	0920-861-5-14	CF, 150 ohm ±5% SRD 1/6P
R143	0920-861-5-14	CF, 150 ohm ±5% SRD 1/6P
R144	0920-863-9-24	CF, 3.9k ohm ±5% SRD 1/6P
R145	0920-861-5-34	CF, 15k ohm ±5% SRD 1/6P
R146	0920-861-5-24	CF, 1.5k ohm ±5% SRD 1/6P
R147	0920-861-0-44	CF, 100k ohm ±5% SRD 1/6P
R148	0920-863-9-24	CF, 3.9k ohm ±5% SRD 1/6P
R149	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R150	0920-862-2-14	CF, 220 ohm ±5% SRD 1/6P
R151	0920-861-5-14	CF, 150 ohm ±5% SRD 1/6P
R152	to	Not used.
R200	to	Not used.
R201	0920-861-2-24	CF, 1.2k ohm ±5% SRD 1/6P
R202	0920-865-6-14	CF, 560 ohm ±5% SRD 1/6P
R203	0920-864-7-24	CF, 4.7k ohm ±5% SRD 1/6P
R204	0920-869-1-14	CF, 910 ohm ±5% SRD 1/6P
R205	0920-869-1-14	CF, 910 ohm ±5% SRD 1/6P
R206	0920-864-7-24	CF, 4.7k ohm ±5% SRD 1/6P
R207	0920-812-2-04	CF, 22 ohm ±5% SRD 1/4P
R208	0920-861-1-24	CF, 1.1k ohm ±5% SRD 1/6P
R209	0920-861-1-24	CF, 1.1k ohm ±5% SRD 1/6P
R210	0920-861-1-24	CF, 1.1k ohm ±5% SRD 1/6P
R211	0920-861-0-24	CF, 1k ohm ±5% SRD 1/6P
R212	0920-812-2-04	CF, 22 ohm ±5% SRD 1/4P
R213	0920-864-7-24	CF, 4.7k ohm ±5% SRD 1/6P
R214	0920-861-0-44	CF, 100k ohm ±5% SRD 1/6P
R215	to	Not used.
R300	to	Not used.
R301	0920-861-2-24	CF, 1.2k ohm ±5% SRD 1/6P
R302	0920-865-6-14	CF, 560 ohm ±5% SRD 1/6P
R303	0920-864-7-24	CF, 4.7k ohm ±5% SRD 1/6P
R304	0920-869-1-14	CF, 910 ohm ±5% SRD 1/6P
R305	0920-869-1-14	CF, 910 ohm ±5% SRD 1/6P
R306	0920-864-7-24	CF, 4.7k ohm ±5% SRD 1/6P
R307	0920-812-2-04	CF, 22 ohm ±5% SRD 1/4P
R308	0920-861-1-24	CF, 1.1k ohm ±5% SRD 1/6P
R309	0920-861-1-24	CF, 1.1k ohm ±5% SRD 1/6P
R310	0920-861-1-24	CF, 1.1k ohm ±5% SRD 1/6P
R311	0920-861-0-24	CF, 1k ohm ±5% SRD 1/6P
R312	0920-812-2-04	CF, 22 ohm ±5% SRD 1/4P
R313	0920-864-7-24	CF, 4.7k ohm ±5% SRD 1/6P
R314	0920-861-0-44	CF, 100k ohm ±5% SRD 1/6P

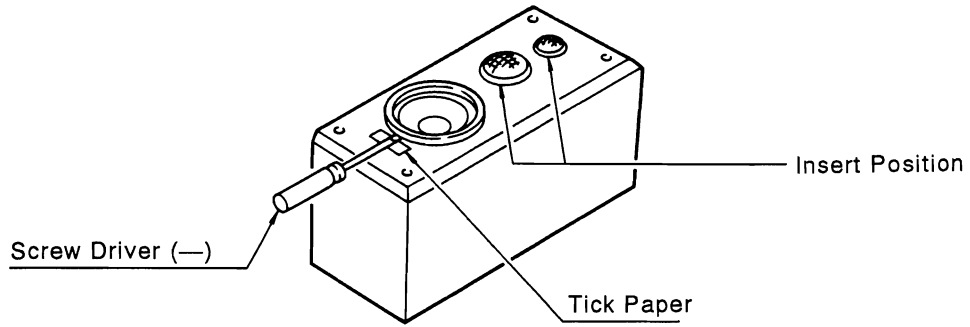
SYMBOL No.	PART No.	DESCRIPTION
R315	to	Not used.
R500	0920-861-0-44	CF, 100k ohm ±5% SRD 1/6P
R501	0920-861-0-44	CF, 100k ohm ±5% SRD 1/6P
R502	0920-861-0-44	CF, 100k ohm ±5% SRD 1/6P
R503	0920-862-7-34	CF, 27k ohm ±5% SRD 1/6P
R504	0920-861-0-24	CF, 1k ohm ±5% SRD 1/6P
R505	0920-861-0-24	CF, 1k ohm ±5% SRD 1/6P
R506	0920-861-0-24	CF, 1k ohm ±5% SRD 1/6P
R507	0920-864-7-34	CF, 47k ohm ±5% SRD 1/6P
R508	0920-864-7-34	CF, 47k ohm ±5% SRD 1/6P
R509	0920-864-7-34	CF, 47k ohm ±5% SRD 1/6P
R510	0920-864-7-34	CF, 47k ohm ±5% SRD 1/6P
R511	0920-861-0-24	CF, 1k ohm ±5% SRD 1/6P
R512	0920-861-0-24	CF, 1k ohm ±5% SRD 1/6P
R513	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R514	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R515	0920-861-0-34	CF, 10k ohm ±5% SRD 1/6P
R516	to	Not used.
R517	0920-864-7-24	CF, 4.7k ohm ±5% SRD 1/6P
R518	0920-864-7-34	CF, 47k ohm ±5% SRD 1/6P
R519	0920-864-7-34	CF, 47k ohm ±5% SRD 1/6P
R520	0920-866-8-34	CF, 68k ohm ±5% SRD 1/6P
△FR101	0921-111-0-04	CF, 10 ohm ±5% SRD 1/4P
△FR102	0921-114-7-84	CF, 4.7 ohm ±5% SRD 1/4P
△FR103	0926-031-0-04	CF, 10 ohm ±5% SRD 1P
△FR104	0926-031-0-04	CF, 10 ohm ±5% SRD 1P
COILS		
L101	0991-401-0-05	LHL06TB100K
FILTER		
CF501	0038-911-0-00	Ceramic resonat
DIODES		
D101	0915-003-9-00	1SS133
D102	0915-003-9-00	1SS133
D103	0915-023-3-00	RD3.0ESB2
D104	0915-009-9-01	RD5.1ESB1
D105	0915-009-9-01	RD5.1ESB1
D106	0915-011-3-04	RD27ESB4
	or 0915-011-3-03	RD27ESB3
D107	0915-005-2-04	MPG06D
	or 0915-005-2-02	MPG06B
D108	0915-005-2-02	MPG06B
	or 0915-005-2-04	MPG06D
D111	0915-010-5-02	RD12ESB2
D501	0915-003-9-00	1SS133
D502	0915-010-5-02	RD12ESB2
D503	0915-010-5-02	RD12ESB2
D504	0915-003-9-00	1SS133
D505	0915-010-2-03	RD9.1ESB3
	or 0915-010-2-01	RD9.1ESB1
	or 0915-010-2-02	RD9.1ESB2
D506	0915-003-9-00	1SS133
ICS and TRANSISTORS		
IC101	0911-081-2-00	CXA1081S
IC102	0911-091-5-00	CXA1082BQ
IC103	0911-113-2-00	CXD1167Q
IC104	0911-143-1-00	SM5840CS
IC105	0911-152-5-00	PCM67U
IC106	0911-150-5-00	TA7291S
△IC107	0911-157-2-00	AN79M05
△IC108	0911-056-1-00	AN78M05

SYMBOL No.	PART No.	DESCRIPTION
IC201	0911-051-9-00	NJM4560D
IC301	0911-051-9-00	NJM4560D
IC501	0037-165-0-00	UPD75212ACW-A27
IC502	0911-153-5-00	PST600D
Q101	0906-202-3-55	2SA1048-GR
Q102	0903-008-1-00	2DS2012
Q103	0906-209-4-25	2SA966-Y
Q104	0906-209-5-25	2SC2236-Y
Q105	0906-209-4-25	2SA966-Y
Q106	0906-209-5-25	2SC2236-Y
Q107	0906-209-4-25	2SA966-Y
Q108	0906-209-5-25	2SC2236-Y
Q109	0906-209-4-25	2SA966-Y
Q110	0906-208-3-00	BN1A4M
	or 0906-208-7-00	DTA114ES
Q111	0906-224-7-00	BN1A4Z
	or 0906-202-1-00	DTA114TS
Q112	0906-200-2-55	2SA1015-GR
Q201	0906-203-5-02	2SC2878-B
Q301	0906-203-5-02	2SC2878-B
Q501	0906-203-3-18	2SC1740S-R
JACK		
J101	0034-004-0-00	Pin 2P
SWITCHES		
S101	0028-035-0-00	Push
S501	0028-829-0-40	Tact
S502	0028-829-0-40	Tact
S503	0028-829-0-40	Tact
VARIABLE RESISTORS		
VR101	0031-835-2-03	SF volume control, 20k ohm
	or 0031-837-2-03	SF volume control, 20k ohm
VR102	0031-835-2-02	SF volume control, 2k ohm
	or 0031-837-2-02	SF volume control, 2k ohm
VR103	0031-837-2-03	SF volume control, 20k ohm
	or 0031-835-2-03	SF volume control, 20k ohm
VR104	0031-835-2-03	SF volume control, 20k ohm
	or 0031-837-2-03	SF volume control, 20k ohm
VR105	0031-834-2-02	SF volume control, 2k ohm
CONNECTORS		
CN101	0034-750-0-08	Pin, 8 pin
CN102	0034-832-0-08	Pin, 8 pin
CN103	0034-750-0-11	Pin, 11 pin
CN104	0034-750-0-12	Pin, 12 pin
CN105	0034-750-0-13	Pin, 13 pin
CN106	0034-750-0-04	Pin, 4 pin
SY101	0034-007-0-09	System connector pin, 9P
SY102	0034-007-0-15	System connector pin, 15P
OTHERS		
△FL501	0040-606-0-00	Display
△IP101	0045-802-0-10	ICP-N10
△IP102	0045-802-0-10	ICP-N10
X101	0038-097-0-00	Crystal
	or 0038-059-0-00	Crystal
ACCESSORIES		
	2501-910-0-01	Gift box
	2501-915-0-00	Mirror mat

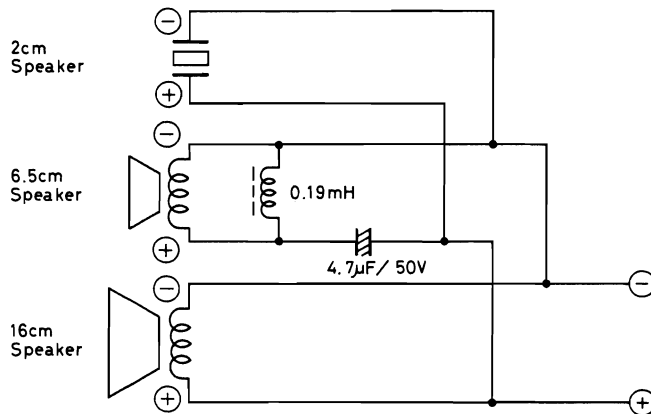
SYMBOL No.	PART No.	DESCRIPTION
MECHANISM		
1	2-625-550-01	Tray S
2	Not used.	
3	2-625-544-01	Gear cover
4	2-625-535-01	Tray Gear
5	2-625-546-01	Plate
6	3-319-501-11	+PTPWH 2.6x8
7	2-625-537-01	Chacking yoke
8	1-452-493-21	Magnet
9	2-625-541-01	Dumper
10	2-625-548-01	Chacking pulley
11	X-2625-227-1	Sub chassis ass
12	2-625-539-01	Spring
13	2-644-410-02	Screw with washer
14	KSM-2101ABM	Drive unit
15	Not used.	
16	3-464-123-02	Washer
17	2-625-552-01	Main chassis
18	3-319-501-51	+PTPWH 2.6x16
19	2-625-547-01	Drive gear
20	2-625-545-02	Control cam
21	1-572-086-11	Leaf switch
22	1-564-721-11	Connector pin 5P
23	1-640-523-11	Loading PCB
24	X-2625-117-1	Loading ass
25	2-625-534-02	Meddle gear
26	2-625-536-01	Loading pulley
27	3-653-387-01	LM belt
28	2-625-279-01	Screw, +B 2.6x2.5
PICKUP MECHANISM		
1	2-625-464-01	Sled shaft
2	2-625-538-01	Insulator
3	2-641-386-01	Screw, tapping S2x5
4	2-625-625-01	Reinforce plate
5	2-625-465-01	Compression spring
6	2-625-477-01	Centerring (LO)
7	8-848-127-31	Pickup KSS-210A
8	2-625-462-01	Gear A
9	X-2625-133-2	TT chassis
10	X-2625-132-1	Motor gear
11	1-639-678-12	Motor PCB
12	1-572-085-12	Reaf switch
13	1-564-722-11	Connector 6 pin
14	7-621-255-15	Screw P2x3
CABINET		
501	2501-600-0-01	Sub panel ass
502	2501-601-0-01	Tray panel ass
△503	2501-602-0-00	CD mecha ass
504	2501-604-0-02	Back panel ass
505	2501-538-0-00	Wire connector, 4 pin
506	2501-866-0-00	Foot
507	2501-530-0-00	Wire connector, 8 pin
508	2501-531-0-00	Wire connector, 8 pin
509	2501-537-0-00	Wire connector, 11 pin
510	2501-811-0-00	Bottom chassis
511	2501-812-0-01	Metal case
512	2501-860-0-01	CD control knob
513	2501-861-0-01	PSW knob
514	2501-862-0-00	PSW joint
515	2501-865-0-00	CD foot
516	0064-685-0-00	Wire clamper, 2676
517	2501-881-0-00	Foot R
518	0972-730-0-63	ST screw B3x6-SBK
519	0972-730-1-65	ST screw B3x16-SK
520	0973-230-0-83	BT screw B3x8-SBK
521	0973-230-0-85	BT screw B3x8-SK
522	0972-730-0-75	ST screw B3x6-SK

DISASSEMBLY INSTRUCTIONS

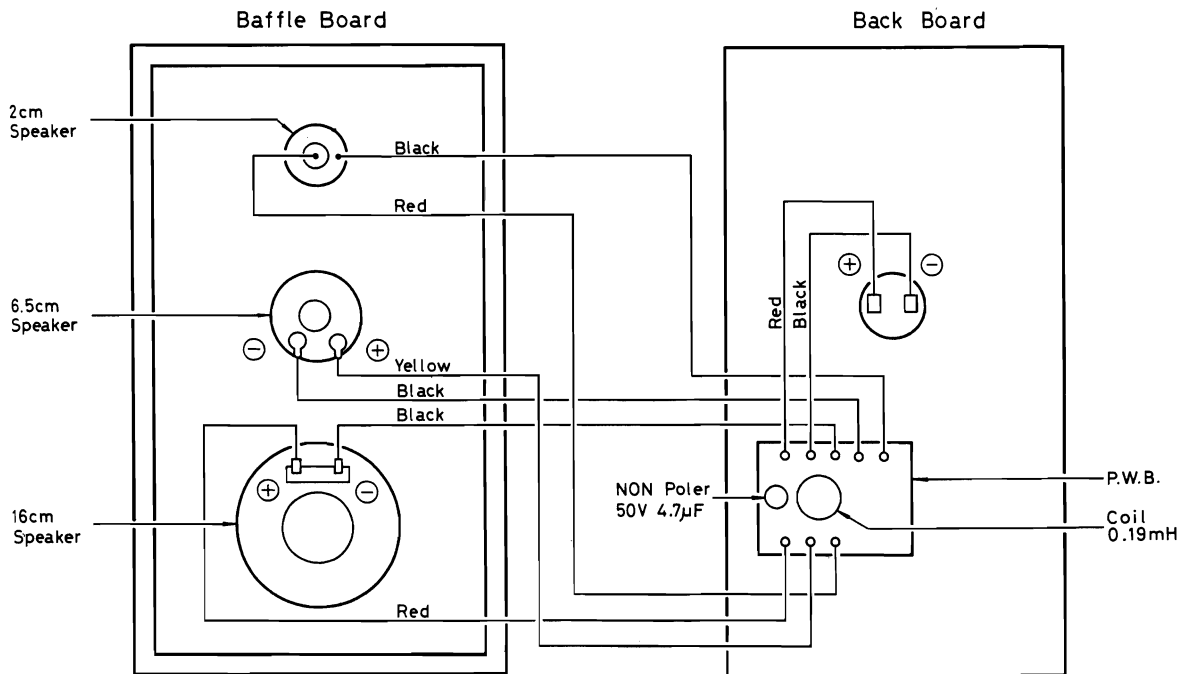
SPEAKER



SCHEMATIC DIAGRAM

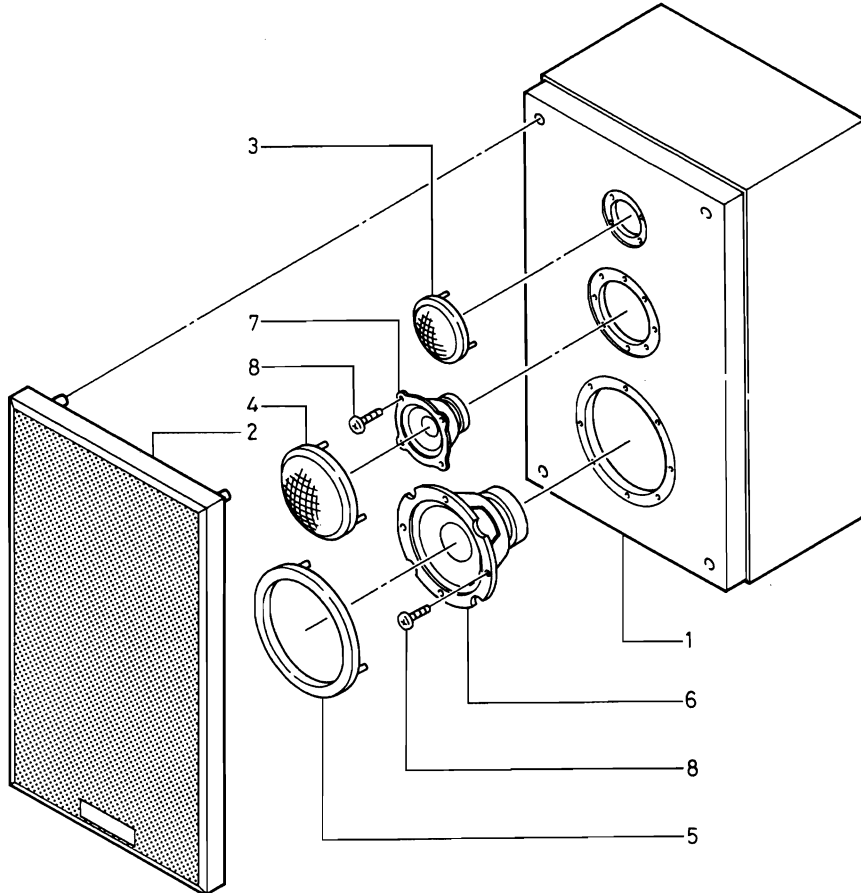


WIRING DIAGRAM



EXPLODED VIEW

Speaker



PARTS LIST

SYMBOL No.	PART No.	DESCRIPTION
1	T7097	Cabinet ass
2	T7098	Grille frames ass
3	T7099	Ring ass (TW)
4	K6088K	Ring ass (MID rang)
5	J2059K	Ring (Woofer)
6	C6070L	Woofer SP unit
7	C7023L	Middle range SP unit
8	F1107	Screw $\varnothing 3.5 \times 11$