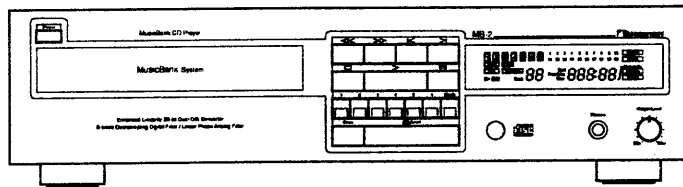


Service Manual

MB-2 MusicBank System





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1. GENERAL

Reference Service Manual

The base Model of MB-2 is CD Player 2. In this Service Manual, identical sections/items are omitted. So, please refer to the Service Manual of CD Player 2 (0Q06133A).

1.1. Product Code

V325

1.2. Destinations


USA, CAN, EP, UK, AUS, SAU, OTR, JPN

Abbreviation

USA — U.S.A.	AUS — Australia
CAN — Canada	SAU — Saudi Arabia
EP — Europe	OTR — Other
UK — United Kingdom	JPN — Japan

1.3. Cautions/Warnings

(1) Product Safety Notice

Parts marked with the symbol  in the schematic diagram have critical characteristics.

Use ONLY replacement parts recommended by the manufacturer. It is recommended that the unit be operated from a suitable DC supply or batteries during initial check-out procedures.

(2) Leakage Current Check/Resistance Check

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamp, or if the resistance from chassis to either side of the power cord is less than 240 k ohms, the unit is defective.

WARNING — DO NOT return the unit to the customer until the problem is located and corrected.

(3) Lithium Battery Caution

Use ONLY replacement parts recommended by the manufacturer. Replacement must be done only by qualified service personnel because of risk for explosion.

VARNING

Litiumbatteri. Explosionsfara vid felaktig hantering. Byte får endast ske av sakkunnig personal enligt servicedokumentationens anvisningar.

ADVARSEL!

Lithiumbatterier. Eksplosionsfare. Udskiftning må kun foretages af en sagkyndig og som beskrevet i servicemanualen.

batterierne kun må udskiftes med batterier af samme fabrikat og type.

(4) Protection of Eyes from Laser Beam

To protect eyes from invisible laser beam during servicing, **DO NOT LOOK AT THE LASER BEAM.**

- Laser Diode Properties

GaAlAs double hetero laser diode

Maximum Radiant Power:

0.4mW Max.

Measured at a distance of 1.6mm from the object lens surface on the Laser Pickup.

Wavelength: 780 nm

Emission Duration: Continuous

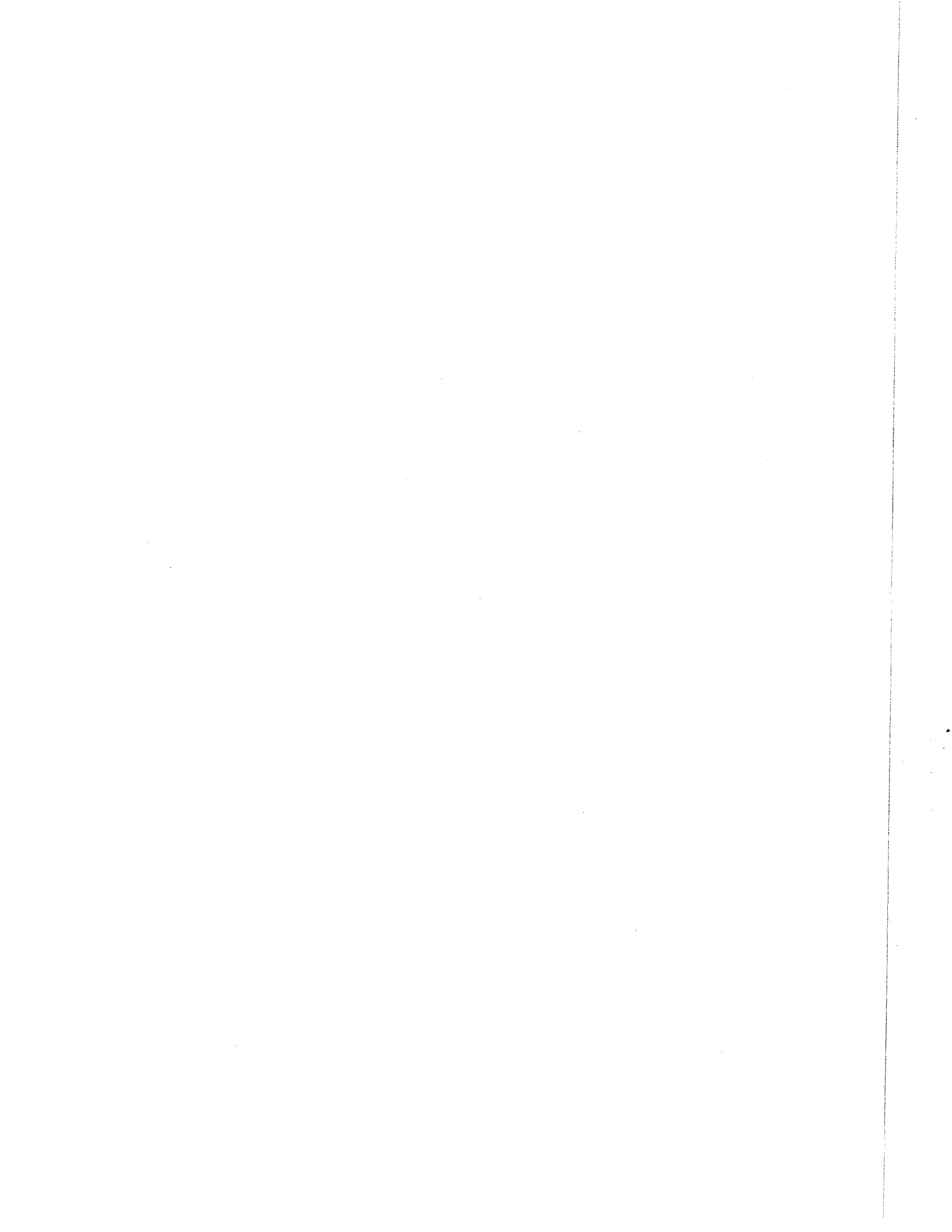
(5) Laser Caution

CAUTION

Adjusting the knobs, switches, and controls, etc. or taking actions not specified herein may result in a harmful emission of laser beams. This Compact Disc Player must be adjusted and repaired only by qualified service personnel.

OBSERVERA!

Sådana inställningar av rattarna, omkopplarna eller övriga kontrollknappar som inte är beskrivna i bruksanvisningen



kan resultera i farlig laserutstrålning. Justering eller reparation av denna kompaktskivspelare skall endast utföras av kvalificerad servicepersonal.

OBS!

Indstilling af knapper, omskiftere og øvrige kontrolknapper, som ikke følger den i brugsanvisningen beskrevne måde, kan resultere i farlig laserudstrålning. Justering eller reparation af denne CD-afspiller må kun udføres af kvalificeret servicepersonale.

OBS!

Justering av ratt, brytare och kontroller andre enn de som er beskrevet her, kan resultere i farlig laserbestrålning. Justering eller reparasjon av denne kompaktdiskspilleren ma bare utføres av kvalifiserte fagfolk.

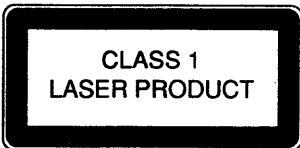
HUOMAUTUS

Jos nuppeja, kytkimiä ja säätimiä ym, säädetään tai laitetta käytetään toisella tavalla kuin on selostettu, tuloksena saattaa olla vaarallista lasersäteiden vuotoa. CD-soittimen säätö ja korjaus on jätettävä aina asiantuntevan huoltoteknikon tehtäväksi.

ADVERSEL: USYNLIG LASERSTRÅLING VED ÅBNING. UNDGA UDSÆTTELSE FOR STRÅLING.

VARO!: AVATTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

VARNING — OSYNLIG LASERSTRÅLNING NAR DENNA DEL ÄR ÖPPNAD. BETRAKTA EJ STRÅLEN.



THIS COMPACT DISC PLAYER IS CLASSIFIED AS A CLASS 1 LASER PRODUCT. THE CLASS 1 LASER PRODUCT LABEL IS LOCATED ON THE REAR EXTERIOR.

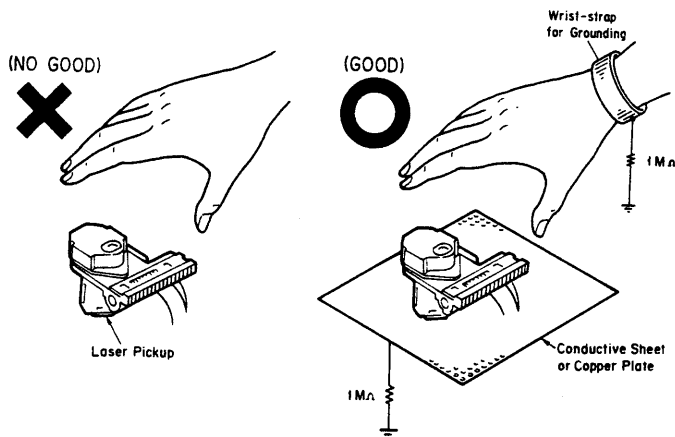


Fig. 1.1

1.4. Voltage Selector

The voltage selector is installed on the Rear Panel of the MB-2 (SAU & OTR). The voltage selector can select 110V, 127V, 220V, or 240V at customer's disposal.

1.5. Handling the Laser Pickup

In case of repair or replacement of the Laser Pickup, pay attention to the following handling instructions since the laser diode in the Laser Pickup is not resistant to static electricity.

(1) Grounding

When you repair a Laser Pickup, first ground the human body, as well as the measuring instruments and other tools (with particular caution to soldering iron). What's more, your workbench and floor should desirably be grounded using conductive sheet or copper plate. See Fig. 1.1.

NOTE: Be careful so as not to let your clothes touch the Laser Pickup, as static electricity on the clothes will not be released even if your body is grounded.

(2) Discharge of Electricity

Be sure to discharge electricity from objects brought into contact with the Laser Pickup (i.e., soldering iron, tweezers, probes, volt-ohm-meter probes, etc.) before starting work by contacting them with the body chassis. Besides, never touch the Laser Pickup while power is applied.

(3) Soldering Iron to be Used

The soldering iron for use in repair work should be: (1) a ceramic soldering iron, (2) a soldering iron with its metal part grounded, or (3) a soldering iron whose insulation resistance after five minutes of power application is 10 M-ohm or more at 500 VDC. Soldering should be completed promptly, at a soldering iron temperature of 320° max (39 W). A soldering iron heated above this temperature can break down the laser diode.

1.6. Package Ass'y and Accessory Ass'y

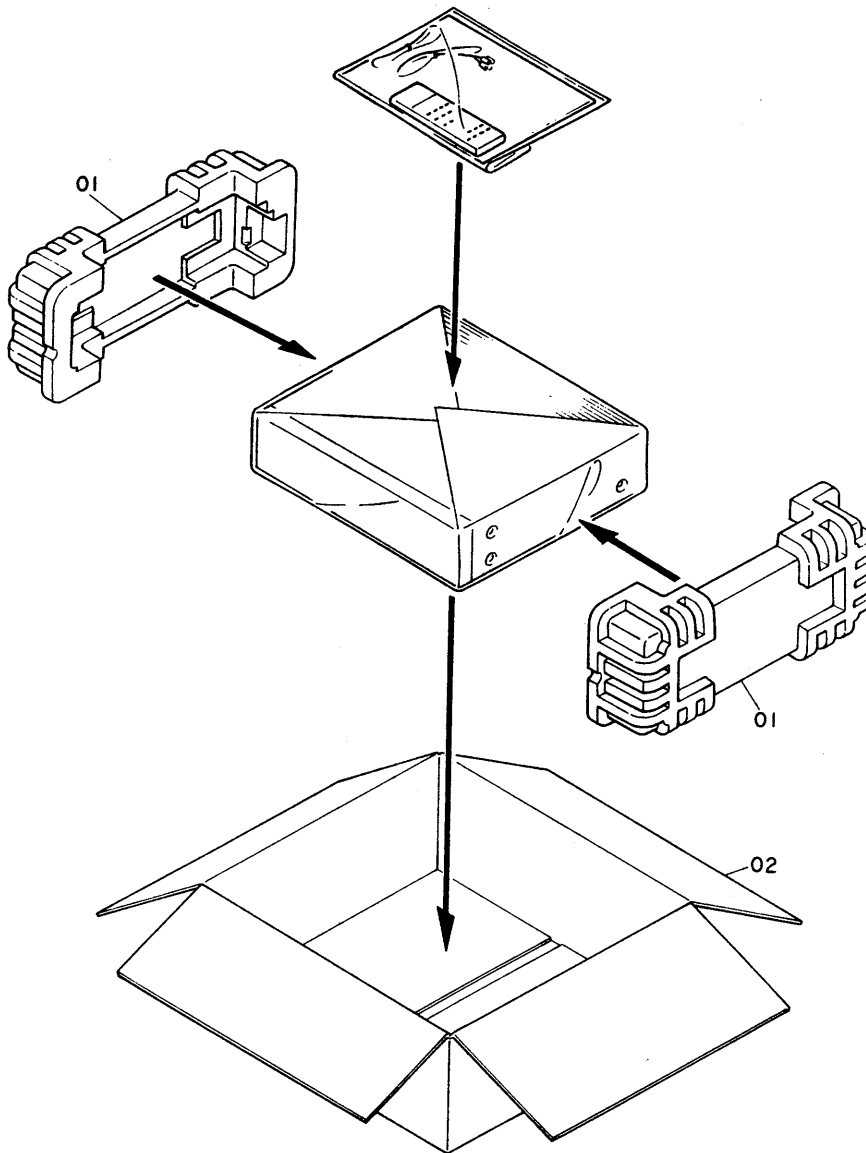


Fig. 1.2

Schematic Ref. No.	Part No.	Description	Q'ty	Schematic Ref. No.	Part No.	Description	Q'ty
—	—	Package Ass'y		DA04677A	Accessroy Ass'y (USA, CAN)	1	
01	0F04445B	Packing	2	DA04678A	Accessroy Ass'y (EP)	1	
02	0F04713A	Carton Box (USA, CAN, AUS, SAU, OTR, JPN)	1	DA04679A	Accessroy Ass'y (UK)	1	
—	0F04718A	Carton Box (EP, UK)	1	DA04681A	Accessroy Ass'y (AUS, SAU, OTR)	1	
—	0F04458A	Soft Sheet	1	DA04676A	Accessroy Ass'y (JPN)	1	
				HA06493A	Remote Control Unit	1	
				0B90462A	Battery UM4	2	
				0D06408C	Owner's Manual (English)	1	
				0D06412B	Owner's Manual (French)	1	
				0D06413A	Owner's Manual (German)	1	
				0D06407A	Owner's Manual (Japanese)	1	
				0D06431A	Pin-Pin Cord	1	
				0D06136A	Mini Pin-Pin Cord	1	

2. ELECTRICAL ADJUSTMENTS

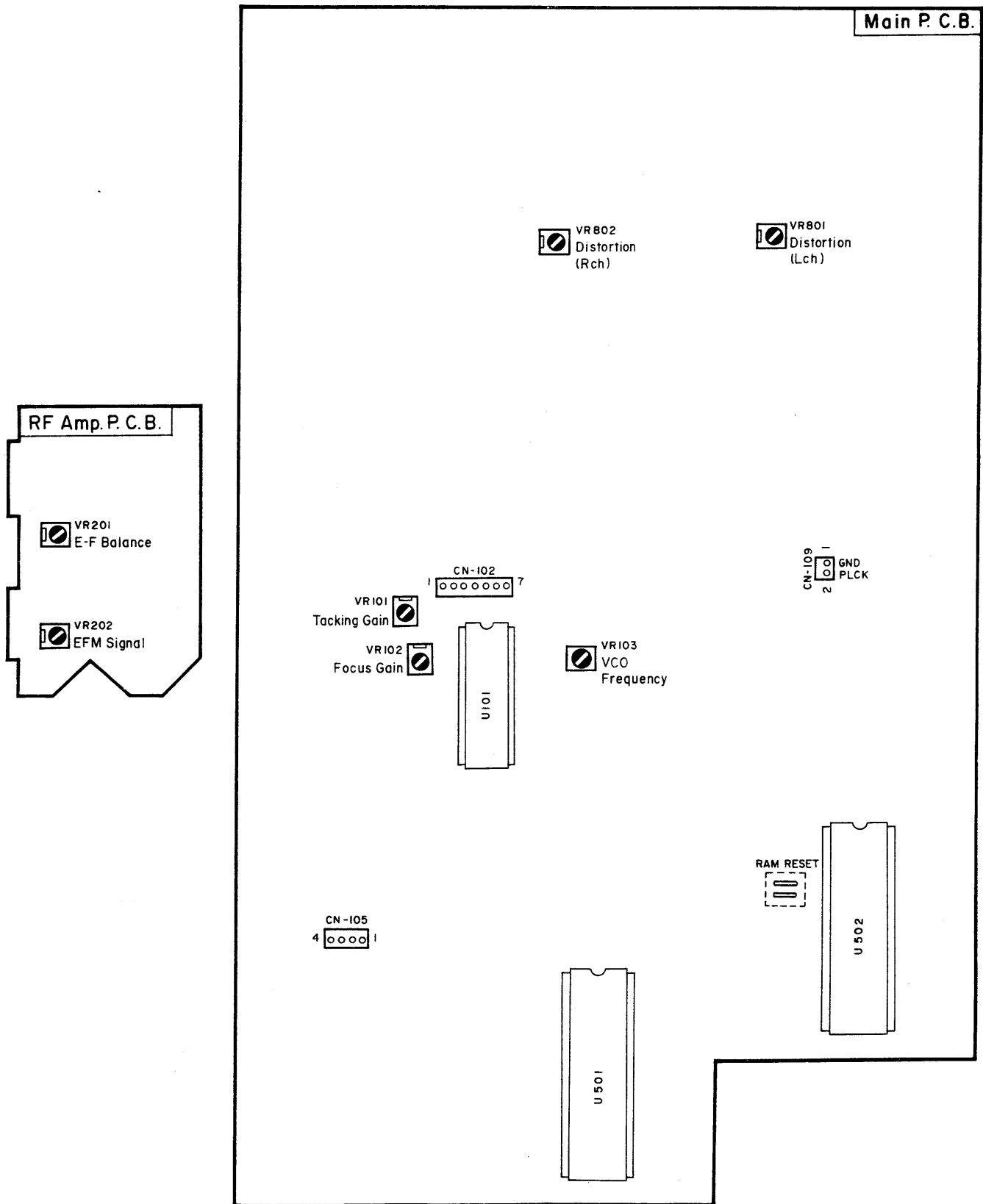
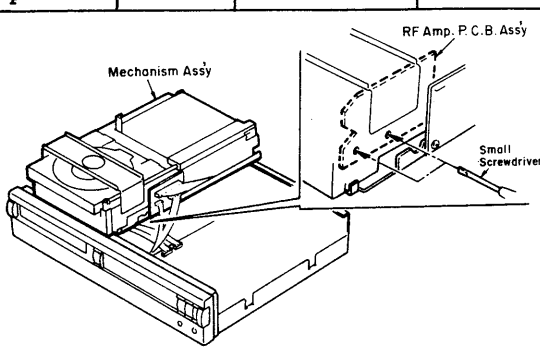
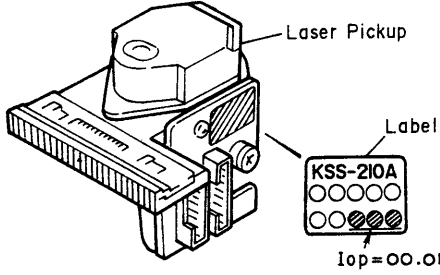
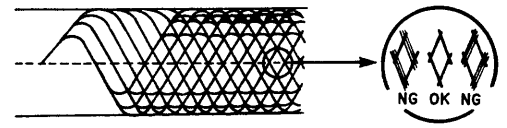
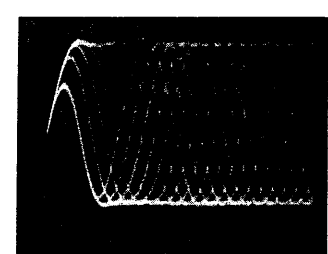
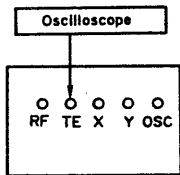
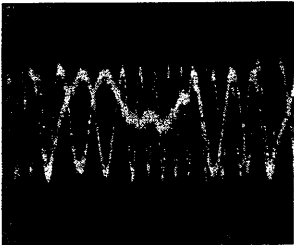
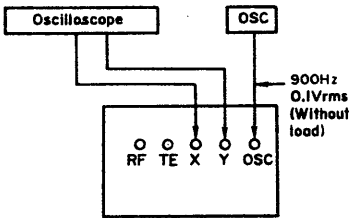
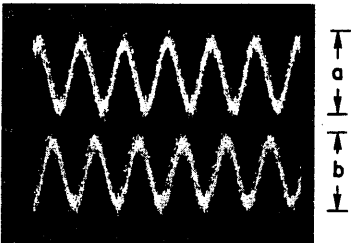
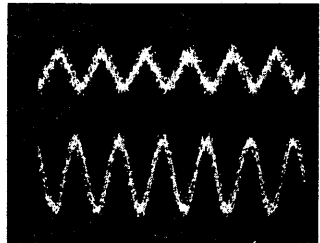
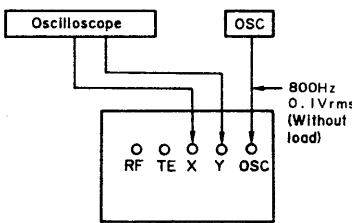
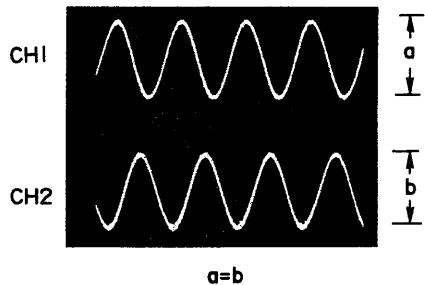
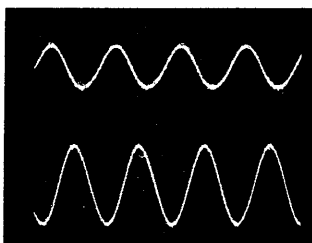


Fig. 2 Parts Location for Electrical Adjustment

NOTE: For adjusting, use the Test Unit made by Nakamichi.

STEP	ITEM	SIGNAL SOURCE	OUTPUT CONNECTION	ADJUSTMENT	REMARKS
1	Preliminary Step				<p>1. Connect the Test Unit to CN-102 and CN-105 on the Main P.C.B. Ass'y via the Test Unit Cable.</p> <p>2. For adjusting VRs on the RF Amp. P.C.B. Ass'y, remove the Mechanism Ass'y and place it on the unit as shown left.</p> <p>Note: In the following cases, preset the following semi-fixed volumes to their mechanical center positions before starting adjustment.</p> <p>VR101, VR102 --- Main P.C.B. Ass'y VR201, VR202 --- RF Amp. P.C.B. Ass'y</p> <ul style="list-style-type: none"> o When Main P.C.B. Ass'y or RF Amp. P.C.B. Ass'y is replaced with new one. o When VR101, VR102, VR201, or VR202 is replaced with new one.
					
2	Laser Current Check	Philips Test Sample 5	DC Voltmeter between Iop and +5V Terminals of Test Unit		<p>1. Turn the power ON and load the test disc.</p> <p>2. Play back the test disc and calculate the current flowing into R201 from the following formula.</p> $I = \frac{\text{Voltmeter Value}}{R201 (22 \text{ Ohms})} = \text{oo.o mA (Measured Value)}$ <p>Note: The voltmeter value should be read to 3 digits after the decimal point.</p> <p>3. Press the Eject/Load button to open the Disc Tray and check that the difference between the measured value and the current value (Iop) indicated on the label on the Laser Pickup is within $\pm 10\%$.</p> $I_{op} - (\text{Measured Value}) = I_{op} \pm 10\%$
					
3	VCO Frequency Adjustment	None	Frequency Counter (10/1 probe) between Pins 2 (PLCK) and 1 (GND) of CN-109 on Main P.C.B.	Main P.C.B. VR103	<p>1. Set SW1 of the Test Unit to VCO.</p> <p>2. Adjust VR103 to obtain 4.322 \pm0.005 MHz on the frequency counter.</p> <p>3. Set SW1 to OFF position.</p>
4	EFM Signal Adjustment	Philips Test Sample 5	Oscilloscope to RF Connector of Test Unit	RF Amp. P.C.B. VR202	<p>1. Play back the first track of the test disc.</p> <p>2. Adjust VR202 until waveform amplitude becomes maximum and the waveform becomes clear (not thick) as shown below:</p>
					
					
	<p>Oscilloscope Setting: AC Mode, 0.2 V/div, 0.5 μs/div</p>				

STEP	ITEM	SIGNAL SOURCE	OUTPUT CONNECTION	ADJUSTMENT	REMARKS
5	E-F Balance Adjustment (Supplementary Beam Balance Adjustment)	Philips Test Sample 5	Oscilloscope to TE Connector of Test Unit	RF Amp. P.C.B. VR201	<ol style="list-style-type: none"> 1. Play back the first track of the test disc. 2. Set SW2 of the Test Unit to E-F position. 3. Adjust VR201 so that the center level of the waveform is within the range of 0 V \pm0.1 V DC as shown below:
<p>SW1: OFF SW3: OFF SW2: E-F Filter: OUT</p>  <p>Connecting Diagram</p>					 <p>Center Level</p> <p>Oscilloscope Setting: DC Mode, 1 V/div, 1 ms/div</p>
6	Tracking Gain Adjustment	Philips Test Sample 5	Oscillator to OSC Connector of Test Unit Oscilloscope to Test Unit o CH1 to X o CH2 to Y	Main P.C.B. VR101	<ol style="list-style-type: none"> 1. Set the output of oscillator to 900 Hz, 0.1 Vrms without connecting it to the Test Unit. 2. Note the position of the Output control of the oscillator. 3. Connect the oscillator output to OSC connector of the Test Unit and set its output to 0 V. 4. Set the Filter switch of the Test Unit to IN position. 5. Play back the first track of the test disc. 6. Set the Output control of the oscillator to the position noted in 2. 7. Set SW3 of the Test Unit to TRACKING position. 8. Adjust VR101 so that the amplitude of both waveforms on the oscilloscope are equal. (a=b) 9. Set SW3 to OFF position.
<p>SW1: OFF SW3: TRACKING SW2: OFF Filter: IN</p>  <p>Connecting Diagram</p>					<p>Good waveforms</p>  <p>CH1</p> <p>CH2</p> <p>a=b</p> <p>NG waveforms</p>  <p>OSC</p> <p>900Hz 0.1Vrms (W/without load)</p> <p>Oscilloscope Setting: CH1, CH2: 0.2 V/div, DC Mode Time: 0.5 ms/div Mode: Auto, ALT Trigger: CH1</p>

STEP	ITEM	SIGNAL SOURCE	OUTPUT CONNECTION	ADJUSTMENT	REMARKS
7	Focus Gain Adjustment	Philips Test Sample 5	Oscillator to OSC connector of Test Unit Oscilloscope to Test Unit o CH1 to X o CH2 to Y	Main P.C.B. VR102	<ol style="list-style-type: none"> 1. Set the output of oscillator to 800 Hz, 0.1 Vrms without connecting it to the Test Unit. 2. Note the position of the Output control of the oscillator. 3. Connect the oscillator output to OSC connector of the Test Unit and set its output to 0 V. 4. Set the Filter switch of the Test Unit to IN position. 5. Play back the first track of the test disc. 6. Set the Output control of the oscillator to the position noted in 2. 7. Set SW3 of the Test Unit to FOCUS position. 8. Adjust VR102 so that the amplitude of both waveforms on the oscilloscope are equal. (a=b) 9. Set SW3 to OFF position. 10. Set the Filter switch to OUT position. 11. After adjustment, perform "EFM Signal Adjustment" in Step 4.
<p>SW1: OFF SW3: FOCUS SW2: OFF Filter: IN</p> <p>Connecting Diagram</p>  <p>Good waveforms</p>  <p>NG waveforms</p>  <p>Oscilloscope Setting: CH1, CH2: 0.2 V/div, DC Mode Time: 0.5 ms/div Mode: Auto, ALT Trigger: CH1</p>					
8	Distortion Adjustment	Sony YEDS-7 (Type 3)	Distortion Meter to Output Jack	Main P.C.B. VR801(L) VR802(R)	<ol style="list-style-type: none"> 1. Play back the first program (1kHz, 0dB) of the test disc. 2. Adjust VR801 (Lch) and VR802 (Rch) to obtain minimum distortion.
9	Operation Check	Philips Test Sample 5A			<p>Play back the following test programs on the test disc (Philips Test Sample 5A) and make sure that there is no noise and track-jumping.</p> <ul style="list-style-type: none"> o Interruption 500 μm 6th program o Black Dot 800 μm 17th program o Simulated fingerprint 19th program

3. MECHANISM ASS'Y AND PARTS LIST

3.1. Synthesis

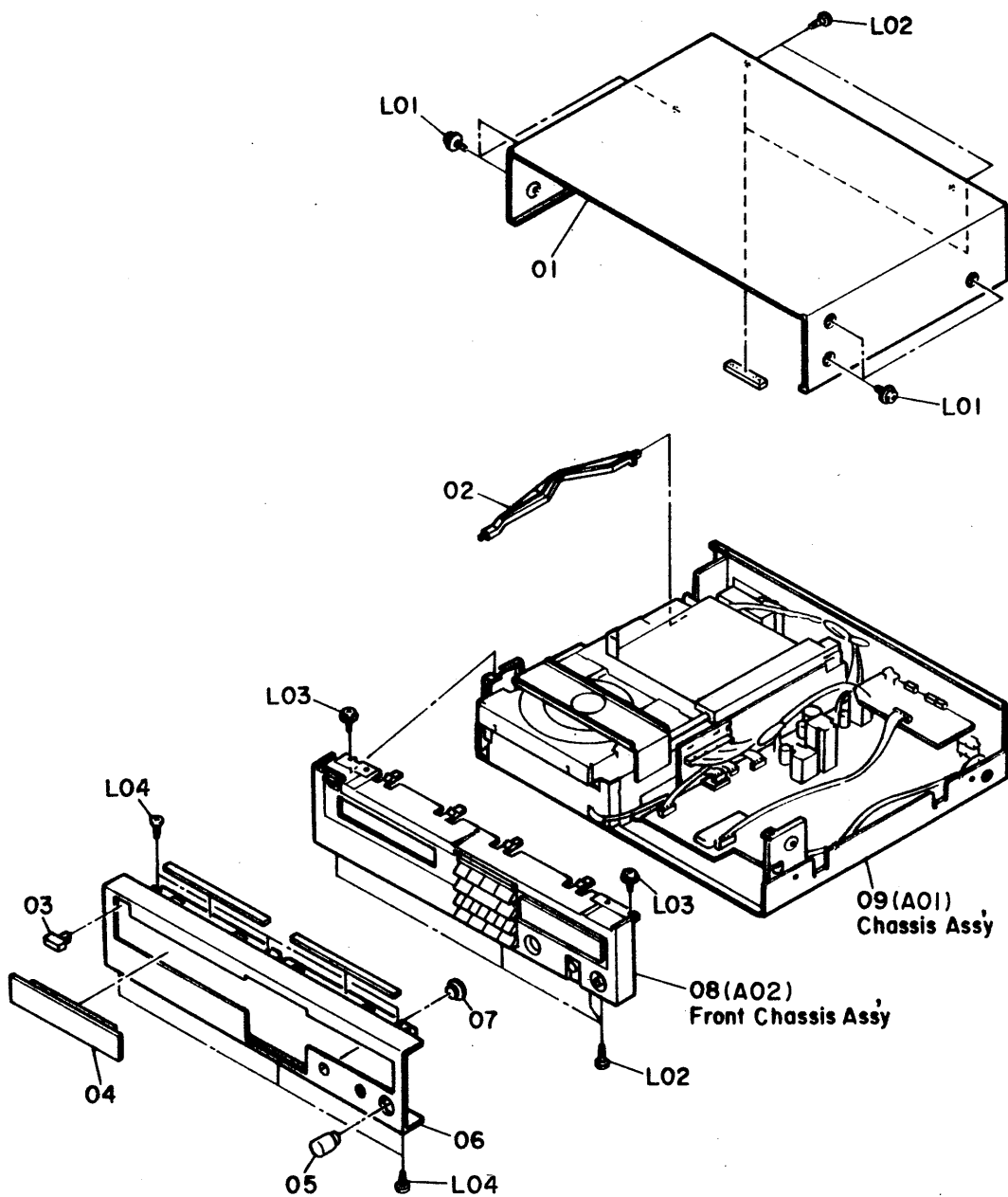


Fig. 3.1

3.1. Synthesis

Schematic Ref. No.	Part No.	Description	Qty	Schematic Ref. No.	Part No.	Description	Qty
	—	Synthesis		08	—	Front Chassis Ass'y	1
01	0H06422A	Top Cover	1	09	—	Chassis Ass'y	1
02	0J07036B	Power Switch Joint	1	L01	0E03592A	BT4x6 + Binding Washer-Faced (Black Chromate)	
03	0H06418A	Power Knob	1	L02	0E00921A	BT3x8 + Binding (Black Chromate)	
04	HA06582B	Disc Tray Cover Ass'y	1	L03	0E03157A	BT3x8 + Binding with Washer	
05	HA06502A	Volume Knob Ass'y	1	L04	0E03749A	PT3x8 + Binding (Black Chromate)	
06	0H06452C	Front Panel	1				
07	0H05861B	Remote Window	1				

3.2. Chassis Ass'y (A01)

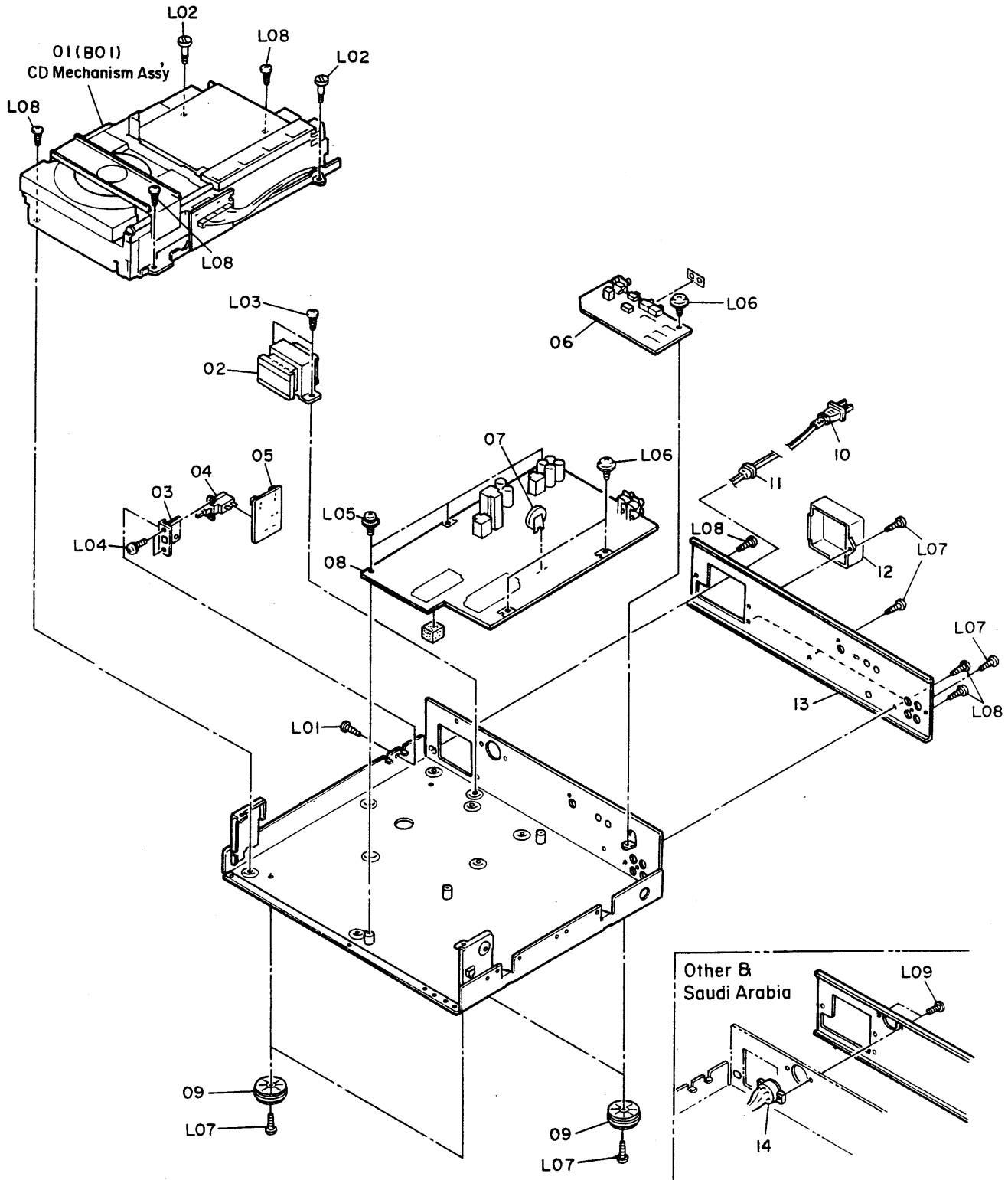


Fig. 3.2

3.3. Front Chassis Ass'y (A02)

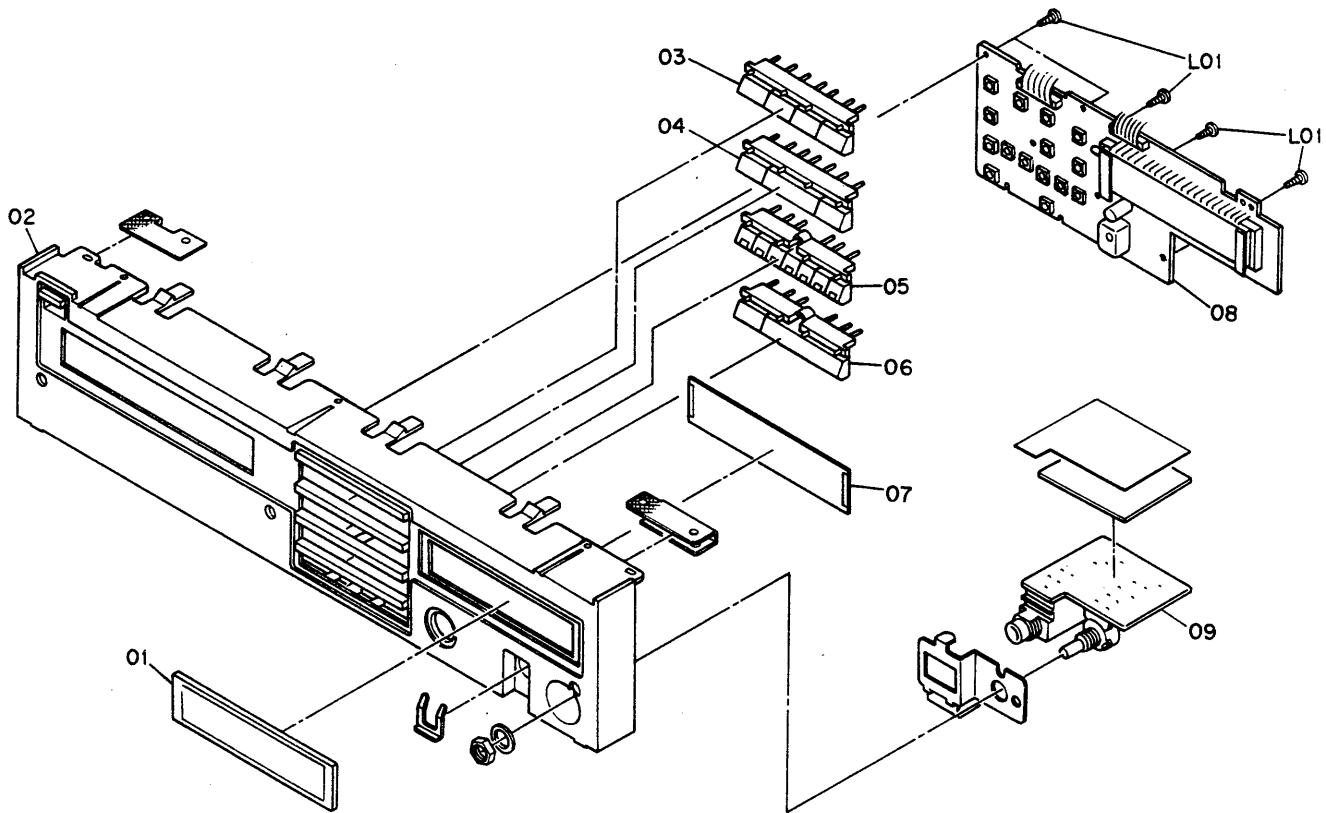


Fig. 3.3

3.2. Chassis Ass'y (A01)

Schematic Ref. No.	Part No.	Description	Q'ty
A01	—	Chassis Ass'y	1
01	CA09004A	Mechanism Ass'y	1
02	0B50170B	Power Transformer 120V (USA, CAN)	1
	0B50173B	Power Transformer 230V/240V (EP, UK, AUS)	1
	0B50172B	Power Transformer 110V-240V (SAU, OTR)	1
	0B50171B	Power Transformer 100V (JPN)	1
03	0J06231B	Power Switch Holder	1
04	0B71013A	Power Switch	1
05	BA08874A	Power Switch P.C.B. Ass'y (USA, CAN, SAU, OTR)	1
	BA08879A	Power Switch P.C.B. Ass'y (EP, UK, AUS)	1
	BA08877A	Power Switch P.C.B. Ass'y (JPN)	1
06	BA08875A	Digital Output P.C.B. Ass'y	1
07	0B92048A	Lithium Battery [B501]	1
08	BA08872A	Main P.C.B. Ass'y	1
09	0H06477A	Leg	4
10	0B90205A	Power Cord (USA, CAN)	1
	0B08093U	Power Cord (EP)	1
	0B08348A	Power Cord (UK)	1
	0B05241A	Power Cord (AUS)	1
	0B08219B	Power Cord (SAU, OTR, JPN)	1
11	0B90280A	Cord Bushing (USA, CAN, EP, UK, AUS)	1
	0B90283A	Cord Bushing (SAU, OTR, JPN)	1
12	0H05810C	Transformer Cover	1
13	0H06517A	Rear Plate (USA, CAN, AUS, JPN)	1
	0H06519A	Rear Plate (EP, UK)	1
	0H06518A	Rear Plate (SAU, OTR)	1

Schematic Ref. No.	Part No.	Description	Q'ty
14	0B81771A	Voltage Selector (SAU, OTR)	1
L01	0E00857A	BT3x6 + Binding	
L02	0E03635A	BT3x6 + Binding	
L03	0E03434A	BT4x6 + Binding	
L04	0E00612A	M3x6 + Pan (2A)	
L05	0E00607A	M3x8 + Pan (3A)	
L06	0E03157A	BT3x8 + Binding with Washer	
L07	0E00921A	BT3x8 + Binding (Black Chromate)	
L08	0E00860A	BT3x6 + Binding (Black Chromate)	
L09	0E00985A	M3x6 + Binding (Black Chromate) (SAU, OTR)	

3.3. Front Chassis Ass'y (A02)

Schematic Ref. No.	Part No.	Description	Q'ty
A02	—	Front Chassis Ass'y	1
01	HA06596A	Display Lens MB Ass'y	1
02	0H06449B	Front Chassis MB	1
03	0H06442B	Control Knob 4C	1
04	0H06426B	Control Knob 3CD	1
05	0H06443B	Control Knob 7C	1
06	0H06444B	Control Knob 2C	1
07	HA06568A	Filter MB C Ass'y	1
08	BA08864A	Front P.C.B. Ass'y	1
09	BA08873A	Headphone Amp. P.C.B. Ass'y	1
L01	0E03749A	PT3x8 + Binding (Black Chromate)	

4. MOUNTING DIAGRAMS AND PARTS LIST

- NOTE:** 1. Component side is illustrated unless otherwise specified.
 2. Polarity of electrolytic capacitor.



4.1. Power Switch P.C.B. Ass'y

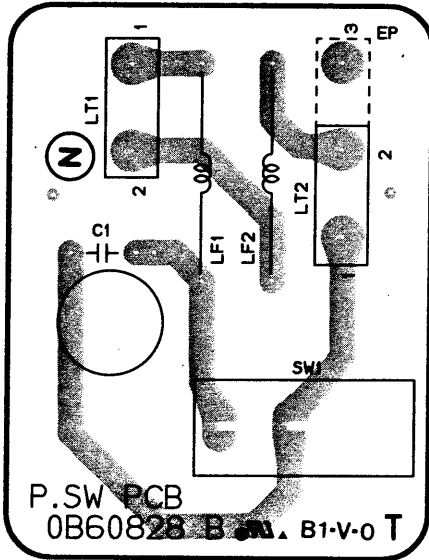


Fig. 4.1

4.2. Headphone Amp. P.C.B. Ass'y

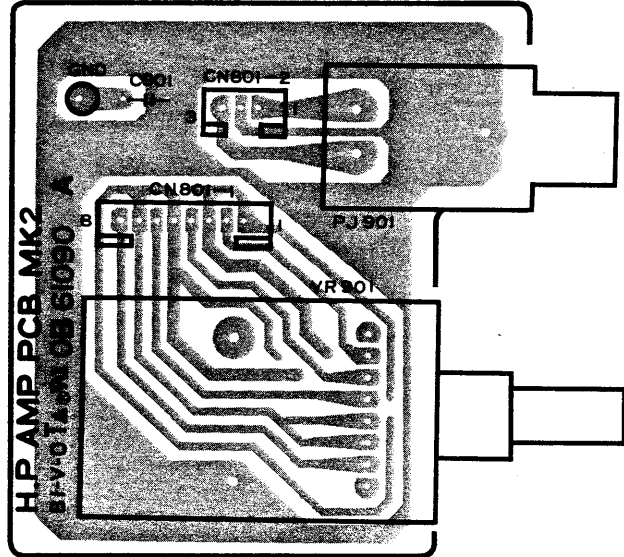


Fig. 4.2

4.3. Digital Output P.C.B. Ass'y

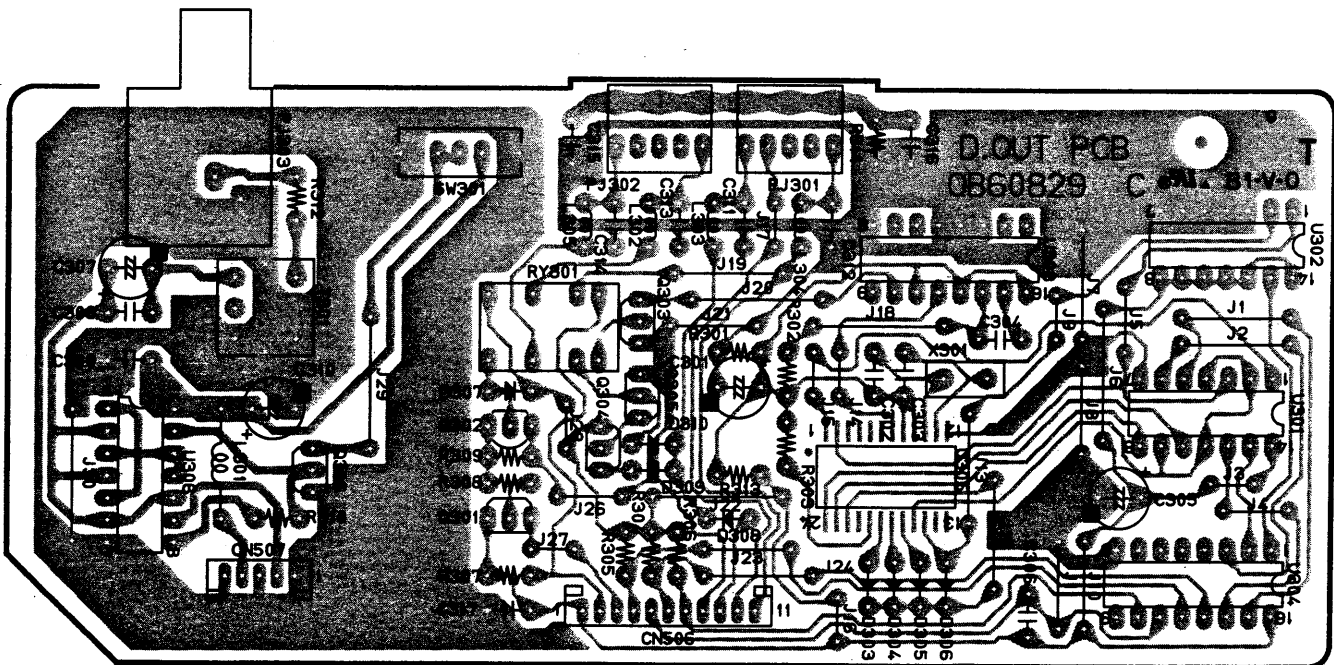


Fig. 4.3

4.4. Front P.C.B. Ass'y

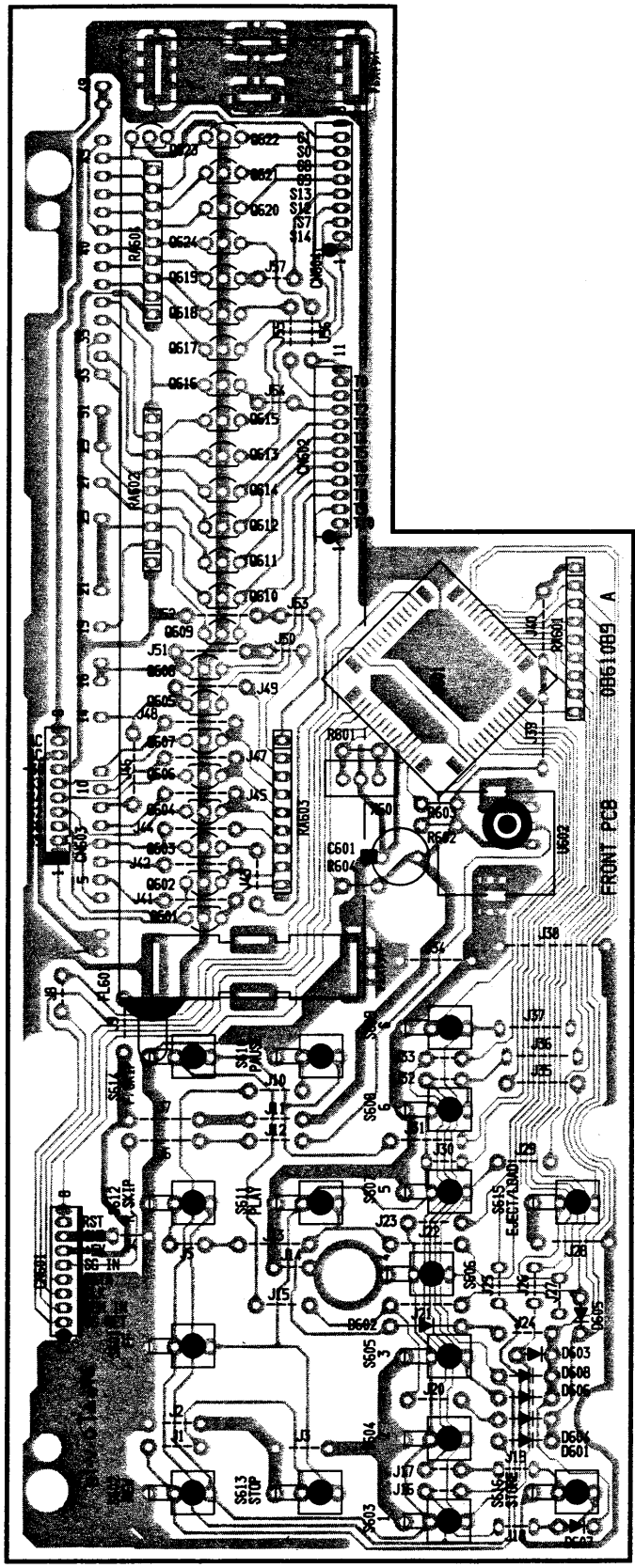


Fig. 4.4

NOTES: 1. Abbreviations

- TR – Transistor, SID – Silicon Diode, ZD – Zener Diode, Varicap – Variable Capacitance Diode
RK – Carbon Resistor, RM – Metal Film Resistor, RF – Fail Safe Type Resistor, RC – Cement Resistor
CE – Electrolytic Capacitor, CML – Mylar Capacitor, CC – Ceramic Capacitor, CPP – PP Capacitor,
CMM – Metalized Mylar Capacitor, CSP – Polystyrene Capacitor, C – Mica Capacitor,
CT – Tantalum Capacitor

2. Description of capacitor: 10 16V = 10μ 16V

4.1. Power Switch P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
			D309,310	0B06398A	Sid 1SS176
	BA08874A	Power Switch P.C.B. Ass'y (USA, CAN, OTR, SAU)	X301	0B92049A	X'tal 455KHz
			T301	0B51351A	Pulse Transformer
	BA08879A	Power Switch P.C.B. Ass'y (EP, UK, AUS)	L301	0B51369A	Micro Coil 10uH
			L302,303	0B51311A	Micro Coil 100uH
	BA08877A	Power Switch P.C.B. Ass'y (JPN)	L304,305	0B51311A	Micro Coil 100uH
			R301	0B09665A	RK 330K 1/6W J
			R302	0B09725A	RK 100K 1/6W J
			R303	0B09733A	RK 220K 1/6W J
			R304,305	0B09701A	RK 10K 1/6W J
			R306,307	0B09701A	RK 10K 1/6W J
LF1,2	0B60828B	Power Switch P.C.B. Inductor 15uH	R308	0B09685A	RK 2.2K 1/6W J
	0B51397A	(Except JPN)	R309	0B09701A	RK 10K 1/6W J
			R310	0B09685A	RK 2.2K 1/6W J
			R312	0B09650A	RK 75 1/6W J
C1	0B51352A	Inductor 15uH (JPN)	R313	0B09661A	RK 220 1/6W J
	0B41825A	CC 4700P 400V (Except JPN)	R314	0B09637A	RK 22 1/6W J
			C301	0B40077A	CE 47 16V
	0B41826A	CC 4700P 250V (JPN)	C302,303	0B41974A	CC 100P 50V J
LT1	0B84275A	Wrapping Terminal 2P	C304	0B47113A	CC 330P 50V K
LT2	0B84275A	Wrapping Terminal 2P (USA, CAN, OTR, SAU, JPN)	C305	0B40074A	CE 10 16V
			C306	0B47117A	CC 0.1 50V Z
			C307	0B40089A	CE 33 25V
	0B84380A	Wrapping Terminal 3P (EP, UK, AUS)	C308	0B41944A	CC 1000P 50V K
			C309	0B47117A	CC 0.1 50V Z
			C310	0B40078A	CE 100 16V
			C311,312	0B47113A	CC 330P 50V K
			C313,314	0B47113A	CC 330P 50V K
			C315,316	0B47117A	CC 0.1 50V Z
			RY301	0B90449A	Relay G5A-234P
			S301	0B70165A	Slide Switch
			PJ301,302	0B84028A	Streo Mini Jack
			PJ303	0B84431A	1P Pin Jack
			CN506	0B84353A	11P Connector
			CN507	0B84352B	5P Connector
			0J05898B	Earth Plate (1)	

Schematic Ref. No.	Part No.	Description
RA602,603	0B21091A	R Network 47Kx8
RA604	0B21091A	R Network 47Kx8
R601	0B09749A	RK 1M 1/6W J
R602,603	0B09717A	RK 47K 1/6W J
R604	0B09717A	RK 47K 1/6W J
C601	0B40052A	CE 470 6.3V
S601-616	0B70214A	Tact Switch
CN601	0B85213B	8P Connector
CN602	0B85212A	11P Connector
CN603	0B85215A	8P Connector
CN604	0B85214A	8P Connector
FL601	0B90444A	FL Display FIP11HM8
	0J06219C	FL Cushion (2)
	0J06238A	FL Stopper Metal (2)

4.2. Headphone Amp. P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	BA08873A	Headphone Amp. P.C.B. Ass'y
VR901	0B61090A	Headphone Amp. P.C.B.
	0B30161A	Motor VR 10Kx2
PJ901	0B84327A	Headphone Jack
CN110	0B84268B	2P Connector Ass'y
CN801	0B84260A	11P Connector Ass'y
	0B84393A	11P Connector P.B Ass'y (1)

4.4. Front P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	BA08864A	Front P.C.B. Ass'y
U601	0B61089A	Front P.C.B.
	0B11810A	IC LC6522H-4377
U602	0B19017A	Remote Control Receiver
Q601,602	0B10030A	TR 2SC1740S
Q603,604	0B10030A	TR 2SC1740S
Q605,606	0B10030A	TR 2SC1740S
Q607,608	0B10030A	TR 2SC1740S
Q609,610	0B10030A	TR 2SC1740S
Q611,612	0B10030A	TR 2SC1740S
Q613,614	0B10030A	TR 2SC1740S
Q615,616	0B10030A	TR 2SC1740S
Q617,618	0B10030A	TR 2SC1740S
Q619,620	0B10030A	TR 2SC1740S
Q621,622	0B10030A	TR 2SC1740S
Q623,624	0B10030A	TR 2SC1740S
D601,602	0B06398A	SID 1SS176
D603,604	0B06398A	SID 1SS176
D605,606	0B06398A	SID 1SS176
D607,608	0B06398A	SID 1SS176
X601	0B92033A	X'tal 4.0MHz
RA601	0B21090A	R Network 4.7Kx8

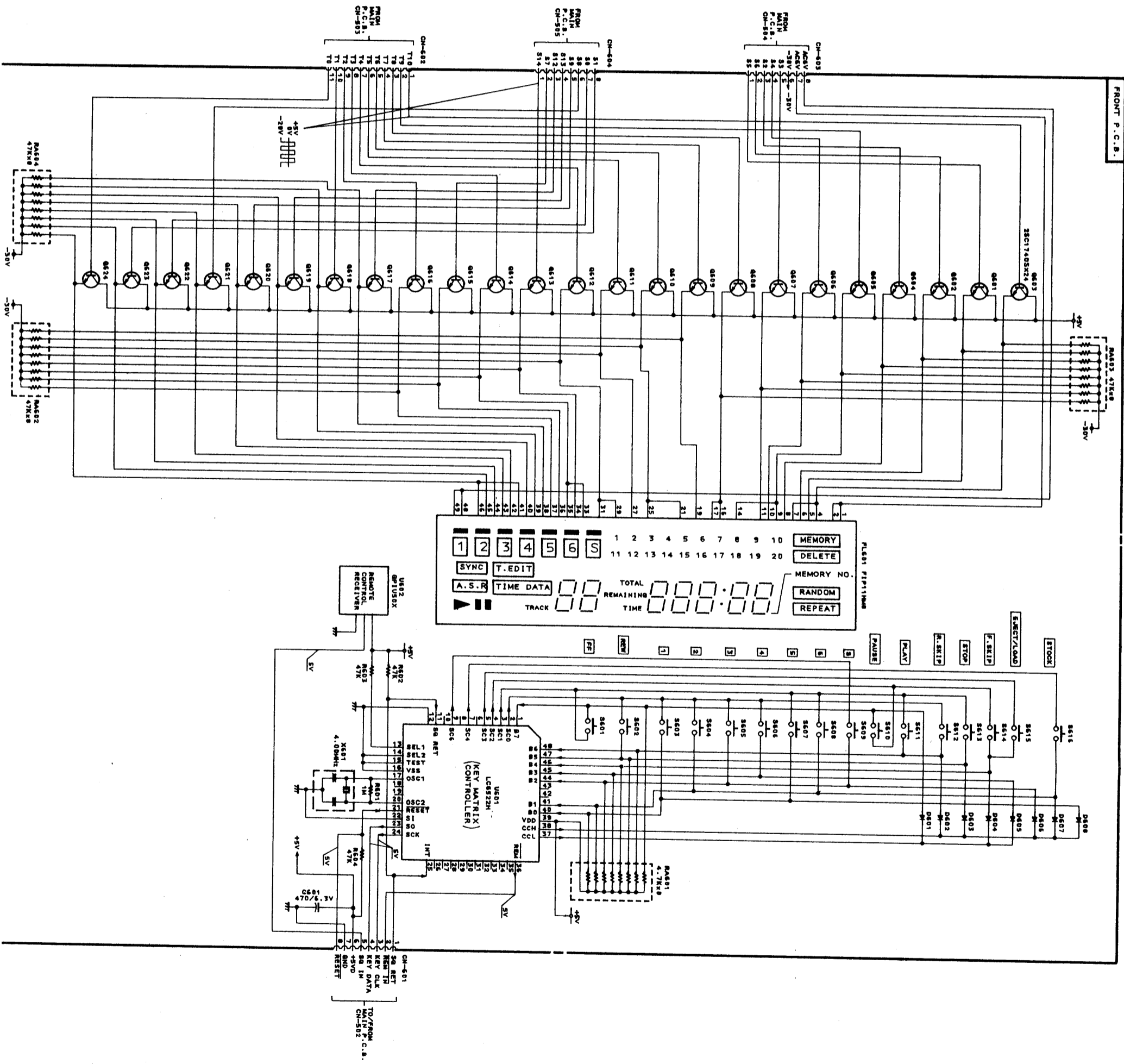
4.5. Main P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	BA08872A	Main P.C.B. Ass'y
		— D/A Converter —
U801	0B11568A	IC TC74HCU04AP
U802	0B11835A	IC SM5840CP
U803	0B11824A	IC MB623403
U804	0B06370A	IC NJM4556D
U805L,R	0B11873A	IC NE5532N
U806L,R	0B11873A	IC NE5532N
U807L,R	0B11850A	IC PCM1700P
Q801L,R	0B06299A	TR 2SC2878
Q802L,R	0B06299A	TR 2SC2878
Q803	0B06180A	TR 2SA970
D801L,R	0B06398A	SID 1SS176
D802L,R	0B06398A	SID 1SS176
X801	0B92039A	X'tal 16.9344MHz
L801,802	0B51369A	Micro Coil 10uH
L803L,R	0B51369A	Micro Coil 10uH
L804L,R	0B51369A	Micro Coil 10uH
L805	0B51369A	Micro Coil 10uH
VR801,802	0B32201A	Semi VR 5K
R801	0B09749A	RK 1M 1/6W J
R802L,R	0B25279A	RM 7.5K 1/4W F
R803L,R	0B25387A	RM 100K 1/4W F
R804L,R	0B20527A	RM 3.01 1/4W F
R807	0B09725A	RK 100K 1/6W J
R808	0B09701A	RK 10K 1/6W J
R809L,R	0B25195A	RM 1K 1/4W F
R810L,R	0B20526A	RM 75 1/4W F
R811L,R	0B25233A	RM 2.49K 1/4W F
R812L,R	0B25346A	RM 37.4K 1/4W F
R813L,R	0B25267A	RM 5.62K 1/4W F
R814L,R	0B25215A	RM 1.62K 1/4W F
R815L,R	0B25156A	RM 392 1/4W F
R816L,R	0B25198A	RM 1.07K 1/4W F
R817L,R	0B25198A	RM 1.07K 1/4W F
R818L,R	0B25197A	RM 1.05K 1/4W F
R819L,R	0B25149A	RM 332 1/4W F
R821L,R	0B09709A	RK 22K 1/6W J
R822L,R	0B25149A	RM 332 1/4W F
R824	0B09749A	RK 1M 1/6W J
R825L,R	0B25195A	RM 1K 1/4W F
R826L,R	0B25356A	RM 47.5K 1/4W F

Schematic Ref. No.	Part No.	Description
IP401,402	0B11248A	IC Protector ICP-N5
IP403,404	0B11248A	IC Protector ICP-N5
IP405	0B11248A	IC Protector ICP-N5
Q401	0B10371A	TR 2SD1785
Q402	0B10370A	TR 2SB1258
Q403,404	0B06100A	TR 2SC945
Q405	0B10371A	TR 2SD1785
Q406,407	0B10370A	TR 2SB1258
Q420	0B06142A	TR 2SC2240 (BL)
ZD401,402	0B12153A	ZD 6.2V B2
ZD403	0B12165A	ZD 9.1V B2
ZD404	0B12171A	ZD 11V B2
ZD405	0B12201A	ZD 30V B2
D401,402	0B12362A	SiD S5566B
D403,404	0B12362A	SiD S5566B
D405,406	0B12362A	SiD S5566B
D407,408	0B06398A	SiD 1SS176
D409	0B12362A	SiD S5566B
D410	0B12362A	SiD S5566B
D411,412	0B06398A	SiD 1SS176
D413	0B06398A	SiD 1SS176
D414	0B06398A	SiD 1SS176
D415	0B12362A	SiD S5566B
D416,417	0B12362A	SiD S5566B
D418,419	0B12362A	SiD S5566B
R401,402	0B20525A	RK 510 1/4W J
R404,405	0B20525A	RK 510 1/4W J
R407	0B09689A	RK 3.3K 1/6W J
R408	0B09701A	RK 10K 1/6W J
R409	0B09709A	RK 22K 1/6W J
R410,411	0B09653A	RK 100 1/6W J
R413,414	0B24274A	Fuse Resistor 2.2
R415	0B09749A	RK 1M 1/6W J
R416	0B09701A	RK 10K 1/6W J
R417	0B09749A	RK 1M 1/6W J
R418	0B09701A	RK 10K 1/6W J
R419	0B09717A	RK 47K 1/6W J
R420	0B09693A	RK 4.7K 1/6W J
R421,422	0B09701A	RK 10K 1/6W J
R423	0B09749A	RK 1M 1/6W J
R424	0B09701A	RK 10K 1/6W J
R425	0B09717A	RK 47K 1/6W J
R426	0B09693A	RK 4.7K 1/6W J
R428	0B09702A	RK 11K 1/6W J
R429	0B09703A	RK 12K 1/6W J
R430	0B09677A	RK 1K 1/6W J
C401,402	0B40656A	CE 100 16V (LN)
C403,404	0B40716A	CE 220 6.3V (LN)
C405,406	0B40064A	CE 220 10V
C407	0B41944A	CC 1000P 50V K
C408	0B40079A	CE 220 16V
C409,410	0B40718A	CE 2200 25V (LN)
C411,412	0B40718A	CE 2200 25V (LN)
C413,414	0B41944A	CC 1000P 50V K
C415,416	0B41944A	CC 1000P 50V K
C417	0B41553A	CC 0.01 25V Z
C418	0B40120A	CE 100 50V
C419	0B40112A	CE 1 50V
C420	0B40133A	CE 330 63V
C421	0B41944A	CC 1000P 50V K
C422	0B41823A	CML 0.01 50V J
C423	0B41300A	CML 0.15 50V J
C424	0B40082A	CE 1000 16V
C425	0B40082A	CE 1000 16V
C426,427	0B40082A	CE 1000 16V
C428	0B41298A	CML 0.1 50V J
C429	0B40112A	CE 1 50V
C430	0B40085A	CE 4700 16V
C431,432	0B41176A	CML 0.22 63V J
CN402	0B84315A	4P-T Post
CN403	0B84317A	6P-T Post

Schematic Ref. No.	Part No.	Description
0B90448A		Heat Sink for Q402/407 (2)
0B90464A		Heat Sink for U401 (1)
— Miscellaneous —		
0B60825D		Main P.C.B.

5. SCHEMATIC DIAGRAM



NOTES:

1. Diode is 1SS176, 1SS53, or 1S1555 unless otherwise specified.
2. Description of electrolytic capacitor: 100/16V = 100 μ 16V