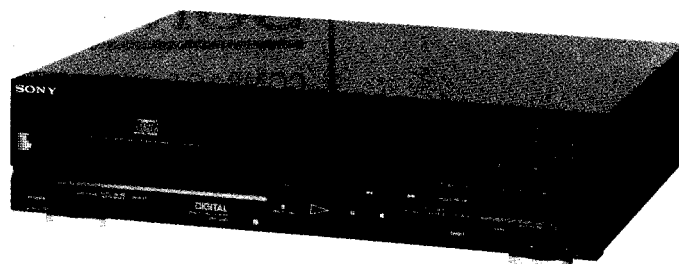


CDP-M95

SERVICE MANUAL

*AEP Model
UK Model
E Model*



SPECIFICATIONS

Compact disc player

System	Compact disc digital audio system
Disc	Compact disc
Laser	Semiconductor laser ($\lambda = 780 \text{ nm}$)
Laser output	Less than $44.6 \mu\text{W}$ * * This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block.
Spindle speed	200 rpm to 500 rpm (CLV)
Scan velocity	1.2– 1.4 m/sec.
Error correction	Sony Super Strategy Cross Interleave Reed Solomon Code
Number of channel	Two
D/A conversion	16-bit linear
Frequency response	2 – 20,000 Hz $\pm 0.5 \text{ dB}$
Signal to noise ratio	More than 104 dB
Dynamic range	More than 95 dB
Harmonic distortion	Less than 0.003% (1 kHz)
Channel separation	More than 95 dB (1 kHz)
Wow and flutter	Below measurable limit
Output jacks	

LINE OUT (phono jacks)	Output level 2 V (at 50 kilohms) Load impedance over 10 kilohms
DIGITAL OUT (COAXIAL) (phono jacks)	Output level 0.5 Vp-p (at 75 ohms) Load impedance 75 ohms
DIGITAL OUT (OPTICAL) (optical output connector)	Wave length 660 nm Output level -18 dBm
HEADPHONES (stereo phone jack)	Output level max. 15 mW Load impedance 32 ohms

General

Power requirements

AEP model:
220 V AC (240 V AC adjustable by Sony
personnel), 50/60 Hz
UK model:
240 V AC, 50/60 Hz
E model:
110 – 120 V or 220 – 240 V AC adjustable,
50/60 Hz

Power consumption

11 W

Dimensions Approx. 355 $\times$ 95 $\times$ 310 mm (w/h/d)
(14 $\times$ 3 $\frac{3}{4}$ $\times$ 12 $\frac{1}{2}$ inches)

Weight Approx. 4 kg (8 lb 14 oz), net

Supplied accessories

Remote commander (1)
Audio signal connecting cord (1)
Sony New Super batteries Sony SUM-3 (NS) (2)

Remote commander (RM-D600)

Remote control system

Infrared control

Power requirements

3V DC with two R6 (size AA) batteries

Dimensions Approx. 65 $\times$ 20 $\times$ 170 mm (w/h/d)
(2 $\frac{1}{2}$ $\times$ 1 $\frac{1}{16}$ $\times$ 6 $\frac{3}{4}$ inches)

Weight Approx. 135 g (5 oz) incl. batteries

Design and specifications subject to change without notice.



Disc

Track pitch	1.6 μm
Sampling frequency	44.1 kHz
Quantization	16 bit linear quantizing/channel
Modulation system	EFM
Transfer rate	2.03 Mbit/sec. (before modulation)

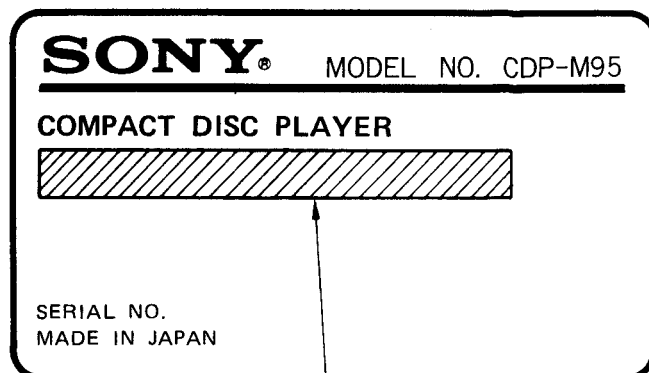
COMPACT DISC PLAYER
SONY®

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MODEL IDENTIFICATION

— Specification Labels —



AEP model: AC: 220 V ~ 50/60 Hz
 UK model: AC: 240 V ~ 50/60 Hz
 E model: AC: 110, 120, 220, 240 V ~ 50/60 Hz

SAFETY-RELATED COMPONENT WARNING!!

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

SERVICING NOTES

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs a laser. Therefore, be sure to follow carefully the instructions below when servicing.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

1. Laser Diode Properties

- Material: GaAlAs
- Wavelength: 780 nm
- Emission Duration: continuous
- Laser Output: max. 44.6 μ W*

* This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.

2. During service, do not take the Optical Pick-up Block apart, and do not adjust the APC circuit. If there is a breakdown in the APC circuit (including laser diode), replace the entire Optical Pick-up Block (including APC board).

BESKYTTELSE AF ØJNE MOD LASERSTRÅLING UNDER SERVICE

I dette apparat anvendes laserlys. Derfor skal nedenstående instruktioner nøje følges under service.

Følg iøvrigt instruktionerne i servicemanualen.

ADVARSEL!!

Under service må øjnene ikke komme nær objektiv-linsen på den optiske pick-up enhed. I tilfælde af at det er nødvendigt at kontrollere udsendelsen af laserlys, skal det ske i en afstand af mere end 25 cm fra den optiske pick-up.

1. Laser-diode data

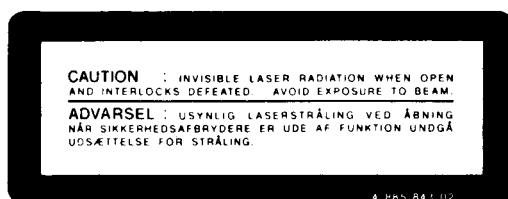
- Materiale: GaAlAs
- Bølgelængde: 780 nm
- Udstråling: Kontinuerlig
- Laseroutput: Max. 0,4 mW*
- * Målt i 1,6 mm afstand fra overfladen af objektiv-linsen på den optiske pick-up enhed.
- Klassifikation: Klasse IIIb.

2. Adskil aldrig den optiske pick-up enhed under service, og juster ikke APC kredsløbet (Automatic Power Control). Hvis APC kredsløbet (incl. laser-dioden) bryder ned, skal hele den optiske pick-up enhed (incl. APC printkortet) udskiftes.

LASER ADVARSEL MÆRKNING

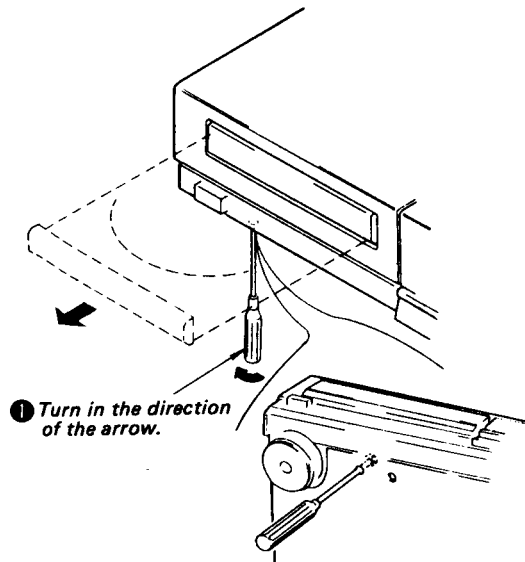
Følgende mærkning findes indvendig i apparatet:

1. Advarsel Mærkning



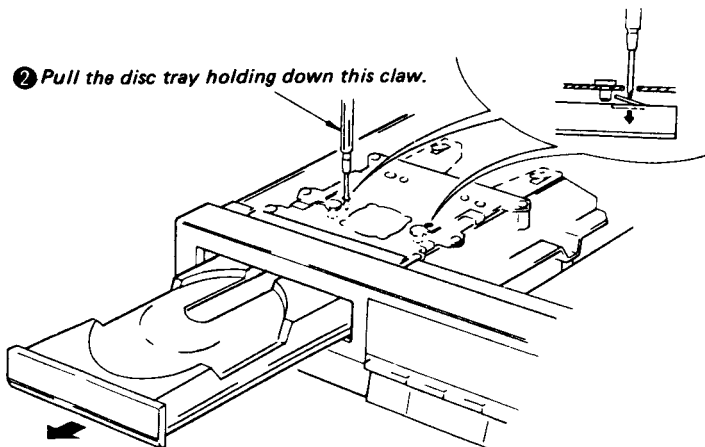
VAROITUS: Laite sisältää, laserdiodin, joka lähettää (näkyvätöntä) silmille vaarallista lasersäteilyä.

HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF



Caution: When you work, keep the set horizontal.

DISC TRAY REMOVAL



NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

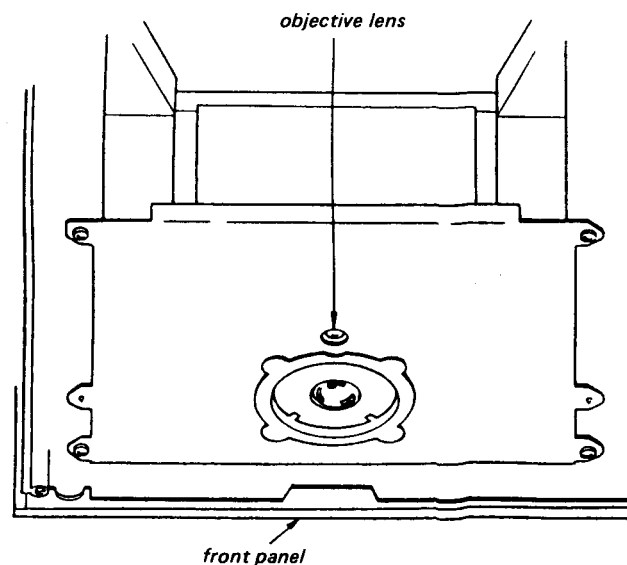
The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body. During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts. The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

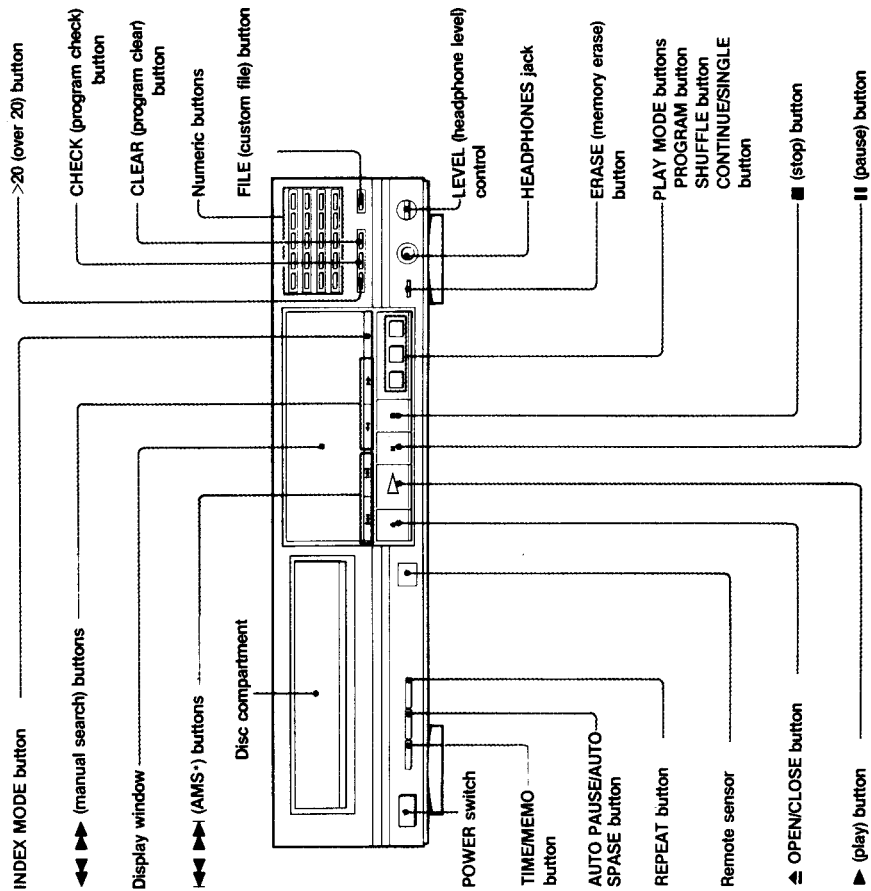
1. Make POWER switch on with no disc inserted and disc table closed.
2. Confirm that the following operation is performed while observing the objecting lens.



- ① Confirm that laser beam is spread.
- ② Up and down motion of the objective lens. (3 times)

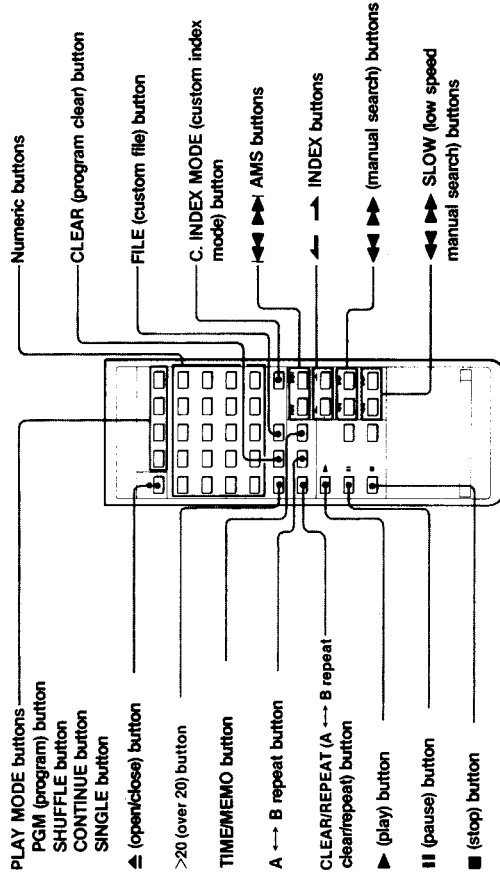
Location of Controls

Front Panel



* AMS is an abbreviation of Automatic Music Sensor.

Remote Commander



Remote Control Operation

Once the POWER switch is turned on, you can remotely control various functions of the player with the supplied remote commander.

Operations which is performed only with the remote commander

- Manual search
- Index search
- A <-> B repeat

Operations which cannot be performed with the remote commander

- Turning the power on and off
- Headphones volume control
- Setting and releasing auto pause function
- Setting and releasing auto space function
- Checking the programmed selections
- Writing a comment about a disc (disc memo function)
- Clearing custom indexes
- Clearing all custom files

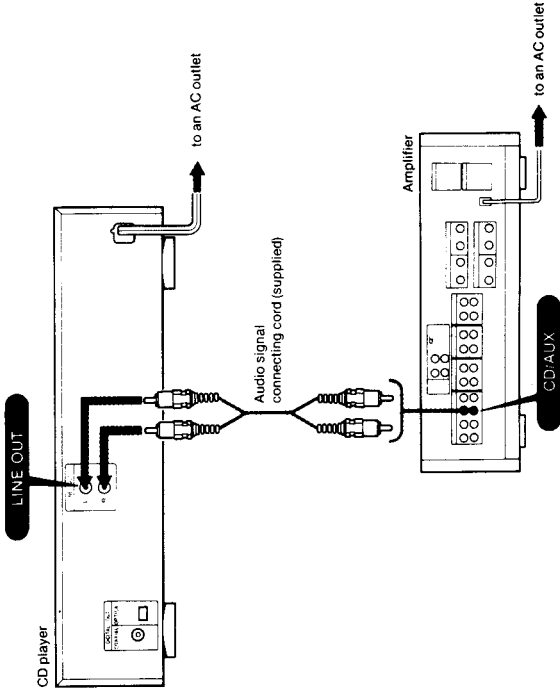
Notes on the remote commander and remote control operation

- Keep the commander away from extremely hot or humid places.
- Avoid dropping any foreign objects into the commander casing, particularly when replacing the batteries.
- To avoid a malfunction, do not simultaneously depress two or more buttons.
- Avoid exposure of the remote sensor to direct sunlight or lighting apparatus. Such exposure can cause a malfunction.

Connections

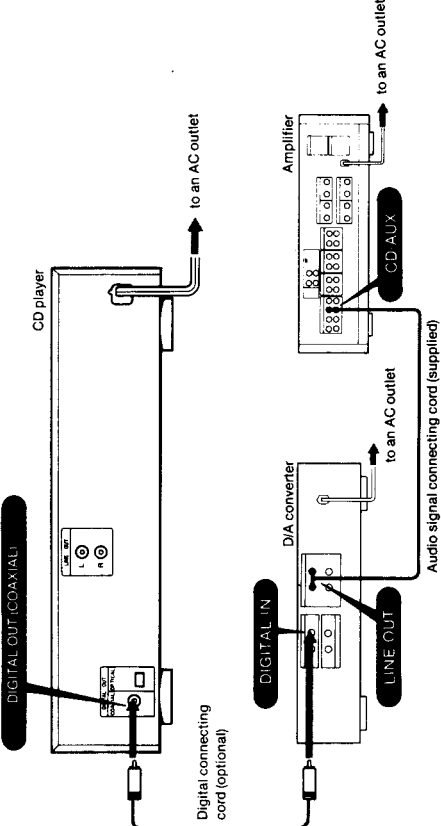
Connection Diagrams

Connecting the amplifier directly

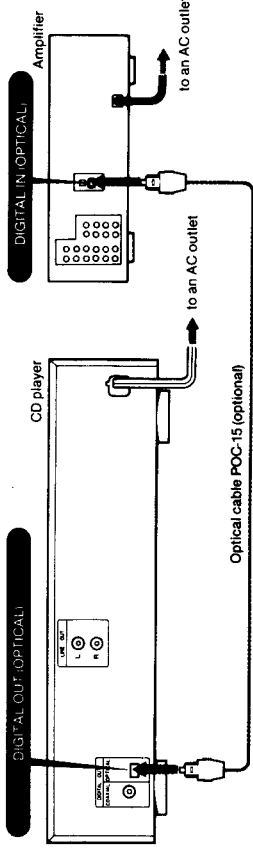


Connecting D/A converter unit and amplifier

Sony DAS-702ES D/A converter unit or other equivalent D/A converter using a digital audio interface can be connected to the DIGITAL OUT jack.



Connecting an amplifier having an optical input connector

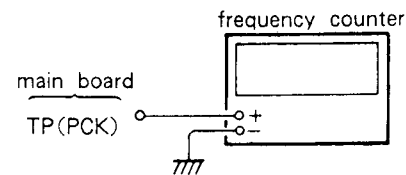


SECTION 1 ELECTRICAL ADJUSTMENTS

1. Perform adjustments in the order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10MΩ impedance.

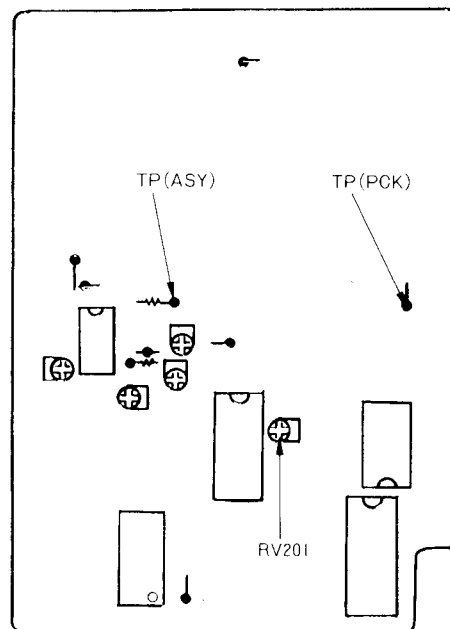
RF PLL Frequency Adjustment

Procedure :



1. Connect test point TP (ASY) to ground with jumper wire.
2. Turn POWER switch on.
3. Connect the frequency counter to test point TP(PCK).
4. Adjust RV201 so that the reading on frequency counter is 4,3218MHz±30kHz.
5. Remove lead wire connecting TP(ASY) and ground.
6. Put disc (YEDS-18) in and press ▷ button.
7. Confirm that the reading on frequency counter is 4,3218MHz.

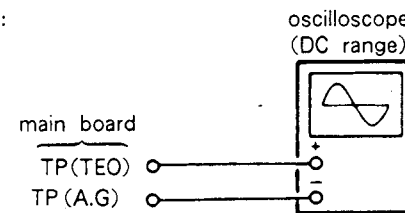
Adjustment Location : main board



E-F Balance Adjustment

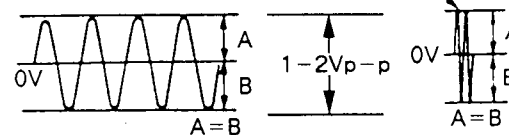
This adjustment should be made when replacing Optical Pick-up Block.

Procedure :

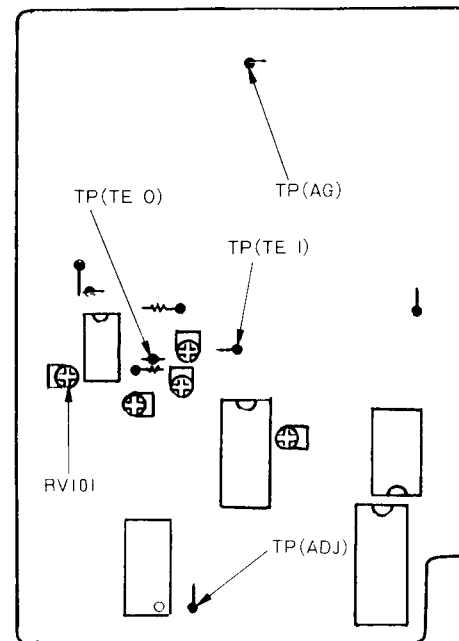


1. Connect test points TP (ADJ) and TP (TE I) to ground with jumper wires.
2. Connect oscilloscope to test points TP(TEO) and TP (A. G).
3. Turn POWER switch on.
4. Put disc (YEDS-18) in and playback the 6th selection.
5. Adjust RV101 so that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0V.

Note: Take sweep time as long as possible to obtain best waveform.



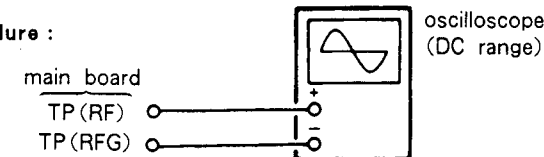
Adjustment Location : main board



Focus Bias Adjustment

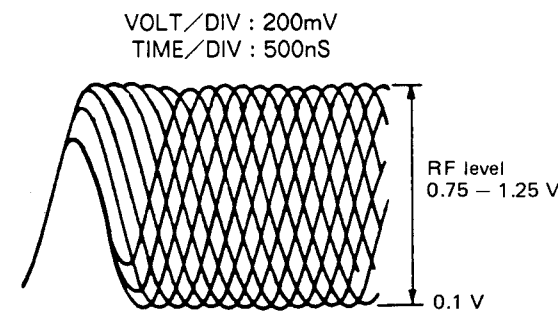
This adjustment should be made when replacing Optical Pick-up Block.

Procedure :



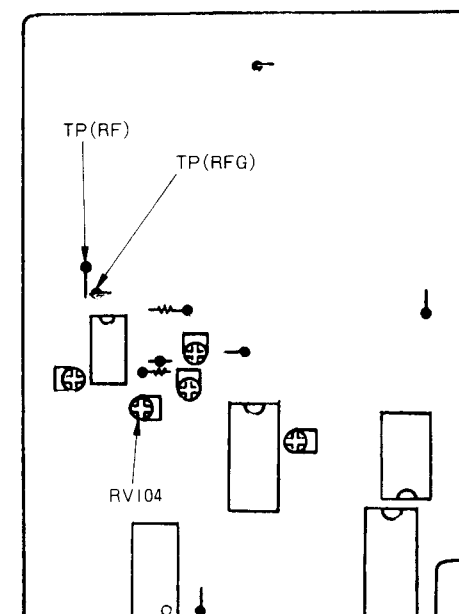
1. Connect oscilloscope to test points TP(RF) and TP (RF G).
2. Turn POWER switch on.
3. Put disc (YEDS-18) in and playback the 6th selection.
4. Adjust RV104 for an optimum waveform eye pattern or so that the peak is maximum. Optimum eye pattern means that shape "◇" can be clearly distinguished at the center of the waveform.

● RF Signal Reference Waveform (eye pattern)



When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensitivity.

Adjustment Location : main board



REFERENCE

Focus/Tracking Gain Adjustment

A frequency response analyzer is necessary in order to perform this adjustment exactly.

However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment.

Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate.

However, as these reciprocate, the adjustment is at the point where both are satisfied.

- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, it is more susceptible to mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

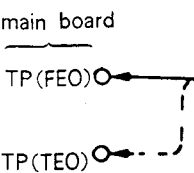
	Gain	Focus	Tracking
Symptoms			
● The time until music starts becomes longer for STOP →▷PLAY or automatic selection (⏮ ⏭ buttons pressed. (Normally takes about 2 seconds.)		low	low or high
● Music does not start and disc continues to rotate for STOP →▷PLAY or auto-matic selection (⏮ ⏭ buttons pressed.)		—	low
● Disc table opens shortly after STOP →▷PLAY.		low or high	—
● Sound is interrupted during PLAY. Or time counter display stops progressing.		—	low
● More poise during 2-axis device operation.		high	high

The following is a

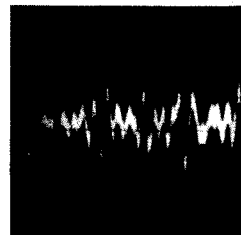
—Simple Adjustment—

Note : Since exact remember the performing the simple adjustment the controls to

Procedure :

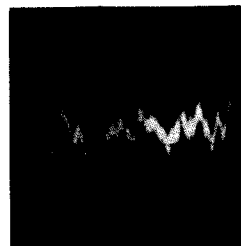


1. Keep the set horizontal. (If the set is not performed due to)
2. Insert disc (YEDS-18)
3. Connect oscilloscope
4. Adjust RV103 so that the figure below.

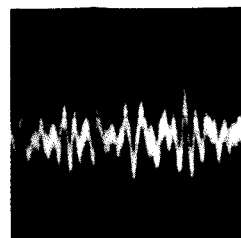


● Incorrect Example of adjusted waveform

low focus



high focus



REFERENCE

replacing Optical

oscilloscope
(DC range)

P(RF) and TP

the 6th selection.
form eye pattern
mum eye pattern
rly distinguished

tern)

level
5 - 1.25 V

1 V

oscilloscope for

Focus/Tracking Gain Adjustment

A frequency response analyzer is necessary in order to perform this adjustment exactly.

However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment.

Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate.

However, as these reciprocate, the adjustment is at the point where both are satisfied.

- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, it is more susceptible to mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

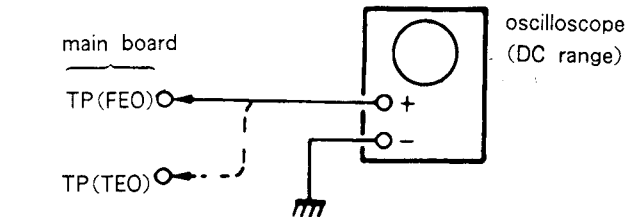
Symptoms	Gain	Focus	Tracking
● The time until music starts becomes longer for STOP → PLAY or automatic selection (M M buttons pressed). (Normally takes about 2 seconds.)		low	low or high
● Music does not start and disc continues to rotate for STOP → PLAY or automatic selection (M M buttons pressed).		—	low
● Disc table opens shortly after STOP → PLAY.		low or high	—
● Sound is interrupted during PLAY. Or time counter display stops progressing.		—	low
● More noise during 2-axis device operation.		high	high

The following is a simple adjustment method.

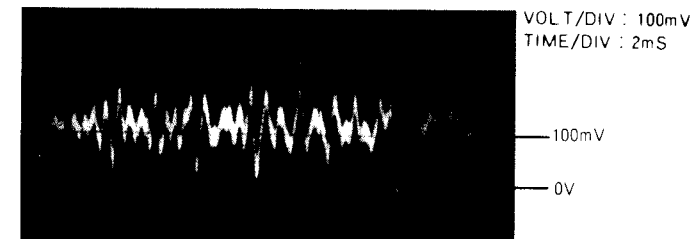
—Simple Adjustment—

Note: Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment. If the positions after the simple adjustment are only a little different, return the controls to the original position.

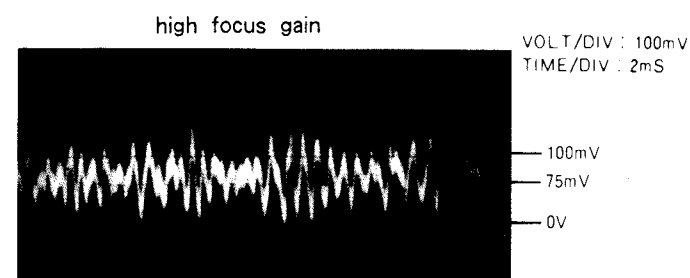
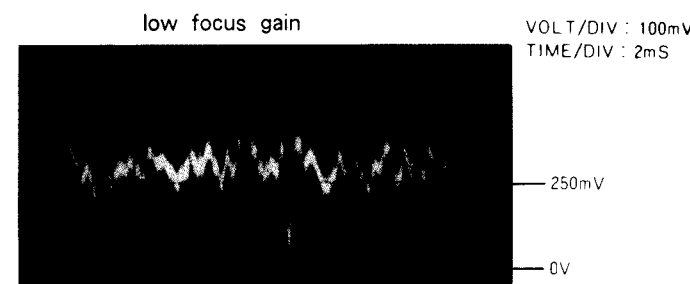
Procedure:



- Keep the set horizontal.
(If the set is not horizontal, this adjustment cannot be performed due to the gravity against the 2 axis device.)
- Insert disc (YEDS-18) playback the 6th selection.
- Connect oscilloscope to main board TP(FEO).
- Adjust RV103 so that the waveform is as shown in the figure below. (focus gain adjustment)



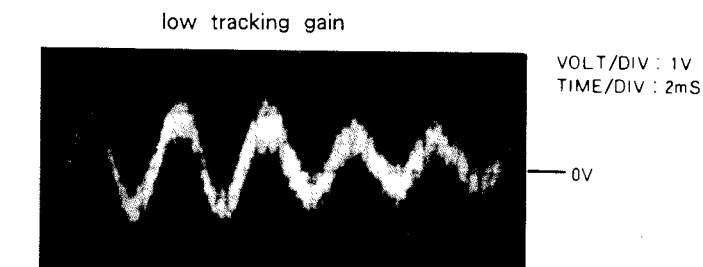
- Incorrect Examples (DC level changes more than on adjusted waveform)



- Connect oscilloscope to main board TP(TEO).
- Adjust RV102 so that the waveform is as shown in the figure below. (tracking gain adjustment)



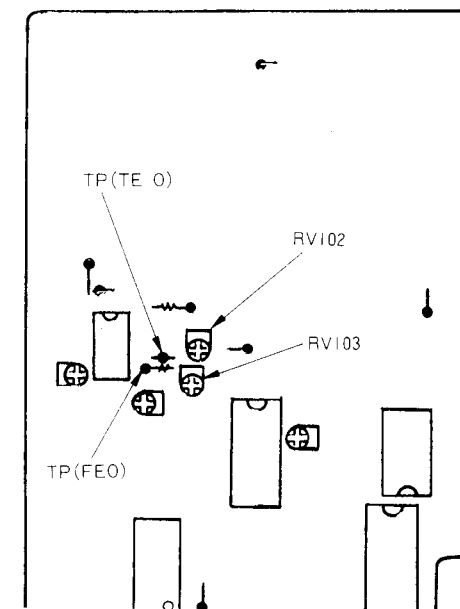
- Incorrect Examples (fundamental wave appears)



- high tracking gain
(higher fundamental wave than for low gain)

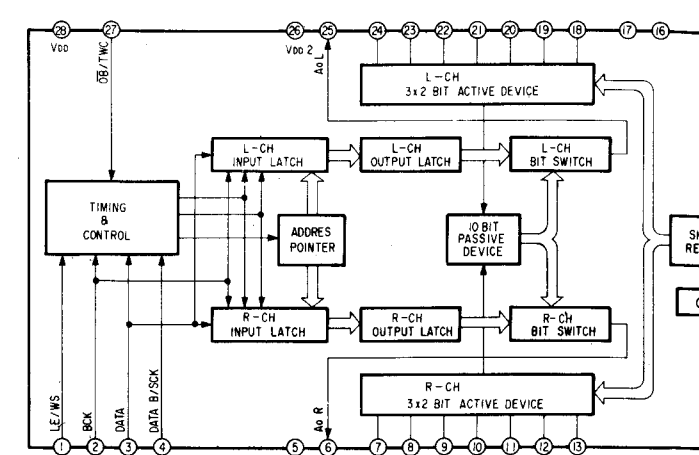


Adjustment Location: main board

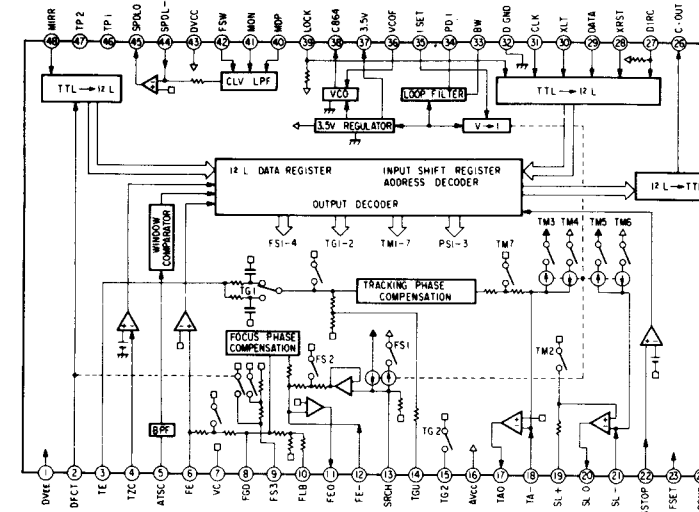


2-1. IC BLOCK DIAGRAMS

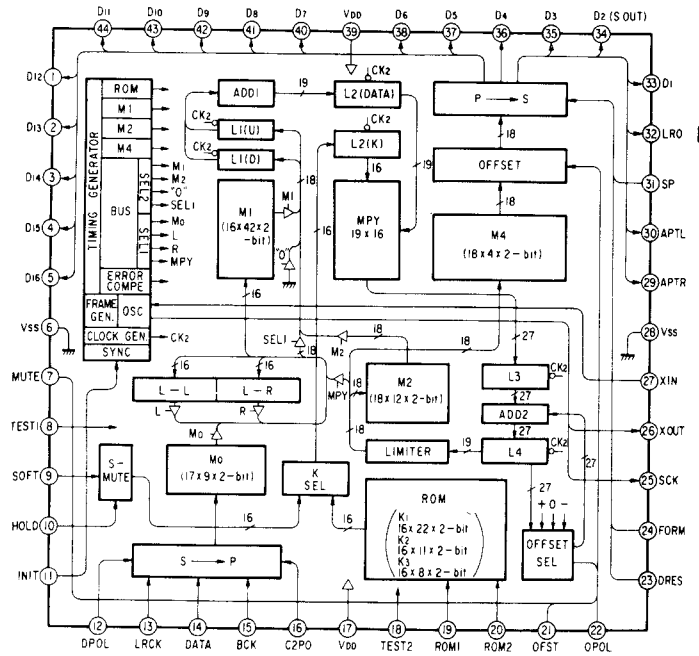
TDA1541-N5



CXA1182S



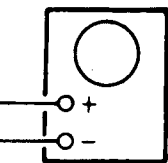
CXD1088Q



SECTION 2
DIAGRAMS

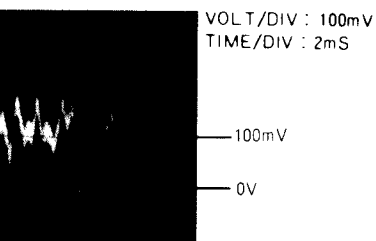
ple adjustment method.

ment cannot be performed.
tions of the controls before
tment. If the positions after the
re only a little different, return
original position.

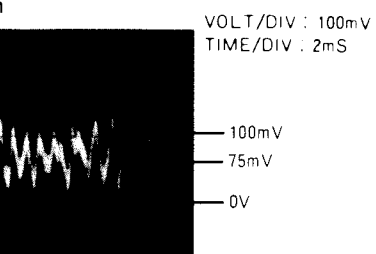
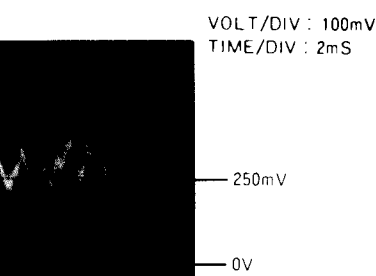


oscilloscope
(DC range)

1.
ental, this adjustment cannot be)
ravity against the 2 axis device.)
playback the 6th selection.
main board TP(FEO).
the waveform is as shown in
us gain adjustment)



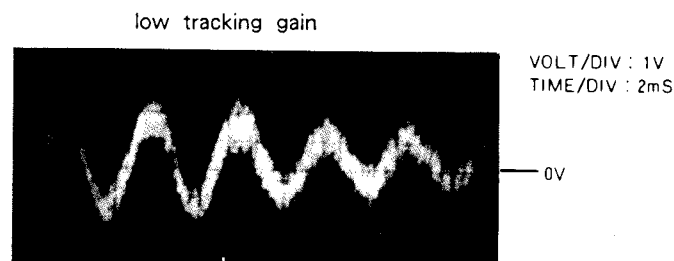
C level changes more than on



5. Connect oscilloscope to main board TP(TEO).
6. Adjust RV102 so that the waveform is as shown in the figure below. (tracking gain adjustment)



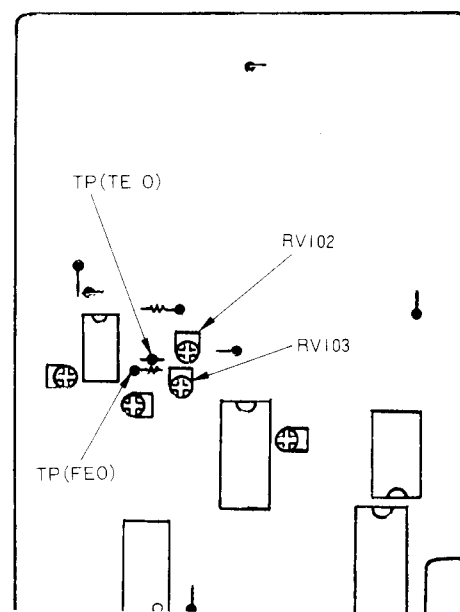
Incorrect Examples (fundamental wave appears)



high tracking gain
(higher fundamental wave than for low gain)

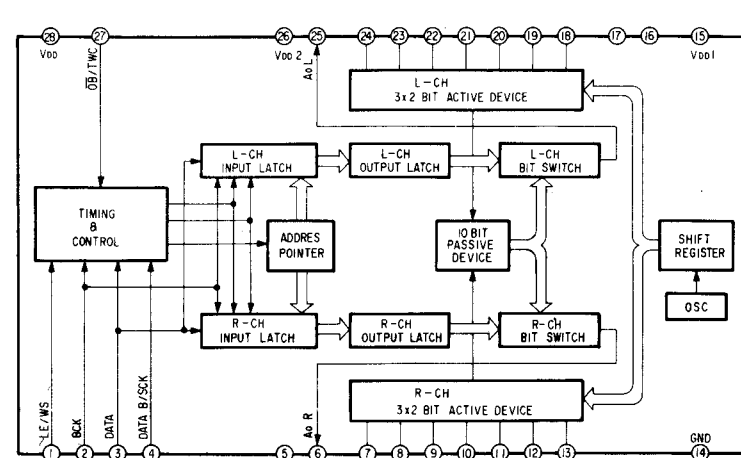


Adjustment Location: main board

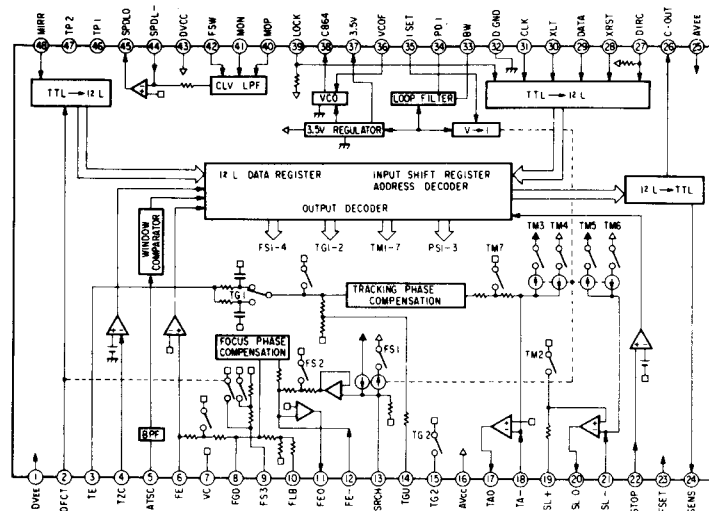


2-1. IC BLOCK DIAGRAMS

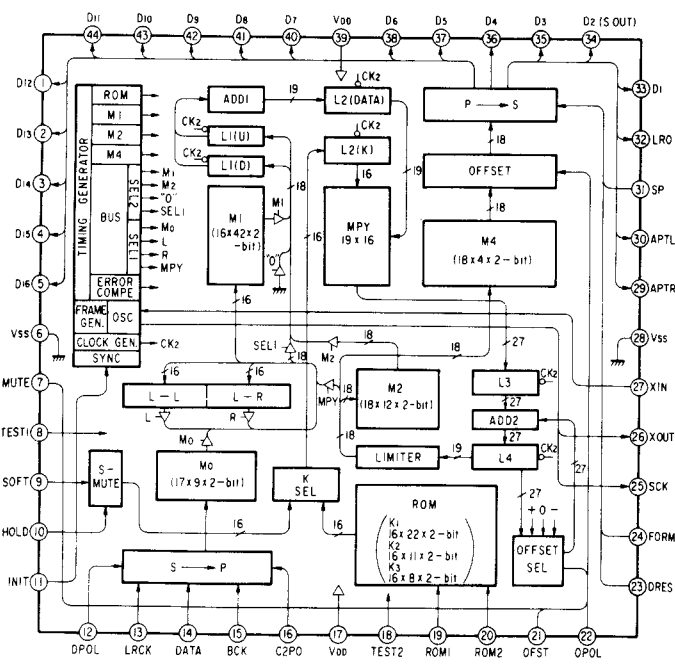
TDA1541-N5



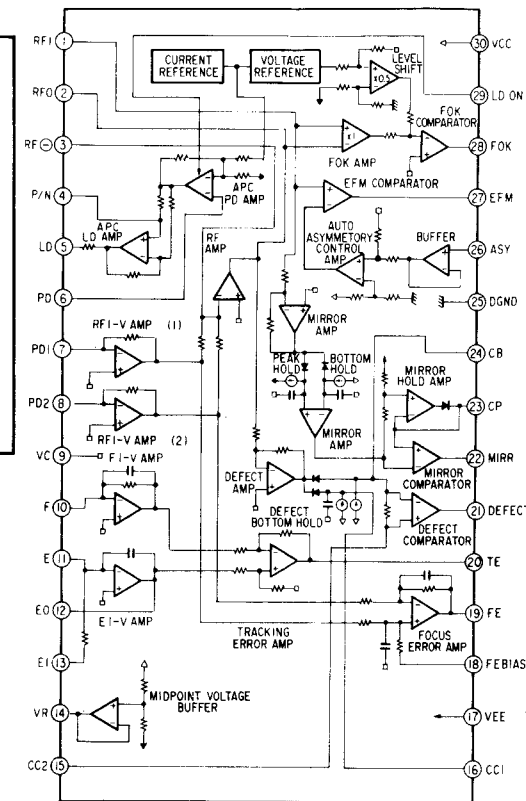
CXA1182S



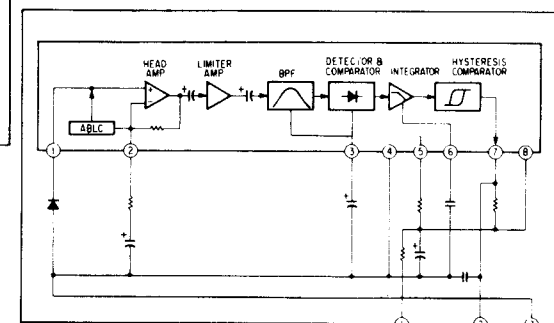
CXDI1088Q



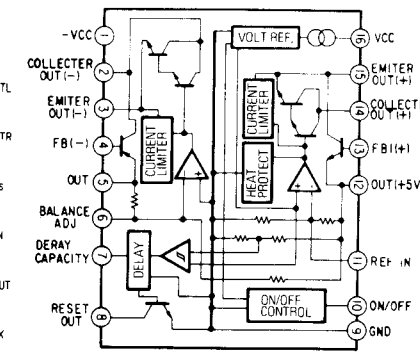
CXA1081S



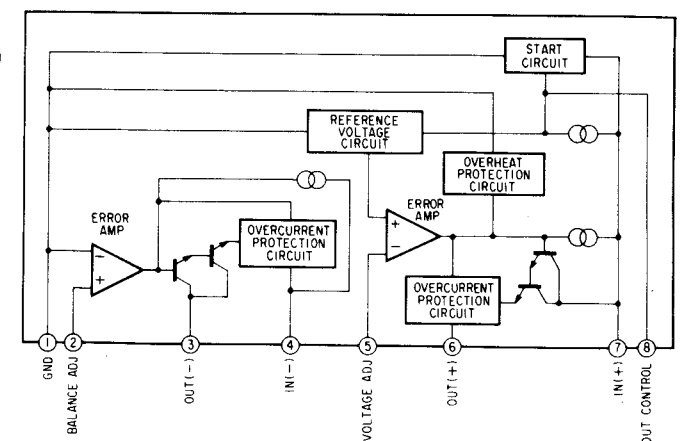
BX-1387



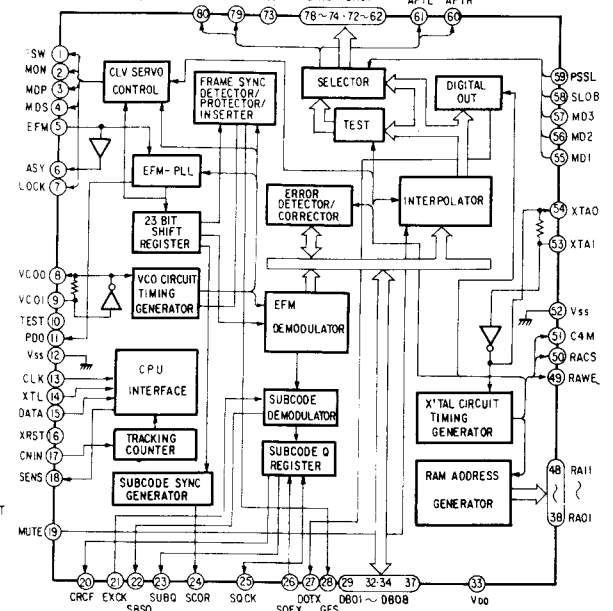
M5290-16



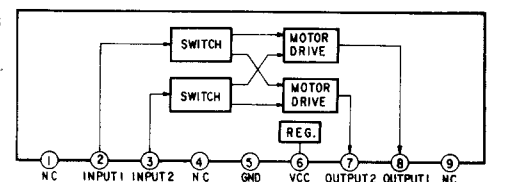
M5230L-A



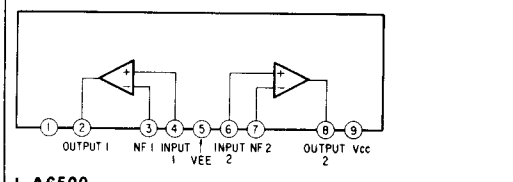
CXDI1125Q



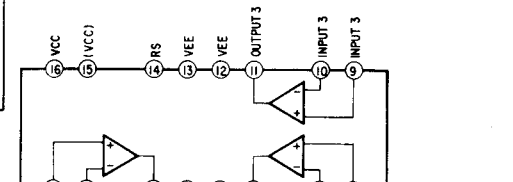
BA6208



TA7256P



LA6520

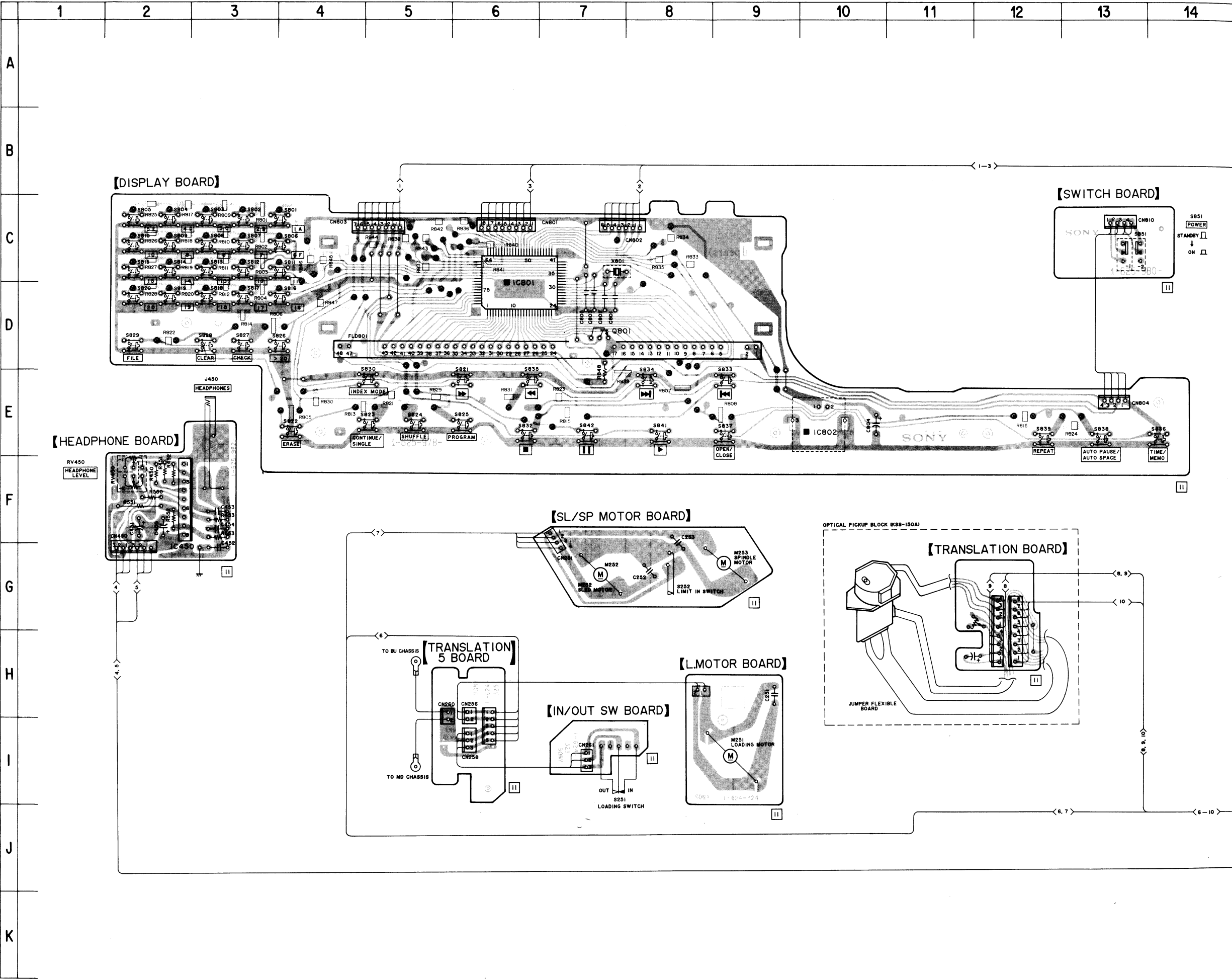


2-2. MOUNTING DIAGRAM

• See page 22 for Semiconductor Lead Layouts.

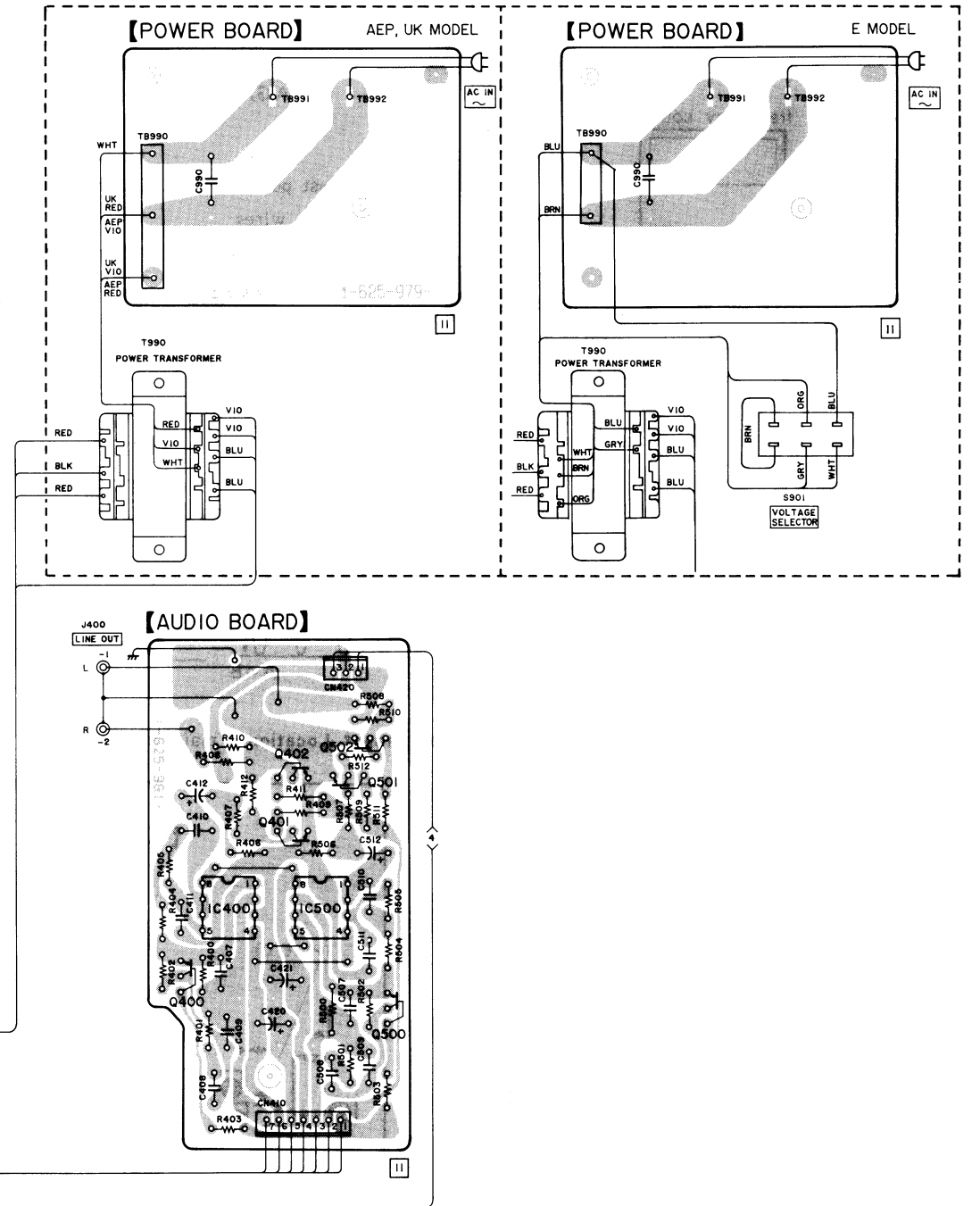
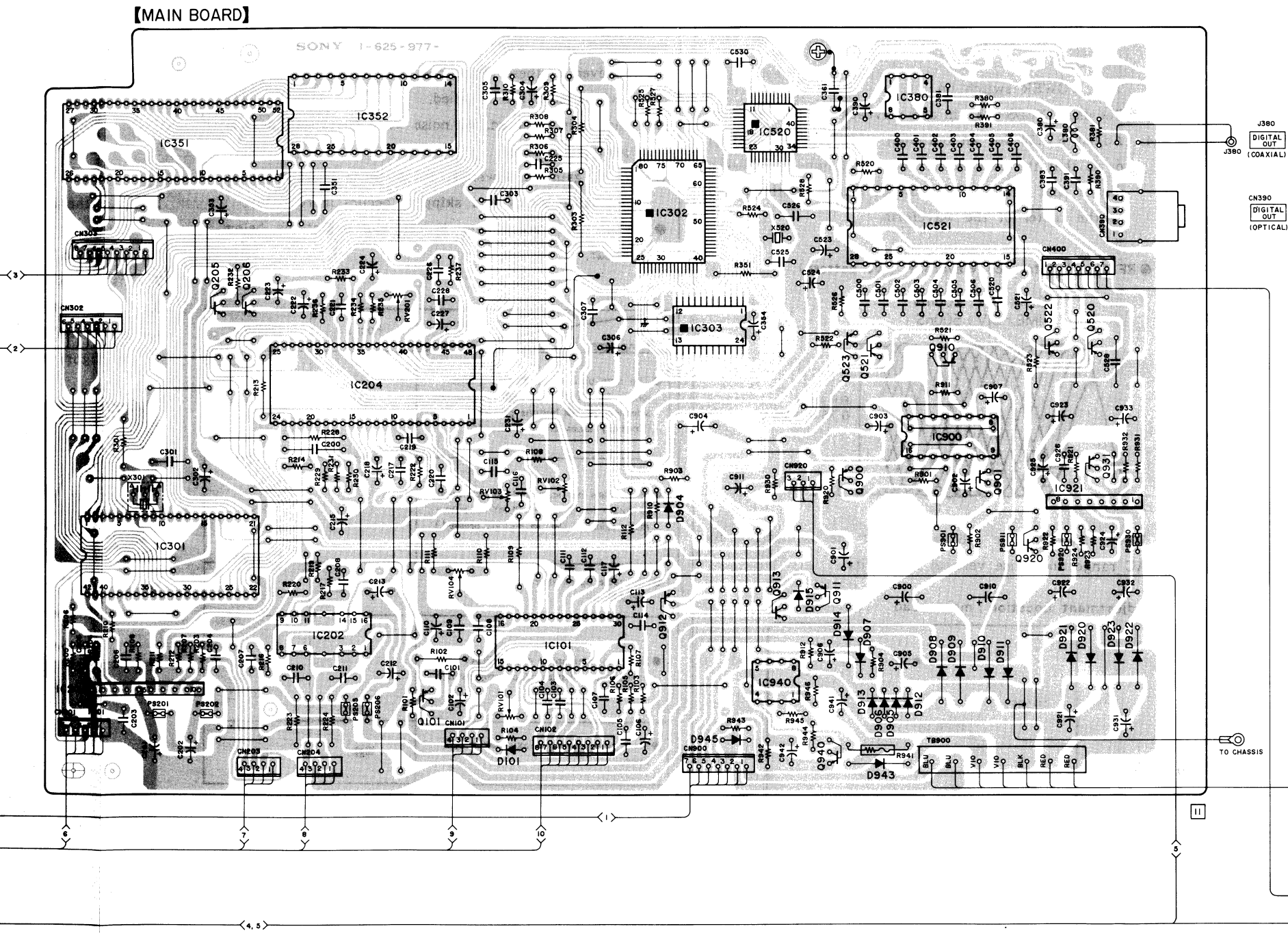
Ref. No.	Location	Ref. No.	Location
D101	I-19	Q101	H-18
D904	G-20	Q205	D-16
D905	H-22	Q206	E-17
D906	H-22	Q400	H-27
D907	H-22	Q401	H-27
D908	H-23	Q402	G-27
D909	H-23	Q500	I-28
D910	H-23	Q501	G-28
D911	H-23	Q502	G-28
D912	H-22	Q520	E-24
D913	H-22	Q521	E-22
D914	H-22	Q522	E-23
D915	G-21	Q523	E-22
D920	H-24	Q801	D-7
D921	H-24	Q900	F-22
D922	H-24	Q901	F-23
D923	H-24	Q910	E-23
D943	I-22	Q911	G-22
D945	H-21	Q912	G-20
		Q913	G-21
IC101	H-19	Q920	G-23
IC201	H-16	Q931	F-24
IC202	E-17	Q940	I-22
IC204	E-18		
IC301	G-16		
IC302	D-20		
IC303	E-21		
IC351	C-16		
IC352	C-18		
IC380	C-22		
IC400	H-27		
IC450	F-2		
IC500	H-28		
IC520	C-21		
IC521	D-22		
IC801	C-6		
IC802	E-9		
IC900	F-23		
IC921	F-24		
IC940	H-21		

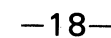
- Note:
- Color code or sleeving over the end of the jacket.
-
- —○— : parts extracted from the component side.
 - —●— : parts extracted from the conductor side.
 - ■ : parts mounted on the conductor side.
 - —○— : Jumper wire connected to the ground pattern on the component side.
 - [Pattern] : Pattern on the side which is seen.
 - [Pattern] : Pattern of the rear side.
 - □ : Printed resistors extracted from the rear side.

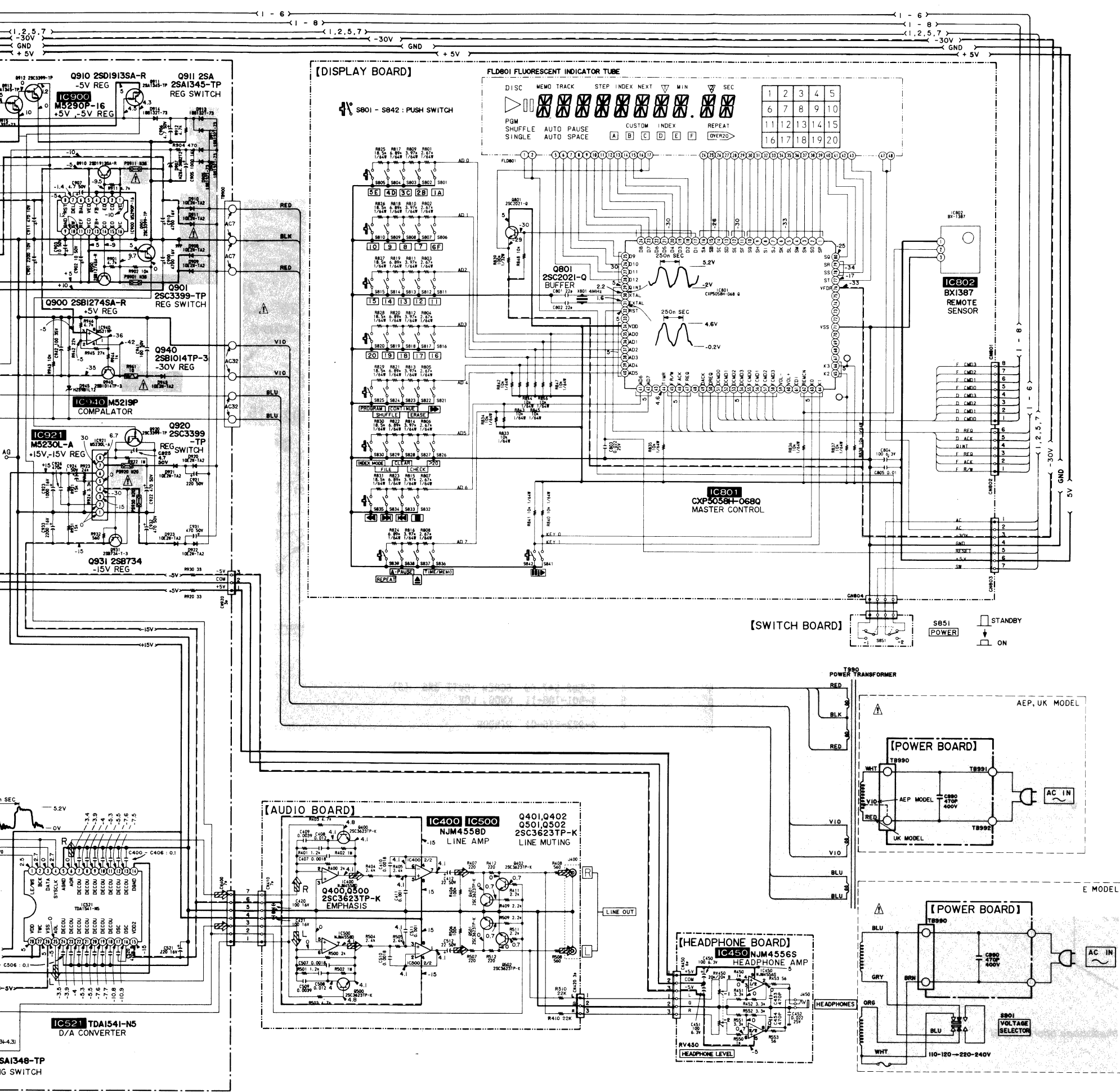


This technical schematic illustrates the internal components and wiring of a Sony I-625-977 VCR. The main board is the central focus, populated with numerous integrated circuits (ICs), resistors, capacitors, and diodes. Key components include IC352, IC351, IC302, IC303, IC204, IC301, IC202, IC101, IC940, IC900, IC921, IC922, IC923, IC924, IC925, IC926, IC927, IC928, IC929, IC930, IC931, IC932, IC933, IC934, IC935, IC936, IC937, IC938, IC939, IC940, IC941, IC942, IC943, IC944, IC945, IC946, IC947, IC948, IC949, IC950, IC951, IC952, IC953, IC954, IC955, IC956, IC957, IC958, IC959, IC960, IC961, IC962, IC963, IC964, IC965, IC966, IC967, IC968, IC969, IC970, IC971, IC972, IC973, IC974, IC975, IC976, IC977, IC978, IC979, IC980, IC981, IC982, IC983, IC984, IC985, IC986, IC987, IC988, IC989, IC990, IC991, IC992, IC993, IC994, IC995, IC996, IC997, IC998, IC999, IC1000. The schematic also shows the connection points for various sub-boards: the Switch Board (top left), Motor Board (top right), Translation Board (bottom left), and the L-Motor Board (bottom right). The main board is labeled with the model number I-625-977. The schematic includes detailed wiring diagrams for each component and sub-board, as well as a legend for the symbols used.

15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----







Note:

- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
- $\triangle$: internal component.

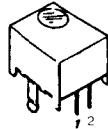
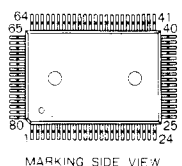
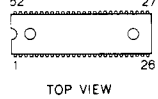
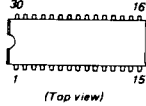
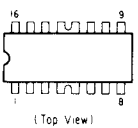
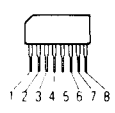
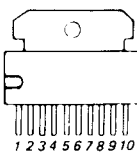
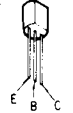
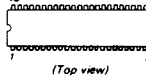
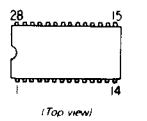
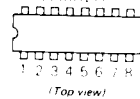
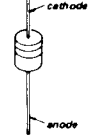
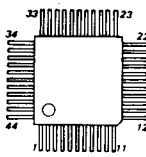
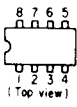
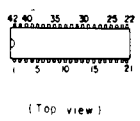
Note: The components identified by shading and mark $\triangle$ are critical for safety. Replace only with part number specified.

• Switch

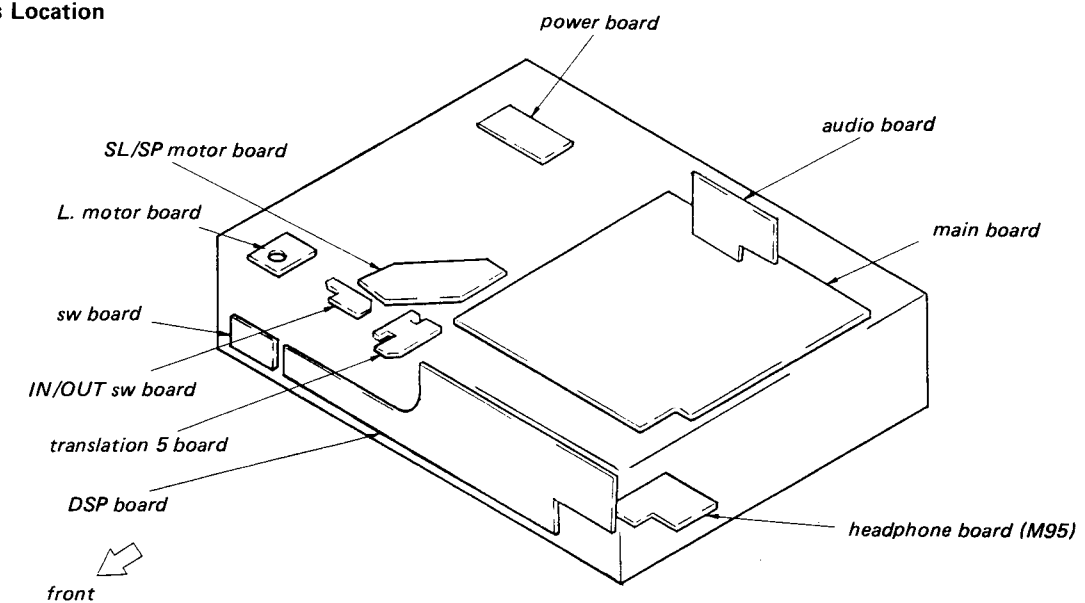
Ref. No.	Switch	Position
S251	LOADING	IN
S252	LIMIT IN	OFF
S801		
S830		
S832	KEY MATRIX	OFF
S839		
S841		
S842		
S851	POWER	STANDBY

- All $\frac{1}{32}\text{W}$ or $\frac{1}{64}\text{W}$ resistors are printed resistors.
- --- : B+ Line
- --- : B- Line
- --- : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
no mark: STOP
(): PLAY
- Voltages are taken with a VOM (50 $\text{k}\Omega/\text{V}$).
Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
Voltage variations may be noted due to normal production tolerances.
- Signal path.
 --- : CD
 --- : digital out

● Semiconductor Lead Layouts

BX-1387 	CXD1125Q CXP5058H-068Q 	M50740A-424SP 	NJM4556S 	2SB1013 	HZS4.3NB3 HZS9B2L 
CXA1081S 	LA6520 	M5230L-A 	TA7256P 	2SB1014 	10E2N 1SS132 
CXA1182S 	LC9600R-145 TDA1541-N5 	M5290P-16 	2SA1345 2SA1348 2SC3399 2SC3402 2SC3623TP-L 	2SB1274SA 2SD1913SA 	
CXD1088Q 	M5219P M74HC6004P NJM4560D-D 	MSM6408-26SS 	2SB734 	2SC2021 	

● Circuit Boards Location



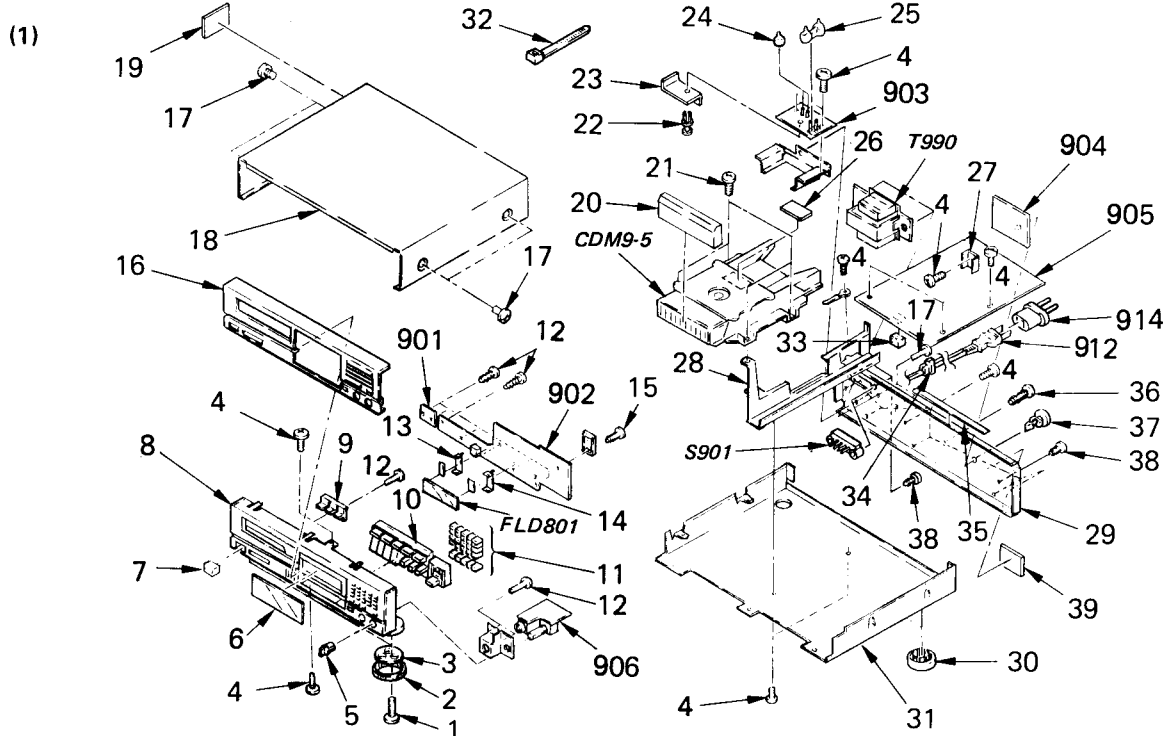
SECTION 3
EXPLODED VIEWS AND PARTS LIST

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts Example:
(RED) ... KNOB, BALANCE (WHITE)
↑ Cabinet's Color ↑ Parts Color

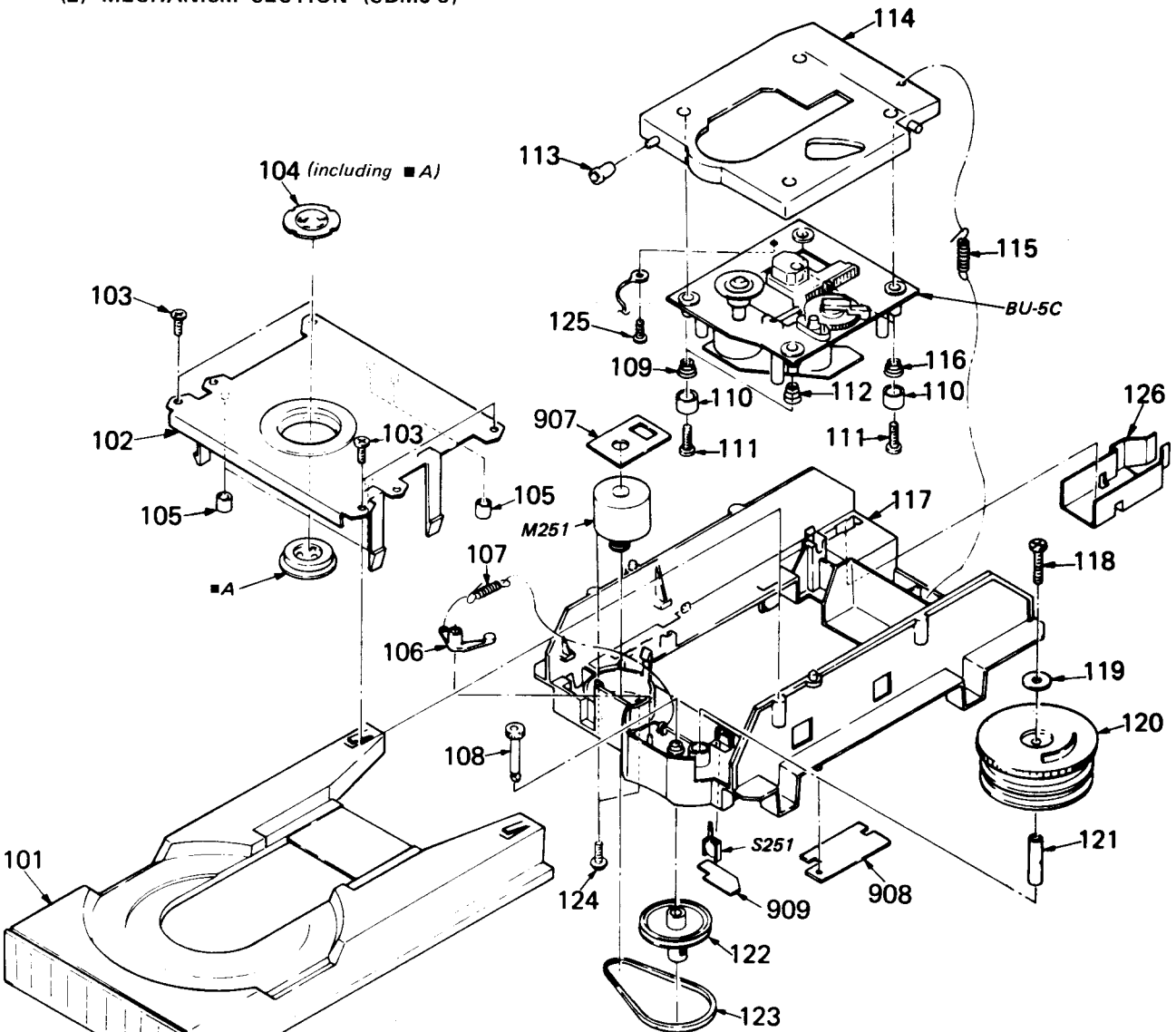
The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.



No.	Part No.	Description	Remarks
1	3-703-685-21	SCREW (+BV 3X8)	
2	4-921-918-11	PLATE, ORNAMENTAL	
3	4-921-906-01	FELT	
4	7-682-547-09	SCREW +BVTT 3X6 (S)	
5	4-901-708-11	KNOB, LOV	
6	4-922-636-01	WINDOW	
7	4-922-903-01	BUTTON (PW)	
8	*X-4917-541-1	PANEL (BASE) ASSY	3
9	4-922-638-01	BUTTON (R)	
10	X-4917-542-1	BUTTON ASSY	
11	4-922-639-11	BUTTON (MC)	
12	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	
13	*4-922-524-01	HOLDER (LEFT)	
14	*4-922-523-01	HOLDER (RIGHT)	
15	7-685-537-19	SCREW +BTP 2.6X14 TYPE2 N-S	
16	*X-4917-548-1	PANEL ASSY, FRONT	
17	3-704-366-01	SCREW (CASE) (M3X8)	
18	4-919-376-01	CASE	
19	3-703-079-21	{UK}...LABEL (BACK), SUB CAUTION	
20	4-922-635-21	PANEL (LOADING)	
21	7-682-548-04	SCREW +BVTT 3X8 (S)	
22	3-531-576-11	RIVET	
23	4-922-632-01	SHEET, INSULATING	
24	*4-912-962-01	COVER (1P), TERMINAL	
25	*4-912-963-01	COVER (2P), TERMINAL	
26	4-885-843-02	LABEL, CAUTION, LASER	
27	*4-854-790-00	HEAT SINK	
28	*4-922-911-01	CHASSIS (R)	
29	*4-922-642-21	{AEP}...PANEL, BACK	
	*4-922-642-31	{UK}...PANEL, BACK	
	*4-922-642-41	{E}...PANEL, BACK	

No.	Part No.	Description	Remarks
30	X-4922-001-1	FOOT ASSY	
31	*4-921-903-51	CHASSIS	
32	3-655-653-21	BAND (TAITON), BINDING	
33	9-911-843-XX	RUBBER, CUSHION	
34	*3-703-571-12	BUSHING (2104), CORD	
35	9-911-835-XX	CUSHION, F	
36	4-922-647-01	SCREW (PIN JACK) (M3X12)	
37	*4-912-181-21	SUPPORT, PC	
38	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
39	*4-885-838-00	LABEL, CLASS 1	
40	3-703-079-21	{UK}...LABEL, CAUTION (BACK)	
901	*1-625-980-11	PC BOARD, SW (PRC)	
902	*1-625-978-11	PC BOARD, DISPLAY (PRC)	
903	*1-625-979-11	PC BOARD, POWER (PRC)	
904	*1-625-981-11	PC BOARD, AUDIO	
905	*A-4651-189-A	MOUNTED PCB, MAIN	
906	*1-625-982-11	PC BOARD, HEADPHONE	
912	 1-551-188-XX	{E}...CORD, POWER	
	 1-555-795-00	{AEP}...CORD, POWER, EULO PLUG	
	 1-556-035-00	{UK}...CORD, POWER	
913	*1-624-325-11	PC BOARD, TRANSLATION 5	
914	 1-526-565-00	{E}...AC PLUG ADAPTOR	
FLD801	1-519-428-21	INDICATOR TUBE, FLUORESCENT	
S901	 1-570-046-21	{E}...SWITCH, VOLTAGE CHANGE	
T990	 1-449-210-11	{AEP,UK}...TRANSFORMER, POWER	
	 1-449-238-11	{E}...TRANSFORMER, POWER	

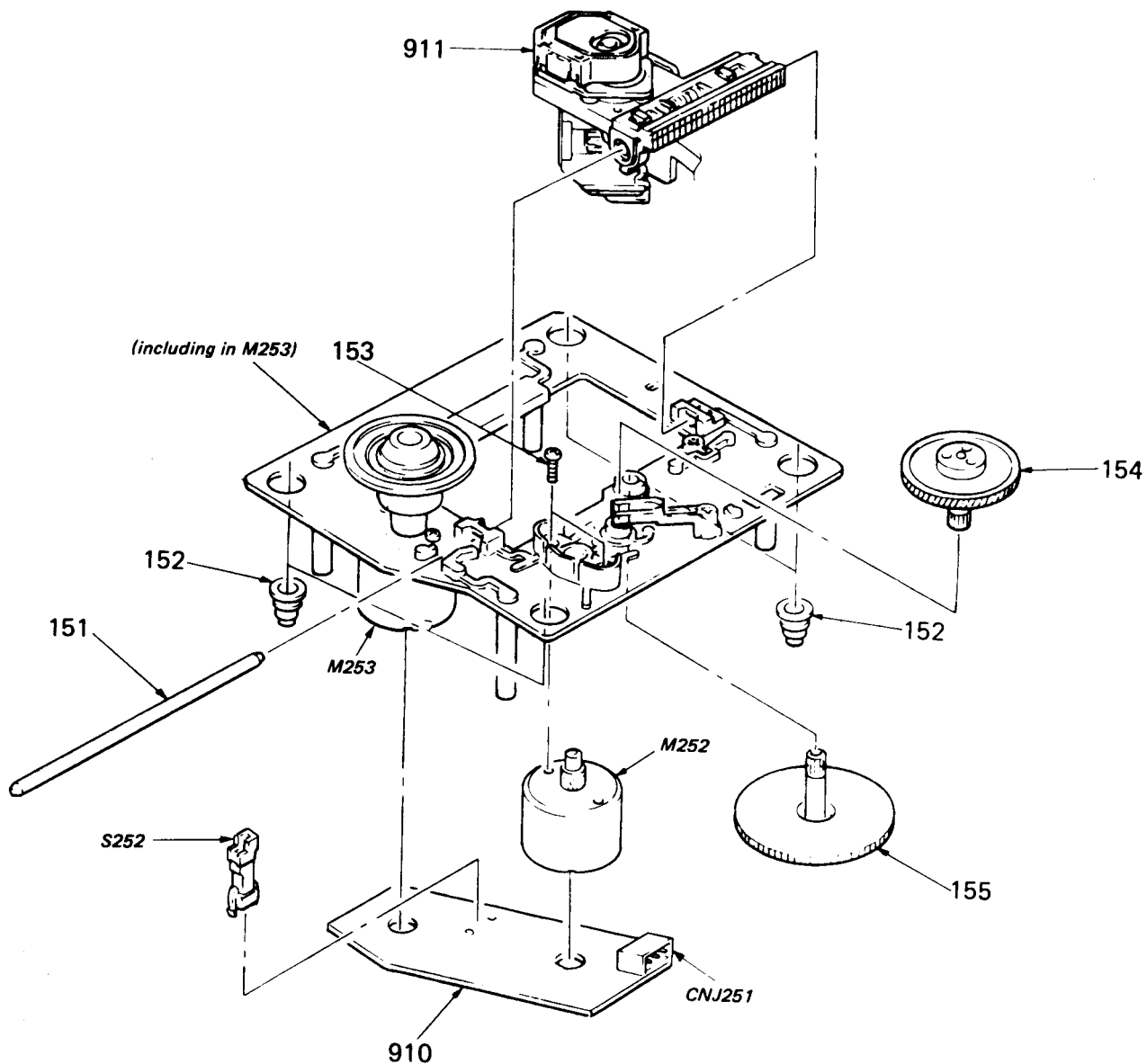
(2) MECHANISM SECTION (CDM9-5)



No.	Part No.	Description	Remarks
101	*4-922-515-01	TABLE, DISK	
102	*4-922-510-01	REINFORCEMENT	
103	7-685-646-79	SCREW +BTP 3X8 TYPE2 N-S	
104	A-4665-012-C	MAGNET ASSY	
105	*3-576-990-01	CUSHION	
106	4-917-519-01	LEVER, SET	
107	4-917-514-01	SPRING, TENSION	
108	4-922-508-01	GEAR (DRIVING)	
109	4-917-541-01	SPRING (B)	
110	4-917-508-01	HOLDER, SP	
111	7-685-535-19	SCREW +BTP 2.6X10 TYPE2 N-S	
112	4-918-669-01	SPRING (W)	
113	4-917-515-01	ROLLER	
114	*4-922-514-01	BRACKET (BU-5)	
115	4-917-526-01	SPRING, TENSION	

No.	Part No.	Description	Remarks
116	4-917-507-01	SPRING (H)	
117	*4-922-516-01	CHASSIS (MD)	
118	7-685-552-19	SCREW +BTP 3X25 TYPE2 N-S	
119	0-056-028-00	WASHER, PLAIN, 14 DIA.	
120	4-922-511-01	GEAR (LOADING)	
121	*4-917-523-01	COLLAR, CAM	
122	4-922-512-01	PULLEY	
123	4-917-522-01	BELT	
124	7-621-759-40	+PSW, 2.6X6	
125	7-621-770-67	SCREW +BVTT 2.6X6 (S)	
126	4-923-541-11	SPRING	
907	*1-624-324-11	PC BOARD, L.MOTOR	
908	*1-624-325-11	PC BOARD, TRANSLATION 5	
909	*1-624-323-11	PC BOARD, IN/OUT SW	
M251	A-4608-346-A	MOTOR ASSY, L	
S251	1-571-300-11	SWITCH, ROTARY (LOADING IN/OUT)	

(3) OPTICAL PICK-UP BLOCK (BU-5C)



No.	Part No.	Description
151	4-917-565-01	SHAFT, SLED
152	4-917-562-01	INSULATOR
153	7-621-255-15	SCREW +P 2X3
154	4-917-567-01	GEAR (M)
155	4-917-564-01	GEAR (P), FLATNESS

Remarks	No.	Part No.	Description	Remarks
	910	*1-624-322-11	PC BOARD, SL/SP MOTOR	
	911	▲8-848-062-01	DEVICE, OPTICS (KSS-150A)	
	CNJ251	*1-564-720-21	PIN, CONNECTOR (SMALL TYPE) 4P	
	M252	X-4917-504-1	ASSY, MOTOR (SLED)	
	M253	X-4917-523-1	ASSY, MOTOR (SPINDLE)	
	S252	1-571-274-11	SWITCH, LEAF (LIMIT IN)	

Note: The components identified by mark ▲ or dotted line with mark ▲ are critical for safety. Replace only with part number specified.

SECTION 4

ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:MF: μ F, PF: μ F.**RESISTORS**

- All resistors are in ohms.
- F: nonflammable

COILS

- MMH: mH, UH: μ H

SEMICONDUCTORSIn each case, U: μ , for example:UA....: μ A...., UPA....: μ PA....,UPC....: μ PC, UPD....: μ PD....

The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description
901	*1-625-980-11	PC BOARD, SW (PRC)
902	*1-625-978-11	PC BOARD, DISPLAY (PRC)
903	*1-625-979-11	PC BOARD, POWER (PRC)
904	*1-625-981-11	PC BOARD, AUDIO
905	*A-4651-189-A	MOUNTED PCB, MAIN
906	*1-625-982-11	PC BOARD, HEADPHONE
907	*1-624-324-11	PC BOARD, L.MOTOR
909	*1-624-323-11	PC BOARD, IN/OUT SW
910	*1-626-304-11	PC BOARD, SL/SP MOTOR
911	8-848-062-01	PICKUP, OPTICS KSS-150A
912	1-551-188-XX	(E)....CORD, POWER
	1-555-795-00	(AEP)...CORD, POWER, EULO PLUG
	1-556-035-00	(UK)....CORD, POWER
913	*1-624-325-11	PC BOARD, TRANSLATION 5
914	1-526-565-00	(E)....AC PLUG ADAPTOR
C101	1-162-294-31	CERAMIC 0.001MF 10% 50V
C102	1-124-443-00	ELECT 100MF 20% 10V
C103	1-162-199-31	CERAMIC 10PF 5% 50V
C104	1-162-199-31	CERAMIC 10PF 5% 50V
C105	1-162-198-31	CERAMIC 8.2PF 10% 50V
C106	1-124-477-11	ELECT 47MF 20% 16V
C107	1-161-375-00	CERAMIC 0.0022MF 30% 16V
C108	1-136-159-00	FILM 0.033MF 5% 50V
C109	1-162-851-11	CERAMIC 0.1MF 20% 16V
C110	1-124-908-11	ELECT 22MF 20% 25V
C111	1-136-159-00	FILM 0.033MF 5% 50V
C112	1-136-153-00	FILM 0.01MF 5% 50V
C113	1-124-908-11	ELECT 22MF 20% 25V
C114	1-162-851-11	CERAMIC 0.1MF 20% 16V
C115	1-161-375-00	CERAMIC 0.0022MF 30% 16V
C116	1-161-377-00	CERAMIC 0.0047MF 30% 16V
C117	1-124-902-00	ELECT 0.47MF 20% 50V
C200	1-161-379-00	CERAMIC 0.01MF 30% 16V
C201	1-126-101-11	ELECT 100MF 20% 16V
C202	1-126-101-11	ELECT 100MF 20% 16V
C203	1-162-851-11	CERAMIC 0.1MF 20% 16V
C204	1-162-851-11	CERAMIC 0.1MF 20% 16V
C205	1-162-294-31	CERAMIC 0.001MF 10% 50V
C206	1-162-294-31	CERAMIC 0.001MF 10% 50V
C207	1-162-851-11	CERAMIC 0.1MF 20% 16V
C208	1-136-169-00	FILM 0.22MF 5% 50V
C210	1-162-851-11	CERAMIC 0.1MF 20% 16V
C211	1-162-851-11	CERAMIC 0.1MF 20% 16V
C212	1-126-101-11	ELECT 100MF 20% 16V
C213	1-126-101-11	ELECT 100MF 20% 16V

Ref.No.	Part No.	Description
C215	1-123-875-11	ELECT 10MF 20% 50V
C217	1-136-165-00	FILM 0.1MF 5% 50V
C218	1-123-382-00	ELECT 3.3MF 20% 50V
C219	1-136-159-00	FILM 0.033MF 5% 50V
C220	1-136-165-00	FILM 0.1MF 5% 50V
C221	1-130-479-00	MYLAR 0.0047MF 5% 50V
C222	1-124-499-11	ELECT 1MF 20% 50V
C223	1-124-927-11	ELECT 4.7MF 20% 50V
C224	1-124-477-11	ELECT 47MF 20% 16V
C225	1-162-294-31	CERAMIC 0.001MF 10% 50V
C226	1-162-282-31	CERAMIC 100PF 10% 50V
C227	1-124-908-11	ELECT 22MF 20% 25V
C228	1-162-851-11	CERAMIC 0.1MF 20% 16V
C231	1-124-908-11	ELECT 22MF 20% 25V
C251	1-136-157-00	FILM 0.022MF 5% 50V
C252	1-106-351-00	MYLAR 0.0022MF 5% 50V
C253	1-106-351-00	MYLAR 0.0022MF 5% 50V
C301	1-161-375-00	CERAMIC 0.0022MF 30% 16V
C302	1-124-908-11	ELECT 22MF 20% 25V
C303	1-161-379-00	CERAMIC 0.01MF 30% 16V
C304	1-124-902-00	ELECT 0.47MF 20% 50V
C305	1-136-159-00	FILM 0.033MF 5% 50V
C306	1-124-908-11	ELECT 22MF 20% 25V
C307	1-162-851-11	CERAMIC 0.1MF 20% 16V
C351	1-161-379-00	CERAMIC 0.01MF 30% 16V
C353	1-124-908-11	ELECT 22MF 20% 25V
C354	1-124-908-11	ELECT 22MF 20% 25V
C361	1-161-494-00	CERAMIC 0.022MF 25V
C380	1-124-908-11	ELECT 22MF 20% 25V
C381	1-162-282-31	CERAMIC 100PF 10% 50V
C390	1-124-908-11	ELECT 22MF 20% 25V
C391	1-162-851-11	CERAMIC 0.1MF 20% 16V
C400	1-162-851-11	CERAMIC 0.1MF 20% 16V
C401	1-162-851-11	CERAMIC 0.1MF 20% 16V
C402	1-162-851-11	CERAMIC 0.1MF 20% 16V
C403	1-162-851-11	CERAMIC 0.1MF 20% 16V
C404	1-162-851-11	CERAMIC 0.1MF 20% 16V
C405	1-162-851-11	CERAMIC 0.1MF 20% 16V
C406	1-162-851-11	CERAMIC 0.1MF 20% 16V
C407	1-130-474-00	MYLAR 0.0018MF 5% 50V
C408	1-130-484-00	MYLAR 0.012MF 5% 50V
C409	1-130-478-00	MYLAR 0.0039MF 5% 50V
C410	1-130-474-00	MYLAR 0.0018MF 5% 50V
C411	1-130-471-00	MYLAR 0.001MF 5% 50V
C412	1-124-908-11	ELECT 22MF 20% 50V

Note: The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description			
C420	1-126-101-11	ELECT	100MF	20%	16V
C421	1-126-101-11	ELECT	100MF	20%	16V
C450	1-123-661-00	ELECT	100MF	20%	6.3V
C451	1-123-661-00	ELECT	100MF	20%	6.3V
C452	1-161-494-00	CERAMIC	0.022MF		25V
C453	1-162-290-31	CERAMIC	470PF	10%	50V
C454	1-162-290-31	CERAMIC	470PF	10%	50V
C500	1-162-851-11	CERAMIC	0.1MF	20%	16V
C501	1-162-851-11	CERAMIC	0.1MF	20%	16V
C502	1-162-851-11	CERAMIC	0.1MF	20%	16V
C503	1-162-851-11	CERAMIC	0.1MF	20%	16V
C504	1-162-851-11	CERAMIC	0.1MF	20%	16V
C505	1-162-851-11	CERAMIC	0.1MF	20%	16V
C506	1-162-851-11	CERAMIC	0.1MF	20%	16V
C507	1-130-474-00	MYLAR	0.0018MF	5%	50V
C508	1-130-484-00	MYLAR	0.012MF	5%	50V
C509	1-130-478-00	MYLAR	0.0039MF	5%	50V
C510	1-130-474-00	MYLAR	0.0018MF	5%	50V
C511	1-130-471-00	MYLAR	0.001MF	5%	50V
C512	1-124-908-11	ELECT	22MF	20%	50V
C520	1-162-290-31	CERAMIC	470PF	10%	50V
C521	1-124-120-11	ELECT	220MF	20%	16V
C523	1-124-444-00	ELECT	220MF	20%	10V
C524	1-124-444-00	ELECT	220MF	20%	10V
C525	1-162-204-31	CERAMIC	16PF	5%	50V
C526	1-162-205-31	CERAMIC	18PF	5%	50V
C528	1-162-291-31	CERAMIC	560PF	10%	50V
C530	1-161-379-00	CERAMIC	0.01MF	30%	16V
C801	1-162-207-31	CERAMIC	22PF	5%	50V
C802	1-162-207-31	CERAMIC	22PF	5%	50V
C803	1-161-494-00	CERAMIC	0.022MF		25V
C804	1-123-661-00	ELECT	100MF	20%	6.3V
C805	1-161-379-00	CERAMIC	0.01MF	30%	16V
C900	1-124-898-11	ELECT	4700MF	20%	16V
C901	1-124-893-11	ELECT	2200MF	20%	10V
C902	1-123-875-11	ELECT	10MF	20%	50V
C903	1-123-875-11	ELECT	10MF	20%	50V
C904	1-126-244-51	ELECT	47000MF		5.5V
C905	1-124-360-00	ELECT	1000MF	20%	16V
C906	1-124-927-11	ELECT	4.7MF	20%	50V
C907	1-124-927-11	ELECT	4.7MF	20%	50V
C910	1-124-898-11	ELECT	4700MF	20%	16V
C911	1-124-472-11	ELECT	470MF	20%	10V
C921	1-124-911-11	ELECT	220MF	20%	50V
C922	1-124-913-11	ELECT	470MF	20%	50V
C923	1-124-360-00	ELECT	1000MF	20%	16V
C924	1-124-499-11	ELECT	1MF	20%	50V
C925	1-124-927-11	ELECT	4.7MF	20%	50V
C926	1-162-290-31	CERAMIC	470PF	10%	50V
C931	1-124-913-11	ELECT	470MF	20%	50V
C932	1-124-913-11	ELECT	470MF	20%	50V
C933	1-124-556-11	ELECT	2200MF	20%	16V
C941	1-124-122-11	ELECT	100MF	20%	50V
C942	1-124-122-11	ELECT	100MF	20%	35V
C990	1-162-578-00	CERAMIC	0.0047MF	20%	400V
CN101	*1-564-706-31	PIN, CONNECTOR (SMALL TYPE) 4P			
CN102	*1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P			
CN201	*1-564-339-61	PIN, CONNECTOR 5P			

Ref.No.	Part No.	Description
CN203	*1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P
CN204	*1-564-706-41	PIN, CONNECTOR (SMALL TYPE) 4P
CN256	*1-564-336-51	PIN, CONNECTOR 2P
CN258	*1-564-337-51	PIN, CONNECTOR 3P
CN260	*1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P
CN302	*1-564-340-00	PIN, CONNECTOR 6P
CN303	*1-564-342-11	PIN, CONNECTOR 8P
CN390	1-464-878-11	TRANSMITTER UNIT, RAY
CN400	*1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P
CN410	*1-564-723-11	PIN, CONNECTOR (SMALL TYPE) 7P
CN420	*1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P
CN450	1-564-722-11	PIN, CONNECTOR (SMALL TYPE) 6P
CN810	*1-564-497-11	PIN, CONNECTOR 4P
CN900	*1-564-341-11	PIN, CONNECTOR 7P
CN920	*1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P
CNJ252	*1-564-720-21	PIN, CONNECTOR (SMALL TYPE) 4P
D101	8-719-940-76	DIODE 1SS132
D904	8-719-940-76	DIODE 1SS132
D905	8-719-940-76	DIODE 1SS132
D906	8-719-940-76	DIODE 1SS132
D907	8-719-928-82	DIODE HZS4.3NB3
D908	8-719-200-77	DIODE 10E2N
D909	8-719-200-77	DIODE 10E2N
D910	8-719-200-77	DIODE 10E2N
D911	8-719-200-77	DIODE 10E2N
D912	8-719-940-76	DIODE 1SS132
D913	8-719-940-76	DIODE 1SS132
D914	8-719-940-76	DIODE 1SS132
D915	8-719-940-76	DIODE 1SS132
D920	8-719-200-77	DIODE 10E2N
D921	8-719-200-77	DIODE 10E2N
D922	8-719-200-77	DIODE 10E2N
D923	8-719-200-77	DIODE 10E2N
D943	8-719-200-77	DIODE 10E2N
D945	8-719-933-57	DIODE HZS9B2L
FLD801	1-519-428-21	INDICATOR TUBE, FLUORESCENT
IC101	8-752-031-80	IC CXA1081S
IC201	8-759-202-01	IC TA7256P
IC202	8-759-805-18	IC LA6520
IC204	8-752-032-33	IC CXA1182S
IC301	8-759-971-40	IC MSM6408-26SS
IC302	8-752-322-04	IC CXD1125Q
IC303	8-752-320-44	IC CXK5816M-10L
IC351	8-759-630-16	IC M50740A-424SP
IC352	8-759-820-64	IC LC9600R-183
IC380	8-759-605-44	IC M74HC6004P
IC400	8-759-745-61	IC NJM4560D-D
IC450	8-759-700-74	IC NJM4556S
IC500	8-759-745-61	IC NJM4560D-D
IC520	8-759-939-35	IC CXD1088Q
IC521	8-759-939-94	IC TDA1541-N5
IC801	8-752-803-69	IC CXP5058H-068Q
IC802	8-741-138-70	IC BX-1387
IC900	8-759-630-21	IC M5290P-16
IC921	8-759-602-66	IC M5230L-A
IC940	8-759-602-02	IC M5219P

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description				
J380	1-566-922-11	JACK, PIN 1P (DIGITAL OUT)				
J400	1-563-867-11	JACK, PIN 2P (LINE OUT)				
J450	1-563-485-21	JACK, LARGE TYPE (HEADPHONES)				
L380	*1-410-858-11	INDUCTOR	OUH			
M251	A-4608-346-A	MOTOR ASSY, L				
M252	X-4917-504-1	ASSY, MOTOR (SLED)				
M253	X-4917-523-1	ASSY, MOTOR (SPINDLE)				
PS201A	1-532-605-00	LINK, IC				
PS202A	1-532-605-00	LINK, IC				
PS205A	1-532-605-00	LINK, IC				
PS206A	1-532-605-00	LINK, IC				
PS901A	1-532-675-00	LINK, IC				
PS911A	1-532-675-00	LINK, IC				
PS920A	1-532-685-00	LINK, IC				
PS930A	1-532-685-00	LINK, IC				
Q101	8-729-801-83	TRANSISTOR	2SB1013			
Q205	8-729-806-38	TRANSISTOR	2SC3399			
Q206	8-729-806-28	TRANSISTOR	2SC3402			
Q400	8-729-107-77	TRANSISTOR	2SC3623-L			
Q401	8-729-107-77	TRANSISTOR	2SC3623-L			
Q402	8-729-107-77	TRANSISTOR	2SC3623-L			
Q500	8-729-107-77	TRANSISTOR	2SC3623-L			
Q501	8-729-107-77	TRANSISTOR	2SC3623-L			
Q502	8-729-107-77	TRANSISTOR	2SC3623-L			
Q520	8-729-115-15	TRANSISTOR	BN1A4N			
Q521	8-729-115-15	TRANSISTOR	BN1A4N			
Q522	8-729-806-38	TRANSISTOR	2SC3399			
Q523	8-729-806-38	TRANSISTOR	2SC3399			
Q801	8-729-902-11	TRANSISTOR	2SC2021			
Q900	8-729-808-72	TRANSISTOR	2SB1274SA			
Q901	8-729-806-38	TRANSISTOR	2SC3399			
Q910	8-729-808-76	TRANSISTOR	2SD1913SA			
Q911	8-729-806-20	TRANSISTOR	2SA1345			
Q912	8-729-806-38	TRANSISTOR	2SC3399			
Q913	8-729-806-20	TRANSISTOR	2SA1345			
Q920	8-729-806-38	TRANSISTOR	2SC3399			
Q931	8-729-103-43	TRANSISTOR	2SB734			
Q940	8-729-802-22	TRANSISTOR	2SB1014			
R101	1-215-396-00	CARBON	91	5%	1/4W	
R102	1-214-092-00	METAL	22	1%	1/4W	
R103	1-249-417-11	CARBON	1K	5%	1/4W	
R104	1-249-433-11	CARBON	22K	5%	1/4W	
R105	1-249-421-11	CARBON	2.2K	5%	1/4W	
R106	1-249-428-11	CARBON	8.2K	5%	1/4W	
R107	1-215-450-00	CARBON	16K	5%	1/4W	
R108	1-249-425-11	CARBON	4.7K	5%	1/4W	
R109	1-249-425-11	CARBON	4.7K	5%	1/4W	
R110	1-249-432-11	CARBON	18K	5%	1/4W	
R111	1-249-432-11	CARBON	18K	5%	1/4W	
R112	1-249-441-11	CARBON	100K	5%	1/4W	
R201	1-249-393-11	CARBON	10	5%	1/4W	
R203	1-249-393-11	CARBON	10	5%	1/4W	
R204	1-249-381-11	CARBON	1	5%	1/4W	
R205	1-247-881-00	CARBON	120K	5%	1/4W	
R206	1-215-472-00	CARBON	130K	5%	1/4W	
R207	1-249-381-11	CARBON	1	5%	1/4W	

Ref.No.	Part No.	Description				
R208	1-247-881-00	CARBON	120K	5%	1/4W	
R210	1-215-472-00	CARBON	130K	5%	1/4W	
R211	1-249-437-11	CARBON	47K	5%	1/4W	
R212	1-249-436-11	CARBON	39K	5%	1/4W	
R213	1-249-429-11	CARBON	10K	5%	1/4W	
R214	1-249-423-11	CARBON	3.3K	5%	1/4W	
R216	1-249-393-11	CARBON	10	5%	1/4W	
R217	1-249-438-11	CARBON	56K	5%	1/4W	
R219	1-249-424-11	CARBON	3.9K	5%	1/4W	
R220	1-249-425-11	CARBON	4.7K	5%	1/4W	
R222	1-215-472-00	CARBON	130K	5%	1/4W	
R223	1-249-393-11	CARBON	10	5%	1/4W	
R224	1-249-393-11	CARBON	10	5%	1/4W	
R228	1-215-486-00	CARBON	510K	5%	1/4W	
R229	1-249-435-11	CARBON	33K	5%	1/4W	
R230	1-215-479-00	CARBON	270K	5%	1/4W	
R231	1-249-440-11	CARBON	82K	5%	1/4W	
R232	1-249-429-11	CARBON	10K	5%	1/4W	
R233	1-249-414-11	CARBON	560	5%	1/4W	
R234	1-249-441-11	CARBON	100K	5%	1/4W	
R235	1-215-434-00	METAL	3.6K	1%	1/6W	
R236	1-249-433-11	CARBON	22K	5%	1/4W	
R237	1-249-441-11	CARBON	100K	5%	1/4W	
R301	1-249-405-11	CARBON	100	5%	1/4W	
R303	1-215-469-00	METAL	100K	1%	1/6W	
R304	1-215-469-00	METAL	100K	1%	1/6W	
R305	1-249-429-11	CARBON	10K	5%	1/4W	
R306	1-249-441-11	CARBON	100K	5%	1/4W	
R307	1-249-429-11	CARBON	10K	5%	1/4W	
R308	1-249-417-11	CARBON	1K	5%	1/4W	
R309	1-249-433-11	CARBON	22K	5%	1/4W	
R310	1-215-493-00	CARBON	1M	5%	1/4W	
R351	1-249-417-11	CARBON	1K	5%	1/4W	
R380	1-249-412-11	CARBON	390	5%	1/4W	
R381	1-215-396-00	CARBON	91	5%	1/4W	
R390	1-249-428-11	CARBON	8.2K	5%	1/4W	
R391	1-249-408-11	CARBON	180	5%	1/4W	
R400	1-247-838-00	CARBON	2K	5%	1/4W	
R401	1-249-418-11	CARBON	1.2K	5%	1/4W	
R402	1-215-493-00	CARBON	1M	5%	1/4W	
R403	1-249-425-11	CARBON	4.7K	5%	1/4W	
R404	1-215-430-00	CARBON	2.4K	5%	1/4W	
R405	1-215-430-00	CARBON	2.4K	5%	1/4W	
R406	1-249-441-11	CARBON	100K	5%	1/4W	
R407	1-249-409-11	CARBON	220	5%	1/4W	
R408	1-249-414-11	CARBON	560	5%	1/4W	
R409	1-249-421-11	CARBON	2.2K	5%	1/4W	
R410	1-249-433-11	CARBON	22K	5%	1/4W	
R411	1-249-421-11	CARBON	2.2K	5%	1/4W	
R412	1-249-409-11	CARBON	220	5%	1/4W	
R450	1-249-417-11	CARBON	1K	5%	1/4W	
R451	1-249-423-11	CARBON	3.3K	5%	1/4W	
R452	1-249-423-11	CARBON	3.3K	5%	1/4W	
R453	1-249-402-11	CARBON	56	5%	1/4W	
R500	1-247-838-00	CARBON	2K	5%	1/4W	
R501	1-249-418-11	CARBON	1.2K	5%	1/4W	
R502	1-215-493-00	CARBON	1M	5%	1/4W	

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Ref.No.	Part No.	Description				
R503	1-249-425-11	CARBON	4.7K	5%	1/4W	
R504	1-215-430-00	CARBON	2.4K	5%	1/4W	
R505	1-215-430-00	CARBON	2.4K	5%	1/4W	
R506	1-249-441-11	CARBON	100K	5%	1/4W	
R507	1-249-409-11	CARBON	220	5%	1/4W	
R508	1-249-414-11	CARBON	560	5%	1/4W	
R509	1-249-421-11	CARBON	2.2K	5%	1/4W	
R510	1-249-433-11	CARBON	22K	5%	1/4W	
R511	1-249-421-11	CARBON	2.2K	5%	1/4W	
R512	1-249-409-11	CARBON	220	5%	1/4W	
R520	1-249-413-11	CARBON	470	5%	1/4W	
R521	1-249-441-11	CARBON	100K	5%	1/4W	
R522	1-249-429-11	CARBON	10K	5%	1/4W	
R523	1-249-429-11	CARBON	10K	5%	1/4W	
R524	1-249-413-11	CARBON	470	5%	1/4W	
R525	1-249-413-11	CARBON	470	5%	1/4W	
R526	1-249-441-11	CARBON	100K	5%	1/4W	
R527	1-249-417-11	CARBON	1K	5%	1/4W	
R528	1-249-416-11	CARBON	820	5%	1/4W	
R550	1-249-417-11	CARBON	1K	5%	1/4W	
R551	1-249-423-11	CARBON	3.3K	5%	1/4W	
R552	1-249-423-11	CARBON	3.3K	5%	1/4W	
R553	1-249-402-11	CARBON	56	5%	1/4W	
R848	1-249-429-11	CARBON	10K	5%	1/4W	
R901	1-249-425-11	CARBON	4.7K	5%	1/4W	
R902	1-249-429-11	CARBON	10K	5%	1/4W	
R903	1-249-405-11	CARBON	100	5%	1/4W	
R904	1-249-413-11	CARBON	470	5%	1/4W	
R910	1-249-429-11	CARBON	10K	5%	1/4W	
R911	1-249-425-11	CARBON	4.7K	5%	1/4W	
R912	1-249-425-11	CARBON	4.7K	5%	1/4W	
R920	1-249-399-11	CARBON	33	5%	1/4W	
R921	1-249-431-11	CARBON	15K	5%	1/4W	
R922	1-215-493-00	CARBON	1M	5%	1/4W	
R923	1-215-454-00	CARBON	24K	5%	1/4W	
R924	1-249-423-11	CARBON	3.3K	5%	1/4W	
R930	1-249-399-11	CARBON	33	5%	1/4W	
R931	1-249-431-11	CARBON	15K	5%	1/4W	
R932	1-249-414-11	CARBON	560	5%	1/4W	
R941	△1-212-857-00	FUSIBLE	10	5%	1/4W	F
R942	1-249-433-11	CARBON	22K	5%	1/4W	
R943	1-249-429-11	CARBON	10K	5%	1/4W	
R944	1-249-417-11	CARBON	1K	5%	1/4W	
R945	1-249-434-11	CARBON	27K	5%	1/4W	
R946	1-249-425-11	CARBON	4.7K	5%	1/4W	
RV101	1-228-995-00	RES, ADJ, CARBON 22K				
RV102	1-228-995-00	RES, ADJ, CARBON 22K				
RV103	1-228-995-00	RES, ADJ, CARBON 22K				
RV104	1-228-993-00	RES, ADJ, CARBON 4.7K				
RV201	1-228-990-00	RES, ADJ, METAL GLAZE 1K				
RV450	1-237-438-11	RES, VAR, CARBON 20K/20K (HEADPHONES LEVEL)				
S251	1-571-300-11	SWITCH, ROTARY				
S252	1-571-274-11	SWITCH, LEAF				
S801	1-570-876-11	SWITCH, KEY BOARD (1A)				
S802	1-570-876-11	SWITCH, KEY BOARD (2B)				
S803	1-570-876-11	SWITCH, KEY BOARD (3C)				
S804	1-570-876-11	SWITCH, KEY BOARD (4D)				
S805	1-570-876-11	SWITCH, KEY BOARD (5E)				

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description
S806	1-570-876-11	SWITCH, KEY BOARD (6F)
S807	1-570-876-11	SWITCH, KEY BOARD (7)
S808	1-570-876-11	SWITCH, KEY BOARD (8)
S809	1-570-876-11	SWITCH, KEY BOARD (9)
S810	1-570-876-11	SWITCH, KEY BOARD (10)
S811	1-570-876-11	SWITCH, KEY BOARD (11)
S812	1-570-876-11	SWITCH, KEY BOARD (12)
S813	1-570-876-11	SWITCH, KEY BOARD (13)
S814	1-570-876-11	SWITCH, KEY BOARD (14)
S815	1-570-876-11	SWITCH, KEY BOARD (15)
S816	1-570-876-11	SWITCH, KEY BOARD (16)
S817	1-570-876-11	SWITCH, KEY BOARD (17)
S818	1-570-876-11	SWITCH, KEY BOARD (18)
S819	1-570-876-11	SWITCH, KEY BOARD (19)
S820	1-570-876-11	SWITCH, KEY BOARD (20)
S821	1-570-876-11	SWITCH, KEY BOARD (INDEX MODE)
S822	1-570-876-11	SWITCH, KEY BOARD (ERASE)
S823	1-570-876-11	SWITCH, KEY BOARD (CONTINUE)
S824	1-570-876-11	SWITCH, KEY BOARD (SHUFFLE)
S825	1-570-876-11	SWITCH, KEY BOARD (PROGRAM)
S826	1-570-876-11	SWITCH, KEY BOARD (>20)
S827	1-570-876-11	SWITCH, KEY BOARD (CHECK)
S828	1-570-876-11	SWITCH, KEY BOARD (CLEAR)
S829	1-570-876-11	SWITCH, KEY BOARD (FILE)
S830	1-570-876-11	SWITCH, KEY BOARD (INDEX MODE)
S832	1-570-876-11	SWITCH, KEY BOARD (■)
S833	1-570-876-11	SWITCH, KEY BOARD (◀◀)
S834	1-570-876-11	SWITCH, KEY BOARD (▶▶)
S835	1-570-876-11	SWITCH, KEY BOARD (◀◀)
S836	1-570-876-11	SWITCH, KEY BOARD (TIME/MEMO)
S837	1-570-876-11	SWITCH, KEY BOARD (OPEN/CL OSE)
S838	1-570-876-11	SWITCH, KEY BOARD (AUTO PAUSE)
S839	1-570-876-11	SWITCH, KEY BOARD (REPEAT)
S841	1-570-876-11	SWITCH, KEY BOARD (▶)
S842	1-570-876-11	SWITCH, KEY BOARD ()
S851	1-571-305-11	SWITCH, PUSH (1 KEY)(POWER)
S901	△1-570-046-21	(E)...SWITCH, VOLTAGE CHANGE
T990	△1-449-210-11	(AEP,UK)...TRANSFORMER, POWER
T990	△1-449-238-11	(E).....TRANSFORMER, POWER
TB900	*1-535-120-00	TERMINAL
△TB990	*1-535-139-00	(E).....BASE POST 19MM(10MM PITCH) 2P
△TB990	*1-535-140-11	(AEP,UK)..BASE POST 19MM(10MM PITCH) 3P
TB991	△1-535-416-00	TERMINAL
TB992	△1-535-416-00	TERMINAL
X301	1-567-686-11	OSCILLATOR, CERAMIC (4MHz)
X520	1-567-926-11	VIBRATOR, CRYSTAL (16.934MHz)
X801	1-567-192-11	OSCILLATOR, CERAMIC (4MHz)

ACCESSORY & PACKING MATERIAL

1-463-994-11	REMOTE COMMANDER (RM-D600)
1-558-543-11	CORD, CONNECTION
3-769-888-11	(UK,E)...MANUAL, INSTRUCTION
3-769-888-41	(AEP)...MANUAL, INSTRUCTION
3-795-629-15	(AEP)...INSTRUCTION
4-921-935-01	CUSHION
*4-922-631-11	INDIVIDUAL CARTON
7-632-650-75	SHEET PROTECTION (500MM)