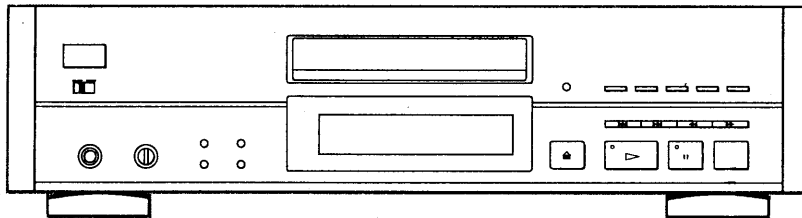


CDP-X505ES

SERVICE MANUAL

*AEP Model
E Model
Australian Model*



Model Name Using Similar Mechanism	CDP-X559ES
CD Mechanism Type	CDM19C2-6G50 : (BLACK) CDM19D2-6G50 : (GOLD)
Optical Pick-up Block Type	BU-6G

SPECIFICATIONS

Compact disc player

Laser	Semiconductor laser
Wavelength	780-790 nm
Frequency response	2 Hz to 20 kHz ± 0.3 dB
Signal-to-noise ratio	More than 118 dB
Dynamic range	More than 100 dB
Harmonic distortion	Less than 0.0017%
Channel separation	More than 110 dB

Outputs

LINE OUT (FIXED)	Output level 2 V (at 50 kilo-ohms) Load impedance over 10 kilo-ohms
LINE OUT (VARIABLE)	Output level max. 2 V (at 50 kilo-ohms) Load impedance over 50 kilo-ohms
DIGITAL OUT (OPTICAL)	Wave length 660 nm Output level -18 dBm
PHONES (stereo phone jack)	Output level max. 28 mW Load impedance 32 ohms

General

Power requirements	
Continental European model:	220 V - 230 V AC, 50/60 Hz
Australian model:	240 V AC, 50 Hz
Other country models:	110, 120, 220 or 240 V AC, 50/60 Hz
Power consumption	29 W
Dimensions (approx., including projections)	
CDP-X505ES	Australian model: 430 x 125 x 375 mm (w/h/d) (17 x 5 x 14 $\frac{7}{8}$ inches)
	Other country models: 470 x 125 x 375 mm (w/h/d) (18 $\frac{5}{8}$ x 5 x 14 $\frac{7}{8}$ inches)

Mass (approx.)	European model: 13.2 kg (29 lbs 2 oz) Australian model: 12.5 kg (27 lbs 9 oz) Other country models: 12.3 kg (27 lbs 2 oz)
----------------	--

Remote commander

Remote control system	Infrared control
Power requirements	3 V DC with two R6 (size AA) batteries
Dimensions (approx., including projections)	62 x 17 x 175 mm (w/h/d) (2 $\frac{1}{2}$ x 2 $\frac{3}{32}$ x 7 inches)
Mass (approx.)	135 g (5 oz)

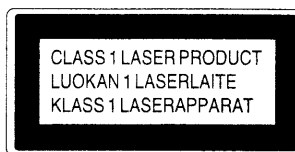
Design and specifications are subject to change without notice.



COMPACT DISC PLAYER
SONY®

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(CDM19C2-6G50) : Black		
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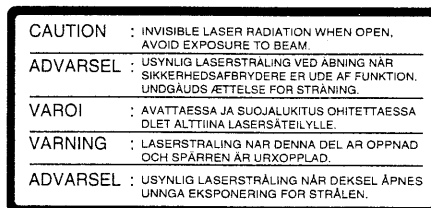


This Compact Disc player is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

Note

This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

The following caution label is located in the side of the unit.



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.

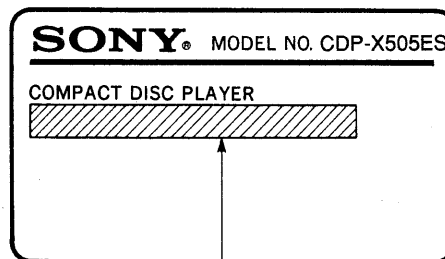
The flexible board is easily damaged and should be handled with care.

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 30cm away from the objective lens.

MODEL IDENTIFICATION

—Model Number Label—



AEP, Germany model : AC : 220—230V, 50/60Hz 29W

Australian model : AC : 240V, 50Hz 29W

E, Saudi Arabia model : AC : 110, 120, 220 or 240V, 50/60Hz 29W

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.

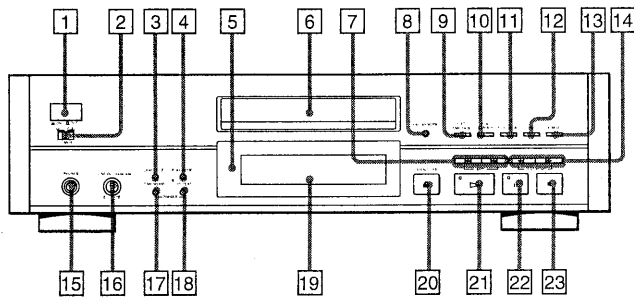
SECTION 1 GENERAL

This section is extracted from instruction manual.

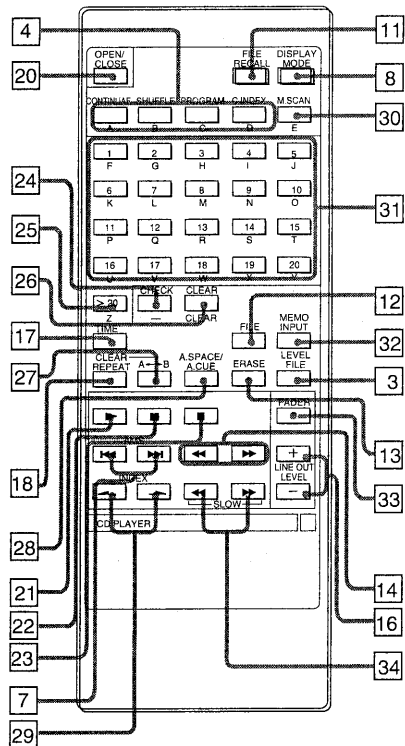
Identifying the Parts

Refer to the pages indicated in parentheses for details.

Front Panel/ Remote Commander



- 1 POWER switch (18)
- 2 TIMER switch (92)
- 3 LEVEL FILE button (90)
- 4 PLAY MODE button
On the remote commander:
CONTINUE button (18)
SHUFFLE button (28)
PROGRAM button (34, 48)
C.INDEX button (76)
- 5 Remote sensor
- 6 Disc tray
- 7 ◀▶ (AMS*) buttons (22)
- 8 DISPLAY MODE button (20)
- 9 EDIT/TIME FADE button (58, 64)
- 10 PEAK SEARCH button (66)
- 11 FILE RECALL button (84, 88)
- 12 FILE (custom file) button (70, 74, 76, 82, 86)
- 13 ERASE button (80, 84, 88)
- 14 ◀▶▶▶ (manual search) buttons (24)
- 15 PHONES jack (18)
- 16 LINE OUT/PHONE LEVEL control (18, 90)
(LINE OUT LEVEL +/- buttons on the remote commander)
- 17 TIME/MEMO button (20)
- 18 REPEAT button (40)
- 19 Display
- 20 ▲ OPEN/CLOSE button (18)
- 21 ▶ (play) button and indicator (18)
- 22 || (pause) button and indicator (18)
- 23 ■ (stop) button (18)
- 24 CHECK (program check) button (36)
- 25 >20 button (22)
- 26 CLEAR button (30, 32, 34, 36)
- 27 A↔B button (42)
- 28 A.SPACE/A.CUE button (26)
- 29 ←/→ INDEX buttons (24, 78)
- 30 M.SCAN button (38)
- 31 Numeric buttons (22)
- 32 MEMO INPUT button (72)
- 33 FADER button (44)
- 34 ◀◀▶▶ SLOW buttons (24)



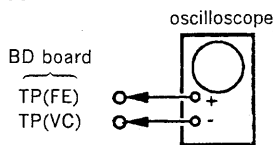
* AMS is the abbreviation of Automatic Music Sensor.

SECTION 2 ELECTRICAL BLOCK CHECKING

Note :

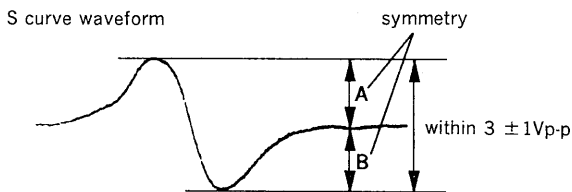
1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10MΩ impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S Curve Check



Procedure :

1. Connect oscilloscope to test point TP (FE) on BD board.
2. Connect between test point TP (FEI) and TP (VC) with lead wire.
3. Turned Power switch on and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
4. Check the oscilloscope waveform (S curve) is symmetrical between A and B. And confirm peak to peak level within $3 \pm 1V_{p-p}$.

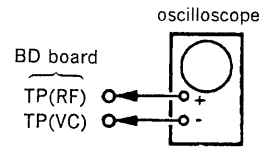


5. After check, remove the lead wire connected in step 2.

Note :

- Try to measure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.
- Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check

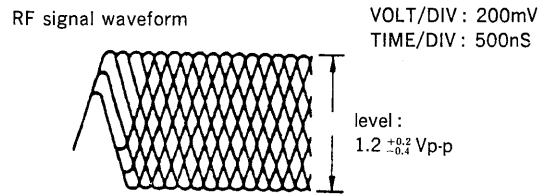


Procedure :

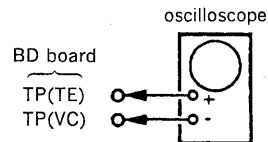
1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note :

Clear RF signal waveform means that the shape “◇” can be clearly distinguished at the center of the waveform.

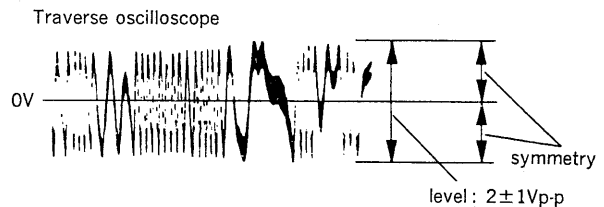


E-F Balance Check



Procedure :

1. Connect test point TP (ADJ) to ground and TP (TEI) to TP (VC) with lead wires.
2. Connect oscilloscope to test point TP (TE) on BD board.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0V, and check this level.

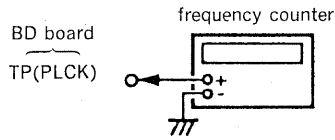


6. Remove the lead wires connected in step 1.

RF PLL Free-run Frequency Check

Procedure :

1. Connect frequency counter to test point TP (PLCK) with lead wire.



2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that reading on frequency counter is 4.3218MHz.

Focus/Tracking Gain

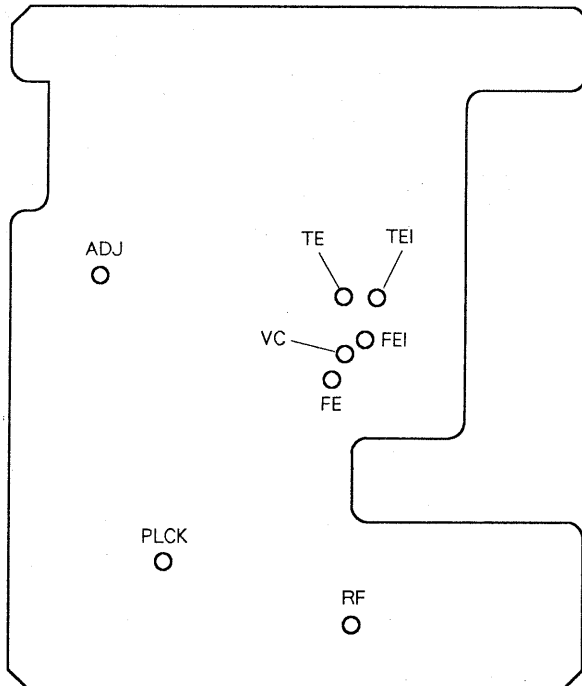
This gain has a margin, so even if it is slightly off.

There is no problem.

Therefore, do not perform, this adjustment.

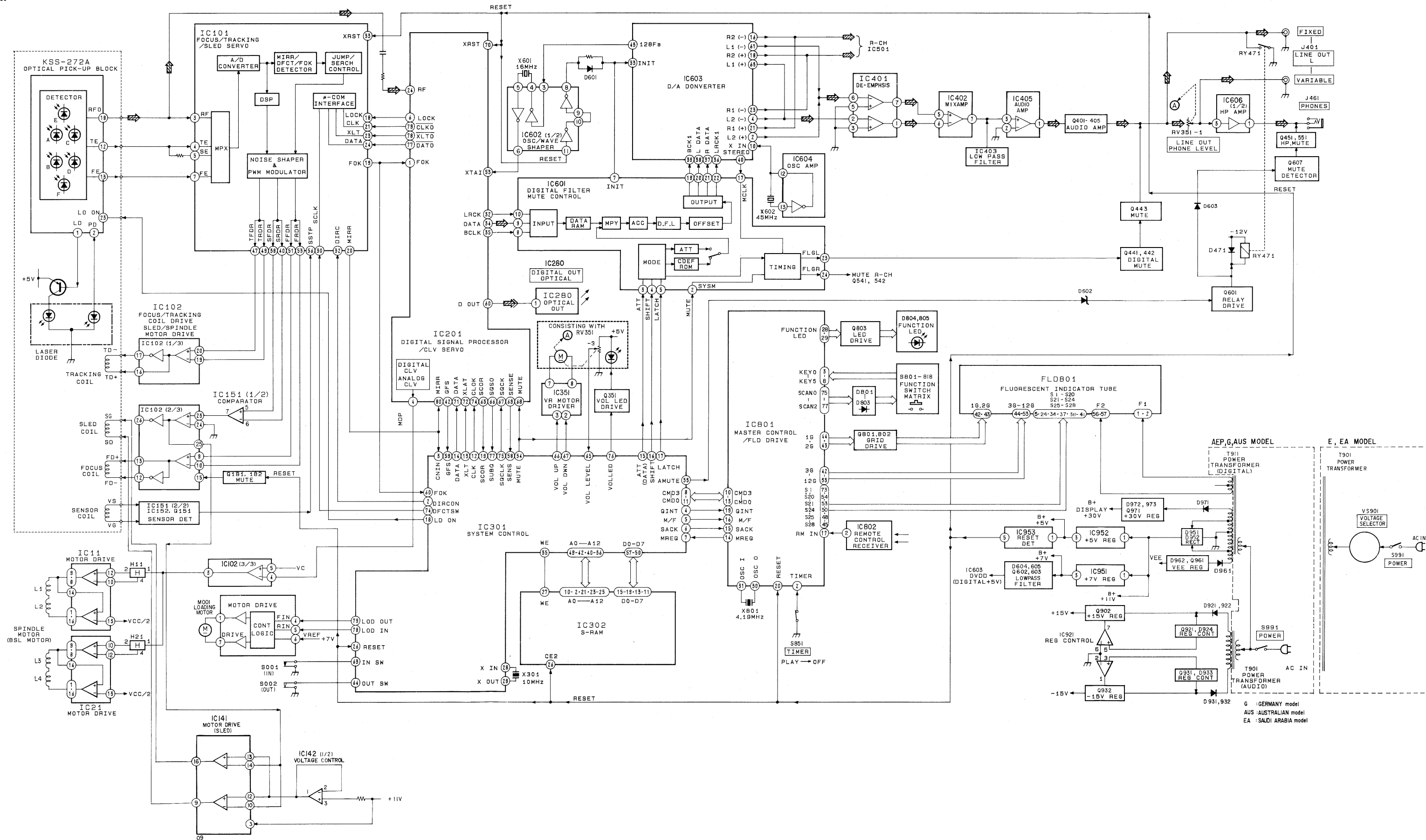
Please note that it should be fixed to mechanical center position when you moved and do not know original position.

Check Point Location : BD board—side A—

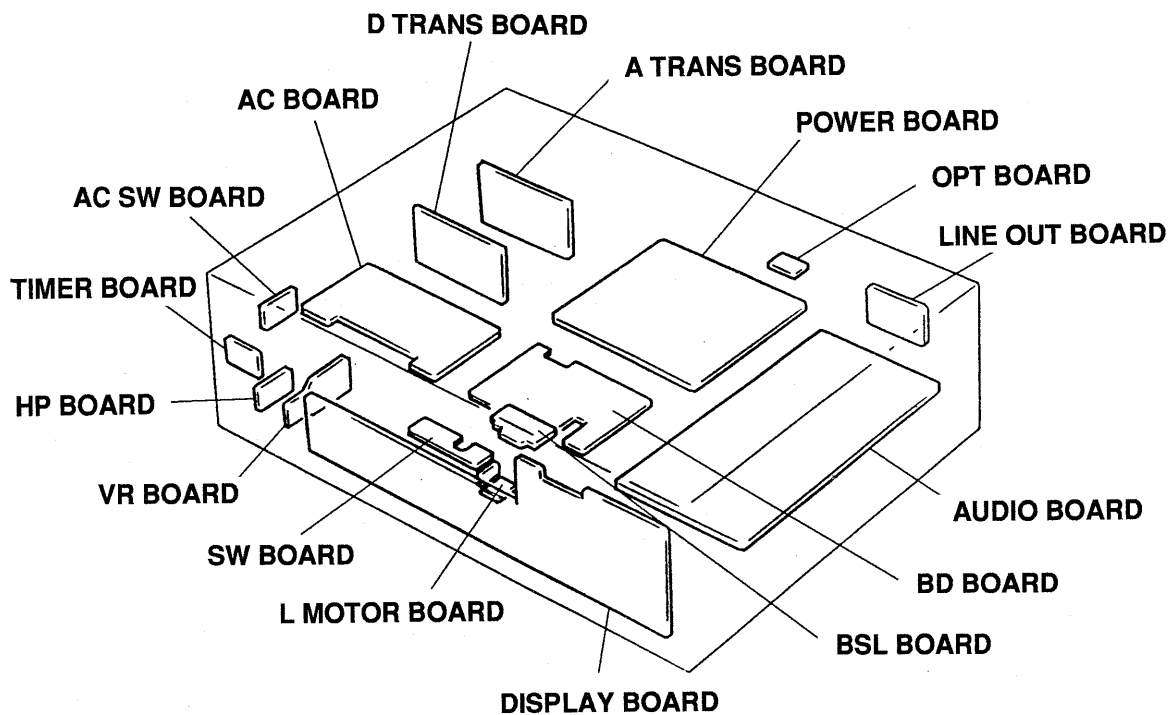


SECTION 3 DIAGRAMS

3-1. BLOCK DIAGRAM



3-2. CIRCUIT BOARDS LOCATION



3-3. PRINTED WIRING BOARDS — MAIN SECTION —
 -See page 9 for Circuit Boards Location.

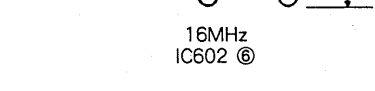
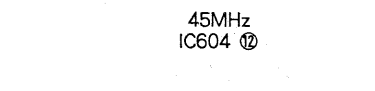
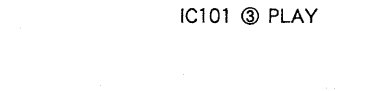
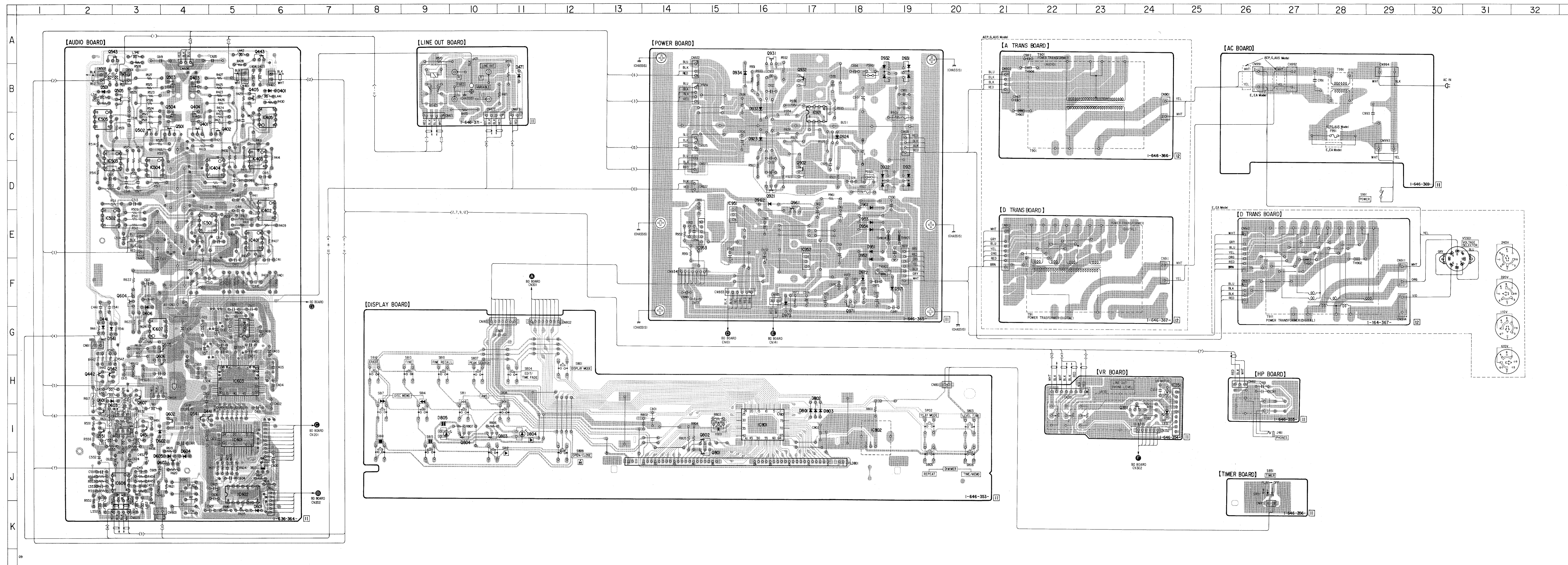
• Semiconductor Location

Ref.No.	Location	Ref.No.	Location	Ref.No.	Location
D401	B-6	IC351	I-25	Q451	I-3
D411	G-2	IC401	E-5	Q501	C-4
D471	B-11	IC402	E-6	Q502	C-3
D501	B-2	IC403	C-6	Q503	B-4
D541	G-2	IC404	D-5	Q504	C-4
D601	K-6	IC405	C-6	Q505	B-3
D602	I-3	IC501	E-4	Q541	I-4
D603	H-2	IC502	E-2	Q542	H-2
D604	J-4	IC503	C-3	Q543	A-3
D605	J-4	IC504	D-3	Q551	I-2
D606	G-3	IC505	C-2	Q601	I-2
D801	I-17	IC601	I-5	Q602	I-4
D802	I-17	IC602	J-5	Q603	J-4
D803	I-17	IC603	H-5	Q604	F-3
D804	I-11	IC604	G-5	Q605	G-3
D805	I-9	IC606	J-3	Q606	H-3
D921	D-19	IC607	G-3	Q607	H-3
D922	D-19	IC801	I-16	Q801	J-15
D923	C-16	IC802	I-18	Q802	I-15
D924	C-18	IC921	C-17	Q803	I-10
D931	B-19	IC951	E-15	Q804	I-10
D932	B-19	IC952	F-17	Q921	D-16
D933	B-16	IC953	E-15	Q922	D-17
D934	B-16			Q931	A-16
D951	E-18	Q351	I-24	Q932	B-17
D952	F-18	Q401	C-4	Q961	E-17
D953	E-18	Q402	C-5	Q971	F-18
D954	E-18	Q403	B-4		
D961	D-18	Q404	C-4		
D962	D-16	Q405	B-5		
D971	F-19	Q441	I-5		
D972	F-18	Q442	H-2		
D973	F-16	Q443	A-6		

Note:

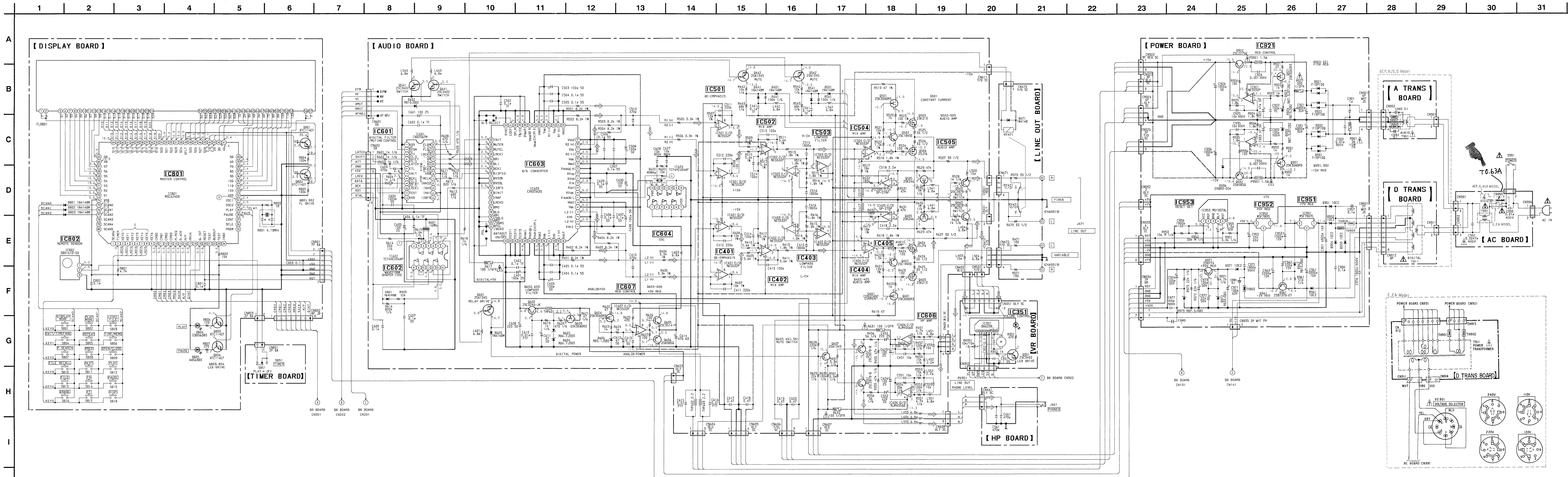
- : parts extracted from the components side.
- : Through hole.
- : Pattern on the side which is seen.
- : Pattern of the rear side.

- AUS : Australian Model
- G : German Model
- EA : Saudi Arabia Model



REVISED

3-4. SCHEMATIC DIAGRAM — MAIN SECTION —
• See page 28 for Semiconductor Lead Layouts and 29, 30 for IC Block Diagrams.



Note:

- All capacitors are in μF unless otherwise noted. pF , μF , 50V or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- Δ : internal component.
- \square : nonflammable resistor.
- --- : fusible resistor.

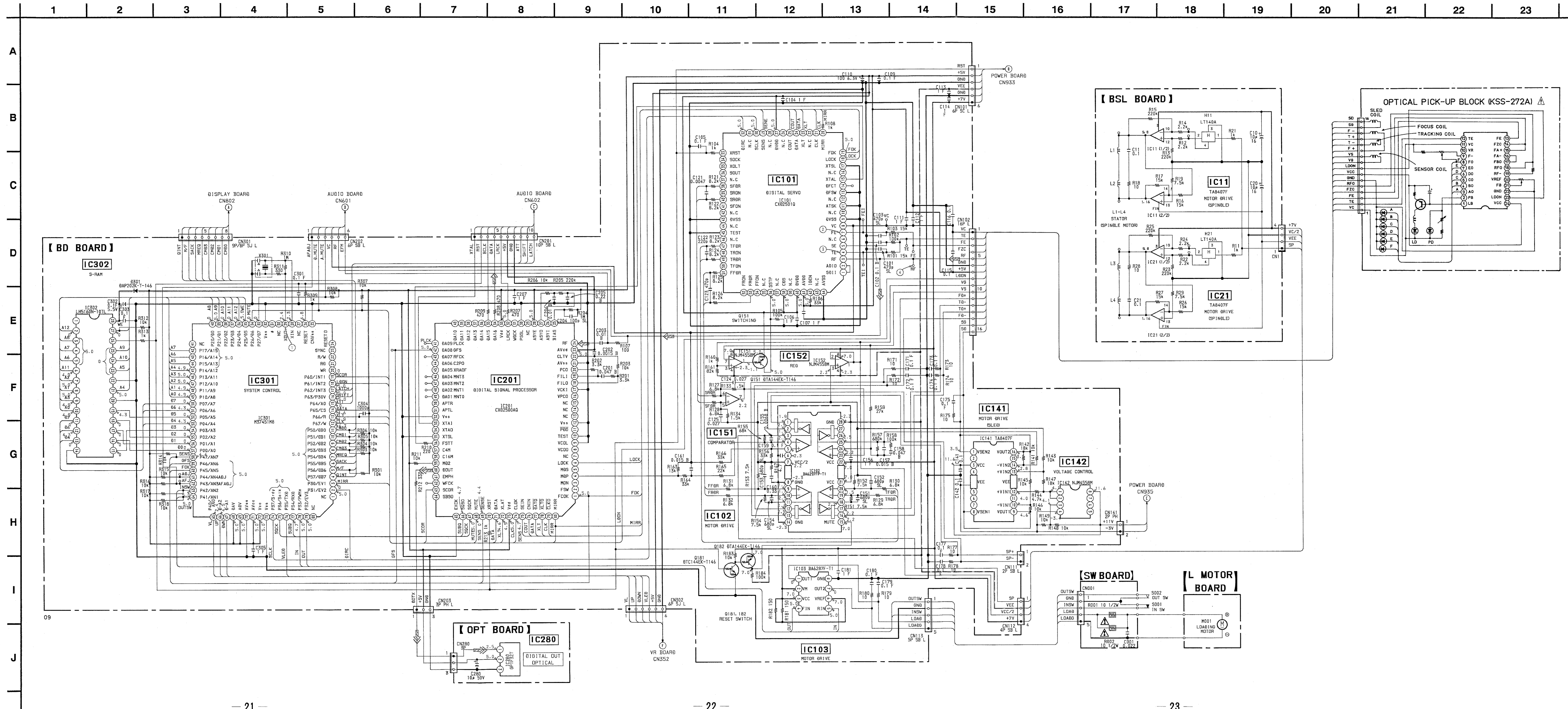
Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

- - - - - : B+ Line
 - - - - - : B- Line
 Voltage and waveforms are dc with respect to ground under no-signal conditions.
 no mark : STOP
 () : PLAY
 Voltages are taken with a VOM (input impedance $10\text{M}\Omega$). 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.
 Circled numbers refer to waveforms.
 \Rightarrow : CD
 \Rightarrow : digital out

•AUS : Australian Model
 •G : German Model
 •EA : Saudi Arabia Model

3-5. SCHEMATIC DIAGRAM — BD SECTION —

- See page 28 for Semiconductor Lead Layouts and 29, 30 for IC Block Diagrams.
- See page 14 for Waveform.



- 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 1/4W or less unless otherwise specified.
 - Δ : internal component.
 - \square : nonflammable resistor.
 - \square : fusible resistor.

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

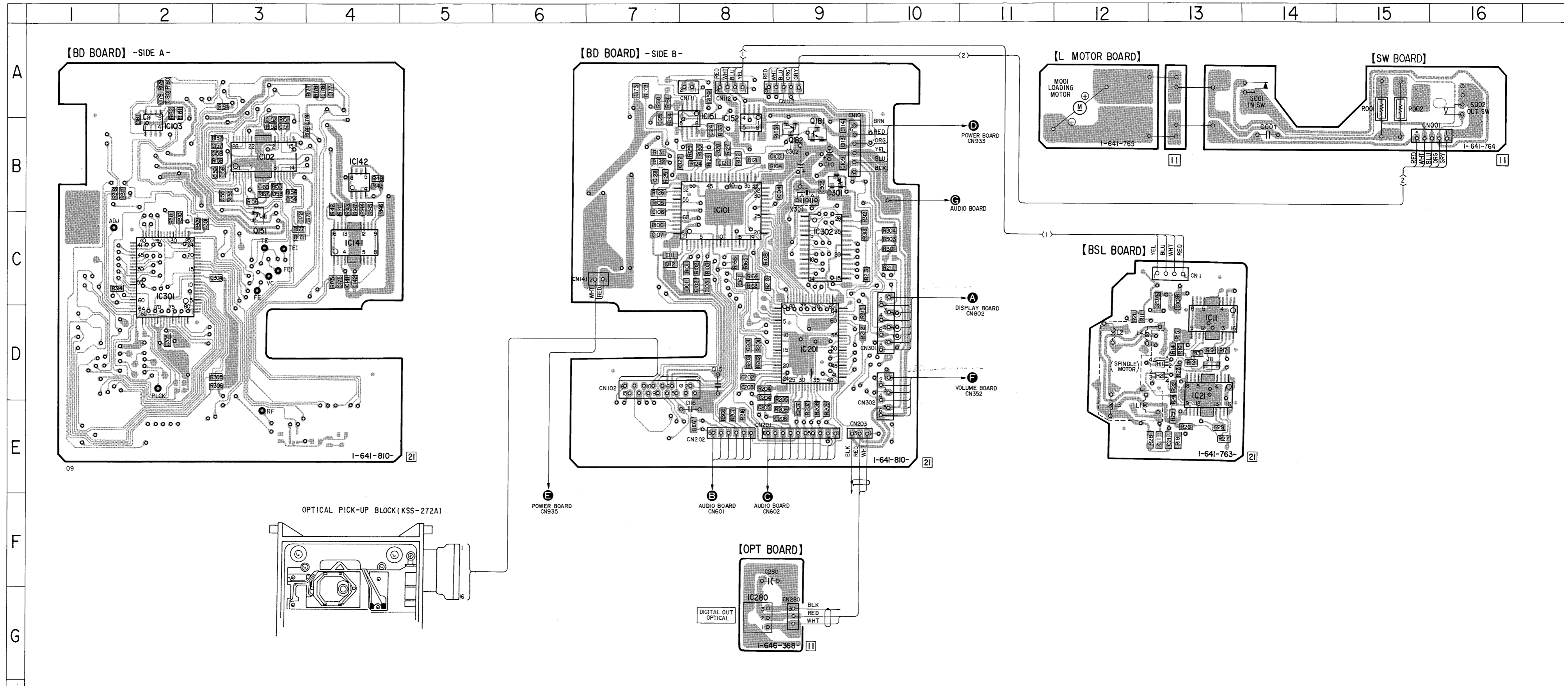
- ———: B+ Line
- - - - - -: B- Line
- Voltage and waveforms are dc with respect to ground under no-signal conditions. no mark: STOP (): PLAY
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- \Rightarrow : CD
- \Rightarrow : digital out

3-6. PRINTED WIRING BOARDS — BD SECTION —
•See page 9 for Circuit Boards Location.

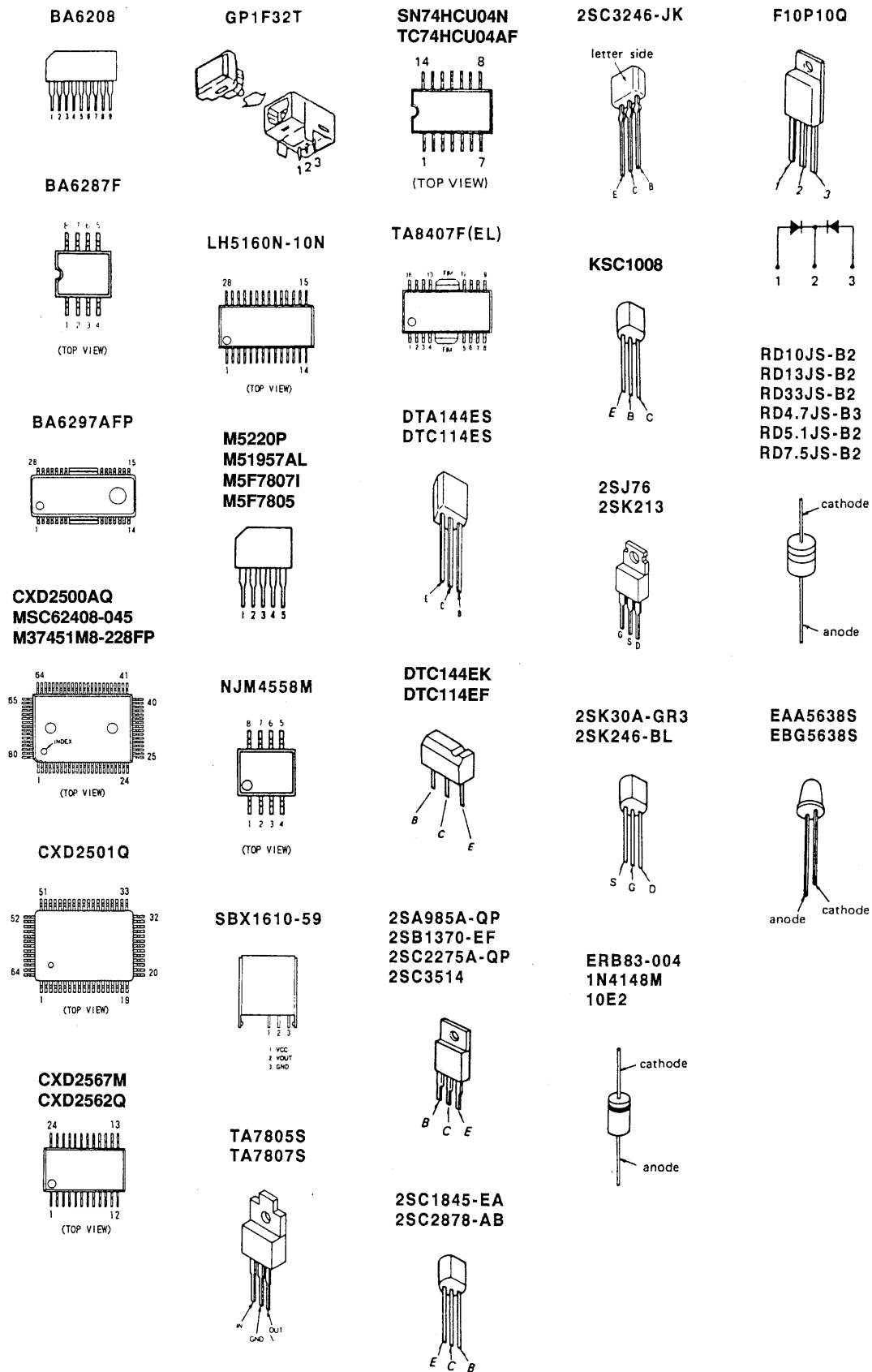
- Note:**
- — : parts extracted from the components side.
 - ○ : Through hole.
 - ◻ : Pattern on the side which is seen.
 - BSL Board is a two-layer print board, However, the patterns of rear side have not been included in the diagram.

• Semiconductor Location

Ref.No.	Location
D301	B-9
IC101	C-8
IC102	B-3
IC103	B-2
IC141	C-4
IC142	B-4
IC151	B-8
IC152	B-8
IC201	D-9
IC280	G-8
IC301	C-2
IC302	C-9
Q151	C-3
Q181	B-9
Q182	B-9

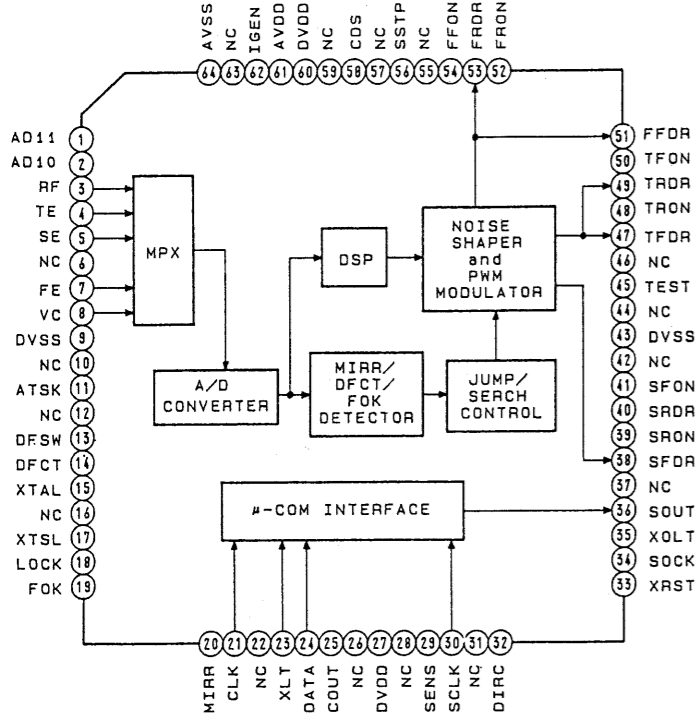


3-7. SEMICONDUCTOR LEAD LAYOUTS

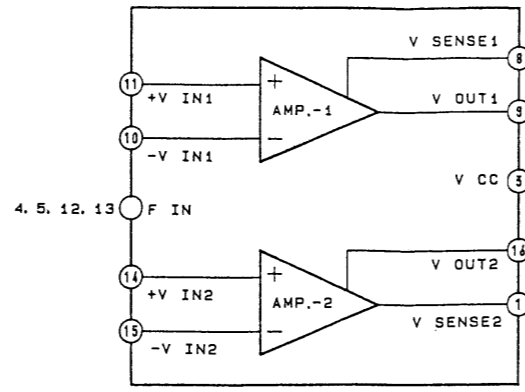


3-8. IC BLOCK DIAGRAM

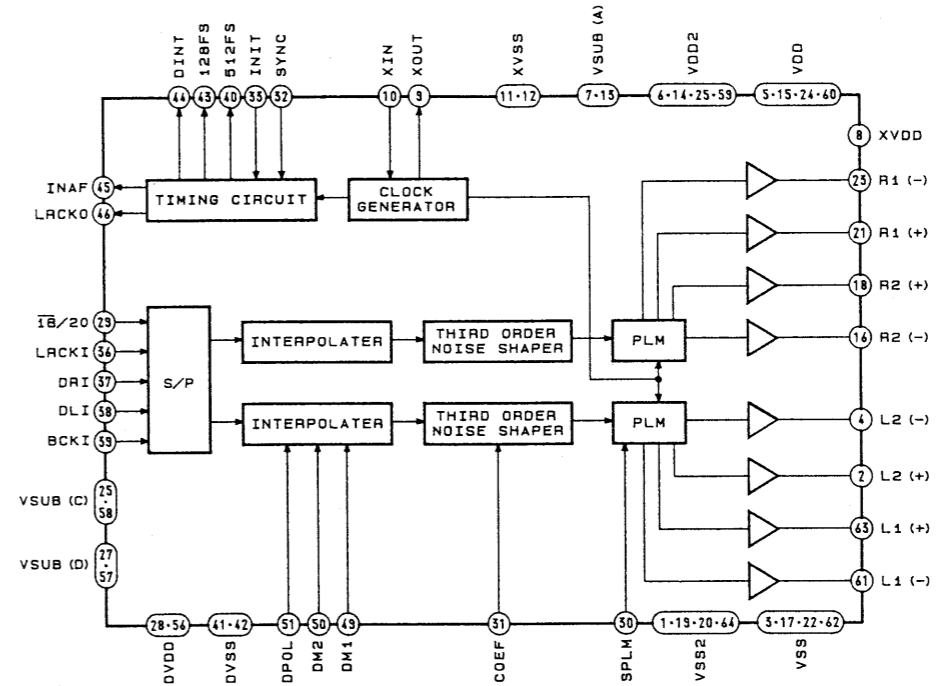
IC101 CXD2501Q



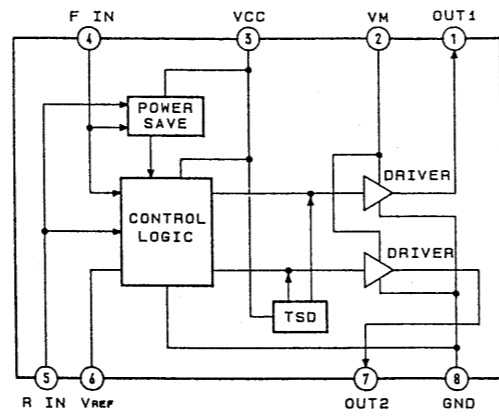
IC11, 21, 141 TA8407F



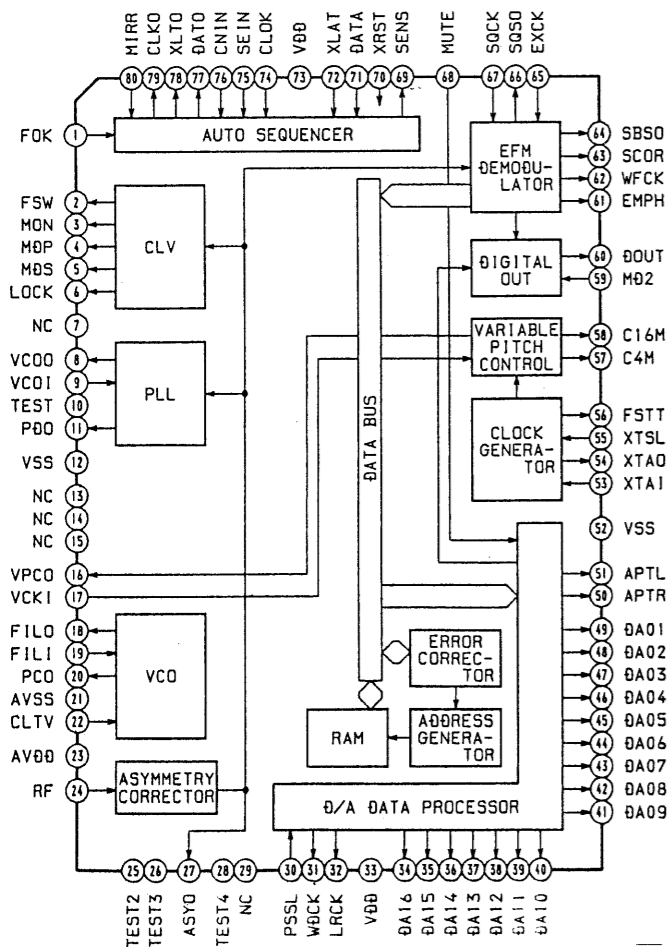
IC603 CXD2562Q



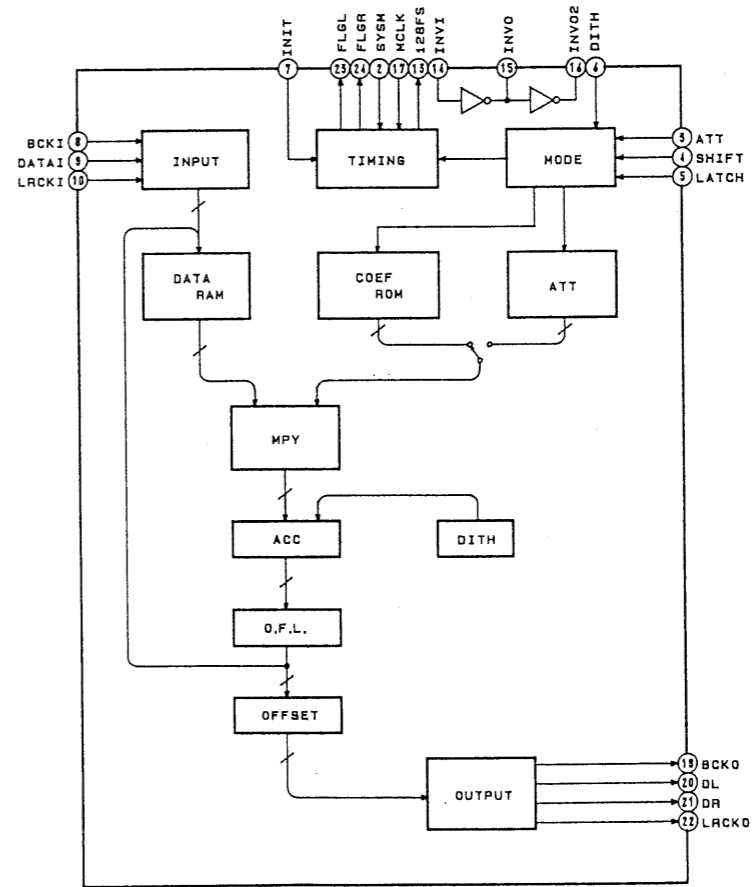
IC103 BA6287F-T1



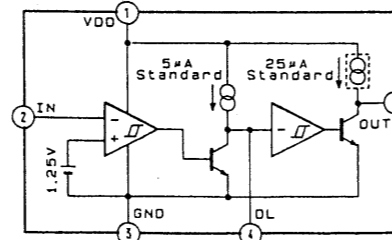
IC201 CXD2500AQ



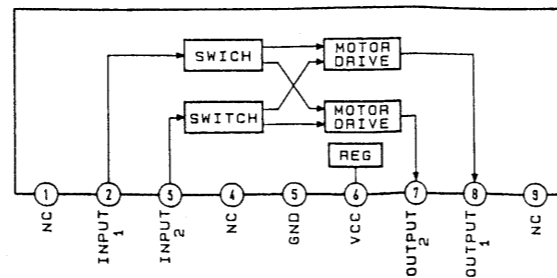
IC601 CXD2567M



IC953 M51957AL



IC351 BA6208



SECTION 4 EXPLODED VIEWS

NOTE:

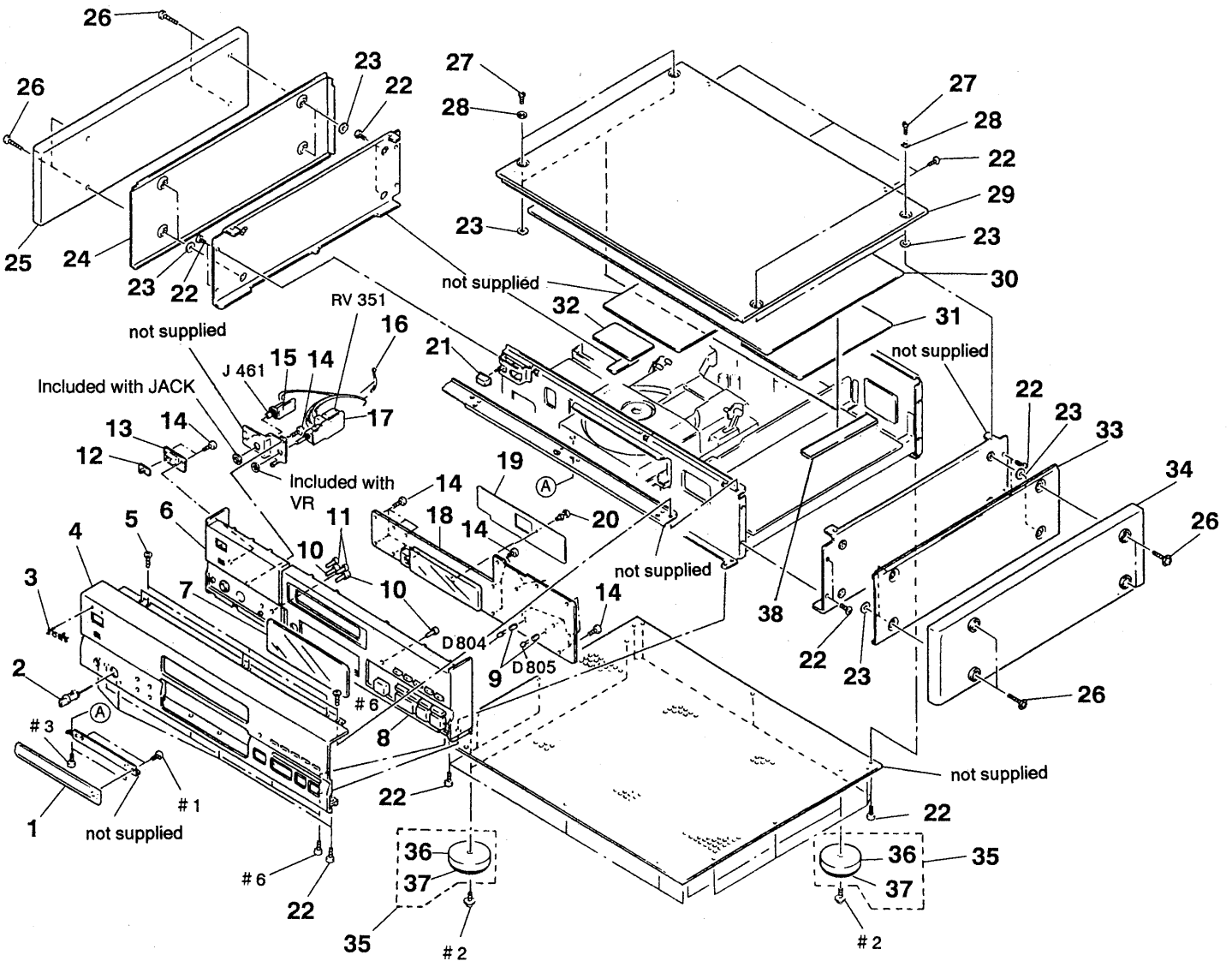
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE) . . . (RED)
 ↑ ↑
Parts color Cabinet's color

- Items marked “ * ” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

- AUS : Australian model
- EA : Saudi Arabia model
- G : German model

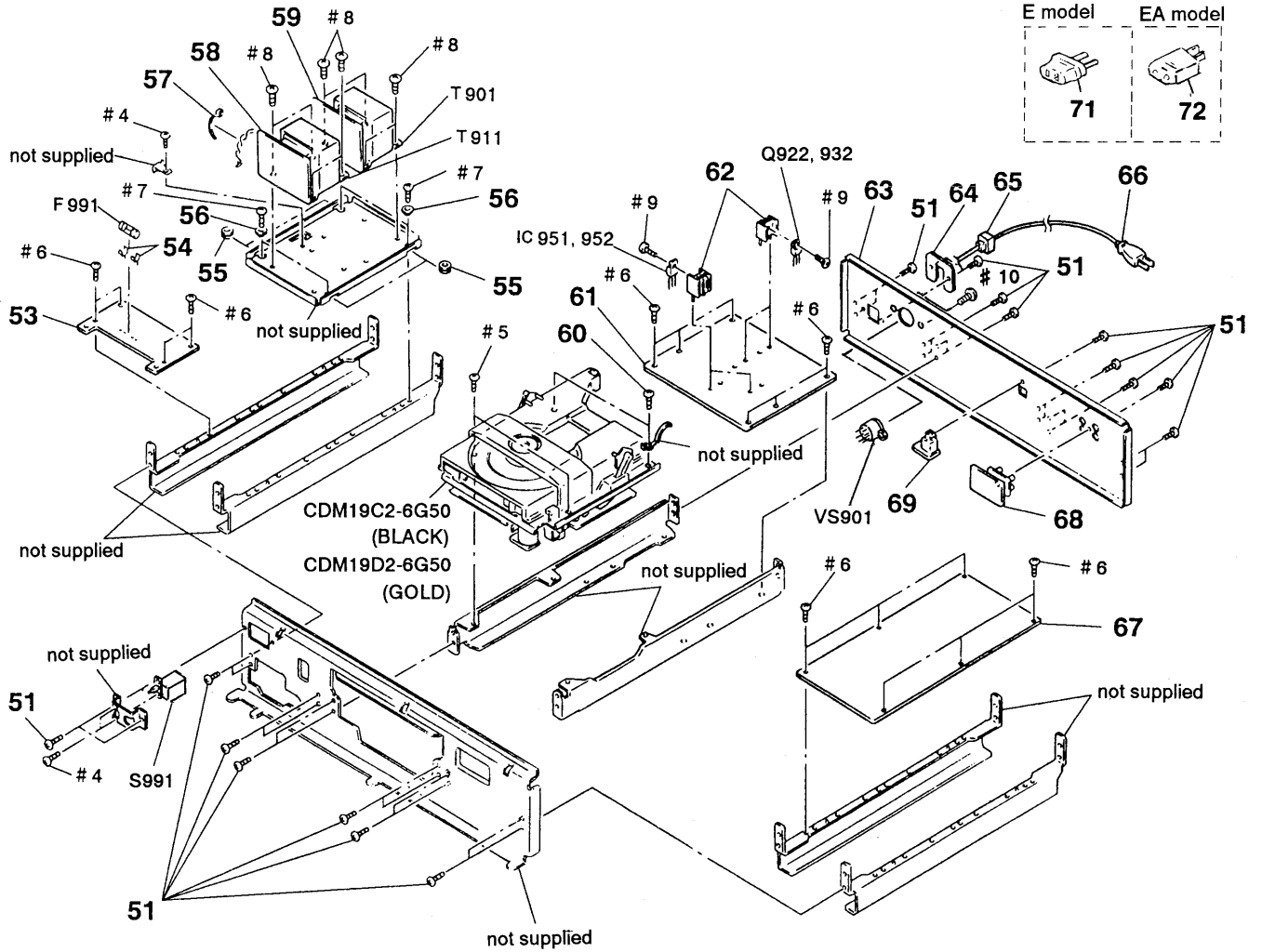
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

4-1. FRONT PANEL AND CABINET ASSEMBLIES



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-955-072-01	PANEL, LOADING (BLACK:AEP, G, E, EA, AUS)		38	4-389-350-01	CUSHION, CRT	
1	4-955-072-11	PANEL, LOADING (GOLD:AEP, G)		D804	8-719-913-49	LED EBG5638S (▶)	
2	A-4604-901-A	KNOB (HP) ASSY (BLACK:AEP, G, E, EA, AUS)		D805	8-719-913-47	LED EAA5638S (◀)	
2	A-4604-952-B	KNOB (VOL) ASSY (GOLD:AEP, G)		J461	1-568-519-31	JACK, LARGE TYPE (BLACK) (PHONES)	
3	4-942-568-01	EMBLEM (NO. 5), SONY (BLACK:AEP, G, E, EA, AUS)		J461	1-568-519-61	JACK, LARGE TYPE (GOLD) (PHONES)	
3	4-942-568-11	EMBLEM (NO. 5), SONY (GOLD:AEP, G)		RV351	1-241-321-11	RES, VAR, CARBON 10KX3 (LINE OUT/PHONE LEVEL)	
4	4-955-053-31	PANEL, FRONT (BLACK:AEP, E, EA, G)					
4	4-955-053-41	PANEL, FRONT (GOLD:AEP, G)					
4	4-955-053-21	PANEL, FRONT (AUS)					
5	3-703-685-21	SCREW (+BV 3X8)					
6	4-955-058-01	PANEL (BASE L) (BLACK:AEP, G, E, EA, AUS)					
6	4-955-058-11	PANEL (BASE L) (GOLD:AEP, G)					
7	4-955-059-01	PLATE, INDICATION					
8	X-4943-005-1	BASE (R) ASSY, PANEL (GOLD)					
8	X-4943-006-1	BASE (R) ASSY, PANEL (BLACK)					
* 9	4-923-532-01	SPACER, LED					
10	4-955-075-01	BUTTON (LEVEL-F) (BLACK:AEP, G, E, EA, AUS)					
10	4-955-075-11	BUTTON (LEVEL-F) (GOLD:AEP, G)					
11	4-955-077-01	BUTTON (TIME/M) (BLACK:AEP, G, E, EA, AUS)					
11	4-955-077-11	BUTTON (TIME/M) (GOLD:AEP, G)					
12	4-922-518-11	KNOB (TIMER) (BLACK:AEP, G, E, EA, AUS)					
12	4-922-518-62	KNOB (TIMER) (GOLD:AEP, G)					
* 13	1-646-356-11	TIMER BOARD					
14	4-951-620-01	SCREW (2. 6X8), +BVTP					
* 15	1-646-355-11	HP BOARD					
16	3-655-653-21	BAND (TAITON), BINDING					
* 17	1-646-354-11	VR BOARD					
* 18	A-4649-423-A	DISP BOARD, COMPLETE					
* 19	4-955-888-01	COVER (CABLE)					
20	3-531-576-11	RIVET					
21	4-923-520-41	KNOB, POWER (GOLD:AEP, G)					
21	4-923-520-51	KNOB, POWER (BLACK:AEP, G, E, EA, AUS)					
22	4-929-074-01	SCREW (3X8)					
23	4-935-917-01	WASHER (CASE)					
24	4-925-368-11	CASE (LEFT) (BLACK:AEP, G, E, EA, AUS)					
24	4-925-368-21	CASE (LEFT) (GOLD:AEP, G)					
25	X-4928-001-1	PLATE (LEFT) ASSY, SIDE (E, EA)					
25	X-4941-168-2	PLATE (L) ASSY, SIDE, ORNAMENTAL (GOLD:AEP, G)					
25	X-4941-204-1	PRATE (L) ASSY, ORNAMENTAL SIDE (BLACK:AEP, G)					
26	4-885-979-11	SCREW (4X25) (EXCEPT FOR AUS)					
26	4-847-802-00	SCREW (AUS)					
27	4-924-242-01	SCREW (M3X6), FLAT HEAD (GOLD:AEP, G)					
27	4-924-242-11	SCREW (M3X6), FLAT HEAD (BLACK:AEP, G, E, EA, AUS)					
28	4-928-025-11	ESCUTCHEON (TOP PLATE) (BLACK:AEP, G, E, EA, AUS)					
28	4-928-025-41	ESCUTCHEON (TOP PLATE) (GOLD:AEP, G)					
29	4-925-367-21	CASE (TOP PLATE) (BLACK:AEP, G, E, EA, AUS)					
29	4-925-367-31	CASE (TOP PLATE) (GOLD:AEP, G)					
30	A-4675-309-A	REINFORCEMENT (TOP PLATE) ASSY					
* 31	4-913-189-01	FELT (B), ACOUSTIC ABSORBENT					
* 32	4-923-563-01	CUSHION					
33	4-925-369-11	CASE (RIGHT) (BLACK:AEP, E, EA, G)					
33	4-925-369-21	CASE (RIGHT) (GOLD:AEP, G)					
33	4-925-369-11	CASE (RIGHT) (AUS)					
34	X-4928-002-1	PLATE (RIGHT) ASSY, SIDE (E, EA)					
34	X-4941-169-2	PLATE (R) ASSY, SIDE, ORNAMENTAL (GOLD:AEP, G)					
34	X-4941-205-1	PRATE (R) ASSY, ORNAMENTAL SIDE (BLACK:AEP, G)					
35	X-4922-549-1	FOOT ASSY (BLACK:AEP, G, E, EA, AUS)					
35	X-4941-711-1	FOOT ASSY (GOLD:AEP, G)					
36	4-922-543-01	FOOT (BLACK:AEP, G, E, EA, AUS)					
* 37	4-925-370-02	BASE, FOOT (BLACK:AEP, G)					

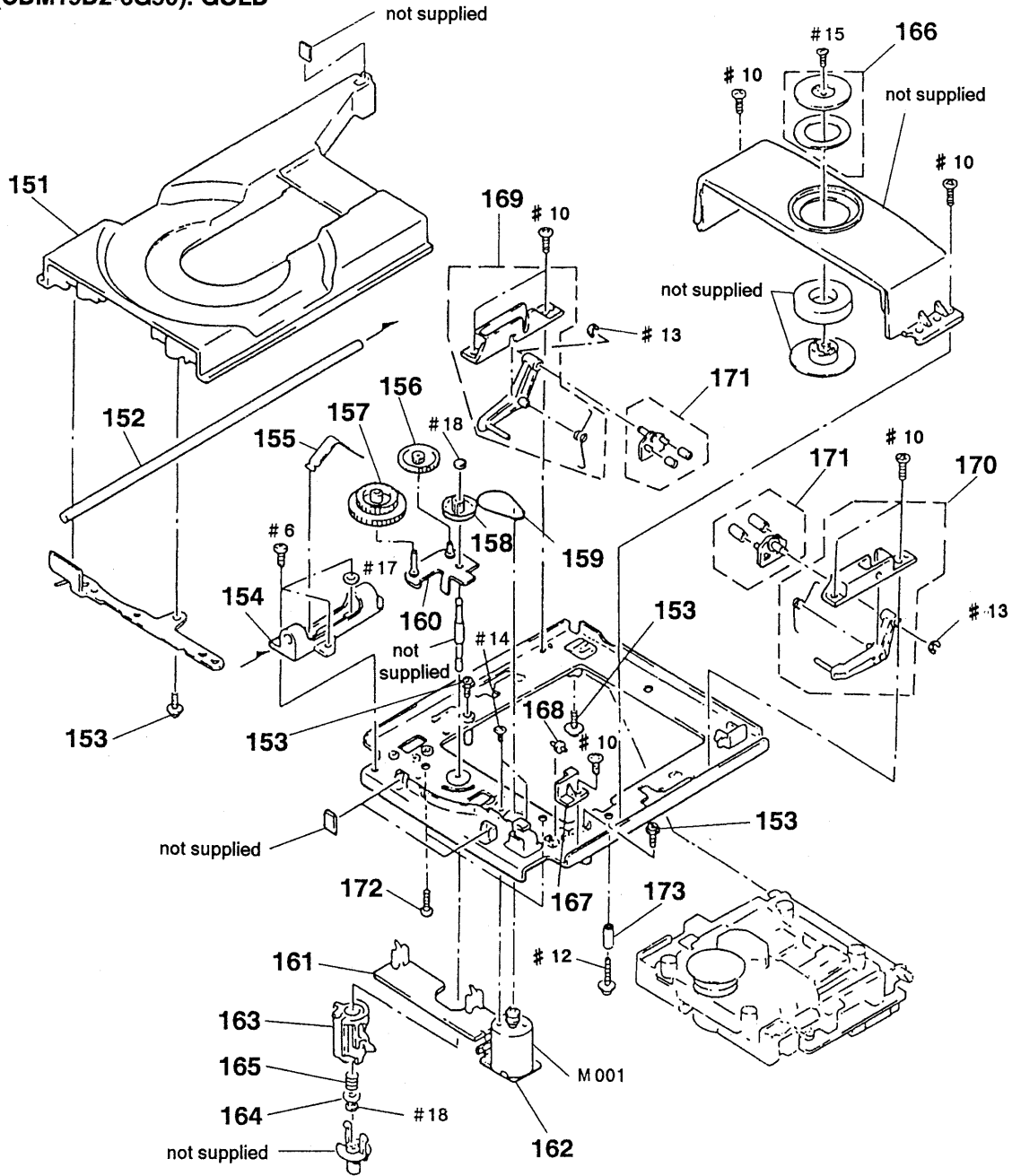
4-2. CHASSIS SECTION



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

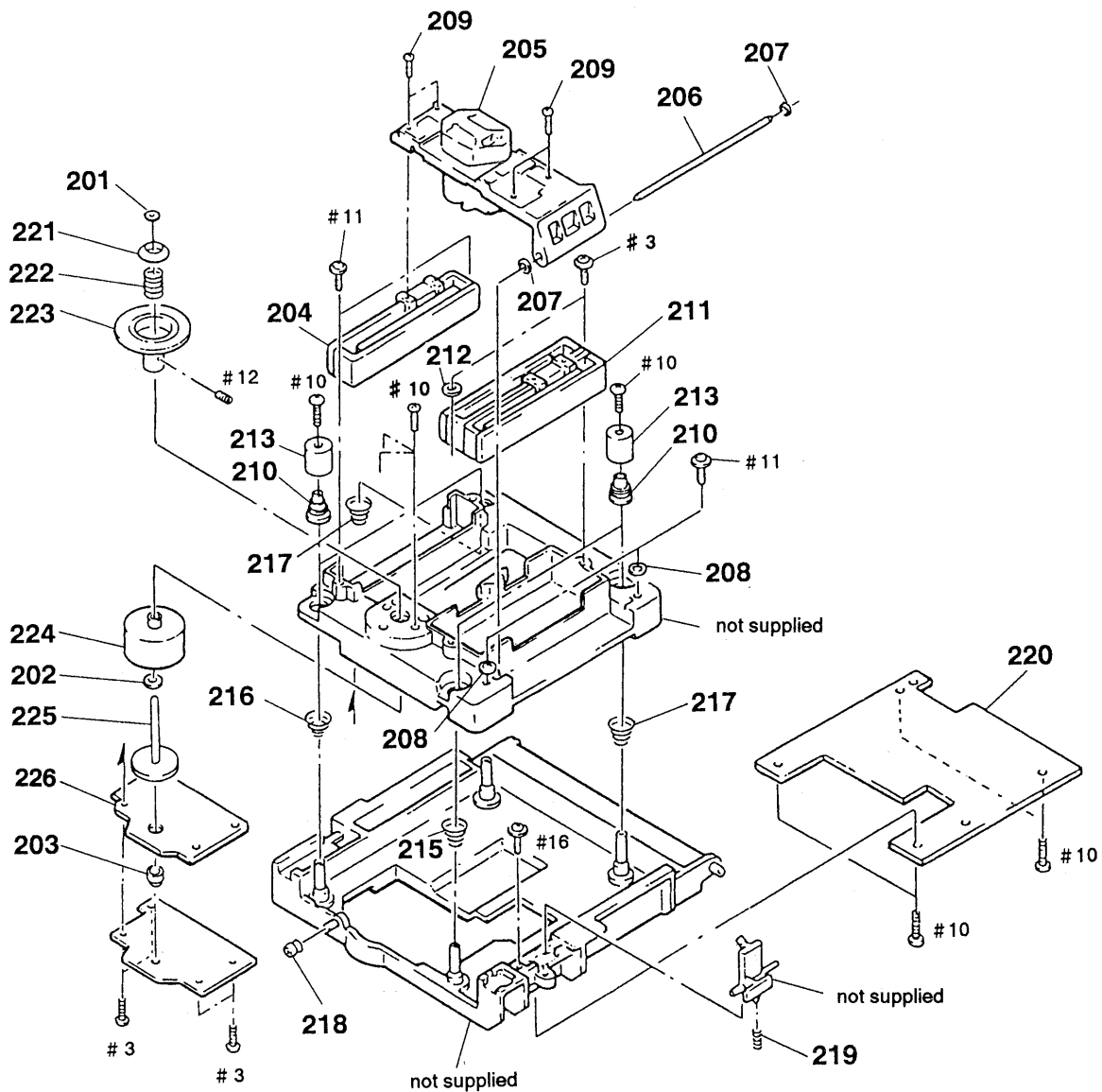
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-929-074-01	SCREW (3X8)		\triangle 66	1-558-181-21	CORD, POWER (E, EA)	
* 53	1-646-369-11	AC BOARD		\triangle 66	1-558-568-21	CORD, POWER (AEP, G)	
54	1-533-233-11	HOLDER, FUSE (AEP, G, AUS)		\triangle 66	1-751-060-11	CORD, POWER (AUS)	
* 55	4-888-798-00	BUSHING, RUBBER		* 67	A-4649-410-A	AUDIO BOARD, COMPLETE	
56	4-928-032-01	COLLAR (A)		* 68	1-646-371-11	LINE BOARD	
57	3-655-653-21	BAND (TAITON), BINDING		* 69	1-646-368-11	OPT BOARD	
* 58	1-646-367-11	D. TRANS BOARD		\triangle 71	1-569-007-11	ADAPTER, CONVERSION 2P (E)	
* 59	1-646-366-11	A. TRANS BOARD (AEP, G, AUS)		\triangle 72	1-569-008-11	ADAPTER, CONVERSION 2P (EA)	
60	3-703-685-21	SCREW (+BV 3X8)		\triangle F991	1-532-284-00	FUSE, TIME-LAG (0.63A) (AEP, AUS, G)	
* 61	A-4649-709-A	POWER BOARD, COMPLETE		IC951	8-759-071-48	IC M5F7807L	
* 62	4-363-146-00	HEAT SINK, V. OUT		IC952	8-759-231-53	IC M5F7805	
* 63	4-955-052-22	PANEL, BACK (BROWN) (GOLD:AEP, G)		Q922	8-729-107-53	TRANSISTOR 2SC2275A	
* 63	4-955-052-32	PANEL, BACK (BLACK) (BLACK:AEP, G)		Q932	8-729-141-10	TRANSISTOR 2SA985A	
* 63	4-955-052-41	PANEL, BACK (BLACK) (E, EA)		\triangle T901	1-423-461-11	TRANSFORMER, POWER (AUDIO) (AEP, AUS, G)	
* 63	4-955-052-52	PANEL, BACK (BLACK) (AUS)		\triangle T911	1-423-459-11	TRANSFORMER, POWER (E, EA)	
* 64	4-923-873-01	BRACKET, CORD STOPPER (BLACK:AEP, G, E, EA, AUS)		\triangle T911	1-423-460-11	TRANSFORMER, POWER (DIGITAL) (AEP, AUS, G)	
* 64	4-923-873-11	BRACKET, CORD STOPPER (DARK GRAY) (GOLD:AEP, G)		\triangle VS901	1-526-576-51	SELECTOR, POWER VOLTAGE (VOLTAGE SELECTOR) (E, EA)	
* 65	3-703-244-00	BUSHING (2104), CORD		\triangle S991	1-572-267-21	SWITCH, PUSH (AC POWER) (1 KEY)	

**4-3. CD MECHANISM BLOCK SECTION
(CDM19C2-6G50): BLACK
(CDM19D2-6G50): GOLD**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	4-948-353-01	TABLE, DISC (BLACK)		* 163	4-948-371-01	CAM (BU)	
151	4-948-353-11	TABLE, DISC (GOLD)		164	4-927-654-01	WASHER (LIMITER)	
* 152	4-948-368-01	BAR (MAIN), GUIDE		165	3-659-338-00	SPRING, COMPRESSION	
* 153	4-917-583-21	BRACKET, YOKE		166	A-4660-292-A	MAGNET ASSY	
* 154	4-948-360-01	BEARING, LOADING		* 167	4-948-361-01	GUIDE, LOADING	
* 155	4-927-648-01	SLIDER (GROUND)		168	4-927-627-01	ROLLER (S, G)	
156	4-927-628-01	GEAR (C)		169	A-4660-258-A	LEVER (L) (STABLE LOCK) ASSY	
157	4-927-620-01	GEAR (P)		170	A-4660-259-A	LEVER (R) (STABLE LOCK) ASSY	
158	4-929-724-01	PULLEY (B)		171	X-4942-969-2	DAMPER (STABLE LOCK 2) ASSY	
159	4-927-649-01	BELT		172	3-703-685-21	SCREW (+BY 3X8)	
160	X-4927-608-1	ARM ASSY, SWING		173	3-654-603-00	SPACER	
* 161	1-641-764-11	SW BOARD		M001	A-4604-347-A	MOTOR (L) ASSY	
* 162	1-641-765-11	L. MOTOR BOARD					

4-4. BASE UNIT SECTION
(BU-6G)



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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	201	4-947-420-01 RING (DIA 2.53), RETAINING			215	4-948-375-01 SPRING (F), COIL	
	202	3-701-439-11 WASHER (ϕ 3)			216	4-917-573-01 SPRING (E), COIL	
	203	4-943-342-01 BEARING			217	4-917-571-01 SPRING (A), COIL	
	204	A-4638-084-A SENSOR ASSY, SPEED			218	4-927-631-01 ROLLER (L)	
\triangle	205	8-848-244-11 DEVICE, OPTICAL KSS-272A			219	3-305-423-00 SPRING, COMPRESSION	
*	206	4-910-431-01 SHIFT, SLIDE		*	220	A-4649-489-A BD BOARD COMPLETE	
*	207	4-917-582-01 CUSHION, SLIDE			221	4-948-381-01 CAP, CENTERING	
	208	4-927-318-01 WASHER			222	4-908-213-01 SPRING, COMPRESSION	
	209	3-318-203-61 SCREW (B1.7X4), TAPPING			223	A-4660-056-A PULLEY ASSY, DISK	
*	210	4-917-584-11 INSULATOR			224	4-948-382-02 BEARING (SPINDLE)	
	211	A-4608-335-A MOTOR ASSY, LINEAR		*	225	A-4660-055-B PULLEY ASSY, MOTOR	
	212	4-927-669-01 WASHER (BU)		*	226	A-4617-993-A BSL BOARD, COMPLETE	
	213	4-927-634-01 HOLDER (SP)					

AUDIO

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
Q441	8-729-900-80	TRANSISTOR	DTC114ES	R430	1-247-903-00	CARBON	1M 5% 1/4W
Q442	8-729-900-65	TRANSISTOR	DTA144ES	R431	1-249-465-11	CARBON	47K 5% 1/4W
Q443	8-729-231-55	TRANSISTOR	2SC2878-AB	R432	1-249-606-11	CARBON	180K 5% 1/4W
Q451	8-729-231-55	TRANSISTOR	2SC2878-AB	R441	1-259-476-11	CARBON	100K 5% 1/6W
Q501	8-729-203-05	TRANSISTOR	2SK30A-GR3	R442	1-249-429-11	CARBON	10K 5% 1/4W
Q502	8-729-184-53	TRANSISTOR	2SC1845-EA	R443	1-249-439-11	CARBON	68K 5% 1/4W
Q503	8-729-321-35	TRANSISTOR	2SK213	R451	1-259-444-11	CARBON	4.7K 5% 1/6W
Q504	8-729-307-65	TRANSISTOR	2SJ76	R452	1-259-476-11	CARBON	100K 5% 1/6W
Q505	8-729-224-63	TRANSISTOR	2SK246-BL	R453	1-249-431-11	CARBON	15K 5% 1/4W
Q541	8-729-900-80	TRANSISTOR	DTC114ES	R454	1-259-464-11	CARBON	33K 5% 1/6W
Q542	8-729-900-65	TRANSISTOR	DTA144ES	R455	1-259-468-11	CARBON	47K 5% 1/6W
Q543	8-729-231-55	TRANSISTOR	2SC2878-AB	R456	1-259-398-11	CARBON	56 5% 1/6W
Q551	8-729-231-55	TRANSISTOR	2SC2878-AB	R491	1-249-423-11	CARBON	3.3K 5% 1/4W F
Q601	8-729-900-65	TRANSISTOR	DTA144ES	R501	1-249-945-11	CARBON	8.2K 1% 1/4W
Q602	8-729-620-23	TRANSISTOR	2SC3246-JK	R502	1-249-945-11	CARBON	8.2K 1% 1/4W
Q603	8-729-203-05	TRANSISTOR	2SK30A-GR3	R503	1-249-945-11	CARBON	8.2K 1% 1/4W
Q604	8-729-203-05	TRANSISTOR	2SK30A-GR3	R504	1-249-945-11	CARBON	8.2K 1% 1/4W
Q605	8-729-104-18	TRANSISTOR	2SC3514	R505	1-247-719-11	CARBON	3.3K 5% 1/4W
Q606	8-729-141-10	TRANSISTOR	2SA985A	R506	1-247-719-11	CARBON	3.3K 5% 1/4W
Q607	8-729-900-65	TRANSISTOR	DTA144ES	R507	1-249-947-11	CARBON	10K 1% 1/4W
		< RESISTOR >		R508	1-249-947-11	CARBON	10K 1% 1/4W
R401	1-249-945-11	CARBON	8.2K 1% 1/4W	R509	1-249-941-11	CARBON	5.6K 1% 1/4W
R402	1-249-945-11	CARBON	8.2K 1% 1/4W	R510	1-249-941-11	CARBON	5.6K 1% 1/4W
R403	1-249-945-11	CARBON	8.2K 1% 1/4W	R511	1-249-941-11	CARBON	5.6K 1% 1/4W
R404	1-249-945-11	CARBON	8.2K 1% 1/4W	R512	1-249-941-11	CARBON	5.6K 1% 1/4W
R405	1-247-719-11	CARBON	3.3K 5% 1/4W	R513	1-249-929-11	CARBON	1.8K 1% 1/4W
R406	1-247-719-11	CARBON	3.3K 5% 1/4W	R514	1-249-929-11	CARBON	1.8K 1% 1/4W
R407	1-249-947-11	CARBON	10K 1% 1/4W	R515	1-249-929-11	CARBON	1.8K 1% 1/4W
R408	1-249-947-11	CARBON	10K 1% 1/4W	R516	1-249-929-11	CARBON	1.8K 1% 1/4W
R409	1-249-941-11	CARBON	5.6K 1% 1/4W	R517	1-249-461-11	CARBON	18K 5% 1/4W
R410	1-249-941-11	CARBON	5.6K 1% 1/4W	R518	1-249-929-11	CARBON	1.8K 1% 1/4W
R411	1-249-941-11	CARBON	5.6K 1% 1/4W	R519	1-249-520-11	CARBON	47 5% 1/4W
R412	1-249-941-11	CARBON	5.6K 1% 1/4W	R520	1-247-713-11	CARBON	1K 5% 1/4W F
R413	1-249-929-11	CARBON	1.8K 1% 1/4W	R521	1-249-947-11	CARBON	10K 1% 1/4W
R414	1-249-929-11	CARBON	1.8K 1% 1/4W	R522	1-249-556-11	CARBON	1.5K 5% 1/4W
R415	1-249-929-11	CARBON	1.8K 1% 1/4W	R523	1-247-700-11	CARBON	100 5% 1/4W
R416	1-249-929-11	CARBON	1.8K 1% 1/4W	R524	1-247-700-11	CARBON	100 5% 1/4W
R417	1-249-461-11	CARBON	18K 5% 1/4W	R525	1-249-637-11	CARBON	33 5% 1/2W
R418	1-249-929-11	CARBON	1.8K 1% 1/4W	R526	1-249-637-11	CARBON	33 5% 1/2W
R419	1-249-520-11	CARBON	47 5% 1/4W	R527	1-249-637-11	CARBON	33 5% 1/2W
R420	1-247-713-11	CARBON	1K 5% 1/4W F	R528	1-249-417-11	CARBON	1K 5% 1/4W F
R421	1-249-947-11	CARBON	10K 1% 1/4W	R529	1-249-465-11	CARBON	47K 5% 1/4W
R422	1-249-556-11	CARBON	1.5K 5% 1/4W	R530	1-247-903-00	CARBON	1M 5% 1/4W
R423	1-247-700-11	CARBON	100 5% 1/4W	R531	1-249-465-11	CARBON	47K 5% 1/4W
R424	1-247-700-11	CARBON	100 5% 1/4W	R532	1-249-606-11	CARBON	180K 5% 1/4W
R425	1-249-637-11	CARBON	33 5% 1/2W	R541	1-259-476-11	CARBON	100K 5% 1/6W
R426	1-249-637-11	CARBON	33 5% 1/2W	R542	1-249-429-11	CARBON	10K 5% 1/4W
R427	1-249-637-11	CARBON	33 5% 1/2W	R543	1-249-439-11	CARBON	68K 5% 1/4W
R428	1-249-417-11	CARBON	1K 5% 1/4W F	R551	1-259-444-11	CARBON	4.7K 5% 1/6W
R429	1-249-465-11	CARBON	47K 5% 1/4W	R552	1-259-476-11	CARBON	100K 5% 1/6W

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R553	1-249-431-11	CARBON	15K 5% 1/4W	*	A-4649-489-A	BD BOARD, COMPLETE *****	
R554	1-259-464-11	CARBON	33K 5% 1/6W			< CAPACITOR >	
R555	1-259-468-11	CARBON	47K 5% 1/6W				
R556	1-259-398-11	CARBON	56 5% 1/6W				
R591	1-249-423-11	CARBON	3.3K 5% 1/4W F	C101	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
R600	1-249-947-11	CARBON	10K 1% 1/4W	C102	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
				C103	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
R601	1-249-417-11	CARBON	1K 5% 1/4W F	C104	1-164-346-11	CERAMIC CHIP 1uF	16V
R602	1-249-417-11	CARBON	1K 5% 1/4W F	C105	1-163-038-00	CERAMIC CHIP 0.1uF	25V
R603	1-249-417-11	CARBON	1K 5% 1/4W F				
R604	1-249-417-11	CARBON	1K 5% 1/4W F	C106	1-164-346-11	CERAMIC CHIP 1uF	16V
R605	1-249-429-11	CARBON	10K 5% 1/4W	C107	1-164-346-11	CERAMIC CHIP 1uF	16V
				C109	1-163-038-00	CERAMIC CHIP 0.1uF	25V
R608	1-249-413-11	CARBON	470 5% 1/4W F	C110	1-124-584-00	ELECT 100uF	20% 10V
R609	1-249-413-11	CARBON	470 5% 1/4W F	C111	1-164-346-11	CERAMIC CHIP 1uF	16V
R610	1-249-413-11	CARBON	470 5% 1/4W F				
R611	1-249-413-11	CARBON	470 5% 1/4W F	C112	1-164-346-11	CERAMIC CHIP 1uF	16V
R612	1-249-416-11	CARBON	820 5% 1/4W F	C113	1-164-346-11	CERAMIC CHIP 1uF	16V
				C114	1-164-346-11	CERAMIC CHIP 1uF	16V
R613	1-249-415-11	CARBON	680 5% 1/4W F	C115	1-162-806-11	CERAMIC 0.1uF	10% 50V
R614	1-249-411-11	CARBON	330 5% 1/4W	C116	1-162-806-11	CERAMIC 0.1uF	10% 50V
R615	1-249-427-11	CARBON	6.8K 5% 1/4W F				
R616	1-247-901-11	CARBON	820K 5% 1/4W	C117	1-107-169-00	MICA 100PF	5% 500V
△R617	1-212-887-00	FUSIBLE	180 5% 1/4W F	C121	1-163-017-00	CERAMIC CHIP 0.0047uF	5% 50V
				C122	1-163-001-11	CERAMIC CHIP 220PF	10% 50V
R618	1-249-417-11	CARBON	1K 5% 1/4W F	C123	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
R619	1-249-417-11	CARBON	1K 5% 1/4W F	C124	1-163-986-00	CERAMIC CHIP 0.027uF	10% 25V
R620	1-249-413-11	CARBON	470 5% 1/4W F				
R621	1-249-401-11	CARBON	47 5% 1/4W F	C125	1-163-986-00	CERAMIC CHIP 0.027uF	10% 25V
R622	1-249-520-11	CARBON	47 5% 1/4W	C141	1-163-038-00	CERAMIC CHIP 0.1uF	25V
				C142	1-163-038-00	CERAMIC CHIP 0.1uF	25V
R623	1-247-713-11	CARBON	1K 5% 1/4W F	C151	1-163-137-00	CERAMIC CHIP 680PF	5% 50V
R624	1-247-713-11	CARBON	1K 5% 1/4W F	C152	1-163-137-00	CERAMIC CHIP 680PF	5% 50V
R625	1-247-708-11	CARBON	470 5% 1/4W				
R626	1-247-700-11	CARBON	100 5% 1/4W	C153	1-163-137-00	CERAMIC CHIP 680PF	5% 50V
R627	1-247-700-11	CARBON	100 5% 1/4W	C154	1-163-137-00	CERAMIC CHIP 680PF	5% 50V
				C155	1-163-019-00	CERAMIC CHIP 0.0068uF	10% 50V
R628	1-247-887-00	CARBON	220K 5% 1/4W	C156	1-164-346-11	CERAMIC CHIP 1uF	16V
R629	1-249-433-11	CARBON	22K 5% 1/4W	C157	1-163-023-00	CERAMIC CHIP 0.015uF	5% 50V
R630	1-249-441-11	CARBON	100K 5% 1/4W				
△R631	1-219-022-11	FUSIBLE	100 5% 1/2W	C158	1-163-809-11	CERAMIC CHIP 0.047uF	10% 25V
△R632	1-219-022-11	FUSIBLE	100 5% 1/2W	C159	1-163-038-00	CERAMIC CHIP 0.1uF	25V
				C160	1-164-336-11	CERAMIC CHIP 0.33uF	25V
				C161	1-163-023-00	CERAMIC CHIP 0.015uF	5% 50V
				C171	1-163-038-00	CERAMIC CHIP 0.1uF	25V
				C172	1-163-038-00	CERAMIC CHIP 0.1uF	25V
				C173	1-163-038-00	CERAMIC CHIP 0.1uF	25V
				C174	1-163-038-00	CERAMIC CHIP 0.1uF	25V
				C175	1-163-038-00	CERAMIC CHIP 0.1uF	25V
				C177	1-163-038-00	CERAMIC CHIP 0.1uF	25V
				C178	1-163-038-00	CERAMIC CHIP 0.1uF	25V
				C179	1-163-038-00	CERAMIC CHIP 0.1uF	25V
				C180	1-163-038-00	CERAMIC CHIP 0.1uF	25V
X601	1-577-685-11	FILTER, CRYSTAL (16MHz)		C181	1-164-346-11	CERAMIC CHIP 1uF	16V
X602	1-577-686-11	VIBRATOR, CRYSTAL (45MHz)		C201	1-163-809-11	CERAMIC CHIP 0.047uF	10% 25V
				C202	1-163-011-11	CERAMIC CHIP 0.0015uF	10% 50V

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	Remark	Ref. No.	Part No.	Description	Remark
C203	1-164-232-11	CERAMIC CHIP 0.01uF	50V	R106	1-216-085-00	METAL CHIP 33K 5%	1/10W
C204	1-163-117-00	CERAMIC CHIP 100PF 5%	50V	R107	1-216-025-00	METAL CHIP 100 5%	1/10W
C205	1-164-489-11	CERAMIC CHIP 0.22uF 10%	16V	R108	1-216-049-00	METAL CHIP 1K 5%	1/10W
C206	1-164-232-11	CERAMIC CHIP 0.01uF	50V	R121	1-216-071-00	METAL CHIP 8.2K 5%	1/10W
C207	1-164-346-11	CERAMIC CHIP 1uF	16V	R122	1-216-071-00	METAL CHIP 8.2K 5%	1/10W
C301	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R123	1-216-071-00	METAL CHIP 8.2K 5%	1/10W
C302	1-125-622-11	CAP, DOUBLE LAYERS 0.10F		R124	1-216-071-00	METAL CHIP 8.2K 5%	1/10W
C303	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R125	1-216-071-00	METAL CHIP 8.2K 5%	1/10W
C304	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V	R126	1-216-071-00	METAL CHIP 8.2K 5%	1/10W
C305	1-164-346-11	CERAMIC CHIP 1uF	16V	R127	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
< CONNECTOR >				R128	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
* CN101	1-573-276-11	PIN, CONNECTOR 6P		R129	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
CN102	1-568-799-11	SOCKET, CONNECTOR 16P		R130	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
* CN111	1-569-998-11	PIN, CONNECTOR (PC BOARD) 2P		R131	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
* CN112	1-580-001-11	PIN, CONNECTOR (PC BOARD) 4P		R132	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
* CN113	1-580-002-11	PIN, CONNECTOR (PC BOARD) 5P		R133	1-216-053-00	METAL CHIP 1.5K 5%	1/10W
* CN141	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P		R134	1-216-053-00	METAL CHIP 1.5K 5%	1/10W
* CN201	1-580-007-11	PIN, CONNECTOR (PC BOARD) 10P		R141	1-216-073-00	METAL CHIP 10K 5%	1/10W
* CN202	1-580-003-11	PIN, CONNECTOR (PC BOARD) 6P		R142	1-216-079-00	METAL CHIP 18K 5%	1/10W
* CN203	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P		R143	1-216-073-00	METAL CHIP 10K 5%	1/10W
* CN301	1-691-464-11	PIN, CONNECTOR 8P		R144	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
* CN302	1-691-462-11	PIN, CONNECTOR 6P		R145	1-216-073-00	METAL CHIP 10K 5%	1/10W
< DIODE >				R146	1-216-073-00	METAL CHIP 10K 5%	1/10W
D301	8-719-104-34	DIODE 1S2836		R147	1-216-077-00	METAL CHIP 15K 5%	1/10W
< IC >				R148	1-216-073-00	METAL CHIP 10K 5%	1/10W
IC101	8-752-344-48	IC CXD2501Q		R149	1-216-073-00	METAL CHIP 10K 5%	1/10W
IC102	8-759-071-79	IC BA6297AFP-T1		R151	1-216-070-00	METAL CHIP 7.5K 5%	1/10W
IC103	8-759-040-83	IC BA6287F		R152	1-216-070-00	METAL CHIP 7.5K 5%	1/10W
IC141	8-759-055-78	IC TA8407F(EL)		R153	1-216-070-00	METAL CHIP 7.5K 5%	1/10W
IC142	8-759-700-43	IC NJM4558M		R154	1-216-070-00	METAL CHIP 7.5K 5%	1/10W
IC151	8-759-700-43	IC NJM4558M		R155	1-216-093-00	METAL CHIP 68K 5%	1/10W
IC152	8-759-700-43	IC NJM4558M		R156	1-216-085-00	METAL CHIP 33K 5%	1/10W
IC201	8-752-352-93	IC CXD2500AQ		R157	1-216-117-00	METAL CHIP 680K 5%	1/10W
IC301	8-759-165-54	IC M37451M8-282FP		R158	1-216-097-00	METAL CHIP 100K 5%	1/10W
IC302	8-759-512-81	IC LH5160N-10L		R159	1-216-083-00	METAL CHIP 27K 5%	1/10W
< TRANSISTOR >				R160	1-216-049-00	METAL CHIP 1K 5%	1/10W
Q151	8-729-901-06	TRANSISTOR DTA144EK		R161	1-216-095-00	METAL CHIP 82K 5%	1/10W
Q181	8-729-901-01	TRANSISTOR DTC144EK		R163	1-216-076-00	METAL CHIP 13K 5%	1/10W
Q182	8-729-901-06	TRANSISTOR DTA144EK		R164	1-216-085-00	METAL CHIP 33K 5%	1/10W
< RESISTOR >				R165	1-216-081-00	METAL CHIP 22K 5%	1/10W
R101	1-216-077-00	METAL CHIP 15K 5%	1/10W	R166	1-216-085-00	METAL CHIP 33K 5%	1/10W
R102	1-216-097-00	METAL CHIP 100K 5%	1/10W	R167	1-216-308-00	METAL CHIP 4.7 5%	1/10W
R103	1-216-077-00	METAL CHIP 15K 5%	1/10W	R171	1-216-001-00	METAL CHIP 10 5%	1/10W
R104	1-216-049-00	METAL CHIP 1K 5%	1/10W	R172	1-216-001-00	METAL CHIP 10 5%	1/10W
R105	1-216-097-00	METAL CHIP 100K 5%	1/10W	R173	1-216-001-00	METAL CHIP 10 5%	1/10W
				R174	1-216-001-00	METAL CHIP 10 5%	1/10W
				R175	1-216-001-00	METAL CHIP 10 5%	1/10W
				R177	1-216-001-00	METAL CHIP 10 5%	1/10W
				R178	1-216-001-00	METAL CHIP 10 5%	1/10W
				R179	1-216-001-00	METAL CHIP 10 5%	1/10W

BD **BSL** **D. TRANS** **DISPLAY**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R180	1-216-001-00	METAL CHIP	10 5% 1/10W			< CONNECTOR >	
R181	1-216-029-00	METAL CHIP	150 5% 1/10W				
R182	1-216-029-00	METAL CHIP	150 5% 1/10W				
R183	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R184	1-216-097-00	METAL CHIP	100K 5% 1/10W				
R201	1-216-061-00	METAL CHIP	3.3K 5% 1/10W				
R202	1-216-061-00	METAL CHIP	3.3K 5% 1/10W				
R203	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R204	1-216-121-00	METAL CHIP	1M 5% 1/10W				
R205	1-216-105-00	METAL CHIP	220K 5% 1/10W				
R206	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R207	1-216-041-00	METAL CHIP	470 5% 1/10W				
R208	1-216-041-00	METAL CHIP	470 5% 1/10W				
R209	1-216-041-00	METAL CHIP	470 5% 1/10W				
R210	1-216-033-00	METAL CHIP	220 5% 1/10W				
R211	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R212	1-216-037-00	METAL CHIP	330 5% 1/10W				
R213	1-216-049-00	METAL CHIP	1K 5% 1/10W				
R301	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R303	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R304	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R305	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R306	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R307	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R308	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R309	1-216-049-00	METAL CHIP	1K 5% 1/10W				
R310	1-216-121-00	METAL CHIP	1M 5% 1/10W				
R311	1-216-037-00	METAL CHIP	330 5% 1/10W				
R312	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R313	1-216-049-00	METAL CHIP	1K 5% 1/10W				
R314	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R315	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R316	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R317	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R318	1-216-073-00	METAL CHIP	10K 5% 1/10W				
		< VIBRATOR >					
X301	1-577-377-11	VIBRATOR, CERAMIC (10MHz)					

*	A-4617-993-A	BSL BOARD, COMPLETE					

		< CAPACITOR >					
C10	1-124-779-00	ELECT CHIP	10uF 20% 16V				
C11	1-163-077-00	CERAMIC CHIP	0.1uF 10% 25V				
C20	1-124-779-00	ELECT CHIP	10uF 20% 16V				
C21	1-163-077-00	CERAMIC CHIP	0.1uF 10% 25V				
		< HOLE ELEMENT >					
* CN1	1-564-519-11	PLUG, CONNECTOR 4P					
		< IC >					
H11	8-719-987-62	HALL, DEVICE LT140SC					
H21	8-719-987-62	HALL, DEVICE LT140SC					
		< JUMPER RESISTOR >					
J11	1-216-296-00	METAL CHIP	0 5% 1/8W				
		< RESISTOR >					
R11	1-216-049-00	METAL CHIP	1K 5% 1/10W				
R12	1-216-057-00	METAL CHIP	2.2K 5% 1/10W				
R13	1-216-105-00	METAL CHIP	220K 5% 1/10W				
R14	1-216-057-00	METAL CHIP	2.2K 5% 1/10W				
R15	1-216-105-00	METAL CHIP	220K 5% 1/10W				
R16	1-216-077-00	METAL CHIP	15K 5% 1/10W				
R17	1-216-077-00	METAL CHIP	15K 5% 1/10W				
R18	1-216-150-00	METAL GLAZE	10 5% 1/8W				
R19	1-216-070-00	METAL CHIP	7.5K 5% 1/10W				
R21	1-216-049-00	METAL CHIP	1K 5% 1/10W				
R22	1-216-057-00	METAL CHIP	2.2K 5% 1/10W				
R23	1-216-105-00	METAL CHIP	220K 5% 1/10W				
R24	1-216-057-00	METAL CHIP	2.2K 5% 1/10W				
R25	1-216-105-00	METAL CHIP	220K 5% 1/10W				
R26	1-216-077-00	METAL CHIP	15K 5% 1/10W				
R27	1-216-077-00	METAL CHIP	15K 5% 1/10W				
R28	1-216-150-00	METAL GLAZE	10 5% 1/8W				
R29	1-216-070-00	METAL CHIP	7.5K 5% 1/10W				

*	1-646-367-11	D. TRANS BOARD					

		< THERMISTOR >					
TH901	1-808-065-11	THERMISTOR, POSITIVE (E, EA)					
TH902	1-808-065-11	THERMISTOR, POSITIVE (E, EA)					

*	A-4649-423-A	DISPLAY BOARD, COMPLETE					

*	4-923-532-01	SPACER, LED					

DISPLAY	L. MOTOR	LINE	OPT
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< CAPACITOR >					
C801	1-164-159-11	CERAMIC 0.1uF	50V	S816	1-554-303-21	SWITCH, TACTILE (ERASE)	
C802	1-164-159-11	CERAMIC 0.1uF	50V	S817	1-554-303-21	SWITCH, TACTILE (▶▶)	
C803	1-164-159-11	CERAMIC 0.1uF	50V	S818	1-554-303-21	SWITCH, TACTILE (■)	
		< DIODE >				< VIBRATOR >	
D801	8-719-987-63	DIODE 1N4148M		X801	1-577-359-21	VIBRATOR, CERAMIC (4.19MHz)	
D802	8-719-987-63	DIODE 1N4148M		*****			
D803	8-719-987-63	DIODE 1N4148M		*	1-646-355-11	HP BOARD	
D804	8-719-913-49	LED EBG5638S (▶)				*****	
D805	8-719-913-47	LED EAA5638S (■)				< CAPACITOR >	
		< FLUORESCENT INDICATOR >		C461	1-162-290-31	CERAMIC 470PF 10% 50V	
FLD801	1-517-128-11	INDICATOR TUBE, FLUORESCENT		C561	1-162-290-31	CERAMIC 470PF 10% 50V	
		< IC >				< CONNECTOR >	
IC801	8-759-167-73	IC MSC62408-100GS-V1K		* CN461	1-573-262-11	PIN, CONNECTOR 3P	
IC802	8-741-100-48	IC SBX1610-59				< JACK >	
		< TRANSISTOR >		J461	1-568-519-31	JACK, LARGE TYPE (PHONES) (BLACK:AEP, E, G)	
Q801	8-729-900-45	TRANSISTOR DTC114EF		J461	1-568-519-61	JACK, LARGE TYPE (PHONES) (GOLD)	
Q802	8-729-900-45	TRANSISTOR DTC114EF		*****			
Q803	8-729-900-45	TRANSISTOR DTC114EF		*	1-641-765-11	L. MOTOR BOARD	
Q804	8-729-900-45	TRANSISTOR DTC114EF				*****	
		< RESISTOR >		*****			
R801	1-249-425-11	CARBON 4.7K 5% 1/4W F		*	1-646-371-11	LINE BOARD	
R802	1-249-429-11	CARBON 10K 5% 1/4W				*****	
R803	1-247-903-00	CARBON 1M 5% 1/4W				< CONNECTOR >	
R804	1-249-441-11	CARBON 100K 5% 1/4W		* CN472	1-573-263-41	PIN, CONNECTOR 4P	
R805	1-249-441-11	CARBON 100K 5% 1/4W		* CN473	1-573-261-41	PIN, CONNECTOR 2P	
R806	1-249-406-11	CARBON 120 5% 1/4W F				< DIODE >	
R807	1-249-410-11	CARBON 270 5% 1/4W F		D471	8-719-987-63	DIODE 1N4148M	
		< SWITCH >				< RELAY >	
S801	1-554-303-21	SWITCH, TACTILE (DISPLAY MODE)		RY471	1-515-804-11	RELAY	
S802	1-554-303-21	SWITCH, TACTILE (PLAY MODE)		*****			
S803	1-554-303-21	SWITCH, TACTILE (LEVEL FILE)		*	1-646-368-11	OPT BOARD	
S804	1-554-303-21	SWITCH, TACTILE (EDIT/TIME FADE)				*****	
S805	1-554-303-21	SWITCH, TACTILE (DIMMER REPEAT)				< CAPACITOR >	
S806	1-554-303-21	SWITCH, TACTILE (DIMMER TIME/MEMO)		C280	1-126-059-11	ELECT 10uF 20% 50V	
S807	1-554-303-21	SWITCH, TACTILE (PEAK SEARCH)					
S808	1-554-303-21	SWITCH, TACTILE (AMS ▶◀)					
S809	1-554-303-21	SWITCH, TACTILE (△ OPEN/CLOSE)					
S810	1-554-303-21	SWITCH, TACTILE (FINE RECALL)					
S811	1-554-303-21	SWITCH, TACTILE (AMS ▶◀)					
S812	1-554-303-21	SWITCH, TACTILE (▶)					
S813	1-554-303-21	SWITCH, TACTILE (FINE)					
S814	1-554-303-21	SWITCH, TACTILE (◀◀)					
S815	1-554-303-21	SWITCH, TACTILE (■)					

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< CONNECTOR >					
* CN280	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P		C980	1-104-645-91	CERAMIC 1uF 20% 50V	
		< IC >		C981	1-162-806-11	CERAMIC 0.1uF 10% 50V	
IC280	8-749-921-12	IC GP1F32T				< CONNECTOR >	

*	A-4649-709-A	POWER BOARD, COMPLETE		* CN921	1-573-863-21	PIN, CONNECTOR (PC BOARD) 4P	
		*****		* CN922	1-573-262-21	PIN, CONNECTOR 3P	
*	4-363-146-00	HEAT SINK, V. OUT		* CN923	1-573-262-31	PIN, CONNECTOR 3P	
	7-682-147-15	SCREW, TR		* CN924	1-573-263-11	PIN, CONNECTOR 4P	
		< BUS >		* CN925	1-573-262-41	PIN, CONNECTOR 3P	
* BUS1	1-566-959-11	BAR, BUS				< DIODE >	
		< CAPACITOR >		D921	8-719-210-29	DIODE F10P10Q	
C901	1-104-645-91	CERAMIC 1uF 20% 50V		D922	8-719-210-29	DIODE F10P10Q	
C902	1-107-169-00	MICA 100PF 5% 500V		D923	8-719-114-49	DIODE RD7. 5JS-B2	
C921	1-104-642-11	ELECT 6800uF 20% 35V		D924	8-719-114-75	DIODE RD13JS-T2B2	
C922	1-107-169-00	MICA 100PF 5% 500V		D931	8-719-210-29	DIODE F10P10Q	
C923	1-126-051-11	ELECT 47uF 20% 50V				< DIODE >	
C924	1-106-343-00	MYLAR 1000PF 5% 200V		D932	8-719-210-29	DIODE F10P10Q	
C925	1-107-202-00	MICA 10PF 5% 500V		D933	8-719-114-49	DIODE RD7. 5JS-B2	
C926	1-126-729-51	ELECT 1000uF 20% 63V		D934	8-719-975-85	DIODE ERB83-004	
C930	1-162-806-11	CERAMIC 0.1uF 10% 50V		D951	8-719-975-85	DIODE ERB83-004	
C931	1-104-642-11	ELECT 6800uF 20% 35V		D952	8-719-975-85	DIODE ERB83-004	
C932	1-107-169-00	MICA 100PF 5% 500V				< DIODE >	
C933	1-126-051-11	ELECT 47uF 20% 50V		D953	8-719-975-85	DIODE ERB83-004	
C934	1-106-343-00	MYLAR 1000PF 5% 200V		D954	8-719-975-85	DIODE ERB83-004	
C935	1-107-202-00	MICA 10PF 5% 500V		D961	8-719-200-02	DIODE 10E2	
C936	1-126-729-51	ELECT 1000uF 20% 63V		D962	8-719-114-61	DIODE RD10JS-T2B2	
C951	1-126-017-11	ELECT 6800uF 20% 16V		D971	8-719-200-02	DIODE 10E2	
C952	1-124-920-11	ELECT 330uF 20% 63V				< DIODE >	
C953	1-124-473-11	ELECT 1000uF 20% 10V		D972	8-719-115-15	DIODE RD33JS-T2B2	
C955	1-126-303-11	ELECT 3.3uF 20% 50V		D973	8-719-114-49	DIODE RD7. 5JS-B2	
C956	1-162-294-31	CERAMIC 0.001uF 10% 50V				< IC >	
C957	1-162-806-11	CERAMIC 0.1uF 10% 50V		IC921	8-759-602-01	IC M5220P	
C961	1-126-001-11	ELECT 3300uF 20% 10V		IC951	8-759-071-48	IC M5F7807L	
C962	1-124-995-11	ELECT 220uF 20% 10V		IC952	8-759-231-53	IC M5F7805	
C963	1-124-999-11	ELECT 2200uF 20% 10V		IC953	8-759-636-16	IC M51957AL	
C971	1-126-063-11	ELECT 100uF 20% 63V				< JACK >	
C972	1-126-060-11	ELECT 22uF 20% 50V		J471	1-568-101-11	JACK, PIN 4P (LINE OUT)	
C973	1-126-052-11	ELECT 100uF 20% 50V				< IC LINK >	
C974	1-126-052-11	ELECT 100uF 20% 50V		△PS921	1-532-685-00	LINK, IC	
C975	1-107-169-00	MICA 100PF 5% 500V		△PS931	1-532-685-00	LINK, IC	
C976	1-107-169-00	MICA 100PF 5% 500V				< TRANSISTOR >	
C977	1-107-169-00	MICA 100PF 5% 500V		Q921	8-729-203-05	TRANSISTOR 2SK30A-GR3	
C979	1-106-343-00	MYLAR 1000PF 5% 200V		Q922	8-729-107-53	TRANSISTOR 2SC2275A	

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

POWER SW TIMER VR

Ref.No.	Part No.	Description	Remark
Q931	8-729-203-05	TRANSISTOR 2SK30A-GR3	
Q932	8-729-141-10	TRANSISTOR 2SA985A	
Q961	8-729-924-90	TRANSISTOR 2SB1370-EF	
Q971	8-729-140-96	TRANSISTOR KSC1008	
< RESISTOR >			
R470	1-249-637-11	CARBON 33 5% 1/2W	
R471	1-247-700-11	CARBON 100 5% 1/4W	
R570	1-249-637-11	CARBON 33 5% 1/2W	
R571	1-247-700-11	CARBON 100 5% 1/4W	
△R901	1-212-976-00	FUSIBLE 56 5% 1/2W	
R921	1-249-520-11	CARBON 47 5% 1/4W	
R922	1-247-713-11	CARBON 1K 5% 1/4W F	
R923	1-247-713-11	CARBON 1K 5% 1/4W F	
R924	1-247-716-11	CARBON 1.8K 5% 1/4W	
R925	1-247-716-11	CARBON 1.8K 5% 1/4W	
R926	1-247-700-11	CARBON 100 5% 1/4W	
△R927	1-212-994-00	FUSIBLE 330 5% 1/2W	
R931	1-249-520-11	CARBON 47 5% 1/4W	
R932	1-247-713-11	CARBON 1K 5% 1/4W F	
R933	1-247-713-11	CARBON 1K 5% 1/4W F	
R934	1-247-716-11	CARBON 1.8K 5% 1/4W	
R935	1-247-716-11	CARBON 1.8K 5% 1/4W	
R936	1-247-700-11	CARBON 100 5% 1/4W	
R951	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R952	1-215-459-00	METAL 39K 1% 1/6W	
R953	1-215-449-00	METAL 15K 1% 1/6W	
R961	1-259-421-11	CARBON 510 5% 1/4W	
R971	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R972	1-249-433-11	CARBON 22K 5% 1/4W	
R973	1-249-433-11	CARBON 22K 5% 1/4W	
< THERMISTOR >			
TH903	1-806-882-11	THERMISTOR, POSITIVE	
TH904	1-808-065-11	THERMISTOR, POSITIVE	
TH905	1-808-065-11	THERMISTOR, POSITIVE	

*	1-641-764-11	SW BOARD	

< CAPACITOR >			
C001	1-161-494-00	CERAMIC 0.022uF 25V	
< RESISTOR >			
△R001	1-247-727-11	CARBON 10 5% 1/2W F	
△R002	1-247-727-11	CARBON 10 5% 1/2W F	
< SWITCH >			
S001	1-571-300-21	SWITCH, ROTARY (IN SWITCH)	

Ref.No.	Part No.	Description	Remark
S002	1-571-300-21	SWITCH, ROTARY (OUT SWITCH)	

*	1-646-356-11	TIMER BOARD	

< SWITCH >			
S851	1-570-157-51	SWITCH, SLIDE (TIMER)	

*	1-646-354-11	VR BOARD	

< CAPACITOR >			
C351	1-164-159-11	CERAMIC 0.1uF 50V	
C352	1-164-159-11	CERAMIC 0.1uF 50V	
< CONNECTOR >			
* CN351	1-573-267-11	PIN, CONNECTOR 8P	
* CN352	1-569-993-11	PIN, CONNECTOR (PC BOARD) 6P	
< IC >			
IC351	8-759-962-08	IC BA6208	
< TRANSISTOR >			
Q351	8-729-900-45	TRANSISTOR DTC114EF	
< RESISTOR >			
R351	1-249-413-11	CARBON 470 5% 1/4W F	
R352	1-249-417-11	CARBON 1K 5% 1/4W F	
< VARIABLE RESISTOR >			
RV351	1-241-321-11	RES, VAR, CARBON 10KX3 (LINE OUT/PHONE LEVEL)	

MISCELLANEOUS			

△66	1-558-181-21	CORD, POWER (E, EA)	
△66	1-558-568-21	CORD, POWER (AEP, G)	
△66	1-751-060-11	CORD, POWER (AUS)	
△71	1-569-007-11	ADAPTER, CONVERSION 2P (E)	
△72	1-569-008-11	ADAPTER, CONVERSION 2P (EA)	
△F991	1-532-284-00	FUSE, TIME-LAG (0.63A) (AEP, AUS, G)	
M001	A-4604-347-A	MOTOR (L) ASSY	
Q932	8-729-141-10	TRANSISTOR 2SA985A	
RV351	1-241-321-11	RES, VAR, CARBON 10KX3 (LINE OUT/PHONE LEVEL)	

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

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
S991	1-572-267-21	SWITCH, PUSH (AC POWER) (1 KEY)				***** HARDWARE LIST *****	
△T901	1-423-461-11	TRANSFORMER, POWER (AUDIO) (AEP, AUS, G)					
△T911	1-423-459-11	TRANSFORMER, POWER (E, EA)					
△T911	1-423-460-11	TRANSFORMER, POWER (DIGITAL) (AEP, AUS, G)		#1	7-682-545-09	SCREW +B 3X4	
△VS901	1-526-576-51	SELECTOR, POWER VOLTAGE (VOLTAGE SELECTOR) (E, EA)		#2	7-682-664-09	SCREW +PSW 4X14	
*****				#3	7-685-647-79	SCREW +P 3X10 TYPE2 SLIT	
ACCESSORIES & PACKING MATERIALS				#4	7-685-871-01	SCREW +BVTT 3X6 (S)	
*****				#5	7-682-548-04	SCREW +BVTT 3X8 (S)	
	1-465-592-11	REMOTE COMMANDER (RM-D891) (GOLD:AEP)		#6	7-682-548-09	SCREW +BVTT 3X8 (S)	
	1-465-593-11	REMOTE COMMANDER (RM-D991) (BLACK:AEP, E, AUS)		#7	7-682-549-09	SCREW +BVTT 3X10 (S)	
	1-558-271-11	CORD, CONNECTION (AEP, E, G)		#8	7-682-560-04	SCREW +BVTT 4X6 (S)	
	1-590-925-31	CORD, CONNECTION (AEP, E, G)		#9	7-682-147-15	SCREW, TR	
	3-707-584-01	COVER, BATTERY		#10	7-682-547-09	SCREW +BVTT 3X6 (S) (E, EA)	
	3-755-832-11	MANUAL, INSTRUCTION (ENGLISH/FRENCH/SPANISH/CHINESE) (AEP, E, EA, AUS)		#11	7-685-646-79	SCREW, TAPPING	
	3-755-832-41	MANUAL, INSTRUCTION (GERMAN/DUTCH/ITALIAN/PORTUGUESE) (AEP)		#12	7-682-551-09	SCREW +BVTT 3X14 (S)	
	3-755-832-71	MANUAL, INSTRUCTION (GERMAN) (G)		#13	7-624-106-04	RING, RETAINING E-3	
	4-847-802-00	SCREW (BLACK:AEP, E, AUS)		#14	7-682-144-01	SCREW +P 3X3	
	4-847-802-11	SCREW (GOLD:AEP)		#15	7-685-131-19	SCREW +BTP 2. 6X4 TYPE2 N-S	
*	4-955-666-02	CUSHION (AUS)		#16	7-685-132-19	+ PTPWH (2. 6X5)	
*	4-955-669-02	CUSHION (AEP, E, EA)		#17	7-688-003-12	W 3, MIDDLE	
	4-956-945-01	INDIVIDUAL CARTON (EXCEPT FOR AUS)		#18	7-624-105-04	STOP RING 2. 3, TYPE -E	
	4-956-946-01	INDIVIDUAL CARTON (AUS)					

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

CDP-X505ES

SONY SERVICE MANUAL

AEP Model
E Model
Australian Model

CORRECTION-1

Correct your service manual as shown below

3-4. SCHEMATIC DIAGRAM — MAIN SECTION — (Page 19)

⚡ : indicates corrected portion.

