

CDP-X779ES

SERVICE MANUAL

US Model
Canadian Model
AEP Model



COMPACT
disc
DIGITAL AUDIO

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

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

Model Name Using Similar Mechanism	CDP-X777ES
CD Mechanism Type	CDM19A-6F70 (Black) CDM19B-6F70 (Gold)
Optical Pick-Up Type	KSS-272A

SPECIFICATIONS

Compact disc player

Laser	Semiconductor laser ($\lambda = 780 \text{ nm}$)
Laser output	Emission duration: continuous Max. $44.6 \mu\text{W}^*$ * This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.
Frequency response	2 Hz – 20 kHz $\pm 0.3 \text{ dB}$
Signal to noise ratio	More than 119 dB
Dynamic range	More than 100 dB
Harmonic distortion	Less than 0.0015%
Channel separation	More than 110 dB

Outputs

LINE OUT (FIXED)	Output level 2 V (at 50 kilohms) Load impedance over 10 kilohms
LINE OUT (VARIABLE)	Output level max. 2 V (at 50 kilohms) Load impedance over 50 kilohms
BALANCED OUT (FIXED)	Output level 2 V (at 50 kilohms) Load impedance over 600 ohms
DIGITAL OUT (COAXIAL)	Output level 0.5 Vp-p (at 75 ohms) Load impedance 75 ohms
DIGITAL OUT (OPTICAL)	Wave length 660 nm Output level – 18 dBm

PHONES
(Stereo phone jack)

Output level max. 100 mW
Load impedance 32 ohms

General

Power requirements
Model for AEP
220 – 230 V AC 50/60 Hz
Model for US, Canada
120 V AC, 60 Hz

Power consumption 38 W

Dimensions (approx., including projections)
470 x 125 x 375 mm (w/h/d)
(18⁵/₈ x 5 x 14⁷/₈ inches)

Weight (approx.) 16.5 kg (36 lbs 7 oz)

— Continued on next page —



MICROFILM

COMPACT DISC PLAYER
SONY[®]

Remote commander (RM-D995)

Remote control system Infrared control
 Power requirements 3 V DC with two batteries size AA
 (IEC designation R6)
 Dimensions 62×18×175 mm (w/h/d)
 (2½×23/32×7 inches)
 Weight 135 g (4.6 oz)
 Including batteries

Supplied accessories

Connecting cord 1 (2 phono plugs ↔ 2 phono plugs)
 Remote commander 1
 Sony SUM-3(NS) batteries 2
 Screws (for models with 8
 sidewood panels only)

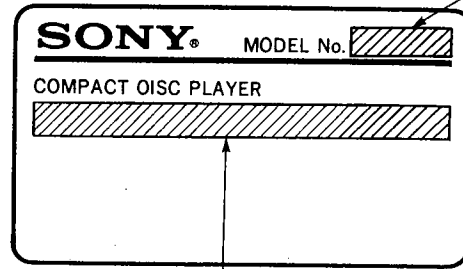
Optional accessory

Audio optical connecting cord POC-15
 Digital connecting cord VMC-1ES

MODEL IDENTIFICATION

—Model Number Label—

CDP-X779ES



US model : AC : 120V 60Hz (Ⓢ mark on rear panel.)

Canadian model : AC : 120V 60Hz



AEP model : AC : 220—230V~50/60Hz

Design and specifications are subject to change without notice.


TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
1. GENERAL			4. EXPLODED VIEWS		
Identifying the Parts		4	4-1. Cabinet Assembly		33
2. ELECTRICAL BLOCK CHECKING		5	4-2. Front Panel Assembly.....		34
3. DIAGRAMS			4-3. Chassis Assembly		35
3-1. Circuit Boards Location.....		7	4-4. Mechanism Block Assembly (1).....		36
3-2. Block Diagrams		8	4-5. Mechanism Block Assembly (2).....		37
3-3. Printed Wiring Board — Audio Section —.....		11	5. ELECTRICAL PARTS LIST		38
3-4. Schematic Diagram — Audio Section —.....		15			
3-5. Schematic Diagram — Digital Section —.....		20			
3-6. Printed Wiring Board — Digital Section —.....		25			
3-7. IC Block Diagrams		29			
3-8. Semiconductor Lead Layouts		32			

SAFETY-RELATED COMPONENT WARNING!!

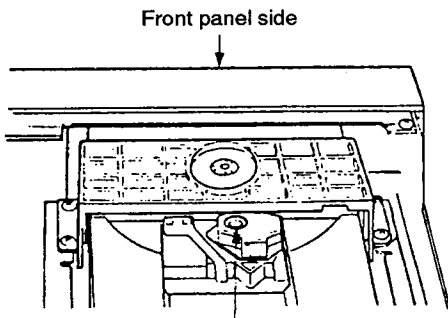
COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

[CHECKING METHODS OF LASER DIODE AND FOCUS SEARCH OPERATIONS]

- Turn the power switch ON with the condition of the disc table closed without disc. And then watch the objective lens to check whether the operation can be performed or not, as the below figure shows.



- The laser beams diffused can be observed.
- The up and down movements of the objective lens (Twice)

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.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

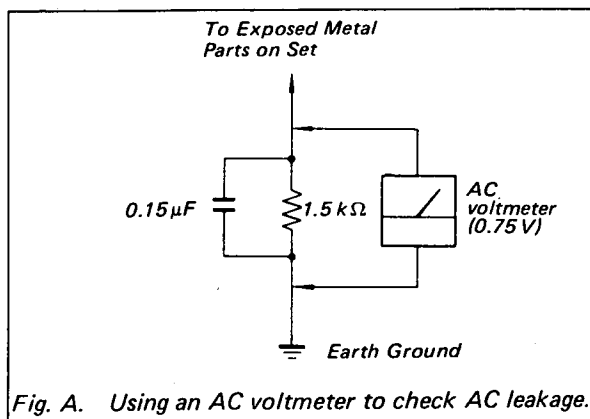
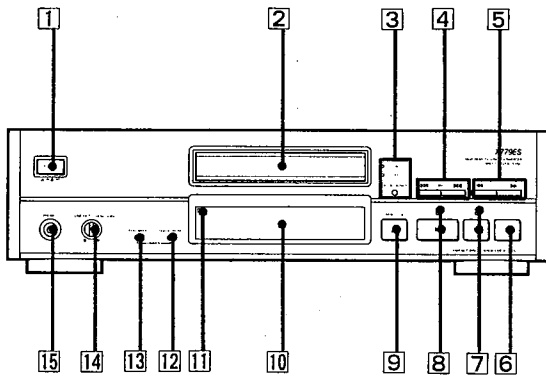


Fig. A. Using an AC voltmeter to check AC leakage.

SECTION 1 GENERAL

Identifying the Parts

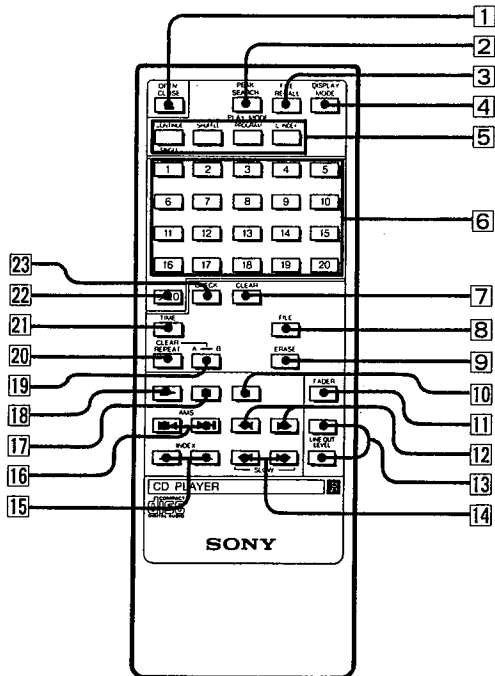
Front Panel



- 1 Power switch
- 2 Disc tray
- 3 DIGITAL OUTPUT button and indicators
- 4 ◀▶ AMS* buttons
- 5 ◀▶ (manual search) buttons
- 6 ■ (stop) button
- 7 || (pause) button and indicator
- 8 ▶ (play) button and indicator
- 9 ▲ OPEN/CLOSE button
- 10 Display window
- 11 Remote sensor
- 12 DISPLAY MODE button
- 13 PLAY MODE buttons
- 14 LINE OUT/PHONE LEVEL control
- 15 PHONES jack

* AMS is the abbreviation of Automatic Music Sensor.

Remote Commander



- 1 ▲ OPEN/CLOSE button
- 2 PEAK SEARCH button
- 3 FILE RECALL button
- 4 DISPLAY MODE button
- 5 PLAY MODE buttons
CONTINUE button
SHUFFLE button
PROGRAM button
C. INDEX button
- 6 Numeric buttons
- 7 CLEAR button
- 8 FILE (custom file) button
- 9 ERASE button
- 10 ■ (stop) button
- 11 FADER (fade in/fade out) button
- 12 ◀▶ (manual search) buttons
- 13 LINE OUT LEVEL (line out/headphones level) buttons
- 14 ◀▶ SLOW (low speed manual search) buttons
- 15 — INDEX buttons
- 16 ◀▶ AMS* buttons
- 17 || (pause) button
- 18 ▶ (play) button
- 19 A ↔ B repeat button
- 20 REPEAT (repeat/A-B repeat) button
- 21 TIME button
- 22 > 20 (over 20) button
- 23 CHECK button

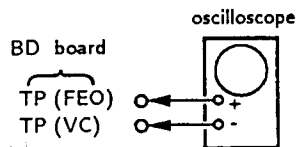
* AMS is the abbreviation of Automatic Music Sensor.

SECTION 2 ELECTRICAL BLOCK CHECKING

Note :

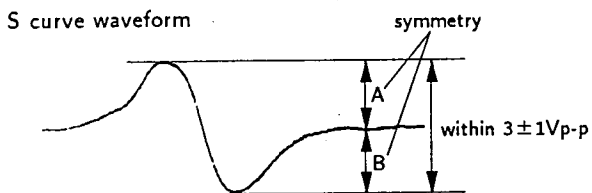
1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10MΩ impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal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

S Curve Check



Procedure :

1. Connect oscilloscope to test point TP (FEO) on BD board.
2. Connect between test point TP (FES) and TP (VC) by lead wire.
3. Turned Power switch on and actuate the focus serch. (actuate the focus serch 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 $3 \pm 1V_{p-p}$.

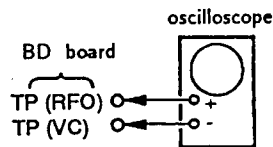


5. After check, remove the lead wire connected in step 2.

Note : • Try to mesure 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

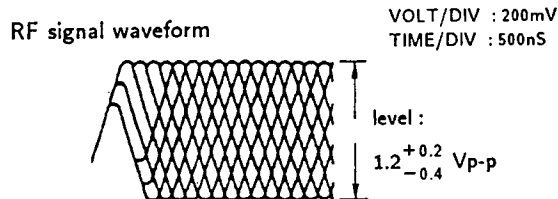


Procedure :

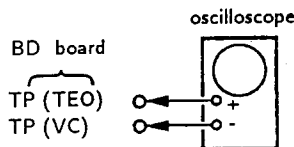
1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note :

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

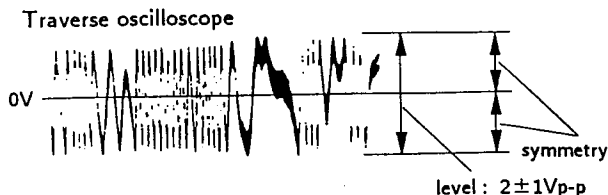


E-F Balance Check



Procedure :

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

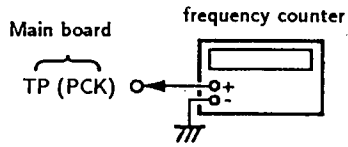


6. Remove the lead wire connected in step 1.

RF PLL Free-run Frequency Check

Procedure :

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



2. Turn Power switch on.
3. Confirm that reading on frequency counter is
4. 3218MHz.

Focus/Tracking Gain

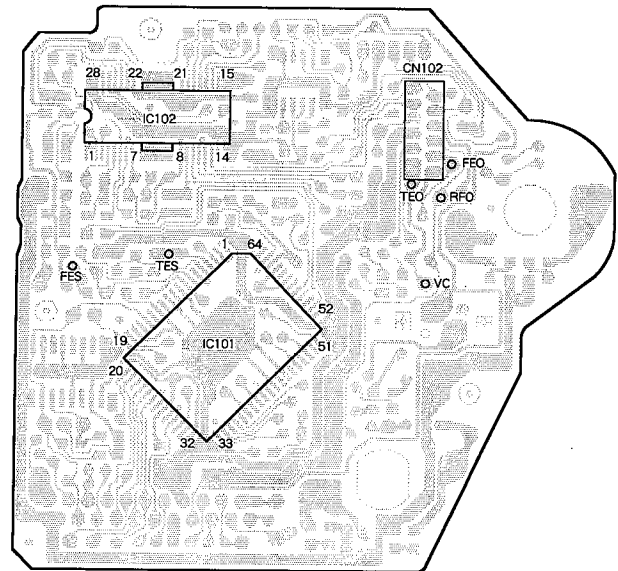
This gain has a margin, so even if it is slightly off. There is no problem.

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.

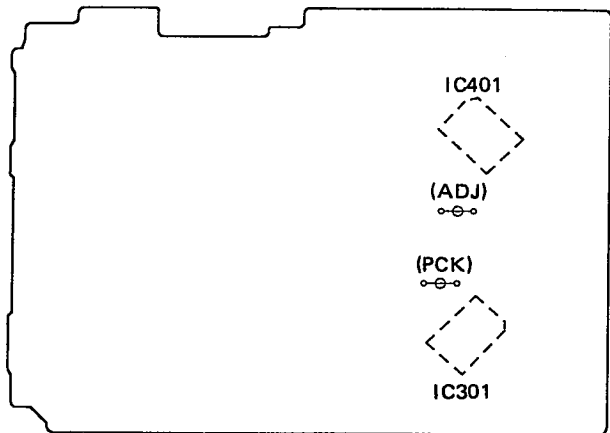
Adjustment Locations : [BD board]

— conductor side —



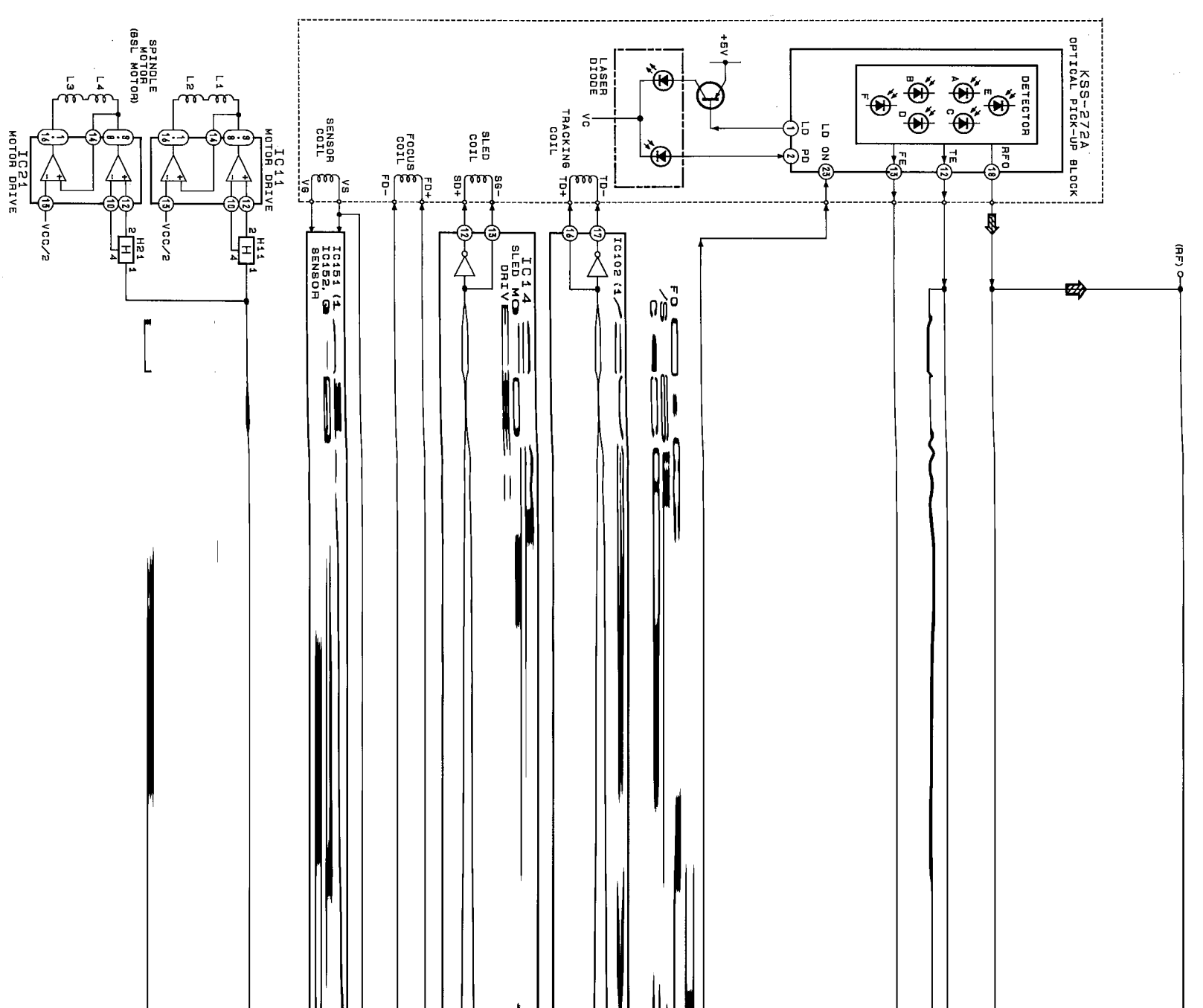
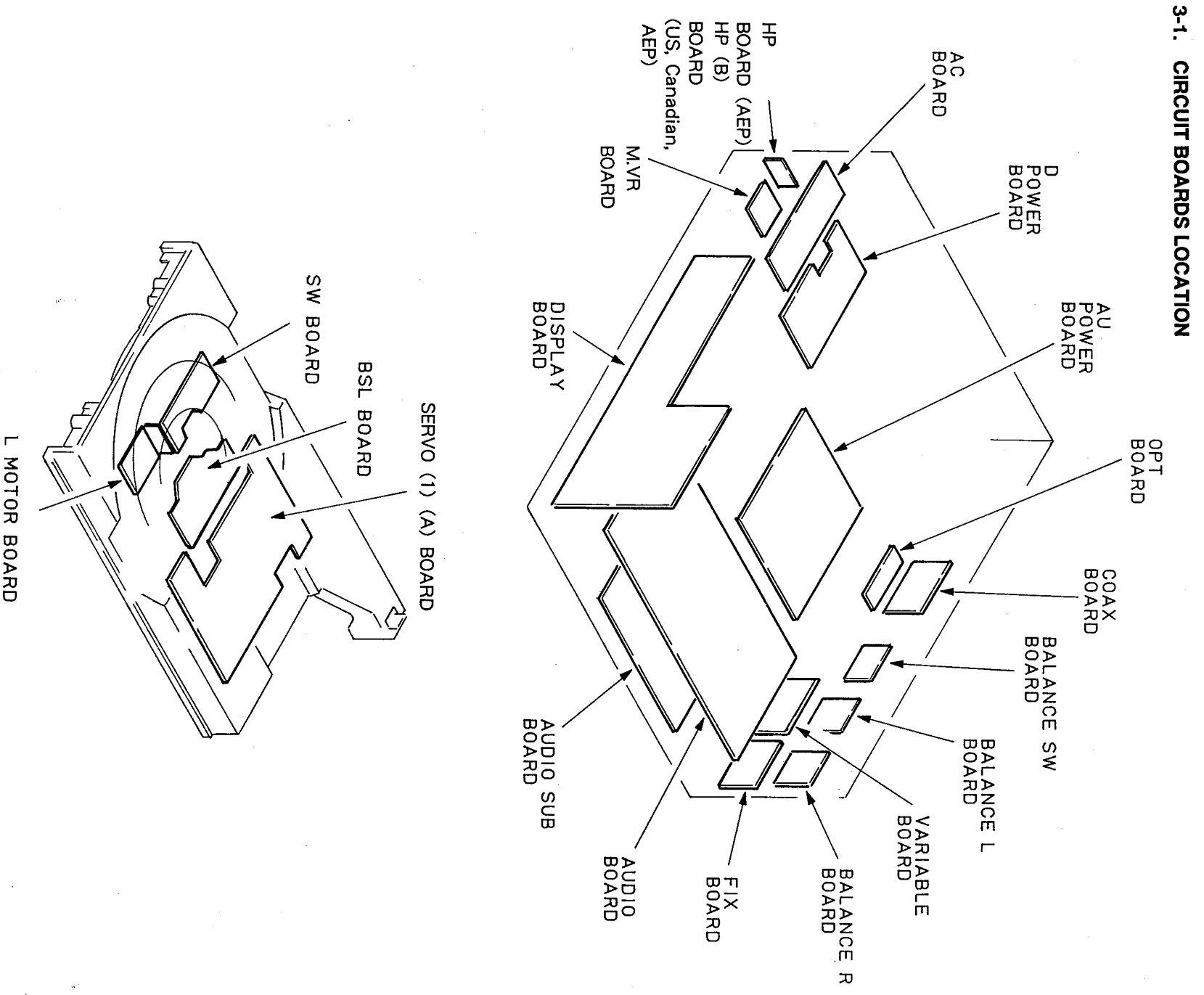
[Main board]

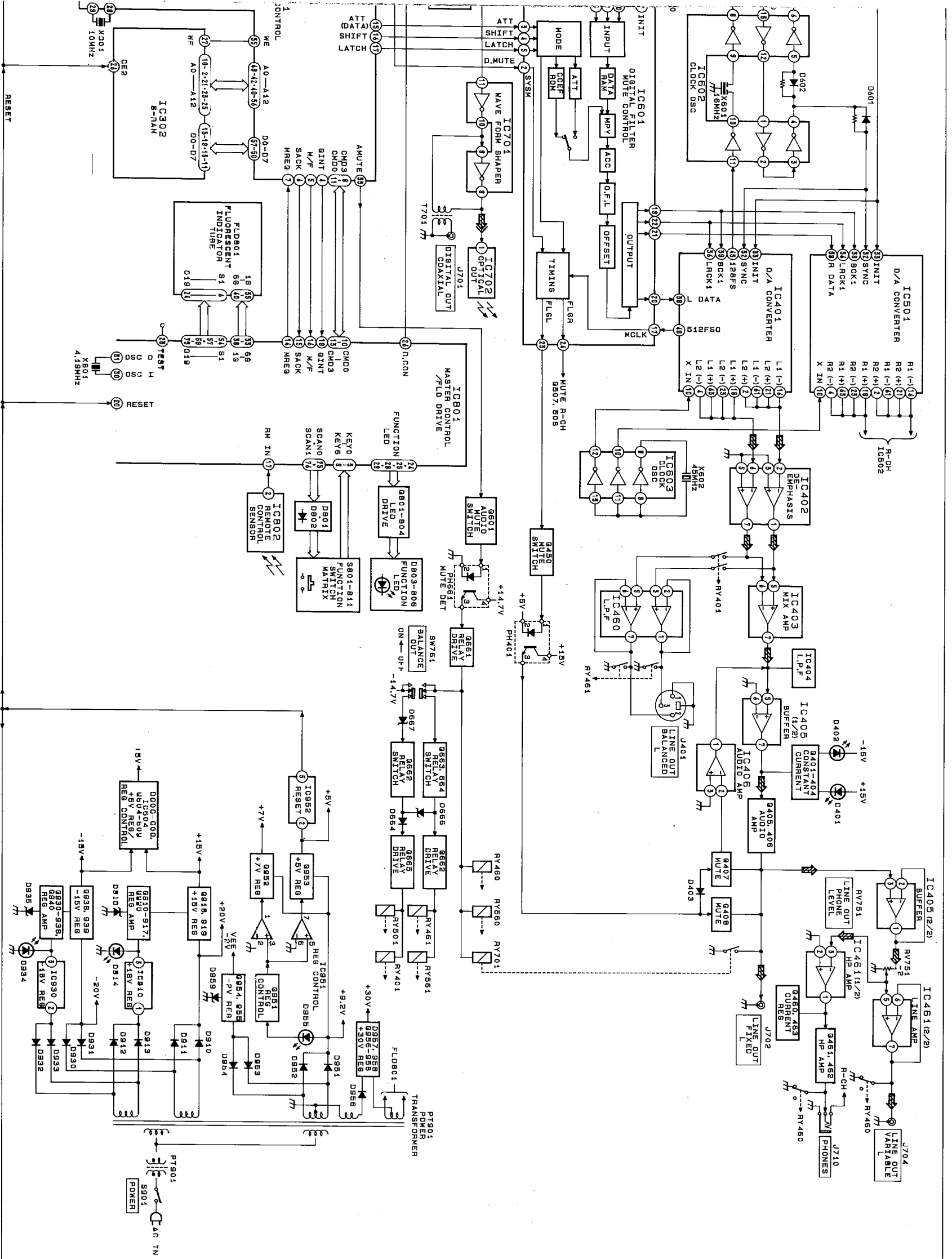
— component side —



SECTION 3
DIAGRAMS

3-2. BLOCK DIAGRAMS





3-3. PRINTED WIRING BOARD — AUDIO SECTION —

- Refer to page 29 for IC BLOCK DIAGRAM
- Refer to page 32 for Semiconductor Lead Layouts

— AUDIO SECTION —

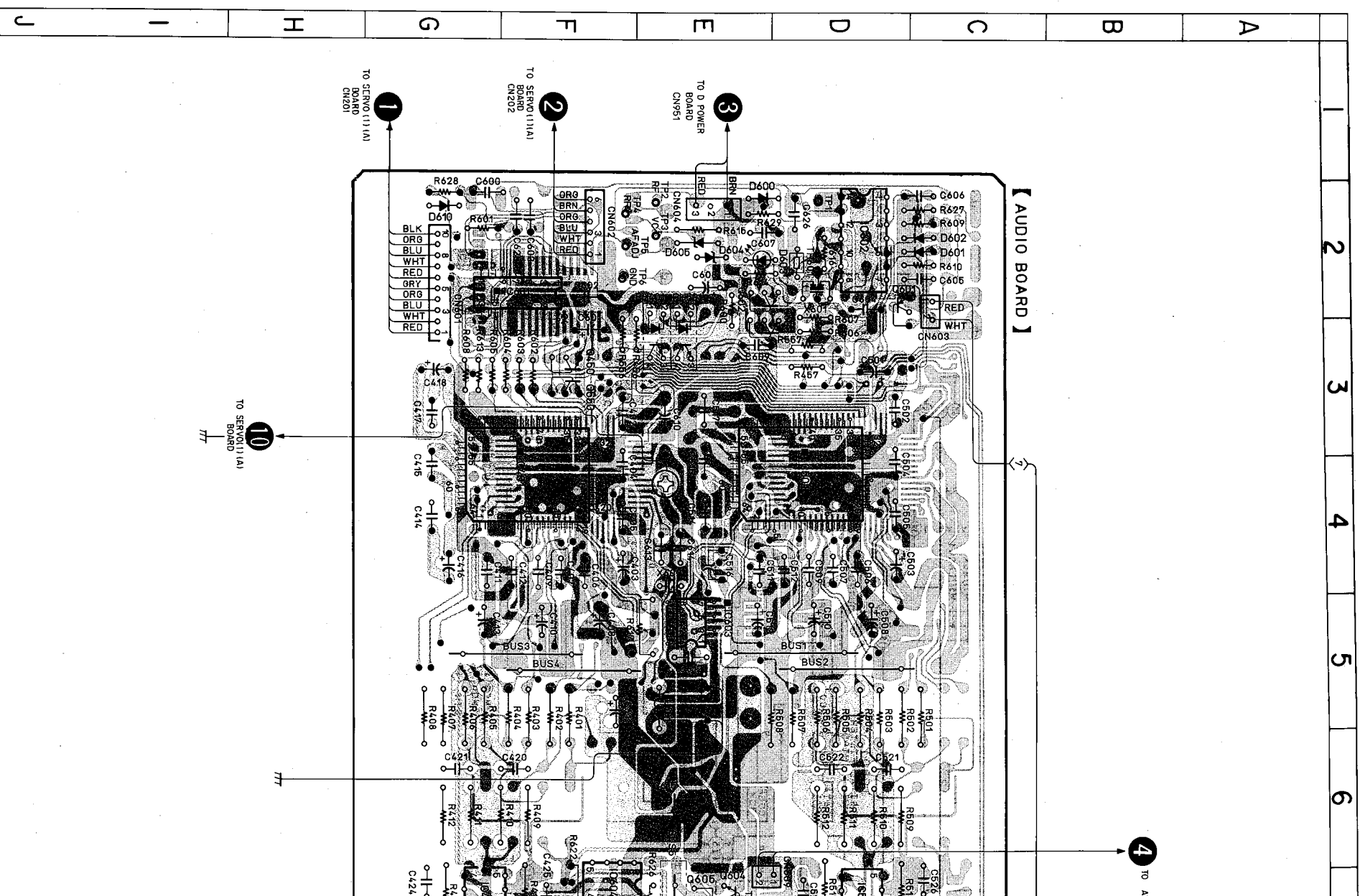
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D401	F-9	Q401	F-9
D402	F-10	Q402	F-9
D403	G-11	Q403	F-10
D405	G-7	Q404	F-10
D450	F-11	Q405	E-10
D501	E-9	Q406	E-11
D502	E-10	Q407	F-11
D503	D-11	Q408	F-11
D505	D-7	Q450	F-3
D550	D-11	Q460	E-14
D800	E-2	Q481	F-15
D801	C-2	Q482	F-15
D802	C-2	Q483	F-14
D803	E-2	Q501	E-9
D804	E-2	Q502	E-10
D805	E-2	Q503	E-10
D806	E-8	Q504	E-10
D807	E-8	Q505	E-10
D808	F-7	Q506	E-11
D810	G-2	Q507	D-11
D861	E-16	Q508	D-11
D862	E-18	Q550	F-3
D863	G-17	Q560	E-14
D864	F-17	Q561	E-15
D866	F-17	Q562	E-15
D867	F-17	Q563	D-14
D701	I-12	Q601	D-2
		Q602	E-2
IC401	F-4	Q603	E-3
IC402	G-7	Q604	E-7
IC403	G-8	Q605	E-7
IC404	F-8	Q606	E-8
IC405	G-9	Q607	E-8
IC406	G-10	Q608	E-9
IC480	F-20	Q609	E-7
IC481	F-14	Q661	D-17
IC501	D-4	Q662	F-18
IC502	D-7	Q663	F-18
IC503	D-8	Q664	F-17
IC504	D-9	Q665	F-17
IC505	D-9	Q666	F-17
IC506	D-10		
IC560	D-20		
IC581	D-14		
IC801	F-2		
IC802	D-2		
IC803	C-5		
IC804	F-7		
PH401	E-3		
PH501	E-3		
PH661	D-17		

— AUDIO SECTION —

Note:

- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : parts mounted on the conductor side.
- ⊗ : Through hole.
- ⊙ : Pattern on the side which is seen.
- ⋯ : Pattern of the rear side.



3-6. PRINTED WIRING BOARD — DIGITAL SECTION —

- Refer to page 29 for IC BLOCK DIAGRAM
- Refer to page 32 for Semiconductor Lead Layouts

— DIGITAL SECTION —

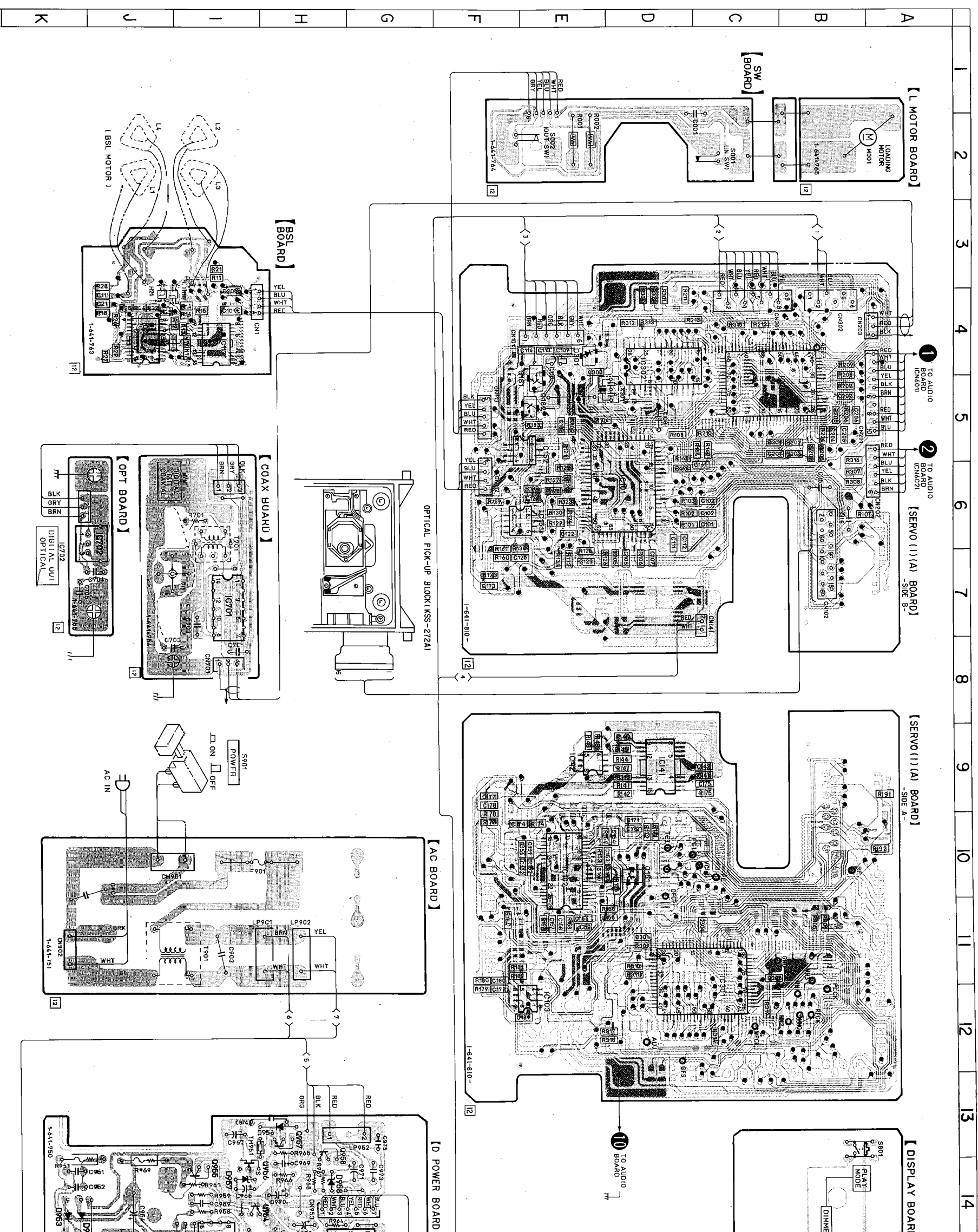
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D301	E-4	Q151	D-10
D801	C-18	Q181	E-4
D802	C-17	Q182	E-5
D803	B-24	Q801	B-24
D804	B-25	Q802	B-24
D805	D-22	Q803	D-22
D806	D-22	Q804	D-22
D910	J-20	Q910	J-18
D911	J-20	Q911	J-19
D912	K-20	Q912	J-19
D913	K-20	Q913	J-18
D914	K-18	Q914	J-19
D915	H-18	Q915	J-19
D930	J-21	Q916	H-19
D931	J-21	Q917	H-19
D932	K-21	Q918	F-19
D933	K-21	Q919	G-19
D934	K-23	Q920	G-19
D935	H-23	Q930	J-23
D951	K-15	Q931	J-22
D952	K-15	Q932	J-22
D953	K-14	Q933	J-23
D954	K-14	Q934	L-23
D955	J-15	Q935	L-23
D956	H-13	Q936	H-23
D957	H-14	Q937	H-23
D958	H-14	Q938	F-22
D959	L-14	Q939	G-23
		Q940	G-22
IC11	L-4	Q951	J-15
IC21	J-4	Q952	L-18
IC101	D-6	Q953	H-18
IC102	E-10	Q954	L-14
IC103	F-12	Q955	L-14
IC141	D-9	Q956	L-14
IC142	E-9	Q957	H-13
IC151	F-8	Q958	H-13
IC152	E-5		
IC201	C-5		
IC301	C-11		
IC302	D-4		
IC701	L-7		
IC702	J-6		
IC801	B-17		
IC802	B-15		
IC910	J-19		
IC930	J-22		
IC951	L-14		
IC952	H-14		
IC963	H-15		

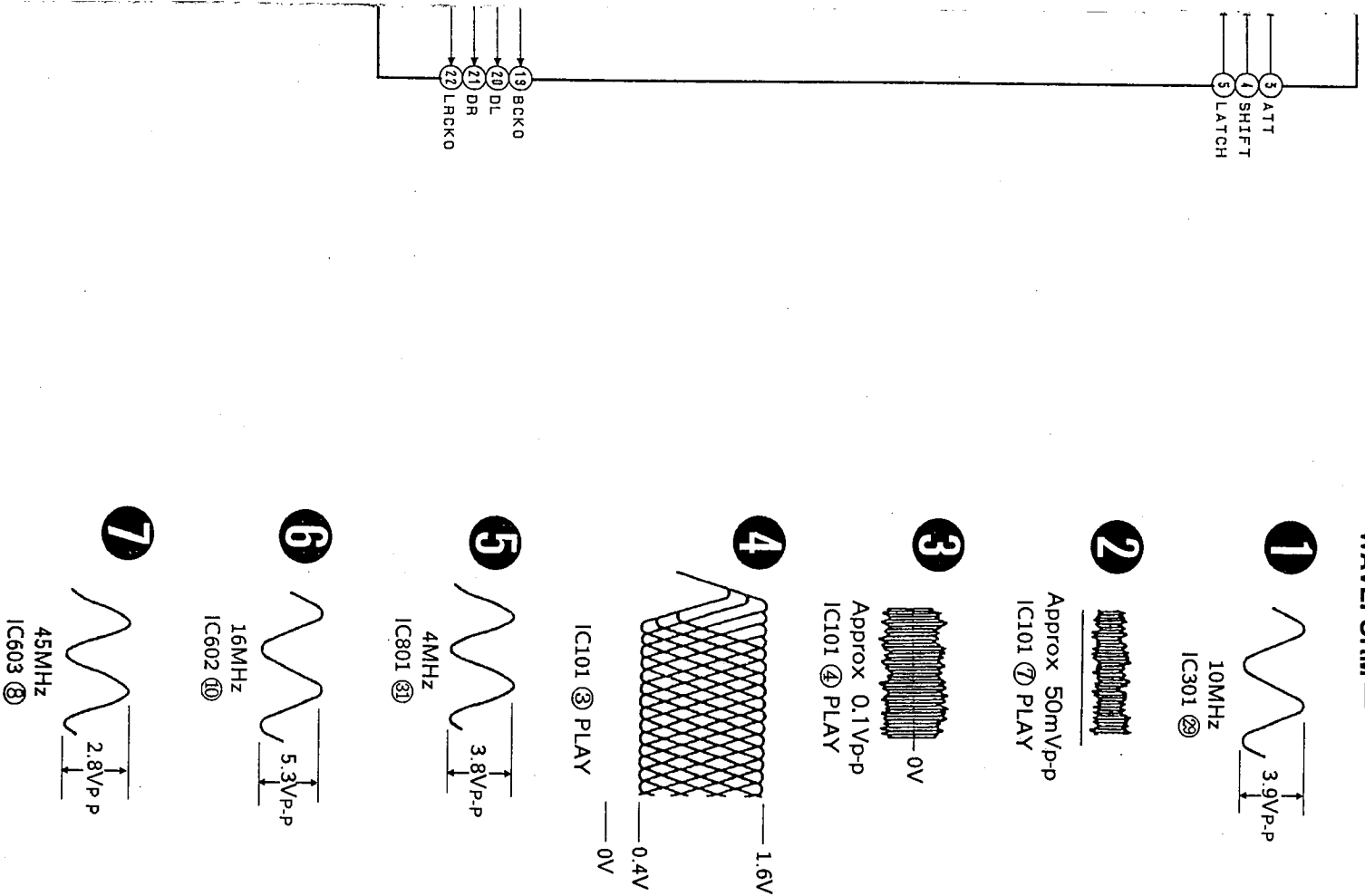
— DIGITAL SECTION —

Note:

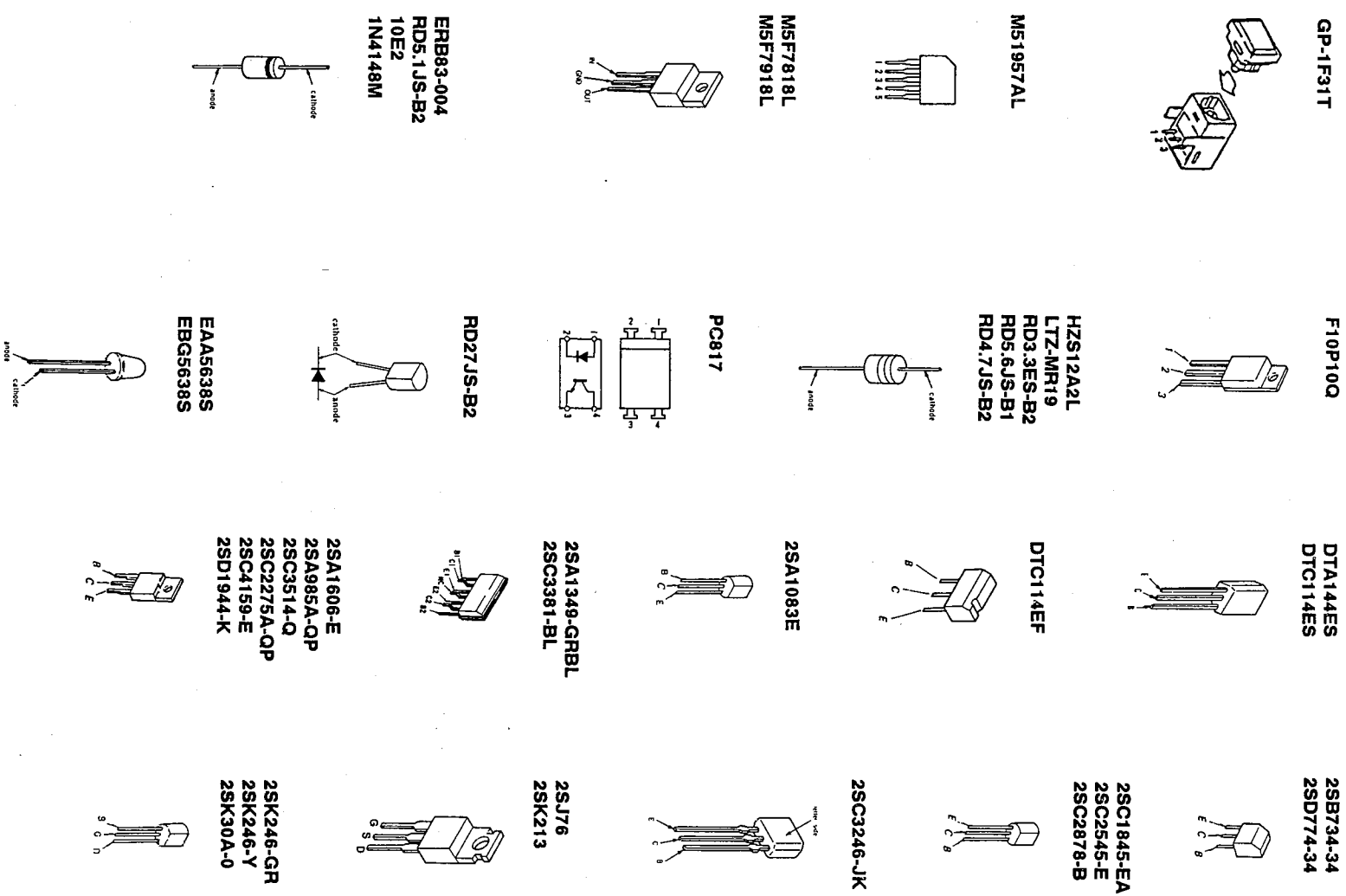
- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : parts mounted on the conductor side.
- ⊗ : Through hole.
- ⊙ : Pattern on the side which is seen.
- ⋯ : Pattern of the rear side.



— WAVEFORM —



3-8. SEMICONDUCTOR LEAD LAYOUTS



SECTION 4 EXPLODED VIEWS

NOTE:

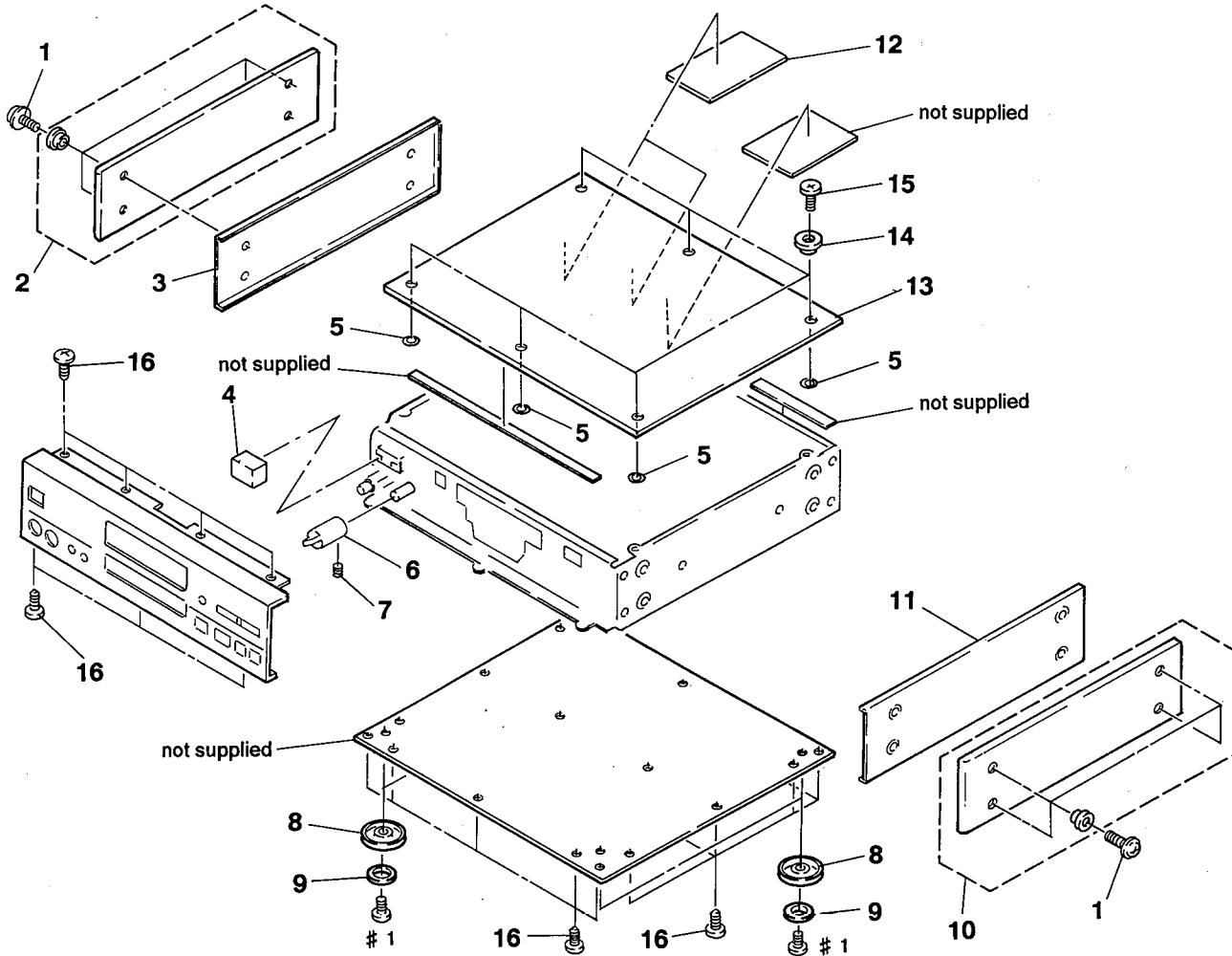
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE) . . . (RED)
 ↑ ↑
Parts color Cabinet's color

- 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.

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

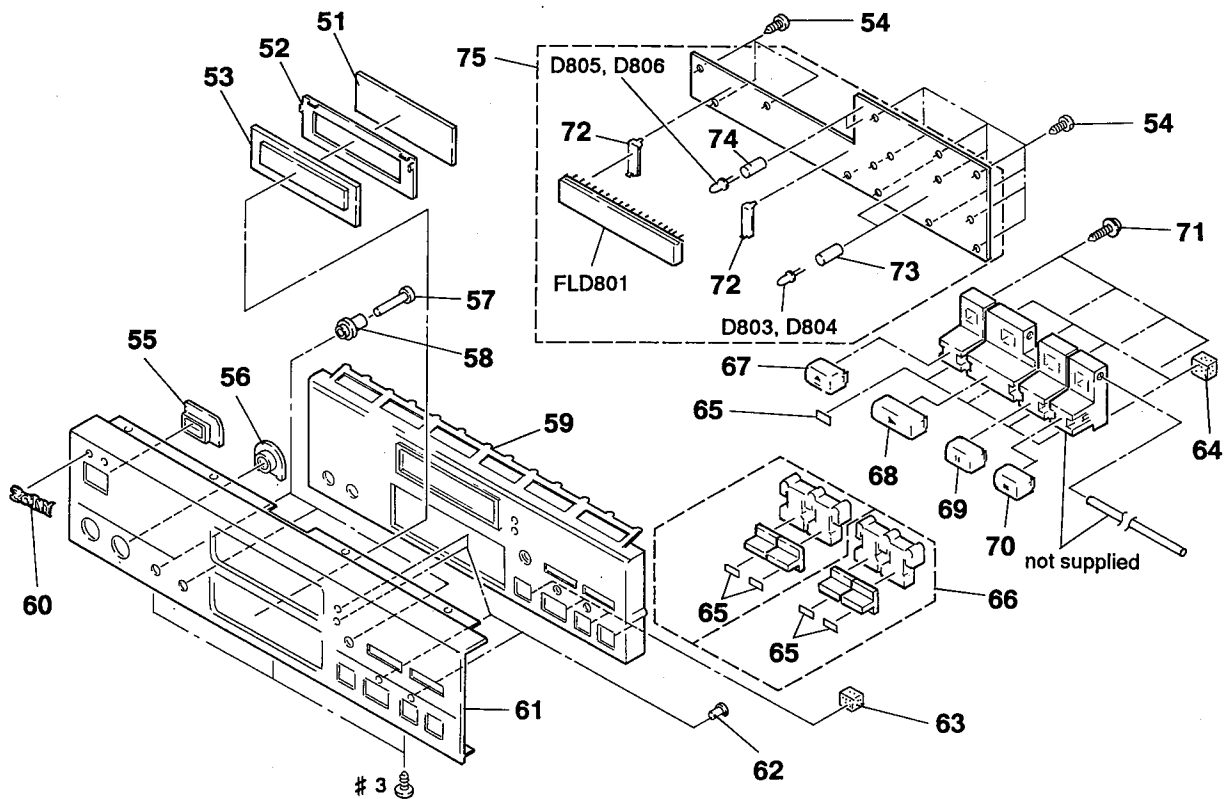
Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

4-1. CABINET ASSEMBLY



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-885-979-11	SCREW (4X25)		10	X-4941-169-2	PLATE (R) ASSY, SIDE, ORNAMENTAL (US, Canadian, AEP: GOLD)	
2	X-4941-168-2	PLATE (L) ASSY, SIDE, ORNAMENTAL (US, Canadian, AEP: GOLD)		10	X-4941-205-1	PRATE (R) ASSY, SIDE, ORNAMENTAL (AEP: BLACK)	
2	X-4941-204-1	PRATE (L) ASSY, SIDE, ORNAMENTAL (AEP: BLACK)		* 11	4-928-062-31	PLATE (RIGHT), SIDE (US, Canadian, AEP: GOLD)	
* 3	4-928-061-31	PLATE (LEFT), SIDE (US, Canadian, AEP: GOLD)		* 11	4-928-062-21	PLATE (RIGHT), SIDE (AEP: BLACK)	
* 3	4-928-061-21	PLATE (LEFT), SIDE (AEP: BLACK)		12	3-831-441-11	FELT (C), ACOUSTIC ABSORBENT	
4	X-4934-014-1	KNOB (POWER) ASSY (AEP: BLACK)		* 13	4-928-020-01	PLATE, TOP (AEP: BLACK)	
4	X-4941-629-1	KNOB (POWER) ASSY (US, Canadian, AEP: GOLD)		13	4-928-020-11	PLATE, TOP (US, Canadian, AEP: GOLD)	
* 5	4-923-581-01	SPACER		14	4-924-237-01	ESCUTCHEON (A) (US, Canadian, AEP: GOLD)	
6	4-950-058-01	KNOB, VOLUME (AEP: BLACK)		14	4-924-237-11	ESCUTCHEON (A) (AEP: BLACK)	
6	4-950-058-11	KNOB, VOLUME (US, Canadian, AEP: GOLD)		15	4-924-242-01	SCREW (M3X6), FLAT HEAD (US, Canadian, AEP: GOLD)	
7	3-701-505-00	SET SCREW, DOUBLE POINT 3X3		15	4-924-242-11	SCREW (M3X6), FLAT HEAD (AEP: BLACK)	
8	4-928-028-01	BASE, FOOT (AEP: BLACK)		16	4-929-074-01	SCREW (3X8)	
8	4-928-028-11	BASE, FOOT (US, Canadian, AEP: GOLD)					
9	4-935-912-01	FOOT (CUSHION)					

4-2. FRONT PANEL ASSEMBLY

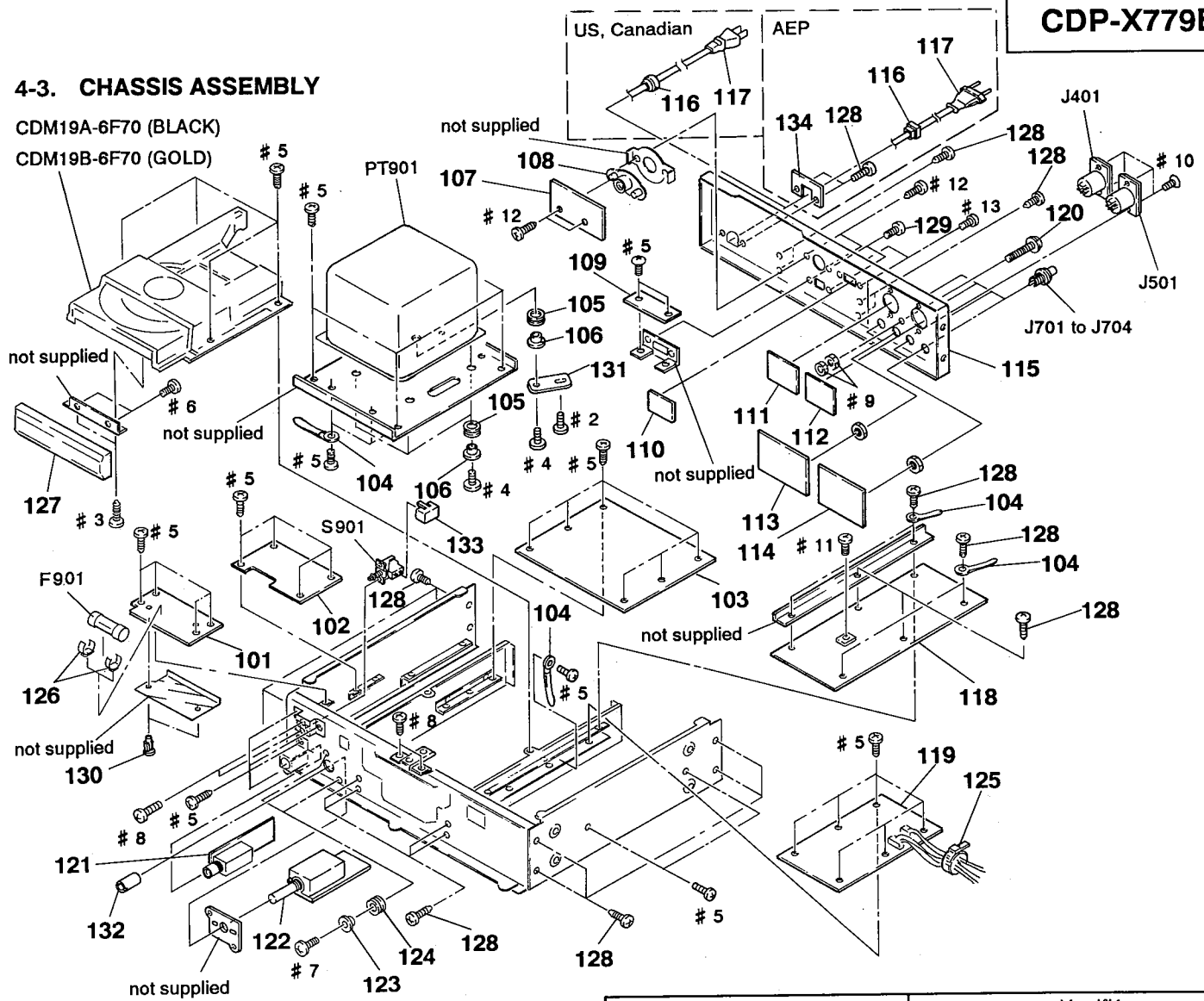


Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-947-968-01	FILTER		64	9-911-845-XX	CUSHION	
52	4-947-969-01	PLATE, ORNAMENTAL (US, Canadian, AEP: GOLD)		65	3-831-441-11	SPACER	
52	4-947-969-11	PLATE, ORNAMENTAL (AEP: BLACK)		66	A-4604-931-A	KNOB ASSY (US, Canadian, AEP: GOLD)	
53	4-947-967-01	WINDOW		66	A-4660-038-A	KNOB ASSY (AEP: BLACK)	
54	4-951-620-01	SCREW (2. 6X8), +BVTP		67	4-947-958-01	CAP (S), KNOB (US, Canadian, AEP: GOLD)	
55	4-928-038-01	ESCUTCHEON (POWER) (AEP: BLACK)		67	4-947-958-31	CAP (S), KNOB (AEP: BLACK)	
55	4-928-038-11	ESCUTCHEON (POWER) (US, Canadian, AEP: GOLD)		68	4-947-957-01	CAP (L), KNOB (US, Canadian, AEP: GOLD)	
56	4-942-459-01	ESCUTCHEON, KNOB (AEP: BLACK)		68	4-947-957-11	CAP (L), KNOB (AEP: BLACK)	
56	4-942-459-11	ESCUTCHEON, KNOB (US, Canadian, AEP: GOLD)		69	4-947-958-11	CAP (S), KNOB (US, Canadian, AEP: GOLD)	
57	4-947-986-01	BUTTON (DIA. 3) (US, Canadian, AEP: GOLD)		69	4-947-958-51	CAP (S), KNOB (AEP: BLACK)	
57	4-947-986-11	BUTTON (DIA. 3) (AEP: BLACK)		70	4-947-958-21	CAP (S), KNOB (US, Canadian, AEP: GOLD)	
* 58	4-947-987-01	GUIDE (BUTTON DIA. 3)		70	4-947-958-41	CAP (S), KNOB (AEP: BLACK)	
59	X-4941-984-1	PANEL (BASE) ASSY (US, Canadian, AEP: GOLD)		71	4-933-134-11	SCREW (+PTPWH M2. 6X8)	
59	X-4942-323-1	PANEL (BASE) ASSY (AEP: BLACK)		* 72	4-947-984-01	HOLDER (FL)	
60	4-908-848-21	EMBLEM, SONY (US, Canadian, AEP: GOLD)		* 73	4-923-532-21	SPACER, LED	
60	4-908-848-01	EMBLEM, SONY (AEP: BLACK)		* 74	4-923-532-31	SPACER, LED	
61	4-947-960-01	PANEL, FRONT (US, Canadian, AEP: GOLD)		* 75	A-4649-013-A	DISPLAY BOARD, COMPLETE	
61	4-947-960-11	PANEL, FRONT (AEP: BLACK)		D803	8-719-913-49	DIODE EBG5638S (PLAY)	
62	4-941-214-01	INDICATOR		D804	8-719-913-47	DIODE EBG5638S (PAUSE)	
63	9-911-846-XX	CUSHION		D805	8-719-913-47	DIODE EBG5638S (D/O ON)	
				D806	8-719-913-49	DIODE EBG5638S (D/O OFF)	
				FLD801	1-519-688-11	INDICATOR TUBE, FLUORESCENT	

4-3. CHASSIS ASSEMBLY

CDM19A-6F70 (BLACK)

CDM19B-6F70 (GOLD)



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

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

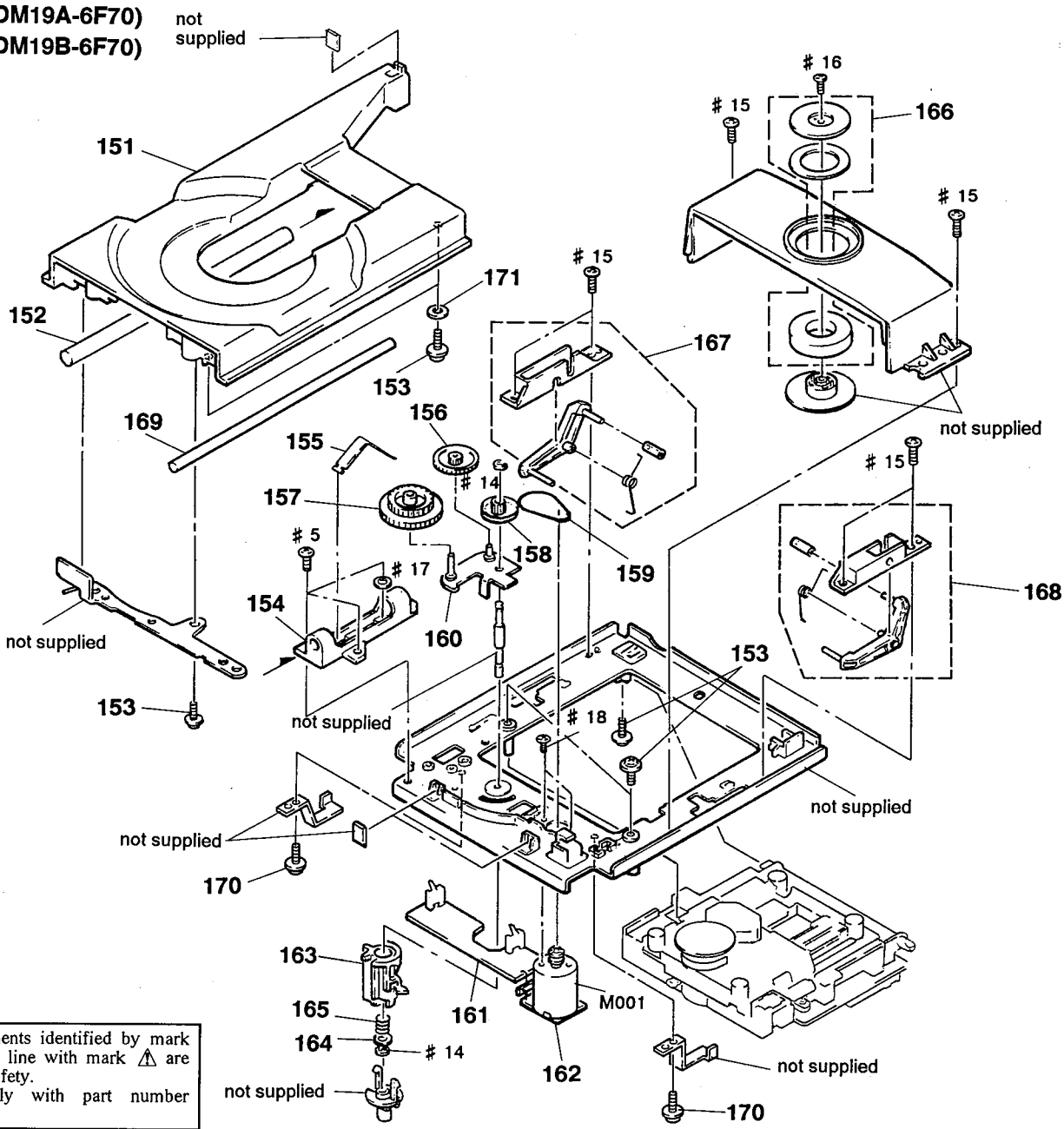
Ref. No.	Part No.	Description	Remark
* 101	1-641-751-11	AC BOARD	
* 102	A-4649-184-A	D POWER BOARD, COMPLETE	
* 103	A-4649-017-A	AU POWER BOARD, COMPLETE	
* 104	3-701-822-00	HOLDER, WIRE	
* 105	4-888-798-00	BUSHING, RUBBER	
106	4-928-068-01	COLLAR (C)	
* 107	1-641-754-11	COAX BOARD	
* 108	4-913-152-01	ESCUTCHEON, D/O	
* 109	1-641-755-11	OPT BOARD	
* 110	1-641-756-11	BALANCE SW BOARD	
* 111	1-641-752-11	BALANCE (L) BOARD	
* 112	1-641-753-11	BALANCE (R) BOARD	
* 113	1-641-749-11	VARIABLE BOARD	
* 114	1-641-748-11	FIX BOARD	
* 115	4-947-973-22	PANEL, BACK (AEP: BLACK)	
* 115	4-947-973-32	PANEL, BACK (US)	
* 115	4-947-973-42	PANEL, BACK (AEP: GOLD)	
* 115	4-947-973-52	PANEL, BACK (Canadian)	
* 116	3-703-244-00	BUSHING (2104), CORD (AEP)	
116	4-916-783-01	BUSHING, CORD (US, Canadian)	
Δ 117	1-558-568-21	CORD, POWER (AEP)	
Δ 117	1-690-958-11	CORD, POWER (US, Canadian)	
* 118	A-4649-018-A	AUDIO BOARD, COMPLETE	
* 119	A-4649-021-A	AUDIO SUB BOARD, COMPLETE	
120	4-886-821-51	SCREW, CASE, (M3X14)	
* 121	1-642-213-11	HP(B) BOARD (US, Canadian, AEP: GOLD)	
* 121	1-641-759-11	HP BOARD (AEP: BLACK)	
* 122	1-641-761-11	M. VR BOARD	

Ref. No.	Part No.	Description	Remark
* 123	4-928-026-01	COLLAR (B)	
* 124	4-888-798-11	BUSHING, RUBBER	
125	3-655-653-21	BAND (TAITON), BINDING	
126	1-533-183-11	HOLDER, FUSE	
127	4-947-966-01	PANEL, LOADING (US, Canadian, AEP: GOLD)	
127	4-947-966-11	PANEL, LOADING (AEP: BLACK)	
128	4-929-074-01	SCREW (3X8)	
129	3-703-685-21	SCREW (+BV 3X8)	
130	3-531-576-11	RIVET	
* 131	4-952-424-01	PLATE (TRANSFORMER), GROUND	
* 132	4-942-456-01	BRACKET (VOL)	
133	3-575-524-00	COVER, POWER SWITCH	
* 134	4-923-873-01	BRACKET, CORD STOPPER (AEP: BLACK)	
* 134	4-923-873-11	BRACKET, CORD STOPPER (AEP: GOLD)	
Δ F901	1-532-215-00	FUSE, TIME-LAG (AEP)	
Δ F901	1-532-825-11	FUSE, GLASS TUBE (US, Canadian)	
J401	1-563-030-11	CONNECTOR (RECEPTACLE) 3P (BALANCE OUT L)	
J501	1-563-030-11	CONNECTOR (RECEPTACLE) 3P (BALANCE OUT R)	
J701	1-568-918-11	JACK, PIN 1P (FIXED R)	
J702	1-568-918-11	JACK, PIN 1P (FIXED L)	
J703	1-568-918-11	JACK, PIN 1P (VARIABLE R)	
J704	1-568-918-11	JACK, PIN 1P (VARIABLE L)	
Δ PT901	1-450-775-11	TRANSFORMER, POWER (US, Canadian)	
Δ PT901	1-450-776-11	TRANSFORMER, POWER (AEP)	
Δ S901	1-554-538-00	SWITCH, PUSH (AC POWER) (1 KEY)	

4-4. MECHANISM BLOCK ASSEMBLY (1)

(CDM19A-6F70)

(CDM19B-6F70)

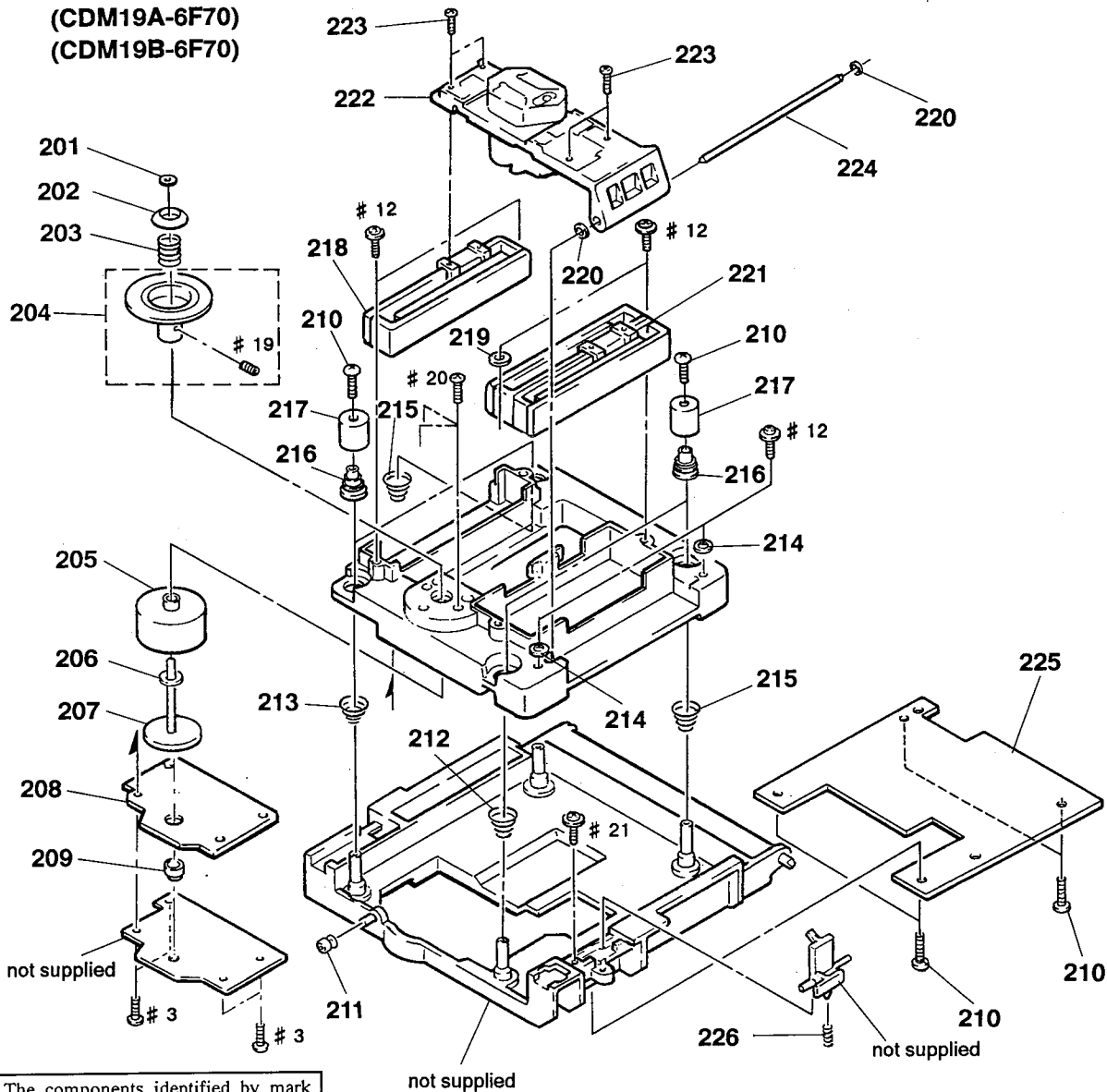


The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	4-948-353-01	TABLE, DISK (AEP: BLACK)		* 162	1-641-765-11	L. MOTOR BOARD	
151	4-948-353-11	TABLE, DISK (US, Canadian, AEP: GOLD)		* 163	4-948-371-01	CAM (BU)	
* 152	4-948-368-01	BAR (MAIN), GUIDE		164	4-927-654-01	WASHER (LIMITER)	
* 153	4-917-583-21	BRACKET, YOKE		165	3-659-338-00	SPRING, COMPRESSION	
* 154	4-948-360-01	BEARING, LOADING		166	A-4604-912-A	MAGNET ASSY	
* 155	4-927-648-01	SLIDER (GROUND)		167	A-4604-913-A	LOCK (L) ASSY, STABLE	
156	4-927-628-01	GEAR (C)		168	A-4604-914-A	LOCK (R) ASSY, STABLE	
157	4-927-620-01	GEAR (P)		* 169	4-948-369-01	BAR (SUB), GUIDE	
158	4-929-724-01	PULLEY (B)		170	3-703-685-21	SCREW (+BV 3X8)	
159	4-927-649-01	BELT		171	4-927-318-01	WASHER	
160	X-4927-608-1	ARM ASSY, SWING		M001	A-4604-347-A	MOTOR (L) ASSY (LOADING)	
* 161	1-641-764-11	SW BOARD					

4-5. MECHANISM BLOCK ASSEMBLY (2)
 (CDM19A-6F70)
 (CDM19B-6F70)



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

Les composants identifiés par une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	4-947-420-01	RING (DIA. 2.53), RETAINING		215	4-917-571-01	SPRING (A)	
202	4-948-381-01	CAP, CENTERING		* 216	4-917-584-11	INSULATOR	
203	4-908-213-01	SPRING, COMPRESSION		217	4-927-634-01	HOLDER (SP)	
204	X-4942-048-1	PULLEY ASSY, DISK		218	A-4638-084-A	SENSOR ASSY, SPEED	
205	4-948-382-02	BEARING (SPINDLE)		219	4-927-669-01	WASHER (BU)	
206	3-701-439-11	WASHER		* 220	4-917-582-01	CUSHION, SLIDE	
* 207	A-4660-055-B	PULLEY ASSY, MOTOR		221	A-4608-335-A	MOTOR ASSY, LINEAR	
* 208	A-4617-993-A	BSL BOARD, COMPLETE		▲ 222	8-848-244-11	DEVICE, OPTICAL KSS-272A	
209	4-943-342-01	BEARING		223	3-318-203-61	SCREW (B1.7X4), TAPPING	
210	4-951-620-01	SCREW (2.6X8), +BVTP		* 224	4-910-431-01	SHAFT, SLIDE	
211	4-927-631-01	ROLLER (L)		* 225	A-4649-006-A	SFRVQ (1) (A) BOARD, COMPLETE	
212	4-917-573-01	SPRING (E)		226	3-305-423-00	SPRING, COMPRESSION	
213	4-948-375-01	SPRING (F), COIL					
214	4-927-318-01	WASHER					

SECTION 5

AC AU POWER

ELECTRICAL PARTS LIST

NOTE:

The components identified by mark Δ or dotted line with mark Δ are critical for safety.

Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité.

Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

• 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.

• -XX, -X mean standardized parts, so they may have some difference from the original one.

• RESISTORS

All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F : nonflammable

• 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.

• SEMICONDUCTORS

In each case, u: μ , for example:

uA...: μ A..., uPA...: μ PA...,
uPB...: μ PB..., uPC...: μ PC...,
uPD...: μ PD...

• CAPACITORS

uF : μ F

• COILS

uH : μ H

• Hardware (# mark) list is given in the last of this parts list.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-641-751-11	AC BOARD *****		C918	1-125-663-11	ELECT	1200uF 20% 63V
		< CAPACITOR >		C919	1-107-210-00	MICA	22PF 5% 500V
Δ C901	1-161-744-00	CERAMIC 0.01uF 400V		C921	1-136-177-00	FILM	1uF 5% 50V
Δ C903	1-162-599-12	CERAMIC 0.0047uF 20% 400V		C922	1-106-343-00	MYLAR	1000PF 5% 200V
		< CONNECTOR >		C923	1-124-911-11	ELECT	220uF 20% 50V
CN901	1-564-321-00	PIN, CONNECTOR 2P		C924	1-124-572-11	ELECT	100uF 20% 63V
* CN902	1-580-230-11	PIN, CONNECTOR (PC BOARD) 3P		C925	1-107-202-00	MICA	10PF 5% 500V
		< BASE POST >		C932	1-125-709-11	ELECT	4700uF 20% 63V
LP901	1-535-139-00	BASE POST 22MM (10MM PITCH) 2P		C933	1-130-495-00	MYLAR	0.1uF 5% 50V
LP902	1-535-139-00	BASE POST 22MM (10MM PITCH) 2P		C934	1-107-169-00	MICA	100PF 5% 500V
		< COIL >		C935	1-107-169-00	MICA	100PF 5% 500V
T901	1-421-915-11	COIL, LINE FILTER		C936	1-107-169-00	MICA	100PF 5% 500V
		< FUSE >		C937	1-124-911-11	ELECT	220uF 20% 50V
Δ F901	1-532-215-00	FUSE, TIME-LAG (AEP)		C938	1-125-663-11	ELECT	1200uF 20% 63V
Δ F902	1-532-825-11	FUSE, GLASS TUBE (US, Canadian)		C939	1-107-210-00	MICA	22PF 5% 500V
		*****		C943	1-124-911-11	ELECT	220uF 20% 50V
*	A-4649-017-A	AU POWER BOARD, COMPLETE *****		C944	1-124-572-11	ELECT	100uF 20% 63V
		< BUS BAR >		C945	1-107-202-00	MICA	10PF 5% 500V
* BUS910	1-566-959-11	BAR, BUS				< CONNECTOR >	
* BUS911	1-566-959-11	BAR, BUS		* CN910	1-573-262-41	PIN, CONNECTOR 3P	
* BUS912	1-580-302-11	BAR, BUS 4P		* CN911	1-573-262-21	PIN, CONNECTOR 3P	
* BUS913	1-580-302-11	BAR, BUS 4P		* CN912	1-573-263-11	PIN, CONNECTOR 4P	
* BUS914	1-691-279-11	BUS BAR 5P		* CN913	1-573-265-11	PIN, CONNECTOR 6P	
		< CAPACITOR >		* CN914	1-573-262-31	PIN, CONNECTOR 3P	
C910	1-136-177-00	FILM 1uF 5% 50V		* CN915	1-573-261-11	PIN, CONNECTOR 2P	
C911	1-106-343-00	MYLAR 1000PF 5% 200V				< DIODE >	
C912	1-125-709-11	ELECT 4700uF 20% 63V		D910	8-719-210-29	DIODE F10P100	
C913	1-130-495-00	MYLAR 0.1uF 5% 50V		D911	8-719-210-29	DIODE F10P100	
C914	1-107-169-00	MICA 100PF 5% 500V		D912	8-719-210-29	DIODE F10P100	
C915	1-107-169-00	MICA 100PF 5% 500V		D913	8-719-210-29	DIODE F10P100	
C916	1-107-169-00	MICA 100PF 5% 500V		D914	8-719-988-53	DIODE LTZ-MR19	
C917	1-124-911-11	ELECT 220uF 20% 50V		D915	8-719-114-36	DIODE RD5. 6JS-B1	
				D930	8-719-210-29	DIODE F10P100	
				D931	8-719-210-29	DIODE F10P100	
				D932	8-719-210-29	DIODE F10P100	
				D933	8-719-210-29	DIODE F10P100	
				D934	8-719-988-53	DIODE LTZ-MR19	
				D935	8-719-114-36	DIODE RD5. 6JS-B1	

AU POWER	AUDIO
----------	-------

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		(IC)					
IC910	8-759-604-87	IC M5F7818L		R924	1-249-799-11	CARBON 750 1% 1/2W	
IC930	8-759-604-91	IC M5F7918L		R925	1-259-547-11	CARBON 470 1% 1/2W	
		(BASE POST)		△R926	1-217-997-11	FUSIBLE 10 5% 1/2W	
* LP910	1-535-140-00	BASE POST 22MM (10MM PITCH) 3P		R931	1-259-585-11	CARBON 18K 1% 1/2W	
		(IC LINK)		R932	1-259-539-11	CARBON 220 1% 1/2W	
△PS910	1-532-675-00	LINK, IC 1.5A		R933	1-259-541-11	CARBON 270 1% 1/2W	
△PS911	1-532-637-00	LINK, IC 1.0A		R934	1-259-571-11	CARBON 4.7K 1% 1/2W	
△PS931	1-532-675-00	LINK, IC 1.5A		R935	1-259-557-11	CARBON 1.2K 1% 1/2W	
△PS932	1-532-637-00	LINK, IC 1.0A		R936	1-259-519-11	CARBON 33 1% 1/2W	
		(TRANSISTOR)		R937	1-259-507-11	CARBON 10 1% 1/2W	
Q910	8-729-322-40	TRANSISTOR 2SA1083E		R938	1-259-507-11	CARBON 10 1% 1/2W	
Q911	8-729-354-52	TRANSISTOR 2SC2545-E		R939	1-259-507-11	CARBON 10 1% 1/2W	
Q912	8-729-322-40	TRANSISTOR 2SA1083E		R940	1-259-507-11	CARBON 10 1% 1/2W	
Q913	8-729-354-52	TRANSISTOR 2SC2545-E		R941	1-259-555-11	CARBON 1K 1% 1/2W	
Q914	8-729-202-72	TRANSISTOR 2SC3381-BL		R942	1-259-555-11	CARBON 1K 1% 1/2W	
Q915	8-729-202-72	TRANSISTOR 2SC3381-BL		R943	1-259-507-11	CARBON 10 1% 1/2W	
Q916	8-729-354-52	TRANSISTOR 2SC2545-E		R944	1-249-799-11	CARBON 750 1% 1/2W	
Q917	8-729-354-52	TRANSISTOR 2SC2545-E		R945	1-259-547-11	CARBON 470 1% 1/2W	
Q918	8-729-141-10	TRANSISTOR 2SA985A-QP		△R946	1-217-997-11	FUSIBLE 10 5% 1/2W	
Q919	8-729-201-05	TRANSISTOR 2SC2878-B		*****			
Q920	8-729-307-65	TRANSISTOR 2SJ76		* A-4649-018-A	AUDIO BOARD, COMPLETE		
Q930	8-729-354-52	TRANSISTOR 2SC2545-E		*****			
Q931	8-729-354-52	TRANSISTOR 2SC2545-E				(BUS BAR)	
Q932	8-729-354-52	TRANSISTOR 2SC2545-E		* BUS1	1-569-137-11	BUS BAR 2P	
Q933	8-729-322-40	TRANSISTOR 2SA1083E		* BUS2	1-569-137-11	BUS BAR 2P	
Q934	8-729-232-00	TRANSISTOR 2SA1349-GRBL		* BUS3	1-569-137-11	BUS BAR 2P	
Q935	8-729-232-00	TRANSISTOR 2SA1349-GRBL		* BUS4	1-691-275-11	BUS BAR	
Q936	8-729-322-40	TRANSISTOR 2SA1083E		* BUS4	1-569-137-11	BUS BAR 2P	
Q937	8-729-322-40	TRANSISTOR 2SA1083E				(CAPACITOR)	
Q938	8-729-141-58	TRANSISTOR 2SC2275A-QP		C402	1-136-165-00	FILM 0.1uF 5% 50V	
Q939	8-729-322-40	TRANSISTOR 2SA1083E		C403	1-126-052-11	ELECT 100uF 20% 50V	
Q940	8-729-321-35	TRANSISTOR 2SK213		C404	1-162-806-11	CERAMIC 0.1uF 10% 50V	
		(RESISTOR)		C405	1-162-806-11	CERAMIC 0.1uF 10% 50V	
△R900	1-212-877-11	FUSIBLE 68 5% 1/4W	F	C406	1-162-806-11	CERAMIC 0.1uF 10% 50V	
△R910	1-212-875-00	FUSIBLE 56 5% 1/4W	F	C407	1-162-806-11	CERAMIC 0.1uF 10% 50V	
R911	1-259-585-11	CARBON 18K 1% 1/2W		C408	1-126-052-11	ELECT 100uF 20% 50V	
R912	1-259-539-11	CARBON 220 1% 1/2W		C409	1-162-806-11	CERAMIC 0.1uF 10% 50V	
R913	1-259-541-11	CARBON 270 1% 1/2W		C410	1-126-052-11	ELECT 100uF 20% 50V	
R914	1-259-571-11	CARBON 4.7K 1% 1/2W		C411	1-162-806-11	CERAMIC 0.1uF 10% 50V	
R915	1-259-557-11	CARBON 1.2K 1% 1/2W		C412	1-162-806-11	CERAMIC 0.1uF 10% 50V	
R916	1-259-519-11	CARBON 33 1% 1/2W		C413	1-126-052-11	ELECT 100uF 20% 50V	
R917	1-259-507-11	CARBON 10 1% 1/2W		C414	1-162-806-11	CERAMIC 0.1uF 10% 50V	
R918	1-259-507-11	CARBON 10 1% 1/2W		C415	1-162-806-11	CERAMIC 0.1uF 10% 50V	
R919	1-259-507-11	CARBON 10 1% 1/2W		C416	1-126-052-11	ELECT 100uF 20% 50V	
R920	1-259-507-11	CARBON 10 1% 1/2W		C417	1-136-165-00	FILM 0.1uF 5% 50V	
R921	1-259-555-11	CARBON 1K 1% 1/2W		C418	1-124-122-11	ELECT 100uF 20% 50V	
R922	1-259-555-11	CARBON 1K 1% 1/2W		C420	1-136-810-11	FILM 220PF 5% 100V	
R923	1-259-507-11	CARBON 10 1% 1/2W		C421	1-136-810-11	FILM 220PF 5% 100V	

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

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

AUDIO

<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>
C424	1-136-810-11	FILM	220PF	5%	100V		C607	1-136-165-00	FILM	0.1uF	5%	50V	
C425	1-136-810-11	FILM	220PF	5%	100V		C608	1-124-122-11	ELECT	100uF	20%	50V	
C426	1-136-811-11	FILM	330PF	5%	100V		C609	1-136-165-00	FILM	0.1uF	5%	50V	
C427	1-136-811-11	FILM	330PF	5%	100V		C610	1-126-052-11	ELECT	100uF	20%	50V	
C428	1-136-192-11	FILM	0.0018uF	2%	100V		C611	1-124-572-11	ELECT	100uF	20%	63V	
C429	1-136-192-11	FILM	0.0018uF	2%	100V		C612	1-162-806-11	CERAMIC	0.1uF	10%	50V	
C430	1-136-192-11	FILM	0.0018uF	2%	100V		C613	1-107-202-00	MICA	10PF	5%	500V	
C432	1-137-508-11	FILM	2.2uF	10%	63V		C614	1-107-202-00	MICA	10PF	5%	500V	
C433	1-107-169-00	MICA	100PF	5%	500V		C615	1-125-663-11	ELECT	1200uF	20%	63V	
C434	1-107-202-00	MICA	10PF	5%	500V		C616	1-107-202-00	MICA	10PF	5%	500V	
C435	1-107-169-00	MICA	100PF	5%	500V		C617	1-130-483-00	MYLAR	0.01uF	5%	50V	
C450	1-130-480-00	MYLAR	0.0056uF	5%	50V		C618	1-130-483-00	MYLAR	0.01uF	5%	50V	
C501	1-124-122-11	ELECT	100uF	20%	50V		C619	1-162-806-11	CERAMIC	0.1uF	10%	50V	
C502	1-136-165-00	FILM	0.1uF	5%	50V		C620	1-124-572-11	ELECT	100uF	20%	63V	
C503	1-126-052-11	ELECT	100uF	20%	50V		C621	1-137-507-11	FILM	1uF	10%	63V	
C504	1-162-806-11	CERAMIC	0.1uF	10%	50V		C622	1-137-507-11	FILM	1uF	10%	63V	
C505	1-162-806-11	CERAMIC	0.1uF	10%	50V		C623	1-137-507-11	FILM	1uF	10%	63V	
C506	1-162-806-11	CERAMIC	0.1uF	10%	50V		C624	1-137-507-11	FILM	1uF	10%	63V	
C507	1-162-806-11	CERAMIC	0.1uF	10%	50V		C625	1-164-159-11	CERAMIC	0.1uF	50V		
C508	1-126-052-11	ELECT	100uF	20%	50V		C626	1-164-159-11	CERAMIC	0.1uF	50V		
C509	1-162-806-11	CERAMIC	0.1uF	10%	50V		(CONNECTOR)						
C510	1-126-052-11	ELECT	100uF	20%	50V		* CN401	1-573-263-11	PIN, CONNECTOR	4P			
C511	1-162-806-11	CERAMIC	0.1uF	10%	50V		* CN402	1-573-262-41	PIN, CONNECTOR	3P			
C512	1-162-806-11	CERAMIC	0.1uF	10%	50V		* CN403	1-573-262-11	PIN, CONNECTOR	3P			
C513	1-126-052-11	ELECT	100uF	20%	50V		* CN501	1-573-263-21	PIN, CONNECTOR	4P			
C514	1-162-806-11	CERAMIC	0.1uF	10%	50V		* CN502	1-573-262-31	PIN, CONNECTOR	3P			
C515	1-162-806-11	CERAMIC	0.1uF	10%	50V		* CN503	1-573-262-21	PIN, CONNECTOR	3P			
C516	1-126-052-11	ELECT	100uF	20%	50V		* CN601	1-569-997-11	PIN, CONNECTOR (PC BOARD)	10P			
C517	1-136-165-00	FILM	0.1uF	5%	50V		* CN602	1-569-993-11	PIN, CONNECTOR (PC BOARD)	6P			
C521	1-136-810-11	FILM	220PF	5%	100V		* CN603	1-573-261-11	PIN, CONNECTOR	2P			
C522	1-136-810-11	FILM	220PF	5%	100V		* CN604	1-573-262-11	PIN, CONNECTOR	3P			
C525	1-136-810-11	FILM	220PF	5%	100V		* CN606	1-573-261-41	PIN, CONNECTOR	2P			
C526	1-136-810-11	FILM	220PF	5%	100V		* CN607	1-573-263-11	PIN, CONNECTOR	4P			
C527	1-136-811-11	FILM	330PF	5%	100V		* CN608	1-573-262-31	PIN, CONNECTOR	3P			
C528	1-136-811-11	FILM	330PF	5%	100V		* CN609	1-573-261-11	PIN, CONNECTOR	2P			
C529	1-136-192-11	FILM	0.0018uF	2%	100V		(DIODE)						
C530	1-136-192-11	FILM	0.0018uF	2%	100V		D401	8-719-988-53	DIODE	LTZ-MR19			
C531	1-136-192-11	FILM	0.0018uF	2%	100V		D402	8-719-988-53	DIODE	LTZ-MR19			
C533	1-137-508-11	FILM	2.2uF	10%	63V		D403	8-719-987-63	DIODE	1N4148M			
C534	1-107-169-00	MICA	100PF	5%	500V		D405	8-719-987-63	DIODE	1N4148M			
C535	1-107-202-00	MICA	10PF	5%	500V		D450	8-719-987-63	DIODE	1N4148M			
C536	1-107-169-00	MICA	100PF	5%	500V		D501	8-719-988-53	DIODE	LTZ-MR19			
C550	1-130-480-00	MYLAR	0.0056uF	5%	50V		D502	8-719-988-53	DIODE	LTZ-MR19			
C600	1-164-159-11	CERAMIC	0.1uF	50V			D503	8-719-987-63	DIODE	1N4148M			
C601	1-124-122-11	ELECT	100uF	20%	50V		D505	8-719-987-63	DIODE	1N4148M			
C602	1-136-165-00	FILM	0.1uF	5%	50V		D550	8-719-987-63	DIODE	1N4148M			
C603	1-162-294-31	CERAMIC	0.001uF	10%	50V		D600	8-719-987-63	DIODE	1N4148M			
C604	1-136-165-00	FILM	0.1uF	5%	50V		D601	8-719-987-63	DIODE	1N4148M			
C605	1-161-494-00	CERAMIC	0.022uF	25V									
C606	1-161-494-00	CERAMIC	0.022uF	25V									

AUDIO

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D602	8-719-987-63	DIODE 1N4148M		Q503	8-729-184-53	TRANSISTOR 2SC1845-EA	
D603	8-719-988-53	DIODE LTZ-MR19		Q504	8-729-184-53	TRANSISTOR 2SC1845-EA	
D604	8-719-114-26	DIODE RD4. 7JS-B2		Q505	8-729-321-35	TRANSISTOR 2SK213	
D605	8-719-114-26	DIODE RD4. 7JS-B2		Q506	8-729-307-65	TRANSISTOR 2SJ76	
D606	8-719-988-53	DIODE LTZ-MR19		Q507	8-729-224-62	TRANSISTOR 2SK246-GR	
D607	8-719-988-53	DIODE LTZ-MR19		Q508	8-729-201-05	TRANSISTOR 2SC2878-B	
D608	8-719-114-30	DIODE RD5. 1JS-B2		Q550	8-729-900-80	TRANSISTOR DTC114ES	
D610	8-719-987-63	DIODE 1N4148M		Q601	8-729-900-65	TRANSISTOR DTA144ES	
		< IC >		Q602	8-729-322-40	TRANSISTOR 2SA1083E	
IC401	8-759-044-10	IC CXD2562Q		Q603	8-729-620-23	TRANSISTOR 2SC3246-JK	
IC402	8-759-900-72	IC NE5532P		Q604	8-729-104-18	TRANSISTOR 2SC3514	
IC403	8-759-900-72	IC NE5532P		Q605	8-729-307-65	TRANSISTOR 2SJ76	
IC404	8-759-900-72	IC NE5532P		Q606	8-729-322-40	TRANSISTOR 2SA1083E	
IC405	8-759-971-80	IC AD712JN		Q607	8-729-184-53	TRANSISTOR 2SC1845-EA	
IC406	8-759-998-79	IC OPA27GP		Q608	8-729-184-53	TRANSISTOR 2SC1845-EA	
IC501	8-759-044-10	IC CXD2562Q		Q609	8-729-203-02	TRANSISTOR 2SK30A-0	
IC502	8-759-900-72	IC NE5532P				< RESISTOR >	
IC503	8-759-900-72	IC NE5532P		R401	1-249-947-11	CARBON 10K 1% 1/4W	
IC504	8-759-900-72	IC NE5532P		R402	1-249-947-11	CARBON 10K 1% 1/4W	
IC505	8-759-971-80	IC AD712JN		R403	1-249-947-11	CARBON 10K 1% 1/4W	
IC506	8-759-998-79	IC OPA27GP		R404	1-249-947-11	CARBON 10K 1% 1/4W	
IC601	8-752-342-65	IC CXD2560M		R405	1-249-947-11	CARBON 10K 1% 1/4W	
IC602	8-759-917-18	IC SN74HCU04N		R406	1-249-947-11	CARBON 10K 1% 1/4W	
IC603	8-759-233-64	IC TC74HCU04AF		R407	1-249-947-11	CARBON 10K 1% 1/4W	
IC604	8-759-900-72	IC NE5532P		R408	1-249-947-11	CARBON 10K 1% 1/4W	
		< COIL >		R409	1-249-944-11	CARBON 7.5K 1% 1/4W	
L401	1-410-969-11	INDUCTOR 4.7uH		R410	1-249-944-11	CARBON 7.5K 1% 1/4W	
L402	1-410-971-11	INDUCTOR 10uH		R411	1-249-944-11	CARBON 7.5K 1% 1/4W	
L501	1-410-969-11	INDUCTOR 4.7uH		R412	1-249-944-11	CARBON 7.5K 1% 1/4W	
L502	1-410-971-11	INDUCTOR 10uH		R417	1-249-944-11	CARBON 7.5K 1% 1/4W	
L601	1-410-970-11	INDUCTOR 6.8uH		R418	1-249-944-11	CARBON 7.5K 1% 1/4W	
		< PHOTO INTERRUPTER >		R419	1-249-945-11	CARBON 8.2K 1% 1/4W	
PH401	8-719-902-56	DIODE PC817		R420	1-249-945-11	CARBON 8.2K 1% 1/4W	
PH501	8-719-902-56	DIODE PC817		R421	1-247-721-11	CARBON 4.7K 5% 1/4W	
		< TRANSISTOR >		R422	1-247-721-11	CARBON 4.7K 5% 1/4W	
Q401	8-729-322-40	TRANSISTOR 2SA1083E		R423	1-249-929-11	CARBON 1.8K 1% 1/4W	
Q402	8-729-184-53	TRANSISTOR 2SC1845-EA		R424	1-249-929-11	CARBON 1.8K 1% 1/4W	
Q403	8-729-184-53	TRANSISTOR 2SC1845-EA		R425	1-249-929-11	CARBON 1.8K 1% 1/4W	
Q404	8-729-184-53	TRANSISTOR 2SC1845-EA		R426	1-249-929-11	CARBON 1.8K 1% 1/4W	
Q405	8-729-321-35	TRANSISTOR 2SK213		R427	1-249-977-11	CARBON 180K 1% 1/4W	
Q406	8-729-307-65	TRANSISTOR 2SJ76		R428	1-247-713-11	CARBON 1K 5% 1/4W	
Q407	8-729-224-62	TRANSISTOR 2SK246-GR		R429	1-214-730-00	METAL 1.1K 1% 1/4W	
Q408	8-729-201-05	TRANSISTOR 2SC2878-B		R430	1-249-462-11	CARBON 22K 5% 1/4W	
Q450	8-729-900-80	TRANSISTOR DTC114ES		R431	1-249-915-11	CARBON 470 1% 1/4W	
Q501	8-729-322-40	TRANSISTOR 2SA1083E		R432	1-249-948-11	CARBON 11K 1% 1/4W	
Q502	8-729-184-53	TRANSISTOR 2SC1845-EA		R433	1-249-940-11	CARBON 5.1K 1% 1/4W	
				R434	1-249-948-11	CARBON 11K 1% 1/4W	
				R435	1-249-940-11	CARBON 5.1K 1% 1/4W	
				R436	1-249-915-11	CARBON 470 1% 1/4W	

AUDIO

Ref. No.	Part No.	Description	Remark
R437	1-259-531-11	CARBON	100 1% 1/2W
R438	1-259-531-11	CARBON	100 1% 1/2W
R439	1-259-519-11	CARBON	33 1% 1/2W
R440	1-259-519-11	CARBON	33 1% 1/2W
R441	1-249-465-11	CARBON	47K 5% 1/4W
R442	1-259-500-11	CARBON	1M 5% 1/6W
R444	1-259-519-11	CARBON	33 1% 1/2W
R445	1-249-586-11	CARBON	27K 5% 1/4W
R446	1-249-465-11	CARBON	47K 5% 1/4W
R456	1-259-426-11	CARBON	820 5% 1/6W
R457	1-259-442-11	CARBON	3.9K 5% 1/6W
R458	1-259-450-11	CARBON	8.2K 5% 1/6W
R459	1-259-472-11	CARBON	68K 5% 1/6W
R501	1-249-947-11	CARBON	10K 1% 1/4W
R502	1-249-947-11	CARBON	10K 1% 1/4W
R503	1-249-947-11	CARBON	10K 1% 1/4W
R504	1-249-947-11	CARBON	10K 1% 1/4W
R505	1-249-947-11	CARBON	10K 1% 1/4W
R506	1-249-947-11	CARBON	10K 1% 1/4W
R507	1-249-947-11	CARBON	10K 1% 1/4W
R508	1-249-947-11	CARBON	10K 1% 1/4W
R509	1-249-944-11	CARBON	7.5K 1% 1/4W
R510	1-249-944-11	CARBON	7.5K 1% 1/4W
R511	1-249-944-11	CARBON	7.5K 1% 1/4W
R512	1-249-944-11	CARBON	7.5K 1% 1/4W
R517	1-249-944-11	CARBON	7.5K 1% 1/4W
R518	1-249-944-11	CARBON	7.5K 1% 1/4W
R519	1-249-945-11	CARBON	8.2K 1% 1/4W
R520	1-249-945-11	CARBON	8.2K 1% 1/4W
R521	1-247-721-11	CARBON	4.7K 5% 1/4W
R522	1-249-929-11	CARBON	1.8K 1% 1/4W
R523	1-249-929-11	CARBON	1.8K 1% 1/4W
R524	1-249-929-11	CARBON	1.8K 1% 1/4W
R525	1-249-929-11	CARBON	1.8K 1% 1/4W
R526	1-249-977-11	CARBON	180K 1% 1/4W
R527	1-247-713-11	CARBON	1K 5% 1/4W
R528	1-214-730-00	METAL	1.1K 1% 1/4W
R529	1-249-462-11	CARBON	22K 5% 1/4W
R530	1-249-915-11	CARBON	470 1% 1/4W
R531	1-249-948-11	CARBON	11K 1% 1/4W
R532	1-249-940-11	CARBON	5.1K 1% 1/4W
R533	1-249-948-11	CARBON	11K 1% 1/4W
R534	1-249-940-11	CARBON	5.1K 1% 1/4W
R535	1-249-915-11	CARBON	470 1% 1/4W
R536	1-259-531-11	CARBON	100 1% 1/2W
R537	1-259-531-11	CARBON	100 1% 1/2W
R538	1-259-519-11	CARBON	33 1% 1/2W
R539	1-259-519-11	CARBON	33 1% 1/2W
R540	1-249-465-11	CARBON	47K 5% 1/4W
R541	1-249-465-11	CARBON	47K 5% 1/4W

Ref. No.	Part No.	Description	Remark
R542	1-259-500-11	CARBON	1M 5% 1/6W
R544	1-259-519-11	CARBON	33 1% 1/2W
R545	1-249-586-11	CARBON	27K 5% 1/4W
R546	1-247-721-11	CARBON	4.7K 5% 1/4W
R556	1-259-426-11	CARBON	820 5% 1/6W
R557	1-249-947-11	CARBON	10K 1% 1/4W
R557	1-259-442-11	CARBON	3.9K 5% 1/6W
R558	1-259-450-11	CARBON	8.2K 5% 1/6W
R559	1-259-472-11	CARBON	68K 5% 1/6W
R600	1-259-404-11	CARBON	100 5% 1/6W
R601	1-259-428-11	CARBON	1K 5% 1/6W
R602	1-259-420-11	CARBON	470 5% 1/6W
R603	1-259-420-11	CARBON	470 5% 1/6W
R604	1-259-420-11	CARBON	470 5% 1/6W
R605	1-259-420-11	CARBON	470 5% 1/6W
R606	1-259-416-11	CARBON	330 5% 1/6W
R607	1-259-448-11	CARBON	6.8K 5% 1/6W
R608	1-259-424-11	CARBON	680 5% 1/6W
R609	1-259-428-11	CARBON	1K 5% 1/6W
R610	1-259-488-11	CARBON	330K 5% 1/6W
R613	1-259-426-11	CARBON	820 5% 1/6W
R614	1-259-412-11	CARBON	220 5% 1/6W
R615	1-259-444-11	CARBON	4.7K 5% 1/6W
R616	1-259-380-11	CARBON	10 5% 1/6W
R617	1-249-947-11	CARBON	10K 1% 1/4W
R618	1-247-700-11	CARBON	100 5% 1/4W
R619	1-247-700-11	CARBON	100 5% 1/4W
R620	1-247-721-11	CARBON	4.7K 5% 1/4W
R621	1-247-721-11	CARBON	4.7K 5% 1/4W
R622	1-247-700-11	CARBON	100 5% 1/4W
R623	1-249-907-11	CARBON	220 1% 1/4W
R624	1-249-907-11	CARBON	220 1% 1/4W
R625	1-249-497-11	CARBON	33K 5% 1/4W
R626	1-247-700-11	CARBON	100 5% 1/4W
R627	1-259-476-11	CARBON	100K 5% 1/6W
R628	1-259-488-11	CARBON	330K 5% 1/6W
R629	1-259-484-11	CARBON	220K 5% 1/6W
< RELAY >			
RY401	1-515-727-11	RELAY	
RY501	1-515-727-11	RELAY	
< THERMISTOR >			
TH601	1-806-882-11	THERMISTOR, POSITIVE	
TH602	1-806-882-11	THERMISTOR, POSITIVE	
< FILTER >			
X601	1-577-685-11	FILTER, CRYSTAL (16 MHz)	

AUDIO

AUDIO SUB

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< VIBRATOR >					
X602	1-577-686-11	VIBRATOR, CRYSTAL (45 MHz)		* CN563	1-573-261-21	PIN, CONNECTOR 2P	
*****				* CN564	1-573-261-21	PIN, CONNECTOR 2P	
*	A-4649-021-A	AUDIO SUB BOARD, COMPLETE		* CN565	1-573-261-31	PIN, CONNECTOR 2P	
		*****		* CN660	1-573-265-11	PIN, CONNECTOR 6P	
		< CAPACITOR >		* CN661	1-573-262-21	PIN, CONNECTOR 3P	
C460	1-136-233-11	FILM	0.0047uF 2% 100V	* CN662	1-573-262-41	PIN, CONNECTOR 3P	
C461	1-136-228-11	FILM	0.0012uF 2% 100V	* CN663	1-573-263-41	PIN, CONNECTOR 4P	
C462	1-137-507-11	FILM	1uF 10% 63V	* CN664	1-573-265-41	PIN, CONNECTOR 6P	
C463	1-124-572-11	ELECT	100uF 20% 63V				
C464	1-136-233-11	FILM	0.0047uF 2% 100V				
C465	1-136-228-11	FILM	0.0012uF 2% 100V				
C466	1-137-507-11	FILM	1uF 10% 63V				
C467	1-124-572-11	ELECT	100uF 20% 63V				
C468	1-136-272-00	FILM	68PF 5% 630V				
C469	1-124-913-11	ELECT	470uF 20% 50V				
C470	1-136-177-00	FILM	1uF 5% 50V				
C471	1-124-572-11	ELECT	100uF 20% 63V				
C472	1-137-507-11	FILM	1uF 10% 63V				
C560	1-136-233-11	FILM	0.0047uF 2% 100V				
C561	1-136-228-11	FILM	0.0012uF 2% 100V				
C562	1-137-507-11	FILM	1uF 10% 63V				
C563	1-124-572-11	ELECT	100uF 20% 63V				
C564	1-136-233-11	FILM	0.0047uF 2% 100V				
C565	1-136-228-11	FILM	0.0012uF 2% 100V				
C566	1-137-507-11	FILM	1uF 10% 63V				
C567	1-124-572-11	ELECT	100uF 20% 63V				
C568	1-136-272-00	FILM	68PF 5% 630V				
C569	1-124-913-11	ELECT	470uF 20% 50V				
C570	1-136-177-00	FILM	1uF 5% 50V				
C571	1-124-572-11	ELECT	100uF 20% 63V				
C572	1-137-507-11	FILM	1uF 10% 63V				
C660	1-137-507-11	FILM	1uF 10% 63V				
C661	1-137-507-11	FILM	1uF 10% 63V				
C662	1-162-806-11	CERAMIC	0.1uF 10% 50V				
C663	1-162-806-11	CERAMIC	0.1uF 10% 50V				
C664	1-162-806-11	CERAMIC	0.1uF 10% 50V				
C665	1-162-806-11	CERAMIC	0.1uF 10% 50V				
C666	1-126-045-11	ELECT	2.2uF 20% 50V				
C667	1-126-696-11	ELECT	33uF 20% 35V				
C668	1-126-696-11	ELECT	33uF 20% 35V				
		< CONNECTOR >					
* CN461	1-573-263-11	PIN, CONNECTOR 4P					
* CN462	1-573-261-11	PIN, CONNECTOR 2P					
* CN463	1-573-261-11	PIN, CONNECTOR 2P					
* CN464	1-573-261-41	PIN, CONNECTOR 2P					
* CN562	1-573-263-21	PIN, CONNECTOR 4P					
		< DIODE >					
D661	8-719-987-63	DIODE	1N4148M				
D662	8-719-987-63	DIODE	1N4148M				
D663	8-719-987-63	DIODE	1N4148M				
D664	8-719-987-63	DIODE	1N4148M				
D666	8-719-114-30	DIODE	RD5.1JS-B2				
D667	8-719-933-74	DIODE	HZS12A2L				
		< IC >					
IC460	8-759-900-72	IC	NE5532P				
IC461	8-759-900-72	IC	NE5532P				
IC560	8-759-900-72	IC	NE5532P				
IC561	8-759-900-72	IC	NE5532P				
		< COIL >					
L470	1-410-970-11	INDUCTOR	6.8uH				
L471	1-410-967-11	INDUCTOR	2.2uH				
L472	1-410-970-11	INDUCTOR	6.8uH				
L473	1-410-970-11	INDUCTOR	6.8uH				
L570	1-410-970-11	INDUCTOR	6.8uH				
L571	1-410-967-11	INDUCTOR	2.2uH				
L572	1-410-970-11	INDUCTOR	6.8uH				
L573	1-410-970-11	INDUCTOR	6.8uH				
		< PHOTO INTERRUPTER >					
PH661	8-719-902-56	DIODE	PC817				
		< TRANSISTOR >					
Q460	8-729-224-61	TRANSISTOR	2SK246-Y				
Q461	8-729-809-29	TRANSISTOR	2SC4159-E				
Q462	8-729-809-26	TRANSISTOR	2SA1606-E				
Q463	8-729-184-53	TRANSISTOR	2SC1845-EA				
Q560	8-729-224-61	TRANSISTOR	2SK246-Y				
Q561	8-729-809-29	TRANSISTOR	2SC4159-E				
Q562	8-729-809-26	TRANSISTOR	2SA1606-E				
Q563	8-729-184-53	TRANSISTOR	2SC1845-EA				
Q661	8-729-900-80	TRANSISTOR	DTC114ES				
Q662	8-729-900-65	TRANSISTOR	DTA144ES				
Q663	8-729-900-65	TRANSISTOR	DTA144ES				
Q664	8-729-900-80	TRANSISTOR	DTC114ES				
Q665	8-729-900-80	TRANSISTOR	DTC114ES				

AUDIO SUB

BALANCE (L)

BALANCE (R)

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
0666	8-729-900-80	TRANSISTOR DTC114ES		R582	1-247-891-00	CARBON 330K 5% 1/4W	
		< RESISTOR >		R583	1-247-700-11	CARBON 100 5% 1/4W	
R460	1-247-713-11	CARBON 1K 5% 1/4W		R584	1-247-700-11	CARBON 100 5% 1/4W	
R461	1-247-713-11	CARBON 1K 5% 1/4W		R585	1-247-713-11	CARBON 1K 5% 1/4W	
R462	1-247-891-00	CARBON 330K 5% 1/4W		R586	1-247-713-11	CARBON 1K 5% 1/4W	
R463	1-247-702-11	CARBON 150 5% 1/4W		R661	1-259-432-11	CARBON 1.5K 5% 1/6W	
R464	1-247-713-11	CARBON 1K 5% 1/4W		△R662	1-212-889-00	FUSIBLE 220 5% 1/4W	F
R465	1-247-713-11	CARBON 1K 5% 1/4W		R663	1-259-468-11	CARBON 47K 5% 1/6W	
R466	1-247-891-00	CARBON 330K 5% 1/4W		R664	1-259-460-11	CARBON 22K 5% 1/6W	
R467	1-247-702-11	CARBON 150 5% 1/4W		R665	1-259-468-11	CARBON 47K 5% 1/6W	
R468	1-247-891-00	CARBON 330K 5% 1/4W		R666	1-259-460-11	CARBON 22K 5% 1/6W	
R469	1-247-891-00	CARBON 330K 5% 1/4W		R667	1-259-468-11	CARBON 47K 5% 1/6W	
R470	1-247-891-00	CARBON 330K 5% 1/4W		△R668	1-212-893-00	FUSIBLE 330 5% 1/4W	F
R471	1-249-586-11	CARBON 27K 5% 1/4W		△R669	1-212-893-00	FUSIBLE 330 5% 1/4W	F
R472	1-247-721-11	CARBON 4.7K 5% 1/4W		R670	1-259-380-11	CARBON 10 5% 1/6W	
R473	1-247-725-11	CARBON 10K 5% 1/4W				< RELAY >	
R474	1-247-704-11	CARBON 220 5% 1/4W		RY460	1-515-727-11	RELAY	
R476	1-247-704-11	CARBON 220 5% 1/4W		RY461	1-515-727-11	RELAY	
△R477	1-212-853-00	FUSIBLE 6.8 5% 1/4W	F	RY560	1-515-727-11	RELAY	
△R478	1-212-853-00	FUSIBLE 6.8 5% 1/4W	F	RY561	1-515-727-11	RELAY	
△R479	1-212-881-11	FUSIBLE 100 5% 1/4W	F			*****	
R480	1-249-465-11	CARBON 47K 5% 1/4W		* 1-641-752-11	BALANCE (L) BOARD	*****	
R481	1-249-586-11	CARBON 27K 5% 1/4W				< CAPACITOR >	
R482	1-247-891-00	CARBON 330K 5% 1/4W		C40	1-107-202-00	MICA 10PF 5% 500V	
R483	1-247-700-11	CARBON 100 5% 1/4W		C41	1-107-202-00	MICA 10PF 5% 500V	
R484	1-247-700-11	CARBON 100 5% 1/4W				< CONNECTOR >	
R485	1-247-713-11	CARBON 1K 5% 1/4W		* CN480	1-573-263-11	PIN, CONNECTOR 4P	
R486	1-247-713-11	CARBON 1K 5% 1/4W				*****	
R560	1-247-713-11	CARBON 1K 5% 1/4W		* 1-641-753-11	BALANCE (R) BOARD	*****	
R561	1-247-713-11	CARBON 1K 5% 1/4W				< CAPACITOR >	
R562	1-247-891-00	CARBON 330K 5% 1/4W		C50	1-107-202-00	MICA 10PF 5% 500V	
R563	1-247-702-11	CARBON 150 5% 1/4W		C51	1-107-202-00	MICA 10PF 5% 500V	
R564	1-247-713-11	CARBON 1K 5% 1/4W				< CONNECTOR >	
R565	1-247-713-11	CARBON 1K 5% 1/4W		* CN580	1-573-263-21	PIN, CONNECTOR 4P	
R566	1-247-891-00	CARBON 330K 5% 1/4W				*****	
R567	1-247-702-11	CARBON 150 5% 1/4W					
R568	1-247-891-00	CARBON 330K 5% 1/4W					
R569	1-247-891-00	CARBON 330K 5% 1/4W					
R570	1-247-891-00	CARBON 330K 5% 1/4W					
R571	1-249-586-11	CARBON 27K 5% 1/4W					
R572	1-247-721-11	CARBON 4.7K 5% 1/4W					
R573	1-247-725-11	CARBON 10K 5% 1/4W					
R574	1-247-704-11	CARBON 220 5% 1/4W					
R576	1-247-704-11	CARBON 220 5% 1/4W					
△R577	1-212-853-00	FUSIBLE 6.8 5% 1/4W	F				
△R578	1-212-853-00	FUSIBLE 6.8 5% 1/4W	F				
△R579	1-212-881-11	FUSIBLE 100 5% 1/4W	F				
R580	1-249-465-11	CARBON 47K 5% 1/4W					
R581	1-249-586-11	CARBON 27K 5% 1/4W					

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

Les composants identifiés par une
marque △ sont critiques pour la
sécurité.
Ne les remplacer que par une pièce
portant le numéro spécifié.

BALANCE SW **BSL** **COAX** **D POWER**

Ref. No.	Part No.	Description	Remark
*	1-641-756-11	BALANCE SW BOARD ***** < CONNECTOR >	
* CN761	1-573-263-41	PIN, CONNECTOR 4P < SWITCH >	
SW761	1-571-083-11	SWITCH, SLIDE (BALANCE OUT)	

*	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	
< CONNECTOR >			
* CN1	1-564-519-11	PLUG, CONNECTOR 4P < DIODE >	
H11	8-719-987-62	DIODE LT140SC-TE84L	
H21	8-719-987-62	DIODE LT140SC-TE84L	
< IC >			
IC11	8-759-055-78	IC TA8407F(EL)	
IC21	8-759-055-78	IC TA8407F(EL)	
< JACK >			
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	

Ref. No.	Part No.	Description	Remark
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	

*	1-641-754-11	COAX BOARD ***** < CAPACITOR >	
C701	1-136-165-00	FILM 0.1uF 5% 50V	
C702	1-136-177-00	FILM 1uF 5% 50V	
C703	1-107-169-00	MICA 100PF 5% 500V	
< CONNECTOR >			
* CN701	1-573-273-11	PIN, CONNECTOR 3P < IC >	
IC701	8-759-917-18	IC SN74HCU04N	
< JACK >			
J701	1-507-567-71	JACK, PIN 1P (DIGITAL OUT COAXIAL) < RESISTOR >	
R701	1-259-401-11	CARBON 75 5% 1/6W	
< COIL >			
T701	1-459-795-11	COIL (WITH CORE)	

*	A-4649-184-A	D POWER BOARD, COMPLETE ***** < BUS BAR >	
* BUS1	1-691-279-11	BUS BAR 5P < CAPACITOR >	
C950	1-107-202-00	MICA 10PF 5% 500V	
C951	1-136-177-00	FILM 1uF 5% 50V	
C952	1-130-483-00	MYLAR 0.01uF 5% 50V	
C953	1-128-217-11	ELECT 12000uF 20% 16V	
C954	1-128-217-11	ELECT 12000uF 20% 16V	
C955	1-124-994-11	ELECT 100uF 20% 10V	
C956	1-162-282-31	CERAMIC 100PF 10% 50V	
C957	1-124-999-11	ELECT 2200uF 20% 10V	
C959	1-162-282-31	CERAMIC 100PF 10% 50V	
C960	1-124-999-11	ELECT 2200uF 20% 10V	
C963	1-124-999-11	ELECT 2200uF 20% 10V	
C965	1-162-294-31	CERAMIC 0.001uF 10% 50V	

D POWER

DISPLAY

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C966	1-126-303-11	ELECT	3. 3uF 20% 50V	Q957	8-729-140-96	TRANSISTOR	2SD774-34
C967	1-126-064-11	ELECT	220uF 20% 63V	Q958	8-729-140-97	TRANSISTOR	2SB734-34
C968	1-126-051-11	ELECT	47uF 20% 35V			< RESISTOR >	
C969	1-136-165-00	FILM	0. 1uF 5% 50V	△R951	1-212-877-11	FUSIBLE	68 5% 1/4W F
C970	1-126-052-11	ELECT	100uF 20% 35V	R952	1-259-446-11	CARBON	5. 6K 5% 1/6W
C971	1-126-022-11	ELECT	47uF 20% 10V	R953	1-215-414-00	METAL	510 1% 1/6W
C972	1-124-994-11	ELECT	100uF 20% 10V	R954	1-215-419-00	METAL	820 1% 1/6W
C973	1-136-165-00	FILM	0. 1uF 5% 50V	R955	1-215-419-00	METAL	820 1% 1/6W
C974	1-136-233-11	FILM	0. 0047uF 2% 100V	R956	1-215-427-00	METAL	1. 8K 1% 1/6W
C975	1-130-483-00	MYLAR	0. 01uF 5% 50V	R957	1-259-380-11	CARBON	10 5% 1/6W
		< CONNECTOR >		R958	1-215-419-00	METAL	820 1% 1/6W
* CN951	1-573-262-11	PIN, CONNECTOR 3P		R959	1-215-425-00	METAL	1. 5K 1% 1/6W
* CN952	1-573-265-11	PIN, CONNECTOR 6P		R960	1-259-380-11	CARBON	10 5% 1/6W
* CN953	1-573-266-11	PIN, CONNECTOR 7P		R961	1-259-444-11	CARBON	4. 7K 5% 1/6W
* CN954	1-573-261-31	PIN, CONNECTOR 2P		R962	1-215-457-00	METAL	33K 1% 1/6W
* CN955	1-573-262-31	PIN, CONNECTOR 3P		R963	1-215-447-00	METAL	12K 1% 1/6W
* CN956	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P		R964	1-259-436-11	CARBON	2. 2K 5% 1/6W
		< DIODE >		R965	1-259-428-11	CARBON	1K 5% 1/6W
D951	8-719-975-85	DIODE	ERB83-004	R966	1-259-468-11	CARBON	47K 5% 1/6W
D952	8-719-975-85	DIODE	ERB83-004	R967	1-215-447-00	METAL	12K 1% 1/6W
D953	8-719-975-85	DIODE	ERB83-004	R968	1-259-468-11	CARBON	47K 5% 1/6W
D954	8-719-975-85	DIODE	ERB83-004	△R969	1-212-950-00	FUSIBLE	4. 7 5% 1/2W F
D955	8-719-988-53	DIODE	LTZ-MR19			< THERMISTOR >	
D956	8-719-200-02	DIODE	10E2	TH951	1-806-882-11	THERMISTOR, POSITIVE	
D957	8-719-115-04	DIODE	RD27JS-B2			*****	
D958	8-719-114-26	DIODE	RD4. 7JS-B2	* A-4649-013-A	DISPLAY BOARD, COMPLETE	*****	
D959	8-719-109-66	DIODE	RD3. 3ES-B2			< CAPACITOR >	
		< IC >		C801	1-164-159-11	CERAMIC	0. 1uF 50V
IC951	8-759-602-01	IC	M5220P	C802	1-164-159-11	CERAMIC	0. 1uF 50V
IC952	8-759-636-16	IC	M51957AL	C803	1-164-159-11	CERAMIC	0. 1uF 50V
IC953	8-759-982-03	IC	RC5532DD	C804	1-162-806-11	CERAMIC	0. 1uF 10% 50V
		< BASE POST >		C805	1-164-159-11	CERAMIC	0. 1uF 50V
LP951	1-535-139-00	BASE POST 22MM (10MM PITCH) 2P				< CONNECTOR >	
LP952	1-535-139-00	BASE POST 22MM (10MM PITCH) 2P		* CN802	1-573-266-11	PIN, CONNECTOR 7P	
		< IC LINK >				< DIODE >	
△PS951	1-532-675-00	LINK, IC 1. 5A		D801	8-719-987-63	DIODE	1N4148M
		< TRANSISTOR >		D802	8-719-987-63	DIODE	1N4148M
Q951	8-729-322-40	TRANSISTOR	2SA1083E	D803	8-719-913-49	LED	EBG5638S
Q952	8-729-905-67	TRANSISTOR	2SD1944-K	D804	8-719-913-47	LED	EAA5638S
Q953	8-729-905-67	TRANSISTOR	2SD1944-K	D805	8-719-913-47	LED	EAA5638S
Q954	8-729-322-40	TRANSISTOR	2SA1083E	D806	8-719-913-49	LED	EBG5638S
Q955	8-729-905-67	TRANSISTOR	2SD1944-K				
Q956	8-729-224-62	TRANSISTOR	2SK246-GR				

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

Les composants identifiés par une
marque △ sont critiques pour la
sécurité.
Ne les remplacer que par une pièce
portant le numéro spécifié.

DISPLAY **FIX** **HP (B)** **HP** **L. MOTOR** **M. VR**

Ref. No.	Part No.	Description	Remark
		< FLUORESCENT INDICATOR >	
FLD801	1-519-688-11	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC801	8-759-070-02	IC MSC62408-039GS-V1K	
IC802	8-741-100-48	IC SBX1610-59	
		< TRANSISTOR >	
Q801	8-729-900-45	TRANSISTOR DTC114EF	
Q802	8-729-900-45	TRANSISTOR DTC114EF	
Q803	8-729-900-45	TRANSISTOR DTC114EF	
Q804	8-729-900-45	TRANSISTOR DTC114EF	
		< RESISTOR >	
R801	1-259-452-11	CARBON 10K 5% 1/6W	
R802	1-259-452-11	CARBON 10K 5% 1/6W	
R803	1-259-500-11	CARBON 1M 5% 1/6W	
R804	1-259-406-11	CARBON 120 5% 1/6W	
R805	1-259-414-11	CARBON 270 5% 1/6W	
R806	1-259-414-11	CARBON 270 5% 1/6W	
R807	1-259-406-11	CARBON 120 5% 1/6W	
		< SWITCH >	
S801	1-572-198-11	SWITCH, KEY BOARD (PLAY MODE)	
S802	1-572-198-11	SWITCH, KEY BOARD (DIGITAL OUTPUT)	
S803	1-572-198-11	SWITCH, KEY BOARD (DISPLAY MODE)	
S804	1-572-198-11	SWITCH, KEY BOARD (OPEN/CLOSE)	
S805	1-572-198-11	SWITCH, KEY BOARD (PLAY)	
S806	1-572-198-11	SWITCH, KEY BOARD (FF)	
S807	1-572-198-11	SWITCH, KEY BOARD (REW)	
S808	1-572-198-11	SWITCH, KEY BOARD (AMS ▶▶)	
S809	1-572-198-11	SWITCH, KEY BOARD (PAUSE)	
S810	1-572-198-11	SWITCH, KEY BOARD (STOP)	
S811	1-572-198-11	SWITCH, KEY BOARD (AMS ◀◀)	
		< VIBRATOR >	
X801	1-577-359-21	VIBRATOR, CERAMIC (4.19 MHz)	

*	1-641-748-11	FIX BOARD *****	
		< CAPACITOR >	
C740	1-107-202-00	MICA 10PF 5% 500V	
C750	1-107-202-00	MICA 10PF 5% 500V	
		< CONNECTOR >	
* CN751	1-573-263-11	PIN, CONNECTOR 4P	

Ref. No.	Part No.	Description	Remark
* CN752	1-573-261-41	PIN, CONNECTOR 2P	
		< DIODE >	
D701	8-719-987-63	DIODE 1N4148M	

*	1-642-213-11	HP(B) BOARD (US, Canadian, AEP: GOLD) *****	
*	1-641-759-11	HP BOARD (AEP) *****	
		< CAPACITOR >	
C490	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C590	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C710	1-164-159-11	CERAMIC 0.1uF 50V	
		< CONNECTOR >	
* CN710	1-573-274-11	PIN, CONNECTOR 4P	
		< JACK >	
J710	1-568-519-61	JACK, LARGE TYPE (US, Canadian, AEP: GOLD)	
	1-568-519-31	JACK, LARGE TYPE (AEP) (PHONES)	

*	1-641-765-11	L. MOTOR BOARD *****	

	1-641-761-11	M. VR BOARD *****	
		< CAPACITOR >	
C761	1-164-159-11	CERAMIC 0.1uF 50V	
		< CONNECTOR >	
* CN490	1-573-274-11	PIN, CONNECTOR 4P	
* CN590	1-573-274-21	PIN, CONNECTOR 4P	
* CN750	1-573-273-11	PIN, CONNECTOR 3P	
		< VARIABLE RESISTOR >	
RV751	1-241-792-11	RES, VAR, CARBBON 20K/20K	

OPT

SERVO (1) (A)

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-641-755-11	OPT BOARD *****					
		< CAPACITOR >					
C704	1-136-165-00	FILM	0.1uF 5% 50V				
C705	1-107-169-00	MICA	100PF 5% 500V				
		< IC >					
IC702	8-759-977-71	IC GP-1F31T					

*	A-4649-006-A	SERVO (1) (A) BOARD, COMPLETE *****					
		< CAPACITOR >					
C101	1-163-133-00	CERAMIC CHIP	470PF 5% 50V				
C102	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V				
C103	1-163-133-00	CERAMIC CHIP	470PF 5% 50V				
C104	1-164-346-11	CERAMIC CHIP	1uF 16V				
C105	1-163-038-00	CERAMIC CHIP	0.1uF 25V				
C106	1-164-346-11	CERAMIC CHIP	1uF 16V				
C107	1-164-346-11	CERAMIC CHIP	1uF 16V				
C108	1-162-294-31	CERAMIC	0.001uF 10% 50V				
C109	1-163-038-00	CERAMIC CHIP	0.1uF 25V				
C110	1-124-584-00	ELECT	100uF 20% 10V				
C111	1-164-346-11	CERAMIC CHIP	1uF 16V				
C112	1-164-346-11	CERAMIC CHIP	1uF 16V				
C113	1-164-346-11	CERAMIC CHIP	1uF 16V				
C114	1-164-346-11	CERAMIC CHIP	1uF 16V				
C115	1-162-806-11	CERAMIC	0.1uF 10% 50V				
C116	1-162-806-11	CERAMIC	0.1uF 10% 50V				
C121	1-163-017-00	CERAMIC CHIP	0.0047uF 5% 50V				
C122	1-163-001-11	CERAMIC CHIP	220PF 10% 50V				
C123	1-163-133-00	CERAMIC CHIP	470PF 5% 50V				
C124	1-163-986-00	CERAMIC CHIP	0.027uF 10% 25V				
C125	1-163-986-00	CERAMIC CHIP	0.027uF 10% 25V				
C141	1-163-038-00	CERAMIC CHIP	0.1uF 25V				
C142	1-163-038-00	CERAMIC CHIP	0.1uF 25V				
C151	1-163-137-00	CERAMIC CHIP	680PF 5% 50V				
C152	1-163-137-00	CERAMIC CHIP	680PF 5% 50V				
C153	1-163-137-00	CERAMIC CHIP	680PF 5% 50V				
C154	1-163-137-00	CERAMIC CHIP	680PF 5% 50V				
C155	1-163-019-00	CERAMIC CHIP	0.0068uF 10% 50V				
C156	1-164-346-11	CERAMIC CHIP	1uF 16V				
C157	1-163-023-00	CERAMIC CHIP	0.015uF 5% 50V				
C158	1-163-809-11	CERAMIC CHIP	0.047uF 10% 25V				
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				
C181	1-164-346-11	CERAMIC CHIP	1uF 16V				
C201	1-163-809-11	CERAMIC CHIP	0.047uF 10% 25V				
C202	1-163-011-11	CERAMIC CHIP	0.0015uF 10% 50V				
C203	1-164-232-11	CERAMIC CHIP	0.01uF 50V				
C204	1-163-117-00	CERAMIC CHIP	100PF 5% 50V				
C205	1-164-489-11	CERAMIC CHIP	0.22uF 10% 16V				
C206	1-164-232-11	CERAMIC CHIP	0.01uF 50V				
C207	1-164-346-11	CERAMIC CHIP	1uF 16V				
C301	1-163-038-00	CERAMIC CHIP	0.1uF 25V				
C302	1-125-622-11	CAP, DOUBLE LAYERS	0.10F				
C303	1-163-038-00	CERAMIC CHIP	0.1uF 25V				
C304	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V				
C305	1-164-346-11	CERAMIC CHIP	1uF 16V				
		< CONNECTOR >					
* CN101	1-573-276-11	PIN, CONNECTOR	6P				
CN102	1-568-799-11	SOCKET, CONNECTOR	16P				
* CN112	1-580-001-11	PIN, CONNECTOR (PC BOARD)	4P				
* CN113	1-580-002-11	PIN, CONNECTOR (PC BOARD)	5P				
* CN141	1-564-704-11	PIN, CONNECTOR (SMALL TYPE)	2P				
* CN201	1-580-007-11	PIN, CONNECTOR (PC BOARD)	10P				
* CN202	1-580-003-11	PIN, CONNECTOR (PC BOARD)	6P				
* CN203	1-564-719-11	PIN, CONNECTOR (SMALL TYPE)	3P				
* CN301	1-691-465-11	PIN, CONNECTOR	9P				
* CN302	1-691-462-11	PIN, CONNECTOR	6P				
		< DIODE >					
D301	8-719-104-34	DIODE	1S2836				
		< IC >					
IC101	8-752-344-48	IC	CXD25010				
IC102	8-759-071-79	IC	BA6297FP-T1				
IC103	8-759-040-83	IC	BA6287F-T1				
IC141	8-759-055-78	IC	TA8407F(EL)				
IC142	8-759-981-92	IC	RC4558M				
IC151	8-759-981-92	IC	RC4558M				
IC152	8-759-981-92	IC	RC4558M				
IC201	8-752-337-26	IC	CXD2500AQ				
IC301	8-759-069-47	IC	M37451M8-174FP				
IC302	8-759-512-81	IC	LH5160N-10L				

SERVO (1) (A)

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< TRANSISTOR >				R165	1-216-081-00	METAL CHIP	22K 5% 1/10W
Q151	8-729-901-06	TRANSISTOR	DTA144EK	R166	1-216-085-00	METAL CHIP	33K 5% 1/10W
Q181	8-729-901-01	TRANSISTOR	DTC144EK	R167	1-216-308-00	METAL CHIP	4.7 5% 1/10W
Q182	8-729-901-06	TRANSISTOR	DTA144EK	R171	1-216-001-00	METAL CHIP	10 5% 1/10W
< RESISTOR >				R172	1-216-001-00	METAL CHIP	10 5% 1/10W
R101	1-216-077-00	METAL CHIP	15K 5% 1/10W	R173	1-216-001-00	METAL CHIP	10 5% 1/10W
R102	1-216-097-00	METAL CHIP	100K 5% 1/10W	R174	1-216-001-00	METAL CHIP	10 5% 1/10W
R103	1-216-077-00	METAL CHIP	15K 5% 1/10W	R175	1-216-001-00	METAL CHIP	10 5% 1/10W
R104	1-216-049-00	METAL CHIP	1K 5% 1/10W	R177	1-216-001-00	METAL CHIP	10 5% 1/10W
R105	1-216-097-00	METAL CHIP	100K 5% 1/10W	R178	1-216-001-00	METAL CHIP	10 5% 1/10W
R106	1-216-085-00	METAL CHIP	33K 5% 1/10W	R179	1-216-001-00	METAL CHIP	10 5% 1/10W
R107	1-216-025-00	METAL CHIP	100 5% 1/10W	R180	1-216-001-00	METAL CHIP	10 5% 1/10W
R108	1-216-049-00	METAL CHIP	1K 5% 1/10W	R181	1-216-295-00	METAL CHIP	0 5% 1/10W
R121	1-216-071-00	METAL CHIP	8.2K 5% 1/10W	R182	1-216-295-00	METAL CHIP	0 5% 1/10W
R122	1-216-071-00	METAL CHIP	8.2K 5% 1/10W	R183	1-216-073-00	METAL CHIP	10K 5% 1/10W
R123	1-216-071-00	METAL CHIP	8.2K 5% 1/10W	R184	1-216-097-00	METAL CHIP	100K 5% 1/10W
R124	1-216-071-00	METAL CHIP	8.2K 5% 1/10W	R191	1-216-295-00	METAL CHIP	0 5% 1/10W
R125	1-216-071-00	METAL CHIP	8.2K 5% 1/10W	R192	1-216-295-00	METAL CHIP	0 5% 1/10W
R126	1-216-071-00	METAL CHIP	8.2K 5% 1/10W	R201	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R127	1-216-069-00	METAL CHIP	6.8K 5% 1/10W	R202	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R128	1-216-069-00	METAL CHIP	6.8K 5% 1/10W	R203	1-216-073-00	METAL CHIP	10K 5% 1/10W
R129	1-216-069-00	METAL CHIP	6.8K 5% 1/10W	R204	1-216-121-00	METAL CHIP	1M 5% 1/10W
R130	1-216-069-00	METAL CHIP	6.8K 5% 1/10W	R205	1-216-105-00	METAL CHIP	220K 5% 1/10W
R131	1-216-069-00	METAL CHIP	6.8K 5% 1/10W	R206	1-216-073-00	METAL CHIP	10K 5% 1/10W
R132	1-216-069-00	METAL CHIP	6.8K 5% 1/10W	R207	1-216-041-00	METAL CHIP	470 5% 1/10W
R133	1-216-053-00	METAL CHIP	1.5K 5% 1/10W	R208	1-216-041-00	METAL CHIP	470 5% 1/10W
R134	1-216-053-00	METAL CHIP	1.5K 5% 1/10W	R209	1-216-041-00	METAL CHIP	470 5% 1/10W
R141	1-216-073-00	METAL CHIP	10K 5% 1/10W	R210	1-216-033-00	METAL CHIP	220 5% 1/10W
R142	1-216-079-00	METAL CHIP	18K 5% 1/10W	R211	1-216-073-00	METAL CHIP	10K 5% 1/10W
R143	1-216-073-00	METAL CHIP	10K 5% 1/10W	R212	1-216-037-00	METAL CHIP	330 5% 1/10W
R144	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	R213	1-216-049-00	METAL CHIP	1K 5% 1/10W
R145	1-216-073-00	METAL CHIP	10K 5% 1/10W	R301	1-216-073-00	METAL CHIP	10K 5% 1/10W
R146	1-216-073-00	METAL CHIP	10K 5% 1/10W	R303	1-216-073-00	METAL CHIP	10K 5% 1/10W
R147	1-216-079-00	METAL CHIP	18K 5% 1/10W	R304	1-216-073-00	METAL CHIP	10K 5% 1/10W
R148	1-216-073-00	METAL CHIP	10K 5% 1/10W	R305	1-216-073-00	METAL CHIP	10K 5% 1/10W
R149	1-216-073-00	METAL CHIP	10K 5% 1/10W	R306	1-216-073-00	METAL CHIP	10K 5% 1/10W
R151	1-216-070-00	METAL CHIP	7.5K 5% 1/10W	R307	1-216-073-00	METAL CHIP	10K 5% 1/10W
R152	1-216-070-00	METAL CHIP	7.5K 5% 1/10W	R308	1-216-073-00	METAL CHIP	10K 5% 1/10W
R153	1-216-070-00	METAL CHIP	7.5K 5% 1/10W	R309	1-216-049-00	METAL CHIP	1K 5% 1/10W
R154	1-216-070-00	METAL CHIP	7.5K 5% 1/10W	R310	1-216-121-00	METAL CHIP	1M 5% 1/10W
R155	1-216-093-00	METAL CHIP	68K 5% 1/10W	R311	1-216-037-00	METAL CHIP	330 5% 1/10W
R156	1-216-085-00	METAL CHIP	33K 5% 1/10W	R312	1-216-073-00	METAL CHIP	10K 5% 1/10W
R157	1-216-117-00	METAL CHIP	680K 5% 1/10W	R313	1-216-049-00	METAL CHIP	1K 5% 1/10W
R158	1-216-097-00	METAL CHIP	100K 5% 1/10W	R314	1-216-073-00	METAL CHIP	10K 5% 1/10W
R159	1-216-083-00	METAL CHIP	27K 5% 1/10W	R315	1-216-073-00	METAL CHIP	10K 5% 1/10W
R160	1-216-049-00	METAL CHIP	1K 5% 1/10W	R316	1-216-073-00	METAL CHIP	10K 5% 1/10W
R161	1-216-095-00	METAL CHIP	82K 5% 1/10W	R317	1-216-073-00	METAL CHIP	10K 5% 1/10W
R163	1-216-076-00	METAL CHIP	13K 5% 1/10W	R318	1-216-073-00	METAL CHIP	10K 5% 1/10W
R164	1-216-085-00	METAL CHIP	33K 5% 1/10W	R319	1-216-073-00	METAL CHIP	10K 5% 1/10W

SERVO (1) (A) SW VARIABLE

Ref. No.	Part No.	Description	Remark
		< VIBRATOR >	
X301	1-577-377-11	VIBRATOR, CERAMIC	

*	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 SW)	
S002	1-571-300-21	SWITCH, ROTARY (OUT SW)	

*	1-641-749-11	VARIABLE BOARD	

		< CONNECTOR >	
* CN753	1-573-263-31	PIN, CONNECTOR 4P	

		MISCELLANEOUS	

△117	1-558-568-21	CORD, POWER (AEP)	
△117	1-690-958-11	CORD, POWER (US, Canadian)	
126	1-533-183-11	HOLDER, FUSE	
△222	8-848-244-11	DEVICE, OPTICAL KSS-272A	
D803	8-719-913-49	DIODE EBG5638S (PLAY)	
D804	8-719-913-47	DIODE EBG5638S (PAUSE)	
D805	8-719-913-47	DIODE EBG5638S (D/O ON)	
D806	8-719-913-49	DIODE EBG5638S (D/O OFF)	
J401	1-563-030-11	CONNECTOR (RECEPTACLE) 3P	
J501	1-563-030-11	CONNECTOR (RECEPTACLE) 3P	
J701	1-568-918-11	JACK, PIN 1P (FIXED R)	
J702	1-568-918-11	JACK, PIN 1P (FIXED L)	
J703	1-568-918-11	JACK, PIN 1P (VARIABLE R)	
J704	1-568-918-11	JACK, PIN 1P (VARIABLE L)	
△PT901	1-450-775-11	TRANSFORMER, POWER (US, Canadian)	
△PT901	1-450-776-11	TRANSFORMER, POWER (AEP)	
△PT901	1-532-215-00	FUSE, TIME-LAG (AEP)	
△PT901	1-532-825-11	FUSE, GLASS TUBE (US, Canadian)	
△S901	1-554-538-00	SWITCH, PUSH (AC POWER) (1 KEY)	

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

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark

		ACCESSORIES & PACKING MATERIALS	

	1-465-871-11	REMOTE COMMANDER (RM-D995) (US, Canadian, AEP: GOLD)	
	1-465-872-11	REMOTE COMMANDER (RM-D996) (AEP: BLACK)	
	1-558-271-11	CORD, CONNECTION	
	3-707-584-01	COVER, BATTERY (AEP: BLACK)	
	3-707-584-11	COVER, BATTERY (US, Canadian, AEP: GOLD)	
	3-750-090-01	INSTRUCTION (Canadian)	
	3-750-411-11	MANUAL, INSTRUCTION	
	3-754-116-11	MANUAL, INSTRUCTION (ENGLISH, SPANISH, FRENCH, PORTUGUESE) (Canadian, AEP)	
	3-754-116-21	MANUAL, INSTRUCTION (ENGLISH) (US)	
	3-754-116-41	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP)	
	3-795-629-11	INSTRUCTION (AEP)	
	4-847-802-00	SCREW	
*	4-928-005-01	CUSHION	
*	4-941-548-01	LABEL, CLASS 1 (AEP)	
*	4-951-272-01	INDIVIDUAL CARTON	
	9-910-999-33	INSTRUCTION (US)	

		HARDWARE LIST	

#1	7-682-664-09	SCREW +PSW 4X14	
#2	7-682-548-04	SCREW +BVTT 3X8 (S)	
#3	7-685-647-79	SCREW +BVTP 3X10 TYPE2 SLIT	
#4	7-682-562-09	SCREW +B 4X10	
#5	7-682-548-09	SCREW +BVTT 3X8 (S)	
#6	7-682-546-09	SCREW +B 3X5	
#7	7-682-549-04	SCREW +BVTT 3X10 (S)	
#8	7-682-547-04	SCREW +B 3X6	
#9	7-684-023-04	N 3, TYPE 2	
#10	7-685-246-14	SCREW +RKTP 3X8 TYPE2 SLIT	
#11	7-682-147-15	SCREW, TR	
#12	7-685-646-79	SCREW, TAPPING	
#13	7-621-775-10	SCREW +B 2.6X4	
#14	7-624-105-04	STOP RING 2.3, TYPE -E	
#15	7-682-547-09	SCREW +BVTT 3X6 (S)	
#16	7-685-131-19	SCREW +BTP 2.6X4 TYPE2 N-S	
#17	7-688-003-12	W 3, MIDDLE	
#18	7-682-544-04	SCREW +P 3X3	
#19	7-621-734-09	SET-SCT, HEX. 2.6X3	
#20	7-621-770-XX	SCREW +P 2.6X8	
#21	7-685-132-19	+ PTPWH (2.6X5)	
#22	7-621-770-67	SCREW +BVTT 2.6X6 (S)	

1516

GDP-X779ES

SONY. SERVICE MANUAL

*US Model
Canadian Model
AEP Model*

SUPPLEMENT-1

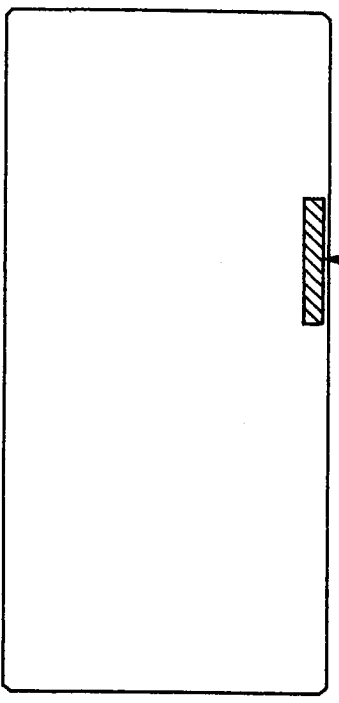
File this Supplement with the Service Manual.

Subject : Change of AUDIO board

New type identification :

[AUDIO BOARD] — Conductor side —

1-641-747-15,16

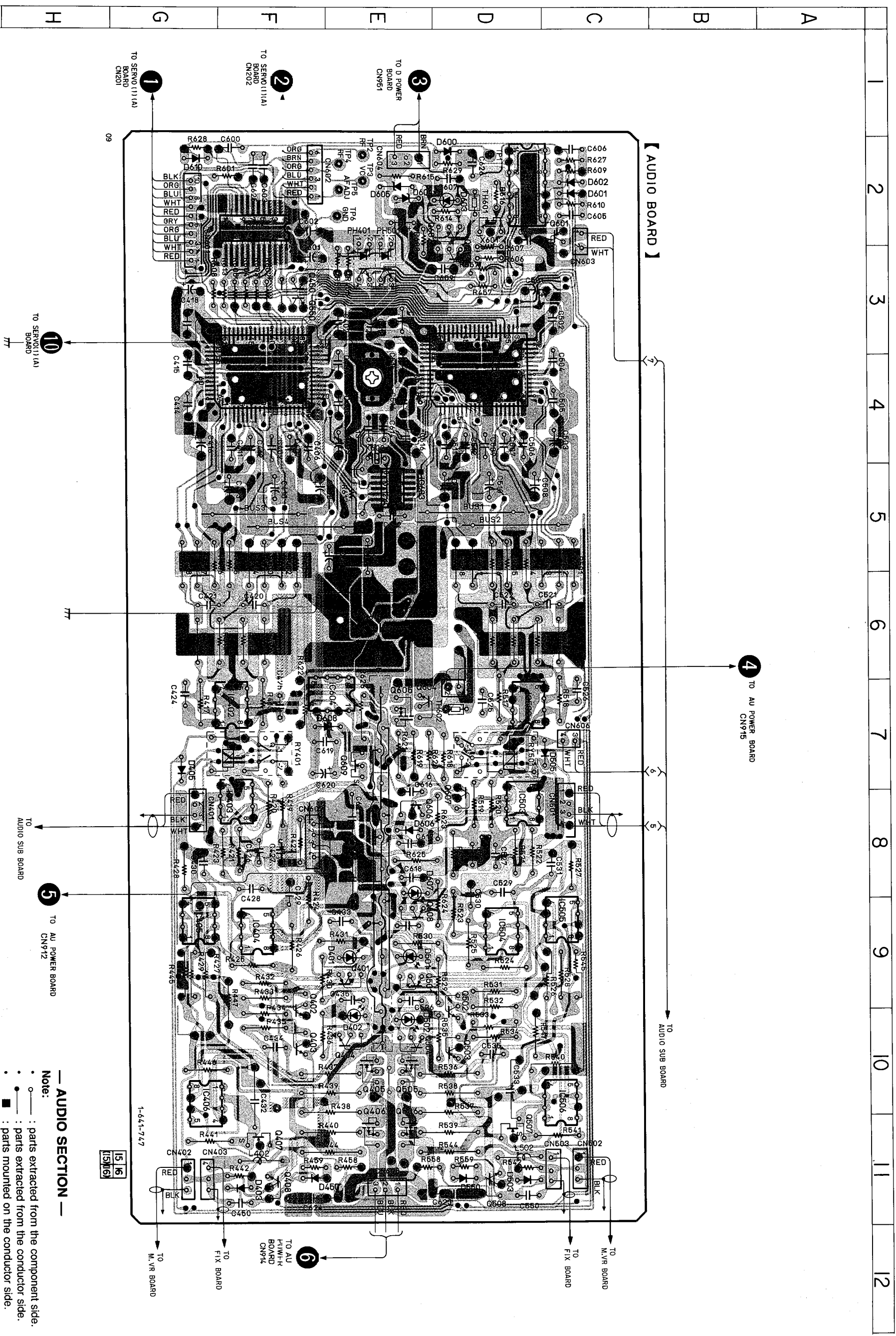


9-957-137-81

Sony Corporation
Consumer A&V Products Company
Home A&V Products Div.

English
944097582-1
Printed in Germany
© 1994. 8
Published by Home A&V Products Div.
Quality Engineering Dept.

PRINTED WIRING BOARDS — AUDIO SECTION —



【 AUDIO BOARD 】

— AUDIO SECTION —

- Note:
- : parts extracted from the component side.
 - : parts extracted from the conductor side.
 - : parts mounted on the conductor side.
 - ⊗ : Through hole.
 - ⊙ : Pattern from the side which enable seeing.
 - ▨ : Pattern of the rear side.

15 16
15M 6

1-641-747

TO SERVO(11)1A1
BOARD
CN201

TO SERVO(11)1A1
BOARD
CN202

TO D POWER
BOARD
CN951

TO AU POWER BOARD
CN975

TO AU POWER BOARD
CN972

TO AUDIO SUB BOARD

TO M.VR BOARD
TO FIX BOARD

TO M.VR BOARD
TO FIX BOARD

TO SERVO(11)1A1
BOARD
77

77

A B C D E F G H

1 2 3 4 5 6 7 8 9 10 11 12

CDP-X779ES

SONY SERVICE MANUAL

US Model
Canadian Model
AEP Model

CORRECTION-1

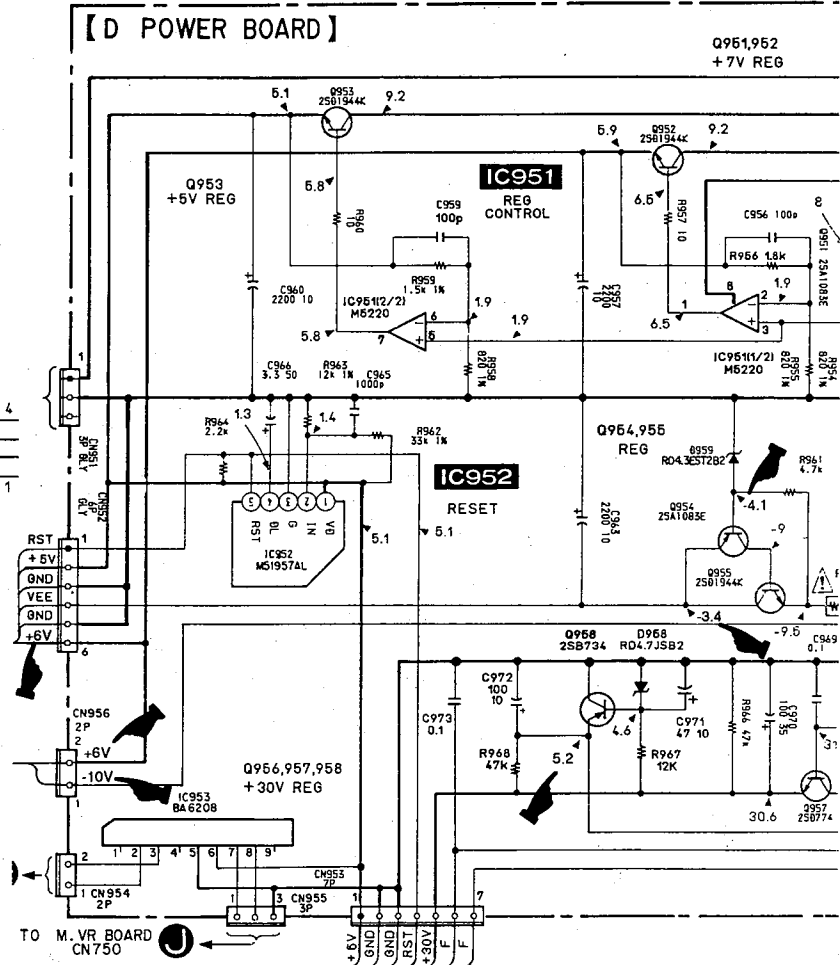
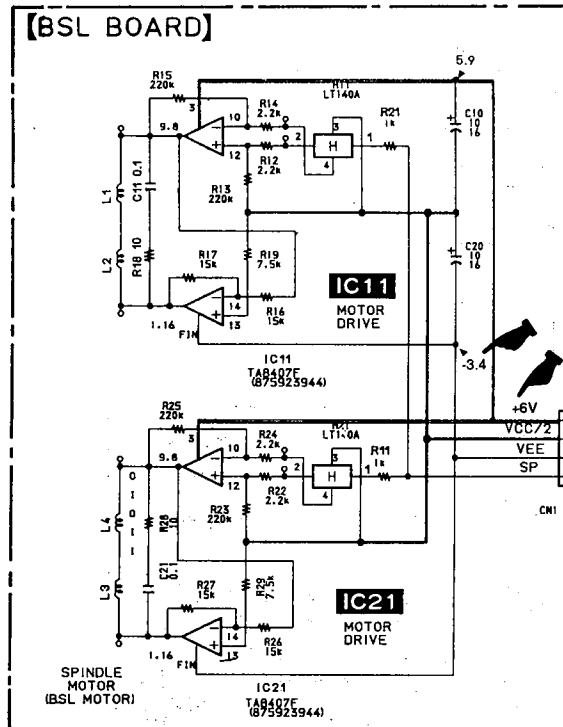
Please correct your Service Manual.

3-5. SCHEMATIC DIAGRAM — DIGITAL SECTION —

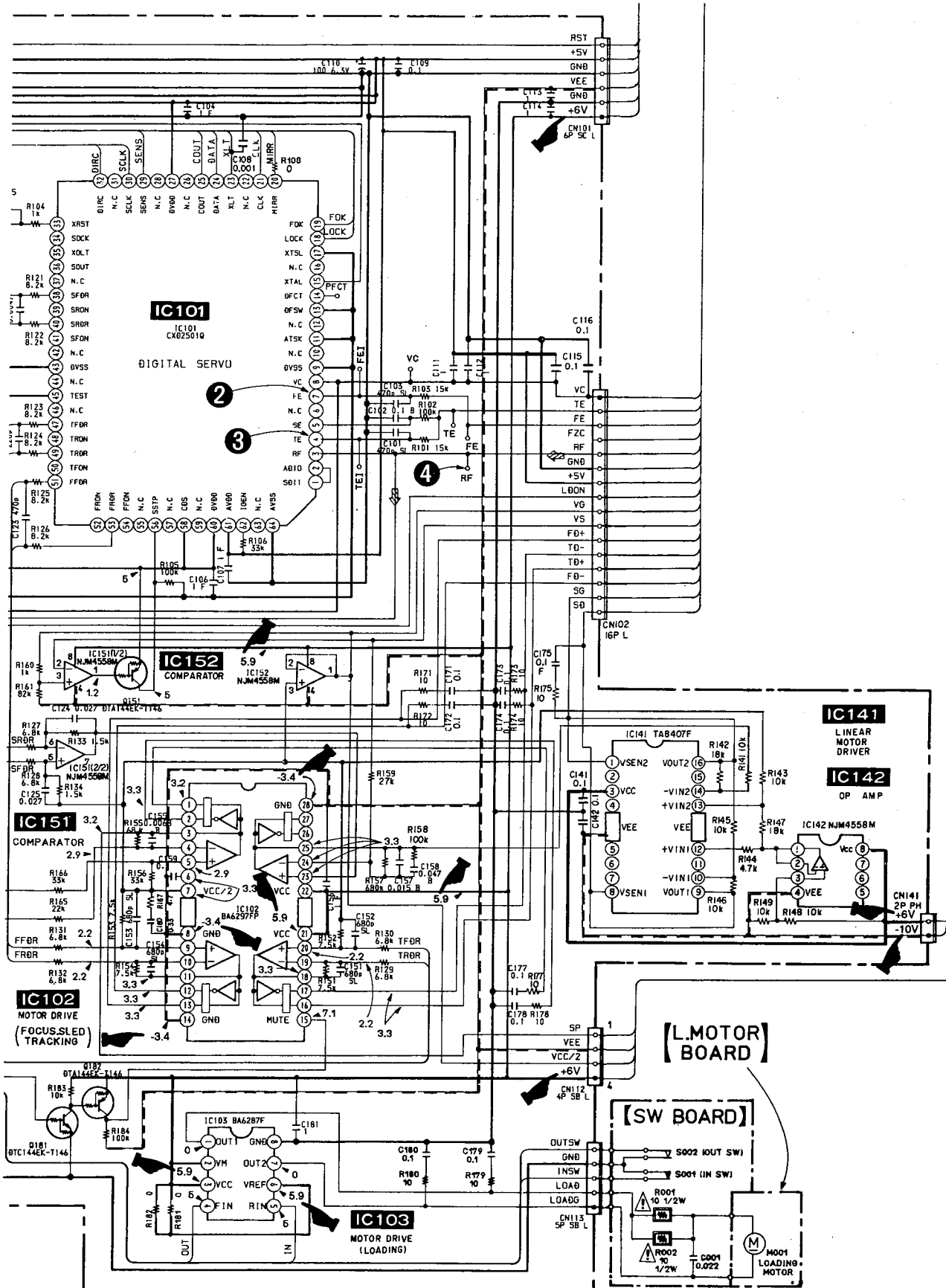
➤ : Changed portion

• BSL BOARD (Page 22 Address G-20)

• D POWER BOARD (Page 23 Address D-25)



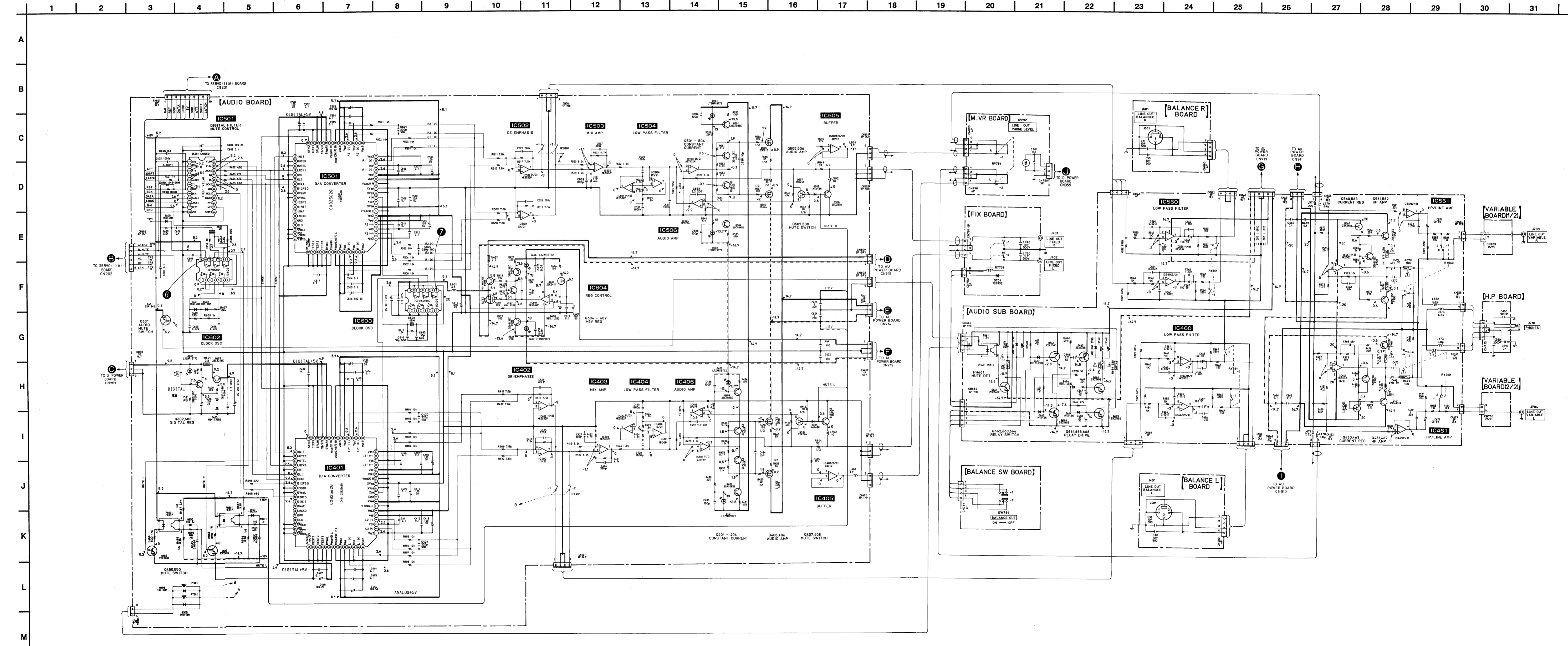
• SERVO (1) (A) BOARD (Page 22 Address K-13)



<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>				<u>Remark</u>
R604	1-259-420-11	CARBON	470	5%		1/6W
R605	1-259-420-11	CARBON	470	5%		1/6W
R606	1-259-416-11	CARBON	330	5%		1/6W
R607	1-259-448-11	CARBON	6.8K	5%		1/6W
R608	1-259-424-11	CARBON	680	5%		1/6W
R609	1-259-428-11	CARBON	1K	5%		1/6W
R610	1-259-488-11	CARBON	330K	5%		1/6W
R613	1-259-426-11	CARBON	820	5%		1/6W
R614	1-259-412-11	CARBON	220	5%		1/6W
R615	1-259-444-11	CARBON	4.7K	5%		1/6W
R616	1-259-380-11	CARBON	10	5%		1/6W
R617	1-249-947-11	CARBON	10K	1%		1/4W
R618	1-247-700-11	CARBON	100	5%		1/4W F
R619	1-247-700-11	CARBON	100	5%		1/4W F
R620	1-247-721-11	CARBON	4.7K	5%		1/4W F
R621	1-247-721-11	CARBON	4.7K	5%		1/4W F
R622	1-247-700-11	CARBON	100	5%		1/4W F
R623	1-249-907-11	CARBON	220	1%		1/4W
R624	1-249-907-11	CARBON	220	1%		1/4W
R625	1-249-497-11	CARBON	33K	5%		1/4W
R626	1-247-700-11	CARBON	100	5%		1/4W F
R627	1-259-476-11	CARBON	100K	5%		1/6W
R628	1-259-488-11	CARBON	330K	5%		1/6W
R629	1-259-484-11	CARBON	220K	5%		1/6W
< RELAY >						
RY401	1-515-804-11	RELAY				
RY501	1-515-804-11	RELAY				
< THERMISTOR >						
TH601	1-806-882-11	THERMISTOR, POSITIVE				
TH602	1-806-882-11	THERMISTOR, POSITIVE				
< VIBRATOR >						
X601	1-577-685-11	FILTER, CRYSTAL (16MHz)				
X602	1-577-686-11	VIBRATOR, CRYSTAL (45MHz)				

3-4. SCHEMATIC DIAGRAM — AUDIO SECTION —

- Refer to page 29 for IC BLOCK DIAGRAM
- Refer to page 32 for Semiconductor Lead Layouts
- Refer to page 31 for Waveform



— AUDIO SECTION —

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 $1/4\text{W}$ or less unless otherwise specified.
- Δ : internal component.
- --- : fusible resistor. All $1/4\text{W}$.

Note:

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

Note:

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

---: B+ line
 ---: B- line
 Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
 no mark : STOP
 < : PLAY
 (): During load-out operation
 ((): During load-in operation
 (((): During load-in operation

Circled numbers refer to waveforms.

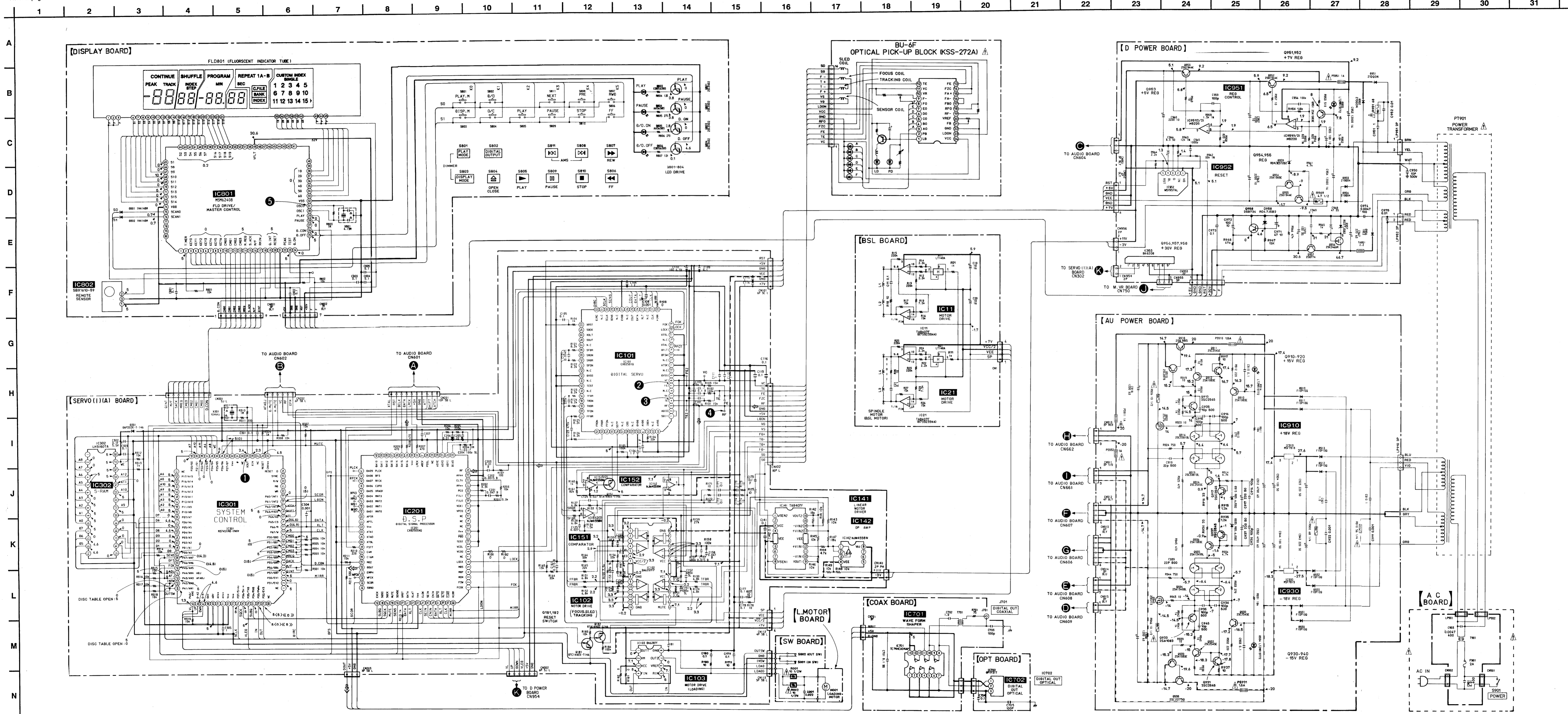
Signal path.

CD
 <--> : digital out

Resistors which are in the 600s and have no specifications are below $1/4\text{W}$. Those which are not in the above range and have no specifications are $1/4\text{W}$.

3-5. SCHEMATIC DIAGRAM — DIGITAL SECTION —

- Refer to page 29 for IC BLOCK DIAGRAM
- Refer to page 32 for Semiconductor Lead Layouts
- Refer to page 31 for Waveform



— DIGITAL SECTION —

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.
- R_{25} : 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.

Note:
Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

— B+ line
— B- line
Voltage and waveforms are dc with respect to under no-signal (detuned) conditions.
no mark : STOP
< : PLAY
() : During load-out operation
() : During load-in operation
Signal path.
 R_{25} : CD
 R_{25} : digital out
Those of the audio power board which have no specifications are 1/2W.

CDP-X779ES

SONY
SERVICE MANUAL

US Model
Canadian Model
AEP Model

CORRECTION-2

File this Correction with Service Manual.

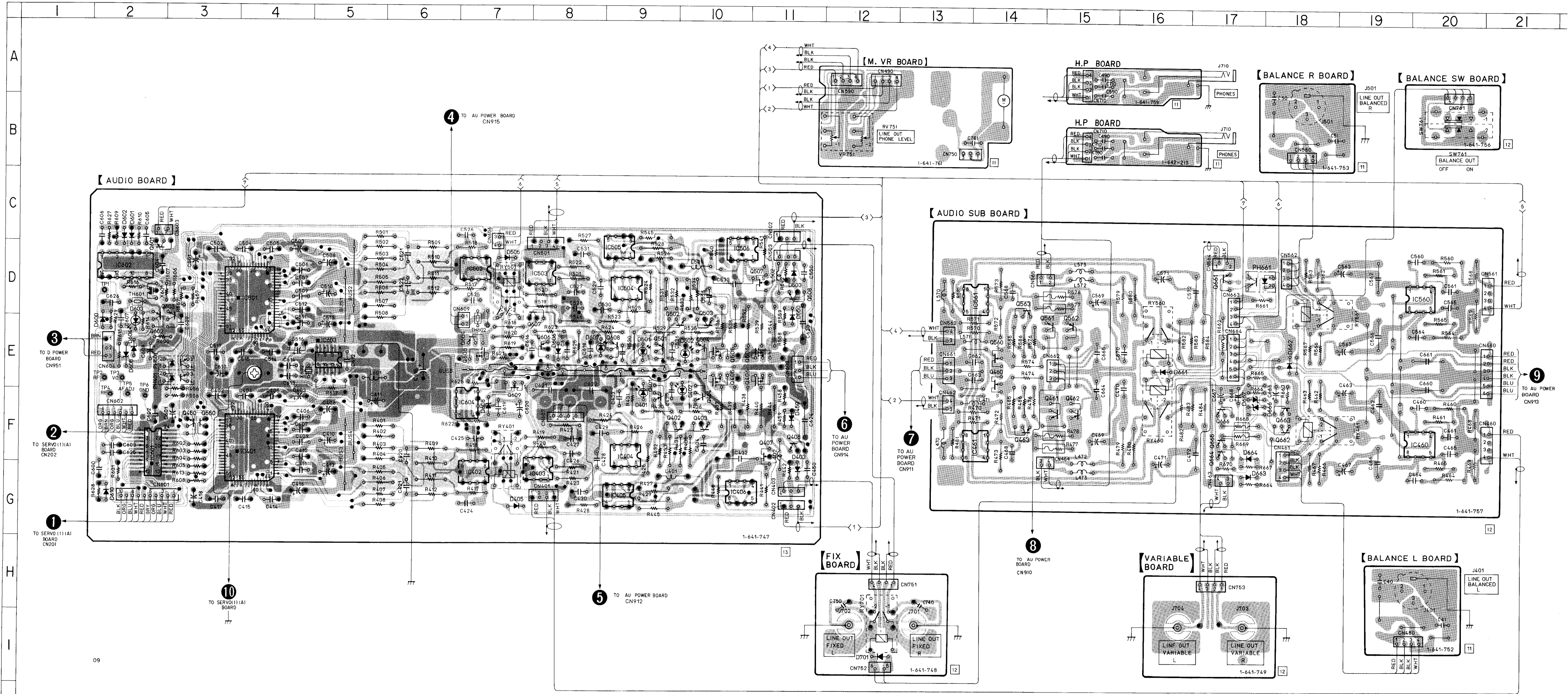
Refer this correction manual for printed wiring board-Audio section
due to error of printing on page 12, 13 & 14 which is previous issued.

3-3. PRINTED WIRING BOARD —Audio Section—

— AUDIO SECTION —

Note:

- : parts extracted from the component side. ■ : parts mounted on the conductor side. ▨ : Pattern from the side which enable seeing.
- : parts extracted from the conductor side. ● : Through hole. ▩ : Pattern of the rear side.



09

— AUDIO SECTION —

- Note:
- All capacitors are in μF unless otherwise noted. pF , μF , nF , pF are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
 - : B+ Line
 - - - - : B- Line
 - Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
 - no mark : STOP
 - Circled numbers refer to waveforms.
 - Signal path
 - ⇒ : CD

SCHMATIC DIAGRAM — AUDIO SECTION —

— AUDIO SECTION —

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D401	F-9	Q401	F-9
D402	F-10	Q402	F-9
D403	G-11	Q403	F-10
D405	G-7	Q404	F-10
D450	F-11	Q405	E-10
D501	E-9	Q406	E-11
D502	E-10	Q407	F-11
D503	D-11	Q408	F-11
D505	D-7	Q450	F-3
D550	D-11	Q480	E-14
D800	E-2	Q481	F-15
D801	C-2	Q482	F-15
D802	C-2	Q483	F-14
D803	E-2	Q501	E-9
D804	E-2	Q502	E-10
D805	E-2	Q503	E-10
D806	E-8	Q504	E-10
D807	E-8	Q505	E-10
D808	F-7	Q506	E-11
D810	G-2	Q507	D-11
D881	E-18	Q508	D-11
D882	E-18	Q550	F-3
D883	G-17	Q580	E-14
D884	F-17	Q581	E-15
D886	F-17	Q582	E-15
D887	F-17	Q583	D-14
D701	I-12	Q801	D-2
		Q802	E-2
		Q803	E-3
IC401	F-4	Q804	E-7
IC402	G-7	Q805	E-7
IC403	G-8	Q806	E-8
IC404	F-9	Q807	E-8
IC405	G-9	Q808	E-9
IC406	G-10	Q809	E-7
IC480	F-20	Q861	D-17
IC481	F-14	Q862	F-18
IC501	D-4	Q863	F-18
IC502	D-7	Q864	F-17
IC503	D-8	Q865	F-17
IC504	D-9	Q866	F-17
IC505	D-9	Q868	F-17
IC506	D-10		
IC580	D-20		
IC581	D-14		
IC801	F-2		
IC802	D-2		
IC803	E-5		
IC804	F-7		
PH401	E-3		
PH501	E-3		
PH881	D-17		

