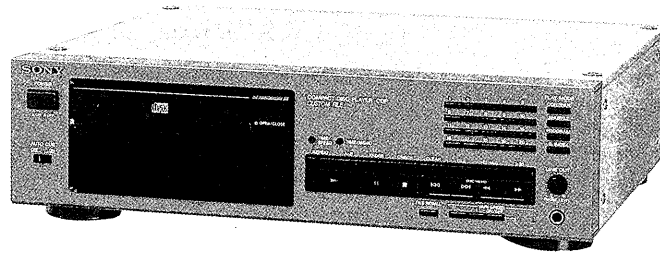


CDP-2700

SERVICE MANUAL

US Model
Canadian Model
UK Model
E Model



Model Name Using Similar Mechanism	CDP-X222ES
CD Mechanism Type	CDM11E-5BD3
Optical Pick-Up Block Type	BU-5BD3

SPECIFICATIONS

General

Power requirements	110 – 120 V AC or 220 – 240 V AC, 50/60 Hz
Power Consumption	24 W
Dimensions	About 430 x 125 x 375 mm (w/h/d) (17 x 5 x 14 7/8 inches) Including projecting parts and controls
Weight	About 10.7 Kg (23 lbs 10 oz)

Signal

Frequency response	2 Hz – 20 kHz \pm 0.3 dB
Signal to noise ratio	More than 100 dB
Dynamic range	More than 98 dB
Harmonic distortion	Less than 0.0040 %
Channel separation	More than 90 dB

Connectors

Analog Audio Output

0 dBs = 0.775 V

Connector or jack	Type	Maximum output	Load impedance
LINE OUT L/CH-1, R/CH-2 (fixed)	XLR-3-32 or equivalent	+ 15 dBs, load impedance 600 ohms	More than 10 kilo-ohms
	Phono jack		
MONITOR OUT L/CH-1, R/CH-2 (variable)	Phono jack	+ 8.5 dBs, load impedance 50 kilo-ohms	More than 10 kilo-ohms
Headphones out	Stereo phone jack	15 mW	32 ohms

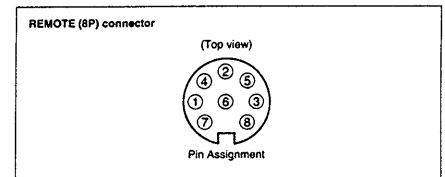
Digital Audio Output (AES/EBU or IEC-958 selectable)

Connector	Type	Level	Format	Impedance	Transfer rate
AES/EBU DIGITAL OUT	XLR-3-32 or equivalent	RS-422	AES/EBU format	20 ohms, balanced	2.822 Mbit/sec
UNBALANCED DIGITAL OUT	phono jack	1.0 Vp-p	IEC-958 format	75 ohms, unbalanced	1.411 Mbit/sec

AC Input

Connector	Type	Specification
~ AC IN	3-pin	110 – 120 V AC or 220 – 240 V AC, 50/60 Hz

Remote



Pin Number	Mode 1	Mode 2
①	PLAY COMMAND IN	PLAY/STOP COMMAND IN PLAY/STOP
②	STOP COMMAND IN	IC
③	NC	←
④	PLAY STATUS OUT	←
⑤	STOP STATUS OUT	←
⑥	NC	←
⑦	+5 V OUT	+5 V OUT
⑧	GND	GND

NC: NO CONNECTION
IC: INNER CONNECTION

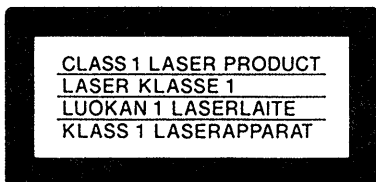
— Continued on next page —

COMPACT DISC PLAYER
SONY®

Accessories Supplied

For European model: AC power cord (2)
 For U.S.A. and Canadian model: AC power cord (1)
 AC plug adaptor (1)
 Rack mount adaptor (1) (including four screws (M4 x 25) with washers, four screws (M5 x 12) and four washers)
 Instruction manual (1)

For the United Kingdom



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

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-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.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check 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 microamperes). 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 2V AC range are suitable. (See Fig. A)

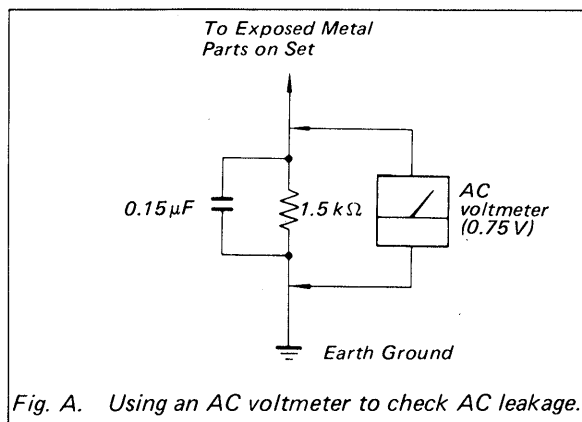



Fig. A. Using an AC voltmeter to check AC leakage.

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.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

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

CAUTION

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

1. Laser Diode Properties

- Material: GaAlAs
- Wavelength: 780 nm
- Emission Duration: continuous
- Laser Output Power: less than 44.6 μW *

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

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

BESKYTTELSE AF ØJNE MOD LASERSTRÅLING UNDER SERVICE

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

Følg iverigt instruktionerne i servicemanualen.

ADVARSEL!!

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

1. Laser-dioe data

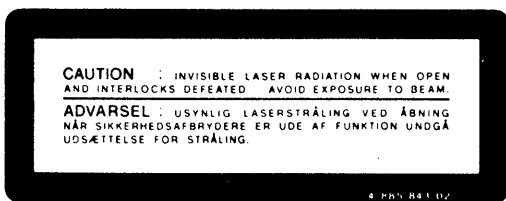
- Materiale: GaAlAs
- Bølgelængde: 780 nm
- Udstråling: Kontinuerlig
- Laseroutput: Max. 0,4 mW*
- * Målt i 1,6 mm afstand fra overfladen af objektiv-linsen på den optiske pick-up enhed.
- Klassifikation: Klasse IIIb.

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

LASER ADVARSEL MÆRKNING

Følgende mærkning findes indvendig i apparatet:

1. Advarsel Mærkning



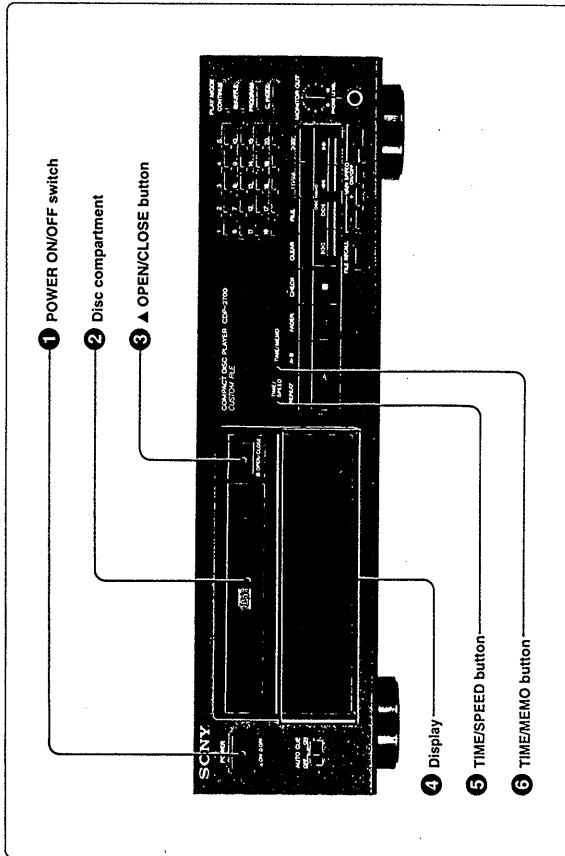
VAROITUS: Laite sisältää, laserdiodin, joka lähettää (näkyvätöntä) silmille vaarallista lasersäteilyä.

SECTION 1
GENERAL

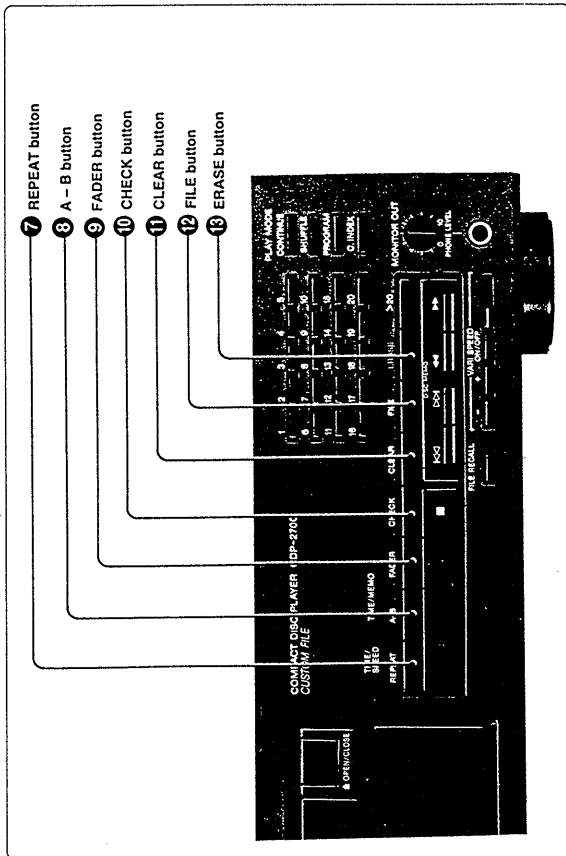
This section is extracted from instruction manual.

Function of Parts and Controls

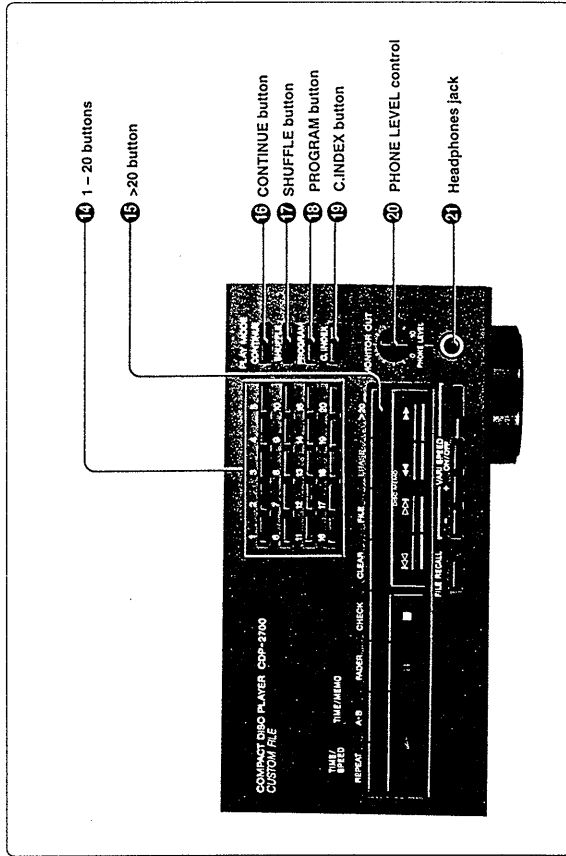
Function of Parts and Controls on the Front Panel



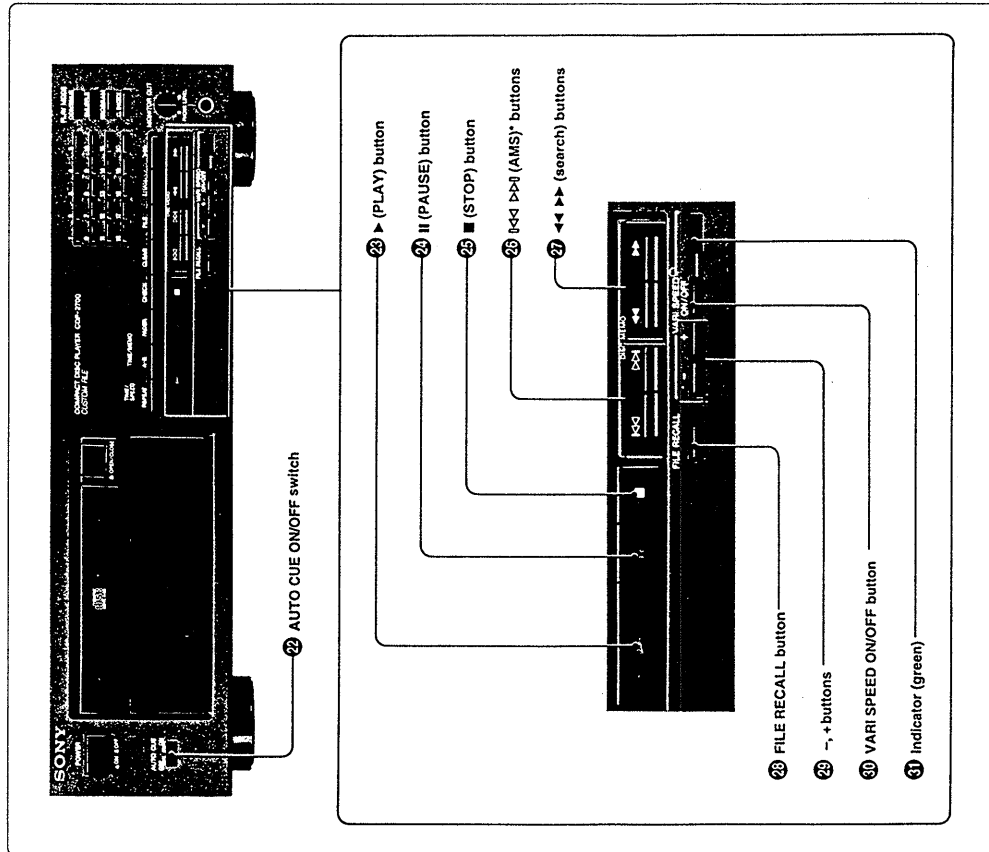
- 1** POWER ON/OFF switch
Turns on/off the unit.
- 2** Disc compartment
Holds a compact disc.
- 3** ▲ OPEN/CLOSE button
Opens and closes the disc compartment.
- 4** Display
See 3-3-1 "Display Window"
- 5** TIME/SPEED button
See 4-8 "Variable Speed Play".
- 6** TIME/MEMO button
See 3-3-2 "To Change the Display Information"



- 7 REPEAT button**
Press to repeat the current play mode.
- 8 A - B button**
Designates the start point (A) and the end point (B) for A ↔ B repeat play.
- 9 FADER button**
Press to fade in or fade out play.
- 10 CHECK button**
Press to:
 - Check the selections programmed.
 - Select the custom index number you want to delete.
 - Release rehearsal play for custom index play.
- 11 CLEAR button**
Press to:
 - Erase a selection or the last selections in a program.
 - Erase a letter and make space for disc memo.
- 12 FILE button**
Press to store each item of the custom files.
- 13 ERASE button**
 - Erases each item (disc memo, custom indexes, and program or delete bank) of the custom files.
 - To erase all custom files of a disc at once: Press the FILE RECALL button without the disc in the player, then press the ERASE button.
 - To erase all custom files or to reset memory of all discs: Press the POWER switch to turn on the player while keeping the ERASE and FILE buttons pressed.



- 14 1 - 20 buttons**
Press to designate the selection or custom index numbers.
- 15 >20 button**
Press when the selection number is over 20.
Example: To play from selection No. 25:
Press >20, 2, and 5
To play from selection No. 30:
Press >20, 3, and 10
- 16 CONTINUE button**
 - Press to enjoy continuous play mode (to play all the selections on a disc in consecutive order).
 - Cancels shuffle/program/custom index play and returns to the continuous play mode.
- 17 SHUFFLE button**
Press to enjoy shuffle play mode (to play the selections in random order).
- 18 PROGRAM button**
Press to enjoy program play mode.
- 19 C-INDEX button**
Press to enjoy custom index play mode.
- 20 PHONE LEVEL control**
Adjusts the audio output level of the headphones jack and MONITOR OUT jacks.
- 21 Headphones jack (stereo phone jack)**
Connects headphones with a phone plug to monitor audio output.



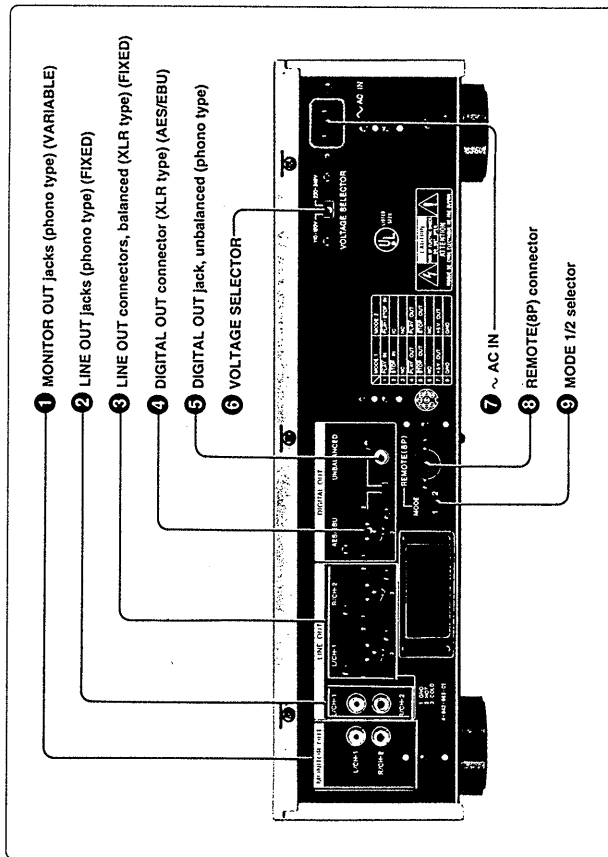
- 22 AUTO CUE ON/OFF switch**
Set to ON to start playing selections only from where the sound is detected.
- 23 ► (PLAY) button**
Starts disc play and resumes play after pause.
- 24 || (PAUSE) button**
Pauses play and resumes play after pause.
- 25 ■ (STOP) button**
Stops play or erases the program.
- 26 [◀◀ ▶▶] (AMS)* buttons**
Press to:
 - Find the beginning of another selection during play.
 - Move the cursor for disc memo.
 - Choose selection and check the time for program edit.
- 27 ◀◀ ▶▶ (search) buttons**
Press to:
 - Go back or go forward quickly.
 - Select a letter or symbol for disc memo.
- 28 FILE RECALL button**
- 29 - buttons**
Change the playback speed.
- 30 VARI SPEED ON/OFF button**
Set to ON to change the playback speed.
- 31 Indicator (green)**
Lights when the playback speed is changed.

- 23 FILE RECALL button**
Press to:
 - Recall the custom file (only program or delete bank).
 - Check the items of the custom files. (See 5-1-3 "Checking or Erasing the Custom Files".)
 - Erase all custom files of a disc at once. (See 5-1-3 "Checking or Erasing the Custom Files".)

* AMS is the abbreviation of Automatic Music Sensor.

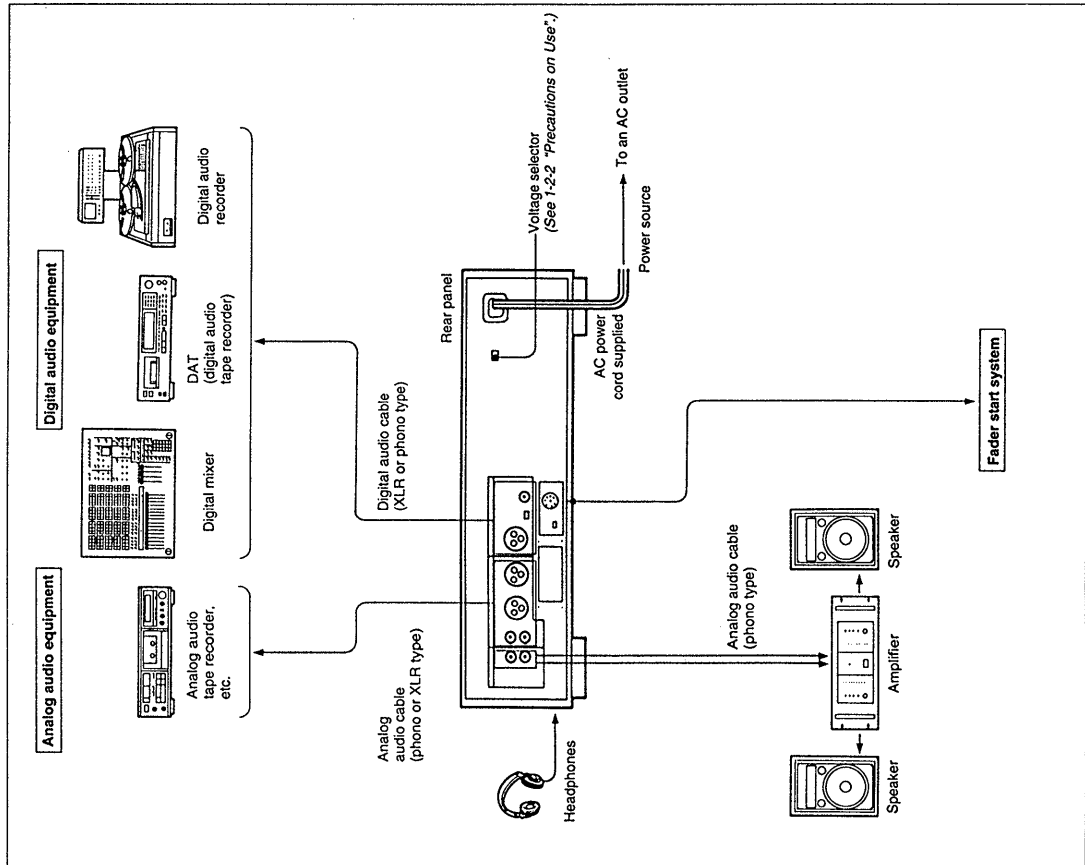
Functions of Parts and Jacks on the Rear Panel

For functions of parts and jacks, see next page.



- 1 MONITOR OUT jacks (phono type) (VARIABLE)**
Connect to an amplifier in a monitor system. Level is controlled by the PHONE (headphones) LEVEL control on the front panel.
- 2 LINE OUT jacks (phono type) (FIXED)**
Connect to an analog audio equipment.
- 3 LINE OUT connectors, balanced (XLR type) (FIXED)**
Connect to an analog audio equipment with balanced input jacks.
- 4 DIGITAL OUT connector (XLR type) (AES/EBU)**
Connect to an audio/video equipment (digital mixer or DAT, digital VTR) with AES/EBU format digital audio input connector (XLR type).
- 5 DIGITAL OUT jack, (IEC-958) unbalanced (phono type)**
Connect to an audio equipment with digital input jacks.
- 6 VOLTAGE SELECTOR**
Set the selector to 110 – 120 V or 220 – 240 V depending on your local power supply.
- 7 ~ AC IN**
Connect to the AC outlet using the supplied AC power cord.
- 8 REMOTE(8P) connector**
Connect to a compact disc fader unit or mixing console for starting.
- 9 MODE 1/2 selector**
Select the mode 1 or 2 depending on the fader start system you are using.

Connection Diagram



Connecting Cables

This unit has four different types of connector; each accepts a different cable. See the following table and make sure you use the right type of cables for connections.

Connector	Cable
MONITOR OUT or LINE OUT (Phono type)	<p>Audio connecting cord (RK-C505KS/510KS/515KS, optional)</p> <p>• Cord plugs and jacks are color coded: Red plugs and jacks are for the right channel(R) and white ones are for the left channel(L).</p>
DIGITAL OUT UNBALANCED (IEC-958)	<p>Coaxial digital connecting cable (VMC-1ES/3ES/6ES, optional)</p> <p>DIGITAL OUT UNBALANCED IEC-958</p>
LINE OUT (XLR type)	<p>Analog audio cannon cable (EC-0.5XLR2, 5XLR2, 10XLR2 optional)</p> <p>LINE OUT L/CH-1, R/CH-2</p>
DIGITAL OUT AES/EBU (XLR type)	<p>Digital audio cannon cable (ECD-3C/10C/30 C, optional)</p> <p>DIGITAL OUT AES/EBU</p>

Note on digital audio signal

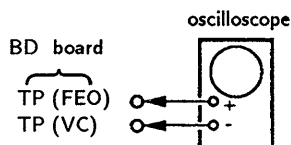
The DIGITAL OUT connectors accept stereo signal (L/R) by connecting one cable for a connector.

SECTION 2 ELECTRICAL BLOCK CHECKING

Note :

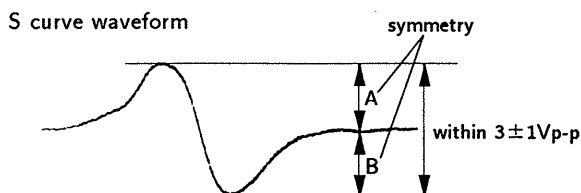
1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than $10M\Omega$ impedance.
4. Clean an object lens by an applicator with neutral detergent when 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 $3 \pm 1V_{p-p}$.

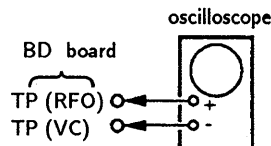


5. After check, remove the lead wire connected in step 2.

Note : • Try to 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

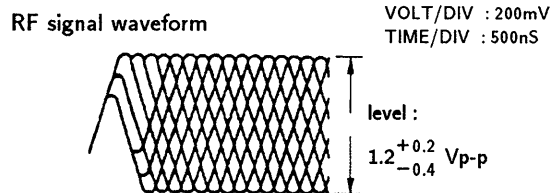


Procedure :

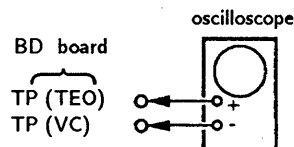
1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note :

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

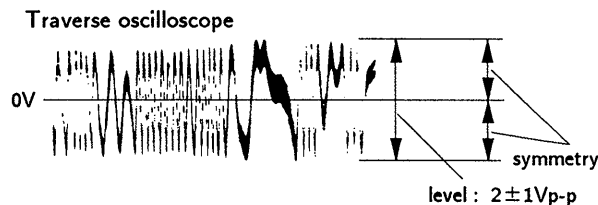


E-F Balance Check



Procedure :

1. Connect test point TP (ADJ) to ground and TP (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 oscilloscope waveform is symmetrical on the top and bottom in relation to 0V, and check this level.

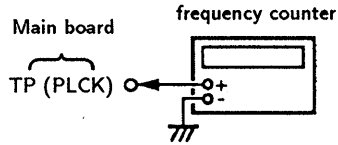


6. Remove the lead wire connected in step 1.

RF PLL Free-run Frequency Check

Procedure :

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



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

Focus/Tracking Gain

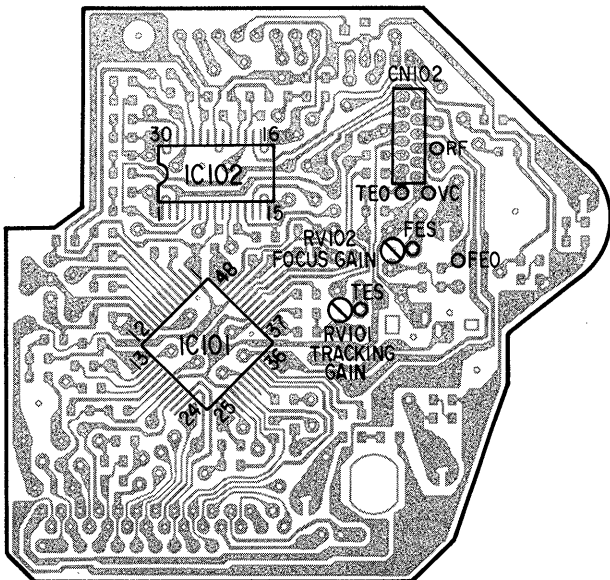
This gain has a margin, so even if it is slightly off. There is no problem.

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.

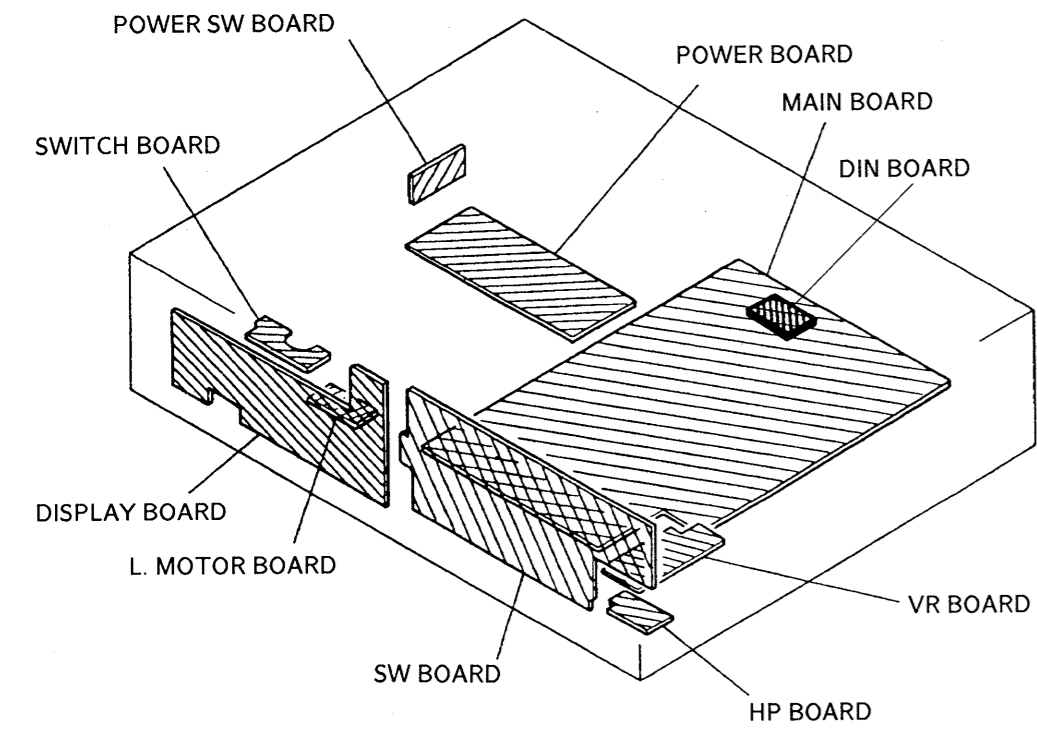
Adjustment Location

BD BOARD - conductor side -

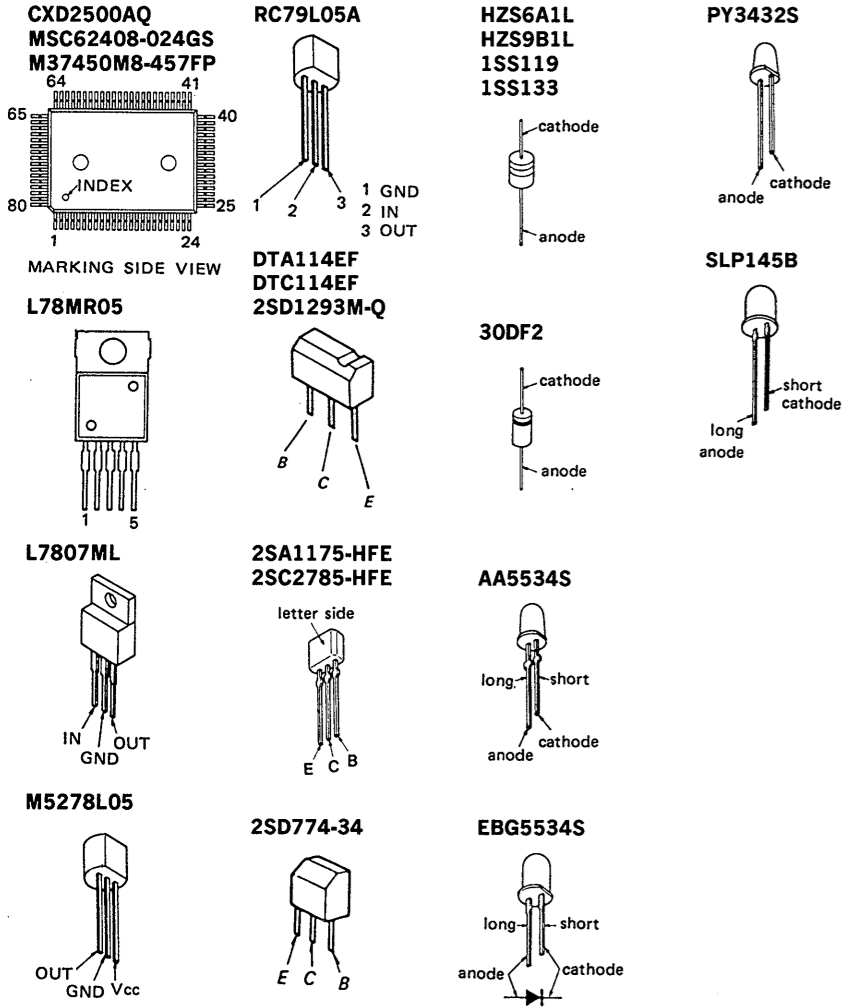


SECTION 3 DIAGRAMS

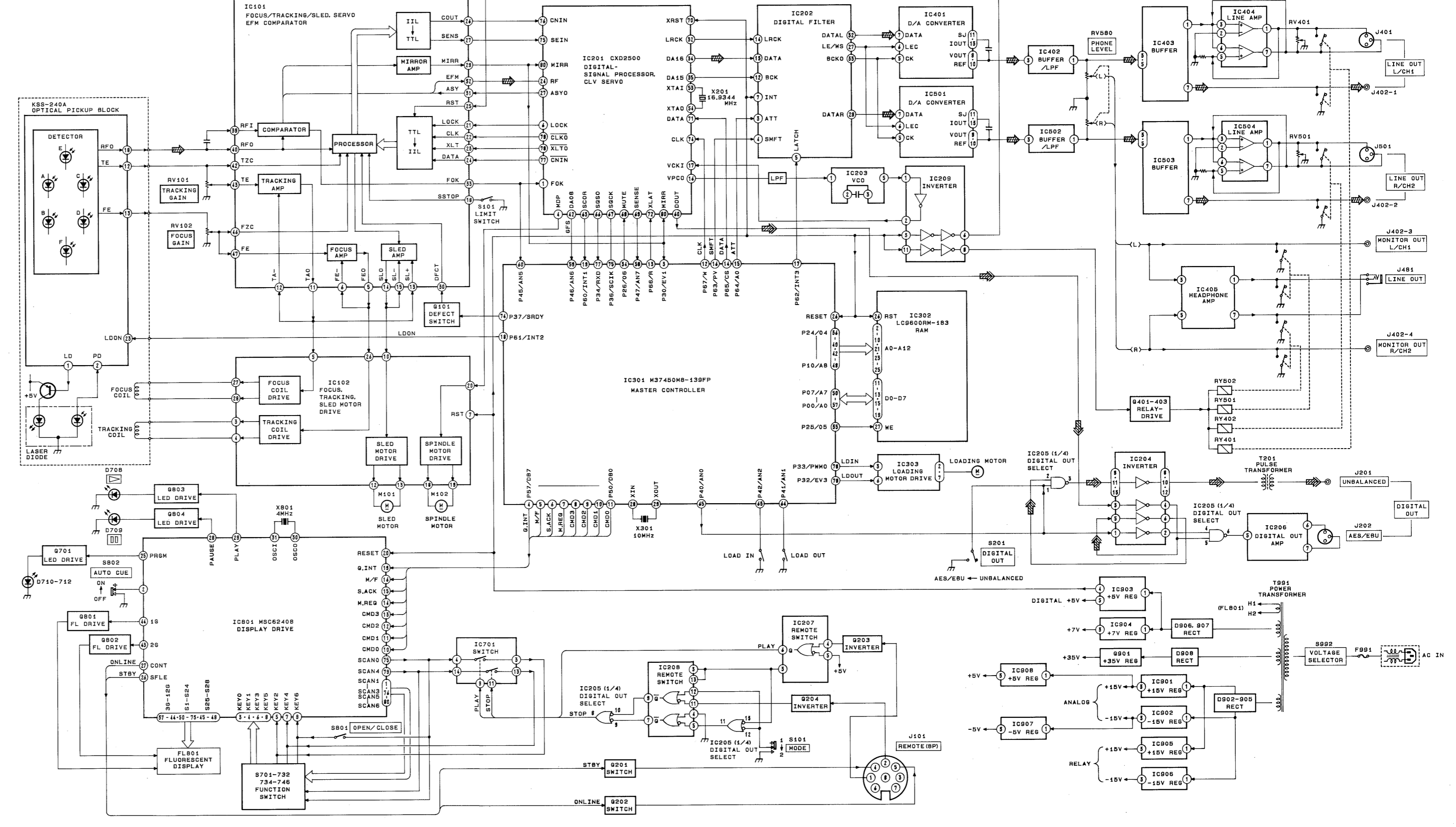
3-1. CIRCUIT BOARDS LOCATION



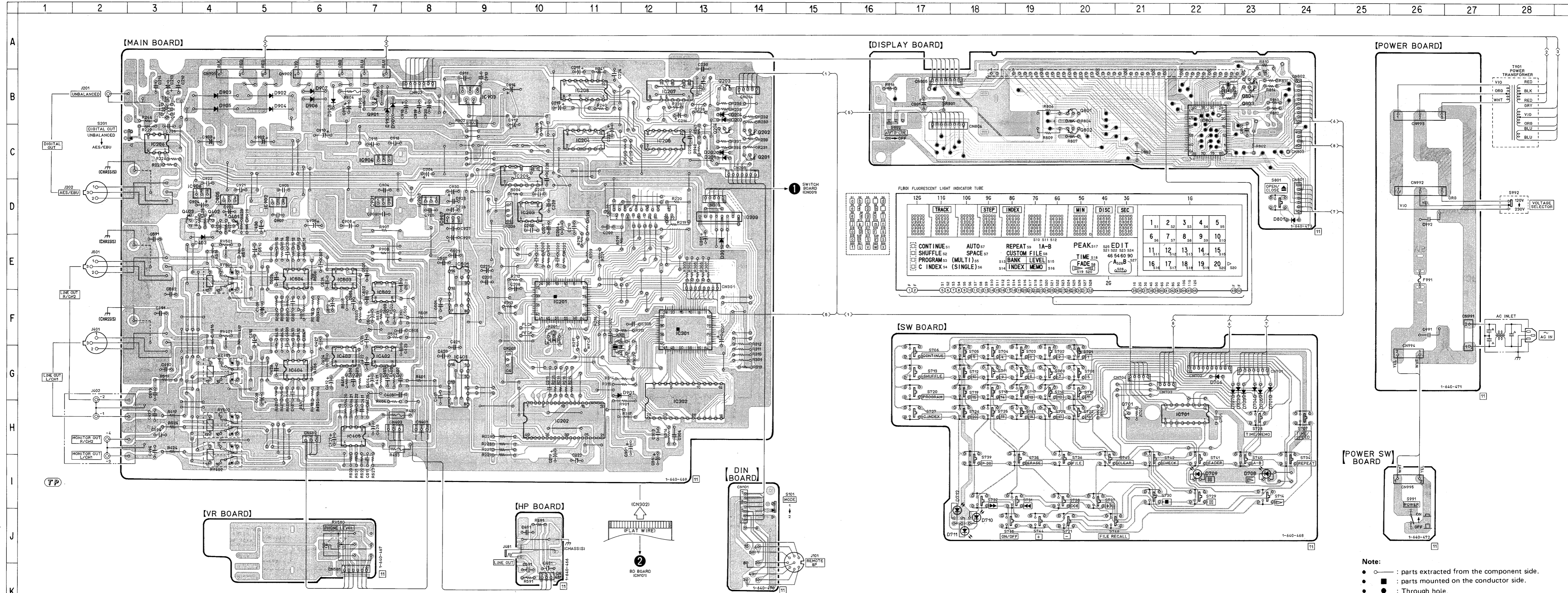
3-2. SEMICONDUCTOR LEAD LAYOUTS



3-3. BLOCK DIAGRAM



3-4. PRINTED WIRING BOARDS — MAIN SECTION — Refer to Page 11 for Semiconductor Lead Layouts.



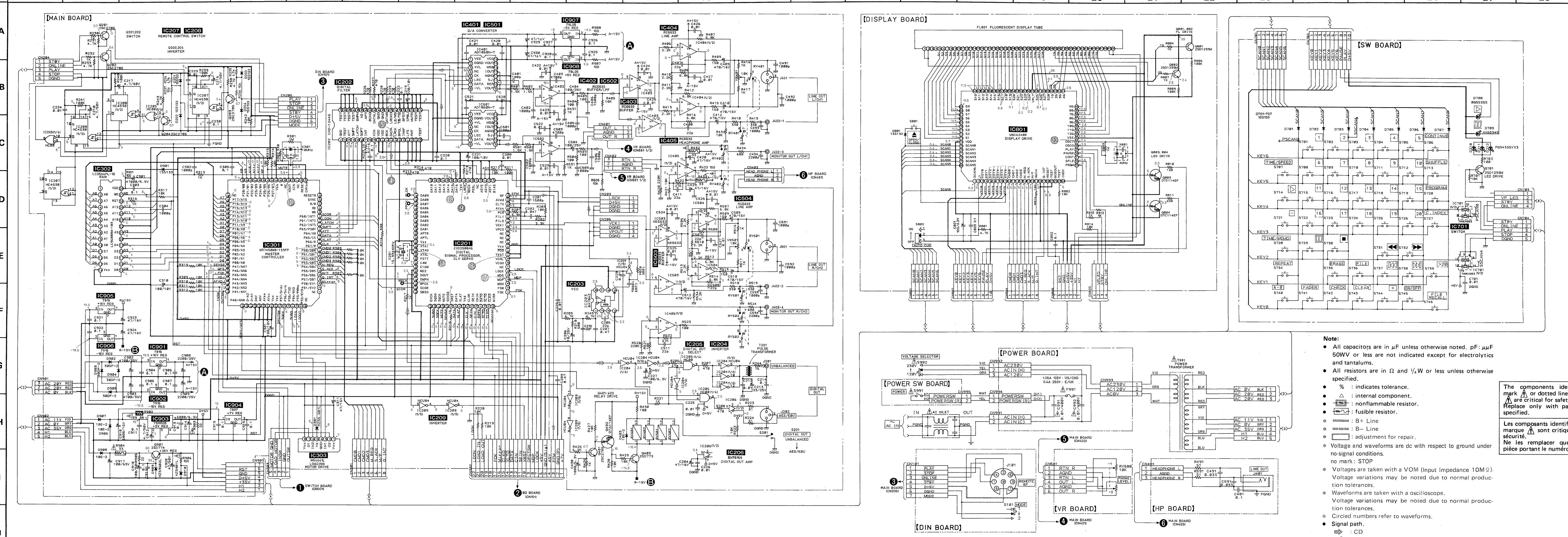
- Note:**
- — : parts extracted from the component side.
 - — : parts mounted on the conductor side.
 - — : Through hole.
 - ▨ — : Pattern on the side which is seen.
 - ◐ — : Pattern of the rear side.

● Semiconductor Location
— Printed Wiring Boards —

3-5. SCHEMATIC DIAGRAM — MAIN SECTION —

● Refer to Page 21 for Waveforms.
● Refer to Page 25 for IC Block Diagrams.

Ref. No.	Location
D201	C-13
D202	C-13
D203	C-13
D204	B-13
D301	E-13
D403	E-3
D701	G-23
D702	G-22
D703	G-22
D704	G-23
D705	G-23
D706	G-22
D707	G-22
D708	G-22
D709	I-22
D801	D-23
D901	H-11
D902	B-5
D903	B-4
D904	B-5
D905	B-4
D906	B-5
D907	B-5
D908	B-6
D909	B-7
D910	B-7
IC201	F-10
IC202	H-10
IC203	D-9
IC204	C-10
IC205	C-12
IC206	C-3
IC207	B-12
IC208	B-10
IC209	D-9
IC301	G-12
IC302	H-12
IC303	D-13
IC401	G-8
IC402	G-7
IC403	G-6
IC404	G-5
IC405	H-6
IC501	F-8
IC502	F-7
IC503	F-6
IC504	F-5
IC701	H-21
IC801	C-22
IC901	D-7
IC902	D-5
IC903	B-8
IC904	C-7
IC905	D-4
IC906	D-3
IC907	D-8
IC908	D-8
Q201	C-13
Q202	C-13
Q203	B-13
Q204	C-13
Q401	D-4
Q402	D-4
Q403	D-3
Q701	H-20
Q801	B-19
Q802	C-19
Q803	B-23
Q804	B-23
Q901	B-7

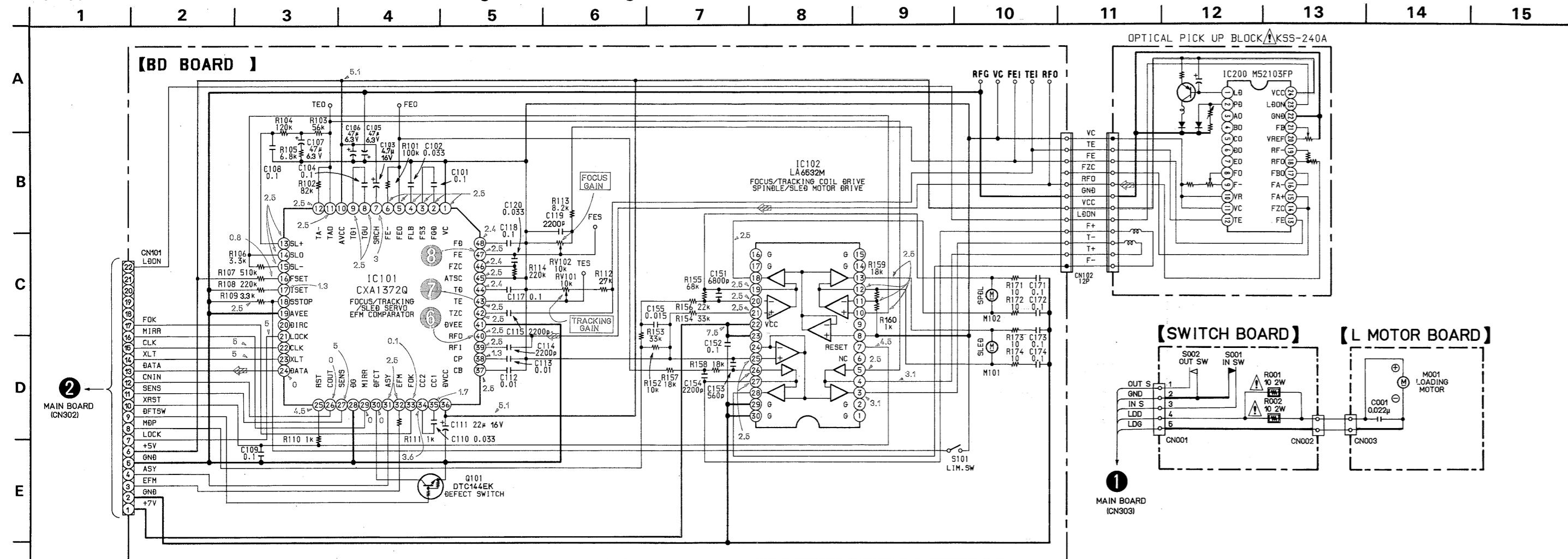


- Note:**
- All capacitors are in μF unless otherwise noted. $\text{pF} = \mu\text{F} \times 10^{-6}$. 50WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
 - % : indicates tolerance.
 - Δ : internal component.
 - \square : nonflammable resistor.
 - $\text{---}/\text{---}$: fusible resistor.
 - --- : B+ Line
 - --- : B- Line
 - --- : adjustment for repair.
 - Voltage and waveforms are dc with respect to ground under no-signal conditions.
 - 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 an oscilloscope. Voltage variations may be noted due to normal production tolerances.
 - Circled numbers refer to waveforms.
 - Signal path.
 - --- : CD
 - --- : digital out

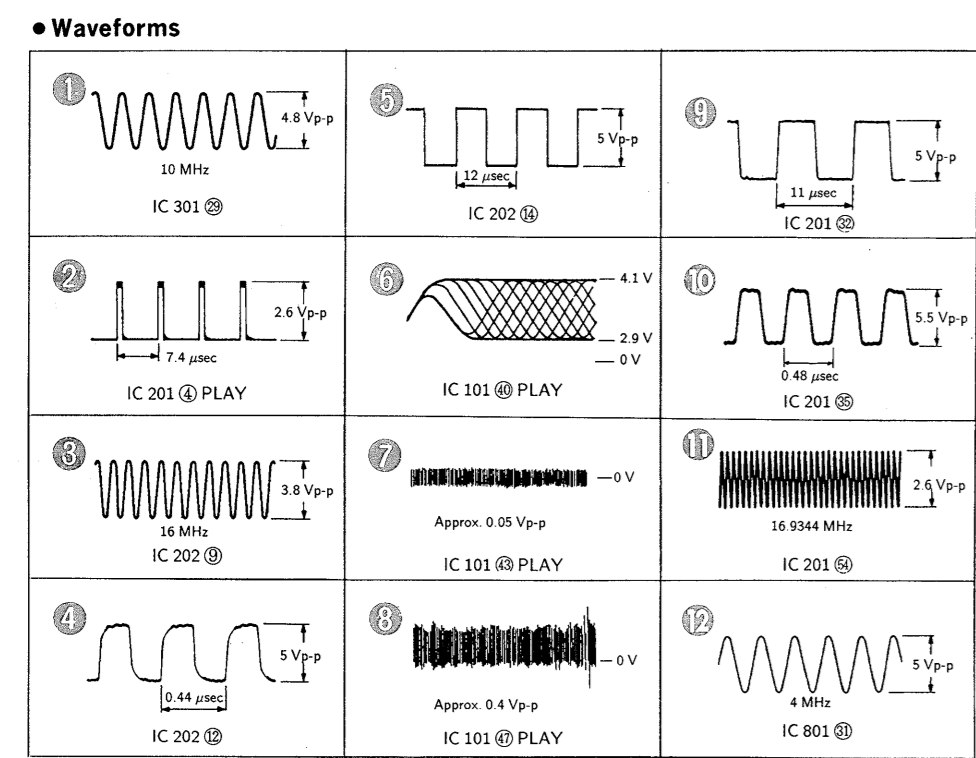
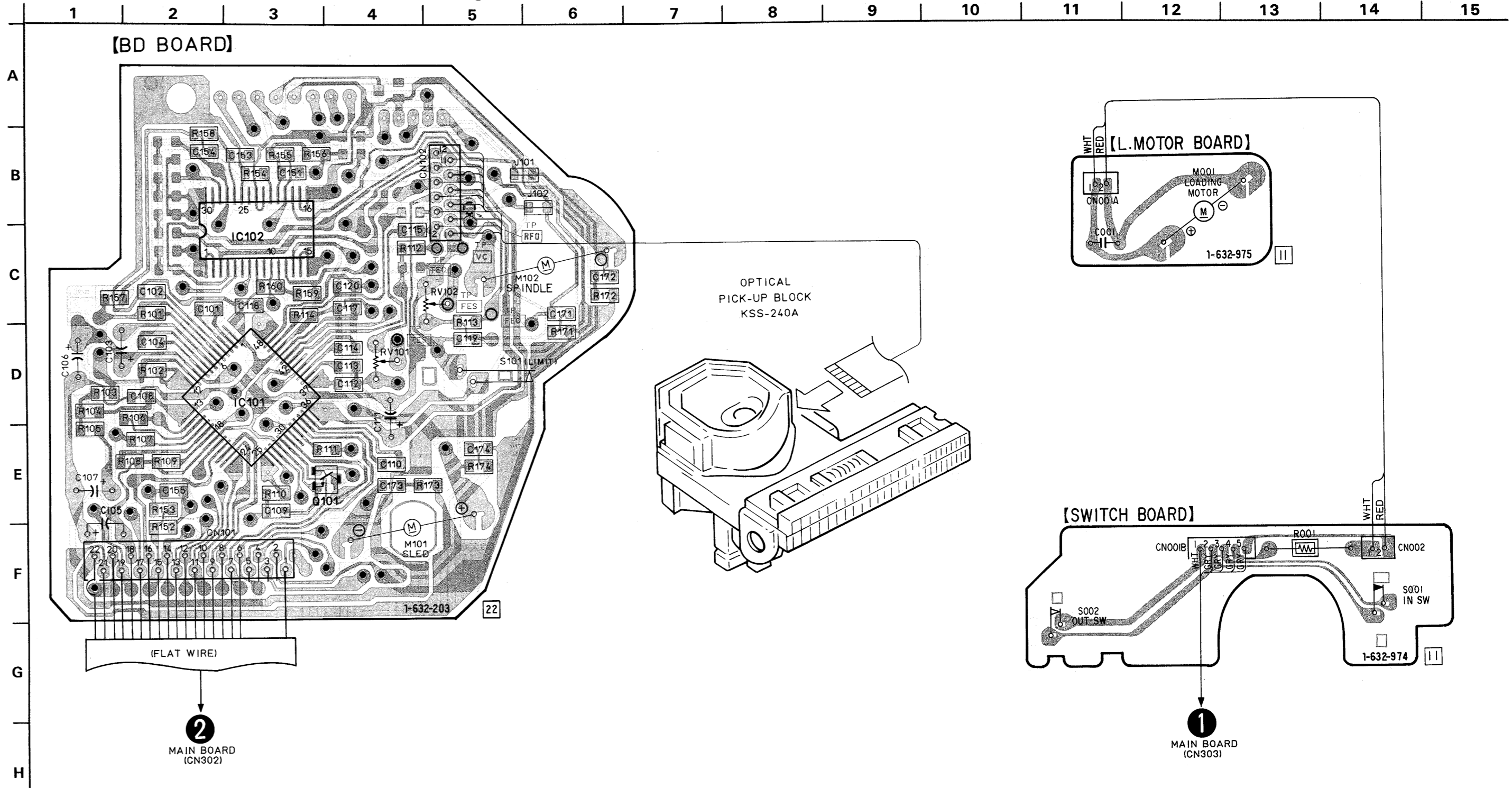
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

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

3-6. SCHEMATIC DIAGRAM — BU SECTION — Refer to Page 25 for IC Block Diagrams.



3-7. PRINTED WIRING BOARDS — BU SECTION — Refer to Page 11 for Semiconductor Lead Layouts.



Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. $\text{pF} = \mu\text{F} / 500$ 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.

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

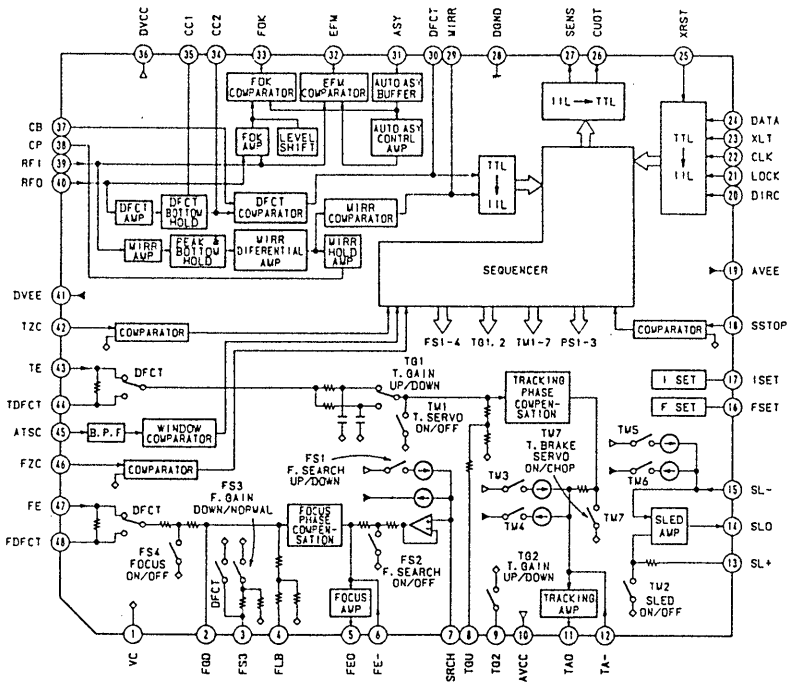
Note:
Les composants identifiés par une marque ou une ligne pointillée avec une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- : B+ Line
- : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions. no mark : STOP
- 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 an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- : CD

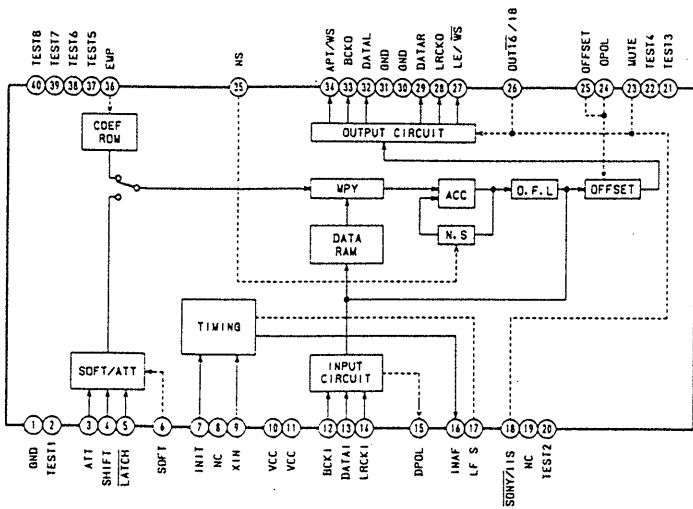
Note on Printed Wiring Board:

- : parts extracted from the component side.
- : Pattern on the side which is seen.
- : Pattern of the rear side.

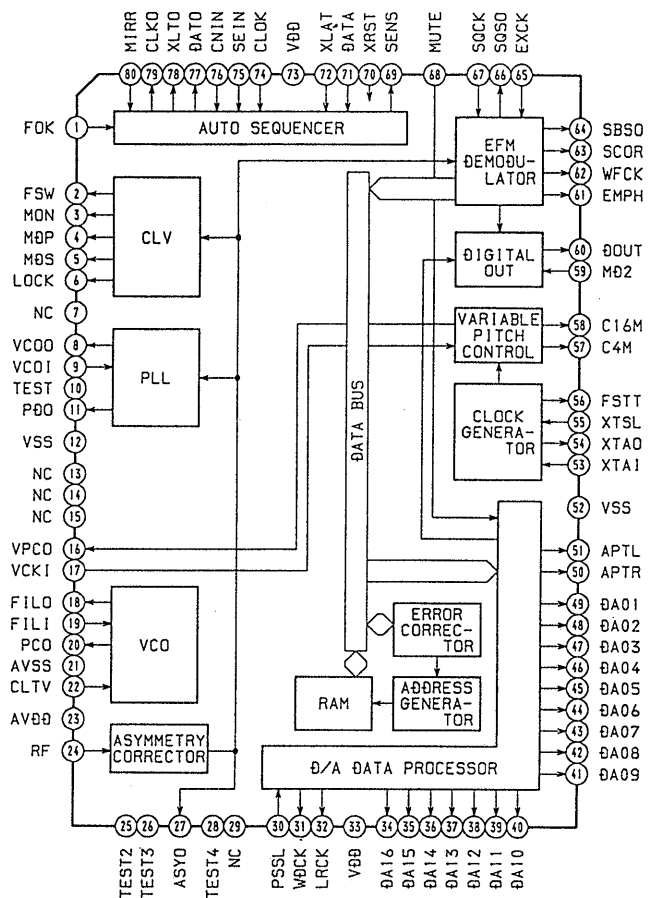
• IC Block Diagrams
IC101 CXA1372Q



IC201 CXD2500AQ



IC202 CXD1244S



SECTION 4 EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

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

- Color Indication of Appearance Parts
Example:

KNOB, BALANCE (WHITE)...(RED)

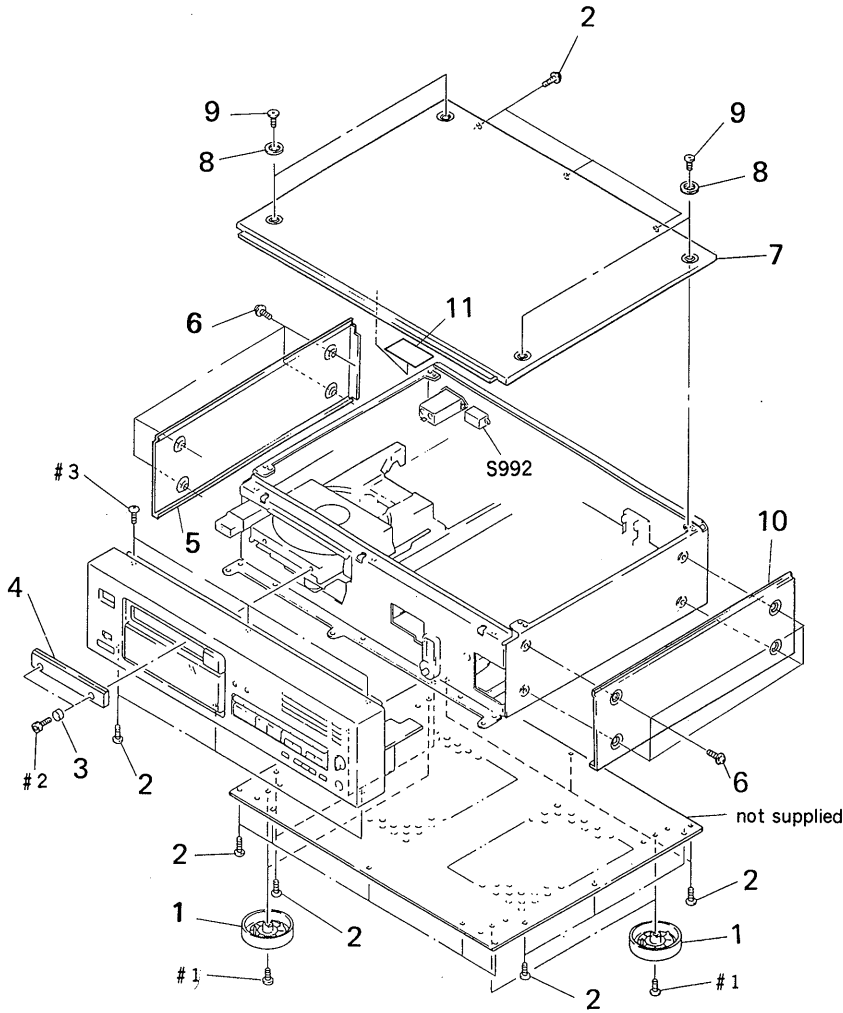
Parts Color Cabinet's Color

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

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

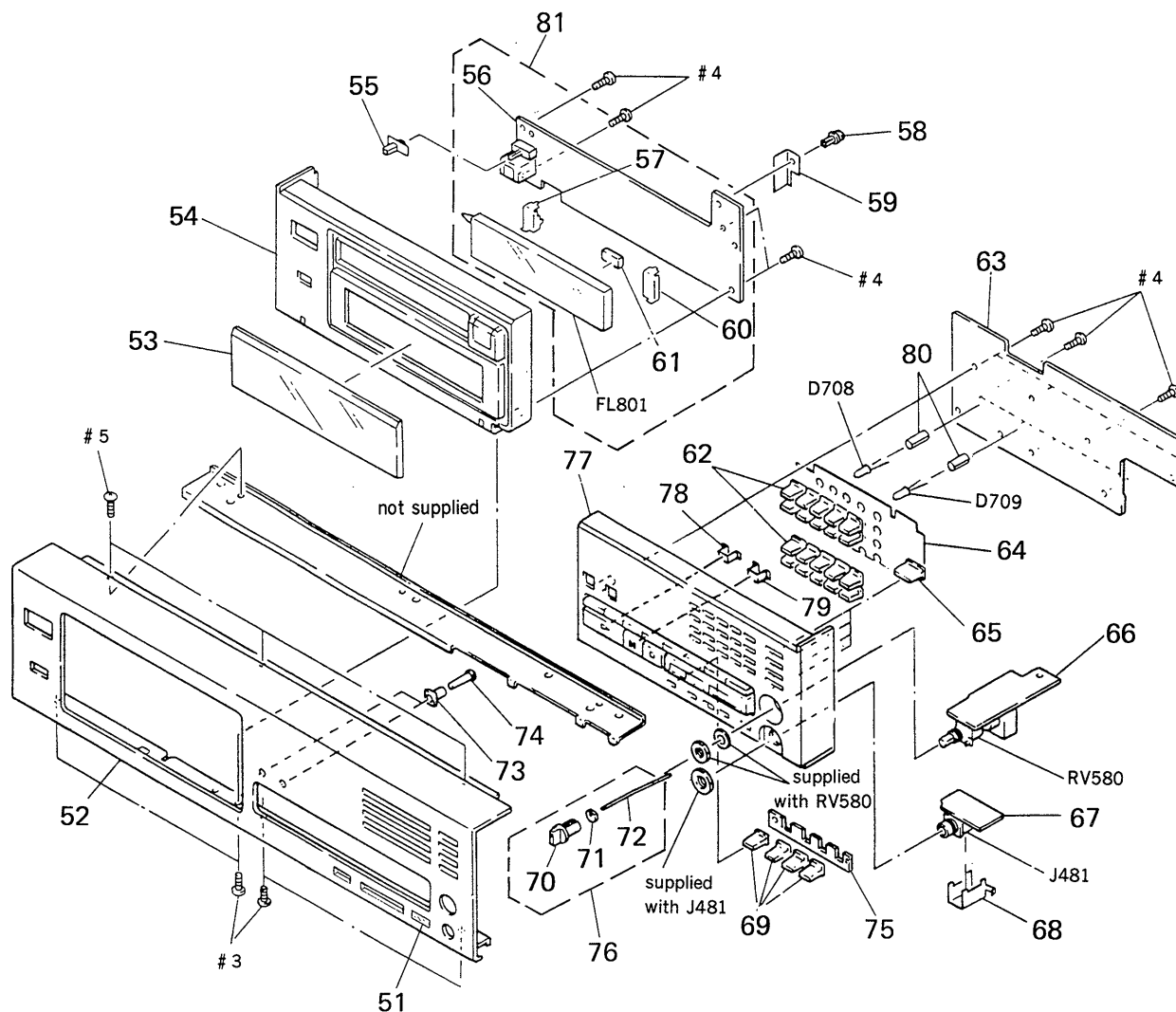
Les composants identifiés par une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

4-1. OVERALL SECTION



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
1	X-4941-550-1	FOOT ASSY		7	4-925-367-41	CASE (TOP PLATE)	
2	4-929-074-01	SCREW (3X8)		8	4-928-025-41	ESCUTCHEON (TOP PLATE)	
3	4-884-635-21	BASE, ORNAMENTAL		9	4-924-242-21	SCREW (M3X10), FLAT HEAD	
4	X-4941-634-1	PANEL ASSY, LOADING		10	4-925-369-31	CASE (RIGHT)	
5	4-925-368-31	CASE (LEFT)		11	* 4-923-563-01	CUSHION	
6	4-847-802-11	SCREW		S992	1-570-046-21	SWITCH, VOLTAGE CHANGE	

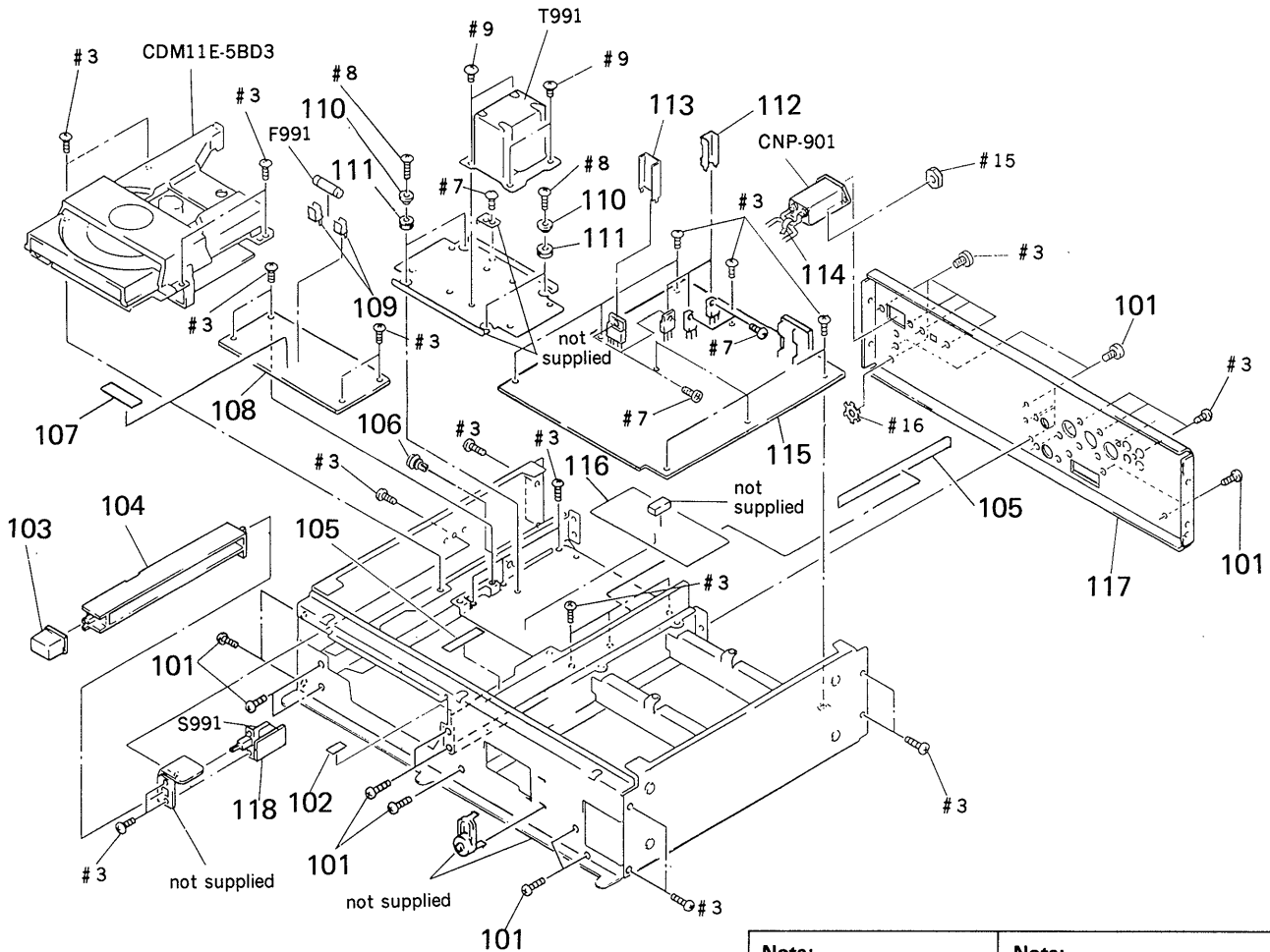
4-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	4-942-967-01	INDICATOR	
52	4-934-038-31	PANEL, FRONT	
53	4-934-036-01	PLATE, INDICATION	
54	X-4941-633-1	BASE (L) ASSY	
55	4-922-518-01	KNOB (TIMER)	
56	* 1-640-473-11	DISPLAY BOARD	
57	4-928-052-01	HOLDER (RIGHT)	
58	3-531-576-01	RIVET	
59	* 4-934-051-01	COVER	
60	4-928-053-01	HOLDER (LEFT)	
61	9-911-841-XX	SPACER	
62	4-934-026-01	BUTTON (M/C)	
63	* 1-640-468-11	SW BOARD	
64	* 4-934-096-01	CUSHION (MC)	
65	4-934-027-01	BUTTON (MODE)	
66	* 1-640-467-11	VR BOARD	
67	* 1-640-466-11	HP BOARD	
68	* 4-934-048-01	PLATE, GROUND	

Ref. No.	Part No.	Description	Remark
69	4-934-053-01	BUTTON (A)	
70	4-922-977-01	KNOB (HP)	
71	4-922-978-01	HOLDER (FIBER)	
72	4-922-979-11	INDICATOR	
73	4-934-033-01	ESCUTCHEON (DISPLAY)	
74	4-934-031-01	BUTTON (DISPLAY)	
75	* 4-934-097-01	CUSHION (BUTTON A)	
76	A-4604-313-B	KNOB (HP) ASSY	
77	X-4941-632-1	BASE (R) ASSY	
78	4-934-049-01	INDICATOR (PLAY)	
79	4-934-050-01	INDICATOR (PAUSE)	
80	* 4-923-532-21	SPACER, LED	
81	* A-4617-677-A	DISPLAY BOARD, COMPLETE	
D708	8-719-907-81	DIODE EBG5534S	
D709	8-719-907-75	DIODE AA5534S	
FL801	1-519-554-11	INDICATOR TUBE, FLUORESCENT	
J481	1-568-519-31	JACK, LARGE TYPE (LINE OUT)	
RV580	1-238-776-11	RES. VAR, CARBON 10KX3 (PHONE LEVEL)	

4-3. CHASSIS SECTION

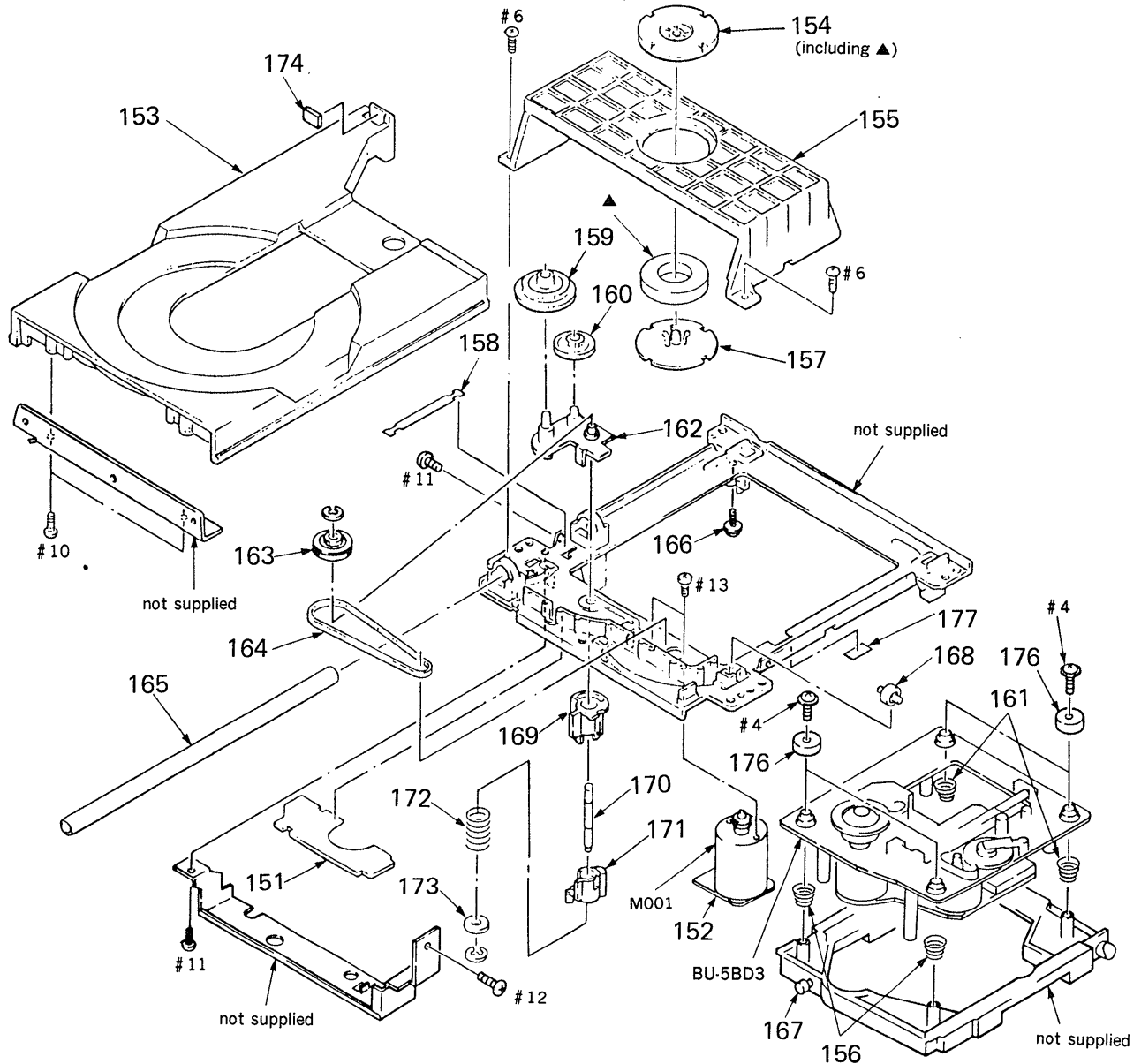


<p>Note: The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.</p>	<p>Note: Les composants identifiés par une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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Ref. No.	Part No.	Description	Remark
101	4-929-074-01	SCREW (3X8)	
102	4-860-518-11	PACKING, TWEETER	
103	4-923-520-31	KNOB, POWER	
104	* 4-934-044-01	LEVER (POWER)	
105	3-831-441-11	SPACER	
106	3-531-576-01	RIVET	
107	3-701-946-21	LABEL (1.25A125V), FUSE (US, Canadian)	
107	* 3-701-948-10	LABEL (T400MA), FUSE (E, UK)	
108	1-640-471-11	POWER BOARD	
109	1-533-183-11	HOLDER, FUSE	
110	4-928-032-01	COLLAR (A)	
111	* 4-888-798-00	BUSHING, RUBBER	
112	4-902-345-01	HEAT SINK	

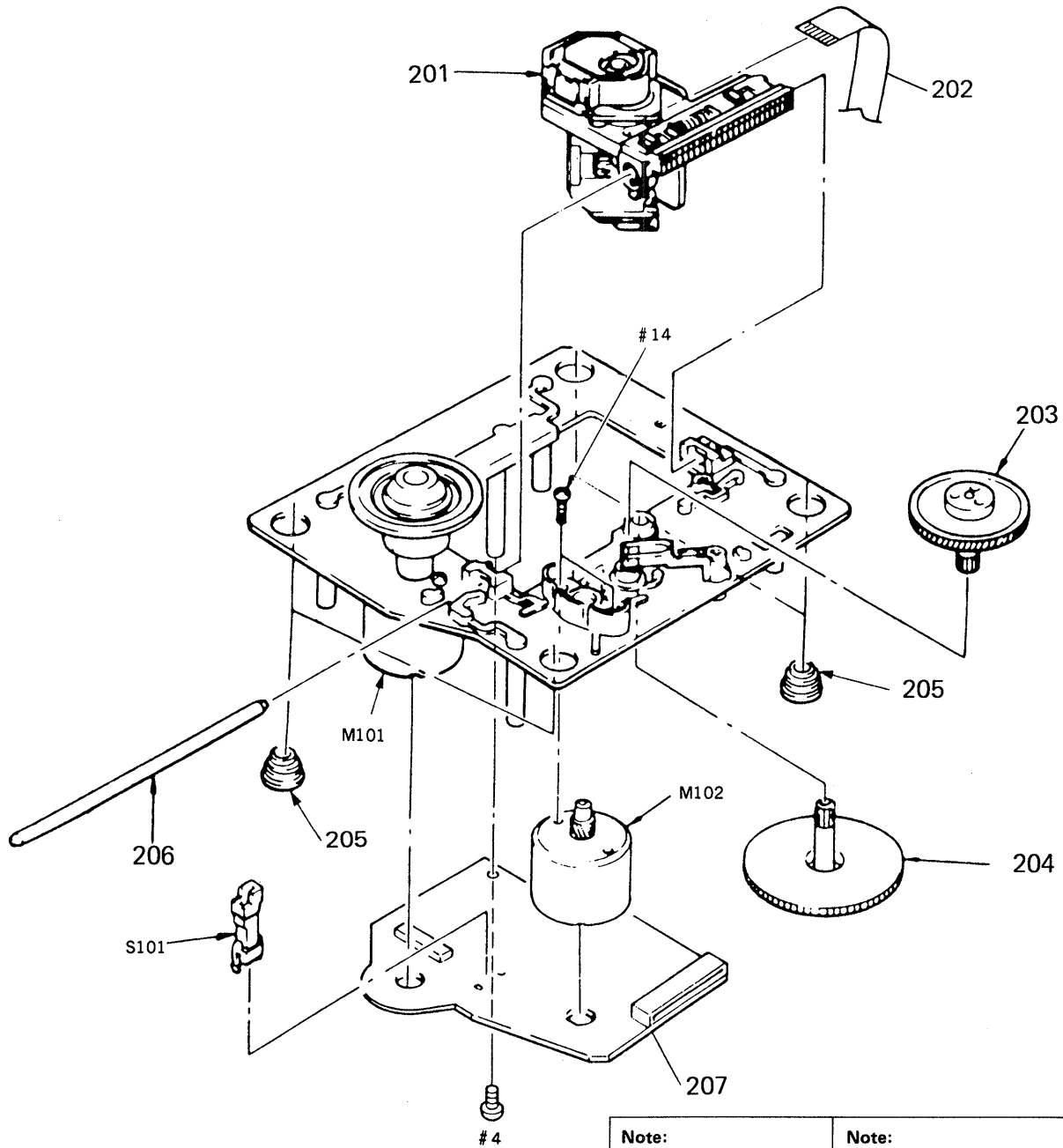
Ref. No.	Part No.	Description	Remark
113	4-886-555-00	HEAT SINK	
114	3-655-653-21	BAND (TAITON), BINDING	
115	* A-4617-680-A	MAIN BOARD, COMPLETE	
116	* 4-935-908-01	SHEET	
117	* 4-942-965-01	PANEL, BACK	
118	* 1-640-472-11	POWER SW BOARD	
CNP901	1-526-813-12	INLET, AC 3P	
F991	1-532-066-00	FUSE, TIME-LAG (0.4A 250V) (E, UK)	
F991	1-532-741-11	FUSE, GLASS TUBE (1.25A 125V) (US, Canadian)	
S991	1-570-156-11	SWITCH, PUSH (AC POWER) (1 KEY)	
T991	1-450-650-11	TRANSFORMER, POWER	

4-4. MECHANISM SECTION (CDM11E-5BD3)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	* 1-632-974-11	SWITCH BOARD		165	4-927-617-01	BAR, GUIDE	
152	* 1-632-975-11	L. MOTOR BOARD		166	* 4-917-583-21	BRACKET, YOKE	
153	* 4-927-642-01	TABLE (EXL), DISK		167	4-927-631-01	ROLLER (L)	
154	A-4665-024-A	MAGNET ASSY		168	4-927-627-01	ROLLER (S, G)	
155	* 4-927-638-03	HOLDER (A, P)		169	4-927-635-01	CAM (L, B)	
156	4-917-572-01	SPRING (B)		170	4-927-665-01	SHAFT (S)	
157	* 4-918-679-04	PULLEY, PRESS		171	4-927-624-01	CAM (L, A)	
158	* 4-927-648-01	SLIDER (GROUND)		172	3-659-338-00	SPRING, COMPRESSION	
159	4-927-620-01	GEAR (P)		173	4-927-654-01	WASHER (LIMITER)	
160	4-927-628-01	GEAR (C)		174	* 4-927-670-01	CUSHION (MD)	
161	4-917-541-01	SPRING (B)		176	4-943-119-01	HOLDER (SP)	
162	X-4927-608-1	ARM ASSY, SWING		177	3-831-441-XX	CUSHION	
163	4-929-724-01	PULLEY (B)		M001	A-4604-347-A	MOTOR (L) ASSY	
164	4-927-649-01	BELT					

4-5. BASE UNIT (BU-5BD3)



<p>Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.</p>	<p>Note: Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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Ref. No.	Part No.	Description	Remark
201	Δ 8-848-144-11	DEVICE, OPTICAL KSS-240A	
202	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
203	4-917-567-01	GEAR (M)	
204	4-917-564-01	GEAR (P), FLATNESS	
205	4-933-126-01	INSULATOR (A)	

Ref. No.	Part No.	Description	Remark
206	4-917-565-01	SHAFT, SLED	
207	* A-4617-371-A	BD BOARD, COMPLETE	
M101	X-4917-523-3	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	
S101	1-572-085-11	SWITCH, LEAF (LIMIT IN)	

SECTION 5 ELECTRICAL PARTS LIST

BD

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "※" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- CAPACITORS
uF: μF

- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable
- COILS
uH: μH
- SEMICONDUCTORS
In each case, u: μ, for example:
uA...: μA..., uPA...: μPA...,
uPB...: μPB..., uPC...: μPC...,
uPD...: μPD....

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.

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	* A-4617-371-A	BD BOARD, COMPLETE *****				< IC >	
		< CAPACITOR >		IC101	8-752-050-82	IC CXA1372Q	
				IC102	8-759-822-36	IC LA6532M-T1	
						< JACK >	
C101	1-163-038-00	CERAMIC CHIP 0.1uF	25V	J101	1-216-295-00	METAL CHIP 0 5%	1/10W
C102	1-163-989-11	CERAMIC CHIP 0.033uF	10% 25V	J102	1-216-295-00	METAL CHIP 0 5%	1/10W
C103	1-126-163-11	ELECT 4.7uF	20% 50V			< TRANSISTOR >	
C104	1-163-038-00	CERAMIC CHIP 0.1uF	25V	Q101	8-729-901-01	TRANSISTOR DTC144EK	
C105	1-126-154-11	ELECT 47uF	20% 6.3V			< RESISTOR >	
C106	1-126-154-11	ELECT 47uF	20% 6.3V	R101	1-216-097-00	METAL CHIP 100K 5%	1/10W
C107	1-126-154-11	ELECT 47uF	20% 6.3V	R102	1-216-095-00	METAL CHIP 82K 5%	1/10W
C108	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R103	1-216-091-00	METAL CHIP 56K 5%	1/10W
C109	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R104	1-216-099-00	METAL CHIP 120K 5%	1/10W
C110	1-163-989-11	CERAMIC CHIP 0.033uF	10% 25V	R105	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
C111	1-131-367-00	TANTALUM 22uF	10% 20V	R106	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
C112	1-164-232-11	CERAMIC CHIP 0.01uF	50V	R107	1-216-114-00	METAL GLAZE 510K 5%	1/10W
C113	1-164-232-11	CERAMIC CHIP 0.01uF	50V	R108	1-216-105-00	METAL CHIP 220K 5%	1/10W
C114	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V	R109	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
C115	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V	R110	1-216-049-00	METAL CHIP 1K 5%	1/10W
C117	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R111	1-216-049-00	METAL CHIP 1K 5%	1/10W
C118	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R112	1-216-083-00	METAL CHIP 27K 5%	1/10W
C119	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V	R113	1-216-071-00	METAL CHIP 8.2K 5%	1/10W
C120	1-163-989-11	CERAMIC CHIP 0.033uF	10% 25V	R114	1-216-105-00	METAL CHIP 220K 5%	1/10W
C151	1-163-019-00	CERAMIC CHIP 0.0068uF	10% 50V	R152	1-216-073-00	METAL CHIP 10K 5%	1/10W
C152	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R153	1-216-085-00	METAL CHIP 33K 5%	1/10W
C153	1-163-006-11	CERAMIC CHIP 560PF	10% 50V	R154	1-216-085-00	METAL CHIP 33K 5%	1/10W
C154	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V	R155	1-216-093-00	METAL CHIP 68K 5%	1/10W
C155	1-163-023-00	CERAMIC CHIP 0.015uF	5% 50V	R156	1-216-081-00	METAL CHIP 22K 5%	1/10W
C171	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R157	1-216-079-00	METAL CHIP 18K 5%	1/10W
C172	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R158	1-216-079-00	METAL CHIP 18K 5%	1/10W
C173	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R159	1-216-079-00	METAL CHIP 18K 5%	1/10W
C174	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R160	1-216-049-00	METAL CHIP 1K 5%	1/10W
		< CONNECTOR >		R171	1-216-001-00	METAL CHIP 10 5%	1/10W
CN101	1-568-796-11	SOCKET, CONNECTOR 22P					
CN102	1-568-795-11	SOCKET, CONNECTOR 12P					

BD **DIN** **HP** **MAIN**

Ref. No.	Part No.	Description	Remark		
R172	1-216-001-00	METAL CHIP	10	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
< VARIABLE RESISTOR >					
RV101	1-238-016-11	RES, ADJ, CARBON 10K (TRACKING GAIN)			
RV102	1-238-016-11	RES, ADJ, CARBON 10K (FOCUS GAIN)			
< SWITCH >					
S101	1-572-085-11	SWITCH, LEAF (LIMIT IN)			

* 1-640-470-11 DIN BOARD					

< SOCKET >					
J101	1-561-368-00	SOCKET, DIN 8P			
< SWITCH >					
S101	1-570-707-21	SWITCH, SLIDE (MODE)			

* 1-640-466-11 HP BOARD					

* 4-934-048-11 PLATE GROUND					
< CAPACITOR >					
C491	1-136-159-00	FILM	0.033MF	5%	50V
C591	1-136-159-00	FILM	0.033MF	5%	50V
C481	1-164-159-11	CERAMIC	0.1MF		50V
< JACK >					
J481	1-568-519-31	JACK, LARGE TYPE (LINE OUT)			
< RESISTOR >					
R491	1-247-800-11	CARBON	51	5%	1/4W
R591	1-247-800-11	CARBON	51	5%	1/4W

* A-4617-680-A MAIN BOARD, COMPLETE					

4-902-345-01 HEAT SINK					
* 4-886-555-00 HEAT SINK					

Ref. No.	Part No.	Description	Remark		
< CAPACITOR >					
C201	1-130-473-00	MYLAR	0.0015uF	5%	50V
C202	1-136-161-00	FILM	0.047uF	5%	50V
C203	1-130-471-00	MYLAR	0.001uF	5%	50V
C204	1-124-477-11	ELECT	47uF	20%	16V
C205	1-162-207-31	CERAMIC	22PF	5%	50V
C206	1-124-907-11	ELECT	10uF	20%	50V
C207	1-136-173-00	FILM	0.47uF	5%	50V
C208	1-136-153-00	FILM	0.01uF	5%	50V
C209	1-136-173-00	FILM	0.47uF	5%	50V
C210	1-162-206-31	CERAMIC	20PF	5%	50V
C211	1-162-207-31	CERAMIC	22PF	5%	50V
C212	1-136-153-00	FILM	0.01uF	5%	50V
C213	1-124-482-11	ELECT	33uF	20%	35V
C214	1-136-165-00	FILM	0.1uF	5%	50V
C215	1-164-159-11	CERAMIC	0.1uF		50V
C216	1-124-927-11	ELECT	4.7uF	20%	100V
C217	1-124-927-11	ELECT	4.7uF	20%	100V
C218	1-124-927-11	ELECT	4.7uF	20%	100V
C219	1-126-176-11	ELECT	220uF	20%	10V
C220	1-136-165-00	FILM	0.1uF	5%	50V
C221	1-124-443-00	ELECT	100uF	20%	10V
C222	1-136-165-00	FILM	0.1uF	5%	50V
C223	1-136-153-00	FILM	0.01uF	5%	50V
C224	1-136-153-00	FILM	0.01uF	5%	50V
C225	1-136-153-00	FILM	0.01uF	5%	50V
C226	1-136-153-00	FILM	0.01uF	5%	50V
C227	1-136-153-00	FILM	0.01uF	5%	50V
C228	1-136-153-00	FILM	0.01uF	5%	50V
C229	1-136-153-00	FILM	0.01uF	5%	50V
C230	1-136-165-00	FILM	0.1uF	5%	50V
C301	1-124-443-00	ELECT	100uF	20%	10V
C302	1-162-294-31	CERAMIC	0.001uF	10%	50V
C303	1-136-165-00	FILM	0.1uF	5%	50V
C304	1-162-294-31	CERAMIC	0.001uF	10%	50V
C305	1-136-165-00	FILM	0.1uF	5%	50V
C310	1-124-443-00	ELECT	100uF	20%	10V
C311	1-124-477-11	ELECT	47uF	20%	25V
C401	1-162-282-31	CERAMIC	100PF	10%	50V
C402	1-130-474-00	MYLAR	0.0018uF	5%	50V
C403	1-130-479-00	MYLAR	0.0047uF	5%	50V
C404	1-124-478-11	ELECT	100uF	20%	25V
C405	1-130-471-00	MYLAR	0.001uF	5%	50V
C406	1-130-473-00	MYLAR	0.0015uF	5%	50V
C407	1-162-207-31	CERAMIC	22PF	5%	50V
C408	1-162-207-31	CERAMIC	22PF	5%	50V
C409	1-126-103-11	ELECT	470uF	20%	16V

MAIN

Ref. No.	Part No.	Description	Remark		Ref. No.	Part No.	Description	Remark	
C410	1-126-103-11	ELECT	470uF	20% 16V	C908	1-124-563-11	ELECT	2200uF	20% 25V
C411	1-162-207-31	CERAMIC	22PF	5% 50V	C909	1-124-563-11	ELECT	2200uF	20% 25V
C412	1-126-103-11	ELECT	470uF	20% 16V	C910	1-126-017-11	ELECT	6800uF	20% 16V
C420	1-136-153-00	FILM	0.01uF	5% 50V	C911	1-136-165-00	FILM	0.1uF	5% 50V
C421	1-136-153-00	FILM	0.01uF	5% 50V	C912	1-124-927-11	ELECT	4.7uF	20% 100V
C422	1-136-153-00	FILM	0.01uF	5% 50V	C913	1-136-165-00	FILM	0.1uF	5% 50V
C423	1-136-153-00	FILM	0.01uF	5% 50V	C914	1-124-890-11	ELECT	6800uF	20% 6.3V
C424	1-136-153-00	FILM	0.01uF	5% 50V	C915	1-136-165-00	FILM	0.1uF	5% 50V
C425	1-136-153-00	FILM	0.01uF	5% 50V	C916	1-136-165-00	FILM	0.1uF	5% 50V
C426	1-136-153-00	FILM	0.01uF	5% 50V	C917	1-126-063-11	ELECT	100uF	20% 63V
C427	1-136-153-00	FILM	0.01uF	5% 50V	C918	1-124-122-11	ELECT	100uF	20% 50V
C428	1-124-477-11	ELECT	47uF	20% 25V	C919	1-136-165-00	FILM	0.1uF	5% 50V
C429	1-124-477-11	ELECT	47uF	20% 25V	C920	1-124-910-11	ELECT	47uF	20% 50V
C430	1-124-471-00	ELECT	1000uF	20% 6.3V	C921	1-136-165-00	FILM	0.1uF	5% 50V
C491	1-136-479-91	FILM	0.001uF	5% 100V	C922	1-136-165-00	FILM	0.1uF	5% 50V
C492	1-136-479-91	FILM	0.001uF	5% 100V	C923	1-124-477-11	ELECT	47uF	20% 25V
C493	1-136-479-91	FILM	0.001uF	5% 100V	C924	1-124-477-11	ELECT	47uF	20% 25V
C494	1-161-375-00	CERAMIC	2200PF	30% 60V	C925	1-136-165-00	FILM	0.1uF	5% 50V
C501	1-162-282-31	CERAMIC	100PF	10% 50V	C926	1-136-165-00	FILM	0.1uF	5% 50V
C502	1-130-474-00	MYLAR	0.0018uF	5% 50V	C927	1-136-165-00	FILM	0.1uF	5% 50V
C503	1-130-479-00	MYLAR	0.0047uF	5% 50V	C928	1-136-165-00	FILM	0.1uF	5% 50V
C504	1-124-478-11	ELECT	100uF	20% 25V	C929	1-124-477-11	ELECT	47uF	20% 25V
C505	1-130-471-00	MYLAR	0.001uF	5% 50V	C930	1-124-477-11	ELECT	47uF	20% 25V
C506	1-130-473-00	MYLAR	0.0015uF	5% 50V					
C507	1-162-207-31	CERAMIC	22PF	5% 50V			< CONNECTOR >		
C508	1-162-207-31	CERAMIC	22PF	5% 50V	CN203	* 1-506-947-11	PIN, CONNECTOR 6P		
C509	1-126-103-11	ELECT	470uF	20% 16V	CN204	* 1-564-339-00	PIN, CONNECTOR 5P		
C510	1-126-103-11	ELECT	470uF	20% 16V	CN205	* 1-564-341-11	PIN, CONNECTOR 7P		
C511	1-162-207-31	CERAMIC	22PF	5% 50V	CN301	* 1-564-342-11	PIN, CONNECTOR 8P		
C512	1-126-103-11	ELECT	470uF	20% 16V	CN302	* 1-563-599-11	CONNECTOR, FLEXIBLE 22P		
C520	1-136-153-00	FILM	0.01uF	5% 50V	CN303	* 1-564-339-00	PIN, CONNECTOR 5P		
C521	1-136-153-00	FILM	0.01uF	5% 50V	CN401	* 1-564-506-11	PLUG, CONNECTOR 3P		
C522	1-136-153-00	FILM	0.01uF	5% 50V	CN402	* 1-564-506-11	PLUG, CONNECTOR 3P		
C523	1-136-153-00	FILM	0.01uF	5% 50V	CN403	* 1-564-506-11	PLUG, CONNECTOR 3P		
C524	1-136-153-00	FILM	0.01uF	5% 50V	CN901	* 1-535-140-00	BASE POST 22MM (10MM PITCH) 3P		
C525	1-136-153-00	FILM	0.01uF	5% 50V	CN903	* 1-564-341-11	PIN, CONNECTOR 7P		
C526	1-136-153-00	FILM	0.01uF	5% 50V			< DIODE >		
C527	1-136-153-00	FILM	0.01uF	5% 50V	D201	8-719-911-19	DIODE 1SS119		
C591	1-136-479-91	FILM	0.001uF	5% 100V	D202	8-719-911-19	DIODE 1SS119		
C592	1-136-479-91	FILM	0.001uF	5% 100V	D203	8-719-911-19	DIODE 1SS119		
C593	1-136-479-91	FILM	0.001uF	5% 100V	D204	8-719-911-19	DIODE 1SS119		
C594	1-161-375-00	CERAMIC	2200PF	30% 60V	D205	8-719-911-19	DIODE 1SS119		
C901	1-126-534-11	ELECT	47000uF	5.5V	D206	8-719-911-19	DIODE 1SS119		
C902	1-126-955-11	ELECT	4700uF	20% 35V	D301	8-719-933-33	DIODE HZS6A1L		
C903	1-126-955-11	ELECT	4700uF	20% 35V	D403	8-719-933-56	DIODE HZS9B1L		
C904	1-136-165-00	FILM	0.1uF	5% 50V	D901	8-719-911-19	DIODE 1SS119		
C905	1-136-165-00	FILM	0.1uF	5% 50V	D902	8-719-230-02	DIODE 30DF2		
C906	1-136-165-00	FILM	0.1uF	5% 50V					
C907	1-136-165-00	FILM	0.1uF	5% 50V					



MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D903	8-719-230-02	DIODE 30DF2				< TRANSISTOR >	
D904	8-719-230-02	DIODE 30DF2					
D905	8-719-230-02	DIODE 30DF2					
D906	8-719-933-56	DIODE HZS9B1L		Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D907	8-719-933-56	DIODE HZS9B1L		Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE	
				Q203	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D908	8-719-933-56	DIODE HZS9B1L		Q204	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D909	8-719-934-33	DIODE PY3432S					
D910	8-719-933-56	DIODE HZS9B1L		Q401	8-729-900-38	TRANSISTOR DTA114EF	
		< IC >		Q402	8-729-119-76	TRANSISTOR 2SA1175-HFE	
				Q403	8-729-177-32	TRANSISTOR 2SD773	
				Q901	8-729-140-96	TRANSISTOR 2SD774-3	
IC201	8-752-337-26	IC CXD2500AQ				< RESISTOR >	
IC202	8-752-328-61	IC CXD1244S					
IC203	8-759-501-96	IC BA7042		R201	1-249-423-11	CARBON 3.3K 5% 1/4W	
IC204	8-759-916-14	IC SN74HC04AN		R202	1-249-423-11	CARBON 3.3K 5% 1/4W	
IC205	8-759-916-12	IC SN74HC00AN		R203	1-249-429-11	CARBON 10K 5% 1/4W	
				R204	1-249-441-11	CARBON 100K 5% 1/4W	
IC206	8-759-951-58	IC SN75158P		R206	1-249-413-11	CARBON 470 5% 1/4W	
IC207	8-759-038-14	IC MC74HC4538N					
IC208	8-759-038-14	IC MC74HC4538N		R207	1-249-413-11	CARBON 470 5% 1/4W	
IC209	8-759-917-18	IC SN74HC004AN		R208	1-249-413-11	CARBON 470 5% 1/4W	
IC301	8-759-637-39	IC M37450M8-462FP		R209	1-249-425-11	CARBON 4.7K 5% 1/4W	
				R210	1-249-415-11	CARBON 680 5% 1/4W	
IC302	8-759-822-50	IC LC3564PL-15		R211	1-249-441-11	CARBON 100K 5% 1/4W	
IC303	8-759-633-65	IC M54641L					
IC401	8-759-990-58	IC AD1860N-T		R212	1-249-429-11	CARBON 10K 5% 1/4W	
IC402	8-759-982-03	IC RC5532DD		R213	1-249-413-11	CARBON 470 5% 1/4W	
IC403	8-759-982-03	IC RC5532DD		R214	1-249-413-11	CARBON 470 5% 1/4W	
				R215	1-249-413-11	CARBON 470 5% 1/4W	
IC404	8-759-982-03	IC RC5532DD		R216	1-249-411-11	CARBON 330 5% 1/4W	
IC405	8-759-982-03	IC RC5532DD					
IC501	8-759-990-58	IC AD1860N-T		R217	1-249-405-11	CARBON 100 5% 1/4W	
IC502	8-759-982-03	IC RC5532DD		R218	1-249-417-11	CARBON 1K 5% 1/4W	
IC503	8-759-982-03	IC RC5532DD		R219	1-249-429-11	CARBON 10K 5% 1/4W	
				R220	1-249-429-11	CARBON 10K 5% 1/4W	
IC504	8-759-982-03	IC RC5532DD		R221	1-249-417-11	CARBON 1K 5% 1/4W	
IC901	8-759-982-15	IC NJM7815FA					
IC902	8-759-982-41	IC NJM7915FA		R222	1-249-429-11	CARBON 10K 5% 1/4W	
IC903	8-759-820-84	IC L78MR05		R223	1-247-800-11	CARBON 51 5% 1/4W	
IC904	8-759-803-55	IC L7807ML		R224	1-247-800-11	CARBON 51 5% 1/4W	
				R225	1-249-417-11	CARBON 1K 5% 1/4W	
IC905	8-759-982-15	IC NJM7815FA		R226	1-249-413-11	CARBON 470 5% 1/4W	
IC906	8-759-982-41	IC NJM7915FA					
IC907	8-759-982-44	IC RC79L05A		R227	1-249-413-11	CARBON 470 5% 1/4W	
IC908	8-759-602-67	IC M5278L05		R228	1-249-413-11	CARBON 470 5% 1/4W	
		< JACK >		R229	1-249-413-11	CARBON 470 5% 1/4W	
J201	1-565-406-51	JACK, PIN 1P		R230	1-249-417-11	CARBON 1K 5% 1/4W	
J202	* 1-566-852-11	CONNECTOR (RECEPTACLE) 3P		R231	1-249-425-11	CARBON 4.7K 5% 1/4W	
J401	* 1-566-852-11	CONNECTOR (RECEPTACLE) 3P					
J402	1-568-760-11	JACK, PIN 4P		R232	1-249-417-11	CARBON 1K 5% 1/4W	
J501	* 1-566-852-11	CONNECTOR (RECEPTACLE) 3P		R233	1-249-425-11	CARBON 4.7K 5% 1/4W	
				R234	1-249-425-11	CARBON 4.7K 5% 1/4W	
				R235	1-249-425-11	CARBON 4.7K 5% 1/4W	
				R236	1-249-429-11	CARBON 10K 5% 1/4W	
				R237	1-249-429-11	CARBON 10K 5% 1/4W	


MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R238	1-249-425-11	CARBON	4. 7K 5% 1/4W	R426	1-249-417-11	CARBON	1K 5% 1/4W
R239	1-249-441-11	CARBON	100K 5% 1/4W	R427	1-249-429-11	CARBON	10K 5% 1/4W
R240	1-249-441-11	CARBON	100K 5% 1/4W	R428	1-249-429-11	CARBON	10K 5% 1/4W
R241	1-249-441-11	CARBON	100K 5% 1/4W	R429	1-249-429-11	CARBON	10K 5% 1/4W
R242	1-249-429-11	CARBON	10K 5% 1/4W	R430	1-249-408-11	CARBON	180 5% 1/4W
R243	1-249-425-11	CARBON	4. 7K 5% 1/4W	R431	1-249-417-11	CARBON	1K 5% 1/4W
R245	1-247-804-11	CARBON	75 5% 1/4W	R432	△· 1-212-869-00	FUSIBLE	33 5% 1/4W F
R301	1-247-903-00	CARBON	1M 5% 1/4W	R433	△· 1-212-869-00	FUSIBLE	33 5% 1/4W F
R302	1-249-411-11	CARBON	330 5% 1/4W	R434	1-249-429-11	CARBON	10K 5% 1/4W
R303	1-249-429-11	CARBON	10K 5% 1/4W	R501	1-249-419-11	CARBON	1. 5K 5% 1/4W
R304	1-249-429-11	CARBON	10K 5% 1/4W	R502	1-249-419-11	CARBON	1. 5K 5% 1/4W
R305	1-249-429-11	CARBON	10K 5% 1/4W	R503	1-249-405-11	CARBON	100 5% 1/4W
R306	1-249-429-11	CARBON	10K 5% 1/4W	R504	1-249-405-11	CARBON	100 5% 1/4W
R307	1-249-429-11	CARBON	10K 5% 1/4W	R505	1-249-429-11	CARBON	10K 5% 1/4W
R309	1-249-429-11	CARBON	10K 5% 1/4W	R506	1-249-421-11	CARBON	2. 2K 5% 1/4W
R310	1-249-429-11	CARBON	10K 5% 1/4W	R507	1-249-427-11	CARBON	6. 8K 5% 1/4W
R311	1-249-429-11	CARBON	10K 5% 1/4W	R508	1-249-427-11	CARBON	6. 8K 5% 1/4W
R312	1-249-429-11	CARBON	10K 5% 1/4W	R509	1-249-407-11	CARBON	150 5% 1/4W
R313	1-249-417-11	CARBON	1K 5% 1/4W	R510	1-249-421-11	CARBON	2. 2K 5% 1/4W
R314	1-249-429-11	CARBON	10K 5% 1/4W	R511	1-249-421-11	CARBON	2. 2K 5% 1/4W
R315	1-249-429-11	CARBON	10K 5% 1/4W	R512	1-249-427-11	CARBON	6. 8K 5% 1/4W
R316	1-249-417-11	CARBON	1K 5% 1/4W	R513	1-249-421-11	CARBON	2. 2K 5% 1/4W
R317	1-249-429-11	CARBON	10K 5% 1/4W	R514	1-249-427-11	CARBON	6. 8K 5% 1/4W
R319	1-249-429-11	CARBON	10K 5% 1/4W	R515	1-249-407-11	CARBON	150 5% 1/4W
R401	1-249-419-11	CARBON	1. 5K 5% 1/4W	R516	1-249-417-11	CARBON	1K 5% 1/4W
R402	1-249-419-11	CARBON	1. 5K 5% 1/4W	R517	1-249-417-11	CARBON	1K 5% 1/4W
R403	1-249-405-11	CARBON	100 5% 1/4W	R518	1-249-411-11	CARBON	330 5% 1/4W
R404	1-249-405-11	CARBON	100 5% 1/4W	R519	1-249-411-11	CARBON	330 5% 1/4W
R405	1-249-429-11	CARBON	10K 5% 1/4W	R520	1-247-887-00	CARBON	220K 5% 1/4W
R406	1-249-421-11	CARBON	2. 2K 5% 1/4W	R521	1-249-429-11	CARBON	10K 5% 1/4W
R407	1-249-427-11	CARBON	6. 8K 5% 1/4W	R522	1-249-434-11	CARBON	27K 5% 1/4W
R408	1-249-427-11	CARBON	6. 8K 5% 1/4W	R523	1-249-407-11	CARBON	150 5% 1/4W
R409	1-249-407-11	CARBON	150 5% 1/4W	R524	1-249-415-11	CARBON	680 5% 1/4W
R410	1-249-421-11	CARBON	2. 2K 5% 1/4W	R531	1-249-417-11	CARBON	1K 5% 1/4W
R411	1-249-421-11	CARBON	2. 2K 5% 1/4W	R534	1-249-421-11	CARBON	2. 2K 5% 1/4W
R412	1-249-427-11	CARBON	6. 8K 5% 1/4W	R901	1-249-405-11	CARBON	100 5% 1/4W
R413	1-249-421-11	CARBON	2. 2K 5% 1/4W	R902	△· 1-216-472-00	METAL OXIDE	39 5% 3W F
R414	1-249-427-11	CARBON	6. 8K 5% 1/4W	R903	1-249-429-11	CARBON	10K 5% 1/4W
R415	1-249-407-11	CARBON	150 5% 1/4W	R904	△· 1-212-869-00	FUSIBLE	33 5% 1/4W F
R416	1-249-417-11	CARBON	1K 5% 1/4W	R905	1-249-424-11	CARBON	3. 9K 5% 1/4W
R417	1-249-417-11	CARBON	1K 5% 1/4W	R906	1-249-433-11	CARBON	22K 5% 1/4W
R418	1-249-411-11	CARBON	330 5% 1/4W	R907	1-249-405-11	CARBON	100 5% 1/4W
R419	1-249-411-11	CARBON	330 5% 1/4W	R908	1-249-405-11	CARBON	100 5% 1/4W
R420	1-247-887-00	CARBON	220K 5% 1/4W			< VARIABLE RESISTOR >	
R421	1-249-429-11	CARBON	10K 5% 1/4W	RV401	1-228-994-00	RES. ADJ. METAL10K	
R422	1-249-434-11	CARBON	27K 5% 1/4W	RV501	1-228-994-00	RES. ADJ. METAL10K	
R423	1-249-407-11	CARBON	150 5% 1/4W				
R424	1-249-415-11	CARBON	680 5% 1/4W				
R425	1-247-850-11	CARBON	6. 2K 5% 1/4W				

Note:

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

Note:

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

MAIN POWER POWER SW SWITCH L. MOTOR SW DISPLAY

Ref. No.	Part No.	Description	Remark
		< RELAY >	
RY401	1-515-703-11	RELAY	
RY402	1-515-703-11	RELAY	
RY501	1-515-703-11	RELAY	
RY502	1-515-703-11	RELAY	
		< SWITCH >	
S201	1-570-707-21	SWITCH, SLIDE (DIGITAL OUT)	
		< TRANSFORMER >	
T201	1-421-946-11	TRANSFORMER, PULSE	
		< CRYSTAL >	
X201	1-577-686-11	VIBRATOR, CRYSTAL (45.1584MHZ)	
X301	1-577-377-11	VIBRATOR, CERAMIC (10MHZ)	

	* 1-640-471-11	POWER BOARD	

	△ 1-533-183-11	HOLDER, FUSE	
	* 1-535-771-11	TERMINAL	
		< CAPACITOR >	
C991	△ 1-161-744-00	CERAMIC 0.01MF	400V
C992	△ 1-161-744-00	CERAMIC 0.01MF	400V
		< CONNECTOR >	
CN991	1-535-139-00	BASE POST 22MM (10MM PITCH) 2P	
CN992	* 1-535-140-00	BASE POST 22MM (10MM PITCH) 3P	
CN993	* 1-535-140-00	BASE POST 22MM (10MM PITCH) 3P	
CN994	1-535-139-00	BASE POST 22MM (10MM PITCH) 2P	

	* 1-640-472-11	POWER SW BOARD	

		< CONNECTOR >	
CN995	1-535-139-00	BASE POST 22MM (10MM PITCH) 2P	
		< FUSE >	
F991	△ 1-532-066-00	FUSE, TIME-LAG (0.4A 250V) (E, UK)	
F991	△ 1-532-741-11	FUSE, GLASS TUBE (1.25A 125V) (US, Canadian)	
		< SWITCH >	
S991	△ 1-570-156-11	SWITCH, PUSH (AC POWER) (1 KEY)	

Ref. No.	Part No.	Description	Remark
* 1-632-974-11		SWITCH BOARD	

* 1-632-975-11		L. MOTOR BOARD	

	3-659-338-00	SPRING, COMPRESSION	
	3-831-441-XX	CUSHION	
	4-927-624-01	CAM (L, A)	
	4-927-635-01	CAM (L, B)	
* 4-927-648-01		SLIDER (GROUND)	
	4-927-649-01	BELT	
	4-927-654-01	WASHER (LIMITER)	
	4-927-665-01	SHAFT (S)	
	4-929-724-01	PULLEY (B)	
	7-624-105-04	STOP RING 2.3, TYPE -E	
	7-682-544-04	SCREW +P 3X3	
		< CAPACITOR >	
C001	1-136-157-00	FILM 0.022uF	5% 50V
		< RESISTOR >	
R001	△ 1-215-880-00	METAL OXIDE 10	5% 2W F
R002	△ 1-215-880-00	METAL OXIDE 10	5% 2W F
		< SWITCH >	
S001	1-571-736-11	SWITCH, LEAF (IN)	
S002	1-571-736-11	SWITCH, LEAF (OUT)	

	* 1-640-468-11	SW BOARD	

	* 1-640-473-11	DISPLAY BOARD	

	* 4-923-532-21	SPACER, LED	
	* 4-928-052-01	HOLDER (RIGHT)	
	* 4-928-053-01	HOLDER (LEFT)	
		< CAPACITOR >	
C701	1-164-159-11	CERAMIC 0.1uF	50V
C801	1-126-177-11	ELECT 100uF	20% 10V
C802	1-164-159-11	CERAMIC 0.1uF	50V
C803	1-164-159-11	CERAMIC 0.1uF	50V
		< CONNECTOR >	
CN801	* 1-564-500-11	PIN, CONNECTOR 7P	
CN802	* 1-564-502-11	PIN, CONNECTOR 10P	
CN806	* 1-564-497-11	PIN, CONNECTOR 4P	

<p>Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.</p>	<p>Note: Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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SW

DISPLAY

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< DIODE >				< SWITCH >			
D701	8-719-911-19	DIODE 1SS119		S701	1-554-303-21	SWITCH, TACTILE (1)	
D702	8-719-911-19	DIODE 1SS119		S702	1-554-303-21	SWITCH, TACTILE (2)	
D703	8-719-911-19	DIODE 1SS119		S703	1-554-303-21	SWITCH, TACTILE (3)	
D704	8-719-911-19	DIODE 1SS119		S704	1-554-303-21	SWITCH, TACTILE (4)	
D705	8-719-911-19	DIODE 1SS119		S705	1-554-303-21	SWITCH, TACTILE (5)	
D706	8-719-911-19	DIODE 1SS119		S706	1-554-303-21	SWITCH, TACTILE (CONTINUE)	
D707	8-719-911-19	DIODE 1SS119		S707	1-554-303-21	SWITCH, TACTILE (TIME/SPEED)	
D708	8-719-907-81	DIODE BG5535S		S708	1-554-303-21	SWITCH, TACTILE (6)	
D709	8-719-907-75	DIODE AA5534S		S709	1-554-303-21	SWITCH, TACTILE (7)	
D710	8-719-914-33	DIODE PG3432SY		S710	1-554-303-21	SWITCH, TACTILE (8)	
D711	8-719-914-33	DIODE PG3432SY		S711	1-554-303-21	SWITCH, TACTILE (9)	
D712	8-719-914-33	DIODE PG3432SY		S712	1-554-303-21	SWITCH, TACTILE (10)	
D801	8-719-915-36	DIODE SLP145B		S713	1-554-303-21	SWITCH, TACTILE (SHUFFLE)	
< FILTER >				S714	1-554-303-21	SWITCH, TACTILE (>)	
FL801	1-519-554-11	INDICATOR TUBE, FLUORESCENT		S715	1-554-303-21	SWITCH, TACTILE (11)	
< IC >				S716	1-554-303-21	SWITCH, TACTILE (12)	
IC701	8-759-231-66	IC TC74HC4053AP		S717	1-554-303-21	SWITCH, TACTILE (13)	
IC801	8-759-512-89	IC MSC62408-024GS		S718	1-554-303-21	SWITCH, TACTILE (14)	
< TRANSISTOR >				S719	1-554-303-21	SWITCH, TACTILE (15)	
Q701	8-729-905-05	TRANSISTOR 2SD1293M-Q		S720	1-554-303-21	SWITCH, TACTILE (PROGRAM)	
Q801	8-729-905-05	TRANSISTOR 2SD1293M-Q		S721	1-554-303-21	SWITCH, TACTILE (-)	
Q802	8-729-905-05	TRANSISTOR 2SD1293M-Q		S722	1-554-303-21	SWITCH, TACTILE (16)	
Q803	8-729-900-45	TRANSISTOR DTC114EF		S723	1-554-303-21	SWITCH, TACTILE (17)	
Q804	8-729-900-45	TRANSISTOR DTC114EF		S724	1-554-303-21	SWITCH, TACTILE (18)	
< RESISTOR >				S725	1-554-303-21	SWITCH, TACTILE (19)	
R701	1-249-429-11	CARBON	10K 5% 1/4W	S726	1-554-303-21	SWITCH, TACTILE (20)	
R702	1-249-405-11	CARBON	100 5% 1/4W	S727	1-554-303-21	SWITCH, TACTILE (C. INDEX)	
R703	1-249-405-11	CARBON	100 5% 1/4W	S728	1-554-303-21	SWITCH, TACTILE (TIME/MEMO)	
R801	1-249-425-11	CARBON	4.7K 5% 1/4W	S729	1-554-303-21	SWITCH, TACTILE (□□)	
R802	1-249-429-11	CARBON	10K 5% 1/4W	S730	1-554-303-21	SWITCH, TACTILE (■)	
R803	1-247-903-00	CARBON	1M 5% 1/4W	S731	1-554-303-21	SWITCH, TACTILE (◀◀)	
R804	1-249-417-11	CARBON	1K 5% 1/4W	S732	1-554-303-21	SWITCH, TACTILE (▶▶)	
R806	1-249-441-11	CARBON	100K 5% 1/4W	S734	1-554-303-21	SWITCH, TACTILE (REPEAT)	
R807	1-249-417-11	CARBON	1K 5% 1/4W	S735	1-554-303-21	SWITCH, TACTILE (ERASE)	
R809	1-249-441-11	CARBON	100K 5% 1/4W	S736	1-554-303-21	SWITCH, TACTILE (FILE)	
R810	1-249-406-11	CARBON	120 5% 1/4W	S737	1-554-303-21	SWITCH, TACTILE (◀◀)	
R811	1-249-409-11	CARBON	220 5% 1/4W	S738	1-554-303-21	SWITCH, TACTILE (◀▶)	
R812	1-249-417-11	CARBON	1K 5% 1/4W	S739	1-554-303-21	SWITCH, TACTILE (>20)	
R813	1-249-417-11	CARBON	1K 5% 1/4W	S740	1-554-303-21	SWITCH, TACTILE (A-B)	
R814	1-249-429-11	CARBON	10K 5% 1/4W	S741	1-554-303-21	SWITCH, TACTILE (FADER)	
R816	1-249-429-11	CARBON	10K 5% 1/4W	S742	1-554-303-21	SWITCH, TACTILE (CHECK)	
				S743	1-554-303-21	SWITCH, TACTILE (CLEAR)	
				S744	1-554-303-21	SWITCH, TACTILE (+)	
				S745	1-554-303-21	SWITCH, TACTILE (ON/OFF)	
				S746	1-554-303-21	SWITCH, TACTILE (FILE RECALL)	
				S801	1-554-303-21	SWITCH, TACTILE (OPEN/CLOSE)	
				S802	1-570-157-51	SWITCH, SLIDE (AUTO CUE)	

SW **DISPLAY** **VR**

Ref. No.	Part No.	Description	Remark
		< CERAMIC >	
X801	1-577-082-11	VIBRATOR, CERAMIC (4MHz)	

	* 1-640-467-11	VR BOARD	

		< CONNECTOR >	
CN581	* 1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P	
		< VARIABLE RESISTOR >	
RV580	1-238-776-11	RES. VAR, CARBON 10KX3 (PHONE LEVEL)	

		MISCELLANEOUS	

201	△ 8-848-144-11	DEVICE, OPTICAL KSS-240A	
202	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
CNP901	△ 1-526-813-12	INLET, AC 3P	
D708	8-719-907-81	DIODE EBG5534S	
D709	8-719-907-75	DIODE AA5534S	
M001	A-4604-347-A	MOTOR (L) ASSY	
M101	X-4917-523-3	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	
S992	△ 1-570-046-21	SWITCH, VOLTAGE CHANGE	
T991	△ 1-450-650-11	TRANSFORMER, POWER	

		ACCESSORY & PACKING MATERIAL	

	△ 1-534-827-14	CORD, POWER (US, Canadian)	
	△ 1-556-760-11	CORD, POWER (3 CORE) (E, UK)	
	1-558-271-11	CORD, CONNECTION	
	2-297-913-00	WASHER (DIA. 5), ORNAMENTAL	
	3-701-617-00	BAG, POLYETHYLENE, STANDARD	
	3-795-629-11	INSTRUCTION (E, UK)	
	* 4-923-548-01	CUSHION (UPPER)	
	* 4-923-549-01	CUSHION (LOWER)	
	* 4-934-098-01	STOPPER, DISK TABLE	
	* 4-941-548-01	LABEL, CLASS 1 (E, UK)	
	4-943-142-01	MANUAL, OPERATION (ENGLISH) (US, Canadian)	
	4-943-143-01	MANUAL, OPERATION (FRENCH) (US, Canadian)	
	4-943-144-01	MANUAL, OPERATION (GERMAN) (E, UK)	
	* 4-945-367-01	ADAPTOR (3U), RACK MOUNT	
	* 4-946-382-01	INDIVIDUAL CARTON	
	* 4-946-383-01	CUSHION	
	7-682-276-04	SCREW +RK 5X12	
	7-682-667-09	SCREW +PSW 4X25	

Ref. No.	Part No.	Description	Remark
HARDWARE LIST			

# 1	7-682-561-09	SCREW +B 4X8	
# 2	7-621-996-24	BOLT 2.6X4, HEXAGON SOCKET	
# 3	7-682-548-09	SCREW (3X8)	
# 4	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	
# 5	7-685-870-01	SCREW +BVTT 3X5 (S)	
# 6	7-621-770-87	SCREW +BVTT 2.6X5 (S)	
# 7	7-682-547-04	SCREW +BVTT 3X6 (S)	
# 8	7-682-549-09	SCREW +BVTT 3X10 (S)	
# 9	7-682-560-04	SCREW +BVTT 4X6 (S)	
#10	7-685-647-79	SCREW +P 3X10 TYPE2 SLIT	
#11	7-621-775-10	SCREW +BVTT 2.6X4 (S)	
#12	7-621-770-67	SCREW +BVTT 2.6X6 (S)	
#13	7-682-544-04	SCREW +B 3X3	
#14	7-621-255-15	SCREW +P 2X3	
#15	7-684-023-04	N 3, TYPE 2	
#16	7-623-308-07	LW 3, TYPE (A)	
#17	7-624-105-04	STOP RING 2.3, TYPE -E	

<p>Note: The components identified by mark △ or dotted line with mark ① are critical for safety. Replace only with part number specified.</p>	<p>Note: Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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