CDP-C265/C365

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
Australian Model
CDP-C265/C365
E Model
CDP-C365

Photo : CDP-C265

Model Name Using Similer Mechanism	CDP-C235/C335
CD Mechanism Type	CDM27A1-5BD13
Base Unit Type	BU-5BD13
Optical Pick-up Type	KSS-240A

SPECIFICATIONS

Compact Disc Player

System	Compact disc digital audio system
Laser	Semiconductor laser
Wavelength	780-790 nm
Frequency response	2 Hz-20 kHz (±0.5 dB)
Signal to noise ratio	More than 102 dB
Dynamic range	More than 98 dB
Harmonic distortion	Less than 0.0045%
Channel separation	More than 100 dB

Output

LINE OUT (phono jacks)	Output level 2 V (at 50 kilohms) Load impedance over 10 kilohms

General

Power requirements	Model for US and Canadian 120V AC, 60Hz Model for AEP, German, UK, Singapore, Malaysia 220 — 230V AC, 50/60Hz Model for Australian 240V AC, 50/60Hz Model for E 110—120V, 220—240V AC, 50/60Hz
Power consumption	14W
Dimensions (w/h/d)	Approx. 430 x 125 x 385 mm (17 x 5 x 15 1/4 inches) Including projecting parts and controls
Mass	Approx. 5.6 kg, net (12 lbs 6oz)

Remote Commander **RM-D335 (CDP-C365 only)**

Remote control system	Infrared control
Power requirements	3 V DC with two size AA batteries (IEC designation R6)
Dimensions	45 x 185 x 20 mm (w/h/d) (1 13/16 x 7 3/8 x 13/16 inches)
Mass	100 g (3.5 oz) including batteries

Supplied accessories

Audio signal connecting cord
(phono plug x 2 — phono plug x 2) (1)
Remote commander (1) (CDP-C365 only)
Sony SUM-3 (NS) batteries (2) (CDP-C365 only)
AC plug adaptor (1) (CDP-C365 E model only)

Design and specifications are subject to change without notice.

使用時は添付資料も参照のこと
Refer to the additional documents.

COMPACT DISC PLAYER

SONY®

The following caution label is located inside of the unit.

CAUTION	: INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM
ADVARSEL	: USYNLIG LASERSTRALING VED ABNING NAR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGAUDS ÆTTELSE FOR STRANING
VAROI	: AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA LASERSATEILYLLE
VARNING	: LASERSTRALING NAR DENNA DEL AR OPPNAD OCH SPARREN AR URXOPPLAD
ADVARSEL	: USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES UNNGA EKSPONERING FOR STRÅLEN

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 MARKING is located on the rear exterior.

CAUTION

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

TABLE OF CONTENTS

SAFETY-RELATED COMPONENT WARNING !!

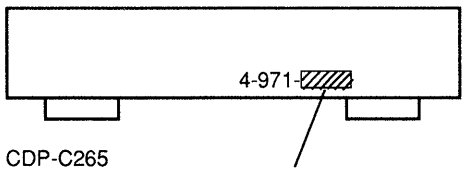
COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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.

MODEL IDENTIFICATION

— BACK PANEL —



CDP-C265	
US Model (made in malaysia)	: 080-5☐ (U)
US Model (made in china)	: 532-4☐ (U)
Canadian Model	: 532-1☐ (CA)
AEP Model	: 080-6☐ (CED)
UK Model	: 080-7☐ (CEK)
German Model	: 532-3☐ (CEE)
Australian Model	: 080-8☐ (AU)
CDP-C365	
US Model	: 080-0☐ (U)
Canadian Model	: 532-0☐ (CA)
AEP, Singapore, Malaysia Model	: 080-1☐ (CED)
UK Model	: 080-2☐ (CEK)
German Model	: 532-2☐ (CEE)
E Model	: 080-4☐ (E2/E3)
Australian Model	: 080-3☐ (AU)

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

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

NOTES ON LASER DIODE EMISSION CHECK

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

SAFETY CHECK-OUT

(US model only)

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

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 2V AC range are suitable. (See Fig. A)

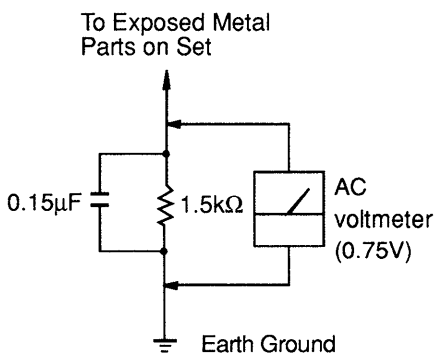
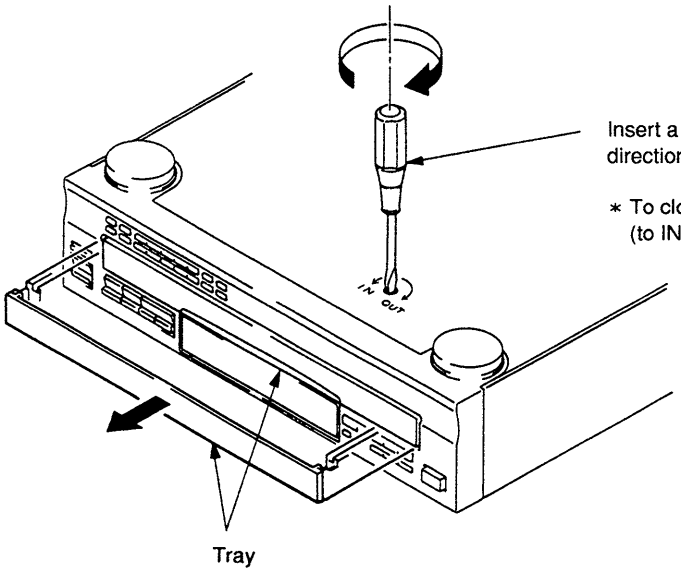


Fig. A. Using an AC voltmeter to check AC leakage.

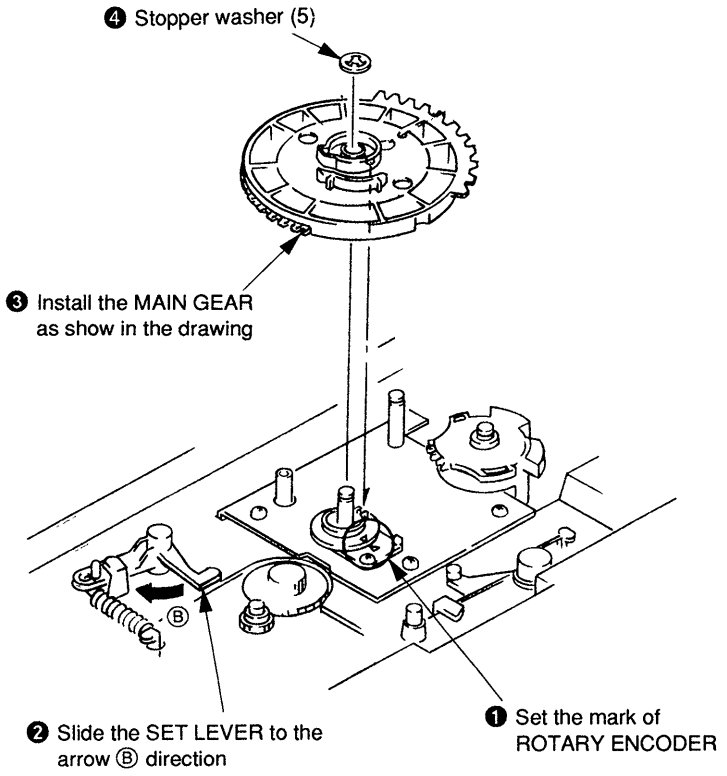
HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF



Insert a tapering driver into the aperture of the unit bottom, and turn in the direction of arrow (to OUT direction).

* To close the disc tray, turn the driver in the reverse direction (to IN direction).

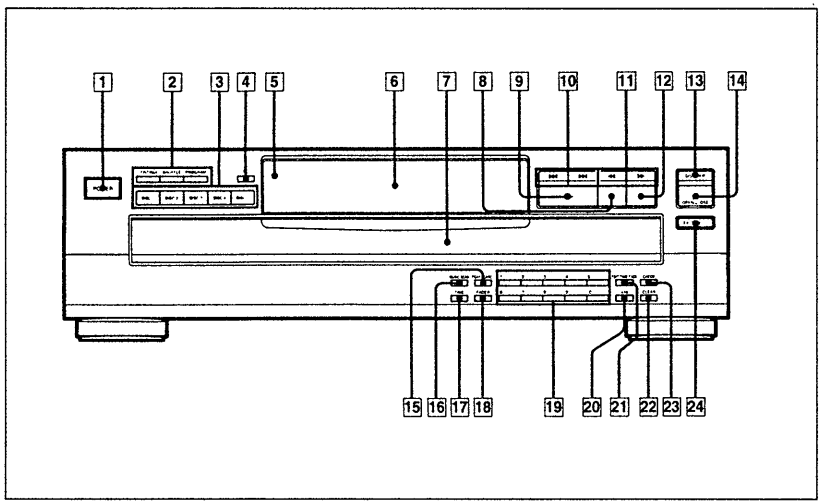
NOTE FOR MAIN GEAR INSTALLATION



SECTION 1
GENERAL

Identifying the Parts

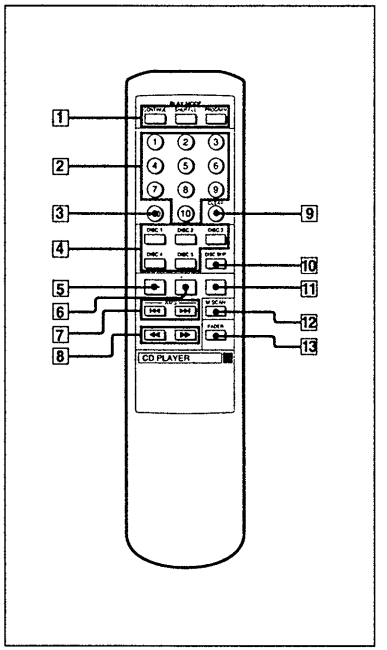
Front Panel



1 POWER switch
2 PLAY MODE buttons
CONTINUE button
SHUFFLE button
PROGRAM button
3 DISC 1-5 buttons
4 DISC CHECK button
5 Remote sensor
(CDP-C365 only)
6 Display window
7 Disc tray
8 ⏸ (pause) button
9 ▶ (play) button
10 ⏮/⏭ (AMS*) buttons
11 ◀◀/▶▶ (manual search) buttons
12 ■ (stop) button
13 DISC SKIP button
14 ▲ OPEN/CLOSE button
15 PEAK SEARCH button
16 REPEAT button
17 TIME button
18 FADER button
19 Numeric buttons
20 >10 (over 10) button
21 EDIT/TIME FADE button
22 CLEAR button
23 CHECK button
24 EX-CHANGE button

* AMS is the abbreviation for Automatic Music Sensor.

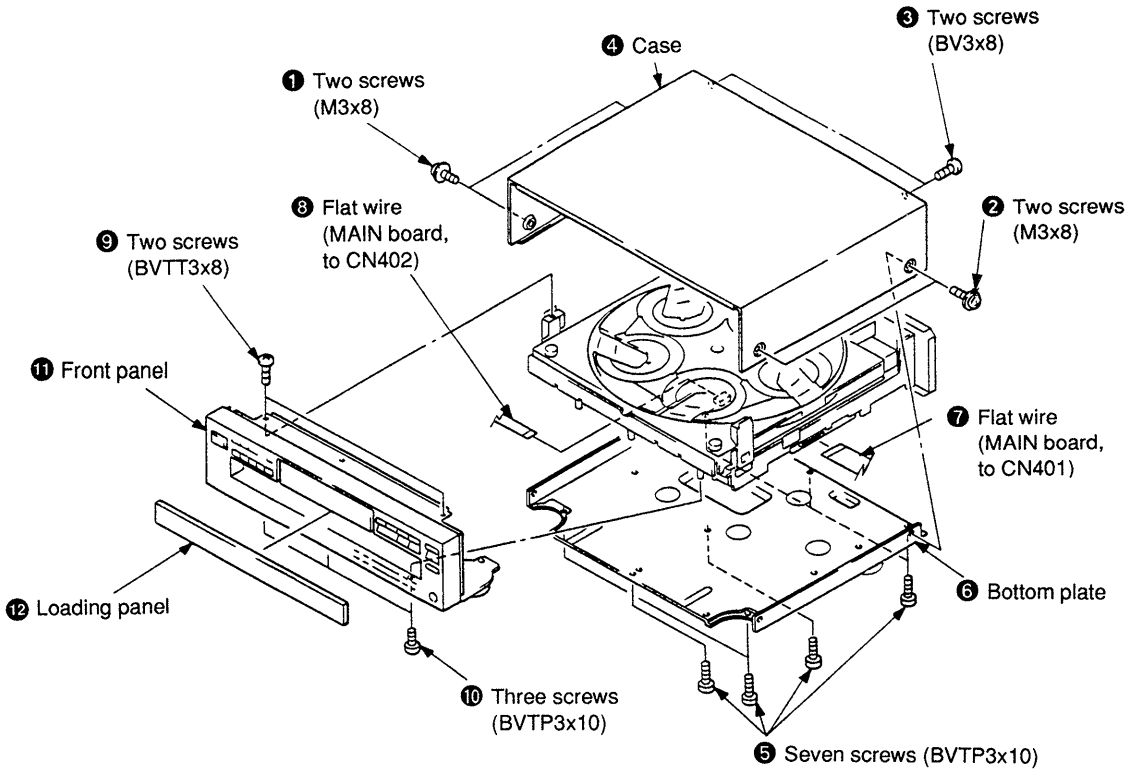
Remote Commander (CDP-C365 only)



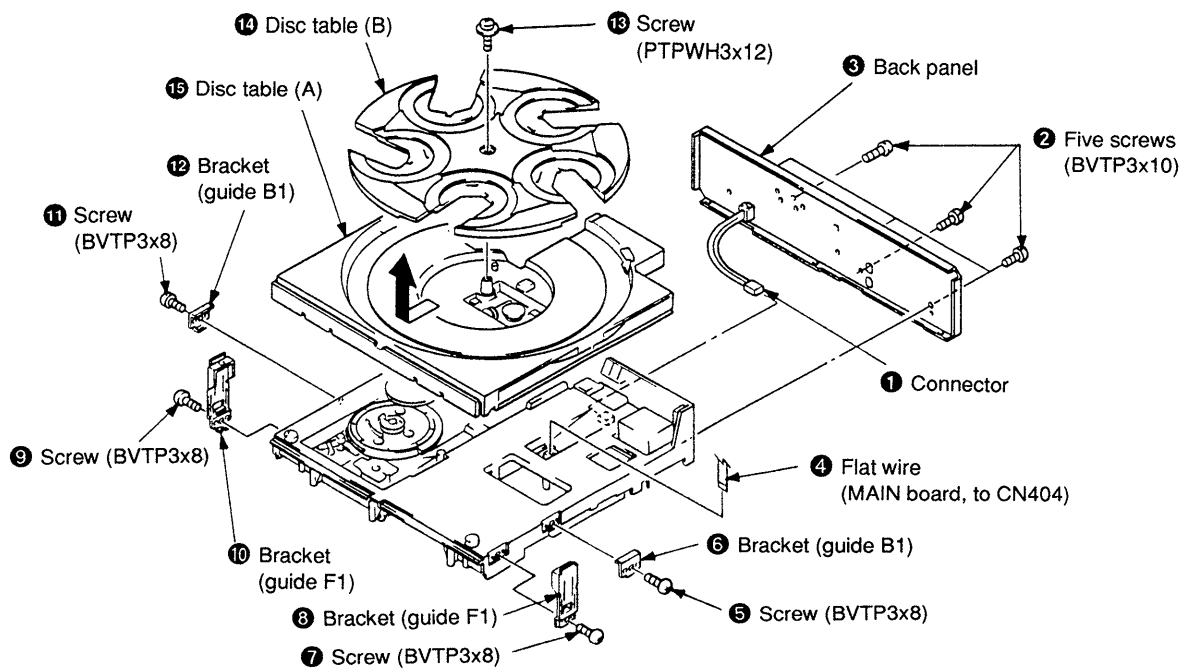
1 PLAY MODE buttons
CONTINUE button
SHUFFLE button
PROGRAM button
2 Numeric buttons
3 >10 (over 10) button
4 DISC 1-5 buttons
5 ▶ (play) button
6 ⏸ (pause) button
7 ⏮/⏭ (AMS) buttons
8 ◀◀/▶▶ (manual search) buttons
9 CLEAR button
10 DISC SKIP button
11 ■ (stop) button
12 MUSIC SCAN (M. SCAN) button
13 FADER button

SECTION 2
DISASSEMBLY

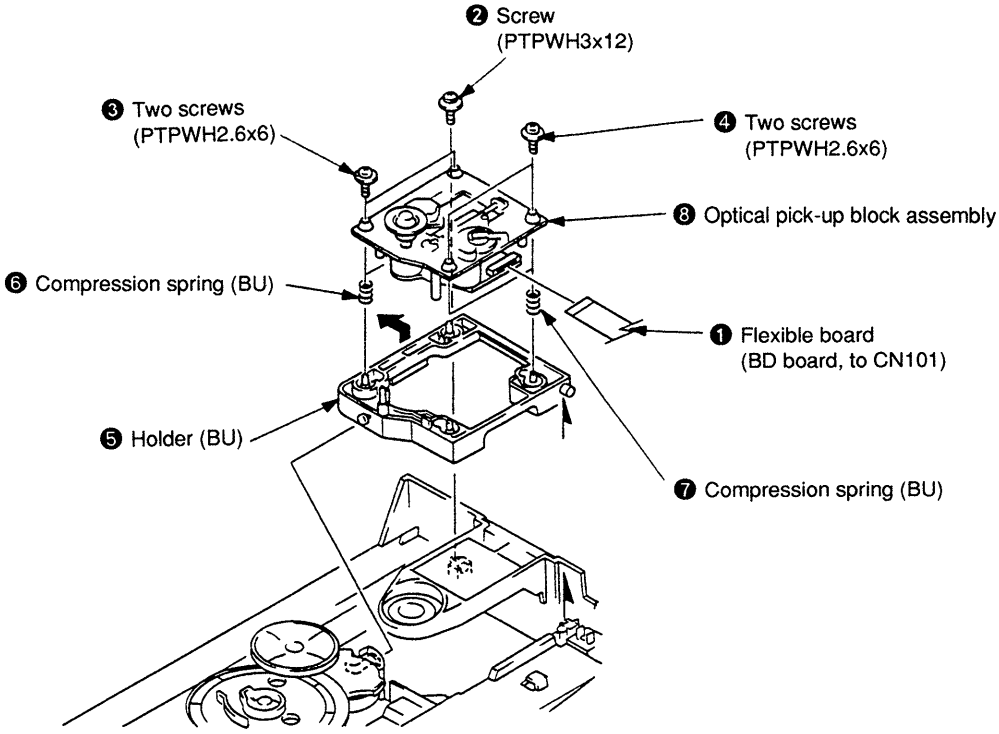
2-1. CASE, BOTTOM PLATE AND FRONT PANEL



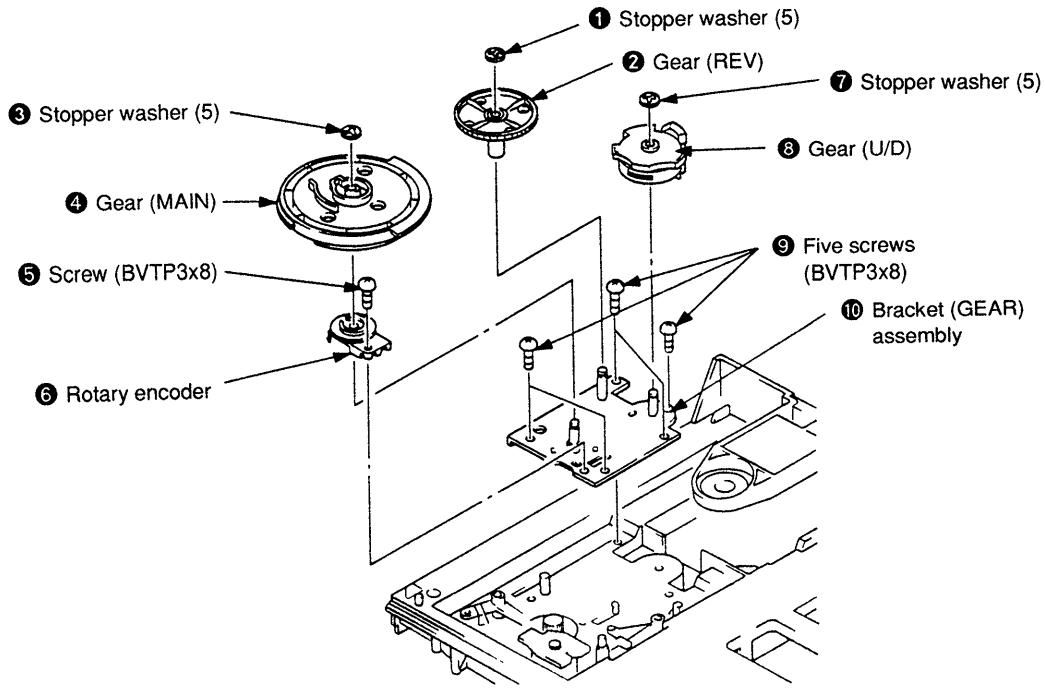
2-2. BACK PANEL AND DISC TABLE



2-3. OPTICAL PICK-UP BLOCK ASSEMBLY



2-4. BRACKET (GEAR) ASSEMBLY



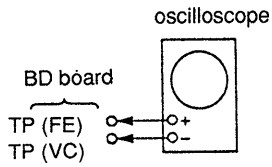
NOTE : As for the installation of the main gear, refer to "Note for MAIN GEAR installation" on page 4.

SECTION 3
ELECTRICAL BLOCK CHECKING

Note :

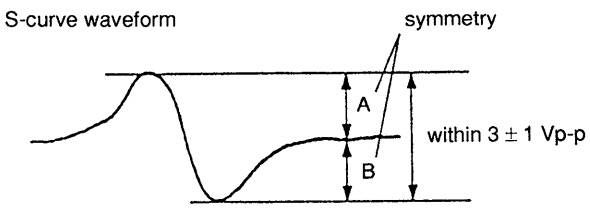
1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MΩ impedance.
4. Clean the object lens using an applicator with neutral detergent when the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

S Curve Check



Procedure :

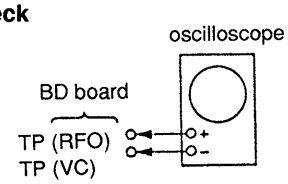
1. Connect oscilloscope to test point TP (FE) on BD board.
2. Connect between test point TP (FEI) and TP (VC) by lead wire.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and turn Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
5. Check if the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3±1 Vp-p.



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

Note : • Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
• Set sweep time as long as possible and set the brightness to obtain best waveform.

RF Level Check



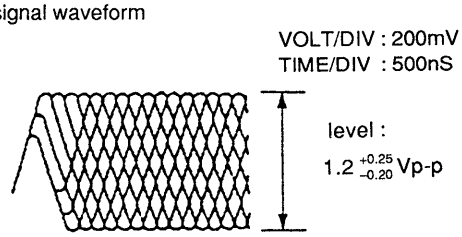
Procedure :

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 if RF signal level is correct or not.

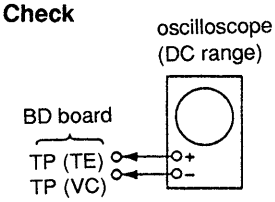
Note :

A clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.

RF signal waveform

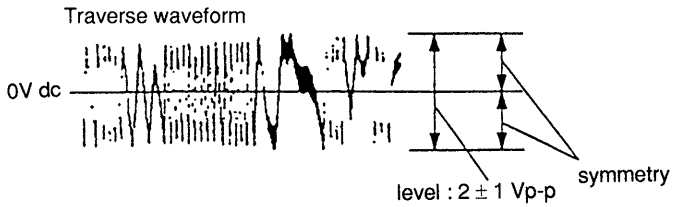


E-F Balance Check



Procedure :

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

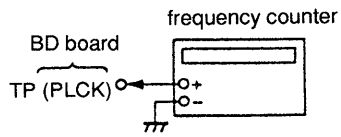


6. Remove the lead wire connected in step 1.

RF PLL Free-run Frequency Check

Procedure :

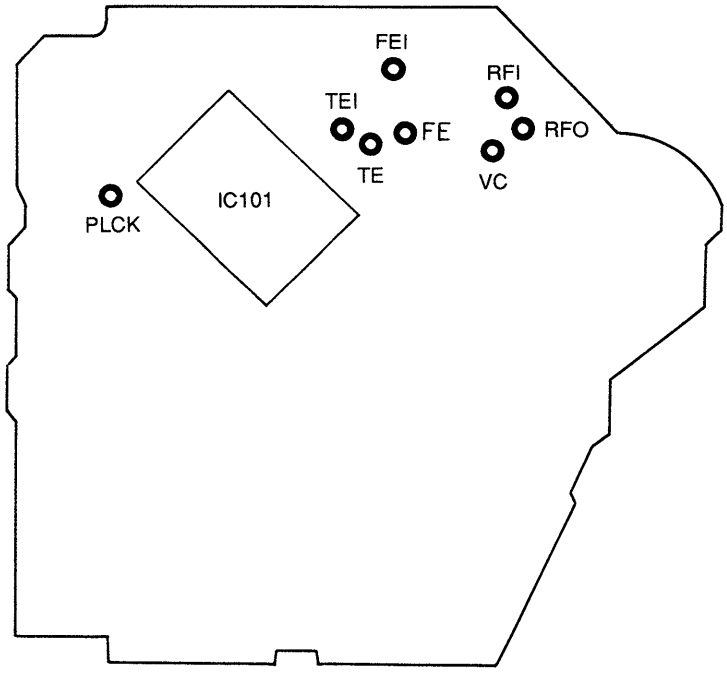
1. Connect frequency counter to test point (PLCK) with lead wire.



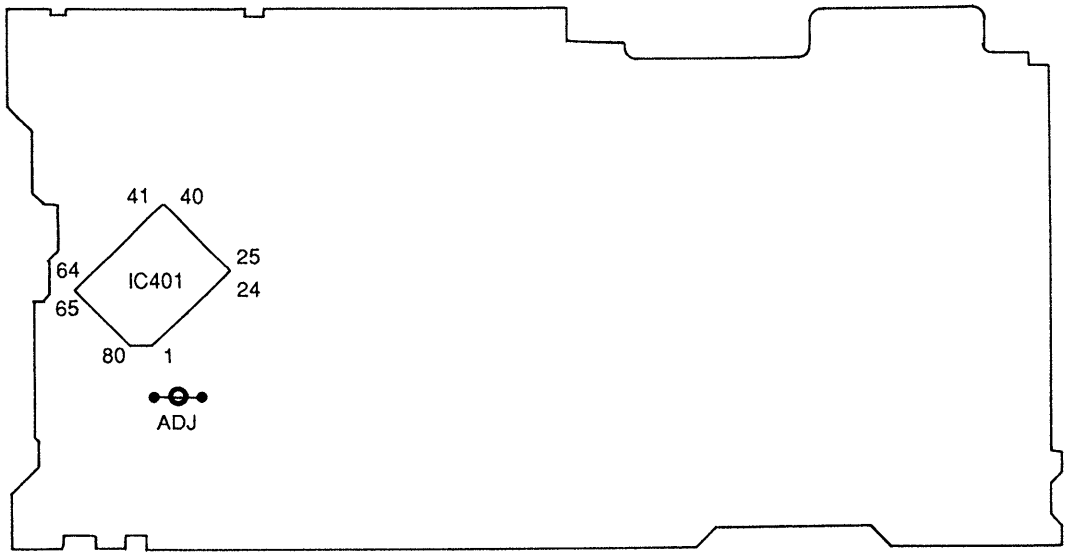
2. Turn Power switch on.
3. Confirm that reading on frequency counter is 4.3218MHz.

Adjustment Location :

【BD BOARD】 — Conductor Side —

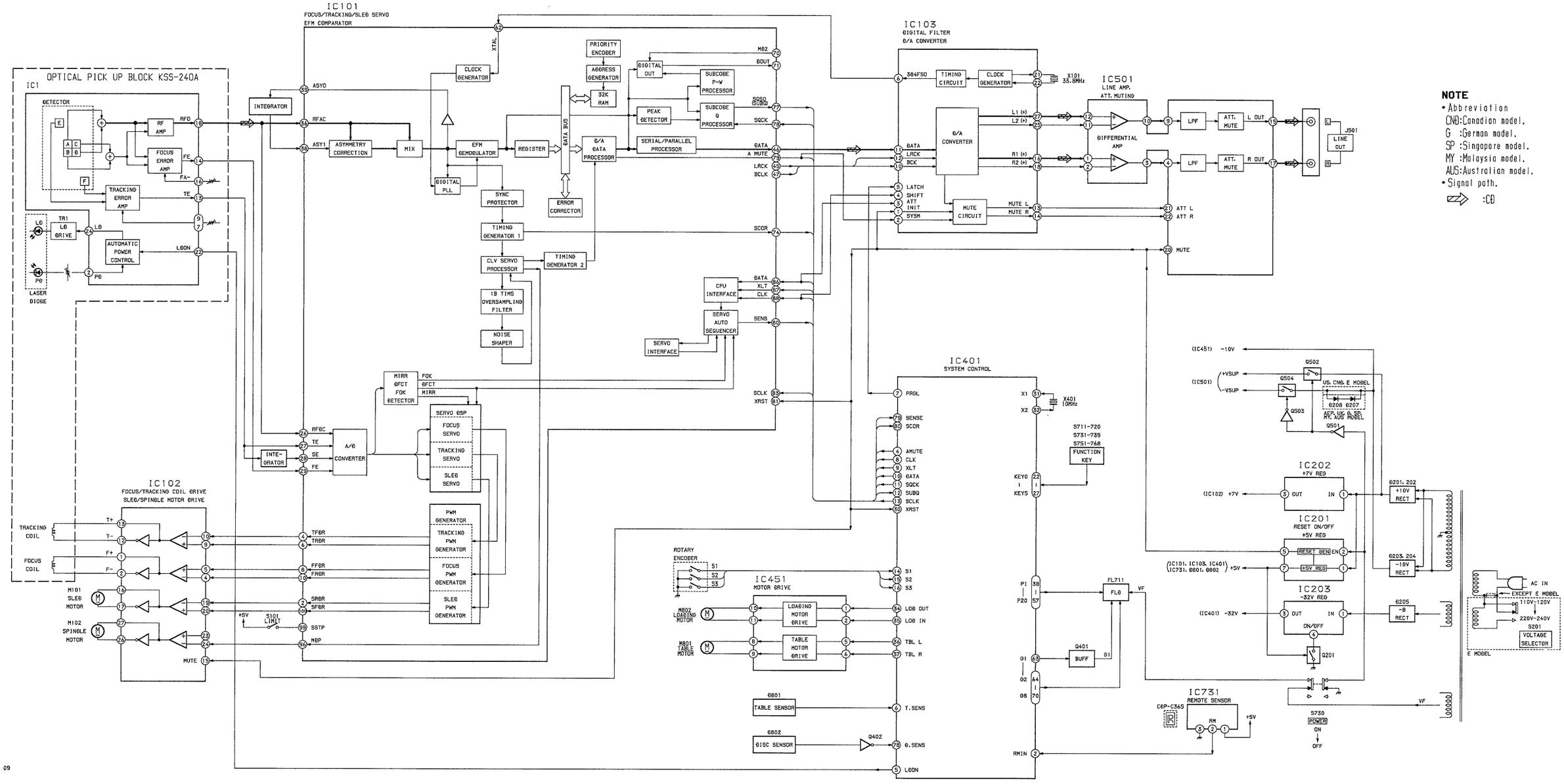


【MAIN BOARD】 — Conductor Side —



SECTION 4
DIAGRAMS

4-1. BLOCK DIAGRAM

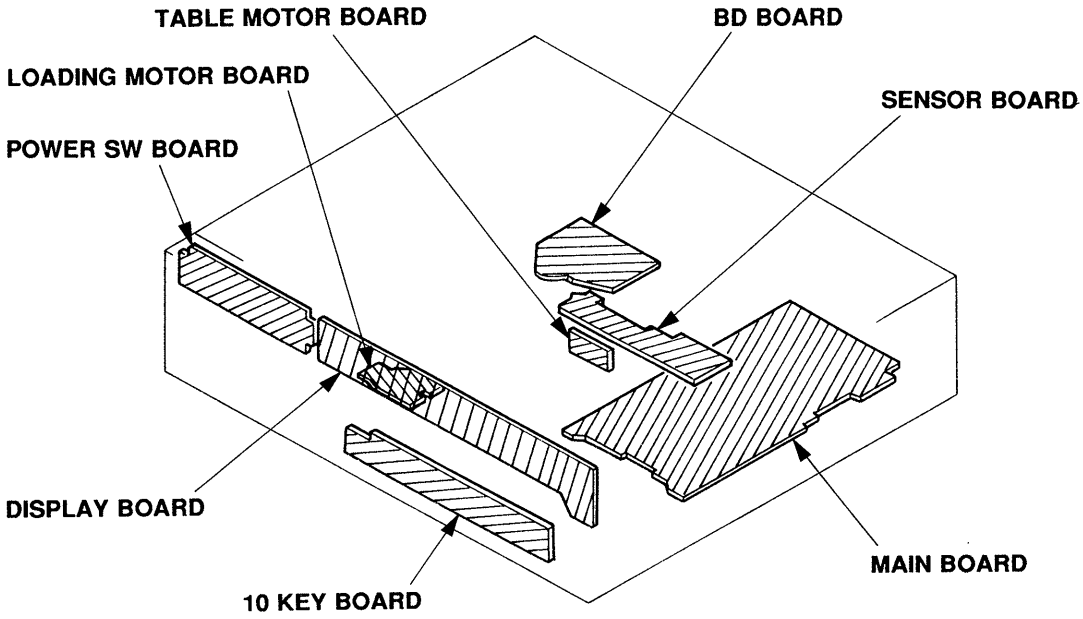


NOTE

- Abbreviation
  CND: Canadian model.
  G : German model.
  SP : Singapore model.
  MY : Malaysia model.
  AUS: Australian model.
- Signal path.
  ⇨ : CD

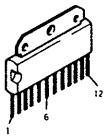
09

4-2. CIRCUIT BOARDS LOCATION

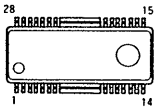


4-3. SEMICONDUCTOR LEAD LAYOUTS

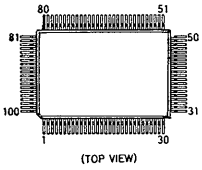
BA6191



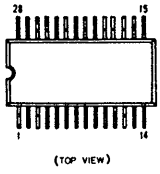
BA6392FP



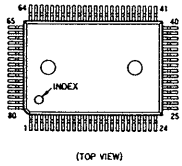
CXD2515Q



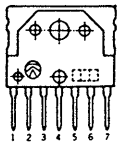
CXD2565AM



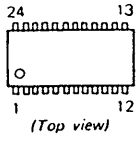
CXP82316-050Q



LA5602

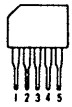


LA9215-ST

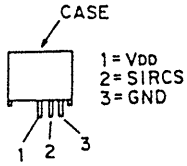


M5F78M07L

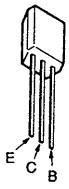
M5293L



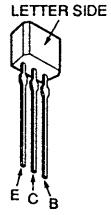
SBX1810-59



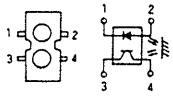
DTC114ES
DTC144ES
2SC2458-YGR



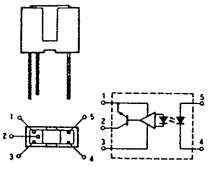
UN4111
2SA1175-HFE



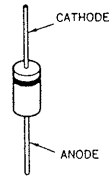
GP2S28



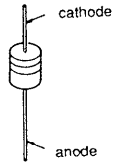
RPI-1391



1N4148M



RD6.2ES-B1
RD9.1ES-B2
11ES2-NTA2B

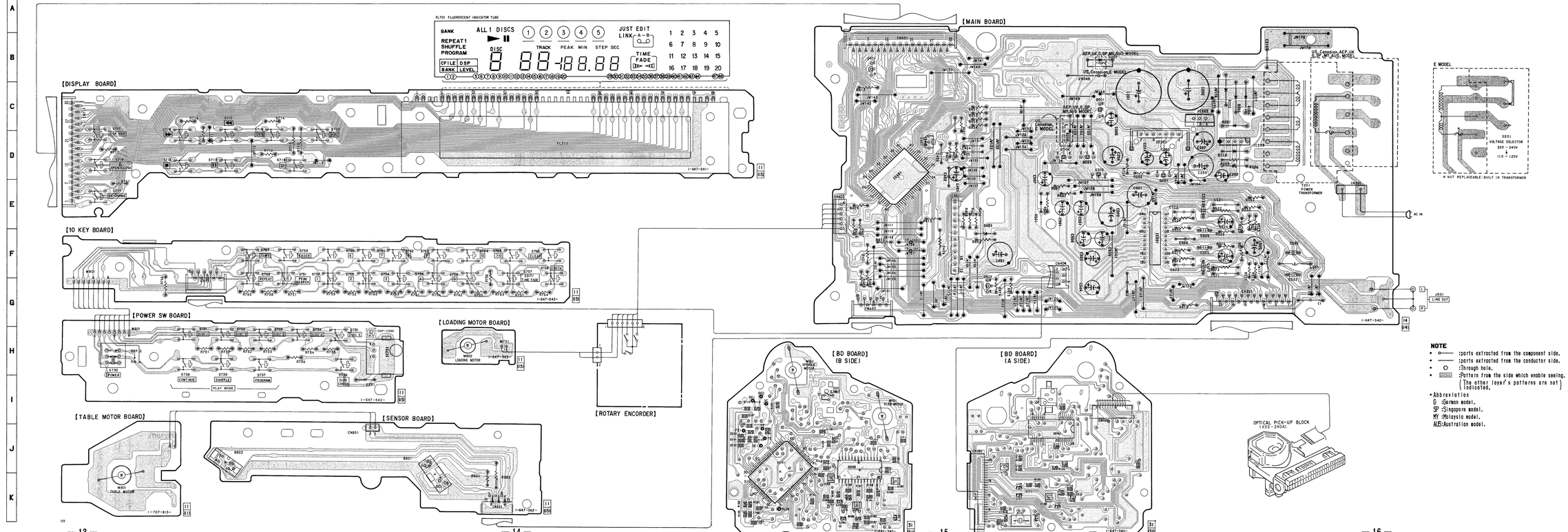


4-4. PRINTED WIRING BOARD

• See page 12 for Circuit Board Location.
• See page 12 for Semiconductor Lead Layouts.

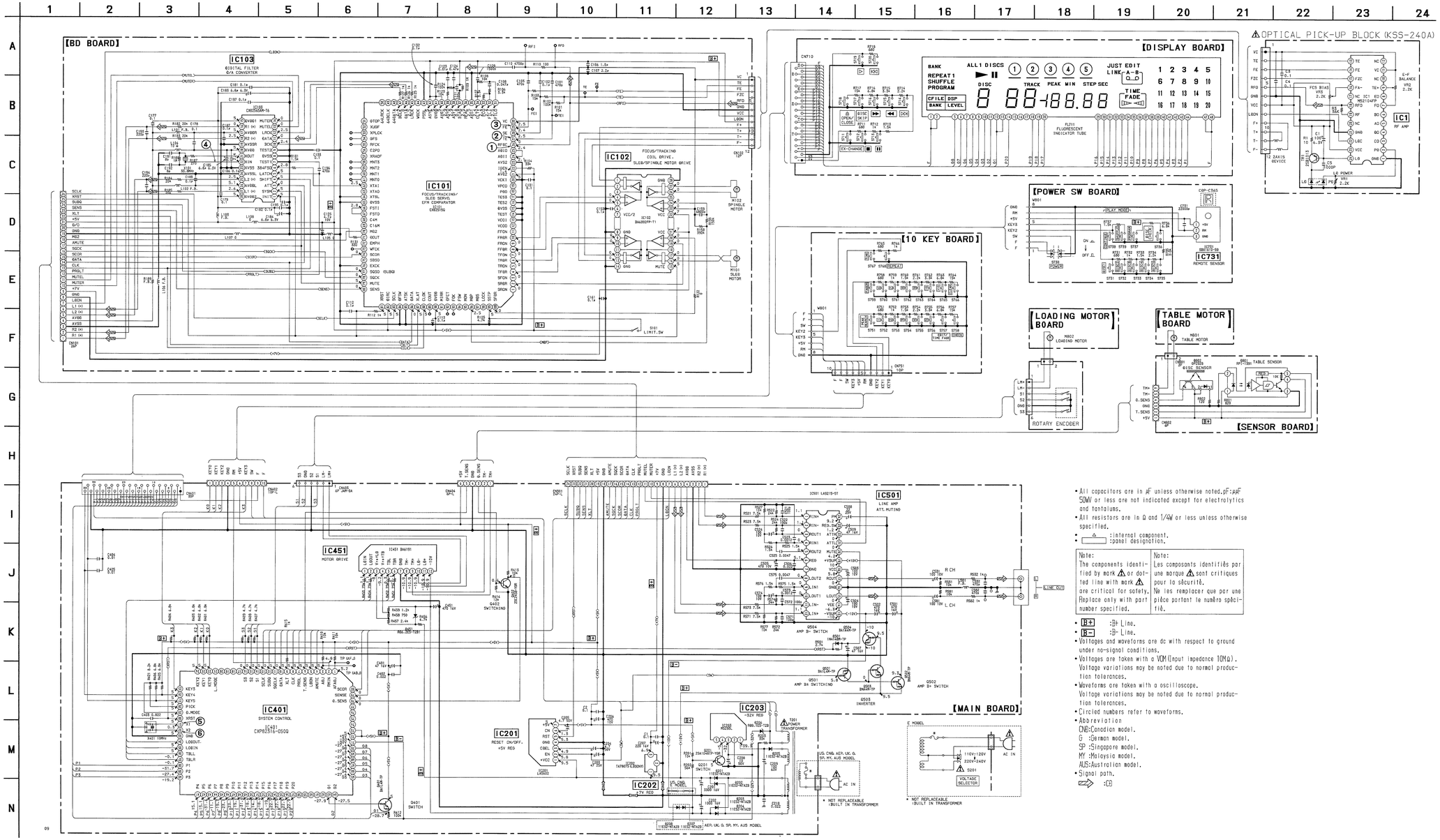
• Semiconductor Location

Ref. No.	Location
D201	C-25
D202	C-25
D203	C-25
D204	C-25
D205	D-25
D206	D-25
D207	B-22
D208	D-22
D451	E-20
D501	E-21
D801	J-8
D802	J-5
IC101	J-16
IC102	J-21
IC103	J-17
IC201	D-23
IC202	C-24
IC203	D-25
IC401	D-18
IC451	E-19
IC501	F-23
IC731	H-8
Q201	D-24
Q401	B-18
Q402	F-20
Q501	C-22
Q502	D-22
Q503	D-22
Q504	D-22

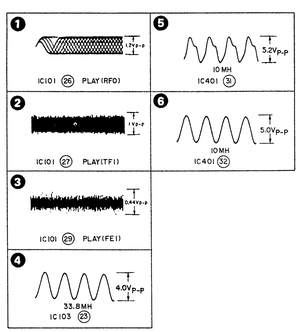


4-5. SCHEMATIC DIAGRAM

• See page 21 for IC Block Diagrams.
• See page 23 for IC Pin Functions. (IC101, IC103, IC401)



• Waveforms



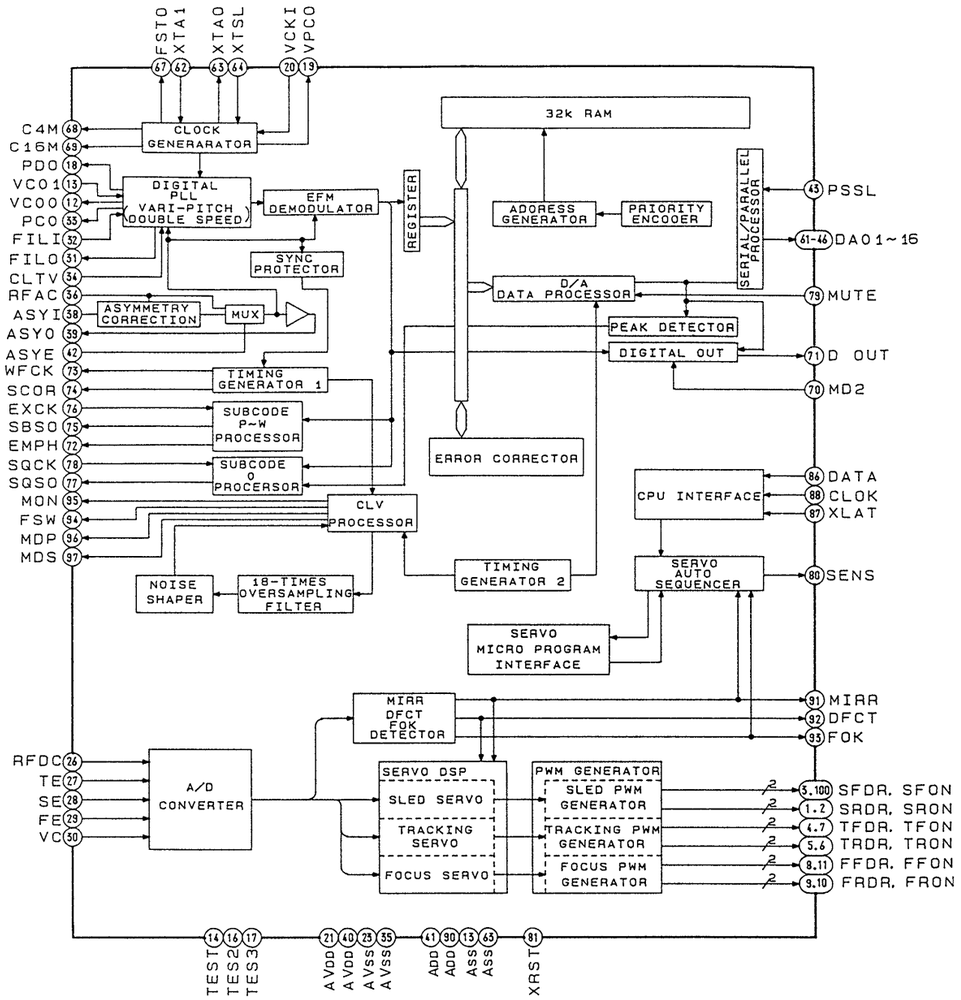
• All capacitors are in μF unless otherwise noted. pF: μμF
50WV or less are not indicated except for electrolytics and tantalums.
• All resistors are in Ω and 1/4W or less unless otherwise specified.
• △ : internal component.
• ▭ : panel designation.

Note:	Note:
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.

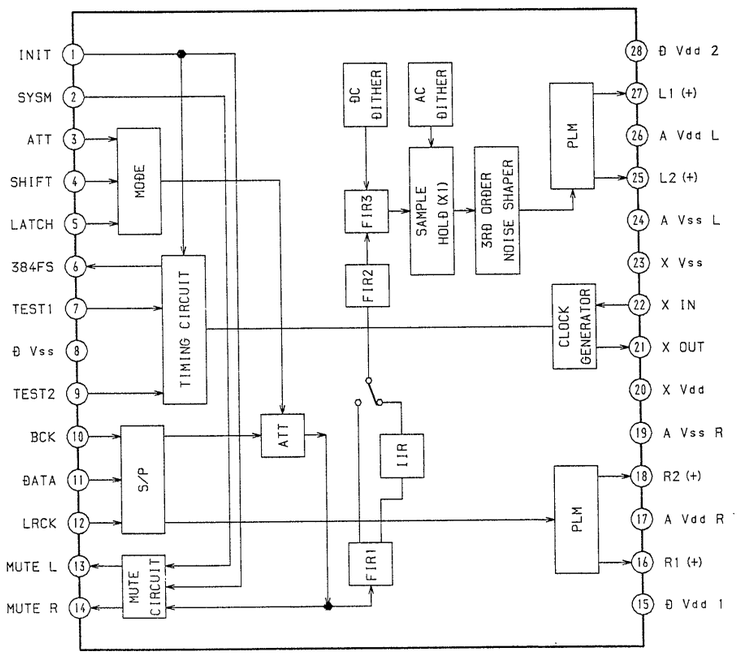
• B+ : B+ Line.
• B− : B− Line.
• Voltages and waveforms are dc with respect to ground under no-signal conditions.
• Voltages are taken with a VOM (input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
• Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
• Circled numbers refer to waveforms.
• Abbreviation
CND: Canadian model.
G : German model.
SP : Singapore model.
MY : Malaysia model.
AUS: Australian model.
• Signal path.
⇨ : CD

4-6. IC BLOCK DIAGRAMS

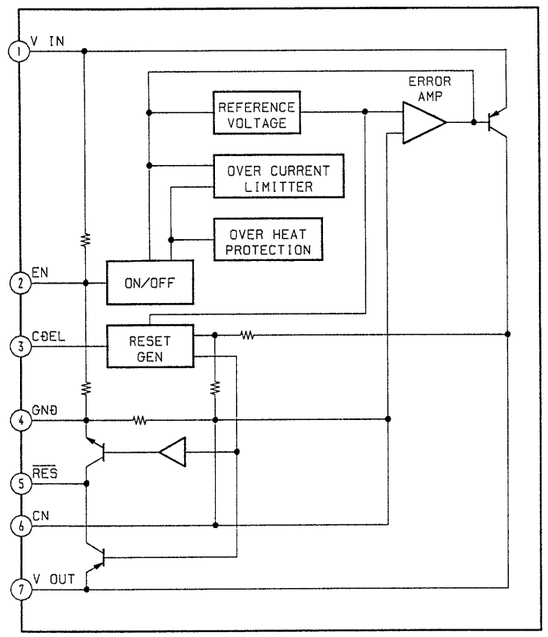
IC101 CXD2515Q



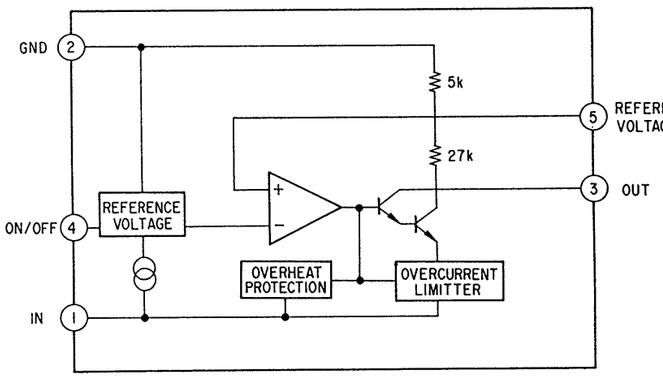
IC103 CXD2565AM-T6



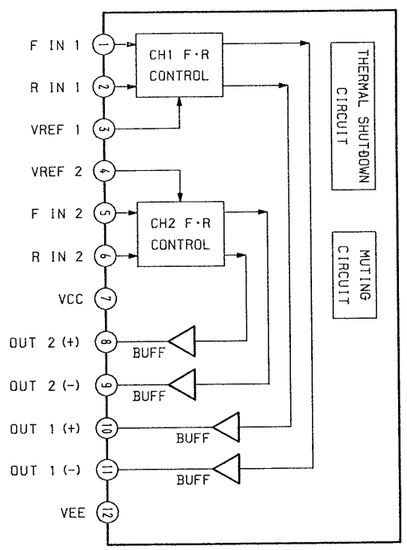
IC201 LA5602



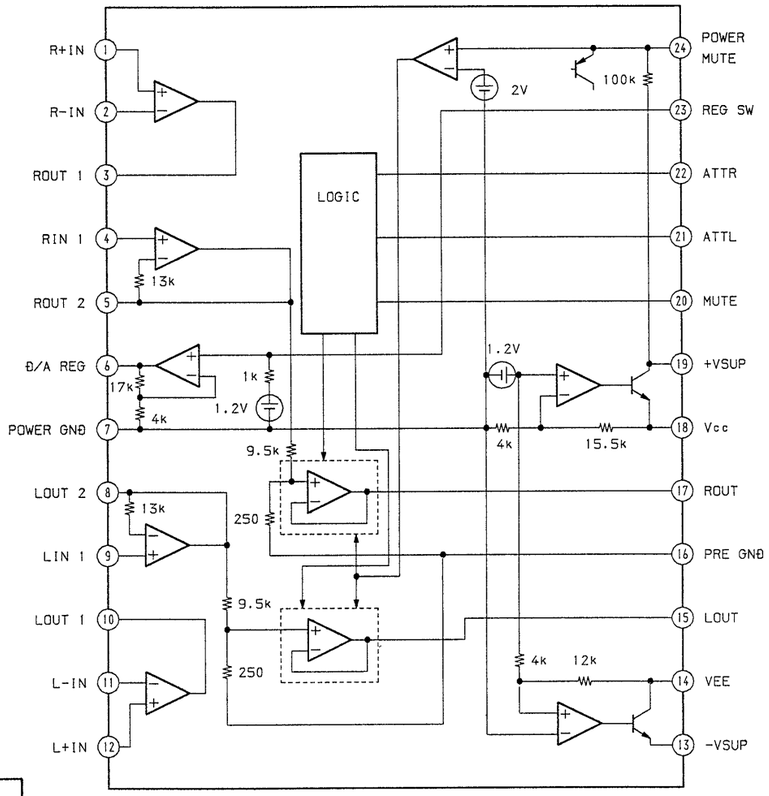
IC203 M5293L



IC451 BA6191



IC501 LA9215-ST



4-7. IC PIN FUNCTIONS

- **IC101 FOCUS/TRACKING/SLED SERVO, EFM COMPARATOR (CXD2515Q)**

Pin No.	Pin Name	I/O	Function
1	SRON	O	Sled drive output (Not used)
2	SRDR	O	Sled drive output
3	SFON	O	Sled drive output (Not used)
4	TFDR	O	Tracking drive output
5	TRON	O	Tracking drive output (Not used)
6	TRDR	O	Tracking drive output
7	TFON	O	Tracking drive output (Not used)
8	FFDR	O	Focus drive output
9	FRON	O	Focus drive output (Not used)
10	FRDR	O	Focus drive output
11	FFON	O	Focus drive output (Not used)
12	VCOO	O	VCO output for analog EFM PLL (Not used)
13	VCOI	I	VCO output for analog EFM PLL (Connected to GND)
14	TEST	I	TEST pin connected normally to GND
15	DVss	–	Digital GND
16	TES2	I	TEST pin connected normally to GND
17	TES3	I	TEST pin connected normally to GND
18	PDO	O	Charge-pump output for analog EFM PLL (Not used)
19	VPCO	O	Charge-pump output for variable pitch PLL (Not used)
20	VCKI	I	Clock input from variable pitch external VCO (Connected to GND)
21	AVD2	–	Analog power supply
22	IGEN	I	Power supply pin for operational amplifiers
23	AVS2	–	Analog GND
24	ADII	I	Input pin for A/D converter
25	ADIO	O	Operational amplifier output pin
26	RFDC	I	RF signal input
27	TE	I	Tracking error signal input
28	SE	I	Sled error signal input
29	FE	I	Focus error signal input
30	VC	I	Center voltage input pin
31	FILO	O	Filter output for master PLL
32	FILI	I	Filter input for master PLL
33	PCO	O	Charge-pump output for master PLL
34	CLTV	I	Control voltage input for master VCO
35	AVS1	–	Analog GND
36	RFAC	I	EFM signal input
37	BIAS	I	Asymmetry circuit constant current input
38	ASYI	I	Asymmetry comparate voltage input
39	ASYO	O	EFM full swing output
40	AVD1	–	Analog power supply

Pin No.	Pin Name	I/O	Function
41	DVDD	–	Digital power supply
42	ASYE	I	Asymmetry circuit ON/OFF (Connected to +5V)
43	PSSL	I	Audio data output mode selection input (Connected to GND)
44	WDCK	O	48-bit slot D/A interface. Word clock (Not used)
45	LRCK	O	48-bit slot D/A interface. LR clock
46	DATA	O	DA 16 output when PSSL=1. 48-bit slot serial data when PSSL=0
47	BCLK	O	DA 15 output when PSSL=1. 48-bit slot data when PSSL=0
48	64DATA	O	DA 14 output when PSSL=1. 64-bit slot data when PSSL=0 (Not used)
49	64BCLK	O	DA 13 output when PSSL=1. 64-bit slot data when PSSL=0 (Not used)
50	64LRCK	O	DA 12 output when PSSL=1. 64-bit slot data when PSSL=0 (Not used)
51	GTOP	O	DA 11 output when PSSL=1. GTOP output when PSSL=0 (Not used)
52	XUGF	O	DA 10 output when PSSL=1. XUGF output when PSSL=0 (Not used)
53	XPLCK	O	DA 09 output when PSSL=1. XPLCK output when PSSL=0
54	GFS	O	DA 08 output when PSSL=1. GFS output when PSSL=0
55	PFCK	O	DA 07 output when PSSL=1. RFCK output when PSSL=0
56	C2PO	O	DA 06 output when PSSL=1. C2PO output when PSSL=0 (Not used)
57	XRAOF	O	DA 05 output when PSSL=1. XRA0F output when PSSL=0 (Not used)
58	MNT3	O	DA 04 output when PSSL=1. MNT3 output when PSSL=0
59	MNT2	O	DA 03 output when PSSL=1. MNT2 output when PSSL=0
60	MNT1	O	DA 02 output when PSSL=1. MNT1 output when PSSL=0
61	MNT0	O	DA 01 output when PSSL=1. MNT0 output when PSSL=0
62	XTAI	I	X'tal oscillator circuit input
63	XTAO	O	X'tal oscillator circuit output (Not used)
64	XTSL	I	X'tal selection input pin (Connected to GND)
65	DVss	–	Digital GND
66	FSTI	I	2/3 divider output of pins 62, 63
67	FSTO	O	2/3 divider output of pins 62, 63
68	C4M	O	4.2336 MHz output (Not used)
69	C16M	O	16.9344 MHz output (Not used)
70	MD2	I	Digital-out ON/OFF control pin
71	DOUT	O	Digital-out output pin
72	EMPH	O	Playback disc output in emphasis mode (Not used)
73	WFCK	O	WFCK output
74	SCOR	O	Sub-code sync output
75	SBSO	O	Sub-P through Sub-W serial output (Not used)
76	EXCK	I	Clock input for SBS0 read-out (Connected to GND)
77	SQSO (SUBQ)	O	Sub-Q 80-bit output
78	SQCK	I	Clock input for SQS0 read-out
79	MUTE	I	Muting selection pin
80	SENS	O	SENS output
81	XRST	I	System reset
82	DIRC	I	Used in 1-track jump mode
83	SCLK	I	SENS serial data read-out clock
84	DFSW	I	DFCT selection pin (Connected to GND)
85	ATSK	I	Input pin for anti-shock (Connected to GND)

Pin No.	Pin Name	I/O	Function
86	DATA	I	Serial data input, supplied from CPU
87	XLAT	I	Latch input, supplied from CPU
88	CLOK	I	Serial data transfer clock input, supplied from CPU
89	COUT	O	Numbers of track counted signal output
90	DVDD	–	Digital power supply
91	MIRR	O	Mirror signal output (Not used)
92	DFCT	O	Defect signal output
93	FOK	O	Focus OK output
94	FSW	O	Output to select spindle motor output filter (Not used)
95	MON	O	Output to control ON/OFF of spindle motor (Not used)
96	MDP	O	Output to control spindle motor servo
97	MDS	O	Output to control spindle motor servo (Not used)
98	LOCK	O	GFS is sampled by 460 Hz. H when GFS is H (Not used)
99	SSTP	I	Input signal to detect disc inner most track
100	SFDR	O	Sled drive output

- **IC103 DIGITAL FILTER, D/A CONVERTER (CXD2565AM-T6)**

Pin No.	Pin Name	I/O	Function
1	INIT	I	Re-synchronizing at rise-up edge of this signal
2	SYSM	–	System muting input
3	ATT	I	Attenuation data input
4	SHIFT	I	Shift clock input
5	LATCH	I	Latch clock input
6	384FSO	O	384fs clock output
7	TEST1	–	Test pin. Fixed to "L" level during normal operation
8	DVss	–	Digital GND
9	TEST2	–	Test pin. Fixed to "L" level during normal operation
10	BCK	I	BCK input
11	DATA	I	Data input
12	LRCK	I	LRCK input
13	MUTEL	O	Not used
14	MUTER	O	Not used
15	DVDD1	–	Digital power supply
16	R1 (+)	O	R-ch PLM output-1 (positive phase)
17	AVDDR	–	L-ch analog power supply
18	R2 (+)	O	R-ch PLM output-2 (positive phase)
19	AVssR	–	L-ch analog GND
20	XVDD	–	Master clock power supply
21	XOUT	O	X'tal oscillator output (33.8 MHz)
22	XIN	I	X'tal oscillator input (33.8 MHz)
23	XVss	–	Master clock GND
24	AVssL	–	L-ch analog GND
25	L2 (+)	O	L-ch PLM output-2 (positive phase)
26	AVDDL	–	L-ch analog power supply
27	L1 (+)	O	L-ch PLM output-1 (positive phase)
28	DVDD2	–	Digital power supply

- **IC401 SYSTEM CONTROL (CXP82316-050Q)**

Pin No.	Pin Name	I/O	Function
1	AF ADJ	I	Test mode pin. Normally: "H"
2	RM IN	I	Remote control signal input pin.
3	ADJ	I	Test mode pin. Normally: "H"
4	A MUTE	O	Analog muting control signal output pin.
5	LDON	O	Optical pick-up laser diode control pin. ON: "H"
6	T.SEN	I	Slit sensor of disc table input pin.
7	PRGL	O	Latch signal output pin to digital filter IC.
8	CLK	O	Serial clock output pin.
9	XLT	O	Serial data latch signal output pin.
10	DATA	O	Serial data output pin.
11	SQCLK	O	Subcode Q data readout clock output pin.
12	SUBQ	I	Subcode Q data input pin.
13	SCLK	O	Internal register of SSP/DSP readout clock output pin.
14 to 16	S1 to S3	I	Loading encoder input pin.
17 to 20	–	–	Not used.
21	L.MODE	I	Loading mode setup pin.
22 to 27	KEY0 to KEY5	I	Key input pin. (A/D)
28	PICK	I	Optical pick-up setup pin. 0V: KSS-240A, 2.5V: KSS-390A, 5V: Automatic discrimination
29	D.MODE	I	Disc table feeling and stop precision fine adjustment pin.
30	XRST	I	Reset signal input pin.
31	X1	I	10MHz clock input pin.
32	X2	O	10MHz clock output pin.
33	GND	–	GND
34	LODOUT	O	Loading motor control pin.
35	LODIN	O	Loading motor control pin.
36	TBLL	O	Table motor control pin.
37	TBLR	O	Table motor control pin.
38 to 57	P1 to P20	O	FL segment output pin.
58 to 62		–	Not used.
63 to 70	G1 to G8	O	FL timing output pin.
71	–30V	–	–30V
72	+5V	–	+5V
73		–	+5V
74 to 77		–	Not used.
78	D.SENS	I	Disc sensor input pin. "L": disc present.
79	SENSE	I	SENSE signal input pin.
80	SCOR	I	Subcode Q data readout timing signal input pin.

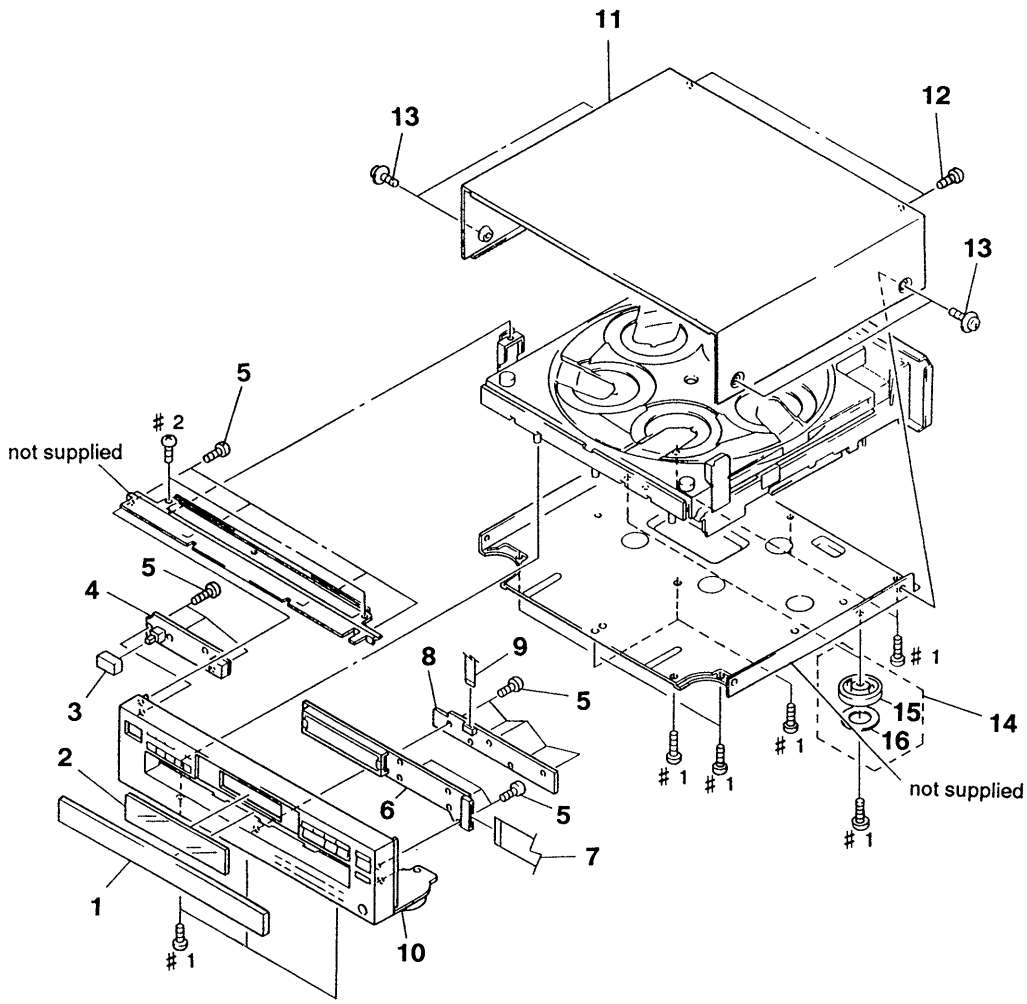
SECTION 5
EXPLODED VIEWS

NOTE:
- 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 difference from the original one.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  CND : Canadian model
  G : German model
  SP : Singapore model
  MY : Malaysia model
  AUS : Australian model

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

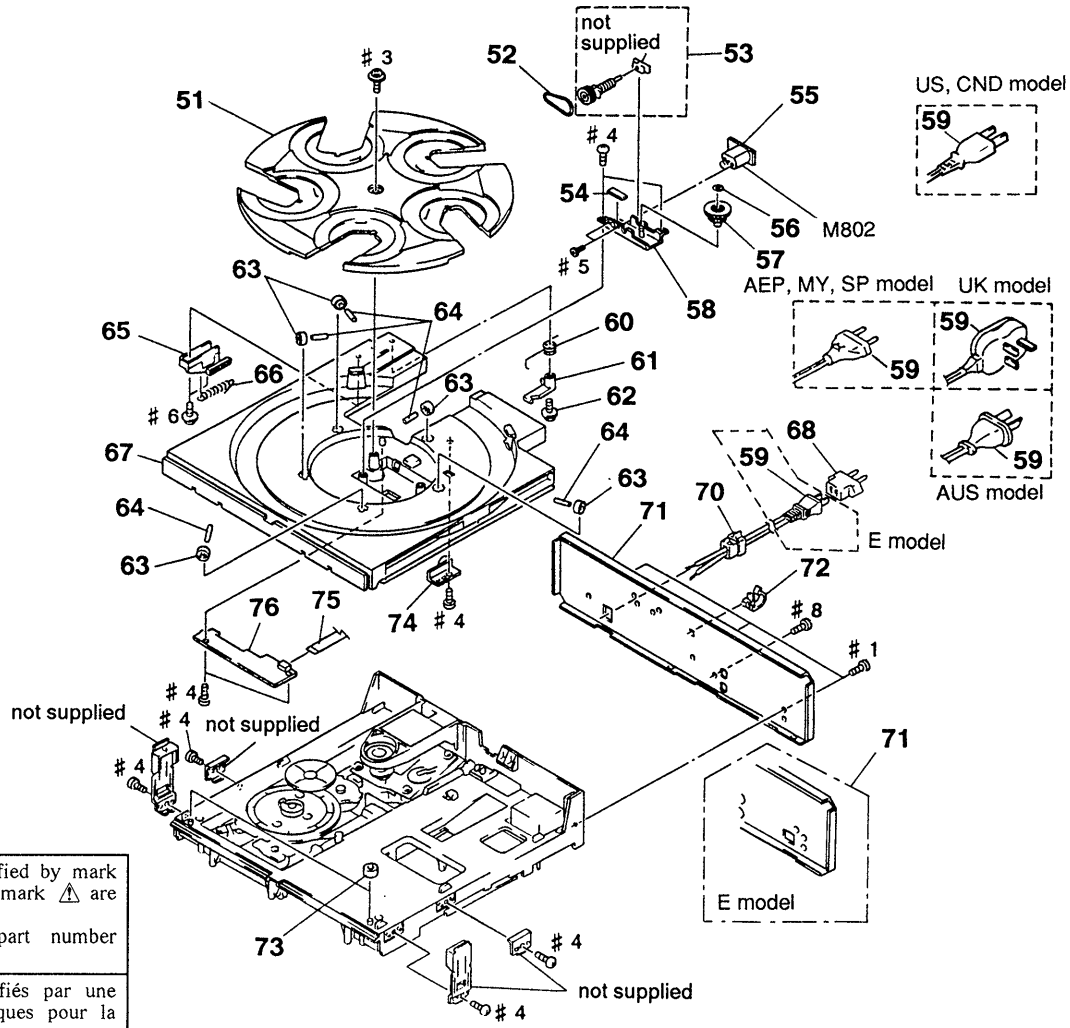
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

5-1. FRONT PANEL AND CASE SECTIONS



Ref. No.	Part No.	Description	Remark
1	4-964-390-01	PANEL, LOADING (C365)	
1	4-964-390-11	PANEL, LOADING (C265)	
2	4-957-548-01	PLATE (FL), INDICATION (C365)	
2	4-957-548-11	PLATE (FL), INDICATION (C265)	
3	4-922-921-31	BUTTON (POWER)	
* 4	1-647-542-11	POWER SW BOARD	
5	4-951-620-01	SCREW (2.6X8), +BVTP	
* 6	1-647-541-11	DISPLAY BOARD	
7	1-751-053-11	WIRE (FLAT TYPE) (33 CORE)	
* 8	1-647-543-11	10 KEY BOARD	
9	1-751-054-11	WIRE (FLAT TYPE) (10 CORE)	
10	X-4945-451-1	PANEL ASSY, FRONT (C265:US, CND)	
10	X-4945-452-1	PANEL ASSY, FRONT (C265:AEP, UK, G, AUS)	
10	X-4945-453-1	PANEL ASSY, FRONT (C365:US, CND)	
10	X-4945-454-1	PANEL ASSY, FRONT (C365:AEP, UK, E, G, MY, SP, AUS)	
11	4-944-153-01	CASE	
* 11	4-944-153-51	CASE	
12	3-703-685-21	SCREW (+BV 3X8)	
13	3-363-099-01	SCREW (CASE 3 TP2)	
14	X-4941-228-1	FOOT ASSY (US, CND, E, AUS)	
15	4-937-929-31	FOOT (DIA. 58) (AEP, UK, G, MY, SP)	
16	4-923-836-21	CUSHION (AEP, UK, G, MY, SP)	

5-2. BACK PANEL AND DISK TABLE SECTION

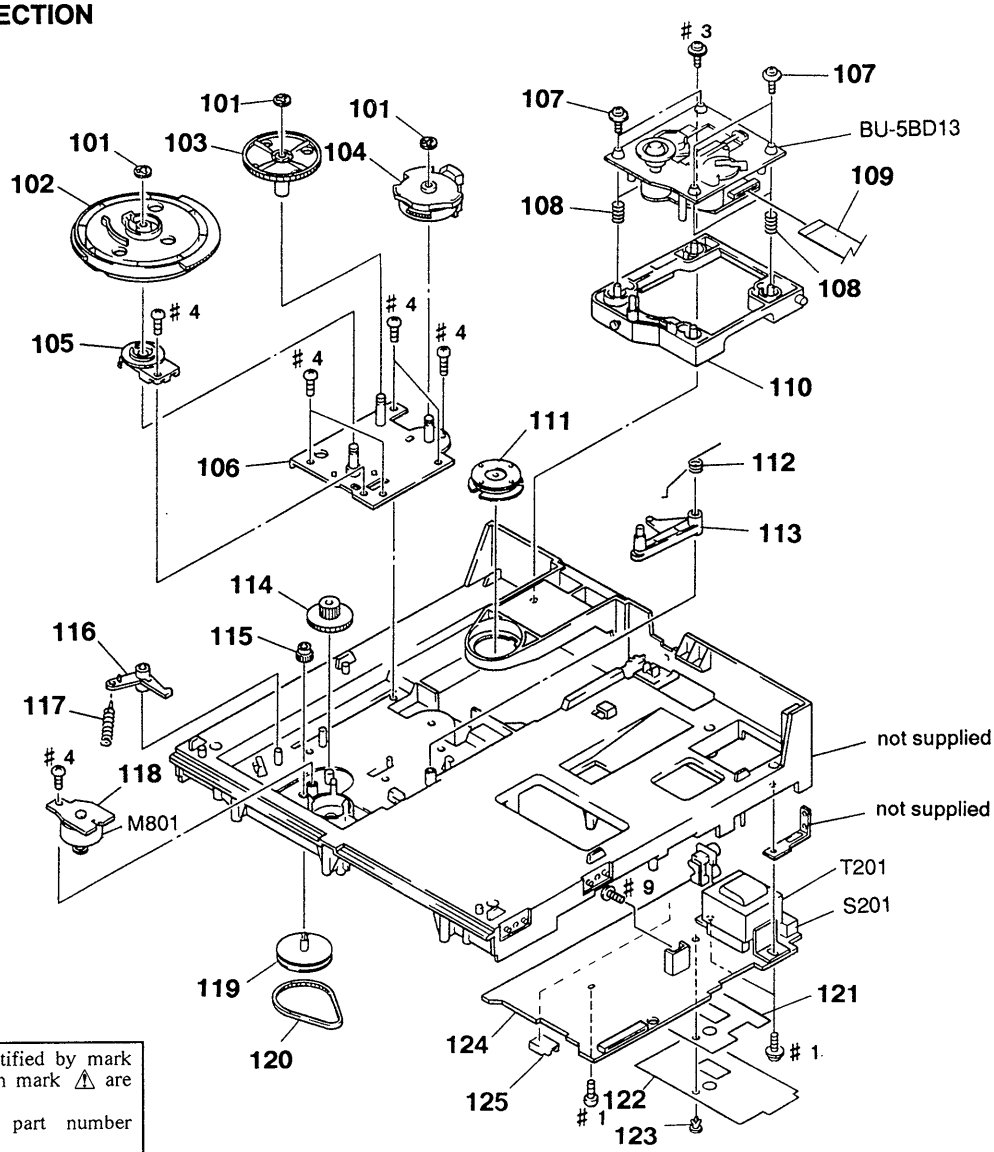


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
* 51	4-957-299-11	TABLE (B), DISK	
52	4-957-304-01	BELT (RM)	
53	X-4943-479-1	GEAR (ROTARY A) ASSY	
* 54	4-957-295-11	CUSHION (RM)	
* 55	1-650-082-11	TABLE MOTOR BOARD	
56	3-325-697-21	WASHER	
57	4-957-284-01	GEAR (LOTARY B)	
58	X-4944-128-1	BRACKET (RM) ASSY	
⚠59	1-575-042-21	CORD, POWER (US, CND)	
⚠59	1-575-651-21	CORD, POWER (C265:AEP, G/C365:AEP, G, MY, SP)	
⚠59	1-696-027-11	CORD, POWER (C365:E)	
⚠59	1-696-845-11	CORD, POWER (AUS)	
⚠59	1-751-529-11	CORD, POWER (UK)	
60	4-957-293-11	SPRING (RACK RELEASE)	
61	4-957-291-11	LEVER (RACK RELEASE)	
62	4-957-868-11	SCREW (+PTPWH 2.6X20)	
63	X-4924-457-1	ROLLER ASSY	
64	4-934-376-01	SHAFT (ROLLER)	
65	4-957-292-11	SLIDER (RACK)	
66	4-957-294-11	SPRING (D.T), TENSION	
* 67	4-957-298-01	TABLE (A), DISK	
⚠68	1-569-007-11	ADAPTER, CONVERSION 2P (C365:E)	

Ref. No.	Part No.	Description	Remark
* 70	3-703-244-00	BUSHING (2104), CORD (US, CND, AEP, UK, G, MY, SP, AUS)	
70	3-703-571-11	BUSHING (S) (4516), CORD (C365:E)	
* 71	4-971-080-01	PANEL, BACK (C365:US)	
* 71	4-971-080-11	PANEL, BACK (C365:AEP, MY, SP)	
* 71	4-971-080-21	PANEL, BACK (C365:UK)	
* 71	4-971-080-31	PANEL, BACK (C365:AUS)	
* 71	4-971-080-41	PANEL, BACK (C365:E)	
* 71	4-971-080-51	PANEL, BACK (made in MALAYSIA) (C265:US)	
* 71	4-971-080-61	PANEL, BACK (C265:AEP)	
* 71	4-971-080-71	PANEL, BACK (C265:UK)	
* 71	4-971-080-81	PANEL, BACK (C265:AUS)	
* 71	4-971-532-01	PANEL, BACK (C365:CND)	
* 71	4-971-532-11	PANEL, BACK (C265:CND)	
* 71	4-971-532-21	PANEL, BACK (C365:G)	
* 71	4-971-532-31	PANEL, BACK (C265:G)	
* 71	4-971-532-41	PANEL, BACK (made in CHINA) (C265:US)	
* 72	4-949-235-01	HOOK	
* 73	4-951-619-01	CUSHION (A)	
74	X-4944-129-1	BRACKET (ROLLER D) ASSY	
75	1-751-052-11	WIRE (FLAT TYPE) (6 CORE)	
* 76	1-647-362-11	SENSOR BOARD	
M802	A-4660-525-A	MOTOR ASSY, ROTARY (TABLE)	

5-3. CHASSIS SECTION

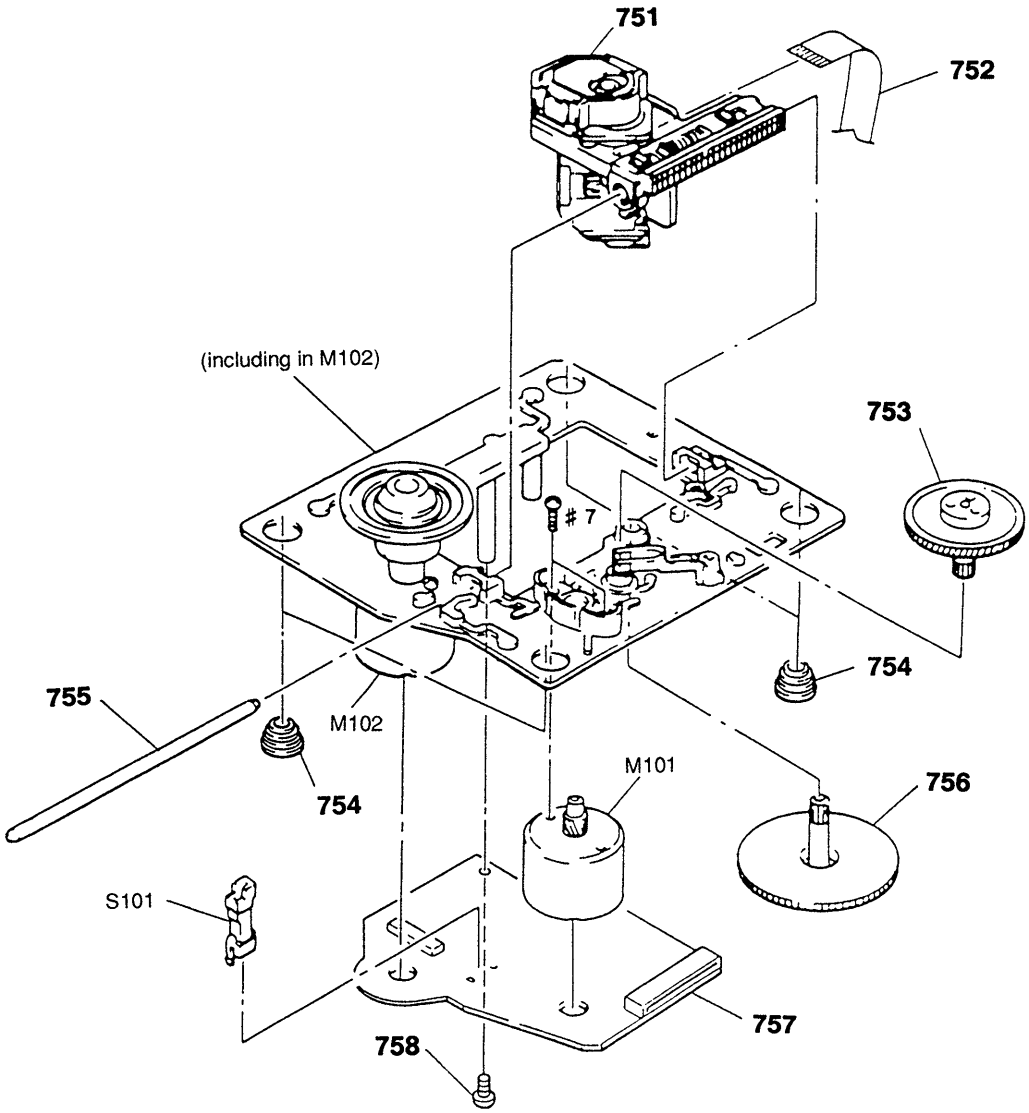


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

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

Ref. No.	Part No.	Description	Remark
101	4-957-283-11	WASHER (5), STOPPER	
102	4-957-288-01	GEAR (MAIN)	
103	4-957-287-01	GEAR (REV)	
104	4-957-286-01	GEAR (U/D)	
105	1-466-996-11	ENCODER, ROTARY	
106	X-4944-127-1	BRACKET (GEAR) ASSY	
107	4-933-134-01	SCREW (+PTPWH M2.6X6)	
108	4-948-503-01	SPRING (BU), COMPRESSION	
* 109	1-648-409-11	PC BOARD, FLEXIBLE	
* 110	4-957-289-12	HOLDER (BU)	
* 111	1-452-538-11	MAGNET	
112	4-957-281-11	SPRING (LOCK LEVER)	
113	4-957-279-11	LEVER, LOCK	
114	4-957-303-01	GEAR (LOADING C)	
115	4-934-375-11	GEAR (LOADING B)	
116	4-957-285-11	LEVER, SET	
117	4-962-087-01	SPRING (S), TENSION	
* 118	1-647-363-11	LOADING MOTOR BOARD	
119	X-4941-529-1	PULLEY ASSY	
120	4-944-490-01	BELT (TIMING)	
* 121	4-957-556-11	SHEET, INSULATING (EXCEPT US, CND)	
* 122	4-957-555-11	SHEET, INSULATING (EXCEPT US, CND)	
123	3-531-576-11	RIVET (EXCEPT US, CND)	
* 124	A-4673-265-A	MAIN BOARD, COMPLETE (C365:E)	
* 124	A-4673-266-A	MAIN BOARD, COMPLETE (C265:AEP, UK, G, AUS/C365:AEP, UK, G, SP, MY, AUS)	
* 124	A-4673-386-A	MAIN BOARD, COMPLETE (US, CND)	
* 125	1-573-047-11	PIN, CONNECTOR (PC BOARD) 2P	
M801	A-4353-974-A	MOTOR ASSY, LOADING	
⚠S201	1-572-675-11	SWITCH, POWER VOLTAGE CHANGE (C365:E)	
⚠T201	1-423-872-11	TRANSFORMER, POWER (US, CND)	
⚠T201	1-423-992-11	TRANSFORMER, POWER (C265:AEP, UK, G, AUS/C365:AEP, UK, G, SP, MY, AUS)	
⚠T201	1-423-993-11	TRANSFORMER, POWER (C365:E)	

5-4. BASE UNIT SECTION (BU-5BD13)



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 piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
⚠751	8-848-144-11	OPTICAL PICK-UP KSS-240A	
752	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
753	4-917-567-21	GEAR (M)	
754	4-951-940-01	INSULATOR (BU)	
755	4-917-565-01	SHAFT, SLED	
756	4-917-564-01	GEAR (P), FLATNESS	
757	A-4649-890-A	BD BOARD, COMPLETE	
* 758	4-951-620-01	SCREW (2.6X8), +BVTP	
M101	X-4917-504-1	MOTOR ASSY (SLED)	
M102	X-4917-523-4	BASE (OUTSERT) ASSY (SPINDLE MOTOR)	
S101	1-572-085-11	SWITCH, LEAF (LIMIT)	

SECTION 6
ELECTRICAL PARTS LIST

10 KEY **BD**

NOTE:

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 piéce 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.
- 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 difference from the original one.
- Abbreviation
  CND : Canadian model
  G : German model
  SP : Singapore model
  MY : Malaysia model
  AUS : Australian model

- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: μ , for example:
  uA...: μA..., uPA...: μPA..., uPB...: μPB..., uPC...: μPC..., uPD...: μPD...
- CAPACITORS
  uF : μF
- COILS
  uH : μH
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

Ref. No.	Part No.	Description				Remark
*	1-647-543-11	10 KEY BOARD				
		**********				
		< CONNECTOR >				
CN751	1-750-228-11	CONNECTOR, FFC/FPC 10P				
		< RESISTOR >				
R751	1-249-415-11	CARBON	680	5%	1/4W	F
R752	1-249-417-11	CARBON	1K	5%	1/4W	F
R753	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R754	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R755	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R756	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R757	1-249-431-11	CARBON	15K	5%	1/4W	
R758	1-249-415-11	CARBON	680	5%	1/4W	F
R759	1-249-417-11	CARBON	1K	5%	1/4W	F
R760	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R761	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R762	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R763	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R764	1-249-431-11	CARBON	15K	5%	1/4W	
R765	1-249-415-11	CARBON	680	5%	1/4W	F
R766	1-249-417-11	CARBON	1K	5%	1/4W	F
		< SWITCH >				
S751	1-554-303-21	SWITCH, TACTILE (PEAK SEARCH)				
S752	1-554-303-21	SWITCH, TACTILE (1)				
S753	1-554-303-21	SWITCH, TACTILE (2)				
S754	1-554-303-21	SWITCH, TACTILE (3)				
S755	1-554-303-21	SWITCH, TACTILE (4)				
S756	1-554-303-21	SWITCH, TACTILE (5)				
S757	1-554-303-21	SWITCH, TACTILE (EDIT/TIME FADE)				
S758	1-554-303-21	SWITCH, TACTILE (CHECK)				
S759	1-554-303-21	SWITCH, TACTILE (FADER)				
S760	1-554-303-21	SWITCH, TACTILE (6)				
S761	1-554-303-21	SWITCH, TACTILE (7)				
S762	1-554-303-21	SWITCH, TACTILE (8)				
S763	1-554-303-21	SWITCH, TACTILE (9)				
S764	1-554-303-21	SWITCH, TACTILE (10)				
S765	1-554-303-21	SWITCH, TACTILE (>10)				
S766	1-554-303-21	SWITCH, TACTILE (CLEAR)				
S767	1-554-303-21	SWITCH, TACTILE (TIME)				
S768	1-554-303-21	SWITCH, TACTILE (REPEAT)				
**********						
	A-4649-890-A	BD BOARD, COMPLETE				
		**********				
		< CAPACITOR >				
C101	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C102	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C103	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C105	1-135-155-21	TANTALUM CHIP	4.7uF	10%	16V	
C106	1-164-346-11	CERAMIC CHIP	1uF		16V	
C107	1-164-505-11	CERAMIC CHIP	2.2uF		16V	
C108	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C109	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V	
C110	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	
C111	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C112	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C113	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C123	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C124	1-164-005-11	CERAMIC CHIP	0.47uF		25V	
C131	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C132	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C133	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C153	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C159	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V	
C161	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C177	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C178	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C179	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C181	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C182	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C183	1-135-156-21	TANTALUM CHIP	6.8uF	10%	10V	
C184	1-135-156-21	TANTALUM CHIP	6.8uF	10%	10V	
C185	1-135-156-21	TANTALUM CHIP	6.8uF	10%	10V	
C186	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C187	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C188	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C191	1-163-091-00	CERAMIC CHIP	8PF		50V	
C192	1-163-091-00	CERAMIC CHIP	8PF		50V	
C193	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	

BD DISPLAY

Ref. No.	Part No.	Description			Remark
C194	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C195	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C196	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C197	1-163-038-91	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
* CN101	1-580-875-11	SOCKET, CONNECTOR (SMT) 26P			
CN102	1-580-866-11	SOCKET, CONNECTOR (SMT) 12P			
		< IC >			
IC101	8-752-351-94	IC CXD2515Q			
IC102	8-759-176-09	IC BA6392FP			
IC103	8-752-367-61	IC CXD2565AM			
		< COIL >			
L101	1-414-234-11	INDUCTOR, FERRITE BEAD			
L102	1-414-234-11	INDUCTOR, FERRITE BEAD			
L103	1-414-234-11	INDUCTOR, FERRITE BEAD			
L104	1-216-001-00	METAL CHIP	10	5% 1/10W	
L105	1-216-295-91	CONDCTOR, CHIP (2012)			
L106	1-414-234-11	INDUCTOR, FERRITE BEAD			
L107	1-216-295-91	CONDCTOR, CHIP (2012)			
L108	1-216-295-91	CONDCTOR, CHIP (2012)			
		< MOTOR >			
M101	X-4917-504-1	MOTOR ASSY (SLED)			
M102	X-4917-523-4	BASE (OUTSERT) ASSY (SPINDLE MOTOR)			
		< RESISTOR >			
R101	1-216-077-00	METAL CHIP	15K	5% 1/10W	
R102	1-216-097-00	METAL CHIP	100K	5% 1/10W	
R103	1-216-077-00	METAL CHIP	15K	5% 1/10W	
R104	1-216-085-00	METAL CHIP	33K	5% 1/10W	
R105	1-216-065-00	METAL CHIP	4.7K	5% 1/10W	
R106	1-216-061-00	METAL CHIP	3.3K	5% 1/10W	
R107	1-216-061-00	METAL CHIP	3.3K	5% 1/10W	
R108	1-216-073-00	METAL CHIP	10K	5% 1/10W	
R109	1-216-121-00	METAL CHIP	1M	5% 1/10W	
R110	1-216-025-00	METAL CHIP	100	5% 1/10W	
R112	1-216-049-00	METAL CHIP	1K	5% 1/10W	
R122	1-216-295-91	CONDCTOR, CHIP (2012)			
R123	1-216-073-00	METAL CHIP	10K	5% 1/10W	
R124	1-216-097-00	METAL CHIP	100K	5% 1/10W	
R125	1-216-049-00	METAL CHIP	1K	5% 1/10W	
R126	1-216-049-00	METAL CHIP	1K	5% 1/10W	
R127	1-216-049-00	METAL CHIP	1K	5% 1/10W	
R131	1-216-037-00	METAL CHIP	330	5% 1/10W	
R158	1-216-111-00	METAL CHIP	390K	5% 1/10W	
R159	1-216-101-00	METAL CHIP	150K	5% 1/10W	

Ref. No.	Part No.	Description			Remark
R181	1-216-053-00	METAL CHIP	1.5K	5% 1/10W	
R182	1-216-080-00	METAL CHIP	20K	5% 1/10W	
R183	1-216-080-00	METAL CHIP	20K	5% 1/10W	
R184	1-216-080-00	METAL CHIP	20K	5% 1/10W	
R185	1-216-080-00	METAL CHIP	20K	5% 1/10W	
R187	1-216-035-00	METAL CHIP	270	5% 1/10W	
R188	1-216-121-00	METAL CHIP	1M	5% 1/10W	
R189	1-414-234-11	INDUCTOR, FERRITE BEAD			
		< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF (LIMIT)			
		< VIBRATOR >			
X101	1-579-904-11	VIBRATOR, CRYSTAL (33.8MHz)			
**********					
*	1-647-541-11	DISPLAY BOARD			
		**********			
		< CONNECTOR >			
CN710	1-750-237-11	CONNECTOR, FFC/FPC 33P			
		< FLUORESCENT INDICATOR >			
FL711	1-517-164-11	INDICATOR TUBE, FLUORESCENT			
		< RESISTOR >			
R711	1-249-415-11	CARBON	680	5% 1/4W	F
R712	1-249-417-11	CARBON	1K	5% 1/4W	F
R713	1-249-419-11	CARBON	1.5K	5% 1/4W	F
R714	1-249-421-11	CARBON	2.2K	5% 1/4W	F
R715	1-249-423-11	CARBON	3.3K	5% 1/4W	F
R716	1-249-427-11	CARBON	6.8K	5% 1/4W	F
R717	1-249-431-11	CARBON	15K	5% 1/4W	
R718	1-249-415-11	CARBON	680	5% 1/4W	F
		< SWITCH >			
S711	1-554-303-21	SWITCH, TACTILE (EX-CHANGE)			
S712	1-554-303-21	SWITCH, TACTILE (■)			
S713	1-554-303-21	SWITCH, TACTILE (▮▮)			
S714	1-554-303-21	SWITCH, TACTILE (▷▷▯)			
S715	1-554-303-21	SWITCH, TACTILE (◀◀)			
S716	1-554-303-21	SWITCH, TACTILE (▶▶)			
S717	1-554-303-21	SWITCH, TACTILE (DISC SKIP)			
S718	1-554-303-21	SWITCH, TACTILE (OPEN/CLOSE)			
S719	1-554-303-21	SWITCH, TACTILE (▷)			
S720	1-554-303-21	SWITCH, TACTILE (▯◁◁)			
S730	1-572-714-11	SWITCH, PUSH (POWER)			
S731	1-554-303-21	SWITCH, TACTILE (DISC 1)			
S732	1-554-303-21	SWITCH, TACTILE (DISC 2)			

Ref. No.	Part No.	Description			Remark
S733	1-554-303-21	SWITCH, TACTILE (DISC 3)			
S734	1-554-303-21	SWITCH, TACTILE (DISC 4)			
S735	1-554-303-21	SWITCH, TACTILE (DISC 5)			
S736	1-554-303-21	SWITCH, TACTILE (DISC CHECK)			
S737	1-554-303-21	SWITCH, TACTILE (PROGRAM)			
S738	1-554-303-21	SWITCH, TACTILE (CONTINUE)			
S739	1-554-303-21	SWITCH, TACTILE (SHUFFLE)			
**********					
*	1-647-363-11	LOADING MOTOR BOARD			
		**********			
		< MOTOR >			
M801	A-4660-525-A	MOTOR ASSY, LOADING			
**********					
*	A-4673-265-A	MAIN BOARD, COMPLETE (C365:E)			
		**********			
*	A-4673-266-A	MAIN BOARD, COMPLETE			
		**********			
		(C265:AEP, UK, G, AUS/C365:AEP, UK, G, SP, MY, AUS)			
*	A-4673-386-A	MAIN BOARD, COMPLETE			
		**********			
		(C265:US, CND/C365:US, CND)			
	7-685-871-01	SCREW +BVTT 3X6 (S)			
		< CAPACITOR >			
C1	1-164-159-11	CERAMIC	0.1uF		50V
C2	1-164-159-11	CERAMIC	0.1uF		50V
C201	1-128-489-11	ELECT	3300uF	20%	16V
C202	1-124-360-00	ELECT	1000uF	20%	16V
C203	1-124-910-11	ELECT	47uF	20%	50V
C204	1-126-163-11	ELECT	4.7uF	20%	50V
C205	1-126-163-11	ELECT	4.7uF	20%	50V
C206	1-124-997-11	ELECT	470uF	20%	10V
C207	1-126-024-11	ELECT	220uF	20%	16V
C208	1-126-059-11	ELECT	10uF	20%	50V
C209	1-124-572-11	ELECT	100uF	20%	63V
C210	1-161-494-00	CERAMIC	0.022uF		25V
C401	1-126-022-11	ELECT	47uF	20%	16V
C402	1-161-494-00	CERAMIC	0.022uF		25V
C403	1-161-494-00	CERAMIC	0.022uF		25V
C404	1-162-306-11	CERAMIC	0.01uF	20%	16V
C405	1-162-306-11	CERAMIC	0.01uF	20%	16V
C451	1-126-012-11	ELECT	470uF	20%	16V
C501	1-126-012-11	ELECT	470uF	20%	16V
C502	1-126-012-11	ELECT	470uF	20%	16V
C503	1-124-994-11	ELECT	100uF	20%	10V
C504	1-124-994-11	ELECT	100uF	20%	10V
C505	1-124-997-11	ELECT	470uF	20%	10V
C506	1-161-494-00	CERAMIC	0.022uF		25V
C507	1-126-022-11	ELECT	47uF	20%	16V
C508	1-126-796-11	ELECT	22uF	20%	25V
C509	1-126-786-11	ELECT	47uF	20%	16V
C521	1-162-282-31	CERAMIC	100PF	10%	50V
C522	1-162-282-31	CERAMIC	100PF	10%	50V
C523	1-137-433-11	FILM	0.0012uF	5%	50V
C524	1-124-994-11	ELECT	100uF	20%	10V
C525	1-137-368-11	FILM	0.0047uF	5%	50V
C531	1-124-994-11	ELECT	100uF	20%	10V
C532	1-130-467-00	MYLAR	470PF	5%	50V
C571	1-162-282-31	CERAMIC	100PF	10%	50V
C572	1-162-282-31	CERAMIC	100PF	10%	50V
C573	1-137-433-11	FILM	0.0012uF	5%	50V
C574	1-124-994-11	ELECT	100uF	20%	10V
C575	1-137-368-11	FILM	0.0047uF	5%	50V
C581	1-124-994-11	ELECT	100uF	20%	10V
C582	1-130-467-00	MYLAR	470PF	5%	50V
		< CONNECTOR >			
CN301	1-750-236-11	CONNECTOR, FFC/FPC 24P			
CN401	1-750-237-11	CONNECTOR, FFC/FPC 33P			
CN402	1-750-228-11	CONNECTOR, FFC/FPC 10P			
* CN403	1-695-006-11	PIN, CONNECTOR (PC BOARD) 6P			
CN404	1-750-223-11	CONNECTOR, FFC/FPC 6P			
		< DIODE >			
D201	8-719-024-99	DIODE 1ES2-NTA2B			
D202	8-719-024-99	DIODE 1ES2-NTA2B			
D203	8-719-024-99	DIODE 1ES2-NTA2B			
D204	8-719-024-99	DIODE 1ES2-NTA2B			
D205	8-719-024-99	DIODE 1ES2-NTA2B			
D206	8-719-110-13	DIODE RD9.1ESB2			
D207	8-719-024-99	DIODE 1ES2-NTA2B			
		(C265:AEP, UK, G, AUS/C365:AEP, UK, G, SP, MY, AUS)			
D208	8-719-024-99	DIODE 1ES2-NTA2B			
		(C265:AEP, UK, G, AUS/C365:AEP, UK, G, SP, MY, AUS)			
D451	8-719-109-92	DIODE RD6.2ES-B1			
D501	8-719-987-63	DIODE 1N4148M			
		< IC >			
IC201	8-759-061-65	IC LA5602			
IC202	8-759-605-00	IC M5F78M07L			
IC203	8-759-633-42	IC M5293L			
IC401	8-752-861-78	IC CXP82316-050Q			
IC451	8-759-172-31	IC BA6191			
IC501	8-759-175-88	IC LA9215-ST			

MAIN | POWER SW

Ref. No.	Part No.	Description				Remark
		< JACK >				
J501	1-750-679-21	JACK, PIN 2P (LINE OUT)				
		< COIL >				
L501	1-412-473-21	INDUCTOR	0uH			
		< TRANSISTOR >				
Q201	8-729-119-76	TRANSISTOR	2SA1175-HFE			
Q401	8-729-900-89	TRANSISTOR	DTC144ES			
Q402	8-729-230-45	TRANSISTOR	2SC2458-YGR			
Q501	8-729-900-89	TRANSISTOR	DTC144ES			
Q502	8-729-422-57	TRANSISTOR	UN4111			
Q503	8-729-422-57	TRANSISTOR	UN4111			
Q504	8-729-900-80	TRANSISTOR	DTC114ES			
		< RESISTOR >				
R201	1-249-429-11	CARBON	10K	5%	1/4W	
R202	1-249-438-11	CARBON	56K	5%	1/4W	
R203	1-249-435-11	CARBON	33K	5%	1/4W	
R401	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R402	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R403	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R404	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R405	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R406	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R407	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R408	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R409	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R410	1-249-429-11	CARBON	10K	5%	1/4W	
R411	1-249-429-11	CARBON	10K	5%	1/4W	
R412	1-249-441-11	CARBON	100K	5%	1/4W	
R413	1-249-429-11	CARBON	10K	5%	1/4W	
R414	1-249-430-11	CARBON	12K	5%	1/4W	
R415	1-249-417-11	CARBON	1K	5%	1/4W	F
R421	1-249-428-11	CARBON	8.2K	5%	1/4W	F
R451	1-247-876-11	CARBON	75K	5%	1/4W	
R452	1-247-876-11	CARBON	75K	5%	1/4W	
R453	1-247-876-11	CARBON	75K	5%	1/4W	
R454	1-247-876-11	CARBON	75K	5%	1/4W	
R456	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R457	1-247-840-00	CARBON	2.4K	5%	1/4W	
R458	1-247-828-11	CARBON	750	5%	1/4W	
R459	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R501	1-249-422-11	CARBON	2.7K	5%	1/4W	F
R521	1-247-852-11	CARBON	7.5K	5%	1/4W	
R522	1-247-864-11	CARBON	24K	5%	1/4W	
R523	1-247-852-11	CARBON	7.5K	5%	1/4W	
R524	1-247-864-11	CARBON	24K	5%	1/4W	
R525	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R526	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R527	1-249-429-11	CARBON	10K	5%	1/4W	
R531	1-249-429-11	CARBON	10K	5%	1/4W	
R532	1-249-417-11	CARBON	1K	5%	1/4W	F
R571	1-247-852-11	CARBON	7.5K	5%	1/4W	
R572	1-247-864-11	CARBON	24K	5%	1/4W	
R573	1-247-852-11	CARBON	7.5K	5%	1/4W	
R574	1-247-864-11	CARBON	24K	5%	1/4W	
R575	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R576	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R577	1-249-429-11	CARBON	10K	5%	1/4W	
R581	1-249-429-11	CARBON	10K	5%	1/4W	
R582	1-249-417-11	CARBON	1K	5%	1/4W	F
		< SWITCH >				
⚠S201	1-572-675-11	SWITCH, POWER VOLTAGE CHANGE (C365:E)				
		< TRANSFORMER >				
⚠T201	1-423-872-11	TRANSFORMER, POWER (US, CND)				
⚠T201	1-423-992-11	TRANSFORMER, POWER (C265:AEP, UK, G, AUS/C365:AEP, UK, G, SP, MY, AUS)				
⚠T201	1-423-993-11	TRANSFORMER, POWER (C365:E)				
		< VIBRATOR >				
X401	1-579-175-11	VIBRATOR, CERAMIC (10MHz)				
**********						
*	1-647-542-11	POWER SW BOARD				
		**********				
		< CAPACITOR >				
C731	1-161-494-00	CERAMIC	0.022uF		25V	
		< IC >				
IC731	8-741-810-59	IC SBX1810-59				
		< RESISTOR >				
R731	1-249-415-11	CARBON	680	5%	1/4W	F
R732	1-249-417-11	CARBON	1K	5%	1/4W	F
R733	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R734	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R735	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R736	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R737	1-249-419-11	CARBON	1.5K	5%	1/4W	F
**********						

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 piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
*	1-647-362-11	SENSOR BOARD	
		**********	
		< CONNECTOR >	
CN801	1-573-383-11	PIN, CONNECTOR (PC BOARD) 2P	
CN802	1-750-243-11	SOCKET, CONNECTOR 6P	
		< DIODE >	
D801	8-749-924-18	DIODE PHOTO INTERRUPTER RPI-1391	
D802	8-749-924-30	DIODE PHOTO REFLECTOR GP2S28	
		< RESISTOR >	
R801	1-249-416-11	CARBON 820 5% 1/4W F	
R802	1-249-406-11	CARBON 120 5% 1/4W F	
**********			
*	1-650-082-11	TABLE MOTOR BOARD	
		**********	
		< MOTOR >	
M802	A-4353-974-A	MOTOR ASSY, ROTARY (TABLE)	
**********			
		MISCELLANEOUS	
		**********	
7	1-751-053-11	WIRE (FLAT TYPE) (33 CORE)	
9	1-751-054-11	WIRE (FLAT TYPE) (10 CORE)	
⚠59	1-575-042-21	CORD, POWER (US, CND)	
⚠59	1-575-651-21	CORD, POWER (C265:AEP, G/C365:AEP, G, MY, SP)	
⚠59	1-696-027-11	CORD, POWER (C365:E)	
⚠59	1-696-845-11	CORD, POWER (AUS)	
⚠59	1-751-529-11	CORD, POWER (UK)	
⚠68	1-569-007-11	ADAPTER, CONVERSION 2P (C365:E)	
75	1-751-052-11	WIRE (FLAT TYPE) (6 CORE)	
105	1-466-996-11	ENCODER, ROTARY	
* 109	1-648-409-11	PC BOARD, FLEXIBLE	
* 111	1-452-538-11	MAGNET	
* 125	1-573-047-11	PIN, CONNECTOR (PC BOARD) 2P	
⚠751	8-848-144-11	OPTICAL PICK-UP KSS-240A	
752	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
M101	X-4917-504-1	MOTOR ASSY (SLED)	
M102	X-4917-523-4	BASE (OUTSERT) ASSY (SPINDLE MOTOR)	
M801	A-4353-974-A	MOTOR ASSY, LOADING	
M802	A-4660-525-A	MOTOR ASSY, ROTARY (TABLE)	
S101	1-572-085-11	SWITCH, LEAF (LIMIT)	
⚠S201	1-572-675-11	SWITCH, POWER VOLTAGE CHANGE (C365:E)	
⚠T201	1-423-872-11	TRANSFORMER, POWER (US, CND)	
⚠T201	1-423-992-11	TRANSFORMER, POWER (C265:AEP, UK, G, AUS/C365:AEP, UK, G, MY, SP, AUS)	
⚠T201	1-423-993-11	TRANSFORMER, POWER (C365:E)	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-467-123-11	REMOTE COMMANDER (RM-D335) (C365)	
	1-558-271-11	CORD, CONNECTION (AUDIO 108cm)	
	3-759-798-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, CHINESE) (C265:CND, AEP, UK/C365:CND, AEP, UK, E, MY, SP)	
	3-759-798-21	MANUAL, INSTRUCTION (ENGLISH) (US, AUS)	
	3-759-798-41	MANUAL, INSTRUCTION (GERMAN, ITALIAN, DUTCH, PORTUGUESE) (C265:AEP, G/C365:AEP, G, MY, SP)	
	3-759-798-91	MANUAL, INSTRUCTION (DANISH, FINNISH, SWEDISH) (AEP)	
*	4-949-235-01	HOOK	
	4-959-044-01	COVER, BATTERY (for RM-D335) (C365)	
*	4-965-249-01	CUSHION (FRONT)	
*	4-965-250-01	CUSHION (REAR)	
*	4-972-155-01	INDIVIDUAL CARTON (C265:US, CND, AUS)	
*	4-972-156-01	INDIVIDUAL CARTON (C265:AEP, UK, G)	
*	4-972-157-01	INDIVIDUAL CARTON (C365:US, CND, E, AUS)	
*	4-972-158-01	INDIVIDUAL CARTON (C365:AEP, UK, G, MY, SP)	
**********			
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#2	7-682-548-04	SCREW +BVTT 3X8 (S)	
#3	7-685-648-79	SCREW (M3X12), TAPPING	
#4	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#5	7-621-772-00	SCREW +B 2X3	
#6	7-685-134-19	SCREW +PTPWH 2.6X8 (TYPE2)	
#7	7-621-255-15	SCREW +P 2X3	
#8	7-621-849-00	SCREW, TAPPING	
#9	7-685-871-01	SCREW +BVTT 3X6 (S)	

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 piéce portant le numéro spécifié.

9-959-906-11

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Consumer A&V Products Company
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Printed in Japan

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Quality Engineering Dept.

CDP-C265/C365

SONY

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
Australian Model
CDP-C265/C365
E Model
CDP-C365

SUPPLEMENT-1

File this supplement with the service manual.

Subject : 1. SERVICE PARTS CHANGED
2. Addition to the CDP-C365 (Chinese model)
3. BD BOARD Circuit change
4. ELECTRICAL BLOCK CHECKING change (BU-5BD23)

(ENG-95005, ECN-CD500193)

- As for CDP-C365 (Chinese model), refer to CDP-C365 (AEP model). Refer to the following "Difference Table" for differences.

- The two of base unit BU-5BD13 and BU-5BD23 in the CD section are used for this model.
  Refer to this service manual supplement-1 for the BD board of a set used BU-5BD23, and to the service manual is issued previously for the BD board of a set used BU-5BD13.

EXPLODED VIEWS

NOTE:
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

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 piéce portant le numéro spécifié.

SERVICE PARTS CHANGED

Page	FORMER			NEW		
	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
29	* 109	1-648-409-11	PC BOARD, FLEXIBLE	* 109	1-655-696-11	PC BOARD, FLEXIBLE
	115	4-934-375-11	GEAR (LOADING B)	115	4-934-375-01	GEAR (LOADING B)
	M801	A-4353-974-A	MOTOR ASSY, LOADING	M801	A-4604-847-A	MOTOR ASSY, LOADING

Addition to the CDP-C365 (Chinese model) DIFFERENCE TABLE

Page	CDP-C365 (AEP model)			CDP-C365 (Chinese model)		
	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
28	* 71	4-971-080-01	PANEL, BACK	* 71	4-971-532-51	PANEL, BACK
35		3-759-798-41	MANUAL, INSTRUCTION (GERMAN, ITALIAN, DUTCH, PORTUGUESE)			Not supplied.
	*	4-972-158-01	INDIVIDUAL CARTON	*	4-972-157-01	INDIVIDUAL CARTON

ELECTRICAL PARTS CHANGED

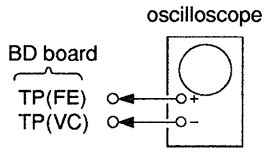
Page	FORMER			NEW		
	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
33		** MAIN BOARD **			** MAIN BOARD **	
	IC401	8-752-861-78	IC CXP82316-050Q	IC401	8-752-864-88	IC CXP82316-056Q

ELECTRICAL BLOCK CHECKING (for BU-5BD23)

Note :

1. CD Block is basically designed 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 an oscilloscope with more than 10MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

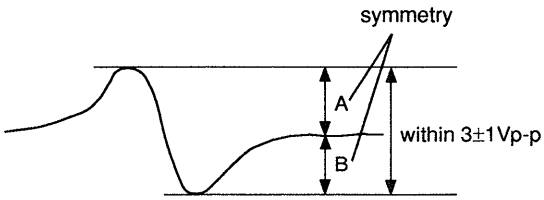
S Curve Check



Procedure :

1. Connect oscilloscope to test point TP (FE) on BD board.
2. Connect between test point TP (FEI) and TP (VC) by lead wire.
3. Turned Power switch on.
4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3±1Vp-p.

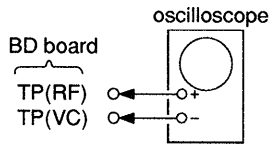
S-curve waveform



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

Note : • Try to measure several times to make sure than 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



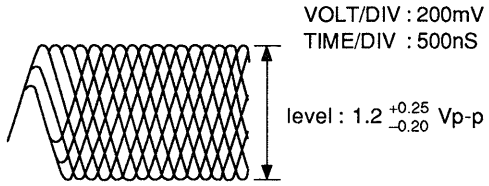
Procedure :

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

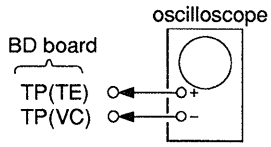
Note :

A clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.

RF signal waveform



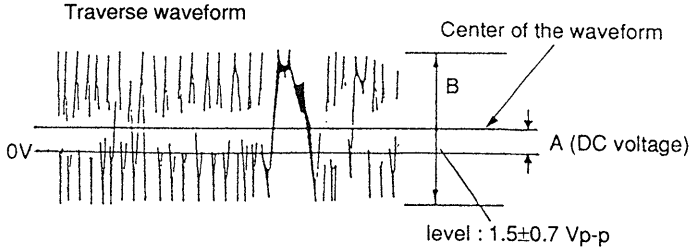
E-F Balance Check



Procedure :

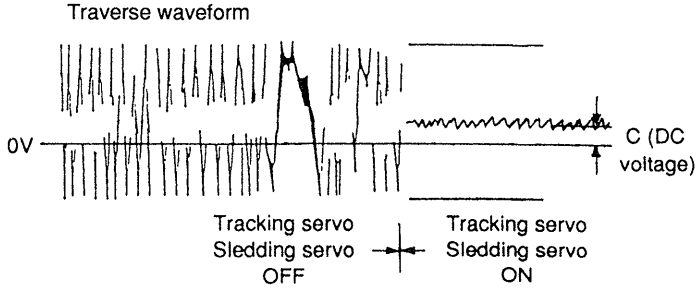
1. Connect test point TP (ADJ) to ground with lead wire.
2. Connect oscilloscpe to test point TP (TE) on BD board.
3. Turned Power switch on.
4. Put disc (YEDS-18) in to play the number five track.
5. Press the "3" button. (The tracking servo and the sledding servo are turned OFF.)
6. Check the level B of the oscilloscope's waveform and the A (DC voltage) of the center of the Traverse waveform. Confirm the following :
   A/B x 100 = less than ± 20%.

Traverse waveform



7. Press the "8" button. (The tracking servo and sledding servo are turned ON.) Confirm the C (DC voltage) is almost equal to the A (DC voltage) in step 6.

Traverse waveform

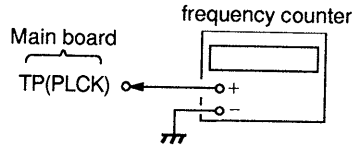


8. Disconnect the laed wire of TP (ADJ) connected in step 1.

RF PLL Free-run Frequency Check

Procedure :

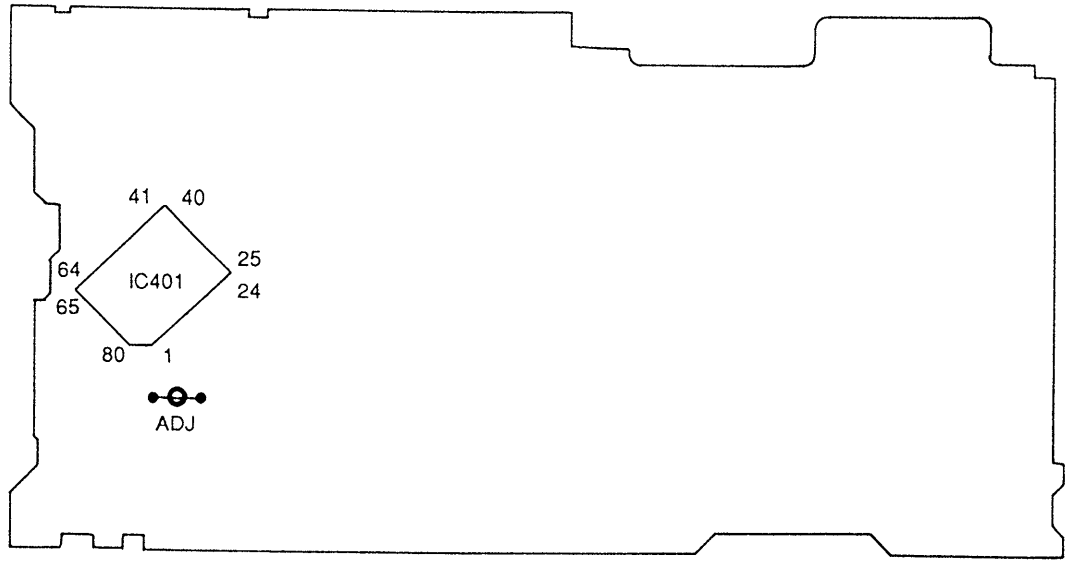
1. Connect frequency counter to test point (PLCK) with lead wire.



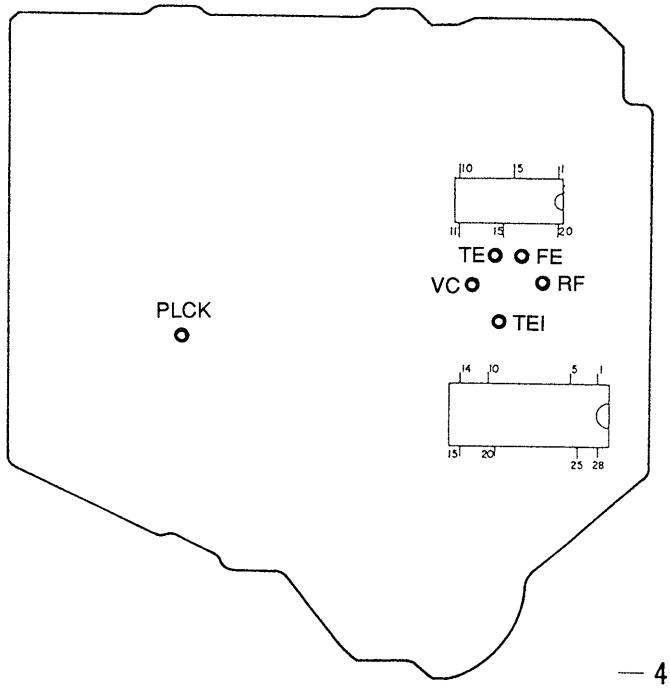
2. Turned Power switch on.
3. Put the disc (YEDS-18) in to play the number five track. Confirm that reading on frequency counter is 4.3218MHz.

Adjustment Location :

[MAIN BOARD] — Conductor Side —



[BD BOARD] — SIDE A —



BU-5BD23 DIFFERENCE TABLE

Page	BU-5BD13			BU-5BD23		
	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
30	⚠751	8-848-144-11	OPTICAL PICK-UP KSS-240A	⚠751	8-848-387-11	OPTICAL PICK-UP KSS-213BA/S-N
	752	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	752	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)
	757	A-4649-890-A	BD BOARD, COMPLETE	757	A-4673-515-A	BD BOARD, COMPLETE

- **Base Unit Change**

  As the base unit BU-5BD13 has changed to BU-5BD23, IC401 of the MAIN BOARD has changed.
  The interchangeability between IC401 and BD BOARD is as below:

		MAIN BOARD IC401	
		FORMER	NEW
		8-752-861-78 CXP82316-050Q	8-752-864-88 CXP82316-056Q
Base Unit Type	BU-5BD13	○	○
	BU-5BD23	×	○

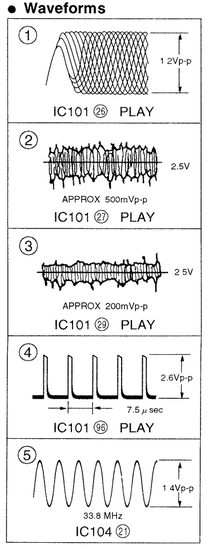
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

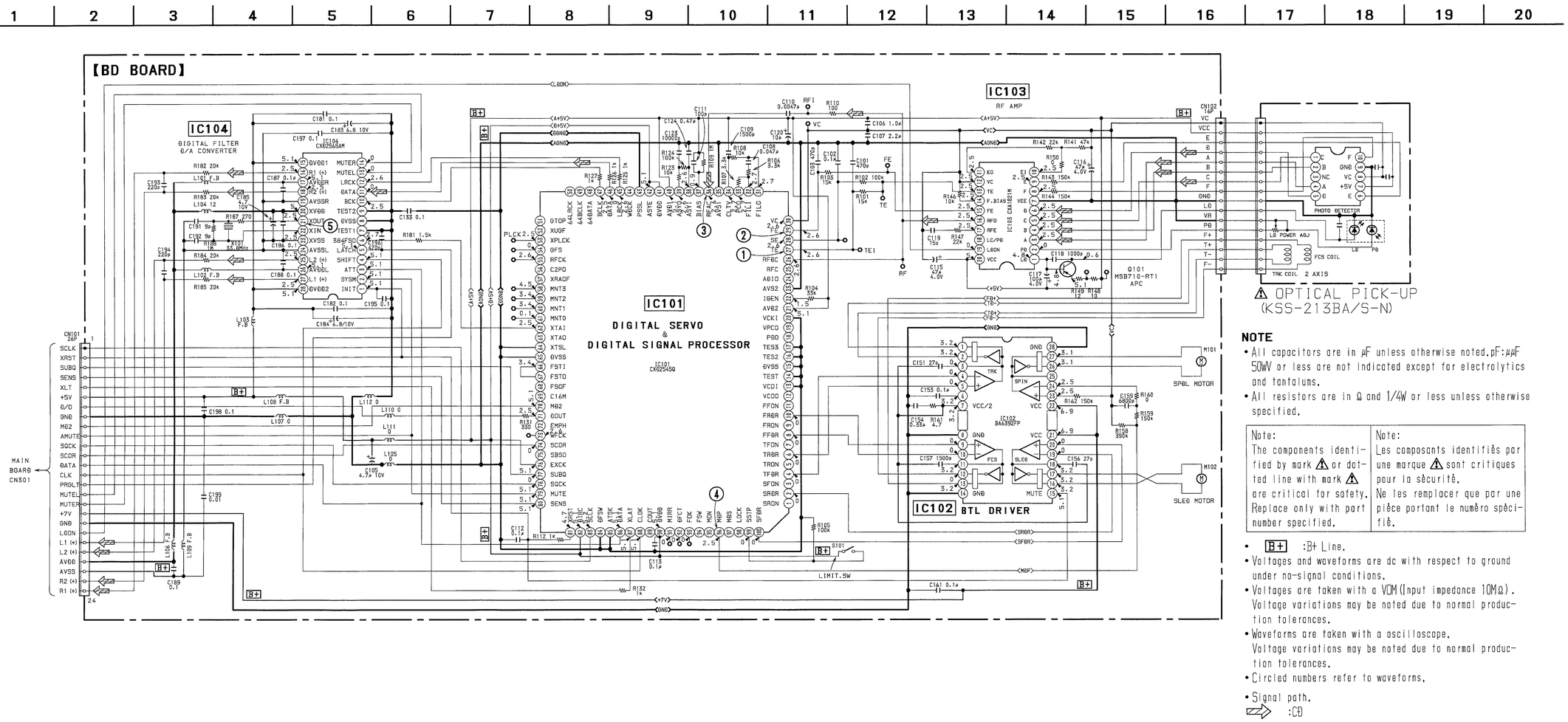
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

SCHEMATIC DIAGRAM

- See page 11 for IC Block Diagrams.
- See page 12 for IC Pin Function. (IC101)

● Waveforms





⚠ OPTICAL PICK-UP (KSS-213BA/S-N)

NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.

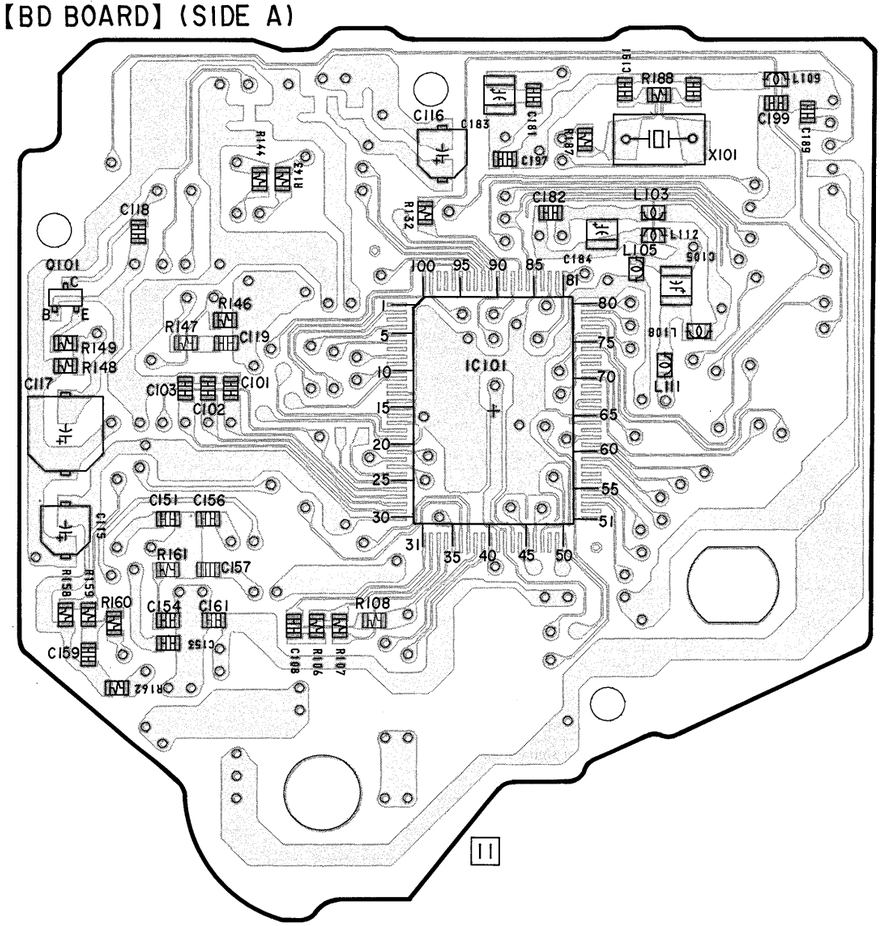
Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- B+ : B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path. ⇨ : CD

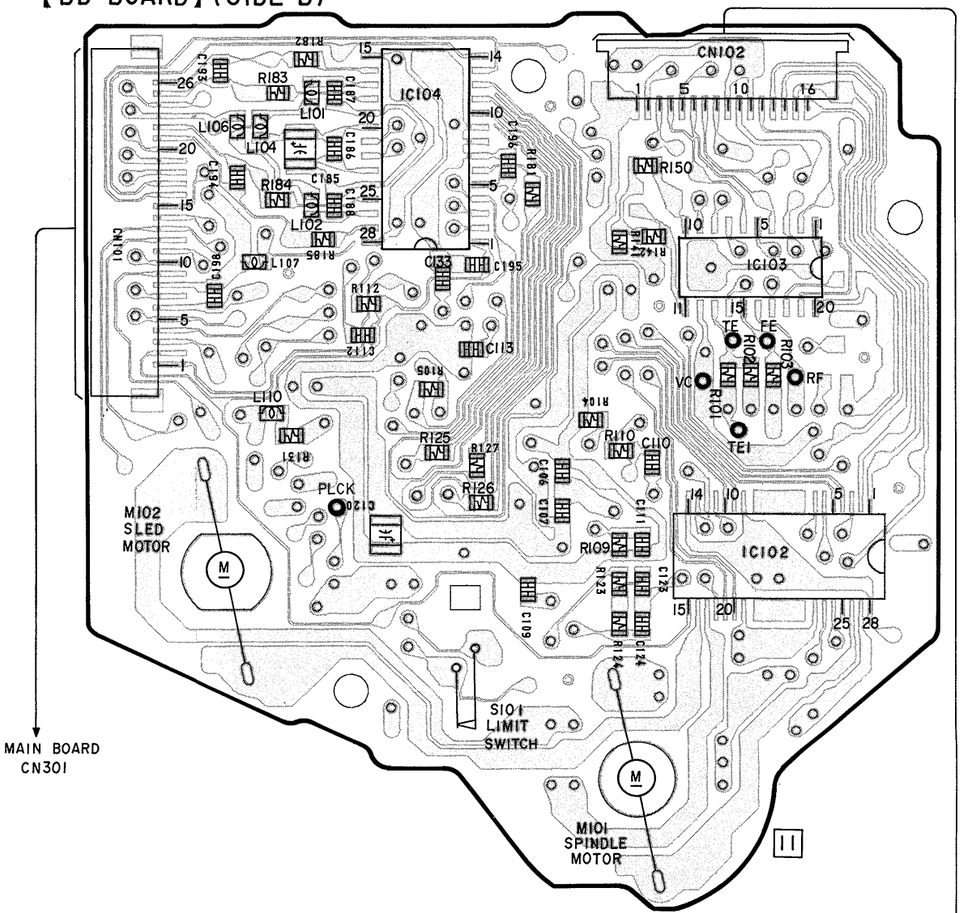
DIAGRAMS

PRINTED WIRING BOARD

【BD BOARD】(SIDE A)



【BD BOARD】(SIDE B)

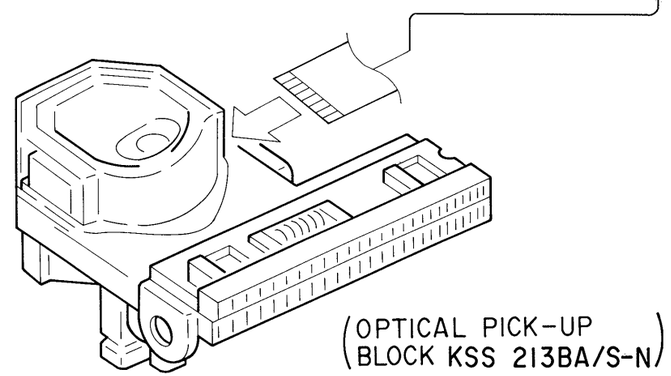


- **Semiconductor Location**

Ref. No.	Location
IC101	C-3
IC102	C-8
IC103	B-8
IC104	A-6
Q101	B-1

Note:

- ——o—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- O : Through hole.
- ▭ : Pattern from the side which enable seeing. (The other layer's patterns are not indicated.)

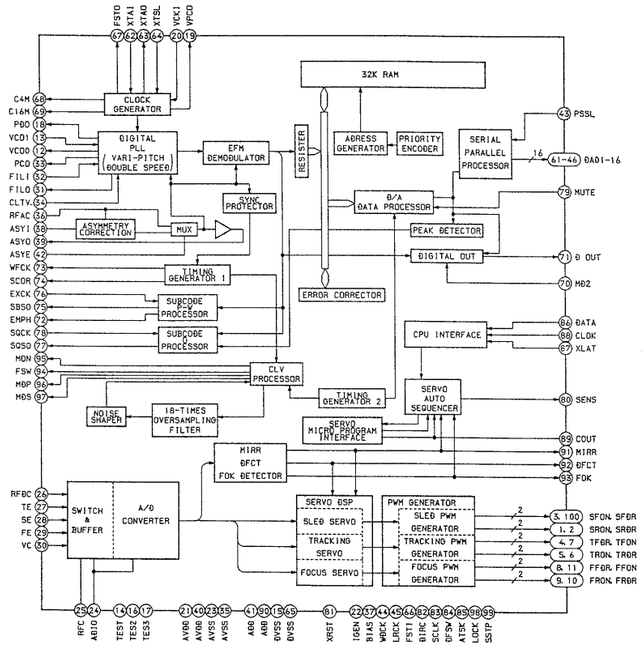


(OPTICAL PICK-UP BLOCK KSS 213BA/S-N)

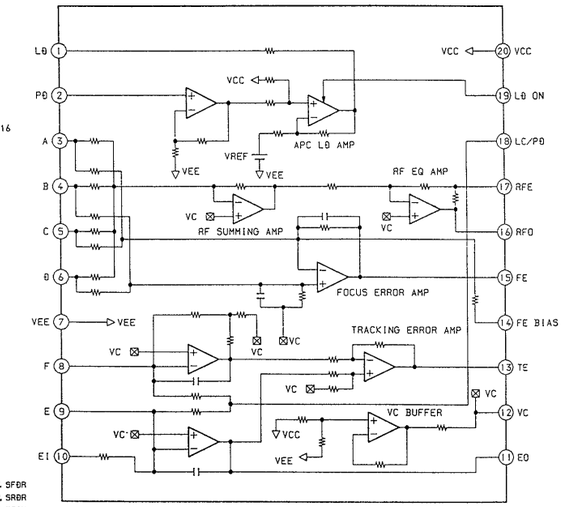
09

IC BLOCK DIAGRAMS

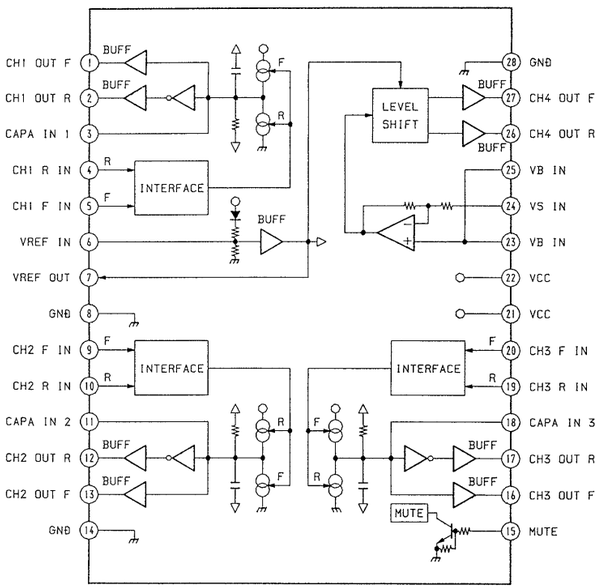
IC101 CXD2545Q



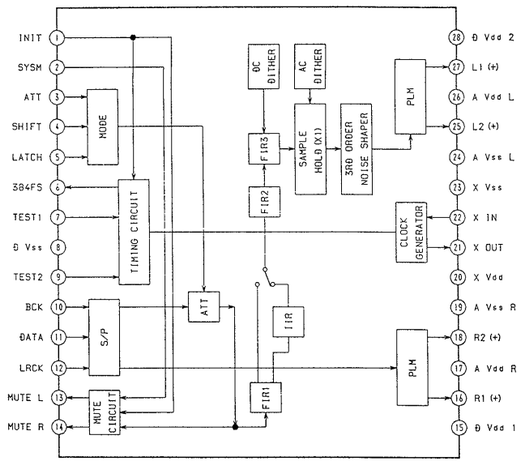
IC103 CXA1821M



IC102 BA6392FP



IC104 CXD2565AM



IC PIN FUNCTION

- **IC101 (CXD2545Q)**

Pin No.	Pin Name	I/O	Function
1	SRON	O	Sled drive output (Not used)
2	SRDR	O	Sled drive output
3	SFON	O	Sled drive output (Not used)
4	TFDR	O	Tracking drive output
5	TRON	O	Tracking drive output (Not used)
6	TRDR	O	Tracking drive output
7	TFON	O	Tracking drive output (Not used)
8	FFDR	O	Focus drive output
9	FRON	O	Focus drive output (Not used)
10	FRDR	O	Focus drive output
11	FFON	O	Focus drive output (Not used)
12	VCOO	O	VCO output for analog EFM PLL (Not used)
13	VCOI	I	VCO output for analog EFM PLL (GND)
14	TEST	I	TEST pin connected normally to GND
15	DVss	–	Digital GND
16	TES2	I	TEST pin connected normally to GND
17	TES3	I	TEST pin connected normally to GND
18	PDO	O	Charge-pump output for analog EFM PLL (Not used)
19	VPCO	O	Charge-pump output for variable pitch PLL (Not used)
20	VCKI	I	Clock input from variable pitch external VCO (GND)
21	AVD2	–	Analog power supply
22	IGEN	I	Power supply pin for operational amplifiers
23	AVS2	–	Analog GND
24	ADIO	I	(Not used)
25	RFC	O	(Not used)
26	RFDC	I	RF signal input
27	TE	I	Tracking error signal input
28	SE	I	Sled error signal input
29	FE	I	Focus error signal input
30	VC	I	Center voltage input pin
31	FILO	O	Filter output for master PLL
32	FILI	I	Filter input for master PLL
33	PCO	O	Charge-pump output for master PLL
34	CLTV	I	Control voltage input for master VCO
35	AVS1	–	Analog GND
36	RFAC	I	EFM signal input
37	BIAS	I	Asymmetry circuit constant current input
38	ASYI	I	Asymmetry comparate voltage input
39	ASYO	O	EFM full swing output
40	AVD1	–	Analog power supply

Pin No.	Pin Name	I/O	Function
41	DVDD	–	Digital power supply
42	ASYE	I	Asymmetry circuit ON/OFF
43	PSSL	I	Audio data output mode selection input (GND)
44	WDCK	O	48-bit slot D/A interface. Word clock (Not used)
45	LRCK	O	48-bit slot D/A interface. LR clock
46	DATA	O	DA 16 output when PSSL=1. 48-bit slot serial data when PSSL=0
47	BCLK	O	DA 15 output when PSSL=1. 48-bit slot data when PSSL=0
48	64DATA	O	DA 14 output when PSSL=1. 64-bit slot data when PSSL=0 (Not used)
49	64BCLK	O	DA 13 output when PSSL=1. 64-bit slot data when PSSL=0 (Not used)
50	64LRCK	O	DA 12 output when PSSL=1. 64-bit slot data when PSSL=0 (Not used)
51	GTOP	O	DA 11 output when PSSL=1. GTOP output when PSSL=0 (Not used)
52	XUGF	O	DA 10 output when PSSL=1. XUGF output when PSSL=0 (Not used)
53	XPLCK	O	DA 09 output when PSSL=1. XPLCK output when PSSL=0
54	GFS	O	DA 08 output when PSSL=1. GFS output when PSSL=0
55	RFCK	O	DA 07 output when PSSL=1. RFCK output when PSSL=0
56	C2PO	O	DA 06 output when PSSL=1. C2PO output when PSSL=0 (Not used)
57	XRAOF	O	DA 05 output when PSSL=1. XRA0F output when PSSL=0 (Not used)
58	MNT3	O	DA 04 output when PSSL=1. MNT3 output when PSSL=0
59	MNT2	O	DA 03 output when PSSL=1. MNT2 output when PSSL=0
60	MNT1	O	DA 02 output when PSSL=1. MNT1 output when PSSL=0
61	MNT0	O	DA 01 output when PSSL=1. MNT0 output when PSSL=0
62	XTAI	I	X'tal oscillator circuit input
63	XTAO	O	X'tal oscillator circuit output (Not used)
64	XTSL	I	X'tal selection input pin (GND)
65	DVss	–	Digital GND
66	FSTI	I	2/3 divider output of pins 62, 63
67	FSTO	O	2/3 divider output of pins 62, 63
68	FSOF	O	(Not used)
69	C16M	O	16.9344 MHz output (Not used)
70	MD2	I	Digital-out ON/OFF control pin (+5V)
71	DOUT	O	Digital-out output pin
72	EMPH	O	Playback disc output in emphasis mode (Not used)
73	WFCK	O	WFCK output
74	SCOR	O	Sub-code sync output
75	SBSO	O	Sub-P through Sub-W serial output (Not used)
76	EXCK	I	Clock input for SBS0 read-out (+5V)
77	SUBQ	O	Sub-Q 80-bit output
78	SQCK	I	Clock input for SQS0 read-out
79	MUTE	I	Muting selection pin
80	SENS	O	SENS output
81	XRST	I	System reset
82	DIRC	I	Used in 1-track jump mode (+5V)
83	SCLK	I	SENS serial data read-out clock
84	DFSW	I	DFCT selection pin (GND)
85	ATSK	I	Input pin for anti-shock (GND)

Pin No.	Pin Name	I/O	Function
86	DATA	I	Serial data input, supplied from CPU
87	XLAT	I	Latch input, supplied from CPU
88	CLOK	I	Serial data transfer clock input, supplied from CPU
89	COUT	O	Numbers of track counted signal output (Not used)
90	DV_{DD}	–	Digital power supply
91	MIRR	O	Mirror signal output
92	DFCT	O	Defect signal output
93	FOK	O	Focus OK output
94	FSW	O	Output to select spindle motor output filter (Not used)
95	MON	O	Output to control ON/OFF of spindle motor (Not used)
96	MDP	O	Output to control spindle motor servo
97	MDS	O	Output to control spindle motor servo (Not used)
98	LOCK	O	GFS is sampled by 460 Hz. H when GFS is H (Not used)
99	SSTP	I	Input signal to detect disc inner most track
100	SFDR	O	Sled drive output

ELECTRICAL PARTS LIST

NOTE:

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 piéce 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.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: μ , for example:
  uA...: μA..., uPA...: μPA..., uPB...: μPB..., uPC...: μPC..., uPD...: μPD...
- CAPACITORS
  uF : μF
- COILS
  uH : μH

Ref. No.	Part No.	Description			Remark
	A-4673-515-A	BD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C102	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C103	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C105	1-135-155-21	TANTALUM CHIP	4.7uF	10%	16V
C106	1-164-346-11	CERAMIC CHIP	1uF		16V
C107	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C108	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C109	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C110	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C111	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C112	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C113	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C115	1-126-607-11	ELECT CHIP	47uF	20%	4V
C116	1-126-607-11	ELECT CHIP	47uF	20%	4V
C117	1-126-209-11	ELECT	100uF	20%	4V
C118	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C119	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C120	1-135-157-21	TANTALUM CHIP	10uF	20%	6.3V
C123	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C124	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C133	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C151	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C153	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C154	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C156	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C157	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C159	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C161	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C181	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C182	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C183	1-135-156-21	TANTALUM CHIP	6.8uF	10%	10V
C184	1-135-156-21	TANTALUM CHIP	6.8uF	10%	10V
C185	1-135-155-21	TANTALUM CHIP	4.7uF	10%	16V
C186	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C187	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C188	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C189	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C191	1-163-092-00	CERAMIC CHIP	9PF	0.25PF	50V
C192	1-163-092-00	CERAMIC CHIP	9PF	0.25PF	50V
C193	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C194	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C195	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C196	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C197	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C198	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C199	1-164-232-11	CERAMIC CHIP	0.01uF		50V
		< CONNECTOR >			
CN102	1-770-014-11	CONNECTOR, FFC/FPC 16P			
		< IC >			
IC101	8-752-369-78	IC CXD2545Q			
IC102	8-759-176-09	IC BA6392FP			
IC103	8-752-072-45	IC CXA1821M			
IC104	8-752-367-61	IC CXD2565AM			
		< COIL >			
L101	1-414-234-11	INDUCTOR, FERRITE BEAD			
L102	1-414-234-11	INDUCTOR, FERRITE BEAD			
L103	1-414-234-11	INDUCTOR, FERRITE BEAD			
L104	1-216-003-11	METAL GLAZE	12	5%	1/10W
L105	1-216-295-00	METAL CHIP	0	5%	1/10W
L106	1-414-234-11	INDUCTOR, FERRITE BEAD			
L107	1-216-295-00	METAL CHIP	0	5%	1/10W
L108	1-414-234-11	INDUCTOR, FERRITE BEAD			
L109	1-414-234-11	INDUCTOR, FERRITE BEAD			
L110	1-216-295-00	METAL CHIP	0	5%	1/10W
L111	1-216-295-00	METAL CHIP	0	5%	1/10W
L112	1-216-295-00	METAL CHIP	0	5%	1/10W
		< MOTOR >			
M101	X-4917-523-4	BASE (OUTSERT) ASSY (SPINDLE)			
M102	X-4917-504-1	MOTOR ASSY (SLED)			
		< TRANSISTOR >			
Q101	8-729-118-01	TRANSISTOR 2SB1116-K			

BD

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R101	1-216-077-00	METAL CHIP	15K	5% 1/10W	
R102	1-216-097-00	METAL CHIP	100K	5% 1/10W	
R103	1-216-077-00	METAL CHIP	15K	5% 1/10W	
R104	1-216-085-00	METAL CHIP	33K	5% 1/10W	
R105	1-216-097-00	METAL CHIP	100K	5% 1/10W	
R106	1-216-061-00	METAL CHIP	3.3K	5% 1/10W	
R107	1-216-061-00	METAL CHIP	3.3K	5% 1/10W	
R108	1-216-073-00	METAL CHIP	10K	5% 1/10W	
R109	1-216-121-91	METAL GLAZE	1M	5% 1/10W	
R110	1-216-025-00	METAL CHIP	100	5% 1/10W	
R112	1-216-049-00	METAL CHIP	1K	5% 1/10W	
R123	1-216-073-00	METAL CHIP	10K	5% 1/10W	
R124	1-216-097-00	METAL CHIP	100K	5% 1/10W	
R125	1-216-049-00	METAL CHIP	1K	5% 1/10W	
R126	1-216-049-00	METAL CHIP	1K	5% 1/10W	
R127	1-216-049-00	METAL CHIP	1K	5% 1/10W	
R131	1-216-037-00	METAL CHIP	330	5% 1/10W	
R132	1-216-049-00	METAL CHIP	1K	5% 1/10W	
R141	1-216-089-91	METAL GLAZE	47K	5% 1/10W	
R142	1-216-081-00	METAL CHIP	22K	5% 1/10W	
R143	1-216-101-00	METAL CHIP	150K	5% 1/10W	
R144	1-216-101-00	METAL CHIP	150K	5% 1/10W	
R146	1-216-073-00	METAL CHIP	10K	5% 1/10W	
R147	1-216-081-00	METAL CHIP	22K	5% 1/10W	
R148	1-216-001-00	METAL CHIP	10	5% 1/10W	
R149	1-216-003-11	METAL GLAZE	12	5% 1/10W	
R150	1-216-295-00	METAL CHIP	0	5% 1/10W	
R158	1-216-111-91	METAL GLAZE	390K	5% 1/10W	
R159	1-216-101-00	METAL CHIP	150K	5% 1/10W	
R160	1-216-295-00	METAL CHIP	0	5% 1/10W	
R161	1-216-308-00	METAL CHIP	4.7	5% 1/10W	
R162	1-216-101-00	METAL CHIP	150K	5% 1/10W	
R181	1-216-053-00	METAL CHIP	1.5K	5% 1/10W	
R182	1-216-080-00	METAL CHIP	20K	5% 1/10W	
R183	1-216-080-00	METAL CHIP	20K	5% 1/10W	
R184	1-216-080-00	METAL CHIP	20K	5% 1/10W	
R185	1-216-080-00	METAL CHIP	20K	5% 1/10W	
R187	1-216-035-00	METAL CHIP	270	5% 1/10W	
R188	1-216-121-91	METAL GLAZE	1M	5% 1/10W	
		< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF (LIMIT SWITCH)			
		< VIBRATOR >			
X101	1-579-904-11	VIBRATOR, CRYSTAL (33.8MHz)			

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