

CDP-C460Z/CE515

SERVICE MANUAL

US Model
CDP-C460Z/CE515

Canadian Model
AEP Model
Australian Model
CDP-CE515



Photo : CDP-CE515

Model Name Using Similar Mechanism	CDP-C360Z/CE415
CD Mechanism Type	CDM27G-5BD22
Base Unit Type	BU-5BD22
Optical Pick-up Type	KSS-213BA/F-NP

SPECIFICATIONS

Compact Disc Player

Laser	Semiconductor laser ($\lambda = 780 \text{ nm}$)
Laser output	Emission duration: continuous Max 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 with 7 mm aperture.
Frequency response	2 Hz to 20 kHz $\pm 0.5 \text{ dB}$
Signal-to-noise ratio	More than 107 dB
Dynamic range	More the 98 dB
Harmonic distortion	Less than 0.0035%

Output

	Jack type	Maximum output level	Load impedance
LINE OUT	Phono jacks	2V (at 50 kilohms)	Over 10 kilohms
DIGITAL OUT (OPTICAL)	Optical output connector	-18 dBm	Wave length: 660 nm
PHONES	Stereo phone jack	10 mW	32 ohms

General

Power requirements

Where purchased Power requirements

USA/Canada	120 V AC, 60 Hz
Europe	220 V - 230 V AC, 50/60 Hz
Australia	240 V AC, 50/60 Hz

Power consumption	14W
Dimensions (approx.) (w/h/d)	430 \times 120 \times 393 mm (17 \times 4 3/4 \times 15 1/2 in.) incl. projecting parts
Mass (approx.)	5.4 kg (11 lbs 15 oz)

Supplied accessories

- Audio cord (2 phono plugs-2 phono plugs) (1)
- Remote commander (remote)(1)
- Sony SUM-3 (NS) batteries (2)

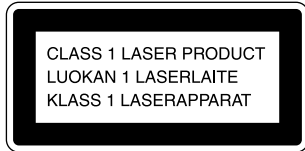
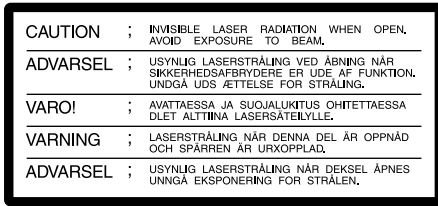
Design and specifications are subject to change without notice.

COMPACT DISC PLAYER

SONY®



The following caution label is located inside of the unit.



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

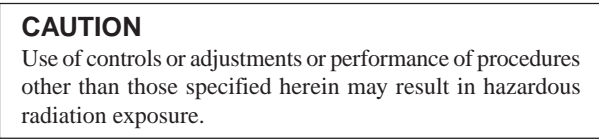


TABLE OF CONTENTS

1. GENERAL	7
2. DISASSEMBLY	
2-1. Case, Bottom Plate and Front Panel	8
2-2. Back Panel and Disc Table	8
2-3. Optical Pick-up Block Assembly	9
2-4. Bracket (Gear) Assembly	9
3. ELECTRICAL BLOCK CHECKING	10
4. DIAGRAMS	
4-1. Circuit Boards Location	12
4-2. Printed Wiring Board — BD Section —	13
4-3. Schematic Diagram — BD Section —	15
4-4. Printed Wiring Board — Main Section —	17
4-5. Schematic Diagram — Main Section —	19
4-6. Schematic Diagram — Display Section —	21
4-7. Printed Wiring Board — Display Section —	23
4-8. IC Block Diagrams	25
4-9. IC Pin Functions	
• IC101 Digital Signal Processor (CXD2545Q)	27
• IC302 System Control (CXP84340-060Q)	30
5. EXPLODED VIEWS	
5-1. Front Panel and Case Section	32
5-2. Back Panel and Disc Table Section	33
5-3. Chassis Section	34
5-4. Base Unit Section (BU-5BD22)	35
6. ELECTRICAL PARTS LIST	36

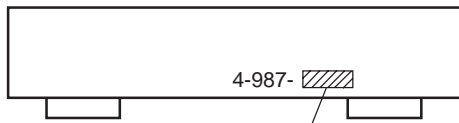
SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK \triangle OR DOTTED LINE WITH MARK \triangle 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 IDENTIFÉS PAR UNE MARQUE \triangle 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-CE515	
US Model	: 842-0□
CDP-CE515	
Canadian Model	: 842-1□
CDP-CE515	
AEP Model	: 842-2□
CDP-C460Z	
US Model	: 842-3□
CDP-CE515	
Australian Model	: 842-5□

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 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)

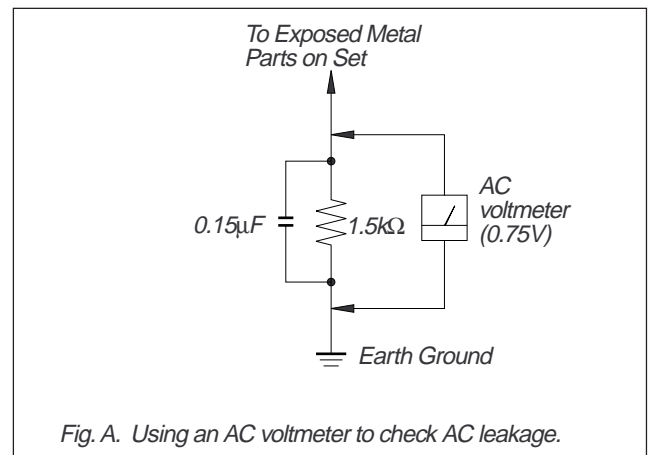





Fig. A. Using an AC voltmeter to check AC leakage.

CD-TEXT TEST DISC

This unit is able to display the test data (character information) written in the CD on its fluorescent indicator tube. The CD-TEXT TEST DISC (TGCS-313:4-989-366-01) is used for checking the display. To check, perform the following procedure.

Checking Method:

1. Turn ON the power, set the disc on the disc table with the side labeled as “test disc” as the right side, close the front cover, and chuck the disc.
2. Press the  button and play back the disc.
3. The following will be displayed on the fluorescent indicator tube.
Display : 1kHz/0 dB/L&R
4. Press the  and  buttons to switch the track. The text data of each track will be displayed.
For details of the displayed contents for each track, refer to “Table 1 : CD-TEXT TEST DISC TEXT Data Contents” and “Table 2 : CD-TEXT TEST DISC Recorded Contents and Display”.

Restrictions in CD-TEXT Display

In this unit, some special characters will not be displayed properly. These will be displayed as a space or a character resembling it. For details, refer to “Table 2 : CD-TEXT DISC Recorded Contents and Display”.

Table 1 : CD-TEXT TEST DISC TEXT Data Contents (TRACKS No. 1 to 41:Normal Characters)

TRACK No.	Displayed Contents	TRACK No.	Displayed Contents
1	1kHz/0dB/L&R	22	1kHz/-90dB/L&R
2	20Hz/0dB/L&R	23	Infinity Zero w/o emphasis//L&R
3	40Hz/0dB/L&R	24	Infinity Zero with emphasis//L&R
4	100Hz/0dB/L&R	25	400Hz+7kHz(4:1)/0dB/L&R
5	200Hz/0dB/L&R	26	400Hz+7kHz(4:1)/-10dB/L&R
6	500Hz/0dB/L&R	27	19kHz+20kHz(1:1)/0dB/L&R
7	1kHz/0dB/L&R	28	19kHz+20kHz(1:1)/-10dB/L&R
8	5kHz/0dB/L&R	29	100Hz/0dB/L*
9	7kHz/0dB/L&R	30	1kHz/0dB/L*
10	10kHz/0dB/L&R	31	10kHz/0dB/L*
11	16kHz/0dB/L&R	32	20kHz/0dB/L*
12	18kHz/0dB/L&R	33	100Hz/0dB/R*
13	20kHz/0dB/L&R	34	1kHz/0dB/R*
14	1kHz/0dB/L&R	35	10kHz/0dB/R*
15	1kHz/-1dB/L&R	36	20kHz/0dB/R*
16	1kHz/-3dB/L&R	37	100Hz Squer Wave//L&R
17	1kHz/-6dB/L&R	38	1kHz Squer Wave//L&R
18	1kHz/-10dB/L&R	39	1kHz w/emphasis/-0.37dB/L&R
19	1kHz/-20dB/L&R	40	5kHz w/emphasis/-4.53dB/L&R
20	1kHz/-60dB/L&R	41	16kHz w/emphasis/-9.04dB/L&R
21	1kHz/-80dB/L&R		

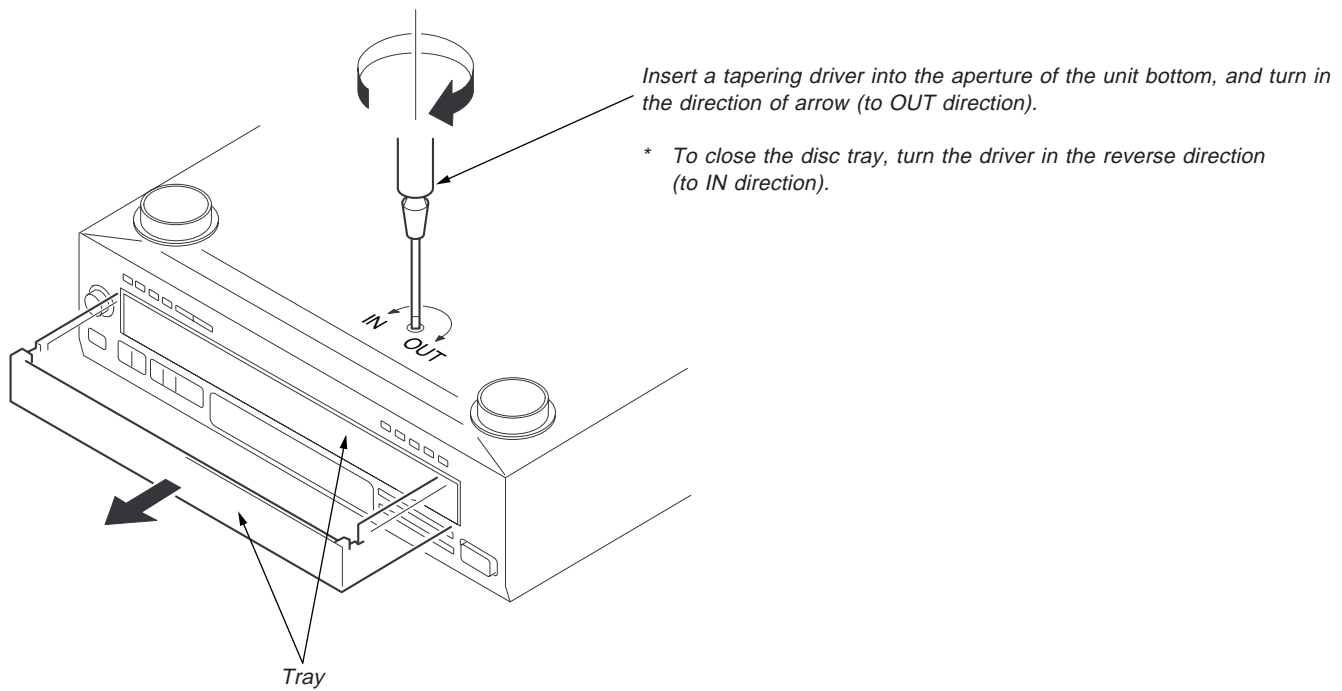
* Other channel is infinity zero.

NOTE : The contents of Track No. 1 to 41 are the same as those of the current TEST DISC-their titles are displayed.

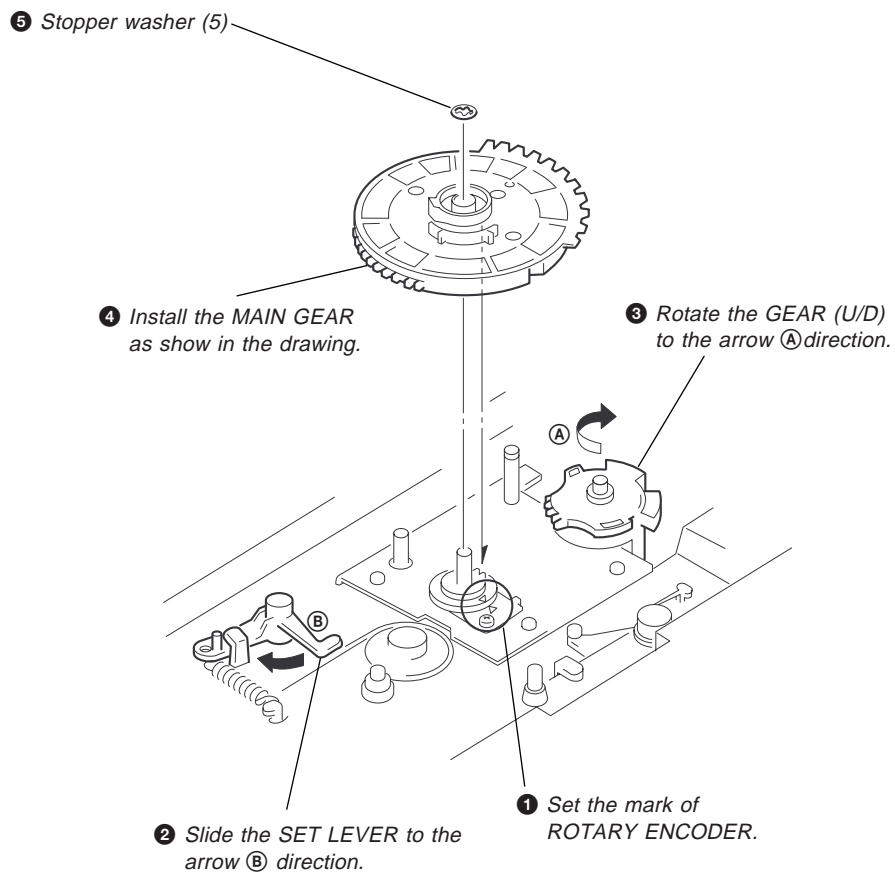
Table 2: CD-TEXT TEST DISC Recorded Contents and Display
(In this unit, some special characters cannot be displayed. This is no a fault.)

TRACK	Recorded contents	Display
42	! " # \$ % & ' (21h to 27h) 1kHz 0dB L&R	← All the same
43	() * + , - . / (28h to 2Fh)	← All the same
44	0 1 2 3 4 5 6 7 (30h to 37h)	← All the same
45	8 9 : ; < = > ? (38h to 3Fh)	← All the same
46	@ A B C D E F G (40h to 47h)	← All the same
47	H I J K L M N O (48h to 4Fh)	← All the same
48	P Q R S T U V W (50h to 57h)	← All the same
49	X Y Z [¥] ^ _ (58h to 5Fh)	X Y Z [\] ^ _ (58....
50	` a b c d e f g (60h to 67Fh)	a b c d e f g (60....
51	h i j k l m n o (68h to 6Fh)	← All the same
52	p q r s t u v w (70h to 77h)	← All the same
53	x y z { } ~ ■ (78h to 7Fh)	x y z { } - ■ (78....
54	■ i ø £ ¤ ¥ ¦ § (A0h to A7h) 8859-1	(A0.... All not displayed
55	♪ © ª « ¬ ® ¯ (A8h to AFh)	(A8.... All not displayed
56	• ± ² ³ ´ µ ¶ • (B0h to B7h)	(B0.... All not displayed
57	† † ° » ¼ ½ ¾ ¿ (B8h to BFh)	(B8.... All not displayed
58	À Á Â Ã Ä Å Æ Ç (C0h to C7h)	A A A A A A C (C0.... Æ is not displayed
59	È É Ê Ë Ì Í Î Ï (C8h to CFh)	E E E E I I I I (C8
60	Ð Ñ Ò Ó Ô Õ Ö × (D0h to D7Fh)	D N O O O O O (D0.... × is not displayed
61	Ø Ù Ú Û Ü Ý Þ ß (D8h to DFh)	O U U U U Y (D8.... Þ ß are not displayed
62	à á â ã ä å æ ç (E0h to E7h)	a a a a a a c (E0.... æ is not displayed
63	è é ê ë ì í î ï (E8h to EFh)	e e e e i i i i (E8....
64	ð ñ ò ó ô õ ö ÷ (F0h to F7h)	d n o o o o o (F0.... ÷ is not displayed
65	ø ù ú û ü ý þ ÿ (F8h to FFh)	o u u u u y y (F8.... þ is not displayed
66	No.66	← All the same
67	No.67	← All the same
to	to	to
99	No.99	← All the same

HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF



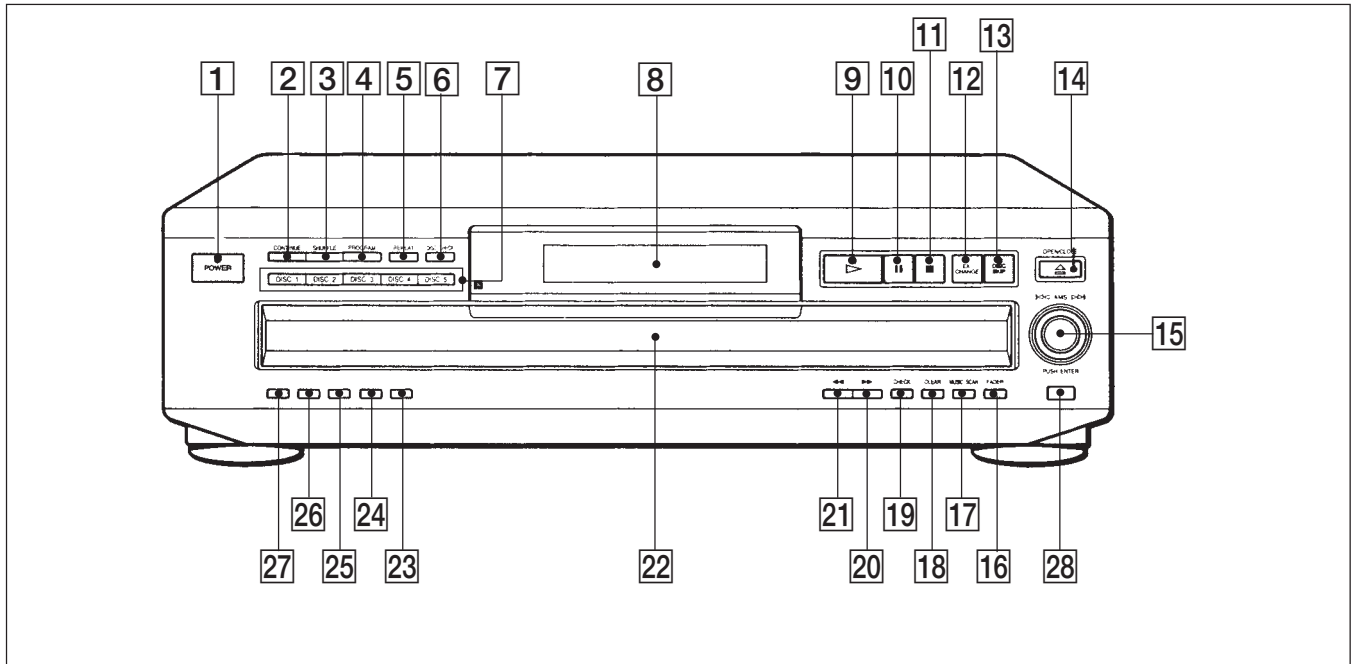
NOTE FOR MAIN GEAR INSTALLATION



SECTION 1 GENERAL

Identifying the Parts

Front Panel

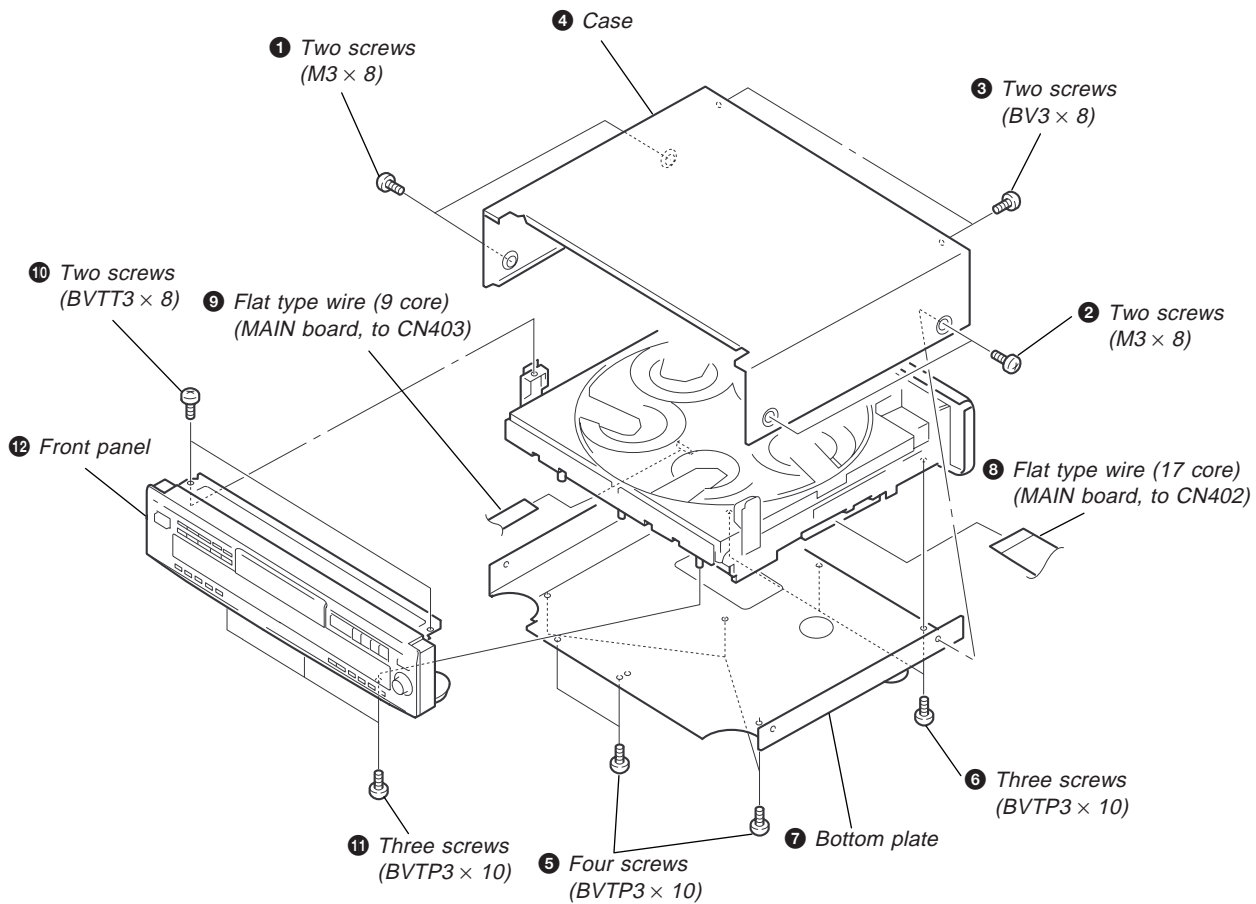


- | | |
|--|--|
| 1 POWER switch | 14 ▲ OPEN/CLOSE button |
| 2 CONTINUE button | 15 AMS knob |
| 3 SHUFFLE button | 16 X-FADE button |
| 4 PROGRAM button | 17 NO DELAY button |
| 5 REPEAT button | 18 CLEAR button |
| 6 TIME/TEXT button : C460Z model
DISC CHECK button : CE515 model | 19 CHECK button |
| 7 DISC 1-5 button | 20 ►► (forward) button |
| 8 Display window | 21 ◀◀ (backward) button |
| 9 ► (play) button | 22 Disc tray |
| 10 ■■ (pause) button | 23 PEAK SEARCH button: CE515 model |
| 11 ■ (stop) button | 24 EDIT/TIME FADE button: CE515 model |
| 12 EX-CHANGE button | 25 TIME/TEXT button: CE515 model |
| 13 DISC SKIP button | 26 FADER button |
| | 27 MEMO INPUT button |
| | 28 MEGA CONTROL button |

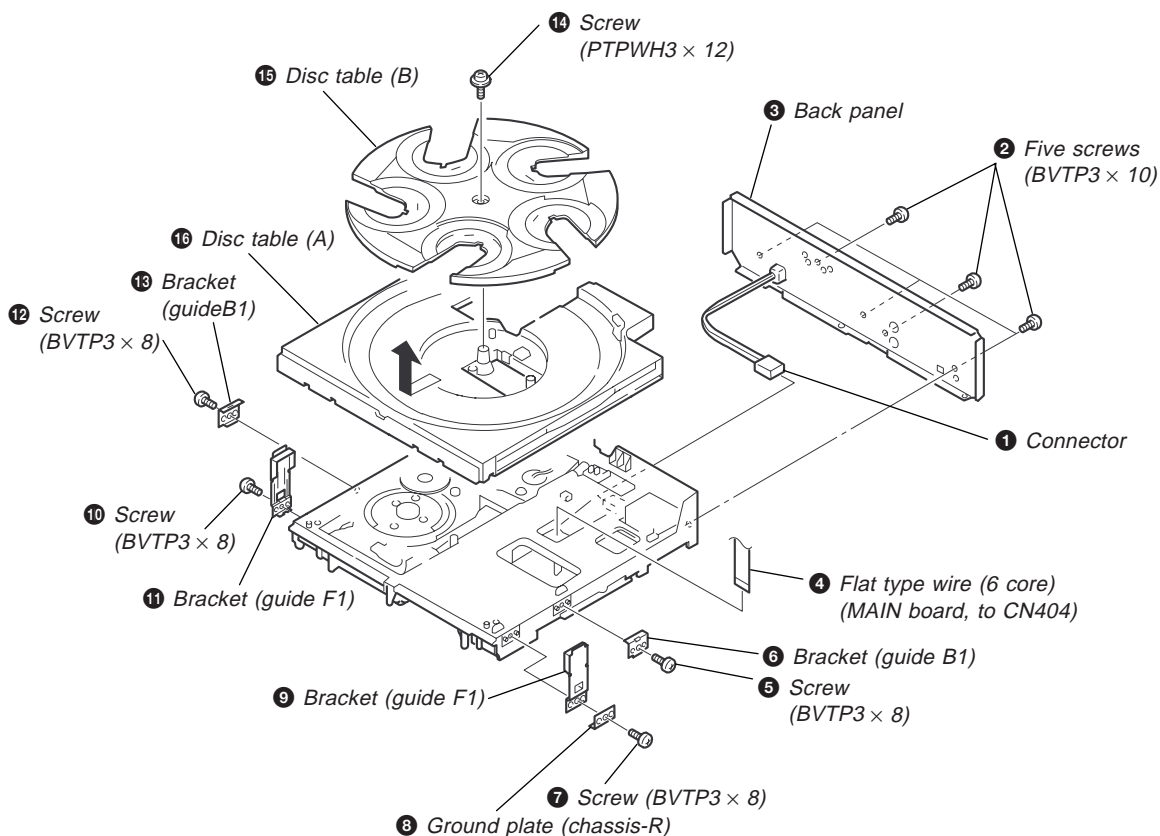
SECTION 2 DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

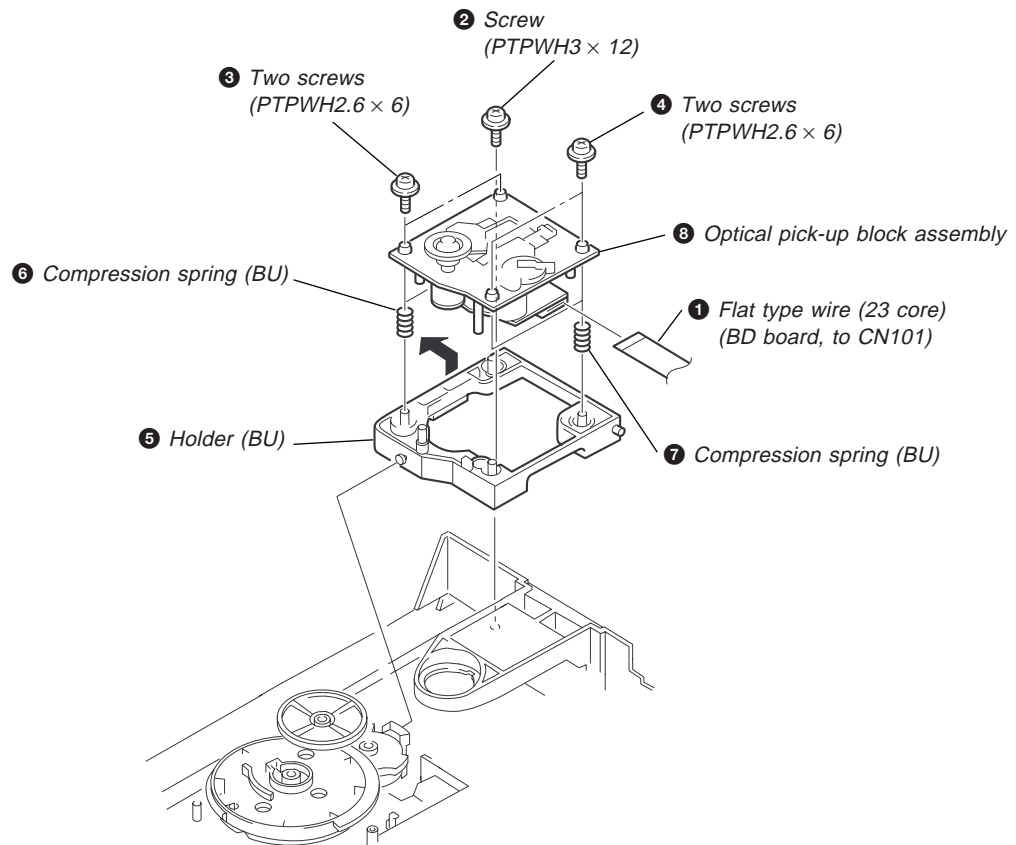
2-1. CASE, BOTTOM PLATE AND FRONT PANEL



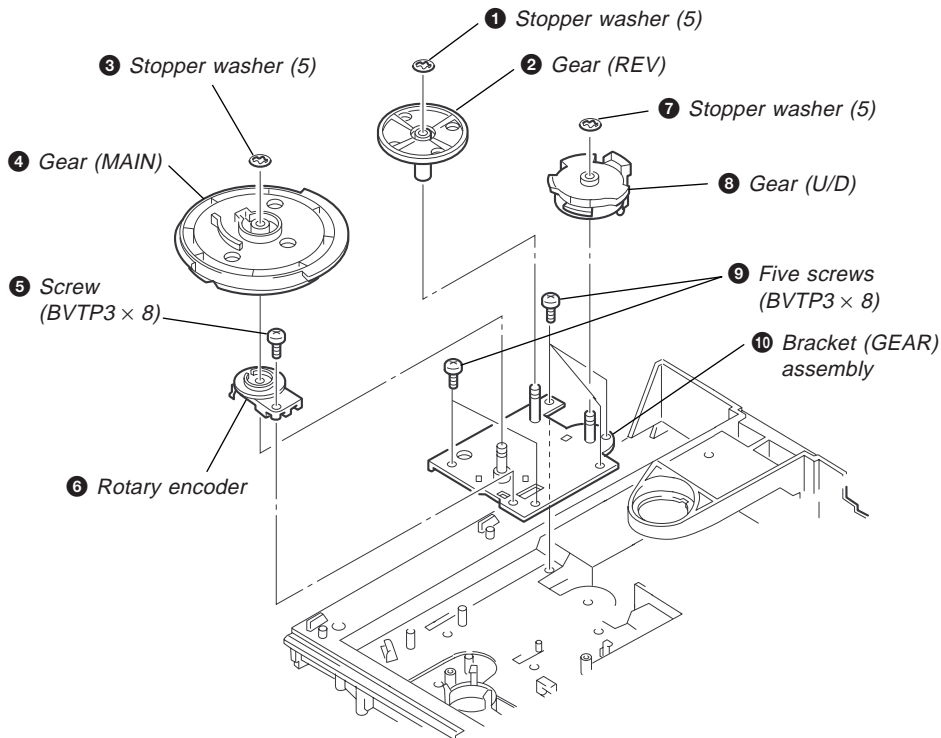
2-2. BACK PANEL AND DISC TABLE



2-3. OPTICAL PICK-UP BLOCK ASSEMBLY



2-4. BRACKET (GEAR) ASSEMBLY



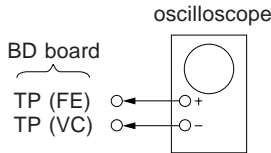
Note : As for the installation of the main gear, refer to "Note for MAIN GEAR installation" on page 4.

SECTION 3 ELECTRICAL BLOCK CHECKING

Note :

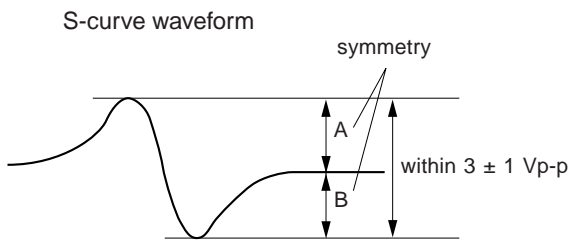
1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MΩ impedance.
4. Clean the object lens using an applicator with neutral detergent when the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

S Curve Check



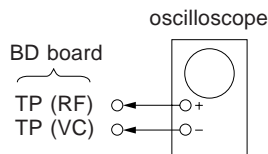
Procedure :

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.
 - Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check



Procedure :

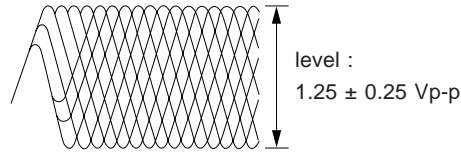
1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in to play the number five track.
4. Confirm that oscilloscope waveform is clear and check if RF signal level is correct or not.

Note :

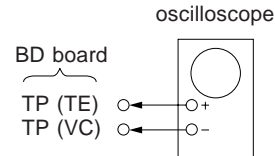
A clear RF signal waveform means that the shape “◇” can be clearly distinguished at the center of the waveform.

RF signal waveform

VOLT/DIV : 200mV
TIME/DIV : 500ns



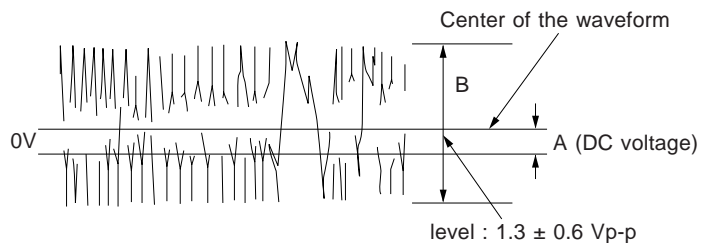
E-F Balance Check



Procedure :

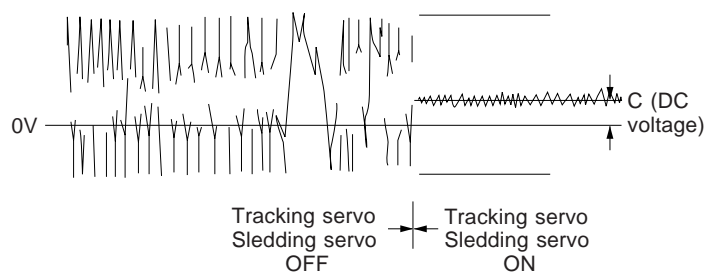
1. Connect test point TP1 (ADJ) to ground with a lead wire.
2. Connect oscilloscope to test point TP (TE) on BD board.
3. Turned Power switch on.
4. Put disc (YEDS-18) in to play the number five track.
5. Press the “3” button. (The tracking servo and the sledding servo are turned OFF.)
6. Check the level B of the oscilloscope's waveform and the A (DC voltage) of the center of the Traverse waveform. Confirm the following :
 $A/B \times 100 = \text{less than } \pm 22\%$

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) is step 6.

Traverse waveform

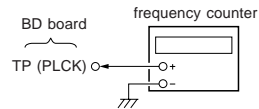


8. Disconnect the lead wire of test point TP1 (ADJ) connected in step 1.

RF PLL Free-run Frequency Check

Procedure :

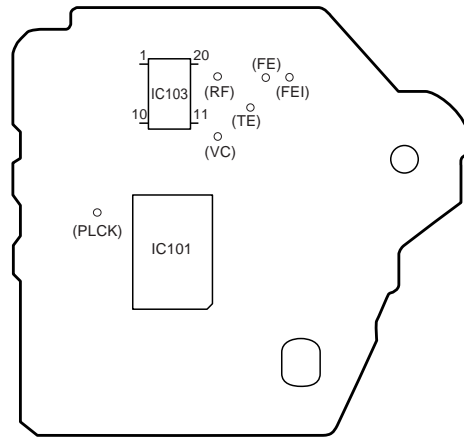
1. Connect frequency counter to test point TP (PLCK) with lead wire.



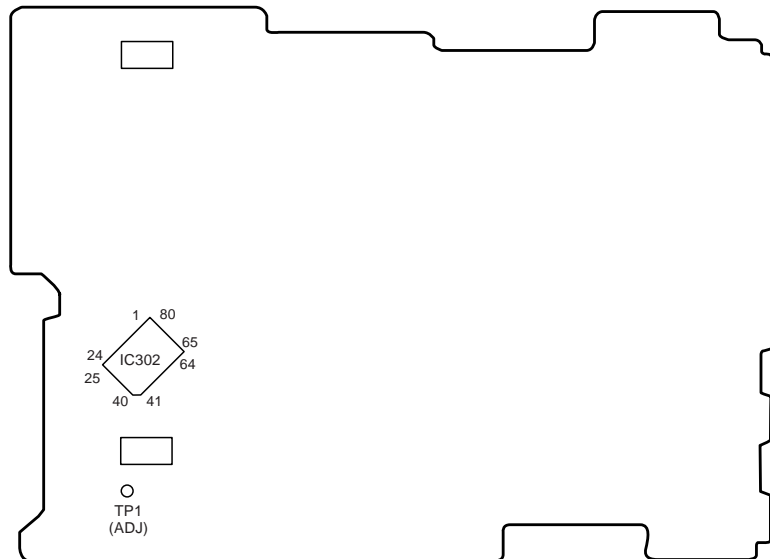
2. Turned Power switch on.
3. Put the disc (YEDS-18) in to play the number five track. Confirm that reading on frequency counter is 4.3218MHz.

Adjustment Location :

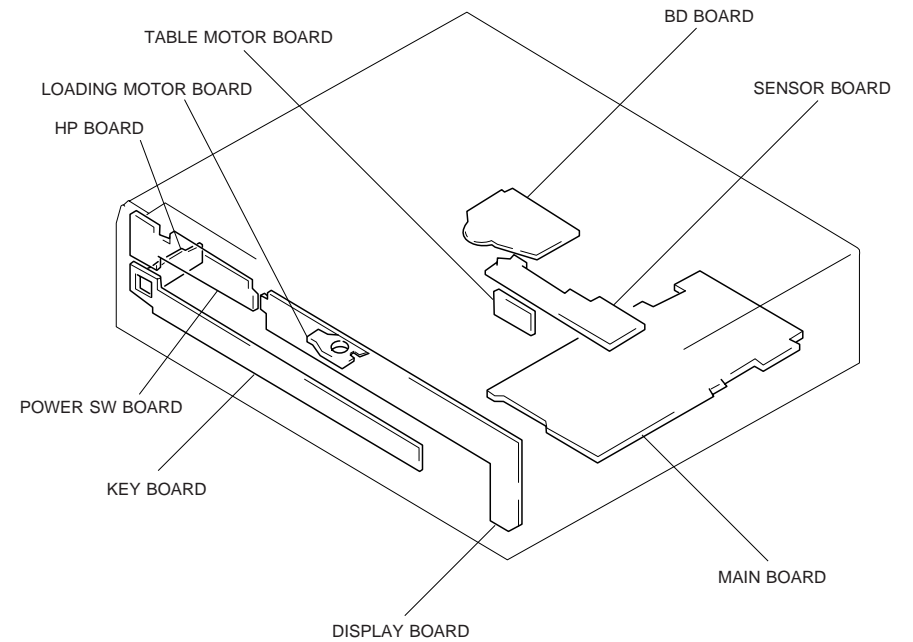
[BD BOARD] — Conductor Side —



[MAIN BOARD] — Conductor Side —



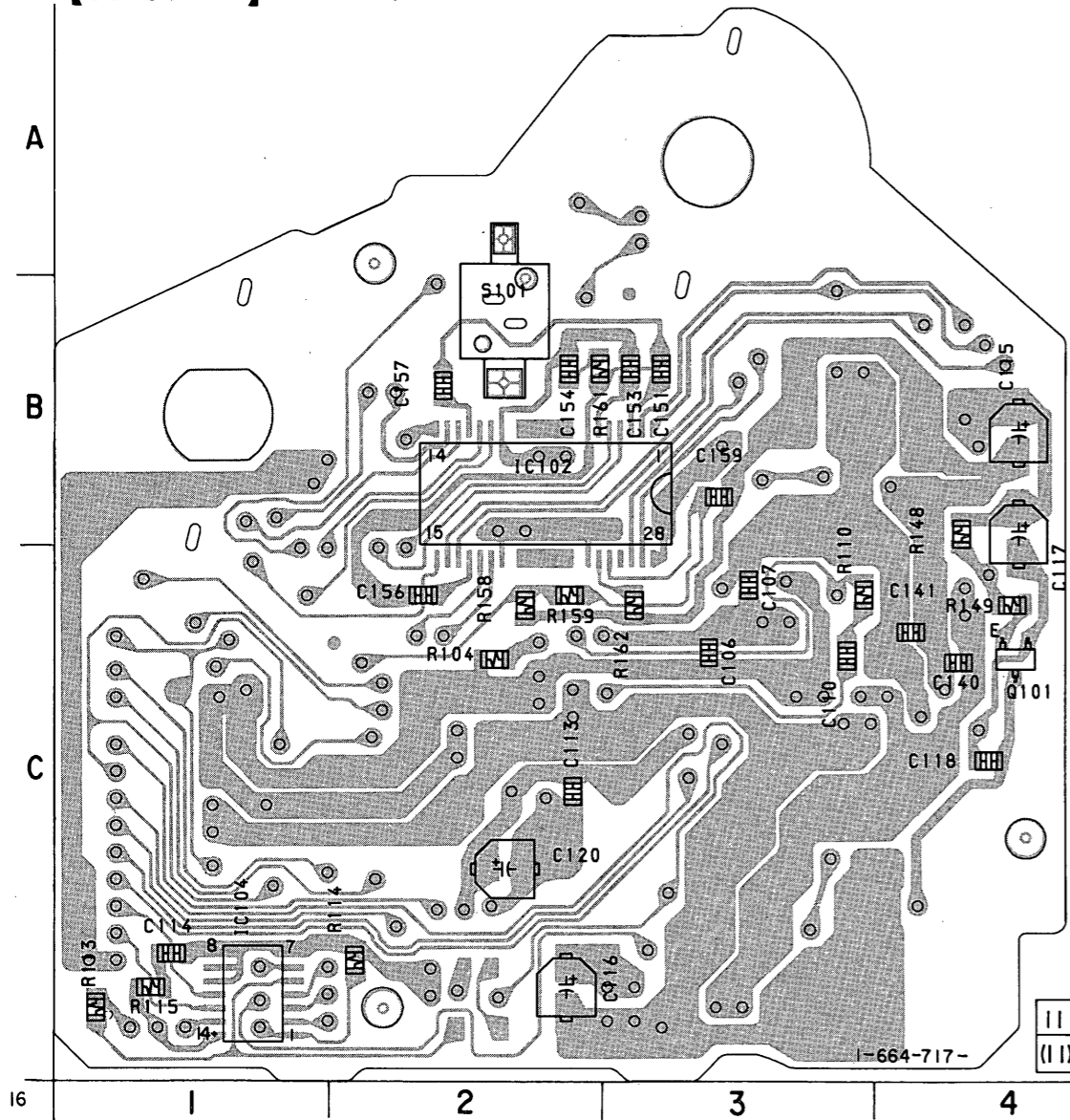
4-1. CIRCUIT BOARDS LOCATION



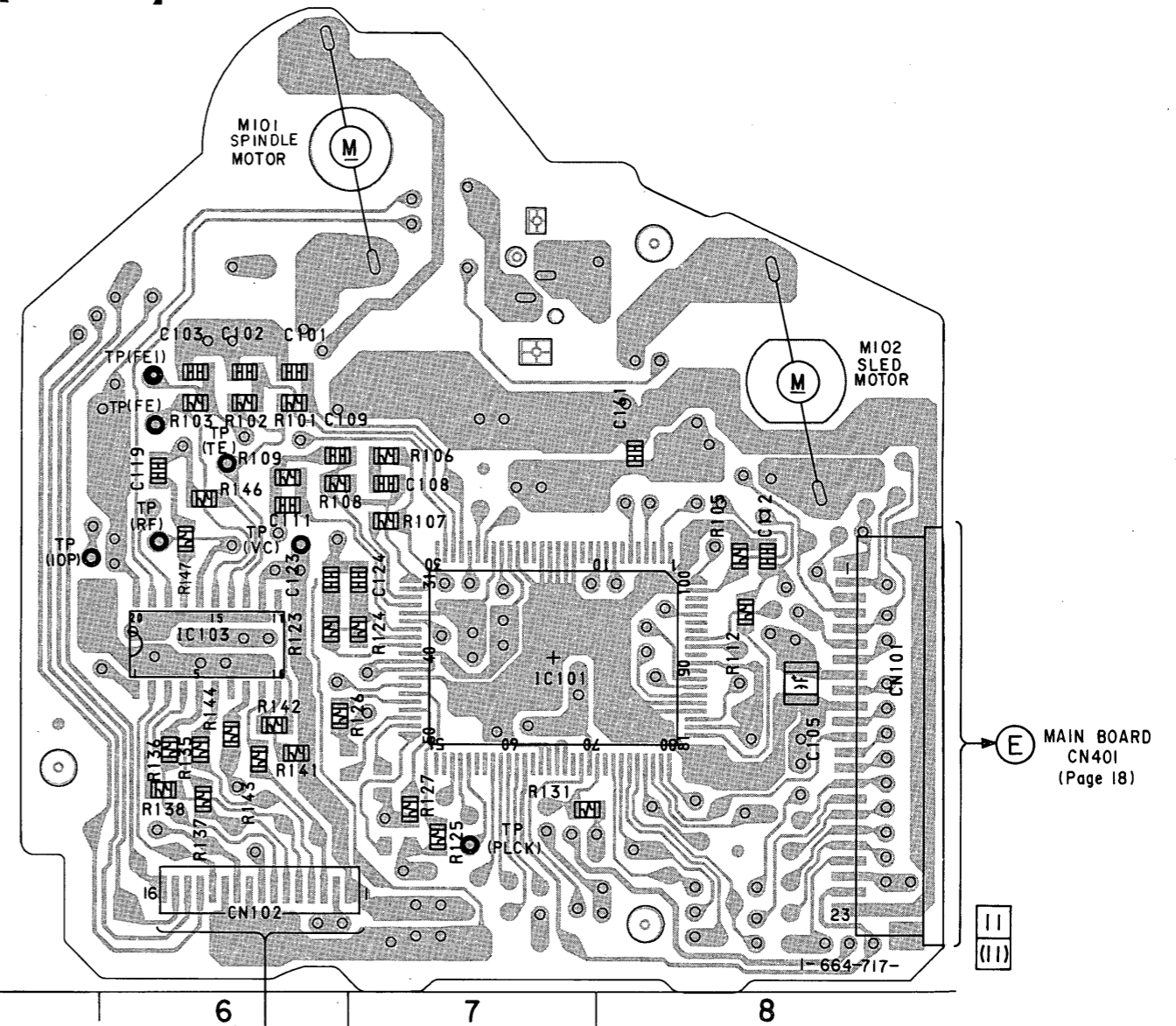
4-2. PRINTED WIRING BOARD - BD SECTION -

• See page 12 for Circuit Board Location.

[BD BOARD] (SIDE A)



[BD BOARD] (SIDE B)

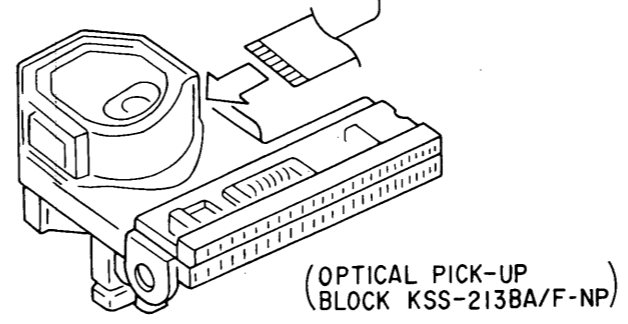


• Semiconductor Location

Ref. No.	Location
IC101	C-7
IC102	B-2
IC103	C-6
IC104	C-1
Q101	C-4

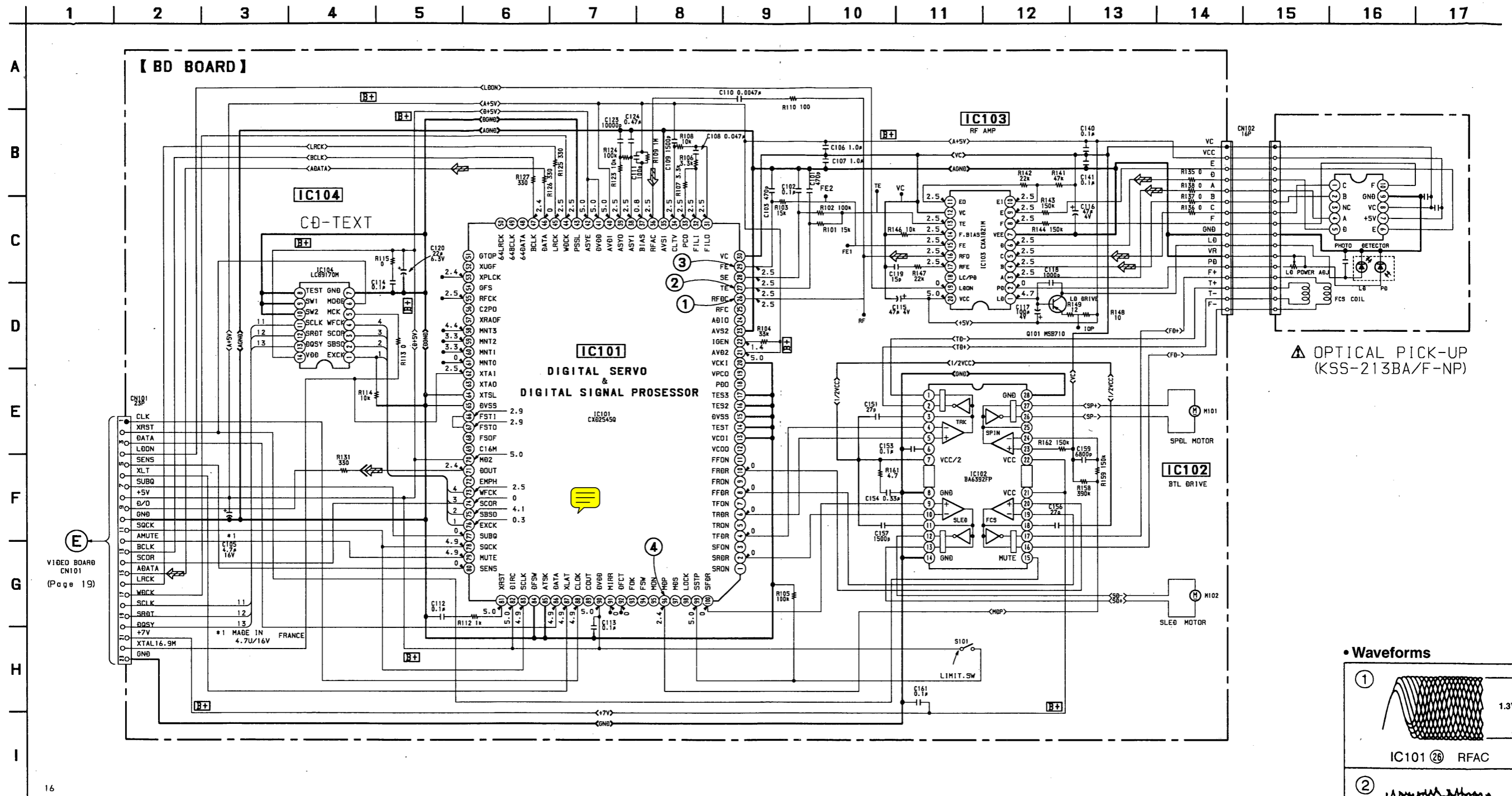
Note:

- ○ : Parts extracted from the component side.
- ○ : Through hole.
- — : Pattern from the side which enable seeing. (The other layer's patterns are not indicated.)



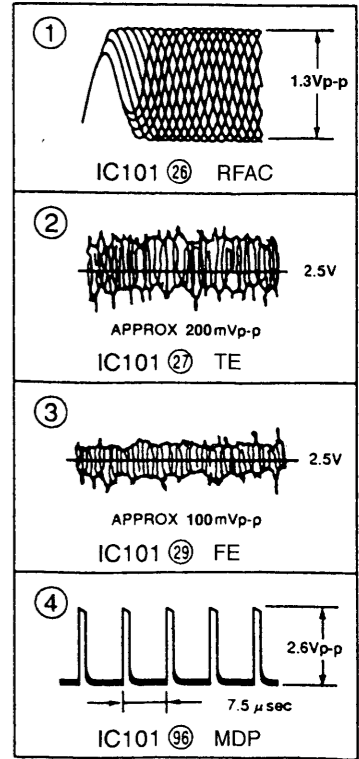
4-3. SCHEMATIC DIAGRAM - BD SECTION -

- See page 25 for IC Block Diagrams.
- See page 27 for IC Pin Functions. (IC101)



OPTICAL PICK-UP (KSS-213BA/F-NP)

Waveforms



- Note:**
- All capacitors are in μF unless otherwise noted. pF: μF 50WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and 1/4W or less unless otherwise specified.
 - [B+]: B+ Line.
 - Voltages and waveforms are dc with respect to ground under no-signal conditions.
 - No mark: STOP
 - Voltages are taken with a VOM (Input impedance 10M Ω).
 - Voltage variations may be noted due to normal production tolerances.
 - Waveforms are taken with an oscilloscope.
 - Voltage variations may be noted due to normal production tolerances.

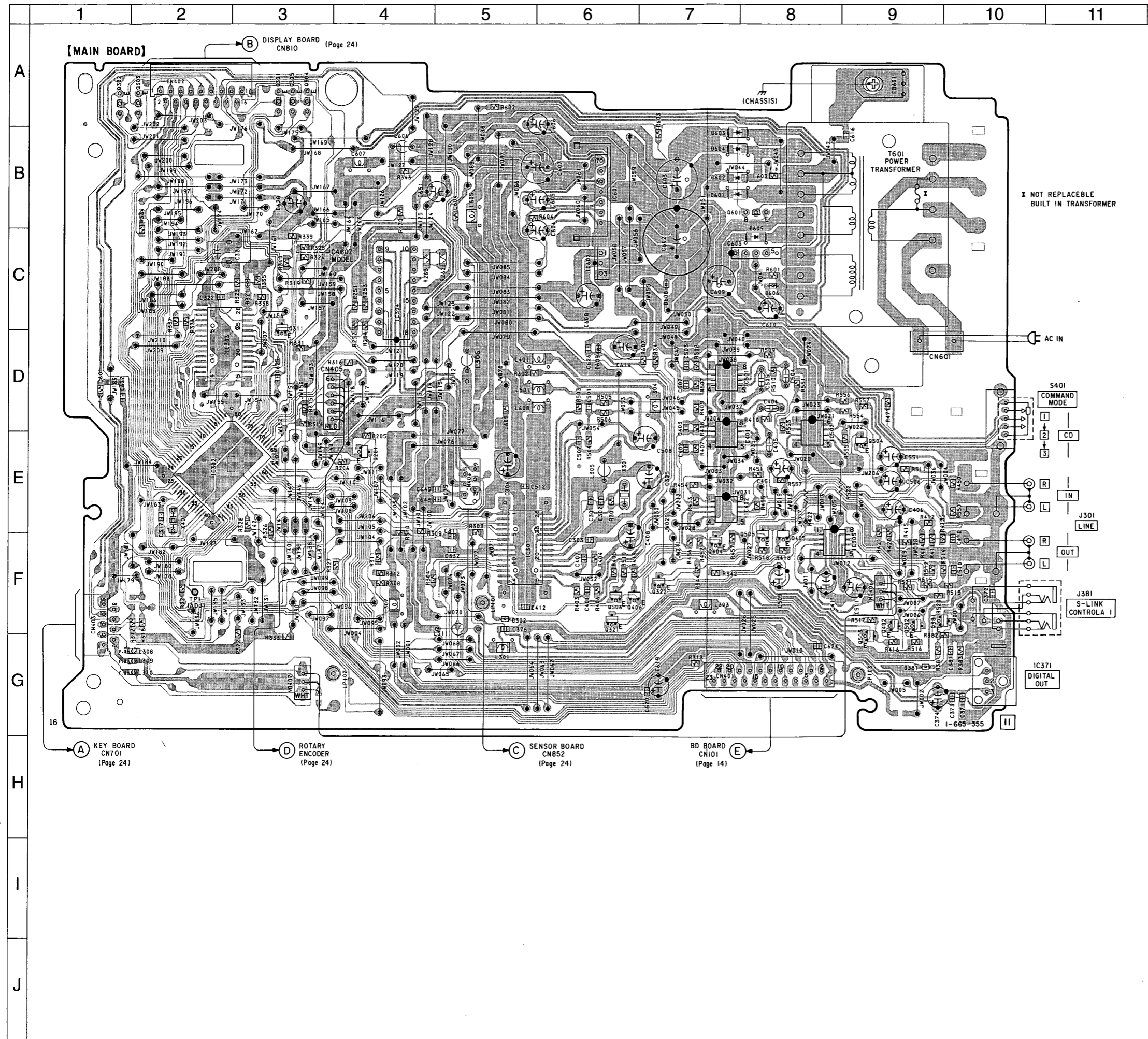
- Circled numbers refer to waveforms.
- Signal path.
 - \Rightarrow : CD
 - \Rightarrow : CD (digital)

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

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

4-4. PRINTED WIRING BOARD - MAIN SECTION -

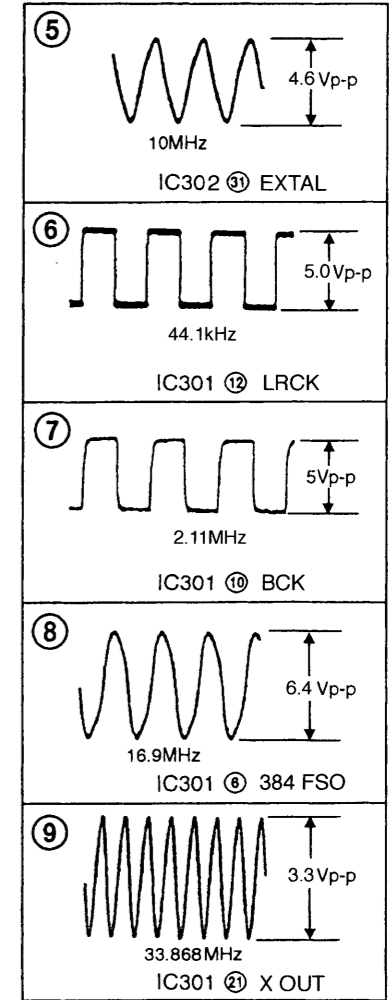
• See page 12 for Circuit Board Location.



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D302	F-5	IC603	C-7
D381	G-9		
D601	B-7	Q201	E-4
D602	B-7	Q301	A-3
D603	B-7	Q302	A-1
D604	B-7	Q303	A-2
D605	B-8	Q304	A-3
D606	C-8	Q305	A-3
D608	C-7	Q311	C-3
D609	D-6	Q321	F-6
		Q322	F-7
IC301	F-5	Q381	F-9
IC302	E-2	Q402	F-9
IC303	D-2	Q404	F-7
IC304	C-4	Q405	E-8
IC305	F-9	Q406	F-6
IC371	G-10	Q502	F-9
IC401	E-7	Q503	F-9
IC402	E-8	Q504	E-9
IC501	D-7	Q505	E-8
IC502	E-8	Q506	F-6
IC601	B-6	Q601	B-7
IC602	C-6		

• Waveforms

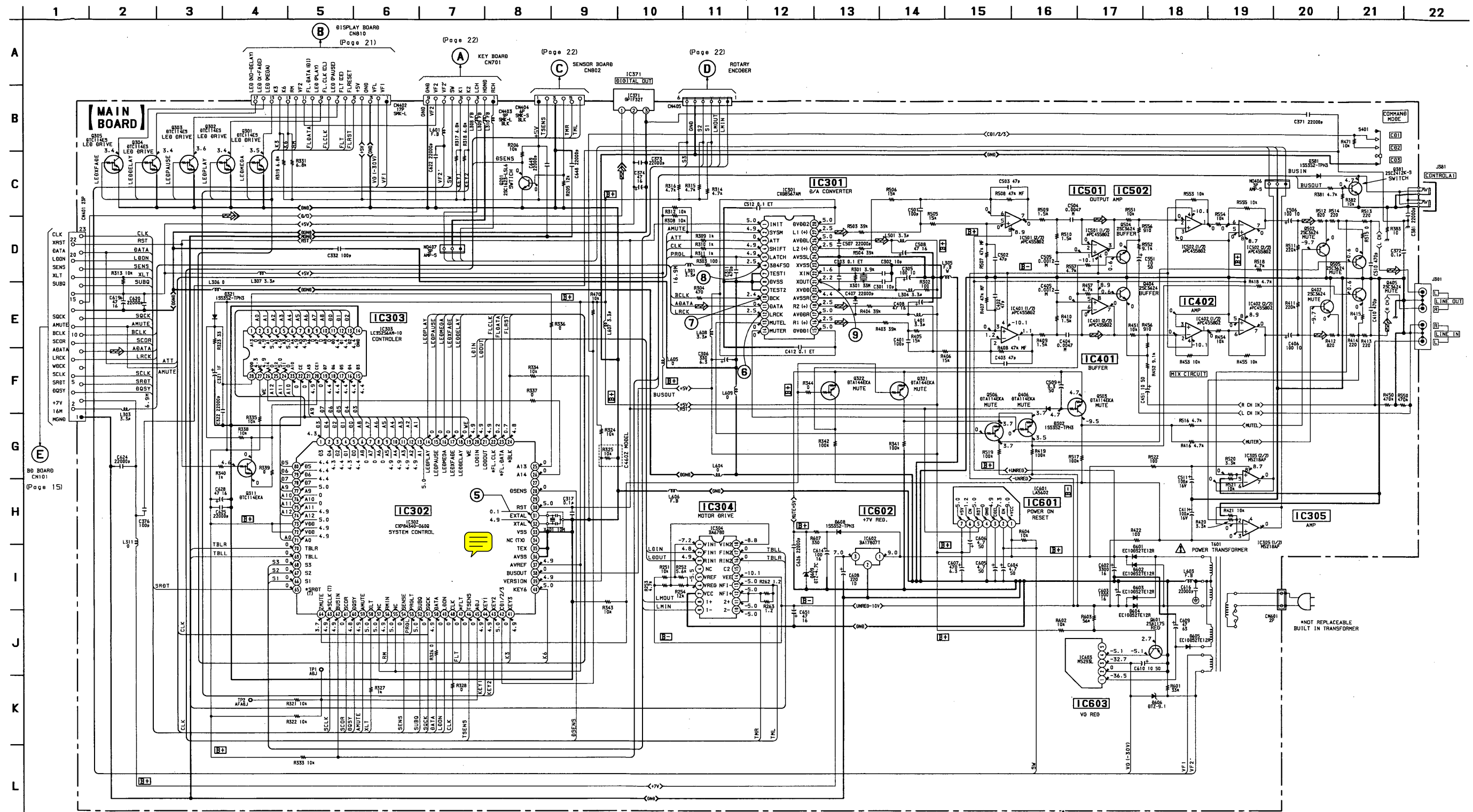


Note:

- — : Parts extracted from the component side.
- △ : Internal component.
- — : Pattern from the side which enable seeing.

4-5. SCHEMATIC DIAGRAM - MAIN SECTION -

- See page 25 for IC Block Diagrams.
- See page 30 for IC Pin Function. (IC302)



Note:

- All capacitors are in μF unless otherwise noted. pF: μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- \triangle : Internal component.
- \square : Panel designation.
- $B+$: B+ Line.
- $B-$: B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.

No mark: STOP

- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

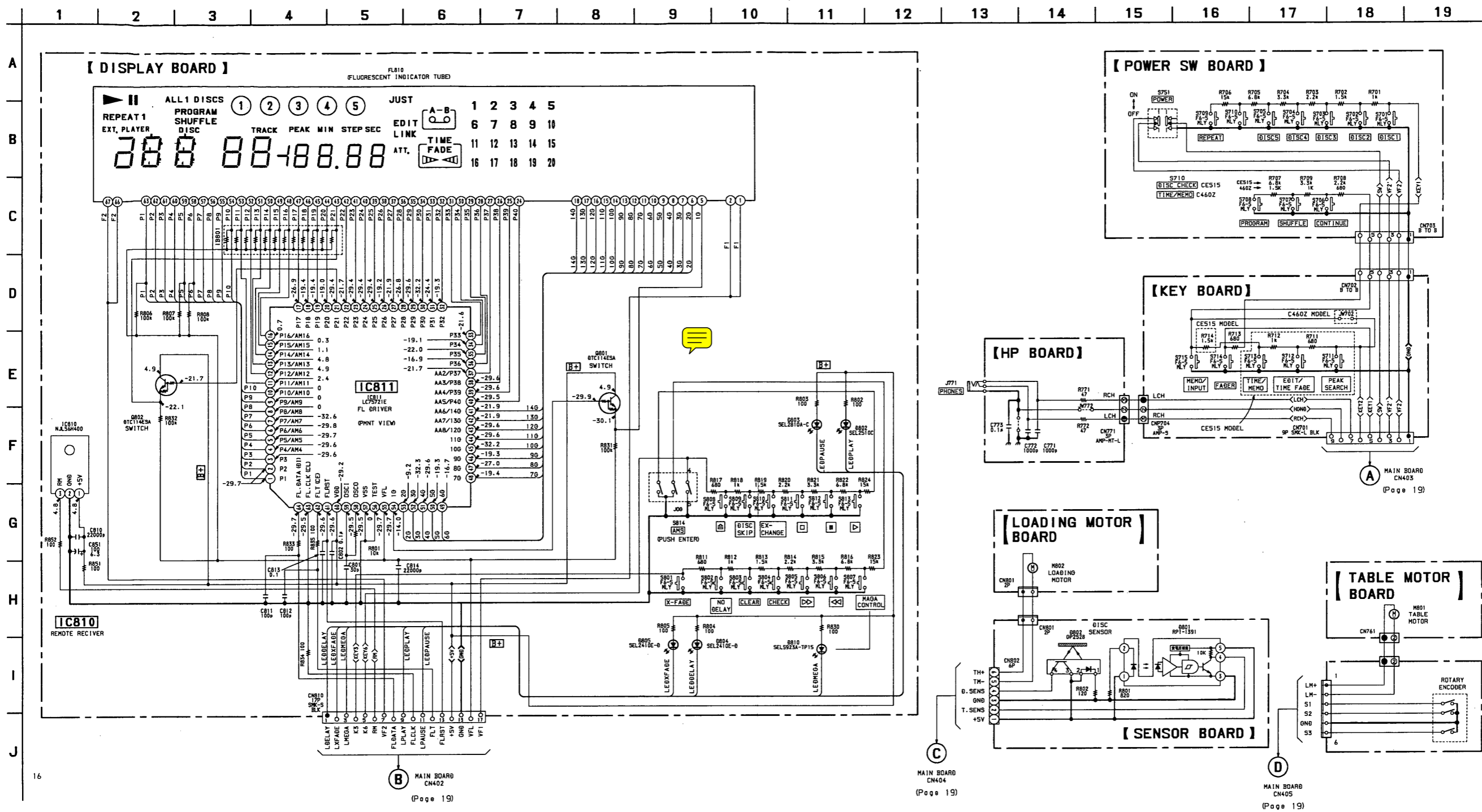
• Signal path.

- \Rightarrow : CD
- \Rightarrow : CD (digital)

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

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

4-6. SCHEMATIC DIAGRAM - DISPLAY SECTION -



Note:

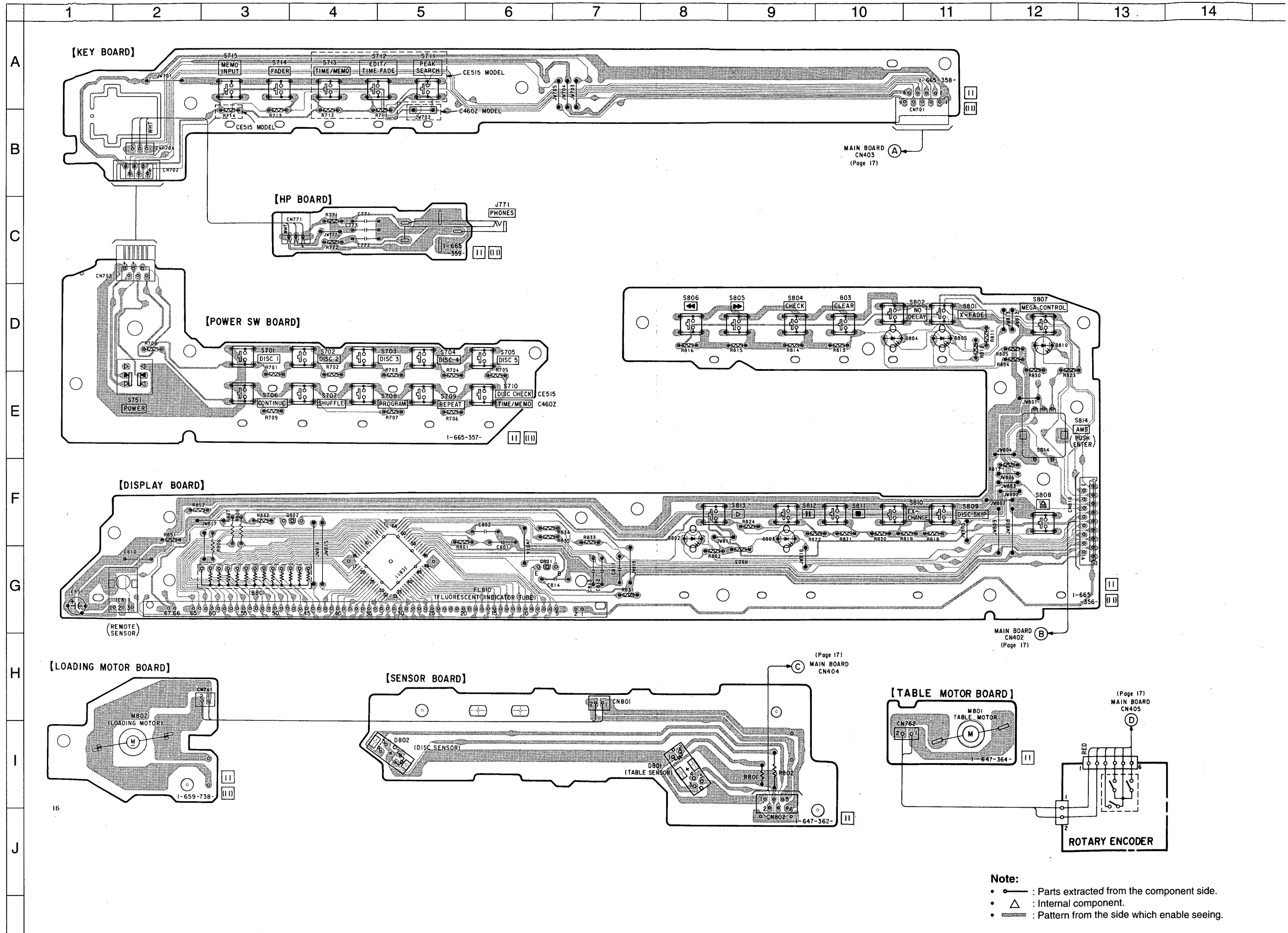
- All capacitors are in μF unless otherwise noted. pF: μF 50V or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- \triangle : Internal component.
- \square : Panel designation.
- B+ : B+ Line.
- B- : B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
- No mark: STOP
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

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

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

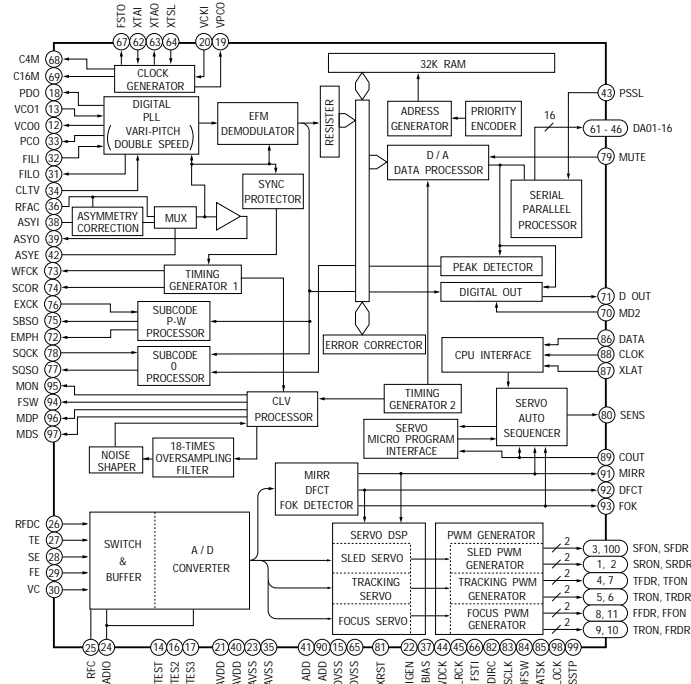
4-7. PRINTED WIRING BOARD - DISPLAY SECTION -

• See page 10 for Circuit Board Location.

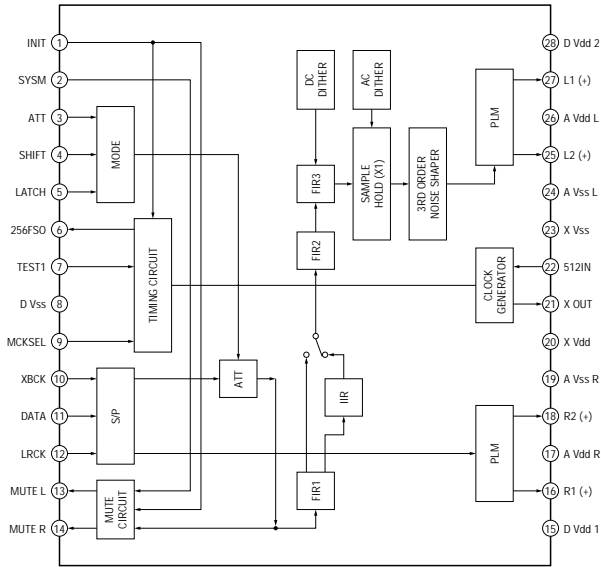


4-8. IC BLOCK DIAGRAMS

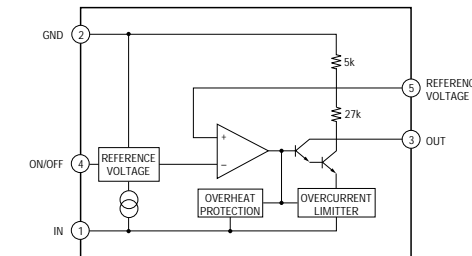
IC101 CXD2545Q



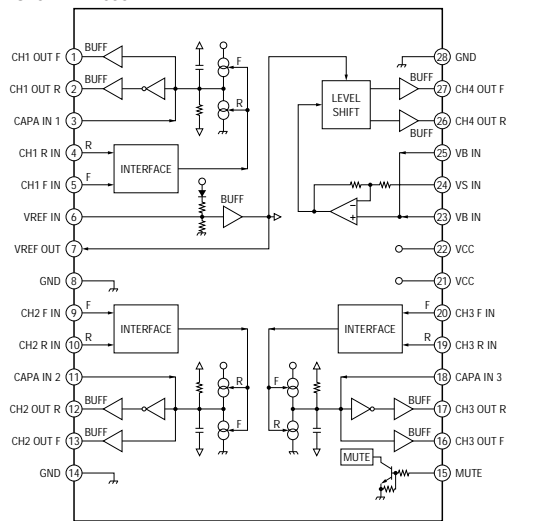
IC301 CXD8567AM



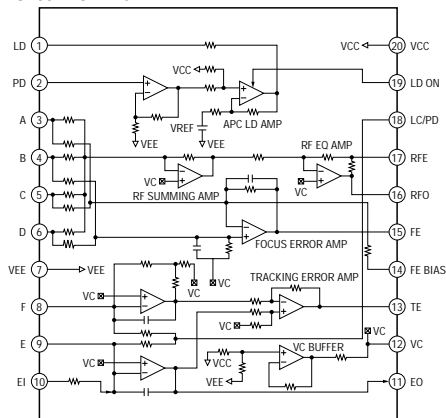
IC603 M5293L



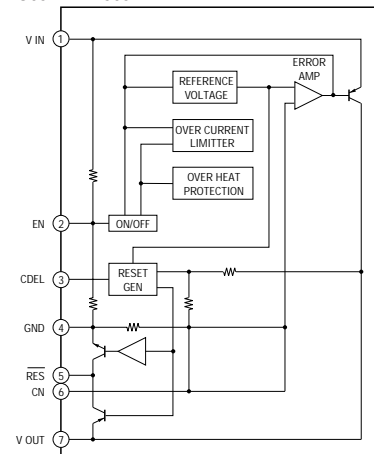
IC102 BA6392FP



IC103 CXA1821M



IC601 LA5602



4-9. IC PIN FUNCTIONS

• IC101 DIGITAL SIGNAL PROCESSOR (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 input for analog EFM PLL (Ground)
14	TEST	I	TEST pin connected normally to ground
15	DVss	—	Digital ground
16	TES2	I	TEST pin connected normally to ground
17	TES3	I	TEST pin connected normally to ground
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 (Ground)
21	AVD2	—	Analog power supply
22	IGEN	I	Power supply pin for operational amplifiers
23	AVS2	—	Analog ground
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 ground
36	RFAC	I	EFM signal input
37	BIAS	I	Asymmetry circuit constant current input
38	ASYI	I	Asymmetry compare 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
44	WDCK	O	48-bit slot D/A interface. Word clock.
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 (Not used)
54	GFS	O	DA 08 output when PSSL=1.GFS output when PSSL=0 (Not used)
55	RFCK	O	DA 07 output when PSSL=1.RFCK output when PSSL=0 (Not used)
56	C2PO	O	DA 06 output when PSSL=1.C2PO output when PSSL=0 (Not used)
57	XRA0F	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 (Not used)
59	MNT2	O	DA 03 output when PSSL=1.MNT2 output when PSSL=0 (Not used)
60	MNT1	O	DA 02 output when PSSL=1.MNT1 output when PSSL=0 (Not used)
61	MNT0	O	DA 01 output when PSSL=1.MNT0 output when PSSL=0 (Not used)
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 (Ground)
65	DVss	—	Digital ground
66	FSTI	I	2/3 divider input 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
76	EXCK	I	Clock input for SBS0 read-out (Ground)
77	SUBQ	O	Sub-Q 80-bit output
78	SQCK	O	Sub-code Q clock output
79	MUTE	I	Muting selection pin
80	SENS	O	SENS output

Pin No.	Pin Name	I/O	Function
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 (Ground)
85	ATSK	I	Input pin for anti-shock (Ground)
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	DVDD	—	Digital power supply
91	MIRR	O	Mirror signal output (Not used)
92	DFCT	O	Defect signal output (Not used)
93	FOK	O	Focus OK output (Not used)
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

• IC302 SYSTEM CONTROL (CXP84340-060Q)

Pin No.	Pin Name	I/O	Function
1	D3	I/O	SRAM data 3
2	D4	I/O	SRAM data 4
3	D2	I/O	SRAM data 2
4	D1	I/O	SRAM data 1
5	D0	I/O	SRAM data 0
6	A8	O	SRAM address 8
7	A7	O	SRAM address 7
8	A6	O	SRAM address 6
9	A5	O	SRAM address 5
10	A4	O	SRAM address 4
11	A3	O	SRAM address 3
12	A2	O	SRAM address 2
13	A1	O	SRAM address 1
14	PLAY_L	O	PLAY lamp
15	PAUSE_L	O	PAUSE lamp
16	MEGA_L	O	MEGA lamp
17	XFADE_	O	XFADE lamp
18	MODELAY_L	O	NO DELAY lamp
19	WE	O	SRAM enable
20	LODIN	O	Loading direction signal input
21	LODOUT	O	Loading direction signal output
22	FLCKL	O	Display clock
23	FLDATA	O	Display data
24	BLK	O	Display reset
25	A13	—	SRAM address 13
26	A14	—	SRAM address 14
27	NC	—	Not used.
28	D.SENS	I	Disc exist/non-exist sensor
29	NC	—	Not used.
30	RESET	I	Microprocessor reset
31	10MHz	—	Ceramic oscillator
32	10MHz	—	Ceramic oscillator
33	GND	—	Ground (0V)
34	NC	—	Not used.
35	NC	—	Not used.
36	NC	—	Not used.
37	NC	—	Not used.
38	BUSOUT	O	Control A1 output
39	VER	I	Model selection
40	KEY6	I	Key input 6

Pin No.	Pin Name	I/O	Function
41	KEY3	I	Key input 3
42	CD123	I	Command mode switch
43	KEY2	I	Key input 2
44	KEY1	I	Key input 1
45	TEST	I	Test mode terminal
46	SENSOR	I	Table sensor
47	FLT	O	Display latch
48	CLK	O	Command clock
49	LDON	O	Laser diode ON
50	DATA	O	Command data
51	SQCLK	O	Sub-Q clock
52	SUBQ	I	Sub-Q data
53	PRGL	O	Digital filter latch
54	SENSE	I	Sense
55	NC	—	Not used.
56	RMIN	I	Command latch
57	NC	—	Not used.
58	XLT	—	Remote control signal input
59	AMUTE	O	Audio system mute
60	DQSY	I	CD-TEXT sync signal
61	SCOR	I	Sub-Q sync signal
62	BUSIN	I	Control-A input
63	TCLK	O	CD-TEXT clock
64	SMUTE	O	2nd input mute
65	TDATA	I	CD-TEXT data
66	ENC1	I	Loading encoder 1
67	ENC2	I	Loading encoder 2
68	ENC3	I	Loading encoder 3
69	TBLL	O	Rotation direction of table-L
70	TBLR	O	Rotation direction of table-R
71	A0	O	SRAM address 0
72	+5V	—	Microprocessor power supply (5V)
73	+5V	—	Microprocessor power supply (5V)
74	A12	O	SRAM address 12
75	A11	O	SRAM address 11
76	A10	O	SRAM address 10
77	A9	O	SRAM address 9
78	D7	I/O	SRAM data 7
79	D6	I/O	SRAM data 6
80	D5	I/O	SRAM data 5

SECTION 5 EXPLODED VIEWS

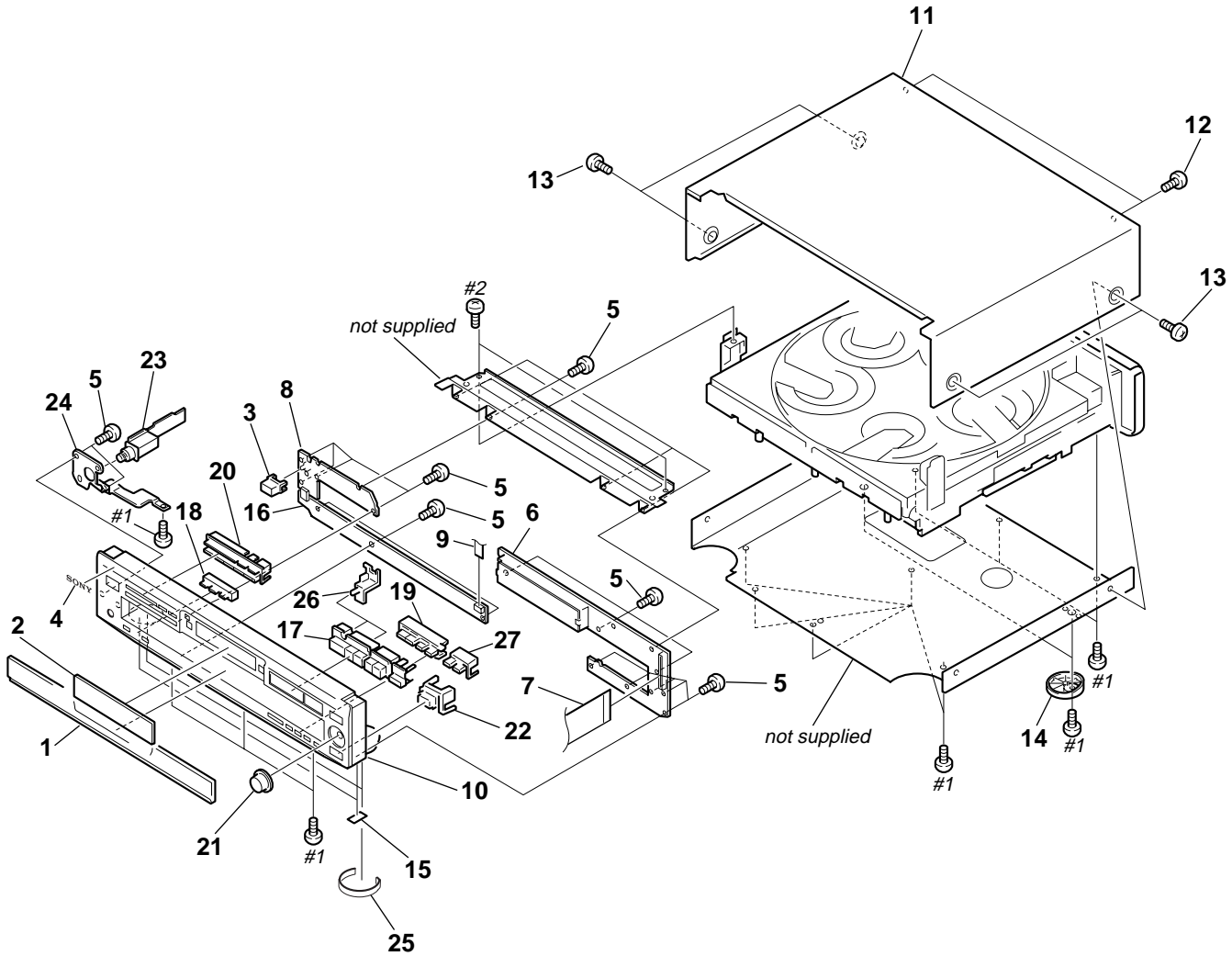
NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (#mark) list is given in the last of this parts list.
- Abbreviation
AUS : Australian
CND : Canadian

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

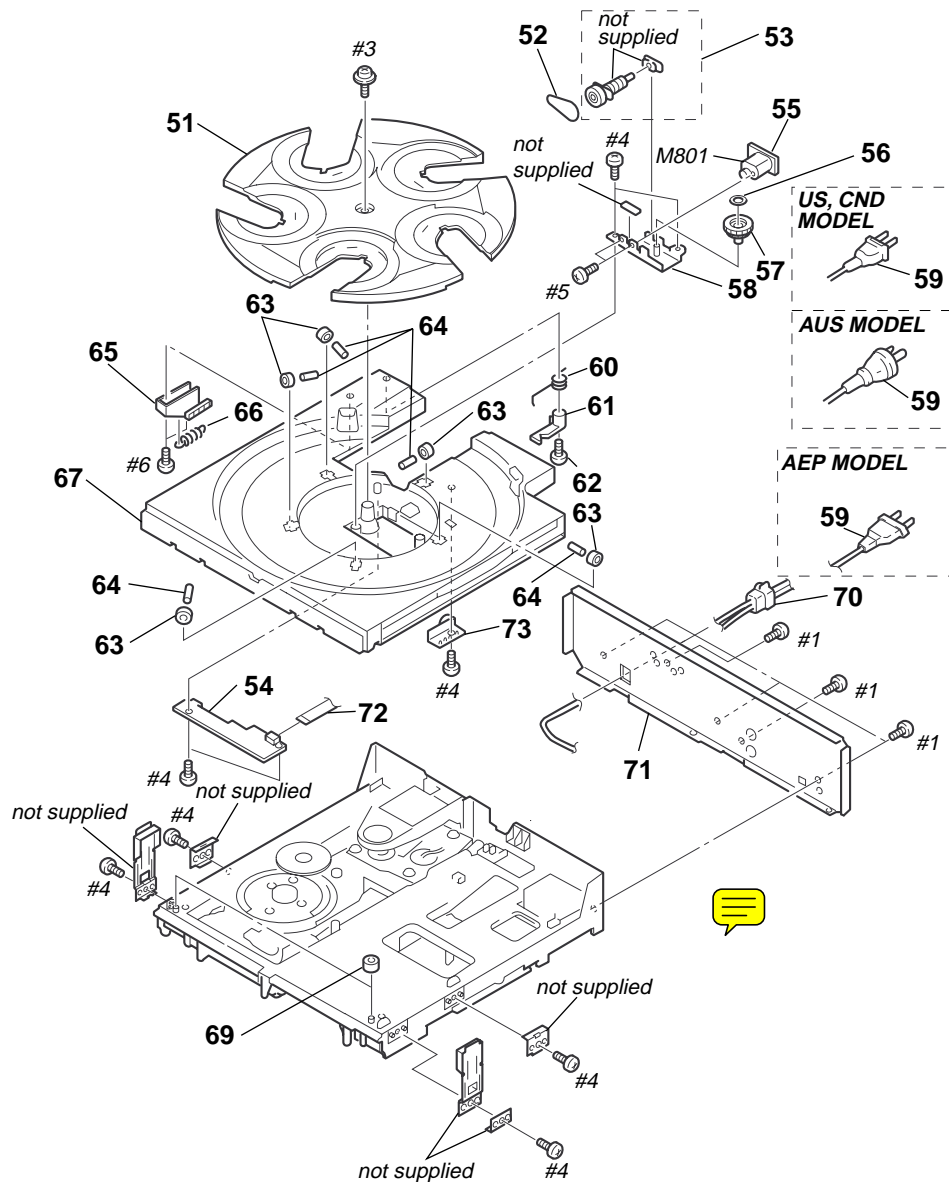
Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

5-1. FRONT PANEL AND CASE SECTION



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	4-987-780-11	PANEL, LOADING		14	X-4946-641-1	FOOT ASSY (AEP,AUS)	
2	4-987-779-11	WINDOW (FL)		* 15	4-978-398-21	CUSHION	
3	4-977-589-01	BUTTON (POWER)		* 16	1-665-358-11	KEY BOARD	
4	3-008-600-01	EMBLEM (5-AR), SONY		17	4-987-775-11	BUTTON (PLAY)	
5	4-951-620-01	SCREW (2.6X8), +BVTP		18	4-987-776-01	BUTTON (FUNC)	
* 6	A-4699-620-A	DISPLAY BOARD, COMPLETE		19	4-987-777-01	BUTTON (FF)	
7	1-782-219-11	WIRE (FLAT TYPE) (17 CORE)		20	4-987-774-01	BUTTON (MODE)	
* 8	1-665-357-11	POWER SW BOARD		21	4-987-994-01	KNOB (AMS)	
9	1-782-220-11	WIRE (FLAT TYPE) (9 CORE)		22	4-987-778-01	BUTTON (MEGA-CON)	
10	4-987-773-51	PANEL, FRONT (CE515)		* 23	1-665-359-11	HP BOARD	
10	4-987-773-61	PANEL, FRONT (C460Z)		* 24	4-979-090-01	BRACKET (HP)	
* 11	4-978-492-11	CASE		25	4-977-593-01	RING (DIA. 50), ORNAMENTAL(AEP,AUS)	
12	3-703-685-21	SCREW (+BV 3X8)		26	4-989-723-01	INDICATOR (PLAY)	
13	3-704-366-01	SCREW (CASE) (M3X8)		27	4-989-725-01	BUTTON (X-FADE)	
14	X-4946-618-1	FOOT ASSY (US,CND)					

5-2. BACK PANEL AND DISC TABLE SECTION

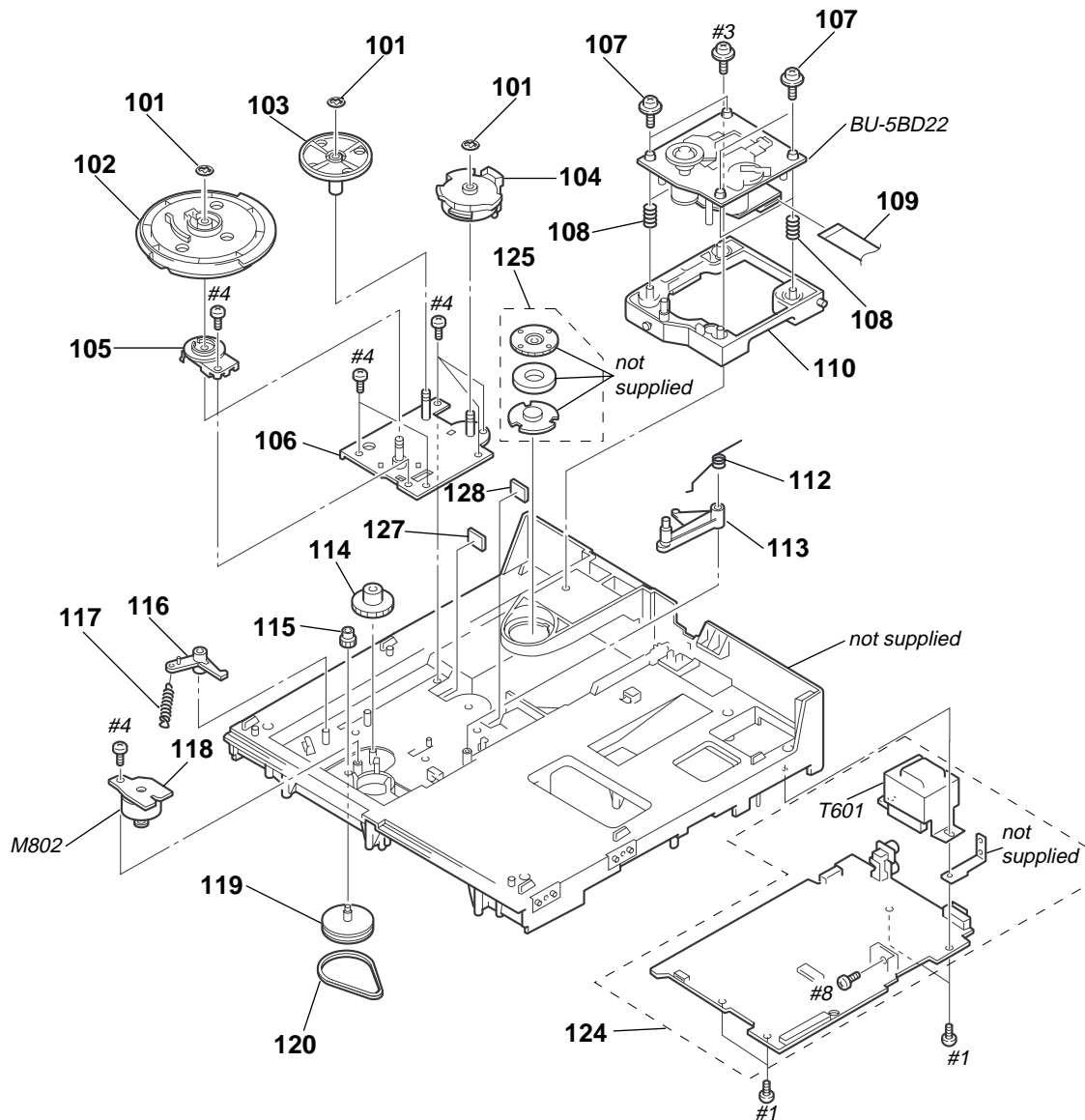


Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
51	4-957-299-11	TABLE (B), DISC		63	4-988-162-01	ROLLER	
52	4-957-304-01	BELT (RM)		64	4-934-376-01	SHAFT (ROLLER)	
53	X-4943-479-1	GEAR (ROTARY A) ASSY		65	4-957-292-11	SLIDER (RACK)	
* 54	1-647-362-11	SENSOR BOARD		66	4-957-294-01	SPRING (D.T), TENSION	
* 55	1-647-364-11	TABLE MOTOR BOARD		67	4-957-298-01	TABLE (A), DISC	
56	3-325-697-01	WASHER		* 69	4-951-619-01	CUSHION (A)	
57	4-957-284-01	GEAR (ROTARY B)		* 70	3-703-244-00	BUSHING (2104), CORD	
58	X-4943-477-1	BRACKET (RM) ASSY		* 71	4-987-842-01	PANEL, BACK (CE515:US)	
△ 59	1-575-651-21	CORD, POWER (AEP)		* 71	4-987-842-11	PANEL, BACK (CE515:CND)	
△ 59	1-590-926-11	CORD, POWER (US,CND)		* 71	4-987-842-21	PANEL, BACK (CE515:AEP)	
△ 59	1-696-845-11	CORD, POWER (AUS)		* 71	4-987-842-31	PANEL, BACK (C460Z:US)	
60	4-957-293-01	SPRING (RACK RELEASE)		* 71	4-987-842-51	PANEL, BACK (CE515:AUS)	
61	4-957-291-11	LEVER (RACK RELEASE)		72	1-751-052-11	WIRE (FLAT TYPE) (6 CORE)	
62	4-957-868-01	SCREW (+PTPWH 2.6X20)		73	X-4943-480-1	BRACKET (ROLLER D) ASSY	
				M801	A-4660-525-A	MOTOR ASSY, ROTARY (TABLE)	

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

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

5-3. CHASSIS SECTION

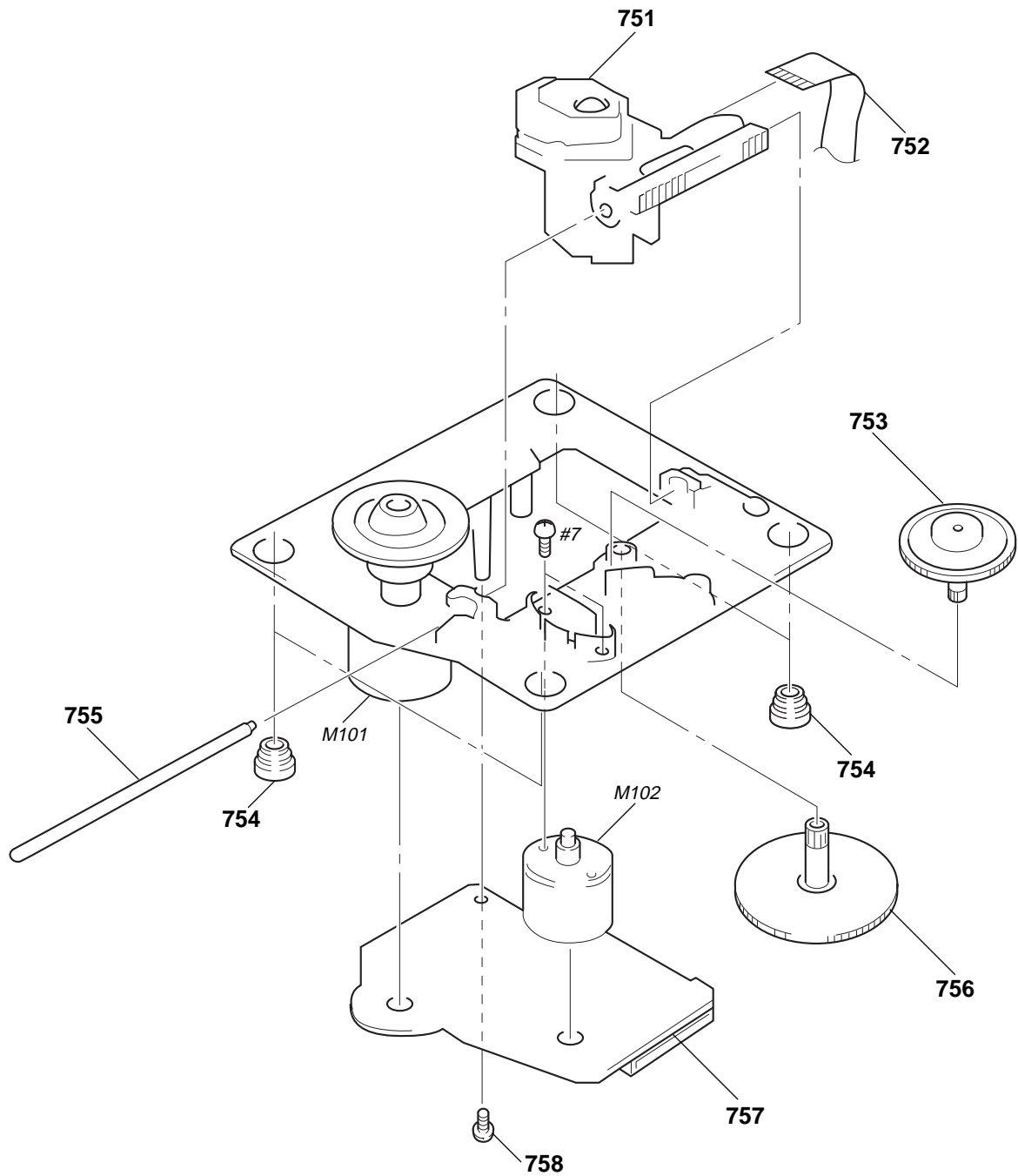


Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
101	4-957-283-01	WASHER (5), STOPPER		116	4-957-285-01	LEVER, SET	
102	4-957-288-01	GEAR (MAIN)		117	4-962-087-01	SPRING (S), TENSION	
103	4-957-287-01	GEAR (REV)		* 118	1-659-738-11	LOADING MOTOR BOARD	
104	4-957-286-01	GEAR (U/D)		119	X-4941-529-1	PULLEY ASSY	
105	1-466-996-11	ENCODER, ROTARY		120	4-944-490-01	BELT (TIMING)	
106	X-4946-195-1	BRACKET (GEAR) ASSY		* 124	A-4699-623-A	MAIN BOARD, COMPLETE (CE515:US,CND)	
107	4-933-134-01	SCREW (+PTPWH M2.6X6)		* 124	A-4699-626-A	MAIN BOARD, COMPLETE (CE515:AEP,AUS)	
108	4-948-503-01	SPRING (BU), COMPRESSION		* 124	A-4699-629-A	MAIN BOARD, COMPLETE (C460Z)	
109	1-765-443-11	WIRE (FLAT TYPE) (23 CORE)		* 125	1-452-879-11	MAGNET	
110	4-957-289-12	HOLDER (BU)		* 127	4-981-731-01	CUSHION (U/D)	
112	4-957-281-01	SPRING (LOCK LEVER)		* 128	4-981-731-11	CUSHION (U/D)	
113	4-957-279-11	LEVER, LOCK		M802	A-4660-914-A	MOTOR ASSY, LOADING	
114	4-957-303-01	GEAR (LOADING C)		△ T601	1-429-956-11	TRANSFORMER, POWER (US,CND)	
115	4-934-375-01	GEAR (LOADING B)		△ T601	1-431-076-11	TRANSFORMER, POWER (AEP,AUS)	

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.

5-4. BASE UNIT SECTION (BU-5BD22)



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
△ 751	8-848-379-31	OPTICAL PICK-UP KSS-213BA/F-NP		756	4-917-564-01	GEAR (P), FLATNESS	
752	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)		* 757	A-4699-624-A	BD BOARD, COMPLETE	
753	4-917-567-21	GEAR (M)		758	4-951-620-01	SCREW (2.6X8), +BVTP	
754	4-951-940-01	INSULATOR (BU)		M101	X-4917-523-3	MOTOR ASSY (SPINDLE)	
755	4-917-565-01	SHAFT, SLED		M102	X-4917-504-3	MOTOR ASSY (SLED)	

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.

SECTION 6
ELECTRICAL PARTS LIST

BD

NOTE:

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

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.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
uF: μ F
- RESISTORS
All resistors are in ohms.
METAL: metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable
- COILS
uH: μ H
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA..., μ PA...,
uPB..., μ PB..., uPC..., μ PC...,
uPD..., μ PD...
- Abbreviation
AUS : Australian
CND : Canadian

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
*	A-4699-624-A	BD BOARD, COMPLETE *****				< TRANSISTOR >	
		< CAPACITOR >				< RESISTOR >	
C101	1-163-005-11	CERAMIC CHIP	470PF 10%	50V			
C102	1-163-038-00	CERAMIC CHIP	0.1uF	25V	R101	1-216-077-00	METAL CHIP 15K 5% 1/10W
C103	1-163-005-11	CERAMIC CHIP	470PF 10%	50V	R102	1-216-097-00	METAL GLAZE 100K 5% 1/10W
C105	1-135-155-21	TANTALUM CHIP	4.7uF 10%	16V	R103	1-216-077-00	METAL CHIP 15K 5% 1/10W
C106	1-164-346-11	CERAMIC CHIP	1uF	16V	R104	1-216-085-00	METAL CHIP 33K 5% 1/10W
					R105	1-216-097-00	METAL GLAZE 100K 5% 1/10W
C107	1-164-346-11	CERAMIC CHIP	1uF	16V			
C108	1-163-035-00	CERAMIC CHIP	0.047uF	50V	R106	1-216-061-00	METAL CHIP 3.3K 5% 1/10W
C109	1-163-145-00	CERAMIC CHIP	0.0015uF 5%	50V	R107	1-216-061-00	METAL CHIP 3.3K 5% 1/10W
C110	1-163-017-00	CERAMIC CHIP	0.0047uF 5%	50V	R108	1-216-073-00	METAL CHIP 10K 5% 1/10W
C111	1-163-251-11	CERAMIC CHIP	100PF 5%	50V	R109	1-216-121-00	METAL GLAZE 1M 5% 1/10W
					R110	1-216-025-00	METAL GLAZE 100 5% 1/10W
C112	1-163-038-00	CERAMIC CHIP	0.1uF	25V			
C113	1-163-038-00	CERAMIC CHIP	0.1uF	25V	R112	1-216-049-11	METAL GLAZE 1K 5% 1/10W
C114	1-163-038-00	CERAMIC CHIP	0.1uF	25V	R113	1-216-295-00	CONDUCTOR, CHIP (2012)
C115	1-126-607-11	ELECT CHIP	47uF 20%	4V	R114	1-216-073-00	METAL CHIP 10K 5% 1/10W
C116	1-126-607-11	ELECT CHIP	47uF 20%	4V	R115	1-216-295-00	CONDUCTOR, CHIP (2012)
					R123	1-216-073-00	METAL CHIP 10K 5% 1/10W
C117	1-126-209-11	ELECT	100uF 20%	4V			
C118	1-163-275-11	CERAMIC CHIP	0.001uF 5%	50V	R124	1-216-097-00	METAL GLAZE 100K 5% 1/10W
C119	1-163-231-11	CERAMIC CHIP	15PF 5%	50V	R125	1-216-037-00	METAL CHIP 330 5% 1/10W
C120	1-124-778-00	ELECT CHIP	22uF 20%	6.3V	R126	1-216-037-00	METAL CHIP 330 5% 1/10W
C123	1-164-232-11	CERAMIC CHIP	0.01uF	50V	R127	1-216-037-00	METAL CHIP 330 5% 1/10W
					R131	1-216-037-00	METAL CHIP 330 5% 1/10W
C124	1-164-005-11	CERAMIC CHIP	0.47uF	25V			
C140	1-163-038-00	CERAMIC CHIP	0.1uF	25V	R135	1-216-295-00	CONDUCTOR, CHIP (2012)
C141	1-163-038-00	CERAMIC CHIP	0.1uF	25V	R136	1-216-295-00	CONDUCTOR, CHIP (2012)
C151	1-163-237-11	CERAMIC CHIP	27PF 5%	50V	R137	1-216-295-00	CONDUCTOR, CHIP (2012)
C153	1-163-038-00	CERAMIC CHIP	0.1uF	25V	R138	1-216-295-00	CONDUCTOR, CHIP (2012)
					R141	1-216-089-00	METAL GLAZE 47K 5% 1/10W
C154	1-164-336-11	CERAMIC CHIP	0.33uF	25V			
C156	1-163-237-11	CERAMIC CHIP	27PF 5%	50V	R142	1-216-081-00	METAL CHIP 22K 5% 1/10W
C157	1-163-145-00	CERAMIC CHIP	0.0015uF 5%	50V	R143	1-216-101-00	METAL CHIP 150K 5% 1/10W
C159	1-163-019-00	CERAMIC CHIP	0.0068uF 10%	50V	R144	1-216-101-00	METAL CHIP 150K 5% 1/10W
C161	1-163-038-00	CERAMIC CHIP	0.1uF	25V	R146	1-216-073-00	METAL CHIP 10K 5% 1/10W
					R147	1-216-081-00	METAL CHIP 22K 5% 1/10W
		< CONNECTOR >					
CN101	1-770-072-11	CONNECTOR,(LIF(NON-ZIF))FFC23P			R148	1-216-001-00	METAL CHIP 10 5% 1/10W
CN102	1-770-014-11	CONNECTOR, FFC/FPC 16P			R149	1-216-003-11	METAL GLAZE 12 5% 1/10W
		< IC >			R158	1-216-111-00	METAL GLAZE 390K 5% 1/10W
IC101	8-752-369-78	IC CXD2545Q			R159	1-216-101-00	METAL CHIP 150K 5% 1/10W
IC102	8-759-176-09	IC BA6392FP			R161	1-216-308-00	METAL CHIP 4.7 5% 1/10W
IC103	8-752-072-45	IC CXA1821M					
IC104	8-759-428-57	IC LC89170M-TLM					
						< SWITCH >	
					S101	1-572-085-11	SWITCH, LEAF (LIMIT)

DISPLAY

HP

KEY

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
*	A-4699-620-A	DISPLAY BOARD, COMPLETE *****		R821	1-247-843-11	CARBON 3.3K 5%	1/4W
				R822	1-249-427-11	CARBON 6.8K 5%	1/4W F
				R823	1-249-431-11	CARBON 15K 5%	1/4W
*	3-362-478-11	HOLDER (T), LED		R824	1-249-431-11	CARBON 15K 5%	1/4W
*	4-989-724-01	HOLDER (FL)		R830	1-247-807-31	CARBON 100 5%	1/4W F
		< CAPACITOR >		R831	1-249-441-11	CARBON 100K 5%	1/4W
C801	1-162-210-31	CERAMIC 30PF 5%	50V	R832	1-249-441-11	CARBON 100K 5%	1/4W
C802	1-164-159-11	CERAMIC 0.1uF	50V	R833	1-247-807-31	CARBON 100 5%	1/4W
C810	1-161-494-00	CERAMIC 0.022uF	25V	R834	1-247-807-31	CARBON 100 5%	1/4W
C811	1-162-282-31	CERAMIC 100PF 10%	50V	R835	1-247-807-31	CARBON 100 5%	1/4W
C812	1-162-282-31	CERAMIC 100PF 10%	50V	R851	1-247-807-31	CARBON 100 5%	1/4W
C813	1-164-159-11	CERAMIC 0.1uF	50V	R852	1-247-807-31	CARBON 100 5%	1/4W
C814	1-161-494-00	CERAMIC 0.022uF	25V			< SWITCH >	
C851	1-126-968-11	ELECT 100uF 20%	6.3V	S801	1-554-303-21	SWITCH, TACTILE (X-FADE)	
		< CONNECTOR >		S802	1-554-303-21	SWITCH, TACTILE (NO DELAY)	
* CN810	1-568-836-11	SOCKET, CONNECTOR 17P		S803	1-554-303-21	SWITCH, TACTILE (CLEAR)	
		< DIODE >		S804	1-554-303-21	SWITCH, TACTILE (CHECK)	
D802	8-719-303-00	DIODE SEL2510C (▷)		S805	1-554-303-21	SWITCH, TACTILE (▶▶)	
D803	8-719-301-52	DIODE SEL2810A-C (■)		S806	1-554-303-21	SWITCH, TACTILE (◀◀)	
D804	8-719-301-44	DIODE SEL2410E-D (NO DELAY)		S807	1-554-303-21	SWITCH, TACTILE (MEGA CONTROL)	
D805	8-719-301-44	DIODE SEL2410E-D (X-FADE)		S808	1-554-303-21	SWITCH, TACTILE (OPEN/CLOSE)	
D810	8-719-057-97	DIODE SEL5923A-TP15 (MEGA CONTROL)		S809	1-554-303-21	SWITCH, TACTILE (DISC SKIP)	
		< FILTER >		S810	1-554-303-21	SWITCH, TACTILE (EX-CHANGE)	
FL810	1-517-664-11	INDICATOR TUBE, FLUORESCENT		S811	1-554-303-21	SWITCH, TACTILE (■)	
		< COMPOSITION CIRCUIT BLOCK >		S812	1-554-303-21	SWITCH, TACTILE (■)	
IB801	1-232-362-00	COMPOSITION CIRCUIT BLOCK		S813	1-554-303-21	SWITCH, TACTILE (▷)	
		< IC >		S814	1-473-957-11	ENCODER, ROTARY (AMS)	
IC810	8-759-459-84	IC NJL56H400				*****	
IC811	8-759-337-52	IC LC75721E		* 1-665-359-11	HP BOARD	*****	
		< TRANSISTOR >				< CAPACITOR >	
Q801	8-729-029-67	TRANSISTOR DTC114ESA-TP		C771	1-162-294-31	CERAMIC 0.001uF 10%	50V
Q802	8-729-029-67	TRANSISTOR DTC114ESA-TP		C772	1-162-294-31	CERAMIC 0.001uF 10%	50V
		< RESISTOR >		C773	1-164-159-11	CERAMIC 0.1uF	50V
R801	1-249-429-11	CARBON 10K 5%	1/4W			< CONNECTOR >	
R802	1-247-807-31	CARBON 100 5%	1/4W F	* CN771	1-568-941-11	PIN, CONNECTOR 3P	
R803	1-247-807-31	CARBON 100 5%	1/4W F			< JACK >	
R804	1-247-807-31	CARBON 100 5%	1/4W F	J771	1-568-519-41	JACK, LARGE TYPE (PHONES)	
R805	1-247-807-31	CARBON 100 5%	1/4W F			< RESISTOR >	
R806	1-249-441-11	CARBON 100K 5%	1/4W	R771	1-249-401-11	CARBON 47 5%	1/4W F
R807	1-249-441-11	CARBON 100K 5%	1/4W	R772	1-249-401-11	CARBON 47 5%	1/4W F
R808	1-249-441-11	CARBON 100K 5%	1/4W			*****	
R811	1-249-415-11	CARBON 680 5%	1/4W F	* 1-665-358-11	KEY BOARD	*****	
R812	1-249-417-11	CARBON 1K 5%	1/4W F			< CONNECTOR >	
R813	1-249-419-11	CARBON 1.5K 5%	1/4W F	* CN701	1-568-852-11	SOCKET, CONNECTOR 9P	
R814	1-249-421-11	CARBON 2.2K 5%	1/4W F	CN702	1-750-195-11	CONNECTOR, BOARD TO BOARD 6P	
R815	1-247-843-11	CARBON 3.3K 5%	1/4W				
R816	1-249-427-11	CARBON 6.8K 5%	1/4W F				
R817	1-249-415-11	CARBON 680 5%	1/4W F				
R818	1-249-417-11	CARBON 1K 5%	1/4W F				
R819	1-249-419-11	CARBON 1.5K 5%	1/4W F				
R820	1-249-421-11	CARBON 2.2K 5%	1/4W F				

KEY **LOADING MOTOR** **MAIN**

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
< RESISTOR >							
R711	1-249-415-11	CARBON 680 5%	1/4W F (CE515)	C502	1-163-243-11	CERAMIC CHIP 47PF 5%	50V
R712	1-249-417-11	CARBON 1K 5%	1/4W F (CE515)	C503	1-163-243-11	CERAMIC CHIP 47PF 5%	50V
R713	1-249-415-11	CARBON 680 5%	1/4W F	C504	1-106-359-00	MYLAR 4700PF 5%	200V
R714	1-249-419-11	CARBON 1.5K 5%	1/4W F (CE515)	C505	1-130-472-00	MYLAR 0.0012uF 5%	50V
< SWITCH >							
S711	1-554-303-21	SWITCH, TACTILE (PEAK SEARCH)(CE515)		C506	1-124-443-00	ELECT 100uF 20%	10V
S712	1-554-303-21	SWITCH, TACTILE (EDIT/TIME FADE)(CE515)		C507	1-163-033-00	CERAMIC CHIP 0.022uF	50V
S713	1-554-303-21	SWITCH, TACTILE (TIME)(CE515)		C508	1-104-664-11	ELECT 47uF 20%	16V
S714	1-554-303-21	SWITCH, TACTILE (TIME/MEMO)		C509	1-126-962-11	ELECT 3.3uF 20%	50V
S715	1-554-303-21	SWITCH, TACTILE (MEMO INPUT)		C510	1-163-005-11	CERAMIC CHIP 470PF 10%	50V
*****				C511	1-104-665-11	ELECT 100uF 20%	16V
*	1-659-738-11	LOADING MOTOR BOARD *****		C512	1-165-319-11	CERAMIC CHIP 0.1uF	50V
< MOTOR >				C551	1-124-907-11	ELECT 10uF 20%	50V
M802	A-4660-914-A	MOTOR ASSY, LOADING *****		C602	1-126-944-11	ELECT 3300uF 20%	16V
*****				C603	1-126-942-61	ELECT 1000uF 20%	16V
*	A-4699-629-A	MAIN BOARD, COMPLETE (C460Z) *****		C604	1-126-963-11	ELECT 4.7uF 20%	50V
*	A-4699-626-A	MAIN BOARD, COMPLETE (CE515:AEP,AUS) *****		C605	1-126-963-11	ELECT 4.7uF 20%	50V
*	A-4699-623-A	MAIN BOARD, COMPLETE (CE515:US,CND) *****		C607	1-126-941-11	ELECT 470uF 20%	6.3V
	7-685-871-01	SCREW +BVTT 3X6 (S)		C608	1-104-666-11	ELECT 220uF 20%	10V
< CAPACITOR >				C609	1-124-918-11	ELECT 47uF 20%	63V
C301	1-163-227-11	CERAMIC CHIP 10PF 0.5PF	50V	C610	1-124-907-11	ELECT 10uF 20%	50V
C302	1-163-227-11	CERAMIC CHIP 10PF 0.5PF	50V	C614	1-104-665-11	ELECT 100uF 20%	16V
C303	1-165-319-11	CERAMIC CHIP 0.1uF	50V	C616	1-163-033-00	CERAMIC CHIP 0.022uF	50V
C305	1-124-443-00	ELECT 100uF 20%	10V	C619	1-104-664-11	ELECT 47uF 20%	50V
C306	1-124-442-00	ELECT 330uF 20%	6.3V	C620	1-163-033-00	CERAMIC CHIP 0.022uF	50V
C311	1-163-005-11	CERAMIC CHIP 470PF 10%	50V	C622	1-163-033-00	CERAMIC CHIP 0.022uF	50V
C317	1-165-319-11	CERAMIC CHIP 0.1uF	50V	C624	1-163-033-00	CERAMIC CHIP 0.022uF	50V
C321	1-110-489-11	CAPACITOR 1F	5.5V	C625	1-163-033-00	CERAMIC CHIP 0.022uF	50V
C322	1-163-033-00	CERAMIC CHIP 0.022uF	50V	C626	1-163-033-00	CERAMIC CHIP 0.022uF	50V
C332	1-163-251-11	CERAMIC CHIP 100PF 5%	50V	C628	1-104-664-11	ELECT 47uF 20%	16V
C371	1-163-033-00	CERAMIC CHIP 0.022uF	50V	C648	1-163-033-00	CERAMIC CHIP 0.022uF	50V
C372	1-165-319-11	CERAMIC CHIP 0.1uF	50V	C649	1-163-033-00	CERAMIC CHIP 0.022uF	50V
C373	1-163-033-00	CERAMIC CHIP 0.022uF	50V	C651	1-104-664-11	ELECT 47uF 20%	16V
C374	1-104-664-11	ELECT 47uF 20%	16V	< CONNECTOR >			
C376	1-163-251-11	CERAMIC CHIP 100PF 5%	50V	CN401	1-750-640-11	CONNECTOR, FFC/FPC 23P	
C381	1-163-033-00	CERAMIC CHIP 0.022uF	50V	CN402	1-568-860-11	SOCKET, CONNECTOR 17P	
C401	1-163-251-11	CERAMIC CHIP 100PF 5%	50V	* CN403	1-568-852-11	SOCKET, CONNECTOR 9P	
C402	1-163-243-11	CERAMIC CHIP 47PF 5%	50V	* CN404	1-568-825-11	SOCKET, CONNECTOR 6P	
C403	1-163-243-11	CERAMIC CHIP 47PF 5%	50V	* CN601	1-573-047-11	PIN, CONNECTOR (PC BOARD) 2P	
C404	1-106-359-00	MYLAR 4700PF 5%	200V	< DIODE >			
C405	1-130-472-00	MYLAR 0.0012uF 5%	50V	D302	8-719-016-74	DIODE 1SS352	
C406	1-124-443-00	ELECT 100uF 20%	10V	D321	8-719-016-74	DIODE 1SS352	
C407	1-163-033-00	CERAMIC CHIP 0.022uF	50V	D381	8-719-016-74	DIODE 1SS352	
C408	1-104-664-11	ELECT 47uF 20%	16V	D601	8-719-210-33	DIODE EC10DS2	
C410	1-163-005-11	CERAMIC CHIP 470PF 10%	50V	D602	8-719-210-33	DIODE EC10DS2	
C411	1-104-665-11	ELECT 100uF 20%	16V	D603	8-719-210-33	DIODE EC10DS2	
C412	1-165-319-11	CERAMIC CHIP 0.1uF	50V	D604	8-719-210-33	DIODE EC10DS2	
C451	1-124-907-11	ELECT 10uF 20%	50V	D605	8-719-210-33	DIODE EC10DS2	
C501	1-163-251-11	CERAMIC CHIP 100PF 5%	50V	D606	8-719-977-22	DIODE DTZ9.1	
				D608	8-719-016-74	DIODE 1SS352	
				D609	8-719-976-96	DIODE DTZ4.7C	
				< TERMINAL >			
				EB601	1-537-770-21	TERMINAL BOARD, GROUND	

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
		< IC >				< RESISTOR >	
IC301	8-759-362-47	IC CXD8567AM		R205	1-216-075-00	METAL CHIP 12K 5%	1/10W
IC302	8-752-886-46	IC CXP84340-060Q		R206	1-216-073-00	METAL CHIP 10K 5%	1/10W
IC303	8-759-374-72	IC LC35256AM-10		R251	1-216-073-00	METAL CHIP 10K 5%	1/10W
IC304	8-759-356-03	IC BA6780		R252	1-216-067-00	METAL CHIP 5.6K 5%	1/10W
IC305	8-759-636-55	IC M5218AFP		R253	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
IC371	8-749-921-12	IC GP1F32T (DIGITAL OUT)		R254	1-216-075-00	METAL CHIP 12K 5%	1/10W
IC401	8-759-100-96	IC uPC4558G2		R262	1-220-227-11	METAL GLAZE 1.2 10%	1/4W
IC402	8-759-100-96	IC uPC4558G2		R263	1-220-227-11	METAL GLAZE 1.2 10%	1/4W
IC501	8-759-100-96	IC uPC4558G2		R301	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W
IC502	8-759-100-96	IC uPC4558G2		R302	1-216-025-00	METAL GLAZE 100 5%	1/10W
IC601	8-759-061-65	IC LA5602		R303	1-216-025-00	METAL GLAZE 100 5%	1/10W
IC602	8-749-011-78	IC BA17807T		R304	1-216-041-00	METAL CHIP 470 5%	1/10W
IC603	8-759-633-42	IC M5293L		R308	1-216-073-00	METAL CHIP 10K 5%	1/10W
		< JACK >		R309	1-216-049-11	METAL GLAZE 1K 5%	1/10W
J301	1-770-720-11	JACK, PIN 4P (LINE IN/OUT)		R310	1-216-049-11	METAL GLAZE 1K 5%	1/10W
J381	1-774-726-11	JACK (CONTROL A1)		R311	1-216-049-11	METAL GLAZE 1K 5%	1/10W
		< COIL >		R312	1-216-073-00	METAL CHIP 10K 5%	1/10W
L301	1-410-375-11	INDUCTOR CHIP 3.3uH		R313	1-216-073-00	METAL CHIP 10K 5%	1/10W
L303	1-410-375-11	INDUCTOR CHIP 3.3uH		R314	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
L304	1-410-375-11	INDUCTOR CHIP 3.3uH		R315	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
L305	1-410-397-21	FERRITE BEAD INDUCTOR		R316	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
L307	1-410-375-11	INDUCTOR CHIP 3.3uH		R317	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
L308	1-414-234-11	INDUCTOR, FERRITE BEAD		R318	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
L309	1-414-234-11	INDUCTOR, FERRITE BEAD		R319	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
L310	1-414-234-11	INDUCTOR, FERRITE BEAD		R321	1-216-073-00	METAL CHIP 10K 5%	1/10W
L401	1-410-375-11	INDUCTOR CHIP 3.3uH		R322	1-216-073-00	METAL CHIP 10K 5%	1/10W
L501	1-410-375-11	INDUCTOR CHIP 3.3uH		R323	1-216-013-00	METAL CHIP 33 5%	1/10W
L601	1-414-234-11	INDUCTOR, FERRITE BEAD		R324	1-216-073-00	METAL CHIP 10K 5%	1/10W
L603	1-414-234-11	INDUCTOR, FERRITE BEAD		R325	1-216-073-00	METAL CHIP 10K 5%	1/10W
L604	1-216-295-00	CONDUCTOR, CHIP (2012)		R326	1-216-295-00	CONDUCTOR, CHIP (2012)	(C460Z)
L605	1-216-296-00	CONDUCTOR, CHIP (3216)		R327	1-216-049-11	METAL GLAZE 1K 5%	1/10W
L606	1-410-397-21	FERRITE BEAD INDUCTOR		R328	1-216-295-00	CONDUCTOR, CHIP (2012)	
L607	1-410-375-11	INDUCTOR CHIP 3.3uH		R331	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
L608	1-410-375-11	INDUCTOR CHIP 3.3uH		R333	1-216-073-00	METAL CHIP 10K 5%	1/10W
L609	1-216-295-00	CONDUCTOR, CHIP (2012)		R334	1-216-073-00	METAL CHIP 10K 5%	1/10W
		< TRANSISTOR >		R335	1-216-073-00	METAL CHIP 10K 5%	1/10W
Q201	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R336	1-216-295-00	CONDUCTOR, CHIP (2012)	
Q301	8-729-029-67	TRANSISTOR DTC114ESA-TP		R337	1-216-295-00	CONDUCTOR, CHIP (2012)	
Q302	8-729-029-67	TRANSISTOR DTC114ESA-TP		R338	1-216-073-00	METAL CHIP 10K 5%	1/10W
Q303	8-729-029-67	TRANSISTOR DTC114ESA-TP		R339	1-216-295-00	CONDUCTOR, CHIP (2012)	
Q304	8-729-029-67	TRANSISTOR DTC114ESA-TP		R340	1-216-049-11	METAL GLAZE 1K 5%	1/10W
Q305	8-729-029-67	TRANSISTOR DTC114ESA-TP		R341	1-216-097-00	METAL GLAZE 100K 5%	1/10W
Q311	8-729-900-53	TRANSISTOR DTC114EK		R342	1-216-097-00	METAL GLAZE 100K 5%	1/10W
Q321	8-729-027-38	TRANSISTOR DTA144EKA-T146		R343	1-216-073-00	METAL CHIP 10K 5%	1/10W
Q322	8-729-027-38	TRANSISTOR DTA144EKA-T146		R344	1-216-295-00	CONDUCTOR, CHIP (2012)	
Q381	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R381	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
Q402	8-729-422-29	TRANSISTOR 2SD601A-S		R382	1-216-073-00	METAL CHIP 10K 5%	1/10W
Q404	8-729-422-29	TRANSISTOR 2SD601A-S		R383	1-216-001-00	METAL CHIP 10 5%	1/10W
Q405	8-729-422-29	TRANSISTOR 2SD601A-S		R403	1-216-689-11	METAL CHIP 39K 0.5%	1/10W
Q406	8-729-027-23	TRANSISTOR DTA114EKA-T146		R404	1-216-689-11	METAL CHIP 39K 0.5%	1/10W
Q502	8-729-422-29	TRANSISTOR 2SD601A-S		R405	1-216-077-00	METAL CHIP 15K 5%	1/10W
Q503	8-729-027-23	TRANSISTOR DTA114EKA-T146		R406	1-216-077-00	METAL CHIP 15K 5%	1/10W
Q504	8-729-422-29	TRANSISTOR 2SD601A-S		R407	1-216-691-11	METAL CHIP 47K 0.5%	1/10W
Q505	8-729-422-29	TRANSISTOR 2SD601A-S		R408	1-216-691-11	METAL CHIP 47K 0.5%	1/10W
Q506	8-729-027-23	TRANSISTOR DTA114EKA-T146		R409	1-216-053-00	METAL CHIP 1.5K 5%	1/10W
Q601	8-729-119-76	TRANSISTOR 2SA1175-HFE					

MAIN

POWER SW

SENSOR

Ref. No.	Part No.	Description	Remarks
R410	1-216-053-00	METAL CHIP 1.5K 5%	1/10W
R411	1-216-105-00	METAL GLAZE 220K 5%	1/10W
R412	1-216-047-00	METAL GLAZE 820 5%	1/10W
R413	1-216-033-00	METAL CHIP 220 5%	1/10W
R414	1-216-033-00	METAL CHIP 220 5%	1/10W
R415	1-216-295-00	CONDUCTOR, CHIP (2012)	
R416	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R418	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R419	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R420	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R421	1-216-073-00	METAL CHIP 10K 5%	1/10W
R422	1-247-807-31	CARBON 100 5%	1/4W
R450	1-216-113-00	METAL CHIP 470K 5%	1/10W
R451	1-216-073-00	METAL CHIP 10K 5%	1/10W
R452	1-216-072-00	METAL CHIP 9.1K 5%	1/10W
R453	1-216-073-00	METAL CHIP 10K 5%	1/10W
R454	1-216-073-00	METAL CHIP 10K 5%	1/10W
R455	1-216-073-00	METAL CHIP 10K 5%	1/10W
R456	1-216-048-00	METAL CHIP 910 5%	1/10W
R457	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R470	1-216-073-00	METAL CHIP 10K 5%	1/10W
R471	1-216-073-00	METAL CHIP 10K 5%	1/10W
R503	1-216-689-11	METAL CHIP 39K 0.5%	1/10W
R504	1-216-689-11	METAL CHIP 39K 0.5%	1/10W
R505	1-216-077-00	METAL CHIP 15K 5%	1/10W
R506	1-216-077-00	METAL CHIP 15K 5%	1/10W
R507	1-216-691-11	METAL CHIP 47K 0.5%	1/10W
R508	1-216-691-11	METAL CHIP 47K 0.5%	1/10W
R509	1-216-053-00	METAL CHIP 1.5K 5%	1/10W
R510	1-216-053-00	METAL CHIP 1.5K 5%	1/10W
R511	1-216-105-00	METAL GLAZE 220K 5%	1/10W
R512	1-216-047-00	METAL GLAZE 820 5%	1/10W
R513	1-216-033-00	METAL CHIP 220 5%	1/10W
R514	1-216-033-00	METAL CHIP 220 5%	1/10W
R515	1-216-295-00	CONDUCTOR, CHIP (2012)	
R516	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R517	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R518	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R519	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R520	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R521	1-216-073-00	METAL CHIP 10K 5%	1/10W
R522	1-247-807-31	CARBON 100 5%	1/4W
R550	1-216-113-00	METAL CHIP 470K 5%	1/10W
R551	1-216-073-00	METAL CHIP 10K 5%	1/10W
R552	1-216-072-00	METAL CHIP 9.1K 5%	1/10W
R553	1-216-073-00	METAL CHIP 10K 5%	1/10W
R554	1-216-073-00	METAL CHIP 10K 5%	1/10W
R555	1-216-073-00	METAL CHIP 10K 5%	1/10W
R556	1-216-048-00	METAL CHIP 910 5%	1/10W
R557	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R601	1-216-085-00	METAL CHIP 33K 5%	1/10W
R602	1-216-073-00	METAL CHIP 10K 5%	1/10W
R603	1-216-091-00	METAL CHIP 56K 5%	1/10W
R604	1-216-073-00	METAL CHIP 10K 5%	1/10W
R607	1-216-037-00	METAL CHIP 330 5%	1/10W
< SWITCH >			
S401	1-571-308-11	SWITCH, SLIDE (COMMAND MODE)	

Ref. No.	Part No.	Description	Remarks
< VIBRATOR >			
X301	1-579-834-11	VIBRATOR, CRYSTAL 33MHZ	
X401	1-579-175-11	VIBRATOR, CERAMIC 10MHZ	

*	1-665-357-11	POWER SW BOARD	*****
< CONNECTOR >			
CN703	1-750-186-11	CONNECTOR, BOARD TO BOARD 6P	
< RESISTOR >			
R701	1-249-417-11	CARBON 1K 5%	1/4W F
R702	1-249-419-11	CARBON 1.5K 5%	1/4W F
R703	1-249-421-11	CARBON 2.2K 5%	1/4W F
R704	1-247-843-11	CARBON 3.3K 5%	1/4W
R705	1-249-427-11	CARBON 6.8K 5%	1/4W F
R706	1-249-431-11	CARBON 15K 5%	1/4W
R707	1-249-419-11	CARBON 1.5K 5%	1/4W F (C460Z)
R707	1-249-427-11	CARBON 6.8K 5%	1/4W F (CE515)
R708	1-249-415-11	CARBON 680 5%	1/4W F (C460Z)
R708	1-249-421-11	CARBON 2.2K 5%	1/4W F (CE515)
R709	1-249-417-11	CARBON 1K 5%	1/4W F (C460Z)
R709	1-247-843-11	CARBON 3.3K 5%	1/4W (CE515)
< SWITCH >			
S701	1-554-303-21	SWITCH, TACTILE (DISC 1)	
S702	1-554-303-21	SWITCH, TACTILE (DISC 2)	
S703	1-554-303-21	SWITCH, TACTILE (DISC 3)	
S704	1-554-303-21	SWITCH, TACTILE (DISC 4)	
S705	1-554-303-21	SWITCH, TACTILE (DISC 5)	
S706	1-554-303-21	SWITCH, TACTILE (CONTINUE)	
S707	1-554-303-21	SWITCH, TACTILE (SHUFFLE)	
S708	1-554-303-21	SWITCH, TACTILE (PROGRAM)	
S709	1-554-303-21	SWITCH, TACTILE (REPEAT)	
S710	1-554-303-21	SWITCH, TACTILE (DISC CHECK)(CE515)	
S710	1-554-303-21	SWITCH, TACTILE (TIME/MEMO)(C460Z)	
S751	1-554-118-00	SWITCH, PUSH (1 KEY)(POWER)	

*	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

TABLE MOTOR

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
*	1-647-364-11	TABLE MOTOR BOARD *****				ACCESSORIES & PACKING MATERIALS *****	
		< MOTOR >					
M801	A-4660-525-A	MOTOR ASSY, ROTARY (TABLE) *****		1-475-088-11	REMOTE COMMANDER (RM-DC53)		
		MISCELLANEOUS *****		1-558-271-11	CORD, CONNECTION (AUDIO)		
7	1-782-219-11	WIRE (FLAT TYPE) (17 CORE)		1-777-241-11	CORD, CONNECTION (CONTROL A1)(CND)		
9	1-782-220-11	WIRE (FLAT TYPE) (9 CORE)		3-810-765-33	MANUAL,COMMONNESS INSTRUCTION (ENGLISH)(US,AUS)		
△ 59	1-575-651-21	CORD, POWER (AEP)		3-810-765-43	MANUAL,COMMONNESS INSTRUCTION (ENGLISH/FRENCH/GERMAN/SPANISH/DUTCH/ SWEDISH/ITALIAN/PORTUGUESE/CHINESE) (CND,AEP)		
△ 59	1-590-926-11	CORD, POWER (US,CND)		3-859-179-11	MANUAL, INSTRUCTION (ENGLISH)(US,AUS)		
△ 59	1-696-845-11	CORD, POWER (AUS)		3-859-179-21	MANUAL, INSTRUCTION (ENGLISH/FRENCH/SPANISH/PORTUGUESE) (CND,AEP)		
72	1-751-052-11	WIRE (FLAT TYPE) (6 CORE)		3-859-179-31	MANUAL, INSTRUCTION (GERMAN/DUTCH/SWEDISH/ITALIAN)(AEP)		
105	1-466-996-11	ENCODER, ROTARY		4-983-956-01	COVER, BATTERY (FOR RM-DC53)		
109	1-765-443-11	WIRE (FLAT TYPE) (23 CORE)		*****			
* 125	1-452-879-11	MAGNET					
△ 751	8-848-379-31	OPTICAL PICK-UP KSS-213BA/F-NP					
752	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)				*****	
M101	X-4917-523-3	MOTOR ASSY (SPINDLE)				HARDWARE LIST	
M102	X-4917-504-3	MOTOR ASSY (SLED)				*****	
M801	A-4660-525-A	MOTOR ASSY, ROTARY (TABLE)		#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
M802	A-4660-914-A	MOTOR ASSY, LOADING		#2	7-685-872-09	SCREW +BVTT 3X8 (S)	
△ T601	1-429-956-11	TRANSFORMER, POWER (US,CND)		#3	7-685-648-79	SCREW (M3X12), TAPPING	
△ T601	1-431-076-11	TRANSFORMER, POWER (AEP,AUS)		#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)	
				#7	7-621-255-15	SCREW +P 2X3	
				#8	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 pièce portant le numéro spécifié.
--	--

