

# CDP-CE105

## SERVICE MANUAL

*US Model  
Canadian Model  
AEP Model  
UK Model  
E Model  
Australian Model*



Model Name Using Similar Mechanism	HCD-D670AV/N555AV
CD Mechanism type	CDM37-5BD19
Base Unit Type	BU-5BD19
Optical Pick-up type	KSS-213BA/F-NP

### SPECIFICATIONS

#### Compact disc player

<b>Laser</b>	Semiconductor laser ( $\lambda = 780 \text{ nm}$ ) Emission duration: continuous
<b>Laser output</b>	Max 44.6 $\mu\text{W}$ * * 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.
<b>Frequency response</b>	2 Hz to 20 kHz $\pm 1.0 \text{ dB}$
<b>Signal-to-noise ratio</b>	More than 100dB
<b>Dynamic range</b>	More than 96dB
<b>Harmonic distortion</b>	Less than 0.01%
<b>Channel separation</b>	More than 86dB

#### Output

	Jack type	Maximum output level	Load impedance
LINE OUT	Phono jacks	2 V (at 50 kilohms)	Over 10 kilohms

#### General

##### Power requirements

Where purchased	Power requirements
Europe and Singapore	220 V – 230 V AC, 50/60 Hz
USA, Canada	120 V AC, 60 Hz
E	110 V – 120 V or 220 V – 240 V AC, adjustable, 50/60 Hz
Australia	240V AC, 50Hz

**Power consumption** 10 W

**Dimensions (approx.) (w/h/d)** 430  $\times$  135  $\times$  400 mm (17  $\times$  5 3/8  $\times$  15 3/4 in.) incl. projecting parts

**Mass (approx.)** 4.5 kg (9 lbs 15 oz)

##### Supplied accessories

Audio cord (2 phono plugs – 2 phono plugs) (1)

Design and specifications are subject to change without notice.

COMPACT DISC PLAYER  
**SONY**®



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### CAUTION

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

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

CLASS 1 LASER PRODUCT  
LUOKAN 1 LASERLAITE  
KLASS 1 LASERAPPARAT

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

CAUTION	;	INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.
ADVARSEL	;	USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARO!	;	AVATTAESSA JA SUOJALUKITUS OHITETTAESSA DLET ALTTIINA LASERSÄTEILYLLE.
WARNING	;	LASERSTRÅLING NÅR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URÖPPPLAD.
ADVARSEL	;	USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNEES UNNGÅ EKSPONERING FOR STRÅLEN.

This caution label is located inside the unit.

### Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

### For the customers in Canada

#### CAUTION

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

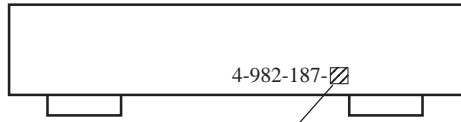
### SAFETY-RELATED COMPONENT WARNING !!

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 IDENTIFIÉS 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 —



- 0□: US model
- 1□: Canadian model
- 2□: Australian model
- 3□: AEP, German model
- 5□: UK model
- 7□: E model
- 8□: Singapore model

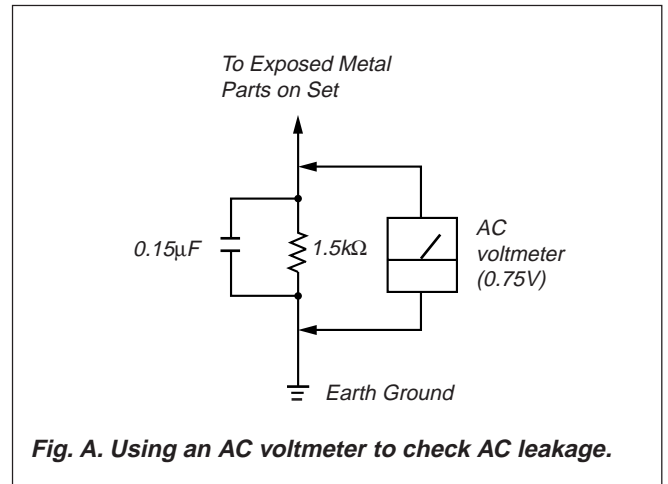
## SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer: Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

### LEAKAGE

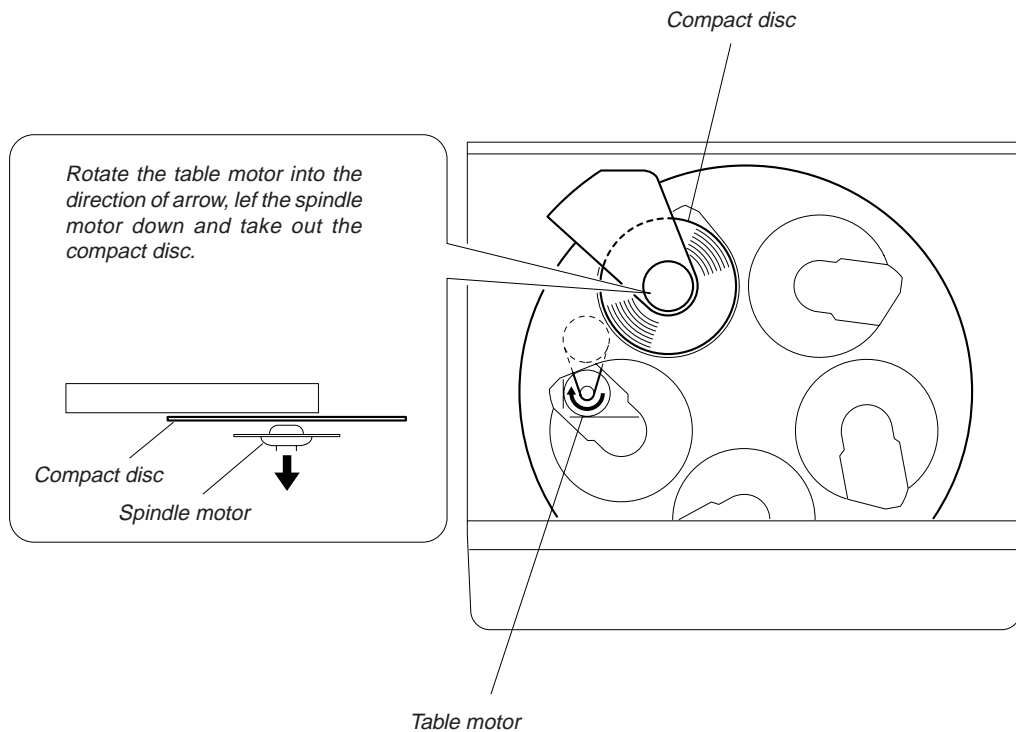
The AC leakage from any exposed metal part to earth Ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

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)



## SECTION 1 SERVICING NOTE

How to take out a compact disc when the power is turn OFF.



### 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

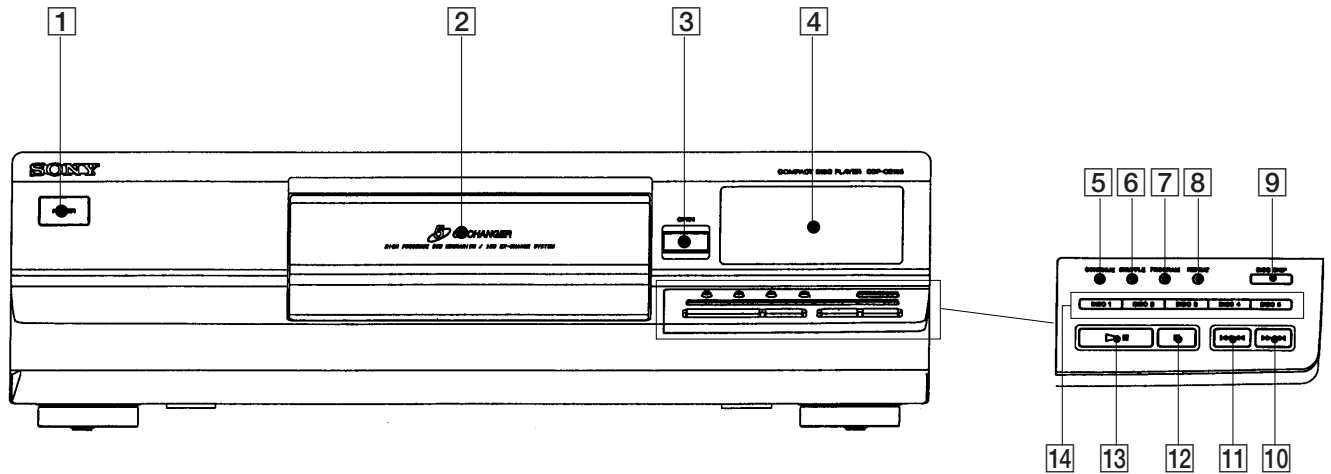
The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

### LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the "S curve check" in "CD section adjustment" and check that the S curve waveform is output.

## SECTION 2 GENERAL

### LOCATION OF CONTROLS



- 1 POWER switch
- 2 Front cover
- 3 OPEN switch
- 4 Display window
- 5 CONTINUE button
- 6 SHUFFLE button
- 7 PROGRAM button

- 8 REPEAT button
- 9 DISC SKIP button
- 10 ►► ►► (manual search, AMS\*) button
- 11 ◀◀ ◀◀ (manual search, AMS\*) button
- 12 ■ (STOP) button
- 13 ▷ || (play, pause) button
- 14 DISC 1-5 buttons

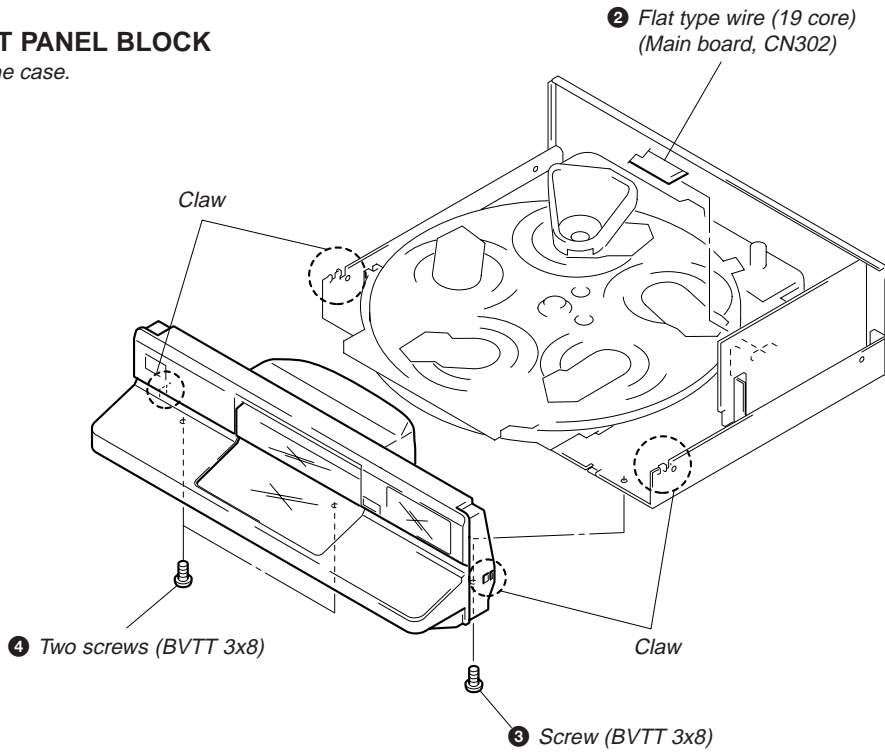
\* AMS is the abbreviation for Automatic Music Sensor.

## SECTION 3 DISASSEMBLY

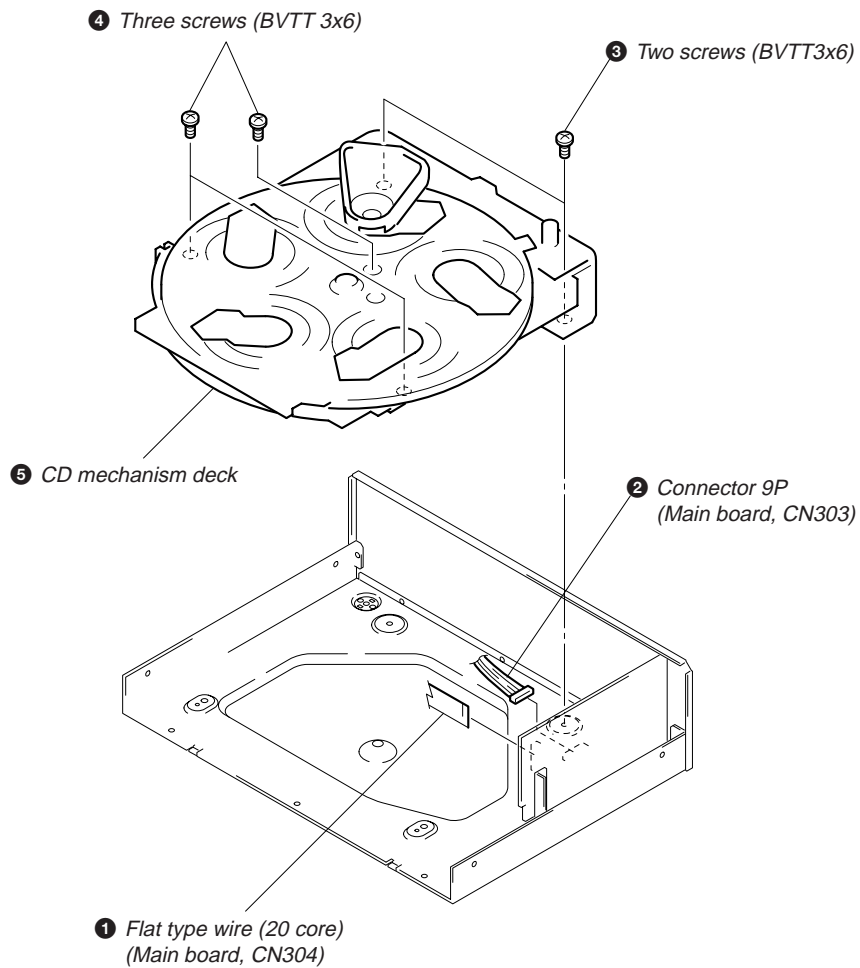
**Note:** Follow the disassembly procedure in the numerical order given.

### 3-1. FRONT PANEL BLOCK

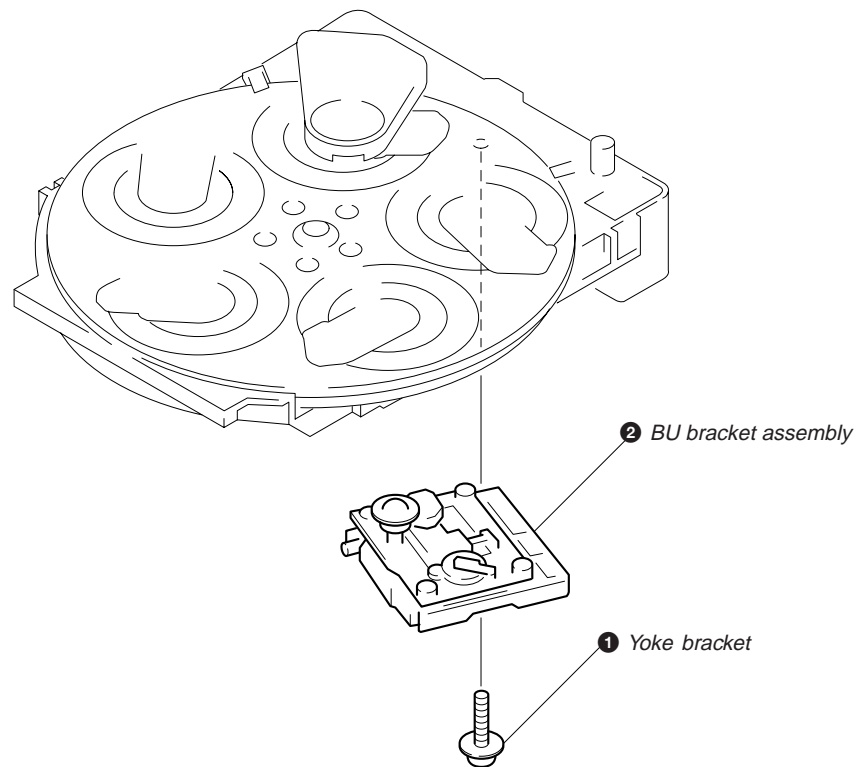
❶ Remove the case.



### 3-2. CD MECHANISM DECK



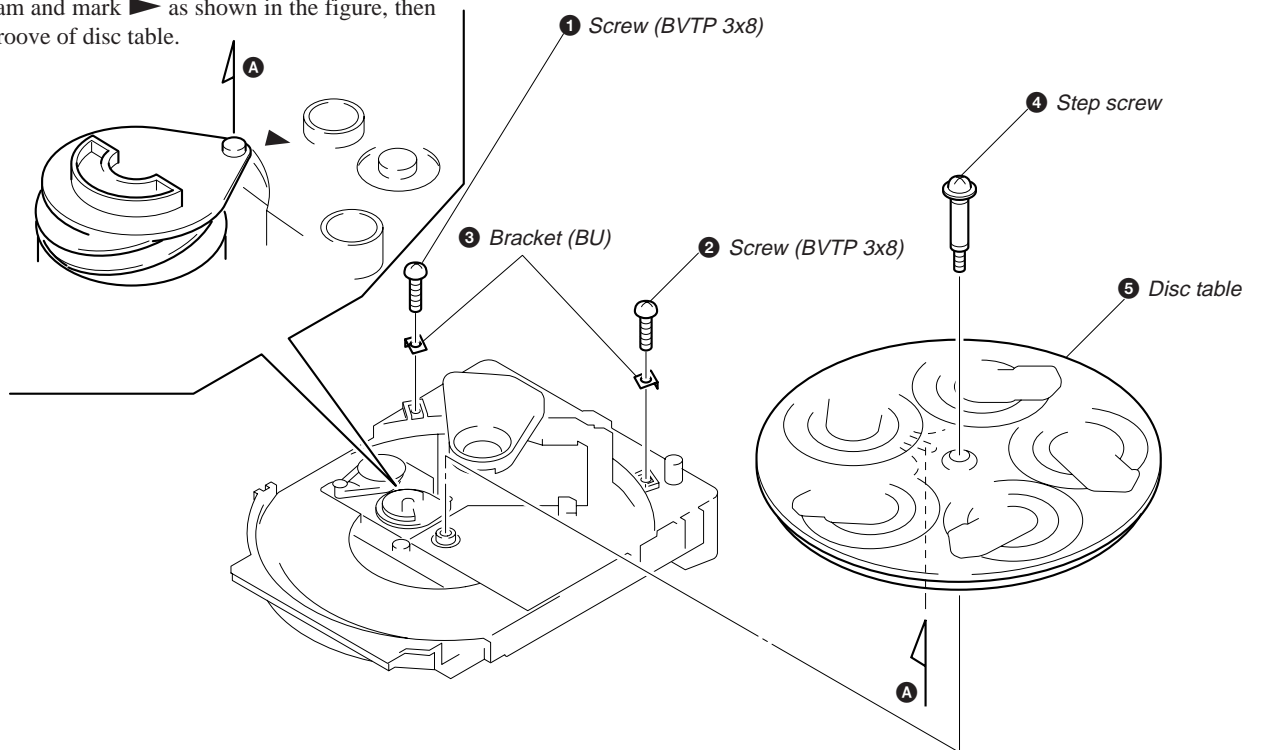
### 3-3. BU BRACKET ASSEMBLY



### 3-4. DISC TABLE

**Note:**

When the Disc table is installed, adjust the positions of Roller cam and mark **A** as shown in the figure, then set to the groove of disc table.




## SECTION 4 TEST MODE

### 4-1. AF MODE

The following checks can be performed in the AF mode, which is set by connecting the test point (AFJ) terminal on DISPLAY board to the Ground and turning on the power.

#### • FL tube check

After all segments light up, when the  button is pressed, the following will be displayed. (Partial lighting 1)


**ALL 1 DISCS**



**REPEAT 1  
DISC**



(Partial lighting 1)

When the  button is pressed, the following will be displayed. (partial lighting 2)

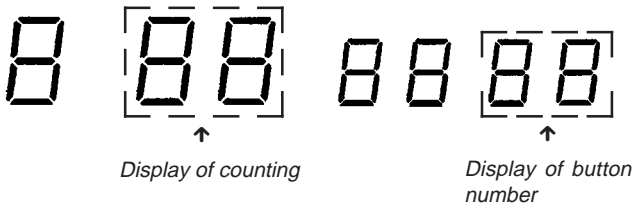






(Partial lighting 2)

When the  button is pressed, all will light up again.

#### • Key check

All buttons have corresponding button numbers. When a button is pressed, the counter will count up and display the button's number. However, the counter will only count to "14". It will not count for buttons already pressed once, but will display the button's number.



Button	Button No. Displayed	Button	Button No. Displayed
	07	DISC 4	18
	All lit	DISC 5	17
	Partial lighting 1	CONTINUE	13
	Partial lighting 2	SHUFFLE	12
DISC 1	08	PROGRAM	11
DISC 2	09	REPEAT	19
DISC 3	10	DISC SKIP	20

### 4-2. ADJ MODE

The following operations are performed in the ADJ mode, which is set by connecting the test point (ADJ) terminal to the Ground and turning on the power.

• Servo related manual operations and measurement can be performed.

(For details of operations, refer to Table of Key Operations in ADJ Mode.)

#### TABLE OF BUTTON OPERATIONS IN ADJ MODE

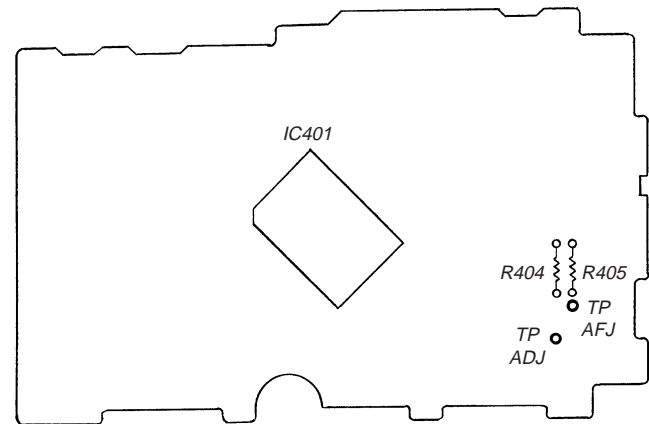
The functions of the number buttons are shown in the following table.

#### FUNCTIONS OF NUMBER BUTTONS

(Use the widely use remote commander with 20 keys.)

Button	Function
15	S curve check (in stop mode)
16	Tracking servo, sled servo off
17	Tracking servo, sled servo on
18	E-F balance indication
19	E-F balance indicati down
20	E-F balance indication up

#### [ DISPLAY BOARD ] — Conductor Side —



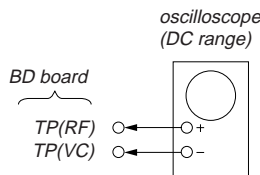


## SECTION 5 ELECTRICAL BLOCK ADJUSTMENTS

### 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 10M 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.
5. Adjust the focus bias adjustment when optical block is replaced.

### Focus Bias Adjustment



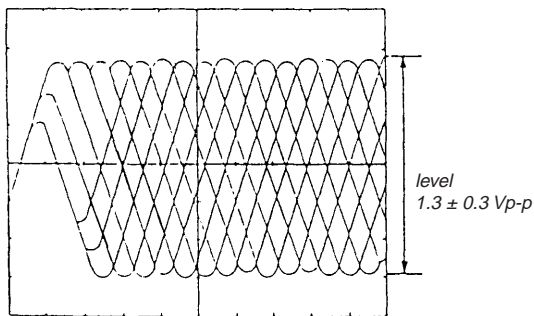
### Procedure :

1. Connect oscilloscope to test point TP (RF). (Ground terminal : VC)
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Adjust RV101 so that the waveform is clear. (Clear RF signal waveform means that the shape “◇” can be clearly distinguished at the center of the waveform.)
5. After adjustment, check the RF signal level.

### • RF signal

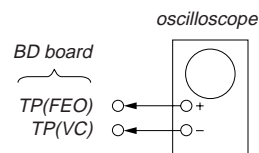
VOLT/DIV : 200 mV

TIME/DIV : 500 nS



### S Curve Check

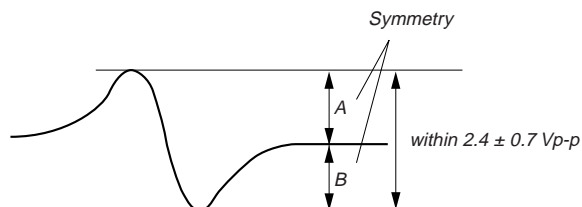
**Note :** Use the widely use remote commander with 20 keys for this check.



### Procedure :

1. Connect oscilloscope to test point TP (FEO).
2. Connect between test point TP (ADJ) on DISPLAY board to Ground with a lead wire.
3. Turn Power switch on to set the ADJ mode.
4. Put disc (YEDS-18) in and set to the stop mode.
5. Press the “15” button and actuate the focus serach.
6. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within  $2.4 \pm 0.7$  Vp-p.

### S-curve waveform

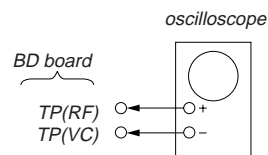


7. After check, remove the lead wire connected in step 2.

**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



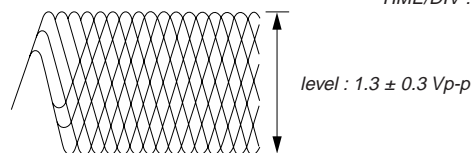
### Procedure :

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

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

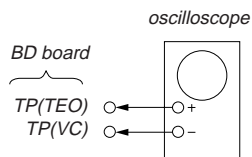
### RF signal waveform

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



## E-F Balance Check

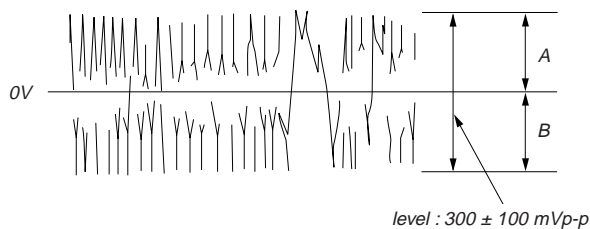
**Note :** Use the widely use remote commander with 20 keys for this check.



### Procedure :

1. Connect test point TP (ADJ) on DISPLAY board to Ground with a lead wire.
2. Connect oscilloscope to test point TP (TEO).
3. Turn Power switch on to set the ADJ mode.
4. Put disc (YEDS-18) in and playback.
5. Press the "16" button. (The tracking servo and the sledding servo are turn off)
6. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0Vdc, and check this level.

### Traverse waveform



$$\text{Specified level : } \bullet \frac{A-B}{2(A+B)} \times 100 = \text{less than } \pm 7\%$$

$$\bullet A+B=300 \pm 100 \text{ mVp-p}$$

7. Remove the lead wire connected in step 1.

### Focus/Tracking Gain Adjustment (RV102, RV103)

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

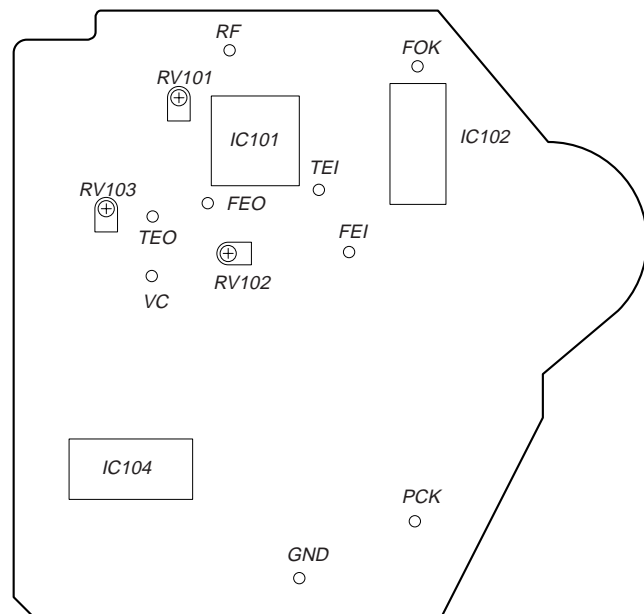
There is no problem.

Therefore, do not perform this adjustment.

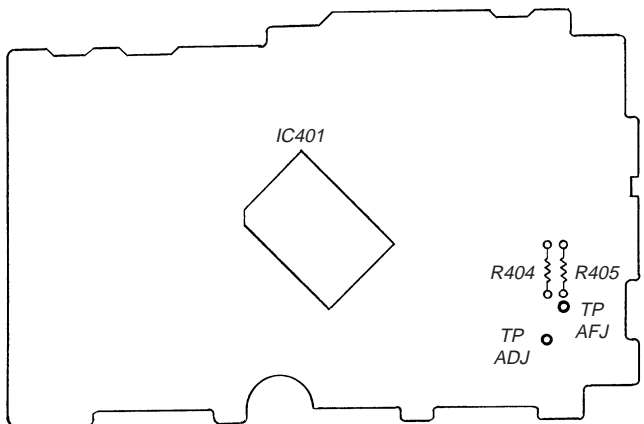
Please note that it should be fixed to mechanical center position when you moved and do not know original position.

## Adjustment Location

### [BD BOARD] (Conductor Side)

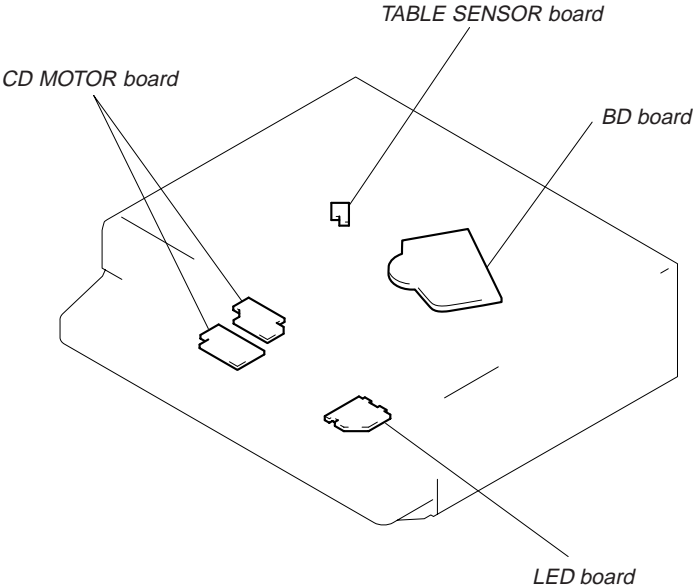
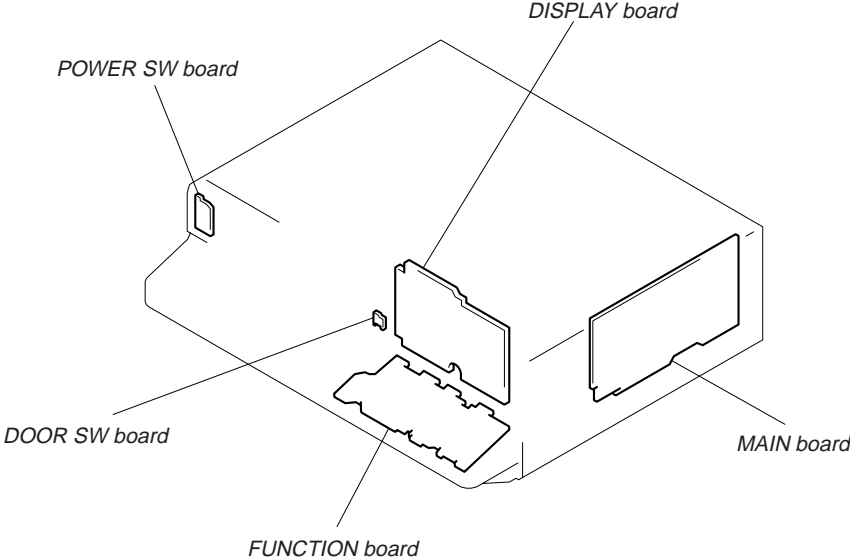


### [DISPLAY BOARD] (Conductor Side)

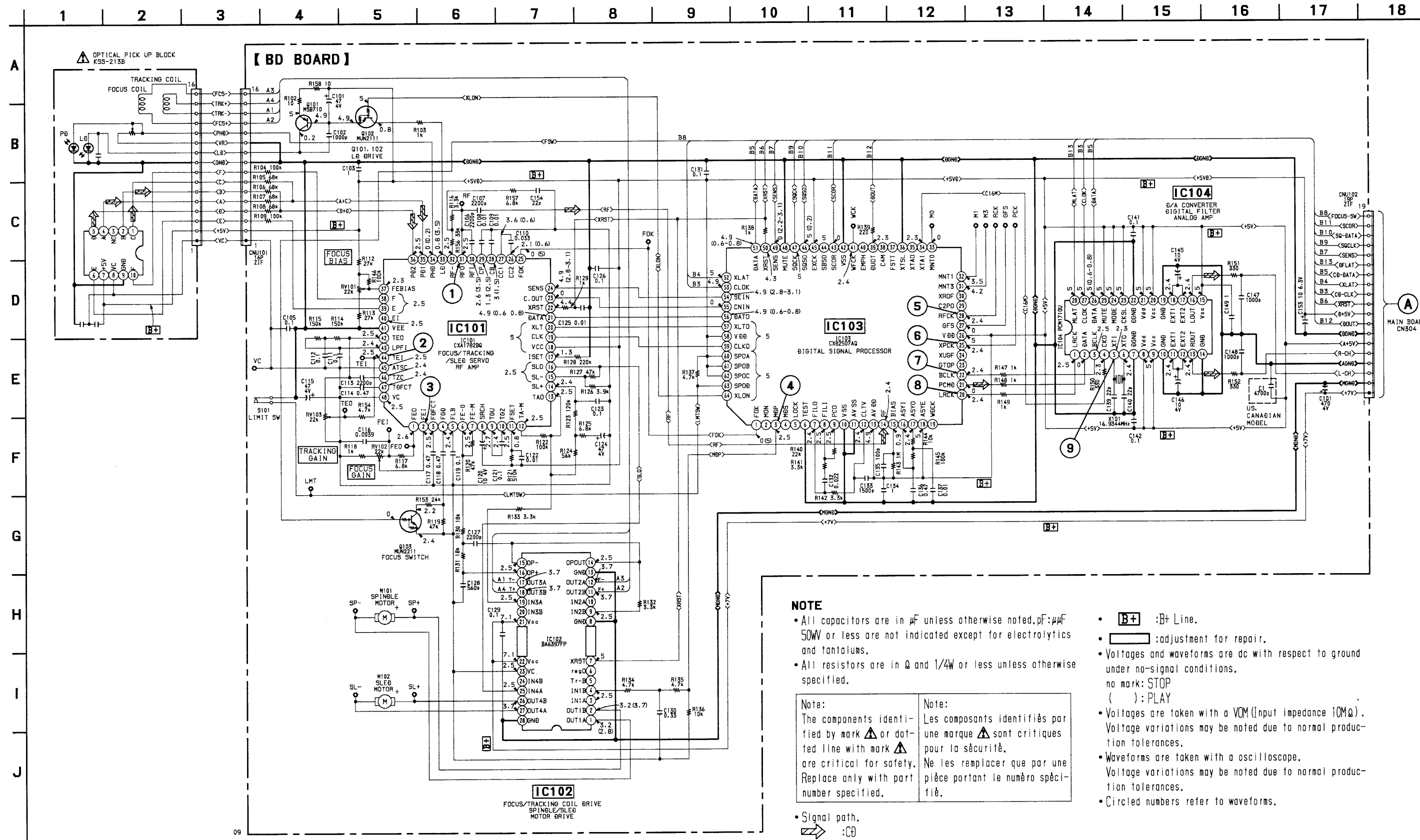


# SECTION 6 DIAGRAMS

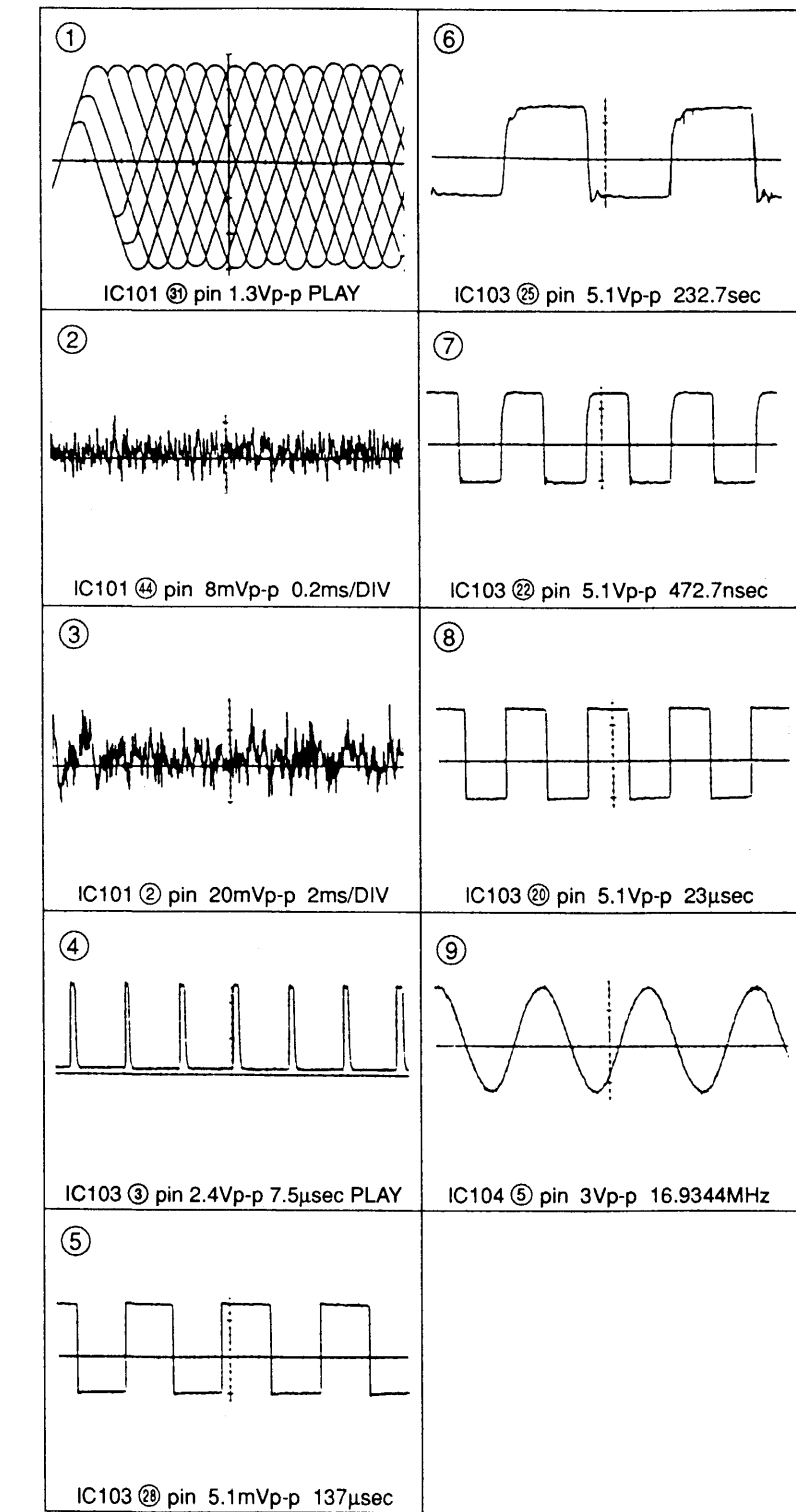
## 6-1. CIRCUIT BOARDS LOCATION



6-2. SCHEMATIC DIAGRAM — BD SECTION —



• Waveforms



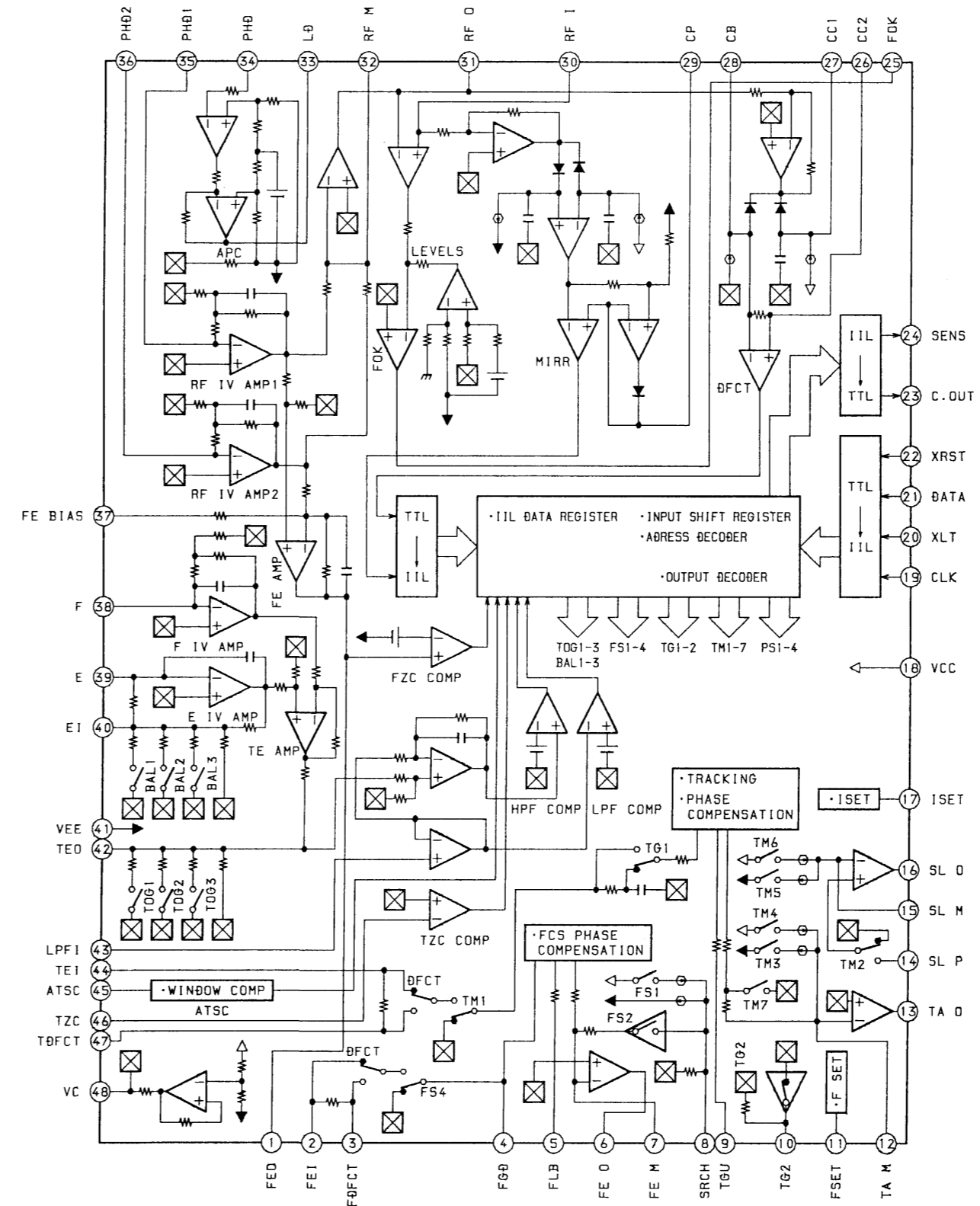
6-3. PRINTED WIRING BOARD — BD SECTION —  
• See page 11 for Circuit Boards Location.



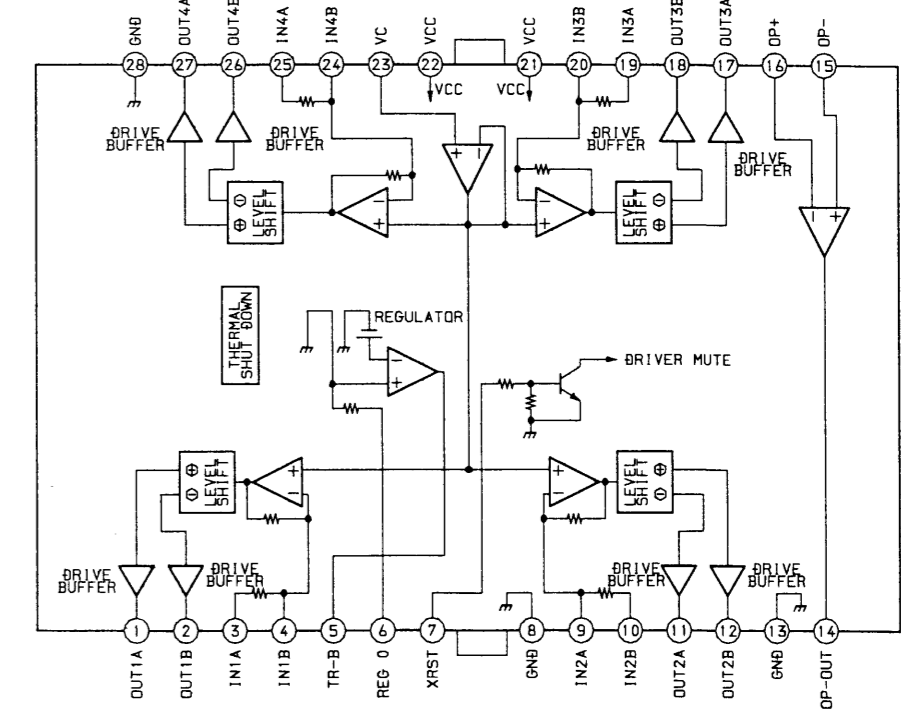
• Semiconductor Location

Ref. No.	Location
IC101	E-9
IC102	C-9
IC103	E-3
IC104	F-11
Q101	D-7
Q102	D-8
Q103	F-6

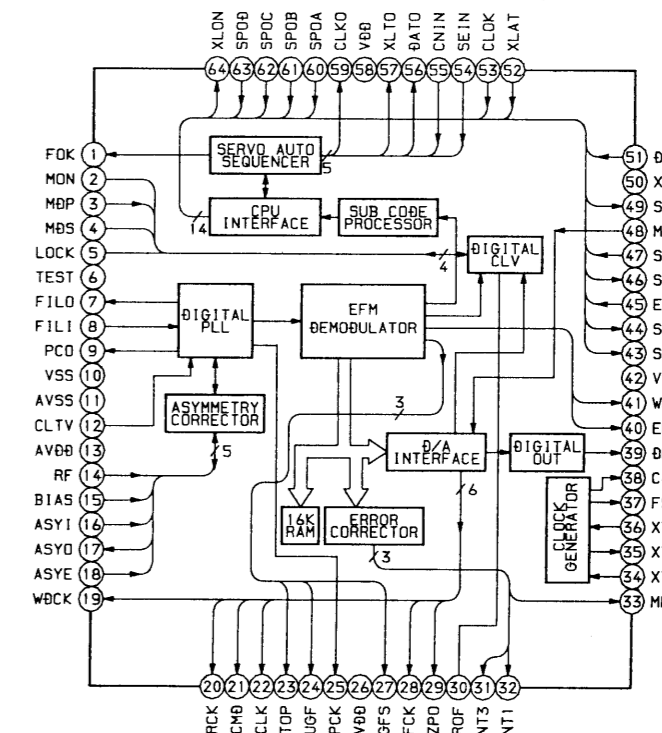
• IC Block Diagrams  
IC101 CXA1782BQ



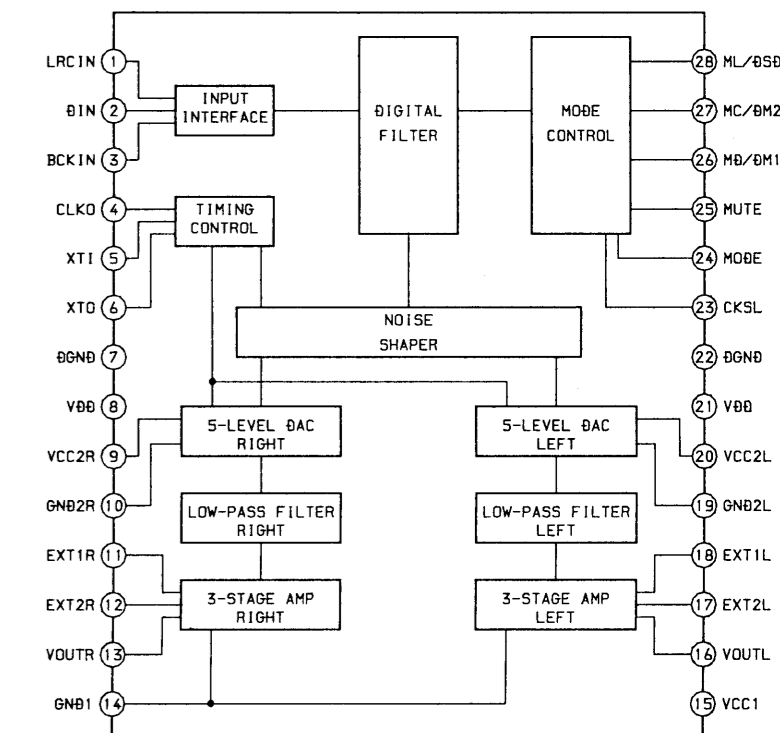
IC102 BA6397FP



IC103 CXD2507AQ



IC104 PCM1710U

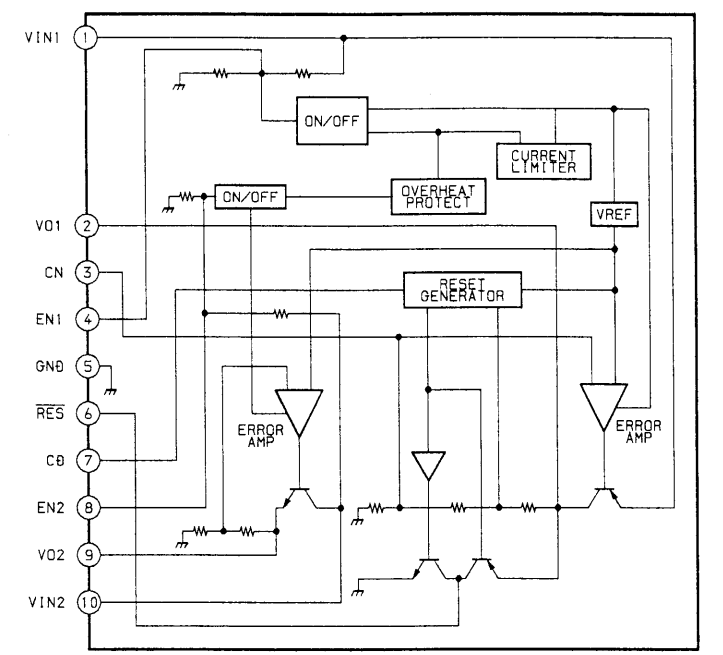


Note:  
 • : parts extracted from the component side.  
 • : Through hole.  
 • : Pattern from the side which enable seeing.  
 (The other layer's patterns are not indicated.)

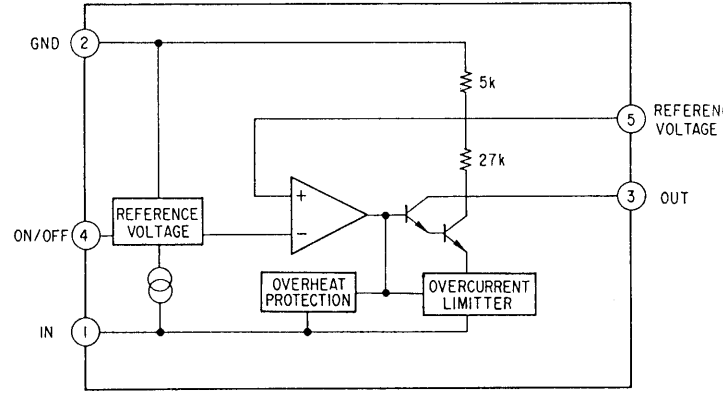
6-4. SCHEMATIC DIAGRAM — MAIN SECTION —  
• See page 26 for IC Pin Function. (IC401)

• IC Block Diagrams

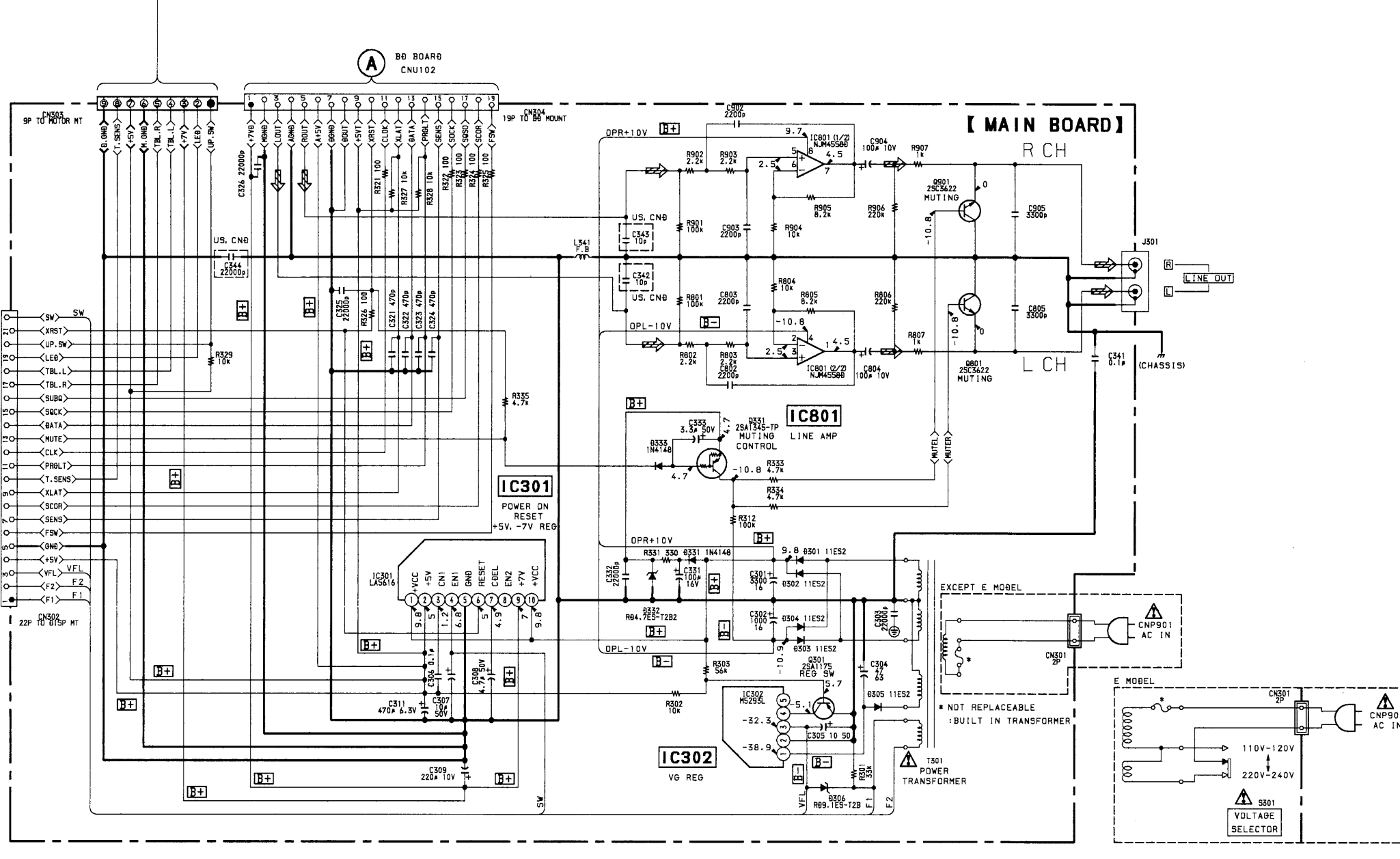
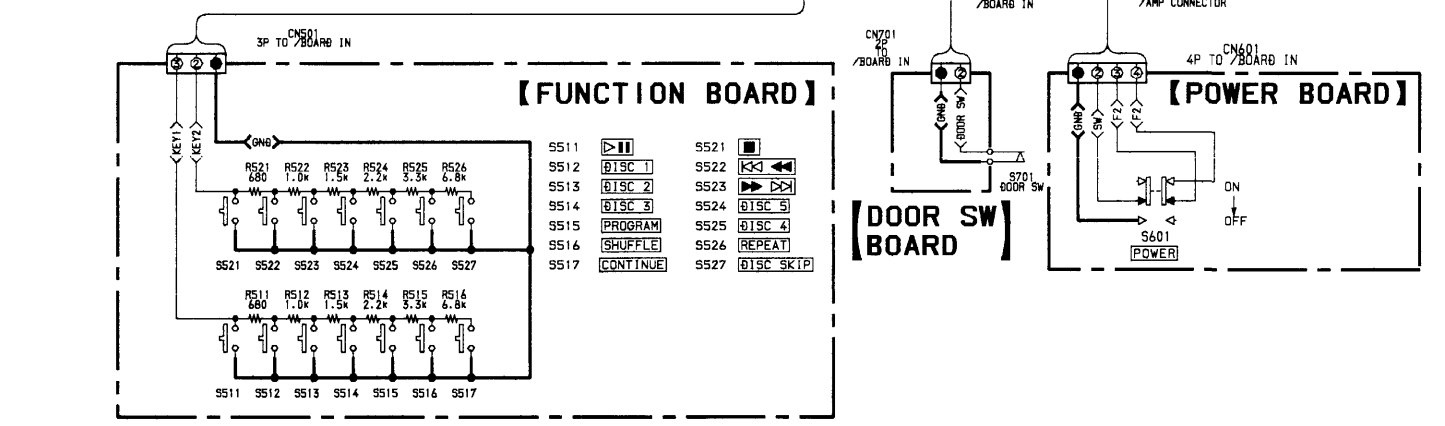
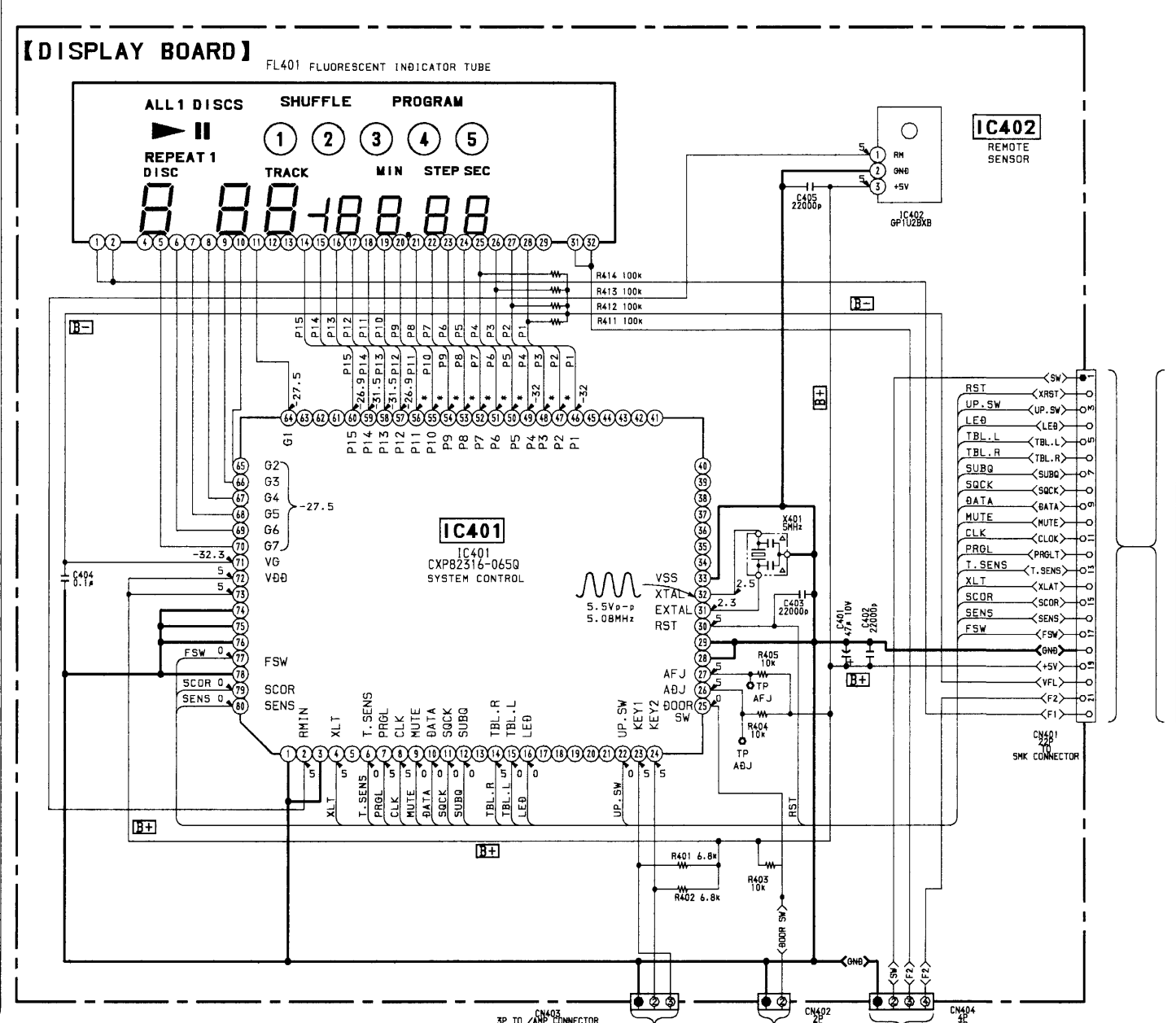
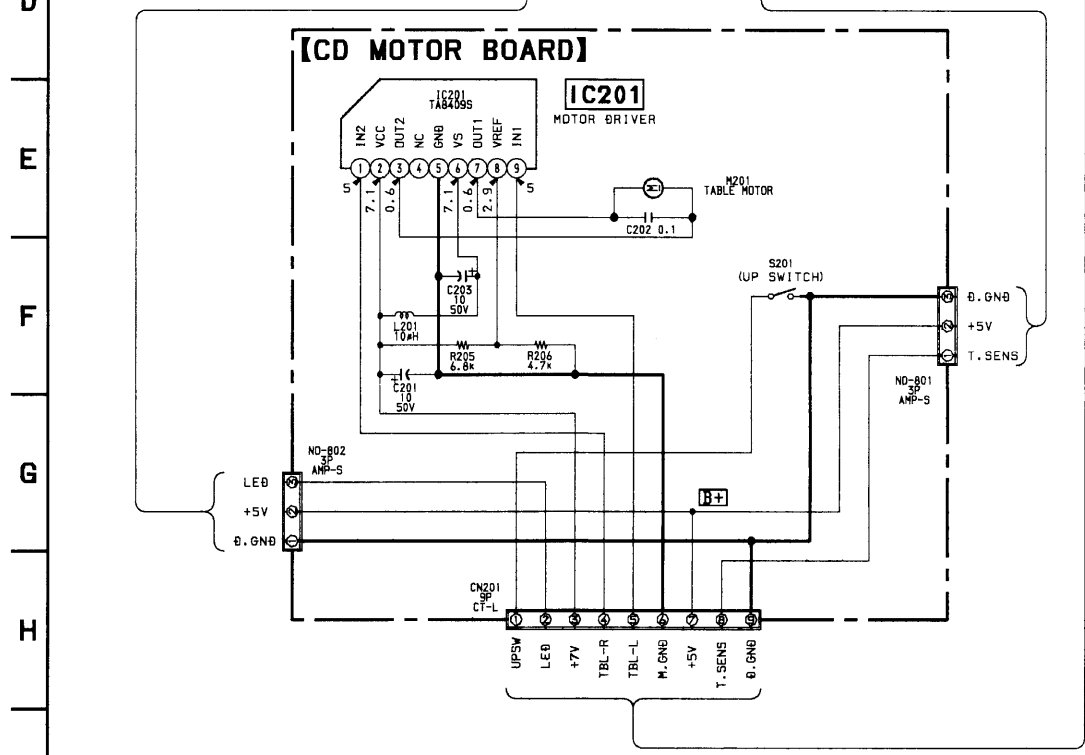
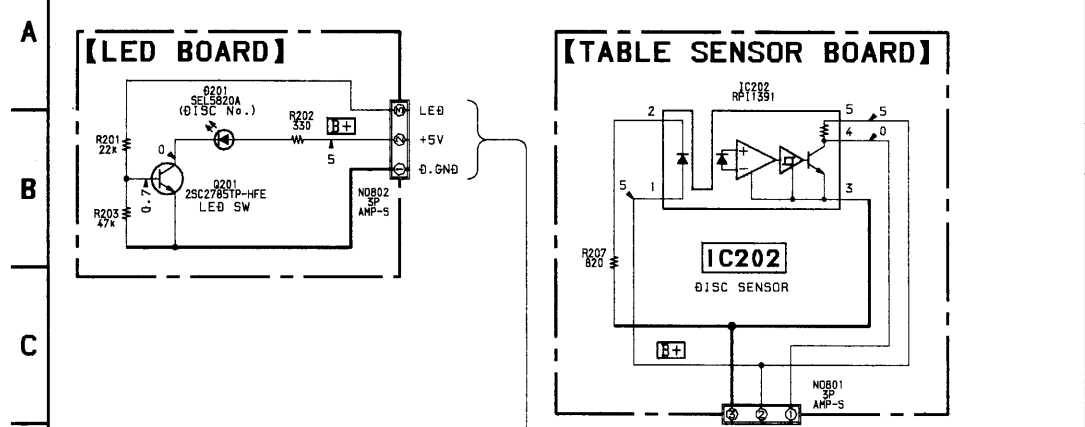
IC301 LA5616



IC302 M5293L



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29



**NOTE**

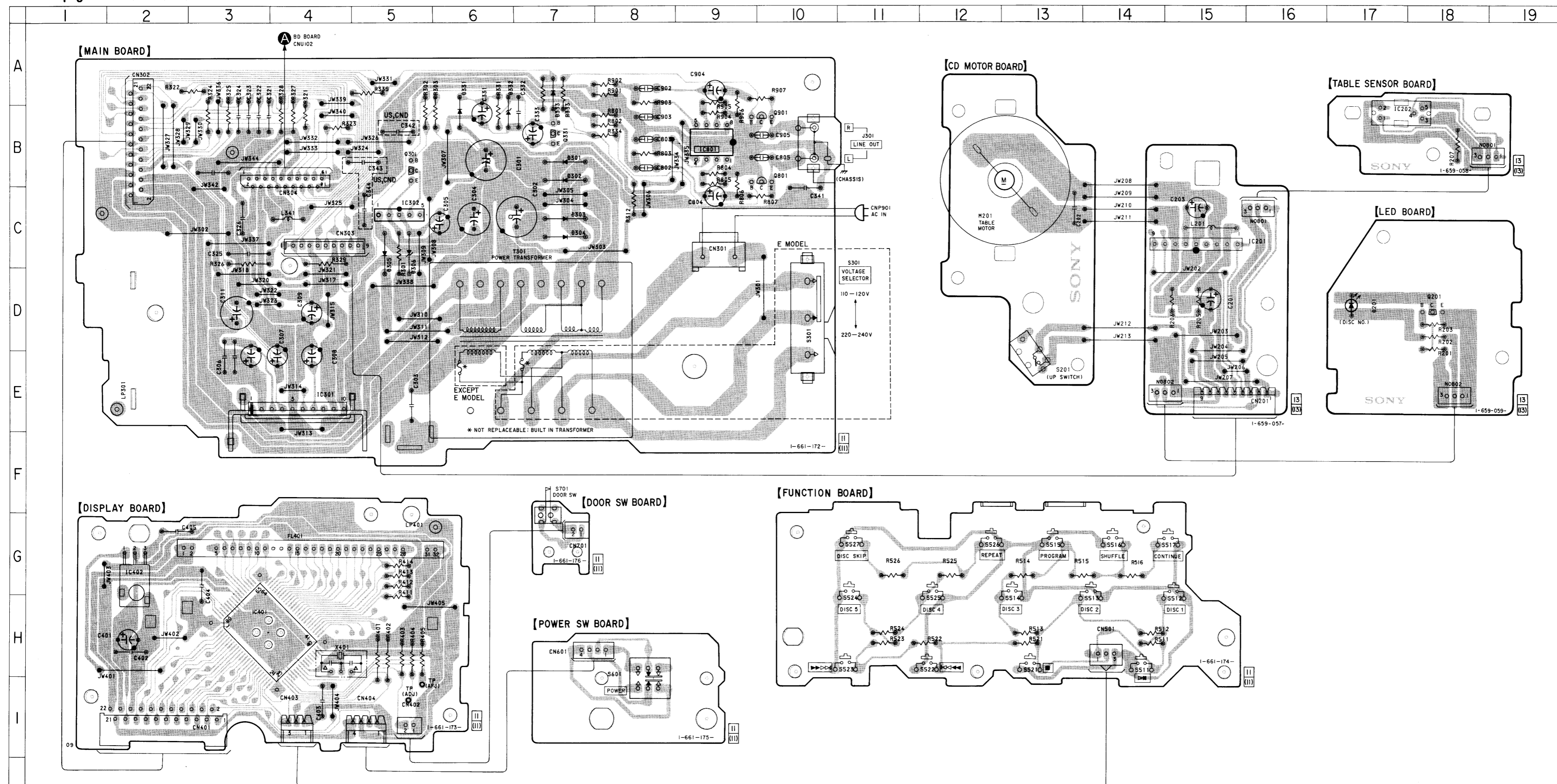
- All capacitors are in  $\mu\text{F}$  unless otherwise noted, pF: pF
- 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and 1/4W or less unless otherwise specified.
- $\Delta$  : internal component.
- $\square$  : panel designation.

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

**Note:**  
Les composants identifiés par une marque  $\Delta$  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. no mark: STOP
- \* : can not be measured.
- Voltages are taken with a VOM (input impedance 10M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Abbreviation CND: Canadian model.
- Signal path.

6-5. PRINTED WIRING BOARD — MAIN SECTION —  
 • See page 11 for Circuit Boards Location.



• Semiconductor Location

Ref. No.	Location
D201	D-17
D301	B-7
D302	B-7
D303	C-7
D304	C-7
D305	C-5
D306	C-5
D331	A-6
D332	A-6
D333	B-7
IC201	C-16
IC202	B-17
IC301	E-4
IC302	C-5
IC401	H-3
IC402	G-2
IC801	B-9
Q201	D-18
Q301	B-5
Q331	B-7
Q801	B-10
Q901	B-10

Note:  
 • ○ : parts extracted from the component side.  
 • △ : Internal component.  
 • [Pattern] : Pattern from the side which enable seeing.

## 6-6. IC PIN FUNCTION

### • IC401 SYSTEM CONTROL, FLUORESCENT INDICATOR TUBE DRIVE (CXP82316-065Q)

Pin No.	Pin Name	I/O	Function
1	—	—	Connected to Ground.
2	RM IN	I	Remote control signal input.
3	—	—	Connected to Ground.
4	XLT	O	Serial data latch signal output.
5	—	—	Not used. (Open)
6	T.SENSE	I	CD Table sensor signal input.
7	PRGL	O	Latch signal output to digital filter (IC104).
8	CLK	O	Serial clock output.
9	MUTE	O	Audio muting control signal output.
10	DATA	O	Serial data output.
11	SQCK	O	Read out clock output for subcode Q data.
12	SUBQ	I	Subcode Q data input.
13	—	—	Not used. (Open)
14	TBL.R	O	Table motor control signal output.
15	TBL.L	O	
16	LED	O	Disc number LED drive signal output.
17 to 21	—	—	Not used. (Open)
22	UPSW	I	Disc table up detect.
23	KET 1	I	Key input (S511 to S517, S521 to S527)
24	KEY 2	I	
25	DOOR SW	I	CD door open detection input.
26	ADJ	I	ADJ test mode input. The equipment is fixed at “H”.
27	AFJ	I	AFJ test mode input. The equipment is fixed at “H”.
28	—	—	Connected to Ground.
29	—	—	Connected to Ground.
30	RST	I	Reset signal input.
31	EXTAL	I	Clock input. (5.08 MHz)
32	XTAL	O	Clock output. (5.08 MHz)
33	V <sub>SS</sub>	—	Ground
34 to 45	—	—	Not used. (Open)
46 to 60	P1 to P15	O	Fluorescent Indicator Tube segment output.
61 to 63	—	—	Not used. (Open)
64 to 70	1G to 7G	O	Fluorescent Indicator Tube grid (timing) output.
71	VG	—	-30V pin for Fluorescent Indicator tube.
72	V <sub>DD</sub> (+5V)	—	+5V pin.
73	—	—	
74 to 76	—	—	Connected to Ground.
77	FSW	O	Focus switch signal output.
78	—	—	Connected to Ground.
79	SCOR	I	Read out timing signal input for subcode Q data.
80	SENS	O	SENSE signal input.



# SECTION 7 EXPLODED VIEWS

**NOTE:**

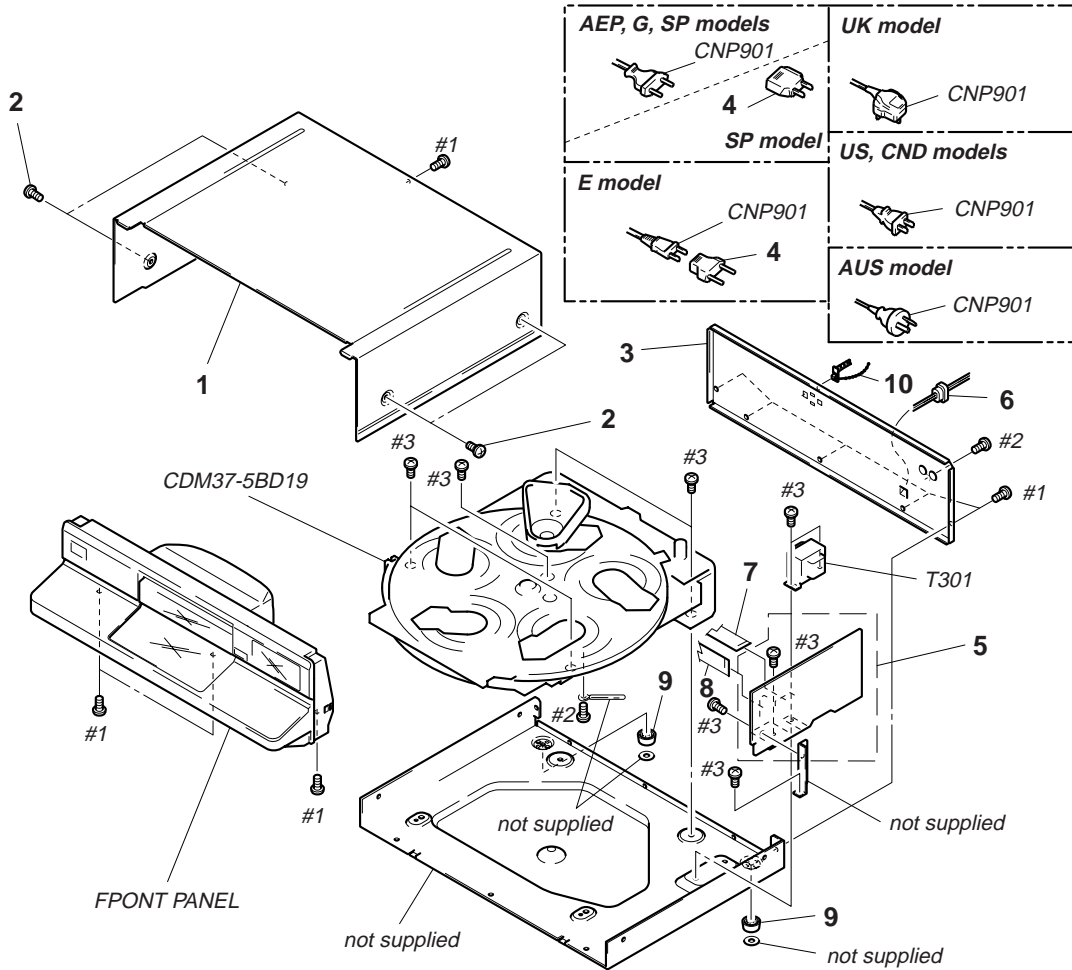
- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are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

- Abbreviation  
 CND : Canadian model  
 G : German model  
 SP : Singapore model.  
 AUS : Australian model

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

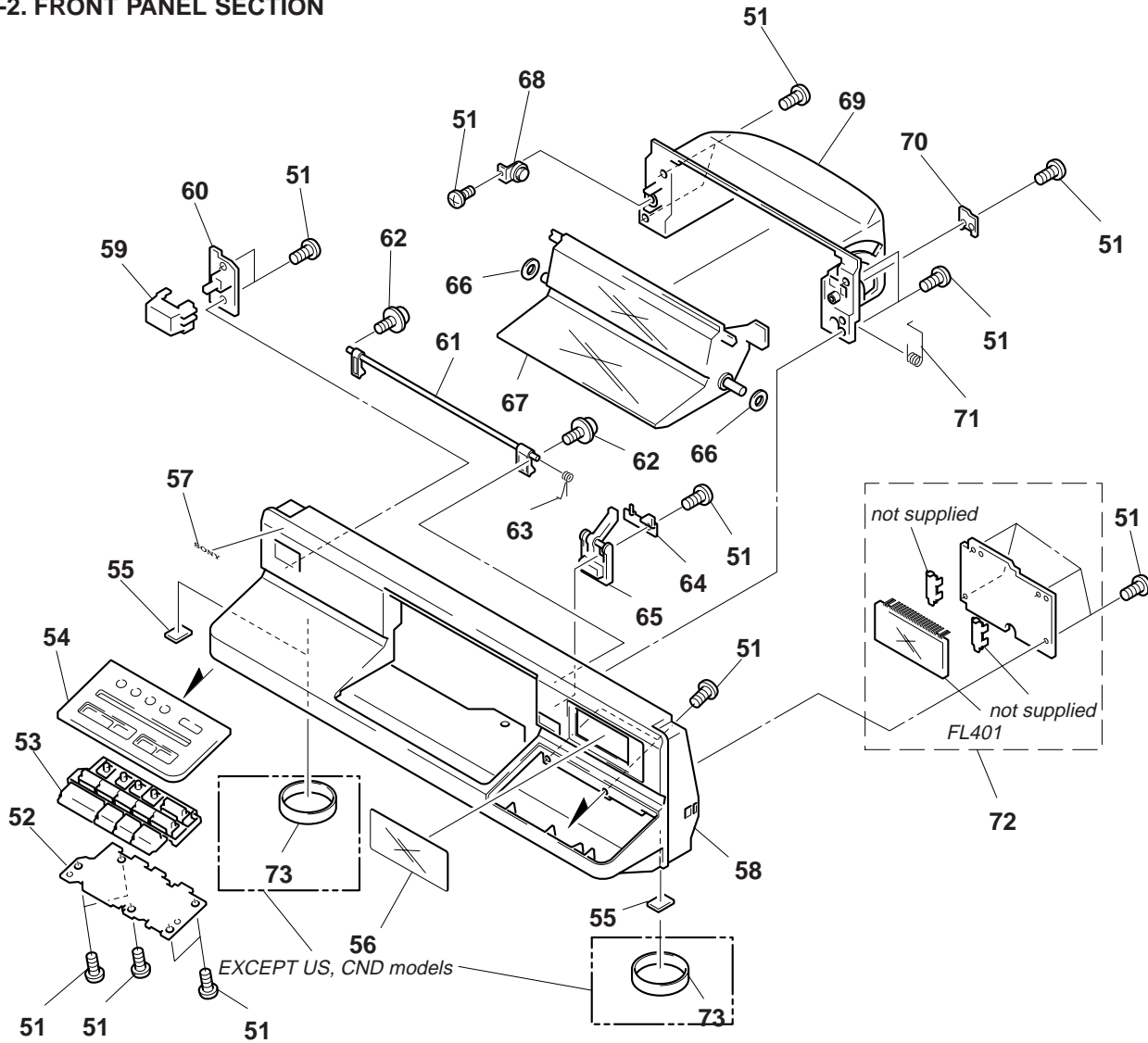
Les composants identifiés par une marque  $\triangle$  sont critiques pour la sécurité.  
 Ne les remplacer que par une pièce portant le numéro spécifié.

## 7-1. CASE AND BACK PANEL SECTION



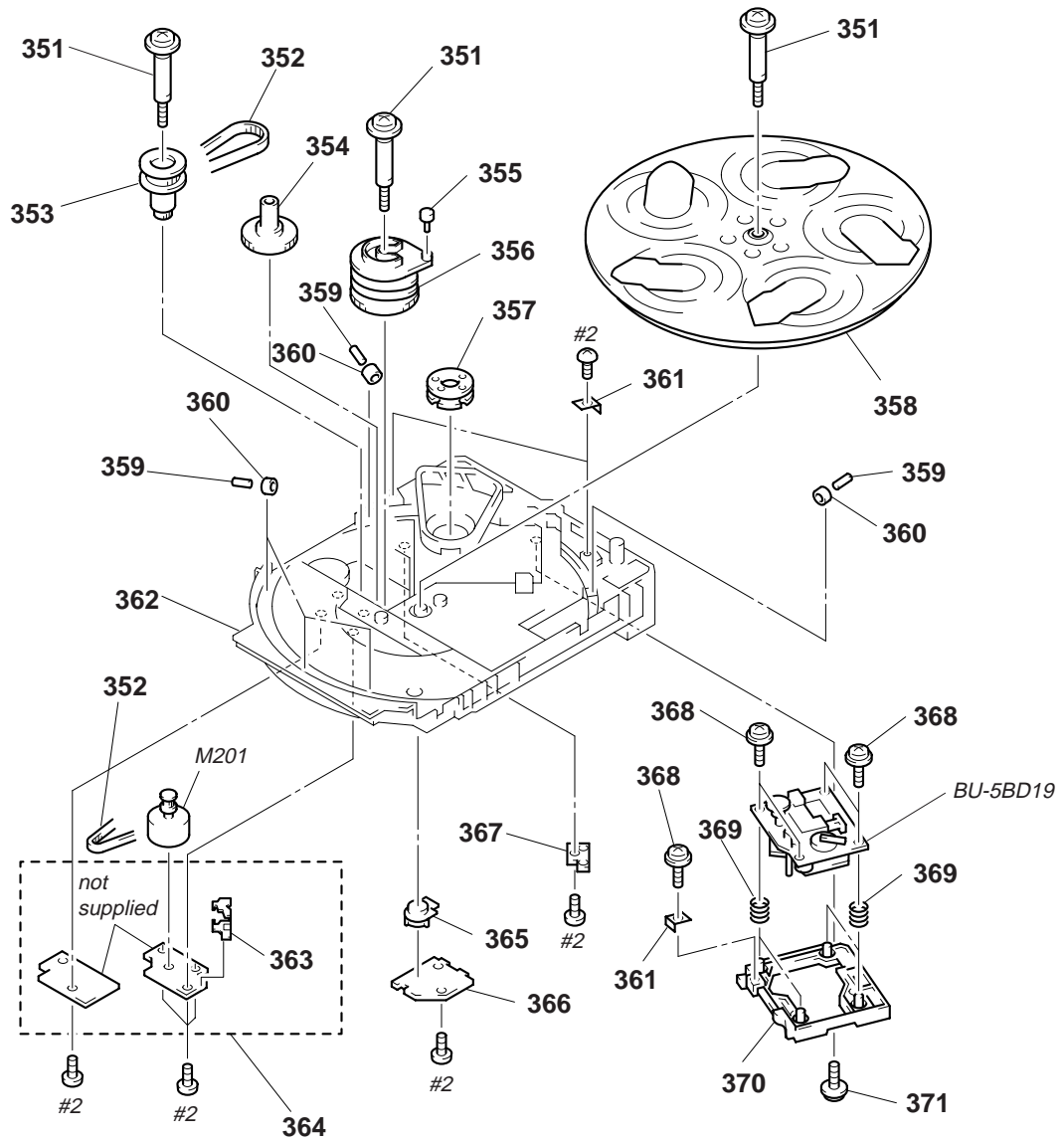
Ref. No.	Part No.	Description	not supplied	Remark	Ref. No.	Part No.	Description	Remark
* 1	4-982-186-11	CASE			6	3-703-571-11	BUSHING (S) (4516), CORD (E)	
2	3-363-099-01	SCREW (CASE 3 TP2)			7	1-777-157-11	WIRE (FLAT TYPE) (19 CORE)	
* 3	4-982-187-01	PANEL, BACK (US)			8	1-777-158-11	WIRE (FLAT TYPE) (22 CORE)	
* 3	4-982-187-11	PANEL, BACK (CND)			9	X-4941-228-1	FOOT (F22125H-M)	
* 3	4-982-187-21	PANEL, BACK (AUS)			10	4-956-370-02	BAND, PLUG FIXED (UK,AUS)	
* 3	4-982-187-31	PANEL, BACK (AEP,G)			$\triangle$ CNP901	1-575-042-21	CORD, POWER (US,CND)	
* 3	4-982-187-51	PANEL, BACK (UK)			$\triangle$ CNP901	1-575-651-21	CORD, POWER (AEP,G,SP)	
* 3	4-982-187-71	PANEL, BACK (E)			$\triangle$ CNP901	1-696-027-11	CORD, POWER (E)	
* 3	4-982-187-81	PANEL, BACK (SP)			$\triangle$ CNP901	1-696-845-11	CORD, POWER (AUS)	
$\triangle$ 4	1-569-007-11	ADAPTOR, CONVERSION 2P (E)			$\triangle$ CNP901	1-751-529-11	CORD, POWER (UK)	
$\triangle$ 4	1-569-008-11	ADAPTOR, CONVERSION 2P (SP)			$\triangle$ T301	1-429-650-11	TRANSFORMER, POWER (US,CND)	
* 5	A-4699-011-A	MAIN BOARD, COMPLETE (AEP,UK,G,AUS,SP)			$\triangle$ T301	1-429-651-11	TRANSFORMER, POWER (AEP,UK,G,AUS,SP)	
* 5	A-4699-012-A	MAIN BOARD, COMPLETE (E)			$\triangle$ T301	1-429-652-11	TRANSFORMER, POWER (E)	
* 5	A-4699-249-A	MAIN BOARD, COMPLETE (US,CND)						
* 6	3-703-244-00	BUSHING (2104), CORD (US,CND,AEP,UK,G,AUS,SP)						

## 7-2. FRONT PANEL SECTION



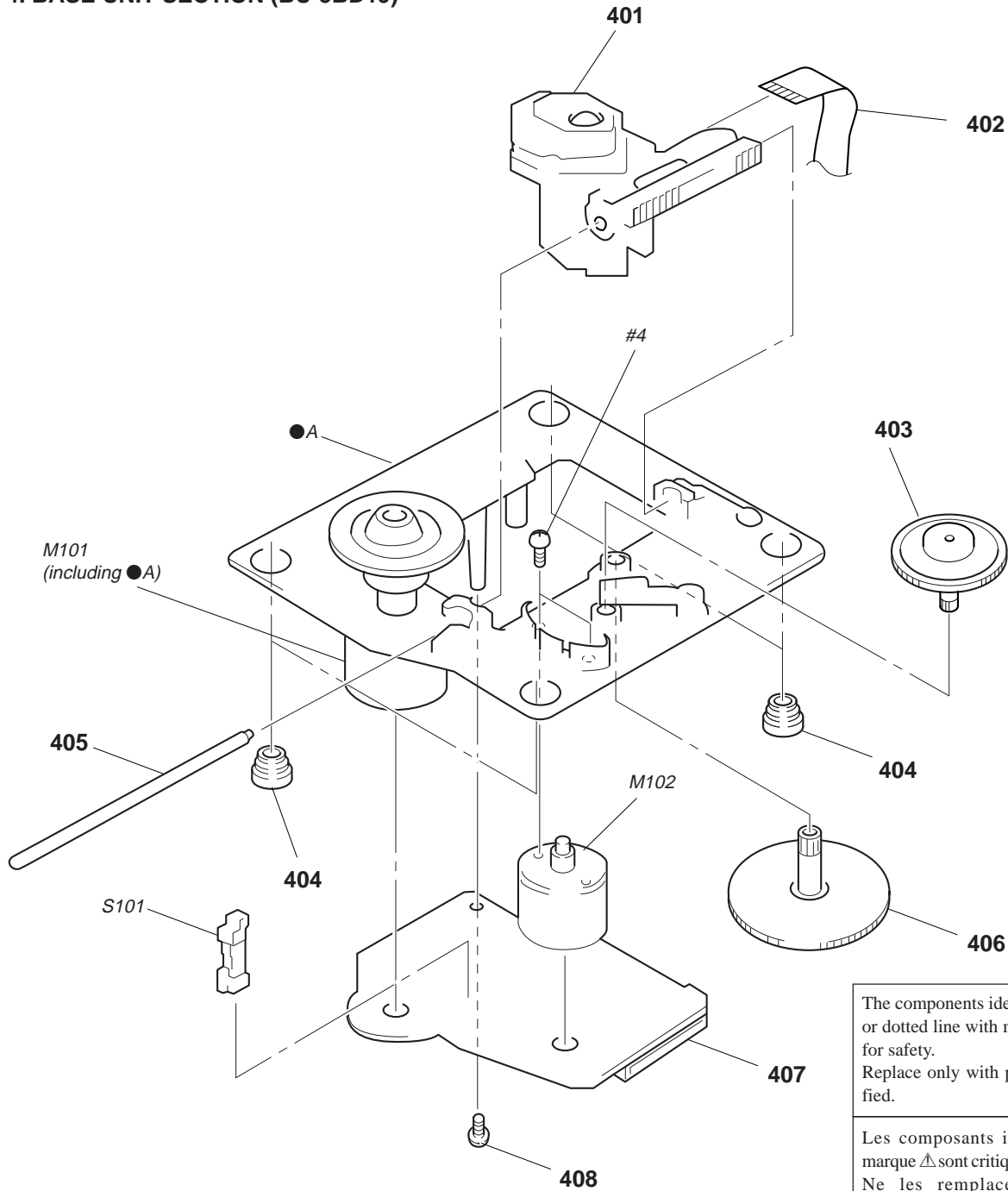
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-951-620-01	SCREW (2.6X8), +BVTP		* 64	4-982-198-01	BRACKET (BUTTON)	
* 52	1-661-174-11	FUNCTION BOARD		65	4-982-193-01	BUTTON (OPEN)	
53	4-982-194-01	BUTTON		66	3-701-443-11	WASHER	
54	4-982-196-02	BASE, BUTTON		67	4-982-191-01	DOOR	
55	4-977-358-11	CUSHION (8X12.5)		68	3-354-963-01	DAMPER	
56	4-982-192-01	PLATE, INDICATION	EXCEPT US, CND models	69	4-982-190-02	COVER	
57	4-963-404-21	EMBLEM (5-A), SONY		* 70	1-661-176-11	DOOR SW BOARD	
58	4-982-188-01	PANEL, FRONT		71	4-982-195-01	SPRING (DOOR), TORSION	
59	3-931-429-01	BUTTON (POWER)		* 72	A-4699-013-A	DISPLAY BOARD, COMPLETE	
* 60	1-661-175-11	POWER SW BOARD		73	4-977-593-11	RING (DIA. 50), ORNAMENTAL (EXCEPT US,CND)	
61	A-4672-189-A	LEVER ASSY, LOCK		FL401	1-517-522-11	INDICATOR TUBE, FLUORESCENT	
62	4-933-134-01	SCREW (+PTPWH M2.6X6)					
63	4-982-199-01	SPRING (LEVER), TORSION					

### 7-3. CD MECHANISM SECTION (CDM37-5BD19)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
351	4-978-423-01	SCREW, STEP		* 362	4-978-418-01	CHASSIS	
352	4-944-490-01	BELT (TIMING)		* 363	4-980-385-01	HOLDER (SW)	
353	A-4660-978-A	GEAR (PULLEY) ASSY		* 364	A-4673-765-A	CD MOTOR BOARD, COMPLETE	
354	4-978-421-01	GEAR (MID)		365	4-978-426-01	INDICATOR (NO.)	
355	4-978-425-01	ROLLER (CAM)					
356	4-978-420-01	CAM (HOLDER)		* 366	1-659-059-13	LED BOARD	
357	1-452-538-11	MAGNET		* 367	1-659-058-13	TABLE SENSOR BOARD	
358	4-978-417-01	TABLE, DISC		368	4-933-134-01	SCREW (+PTPWH M2.6X6)	
359	4-934-376-01	SHAFT (ROLLER)		369	4-958-593-01	SPRING (BU), COMPRESSION	
360	X-4924-457-1	ROLLER ASSY		* 370	4-978-419-01	HOLDER (BU-5)	
* 361	4-978-583-01	BRACKET (BU)		371	4-917-583-71	BRACKET, YOKE	
				M201	A-4660-977-A	MOTOR ASSY (TABLE)	

### 7-4. BASE UNIT SECTION (BU-5BD19)



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

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
$\Delta$ 401	8-848-367-11	OPTICAL PICK-UP KSS-213BA/F-NP		* 407	A-4673-402-A	BD BOARD, COMPLETE	
402	1-769-069-11	WIRE (FLAT TYPE)(16 CORE)		408	4-951-620-01	SCREW (2.6X8), +BVTP	
403	4-917-567-01	GEAR (M)		M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
404	4-951-940-01	INSULATOR (BU)		M102	X-4917-504-1	MOTOR ASSY (SLED)	
405	4-917-565-01	SHAFT, SLED		S101	1-572-085-11	SWITCH, LEAF (LIMIT)	
406	4-917-564-01	GEAR (P), FLATNESS					

# SECTION 8 ELECTRICAL PARTS LIST

BD

**Note:**

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

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

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

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- 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:  $\mu$ , for example:  
uA...:  $\mu$  A..., uPA...:  $\mu$  PA..., uPB...:  $\mu$  PB...,  
uPC...:  $\mu$  PC..., uPD...:  $\mu$  PD...
- CAPACITORS  
uF :  $\mu$  F
- COILS  
uH :  $\mu$  H
- Abbreviation  
CND : Canadian model  
G : German model  
SP : Singapore model.  
AUS : Australian model

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4673-402-A	BD BOARD, COMPLETE *****		C139	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
		< CAPACITOR >		C140	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
C1	1-162-600-11	CERAMIC CHIP 4700uF	10% 16V	C141	1-163-038-91	CERAMIC CHIP 0.1uF	25V
C101	1-126-607-11	ELECT CHIP 47uF	20% 4V	C142	1-163-038-91	CERAMIC CHIP 0.1uF	25V
C102	1-163-275-11	CERAMIC CHIP 0.001uF	5% 50V	C145	1-135-201-11	TANTALUM CHIP 10uF	20% 4V
C103	1-164-346-11	CERAMIC CHIP 1uF	16V	C146	1-135-201-11	TANTALUM CHIP 10uF	20% 4V
C105	1-163-038-91	CERAMIC CHIP 0.1uF	25V	C147	1-163-275-11	CERAMIC CHIP 0.001uF	5% 50V
C106	1-164-695-11	CERAMIC CHIP 0.0022uF	5% 50V	C148	1-163-275-11	CERAMIC CHIP 0.001uF	5% 50V
C107	1-164-695-11	CERAMIC CHIP 0.0022uF	5% 50V	C149	1-164-346-11	CERAMIC CHIP 1uF	16V
C108	1-164-232-11	CERAMIC CHIP 0.01uF	50V	C153	1-135-259-11	TANTAL. CHIP 10uF	20% 6.3V
C109	1-164-232-11	CERAMIC CHIP 0.01uF	50V	C154	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
C110	1-163-989-11	CERAMIC CHIP 0.033uF	10% 25V			< CONNECTOR >	
C111	1-163-038-91	CERAMIC CHIP 0.1uF	25V	CNU101	1-770-014-11	CONNECTOR, FFC/FPC 16P	
C112	1-163-038-91	CERAMIC CHIP 0.1uF	25V	CNU102	1-770-013-11	CONNECTOR, FFC/FPC 19P	
C113	1-164-695-11	CERAMIC CHIP 0.0022uF	5% 50V			< IC >	
C114	1-164-005-11	CERAMIC CHIP 0.47uF	25V	IC101	8-752-069-56	IC CXA1782BQ	
C115	1-126-607-11	ELECT CHIP 47uF	20% 4V	IC102	8-759-291-06	IC BA6397FP-T1	
C116	1-163-016-00	CERAMIC CHIP 0.0039uF	10% 50V	IC103	8-752-372-94	IC CXD2507AQ	
C117	1-164-005-11	CERAMIC CHIP 0.47uF	25V	IC104	8-759-185-29	IC PCM1710U-B	
C118	1-107-823-11	CERAMIC CHIP 0.47uF	10% 16V			< MOTOR >	
C119	1-163-038-91	CERAMIC CHIP 0.1uF	25V	M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
C120	1-135-201-11	TANTALUM CHIP 10uF	20% 4V	M102	X-4917-504-1	MOTOR ASSY (SLED)	
C121	1-163-038-91	CERAMIC CHIP 0.1uF	25V			< TRANSISTOR >	
C122	1-164-232-11	CERAMIC CHIP 0.01uF	50V	Q101	8-729-010-08	TRANSISTOR MSB710-R	
C123	1-163-038-91	CERAMIC CHIP 0.1uF	25V	Q102	8-729-424-08	TRANSISTOR UN2111	
C124	1-126-607-11	ELECT CHIP 47uF	20% 4V	Q103	8-729-421-22	TRANSISTOR UN2211	
C125	1-164-232-11	CERAMIC CHIP 0.01uF	50V			< RESISTOR >	
C126	1-163-038-91	CERAMIC CHIP 0.1uF	25V	R102	1-216-001-00	METAL CHIP 10	5% 1/10W
C127	1-164-695-11	CERAMIC CHIP 0.0022uF	5% 50V	R103	1-216-049-91	METAL GLAZE 1K	5% 1/10W
C128	1-163-135-00	CERAMIC CHIP 560PF	5% 50V	R104	1-216-097-91	METAL GLAZE 100K	5% 1/10W
C129	1-163-038-91	CERAMIC CHIP 0.1uF	25V	R105	1-216-093-00	METAL CHIP 68K	5% 1/10W
C130	1-164-336-11	CERAMIC CHIP 0.33uF	25V	R106	1-216-093-00	METAL CHIP 68K	5% 1/10W
C131	1-163-038-91	CERAMIC CHIP 0.1uF	25V	R107	1-216-093-00	METAL CHIP 68K	5% 1/10W
C132	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V	R108	1-216-093-00	METAL CHIP 68K	5% 1/10W
C133	1-163-145-00	CERAMIC CHIP 0.0015uF	5% 50V	R109	1-216-097-91	METAL GLAZE 100K	5% 1/10W
C134	1-164-346-11	CERAMIC CHIP 1uF	16V	R112	1-216-083-00	METAL CHIP 27K	5% 1/10W
C135	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	R113	1-216-083-00	METAL CHIP 27K	5% 1/10W
C136	1-164-005-11	CERAMIC CHIP 0.47uF	25V				
C137	1-164-232-11	CERAMIC CHIP 0.01uF	50V				

**BD**

**CD MOTOR**

**DISPLAY**

Ref. No.	Part No.	Description	Remark
R114	1-216-101-00	METAL CHIP 150K 5%	1/10W
R115	1-216-101-00	METAL CHIP 150K 5%	1/10W
R116	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R117	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
R118	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R119	1-216-089-91	METAL GLAZE 47K 5%	1/10W
R120	1-216-089-91	METAL GLAZE 47K 5%	1/10W
R121	1-216-114-00	METAL GLAZE 510K 5%	1/10W
R122	1-216-097-91	METAL GLAZE 100K 5%	1/10W
R123	1-216-099-00	METAL CHIP 120K 5%	1/10W
R124	1-216-091-00	METAL CHIP 56K 5%	1/10W
R125	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
R126	1-216-063-91	METAL GLAZE 3.9K 5%	1/10W
R127	1-216-089-91	METAL GLAZE 47K 5%	1/10W
R128	1-216-105-91	METAL GLAZE 220K 5%	1/10W
R129	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R130	1-216-079-00	METAL CHIP 18K 5%	1/10W
R131	1-216-079-00	METAL CHIP 18K 5%	1/10W
R132	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R133	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R134	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R135	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R136	1-216-073-00	METAL CHIP 10K 5%	1/10W
R137	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R138	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R139	1-216-033-00	METAL CHIP 220 5%	1/10W
R140	1-216-081-00	METAL CHIP 22K 5%	1/10W
R141	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R142	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R143	1-216-121-91	METAL GLAZE 1M 5%	1/10W
R144	1-216-073-00	METAL CHIP 10K 5%	1/10W
R145	1-216-097-91	METAL GLAZE 100K 5%	1/10W
R146	1-216-097-91	METAL GLAZE 100K 5%	1/10W
R147	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R148	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R149	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R150	1-216-037-00	METAL CHIP 330 5%	1/10W
R151	1-216-037-00	METAL CHIP 330 5%	1/10W
R152	1-216-037-00	METAL CHIP 330 5%	1/10W
R153	1-216-082-00	METAL GLAZE 24K 5%	1/10W
R154	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R156	1-216-085-00	METAL CHIP 33K 5%	1/10W
R157	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
R158	1-216-001-00	METAL CHIP 10 5%	1/10W
		< VARIABLE RESISTOR >	
RV101	1-241-396-11	RES, ADJ, METAL GLAZE 22K	
RV102	1-241-396-11	RES, ADJ, METAL GLAZE 22K	
RV103	1-241-396-11	RES, ADJ, METAL GLAZE 22K	
		< SWITCH >	
S101	1-572-085-11	SWITCH, LEAF (LIMIT)	

Ref. No.	Part No.	Description	Remark
		< VIBRATOR >	
X101	1-579-280-11	VIBRATOR, CRYSTAL (16.9344MHZ)	
*****			
*	A-4673-765-A	CD MOTOR BOARD, COMPLETE	*****
*	4-980-385-01	HOLDER (SW)	
		< CAPACITOR >	
C201	1-124-907-11	ELECT 10uF 20%	50V
C202	1-164-159-21	CERAMIC 0.1uF	50V
C203	1-124-907-11	ELECT 10uF 20%	50V
		< CONNECTOR >	
* CN201	1-568-947-11	PIN, CONNECTOR 9P	
		< IC >	
IC201	8-759-365-94	IC TA8409S	
		< COIL >	
L201	1-408-117-00	INDUCTOR 10uH	
		< MOTOR >	
M201	A-4660-977-A	MOTOR ASSY (TABLE)	
		< RESISTOR >	
R205	1-249-427-11	CARBON 6.8K 5%	1/4W F
R206	1-249-425-11	CARBON 4.7K 5%	1/4W F
		< SWITCH >	
△ S201	1-762-587-11	SWITCH, PUSH (1 KEY)(UP)	
*****			
*	A-4699-013-A	DISPLAY BOARD, COMPLETE	*****
		< CAPACITOR >	
C401	1-126-513-11	ELECT 47uF 20%	6.3V
C402	1-161-494-00	CERAMIC 0.022uF	25V
C403	1-161-494-00	CERAMIC 0.022uF	25V
C404	1-164-159-21	CERAMIC 0.1uF	50V
C405	1-161-494-00	CERAMIC 0.022uF	25V
		< CONNECTOR >	
CN401	1-568-796-11	SOCKET, CONNECTOR 22P	
* CN403	1-568-941-11	PIN, CONNECTOR 3P	
* CN404	1-568-942-11	PIN, CONNECTOR 4P	

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

**DISPLAY**

**DOOR SW**

**FUNCTION**

**LED**

**MAIN**

Ref. No.	Part No.	Description	Remark
		< FLUORESCENT INDICATOR >	
FL401	1-517-522-11	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC401	8-752-859-44	IC CXP82316-065Q	
IC402	8-759-339-53	IC GP1U28XB	
		< RESISTOR >	
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	1-249-429-11	CARBON 10K 5% 1/4W	
R404	1-249-429-11	CARBON 10K 5% 1/4W	
R405	1-249-429-11	CARBON 10K 5% 1/4W	
		< VIBRATOR >	
X401	1-579-233-11	VIBRATOR, CERAMIC (5MHz)	
*****			
*	1-661-176-11	DOOR SW BOARD *****	
		< SWITCH >	
S701	1-762-730-11	SWITCH, PUSH (1 KEY)(DOOR SW)	
*****			
*	1-661-174-11	FUNCTION BOARD *****	
		< RESISTOR >	
R511	1-249-415-11	CARBON 680 5% 1/4W F	
R512	1-249-417-11	CARBON 1K 5% 1/4W F	
R513	1-249-419-11	CARBON 1.5K 5% 1/4W F	
R514	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R515	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R516	1-249-427-11	CARBON 6.8K 5% 1/4W F	
R521	1-249-415-11	CARBON 680 5% 1/4W F	
R522	1-249-417-11	CARBON 1K 5% 1/4W F	
R523	1-249-419-11	CARBON 1.5K 5% 1/4W F	
R524	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R525	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R526	1-249-427-11	CARBON 6.8K 5% 1/4W F	
		< SWITCH >	
S511	1-762-196-21	SWITCH, TACT (▷ ▨)	
S512	1-762-196-21	SWITCH, TACT (DISC 1)	
S513	1-762-196-21	SWITCH, TACT (DISC 2)	
S514	1-762-196-21	SWITCH, TACT (DISC 3)	
S515	1-762-196-21	SWITCH, TACT (PROGRAM)	
S516	1-762-196-21	SWITCH, TACT (SHUFFLE)	
S517	1-762-196-21	SWITCH, TACT (CONTINUE)	

Ref. No.	Part No.	Description	Remark
S521	1-762-196-21	SWITCH, TACT (■)	
S522	1-762-196-21	SWITCH, TACT (▷▷ ▷▷▷)	
S523	1-762-196-21	SWITCH, TACT (◁◁ ◁◁◁)	
S524	1-762-196-21	SWITCH, TACT (DISC 5)	
S525	1-762-196-21	SWITCH, TACT (DISC 4)	
S526	1-762-196-21	SWITCH, TACT (REPEAT)	
S527	1-762-196-21	SWITCH, TACT (DISC SKIP)	
*****			
*	1-659-059-13	LED BOARD *****	
		< DIODE >	
D201	8-719-032-98	DIODE SEL5820A (DISC No.)	
		< TRANSISTOR >	
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		< RESISTOR >	
R201	1-247-863-91	CARBON 22K 5% 1/4W	
R202	1-249-411-11	CARBON 330 5% 1/4W	
R203	1-249-437-11	CARBON 47K 5% 1/4W	
*****			
*	A-4699-249-A	MAIN BOARD, COMPLETE (US,CND) *****	
*	A-4699-011-A	MAIN BOARD, COMPLETE (AEP,UK,G,AUS,SP) *****	
*	A-4699-012-A	MAIN BOARD, COMPLETE (E) *****	
	7-685-871-01	SCREW +BVTT 3X6 (S)	
		< CAPACITOR >	
C301	1-126-936-11	ELECT 3300uF 20% 16V	
C302	1-126-952-11	ELECT 1000uF 20% 16V	
C303	1-161-494-00	CERAMIC 0.022uF 25V	
C304	1-128-552-51	ELECT 47uF 20% 63V	
C305	1-126-964-11	ELECT 10uF 20% 50V	
C306	1-164-159-21	CERAMIC 0.1uF 50V	
C307	1-126-964-11	ELECT 10uF 20% 50V	
C308	1-126-963-11	ELECT 4.7uF 20% 50V	
C309	1-126-923-11	ELECT 220uF 20% 10V	
C311	1-126-935-11	ELECT 470uF 20% 6.3V	
C321	1-162-290-31	CERAMIC 470PF 10% 50V	
C322	1-162-290-31	CERAMIC 470PF 10% 50V	
C323	1-162-290-31	CERAMIC 470PF 10% 50V	
C324	1-162-290-31	CERAMIC 470PF 10% 50V	
C325	1-161-494-00	CERAMIC 0.022uF 25V	
C326	1-161-494-00	CERAMIC 0.022uF 25V	

**MAIN**      **POWER**

Ref. No.	Part No.	Description	Remark
C331	1-126-933-11	ELECT	100uF 20% 16V
C332	1-161-494-00	CERAMIC	0.022uF 25V
C333	1-126-962-11	ELECT	3.3uF 20% 50V
C341	1-164-159-21	CERAMIC	0.1uF 50V
C342	1-162-199-31	CERAMIC	10PF 5% 50V (US,CND)
C343	1-162-199-31	CERAMIC	10PF 5% 50V (US,CND)
C344	1-161-494-00	CERAMIC	0.022uF 25V (US,CND)
C802	1-130-475-00	MYLAR	0.0022uF 5% 50V
C803	1-130-475-00	MYLAR	0.0022uF 5% 50V
C804	1-126-933-11	ELECT	100uF 20% 10V
C805	1-130-477-00	MYLAR	0.0033uF 5% 50V
C902	1-130-475-00	MYLAR	0.0022uF 5% 50V
C903	1-130-475-00	MYLAR	0.0022uF 5% 50V
C904	1-126-933-11	ELECT	100uF 20% 10V
C905	1-130-477-00	MYLAR	0.0033uF 5% 50V
< CONNECTOR >			
CN301	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P	
CN302	1-695-345-41	PIN, CONNECTOR (PC BOARD) 22P	
* CN303	1-568-936-11	PIN, CONNECTOR 9P	
CN304	1-770-167-11	CONNECTOR, FFC/FPC 19P	
< DIODE >			
D301	8-719-200-82	DIODE 11ES2	
D302	8-719-200-82	DIODE 11ES2	
D303	8-719-200-82	DIODE 11ES2	
D304	8-719-200-82	DIODE 11ES2	
D305	8-719-200-82	DIODE 11ES2	
D306	8-719-121-24	DIODE RD9.1ES-L	
D331	8-719-987-63	DIODE 1N4148M	
D332	8-719-010-33	DIODE UZ-4.7BSB	
D333	8-719-987-63	DIODE 1N4148M	
< IC >			
IC301	8-759-330-29	IC LA5616	
IC302	8-759-633-42	IC M5293L	
IC801	8-759-634-51	IC M5218AP	
< JACK >			
J301	1-770-719-11	JACK, PIN 2P (LINE OUT)	
< COIL >			
L341	1-410-396-41	FERRITE BEAD INDUCTOR	
< TRANSISTOR >			
Q301	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q331	8-729-900-65	TRANSISTOR DTA144ES	

Ref. No.	Part No.	Description	Remark
Q801	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q901	8-729-141-26	TRANSISTOR 2SC3622A-LK	
< RESISTOR >			
R301	1-249-435-11	CARBON	33K 5% 1/4W
R302	1-249-429-11	CARBON	10K 5% 1/4W
R303	1-249-438-11	CARBON	56K 5% 1/4W
R312	1-249-441-11	CARBON	100K 5% 1/4W
R321	1-247-807-31	CARBON	100 5% 1/4W
R322	1-247-807-31	CARBON	100 5% 1/4W
R323	1-247-807-31	CARBON	100 5% 1/4W
R324	1-247-807-31	CARBON	100 5% 1/4W
R325	1-247-807-31	CARBON	100 5% 1/4W
R326	1-247-807-31	CARBON	100 5% 1/4W
R327	1-249-429-11	CARBON	10K 5% 1/4W
R328	1-249-429-11	CARBON	10K 5% 1/4W
R329	1-249-429-11	CARBON	10K 5% 1/4W
R331	1-249-411-11	CARBON	330 5% 1/4W
R333	1-249-425-11	CARBON	4.7K 5% 1/4W F
R334	1-249-425-11	CARBON	4.7K 5% 1/4W F
R335	1-249-425-11	CARBON	4.7K 5% 1/4W F
R801	1-249-441-11	CARBON	100K 5% 1/4W
R802	1-249-421-11	CARBON	2.2K 5% 1/4W F
R803	1-249-421-11	CARBON	2.2K 5% 1/4W F
R804	1-249-429-11	CARBON	10K 5% 1/4W
R805	1-249-428-11	CARBON	8.2K 5% 1/4W F
R806	1-247-887-00	CARBON	220K 5% 1/4W
R807	1-249-417-11	CARBON	1K 5% 1/4W F
R901	1-249-441-11	CARBON	100K 5% 1/4W
R902	1-249-421-11	CARBON	2.2K 5% 1/4W F
R903	1-249-421-11	CARBON	2.2K 5% 1/4W F
R904	1-249-429-11	CARBON	10K 5% 1/4W
R905	1-249-428-11	CARBON	8.2K 5% 1/4W F
R906	1-247-887-00	CARBON	220K 5% 1/4W
R907	1-249-417-11	CARBON	1K 5% 1/4W F
< SWITCH >			
S301	1-572-675-11	SWITCH, POWER (VOLTAGE SELECTOR)(E)	
< TRANSFORMER >			
△ T301	1-429-650-11	TRANSFORMER, POWER (US,CND)	
△ T301	1-429-651-11	TRANSFORMER, POWER (AEP,UK,G,AUS,SP)	
△ T301	1-429-652-11	TRANSFORMER, POWER (E)	
*****			
*	1-661-175-11	POWER SW BOARD *****	
< SWITCH >			
S601	1-554-118-00	SWITCH, PUSH (1 KEY)(POWER)	
*****			

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

Ref. No.	Part No.	Description	Remark
*	1-659-058-13	TABLE SENSOR BOARD *****	
		< IC >	
IC202	8-749-924-18	IC PHOTO INTERRUPTER RPI-1391  < RESISTOR >	
R207	1-249-416-11	CARBON            820            5%            1/4W F	

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MISCELLANEOUS  
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△ 4	1-569-007-11	ADAPTOR, CONVERSION 2P (E)
△ 4	1-569-008-11	ADAPTOR, CONVERSION 2P (SP)
7	1-777-157-11	WIRE (FLAT TYPE) (19 CORE)
8	1-777-158-11	WIRE (FLAT TYPE) (22 CORE)
357	1-452-538-11	MAGNET
△ 401	8-848-367-11	OPTICAL PICK-UP KSS-213BA/F-NP
402	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)
△ CNP901	1-575-042-21	CORD, POWER (US,CND)
△ CNP901	1-575-651-21	CORD, POWER (AEP,G,SP)
△ CNP901	1-696-027-11	CORD, POWER (E)
△ CNP901	1-696-845-11	CORD, POWER (AUS)
△ CNP901	1-751-529-11	CORD, POWER (UK)
FL401	1-517-522-11	INDICATOR TUBE, FLUORESCENT
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)
M102	X-4917-504-1	MOTOR ASSY (SLED)
M201	A-4660-977-A	MOTOR ASSY (TABLE)
S101	1-572-085-11	SWITCH, LEAF (LIMIT)
△ T301	1-429-650-11	TRANSFORMER, POWER (US,CND)
△ T301	1-429-651-11	TRANSFORMER, POWER (AEP,UK,G,AUS,SP)
△ T301	1-429-652-11	TRANSFORMER, POWER (E)

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ACCESSORIES & PACKING MATERIALS  
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	1-558-271-11	CORD, CONNECTION (AUDIO 108cm)
	3-856-161-11	MANUAL, INSTRUCTION (ENGLISH)(US,AUS)
	3-856-161-21	MANUAL, INSTRUCTION (ENGLISH,FRENCH,SPANISH,SWEDISH,CHINESE) (CND,AEP,UK,E,SP)
	3-856-161-31	MANUAL, INSTRUCTION (CHINESE,DUTCH,ITALIAN,PORTUGUESE)(AEP,G)
	3-856-161-41	MANUAL, INSTRUCTION (DANISH,FINNISH)(AEP)
*	4-982-247-01	INDIVIDUAL CARTON (US,CND,AUS)
*	4-984-674-01	CUSHION
*	4-985-172-01	INDIVIDUAL CARTON (AEP,G,UK)
*	4-985-173-01	INDIVIDUAL CARTON (E,SP)

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Ref. No.	Part No.	Description	Remark
		***** HARDWARE LIST *****	
#1	7-682-548-04	SCREW +BVTT 3X8 (S)	
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#3	7-685-871-01	SCREW +BVTT 3X6 (S)	
#4	7-621-255-15	SCREW +P 2X3	

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