

CDP-CX100 / CX100S

SERVICE MANUAL

US Model
CDP-CX100/CX100S

Canadian Model
AEP Model
UK Model
CDP-CX100



Photo : CDP-CX100

Model Name Using Similar Mechanism	NEW
CD Mechanism Type	CDM-30
Optical Pick-up Block Type	KSM-310ABM

SPECIFICATIONS

Compact Disc Player

System	Compact disc digital audio system
Laser	Semiconductor laser
Wavelength	780-790 nm
Frequency response	2 Hz-20 kHz (± 0.3 dB)
Signal to noise ratio	More than 116 dB
Dynamic range	More than 100 dB
Harmonic distortion	Less than 0.0025%
Channel separation	More than 110 dB

Outputs

LINE OUT (FIXED) (phono jacks)	Output level 2 V (at 50 kilohms) Load impedance over 10 kilohms
LINE OUT (VARIABLE) (phono jacks)	Output level max. 2 V (at 50 kilohms) Load impedance over 10 kilohms
DIGITAL OUTPUT (optical output connector)	Wave length 660 nm (OPTICAL) Output level -18 dBm
PHONES (stereo phone jack)	Output level max. 15 mW Load impedance 32 ohms

General

Power requirements	120 V AC, 60 Hz (US, Canadian) 220 — 240V AC, 50/60Hz (AEP, UK)
Power consumption	20 W
Dimensions	When the front cover is closed Approx. 430 × 240 × 470 mm (w/h/d) (17 × 9½ × 18⅝ inches) When the front cover is open Approx. 430 × 380 × 470 mm (w/h/d) (17 × 15 × 18⅝ inches) Including projecting parts and controls
Mass	Approx. 10.0 kg, net (22 lb 1 oz)

Remote Commander RM-DX100 (CDP-CX100 only)

Remote control system	Infrared control
Power requirements	3 V DC with two size AA batteries (IEC designation R6)
Dimensions	68 × 44 × 200 mm (w/h/d) (2¾ × 1¾ × 7⅞ inches)
Mass	185 g (6.6 oz) including batteries

Design and specifications are subject to change without notice.



COMPACT DISC PLAYER
SONY®

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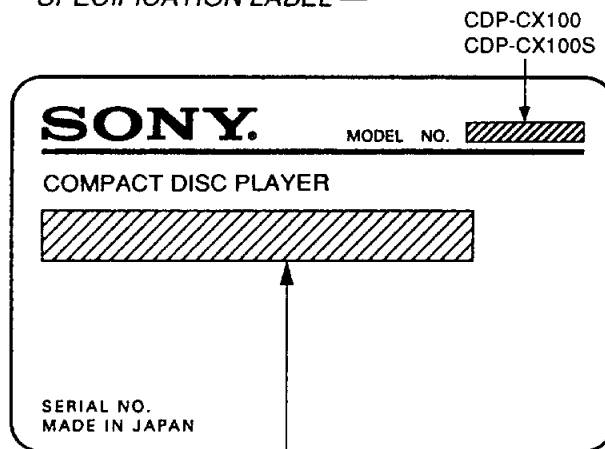
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SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK Δ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS 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.

MODEL IDENTIFICATION

— SPECIFICATION LABEL —



US, Canadian model : 120V AC, 60Hz, 20W
 AEP, UK model : 220 — 240V AC, 50/60Hz, 20W

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.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MAPQUE Δ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÈCES CONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

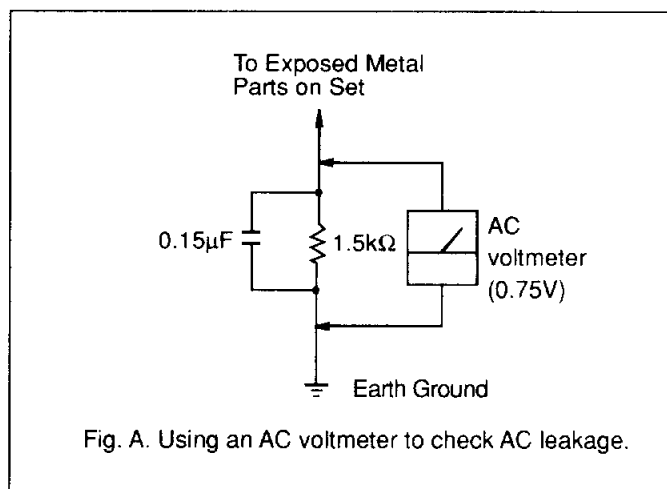
SAFETY CHECK-OUT

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 SERVICE NOTE

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

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic break-down 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.

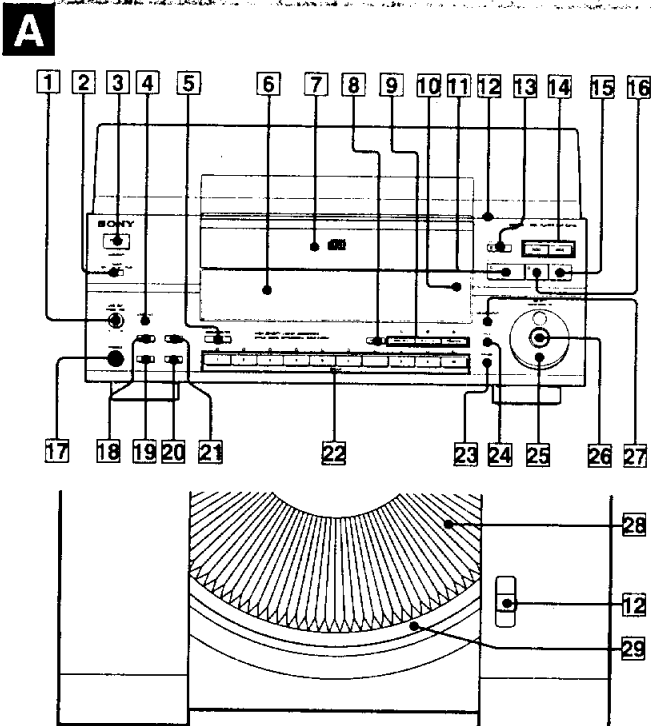
LASER DIODE AND FOCUS SEARCH OPERATION CHECK

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

SECTION 2 GENERAL

This section is extracted from instruction manual.

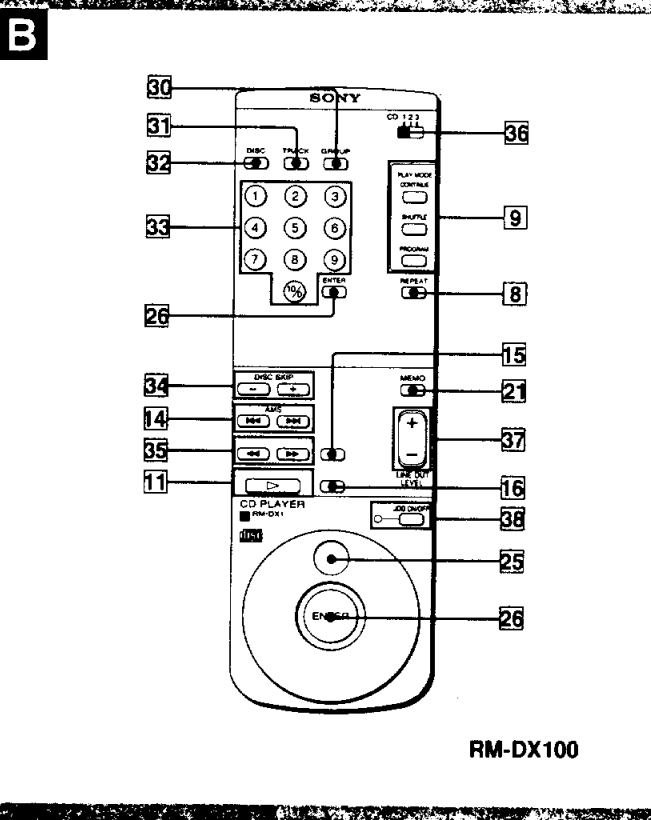
Identifying the Parts



Front Panel A Remote Commander RM-DX1 B

See the pages indicated in () for details. For the remote commander RM-P332, refer to the instruction manual of the amplifier TA-E731X.

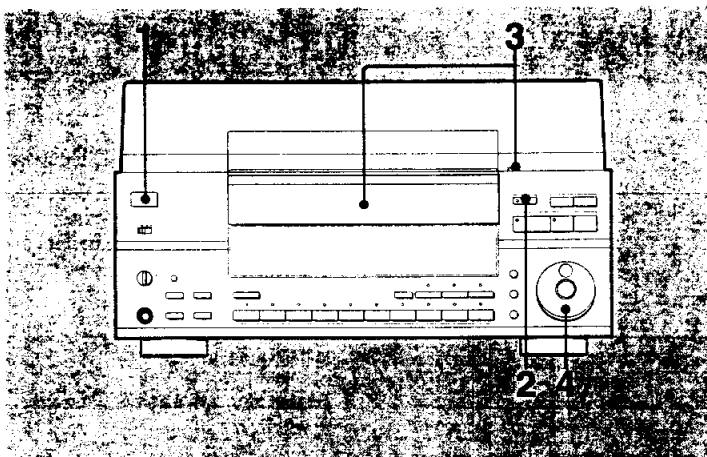
- 1 LINE OUT/PHONE LEVEL control (6)
- 2 TIMER switch (34)
- 3 POWER switch (9)
- 4 LEVEL FILE button (29)
- 5 GROUP ENTRY button (31)
- 6 Display (9)
- 7 Front cover (9)
- 8 REPEAT button (23)
- 9 PLAY MODE buttons
CONTINUE button (12)
SHUFFLE button (17)
PROGRAM button (19)
- 10 Remote sensor (5)
- 11 ► (play) button (13)
- 12 OPEN lever (9)
- 13 UNLOAD button (9)
- 14 ◀▶ (AMS*) buttons (16)
- 15 ■ (stop) button (13)
- 16 || (pause) button (13)
- 17 PHONES jack (14)
- 18 TIME button (15)
- 19 CHECK button (22)
- 20 CLEAR button (21)
- 21 MEMO button (32)
- 22 GROUP 1-10 buttons (30)
- 23 ERASE button (26)
- 24 FILE button (26)
- 25 JOG dial (9)
- 26 ENTER button (12)
- 27 MEMO INPUT button (25)
- 28 Disc slit (9)
- 29 Rotary table (9)
- 30 GROUP button (32)
- 31 TRACK button (16)
- 32 DISC button (13)
- 33 Numeric buttons (13)
- 34 DISC SKIP +/- buttons (14)
- 35 ◀▶▶▶ (manual search) buttons (16)
- 36 CD 1-2-3 selector (7)
- 37 LINE OUT LEVEL +/- button (6)
- 38 JOG ON/OFF button and indicator (8)



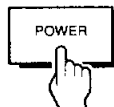
Notes on the JOG dial and the JOG ON/OFF button on the remote commander

- Before using the JOG dial on the remote commander, press the JOG ON/OFF button on the remote commander to turn on the indicator beside the button.
- After using the JOG dial on the remote commander, press the JOG ON/OFF button again to turn off the indicator. The operation of the dial is canceled.

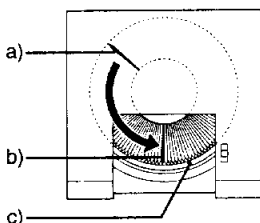
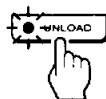
* AMS is the abbreviation for Automatic Music Sensor.



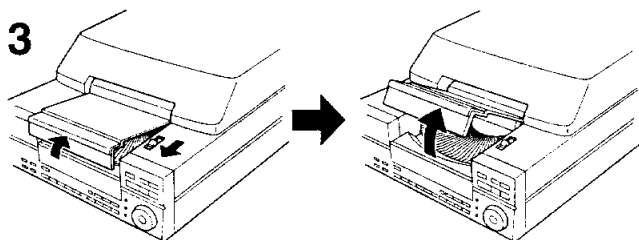
1



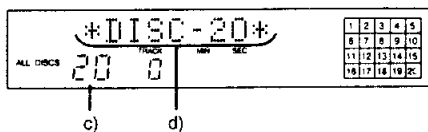
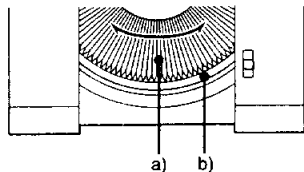
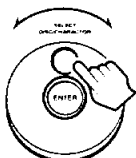
2



3



4



Installing Discs

The CDP-CX100/CX100S allows you to install up to 100 discs. You can assign a name to each disc so that you can locate the disc easily (see page 25).

Inserting Discs

1 Press POWER to turn on the player.
The display lights up.

2 Press UNLOAD.
The UNLOAD button indicator flashes. The rotary table turns and the disc slit at the playing position is released and comes to the loading position. The UNLOAD button indicator lights up.

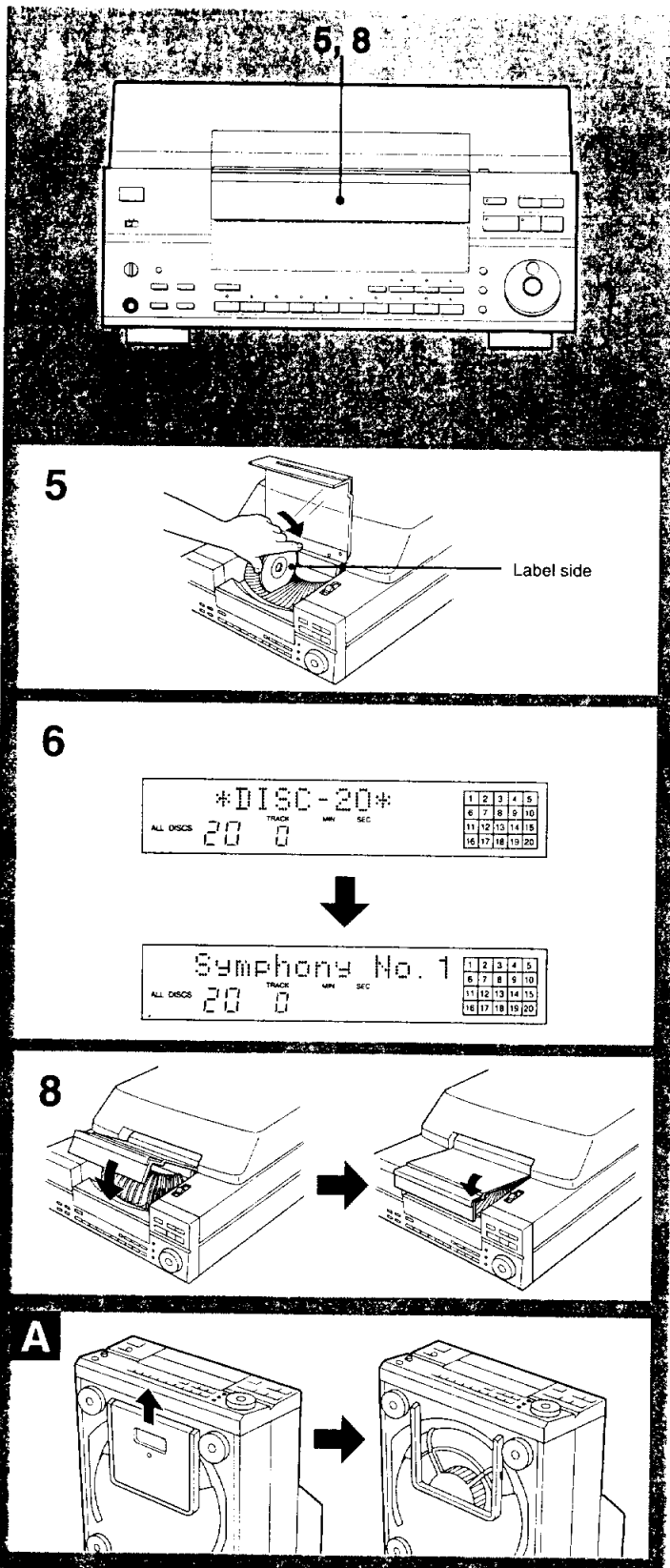
- a) Playing position
The position of the current disc (disc playing or ready to be played)
When a disc is set to the playing position, "DISC HOLD" appears in the display.
The UNLOAD button indicator is unlit.
- b) Loading position
The position if the current disc that can be taken out or replaced.
The UNLOAD button indicator is lit.
- c) Rotary table

3 Slide the OPEN lever to the opening position, then manually open the front cover.

4 Rotate the JOG dial to turn the rotary table and move any disc slit to the loading position.

- a) Disc slit at the loading position (Current disc slit)
The disc in this slit (current disc) is played first when you press ► or ENTER.
- b) Disc number
- c) Current disc number
- d) Disc memo
You can input your original disc memo titles instead of the current disc numbers. "*DISC-1, 2 etc.*" (see page 25).

(Continued)



Installing Discs

5 Insert a disc vertically, with the label facing right.

6 You can input your original disc memo titles instead of the current disc numbers, "*DISC-1, 2 etc.*" (see page 25).

This is convenient when many discs are installed, you can easily find what disc is in the current disc slit.

7 Repeat step 4 to 6 to insert more discs.

8 Close the front cover.

Press the right edge of the cover until the OPEN lever clicks.

If you insert a disc with the label facing left

"-NO DISC-" appears when the disc is set to the playing position. Press UNLOAD and re-insert the disc with the label facing right.

Note on the rotary table

You cannot rotate the table when the UNLOAD button indicator is unlit (while a disc is set to the playing position or while "-NO DISC-" appears). Press UNLOAD to turn on the indicator. The current disc slit will come to the loading position, then you can rotate the rotary table using the JOG dial.

When inserting an 8 cm (3-inch) CD

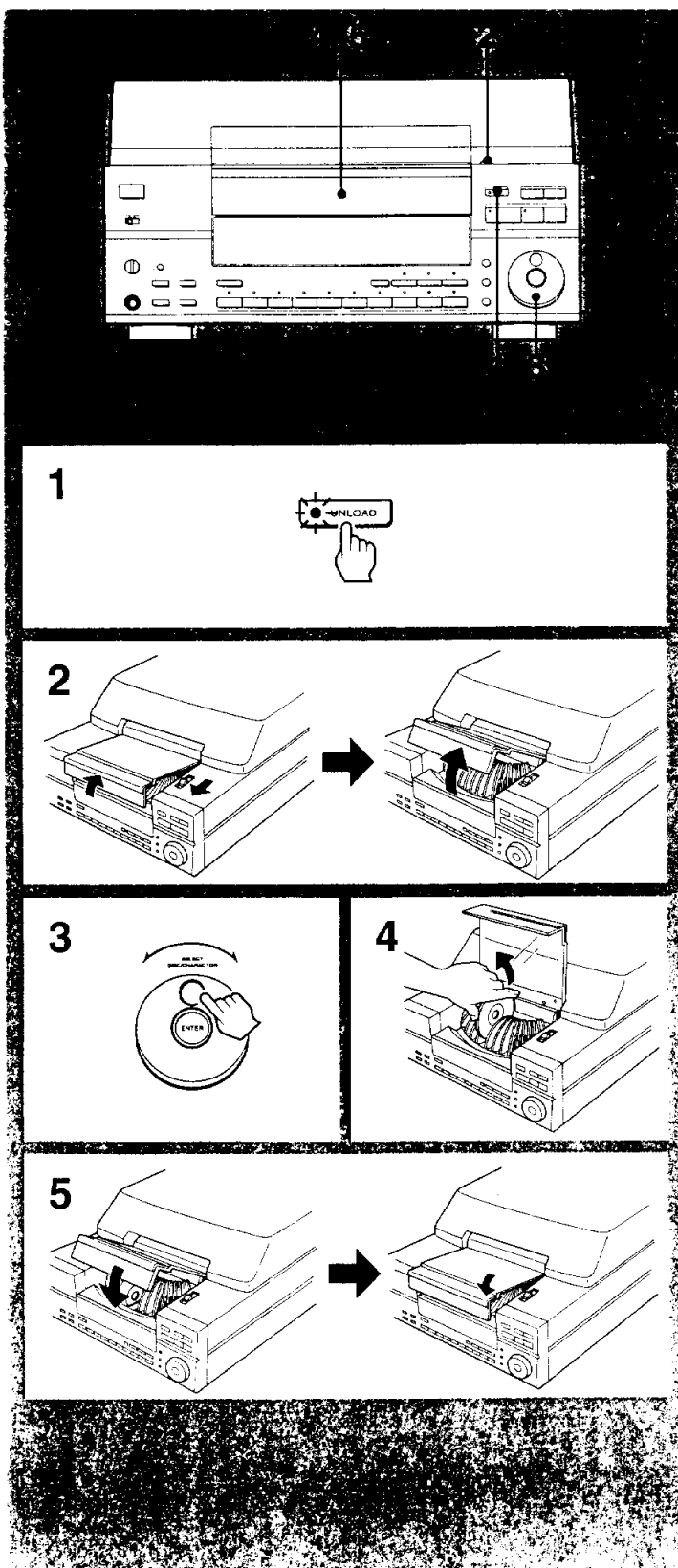
Be sure to attach the Sony CSA-8 adaptor to the disc. Do not insert an 8 cm (3-inch) CD without the adaptor.

Note on the front cover

Always close the front cover except when you are inserting or replacing discs.

If you drop something under the disc slits. **A**

Slide the bottom cover to detach it. Remove the foreign object, then slide the cover in.



Installing Discs

Removing Discs

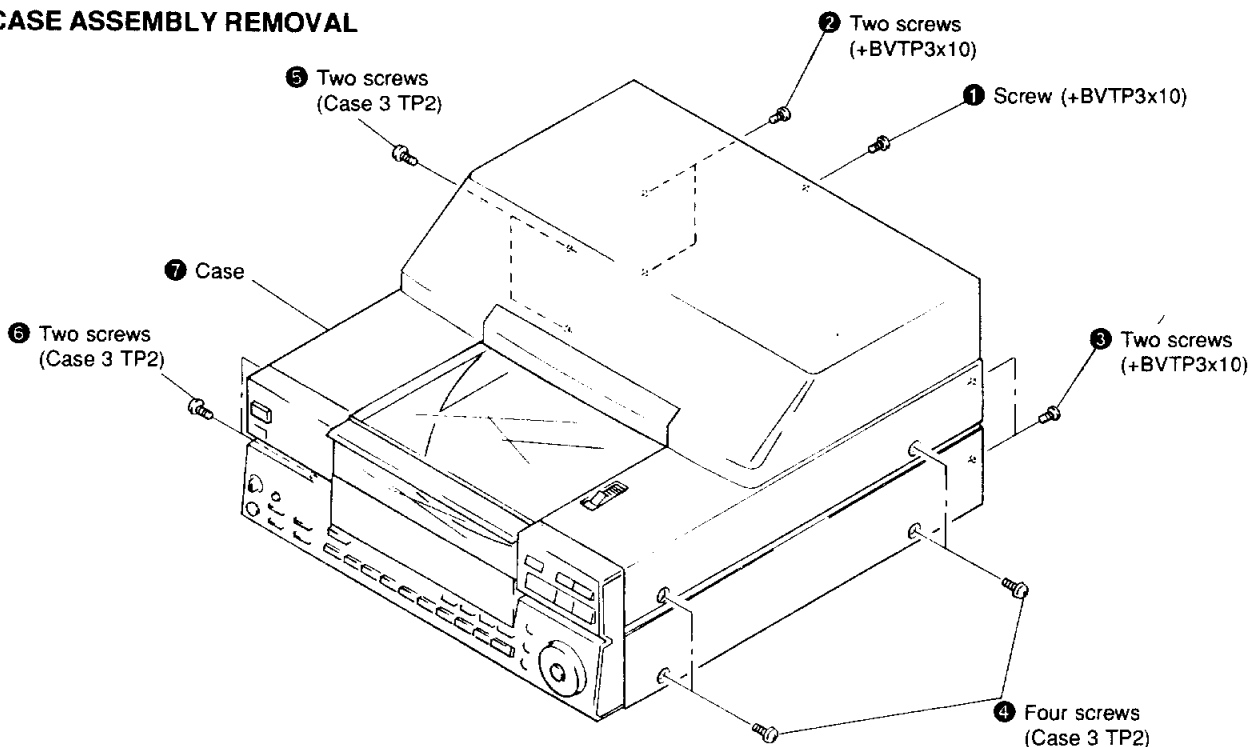
- 1 Press UNLOAD.**
The UNLOAD button indicator flashes, then lights up.
- 2 Slide the OPEN lever to the opening position, then manually open the front cover.**
- 3 Rotate the JOG dial to set the disc slit, containing the disc you want to remove, to the loading position.**
- 4 Take out the disc.**
Repeat steps 3 to 4 to remove more discs.
- 5 Close the front cover.**
Press the right edge of the cover until the OPEN lever clicks.

When you replace a disc in a slit
Disc Memo, Delete Bank, Level File or Group File which you assigned to the disc remains the same even if you remove a disc. When you replace the disc with a new one, erase or modify the above if necessary.

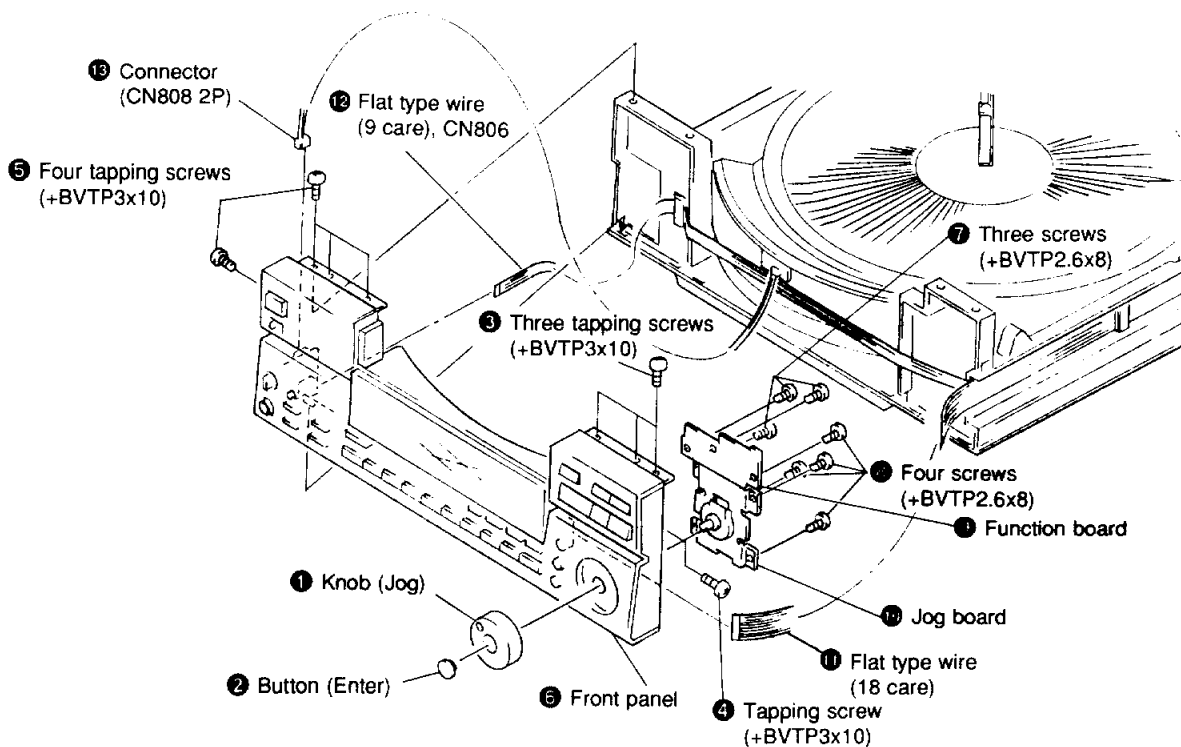
To erase all files assigned to a disc
You can erase all Custom Files and Group Files assigned to one particular disc. Set the disc to the loading position while the UNLOAD button indicator is lit, then hold down ERASE until "1 DISC ERASE" appears in the display. All the files assigned to the current disc are erased (see page 24).

SECTION 3 DISASSEMBLY

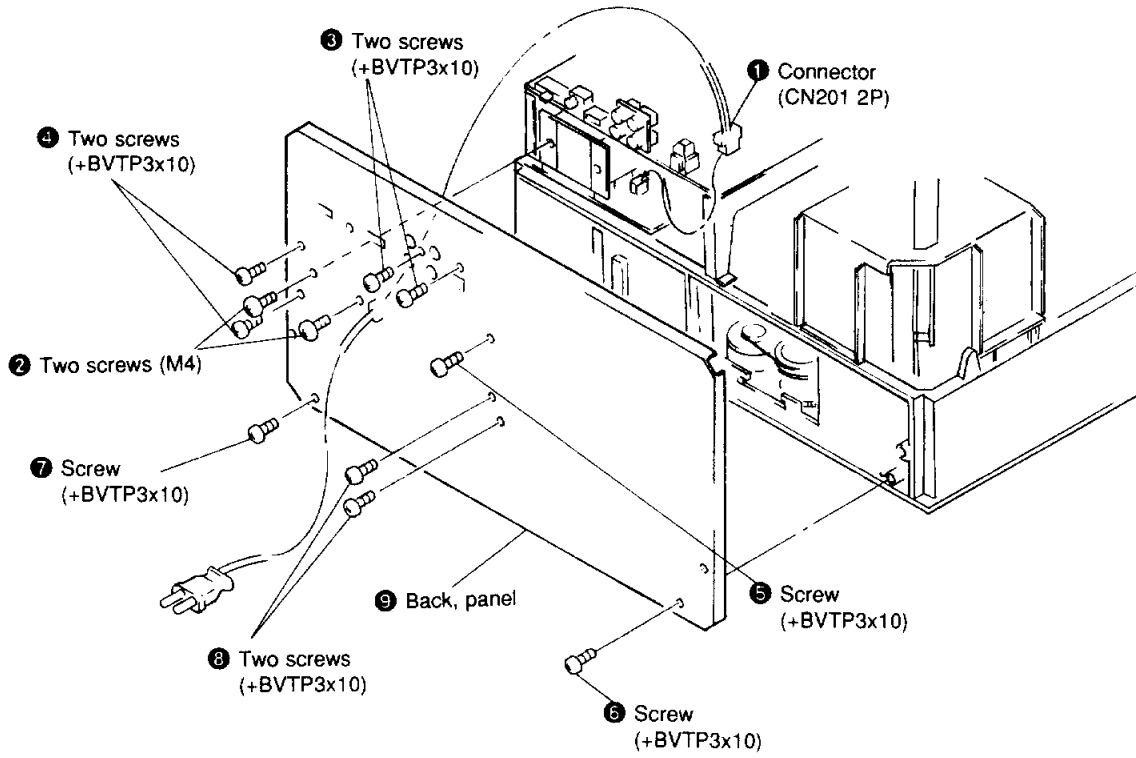
3-1. CASE ASSEMBLY REMOVAL



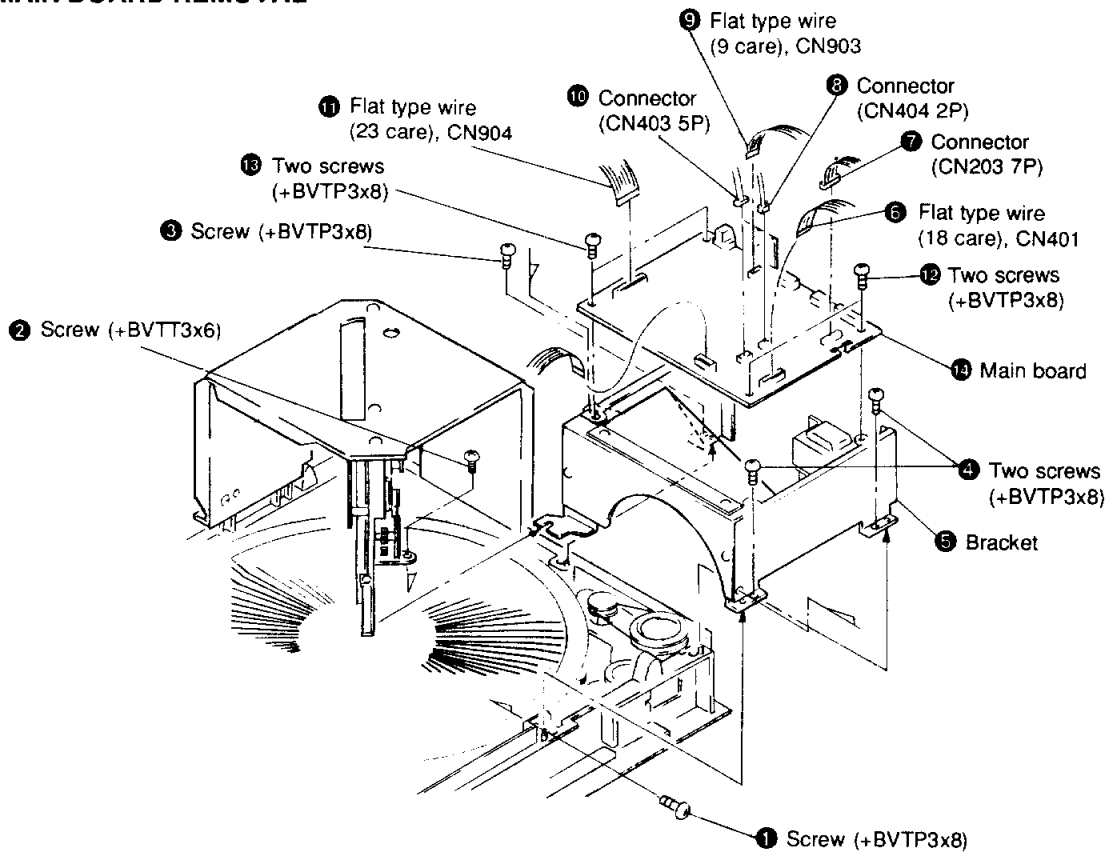
3-2. FRONT PANEL ASSEMBLY REMOVAL



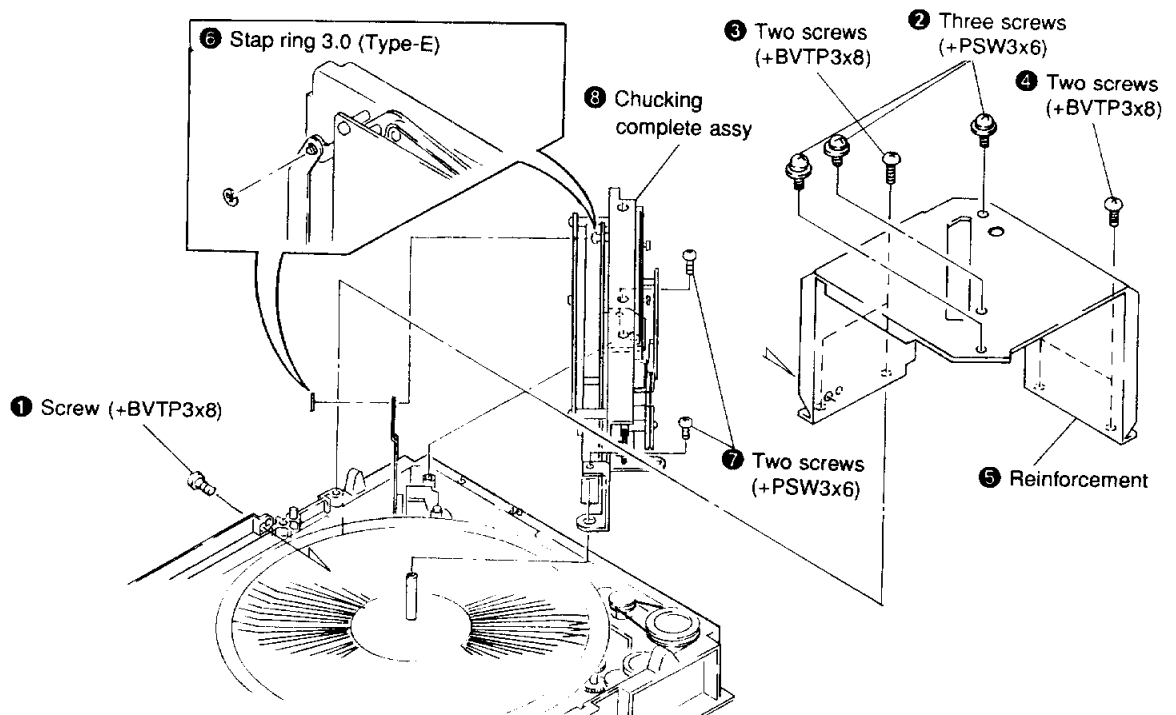
3-3. BACK PANEL REMOVAL



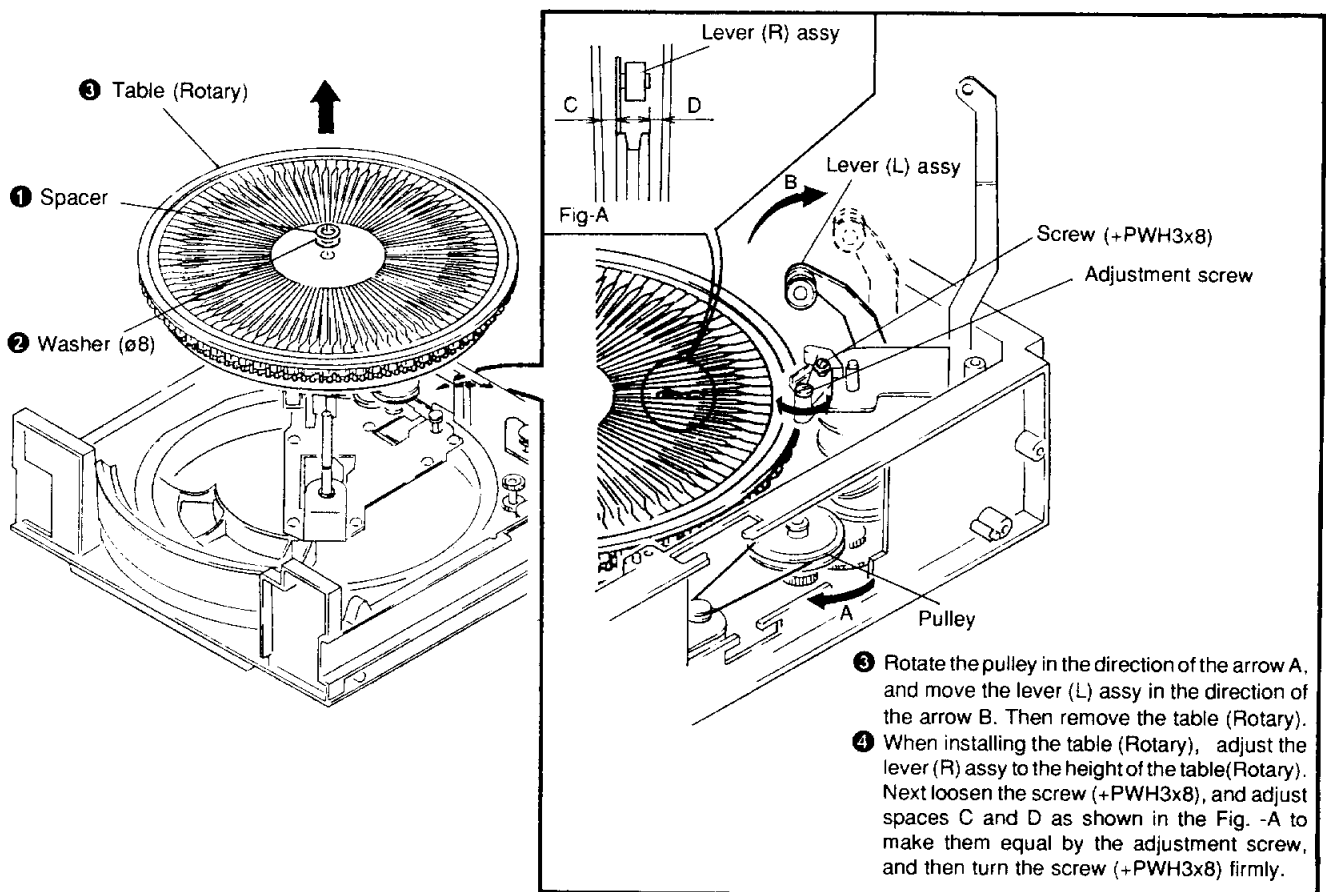
3-4. MAIN BOARD REMOVAL



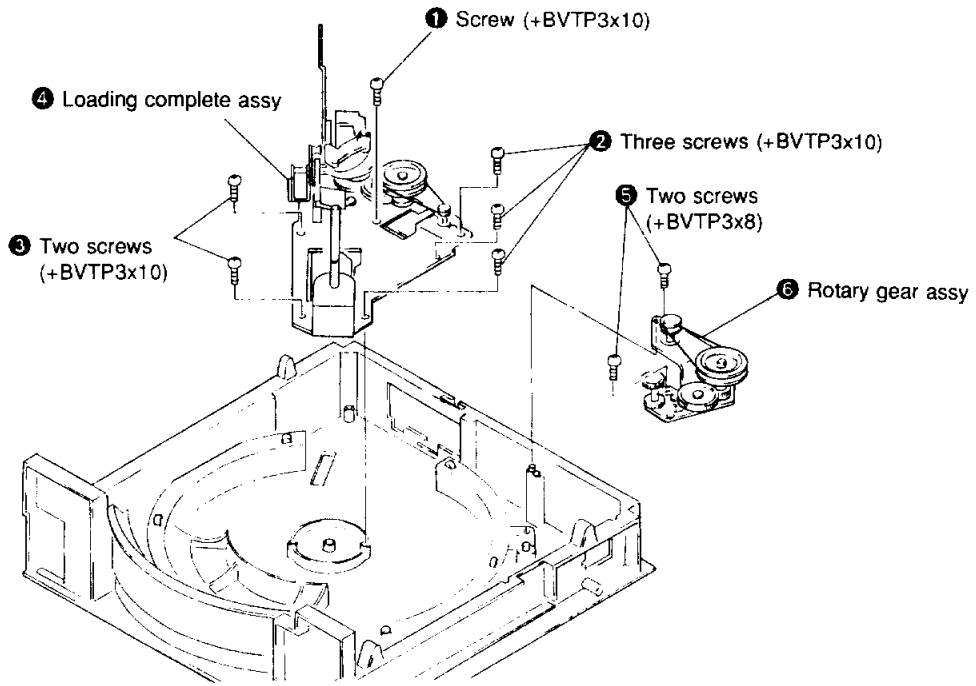
3-5. CD MECHANISM DECK REMOVAL (1)



3-6. TABLE (ROTARY) REMOVAL



3-7. CD MECHANISM DECK REMOVAL (2)

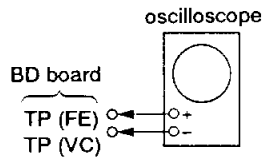


SECTION 4 ELECTRICAL ADJUSTMENTS

Note:

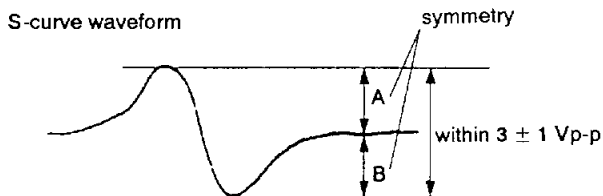
1. Adjust or check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10 M Ω impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S-Curve Check



Procedure:

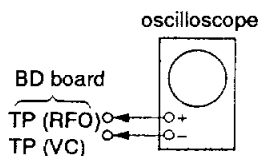
1. Connect oscilloscope to test point TP (FE) on BD board.
2. Connect between test point TP (FEI) and TP (VC) by lead wire.
3. Turned Power switch on.
4. Playback the disc (YEDS-18) and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope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



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

- Note:**
- Try to measure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.
 - Take sweep time as long as possible and light up the brightness to obtain best waveform.

Focus Offset Adjustment

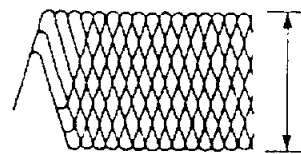


Procedure:

1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Adjust RV102 on RF board so that the oscilloscope waveform is clear and check RF signal level is correct or not.

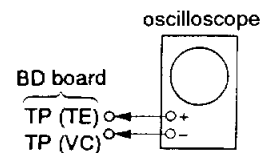
Note: Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.

RF signal waveform



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

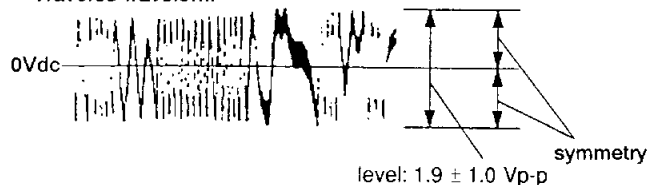
Tracking Offset Adjustment



Procedure:

1. Connect test point TP (ADJ) on MAIN board to ground and TP (TEI) on BD board to TP (VC) with lead wire.
2. Connect oscilloscope to test point TP (TE) on BD board.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Adjust RV101 on RF board so that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0 Vdc, and check this level.

Traverse waveform

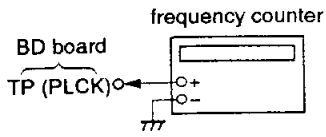


6. Remove the lead wire connected in step 1.

RF PLL Free-run Frequency Check

Procedure:

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

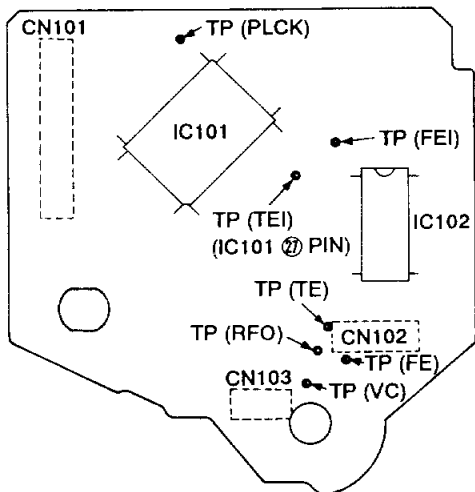


2. Turn Power switch on.
3. Confirm that reading on frequency counter is 4.3218 MHz.

Adjustment Location:

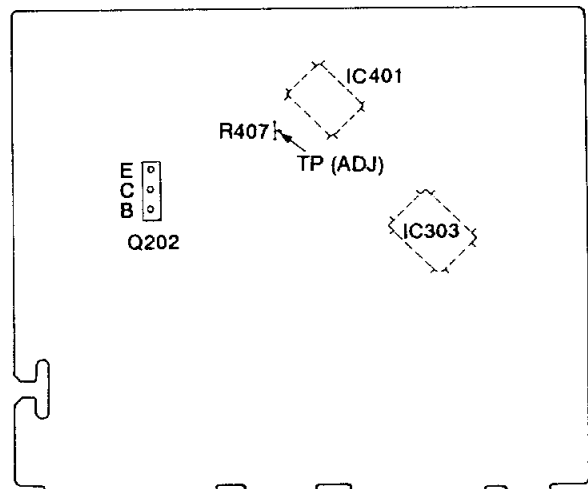
[BD BOARD]

— Conductor side —



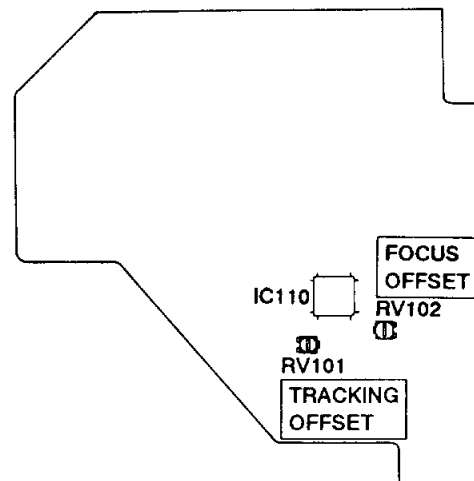
[MAIN BOARD]

— Component side —



[RF BOARD]

— Component side —



SECTION 5 IC PIN FUNCTIONS

5-1. IC PIN FUNCTIONS

- **IC101 DSP Controller (CXD2515Q)**

Functions effected by the captioned controller include focus (tracking/sled servo) EFM comparator, digital signal processor and CLV servo in the CD unit.

Pin No.	Pin Name	I/O	Description
1	SRON	O	Sled drive signal output. (Not in use with the model.)
2	SRDR	O	Sled drive signal output.
3	SFON	O	Sled drive signal output. (Not in use with the model.)
4	TFDR	O	Tracking drive signal output.
5	TRON	O	Tracking drive signal output. (Not in use with the model.)
6	TRDR	O	Tracking drive signal output.
7	TFON	O	Tracking drive signal output. (Not in use with the model.)
8	FFDR	O	Focus drive signal output.
9	FRON	O	Focus drive signal output. (Not in use with the model.)
10	FRDR	O	Focus drive signal output.
11	FFON	O	Focus drive signal output. (Not in use with the model.)
12	VCOO	O	Output of oscillation circuit for analog EFM PLL. (Not in use with the model.)
13	VCOI	I	Input of oscillation circuit for analog EFM PLL. (Fixed at "L".) The equipment is fixed at "L".
14	TEST	I	Test terminal. Normally: ground.
15	DVss	-	Digital ground terminal.
16	TEST2	I	Test terminal. Normally: ground.
17	TEST3	I	Test terminal. Normally: ground.
18	PDO	O	Output of charge-pump for analog EFM PLL. (Not in use with the model.)
19	VPCO	O	Output of charge-pump for variable pitch PLL. (Not in use with the model.)
20	VCKI	I	Clock signal input from VCO for variable pitch. (Fixed at "L".) The equipment is fixed at "L".
21	AVD2	-	Analog power supply terminal.
22	IGEN	I	Power supply terminal for operational amplifier.
23	AVS2	-	Analog ground terminal.
24	ADII	I	A/D converter input.
25	ADIO	O	Operational amplifier output.
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 No.	Pin Name	I/O	Description
31	FILO	O	Output of filter for master PLL.
32	FILI	I	Input of filter for master PLL.
33	PCO	O	Output of charge-pump for master PLL.
34	CLTV	I	Input of control voltage for master VCO.
35	AVSI	—	Analog ground terminal.
36	RFAC	I	EFM signal input.
37	BIAS	I	Input of constant current for auto-assymmetry circuit.
38	ASYI	I	Auto-assymmetry comparator voltage input.
39	ASYO	O	EFM full-swing output.
40	AVDI	—	Analog power supply terminal.
41	DVDI	—	Digital power supply terminal.
42	ASYE	I	ON/OFF control of auto-assymmetry circuit. The equipment is fixed at "H".
43	PSSL	I	Input of output mode select for audio data. The equipment is fixed at "L".
44	WDCK	O	48 bit slot D/A interface word-clock output. (Not in use with the model.)
45	LRCK	O	48 bit slot D/A interface LR-clock output.
46	DATA	O	PSSL=1: DA16 output, PSSL=0: Serial data of 48 bit slot.
47	BCLK	O	PSSL=1: DA15 output, PSSL=0: Bit clock of 48 bit slot.
48	64DATA	O	PSSL=1: DA14 output, PSSL=0: Serial data of 64 bit slot. (Not in use with the model.)
49	64BCLK	O	PSSL=1: DA13 output, PSSL=0: Bit clock of 64 bit slot. (Not in use with the model.)
50	64LRCK	O	PSSL=1: DA12 output, PSSL=0: LR clock of 64 bit slot. (Not in use with the model.)
51	GTOP	O	PSSL=1: DA11 output, PSSL=0: GTOP output. (Not in use with the model.)
52	XUGF	O	PSSL=1: DA10 output, PSSL=0: XUGF output. (Not in use with the model.)
53	XPLCK	O	PSSL=1: DA09 output, PSSL=0: XPLCK output.
54	GFS	O	PSSL=1: DA08 output, PSSL=0: GFS output.
55	RFCK	O	PSSL=1: DA07 output, PSSL=0: PFCK output.
56	C2PO	O	PSSL=1: DA06 output, PSSL=0: C2PO output. (Not in use with the model.)
57	XRAOF	O	PSSL=1: DA05 output, PSSL=0: XRAOF output. (Not in use with the model.)
58	MNT3	O	PSSL=1: DA04 output, PSSL=0: MNT3 output.
59	MNT2	O	PSSL=1: DA03 output, PSSL=0: MNT2 output.
60	MNT1	O	PSSL=1: DA02 output, PSSL=0: MNT1 output.
61	MNT0	O	PSSL=1: DA01 output, PSSL=0: MNT0 output.
62	XTAI	I	X'tal oscillation circuit input. (16.9MHz)
63	XTAO	O	X'tal oscillation circuit output. (Not in use with the model.)
64	XTSL	I	X'tal select input. The equipment is fixed at "L".
65	DVss	—	Digital ground terminal.

Pin No.	Pin Name	I/O	Description
66	FSTI	I	2/3 divide input of ②, ③ pin.
67	FSTO	O	2/3 divide output of ②, ③ pin.
68	C4M	O	4.2336MHz output. (Not in use with the model.)
69	C16M	O	16.9344MHz output. (Not in use with the model.)
70	MD2	I	Digital out ON/OFF control terminal. The equipment is fixed at "H".
71	DOUT	O	Output of digital out signal.
72	EMPH	O	Emphasis mode select output of playback disc. (Not in use with the model.)
73	WFCK	O	WFCK output.
74	SCOR	O	Sub-code sync output.
75	SBSO	O	Serial output of sub P-W. (Not in use with the model.)
76	EXCK	I	Input of clock signal for SBSO read out. (Fixed at "L".)
77	SUBQ	O	Sub-Q 80-bit output.
78	SQCK	I	Clock input for SQSO read-out.
79	MUTE	I	Muting select pin.
80	SENS	O	Sense signal output.
81	XRST	I	System reset signal input.
82	DIRC	I	Used for 1 track jump.
83	SCLK	I	Input of clock signal for read the sens serial data.
84	DFSW	I	DFCT select terminal. The equipment is fixed at "L".
85	ATSK	I	Antch-shock terminal. The equipment is fixed at "L".
86	DATA	I	Serial data input from IC401 (system control).
87	XLAT	I	Latch signal input from IC401 (system control).
88	CLOK	I	Serial data transfer clock input from IC401 (system control).
89	COUT	O	Track count signal output. (Not in use with the model.)
90	DVDD	-	Digital power supply terminal.
91	MIRR	O	MIRR signal output. (Not in use with the model.)
92	DFCT	O	Deffect signal output. (Not in use with the model.)
93	FOK	O	Focus OK output.
94	FSW	O	Output of filter select for spindle motor. (Not in use with the model.)
95	MON	O	Output of ON/OFF control for spindle motor.
96	MDP	O	Output of servo control for spindle motor.
97	MDS	O	Output of servo control for spindle motor.
98	LOCK	O	Sled run-away prevention circuit operates when this signal is "L". (Not in use with the model.)
99	SSTP	I	The limit switch is connected to this pin.
100	SFDR	O	Sled drive signal output.

• IC302 Digital Filter (CXD2567M)

Pin No.	Name	I/O	Description
1	V _{SS}	—	Power source terminal (GND).
2	STSM	I	System mute input Significant at "H".
3	ATT	I	ATT data input when CTL is "L". EMP input when CLT is "H".
4	SHIFT	I	Shift clock input when CTL is "L". FS32 input when CTL is "H".
5	LATCH	I	Latch clock input when CTL is "L". FS48 input when CTL is "H".
6	CTL	I	Pull-down inside of the IC. Direct input mode at "H". Serial transfer mode at "L".
7	INIT	I	Resynchronization at the pull-up edge of the main signal.
8	BCKI	I	BCK input.
9	DATAI	I	Data input.
10	LRCKL	I	LRCK input.
11	TEST	I	Terminal for test. "L" is fixed for normal use.
12	V _{SS}	—	Power source terminal (GND).
13	128F _S	O	128Fs clock output.
14	INVI	I	Inverter input.
15	INVO1	O	Inverter output.
16	INVO2	O	Inverter output.
17	MCLK	I	Master clock input. (f=512Fs)
18	V _{DD}	—	Power source terminal (+5V).
19	BCKO	O	BCK output.
20	DL	O	L-ch data output.
21	DR	O	R-ch data output.
22	LRCKO	O	LRCK output.
23	FLGL	O	L-ch ϕ mute flag output.
24	FLGR	O	R-ch ϕ mute flag output.

• **IC401 Main System Controller (M37451M4-TTX853)**

Functions effected by the captioned controller include IC101 (Digital signal processing, servo) and loading motor control, data exchange with IC801 (sub system controller).

Pin No.	Pin Name	I/O	Description
1	NC	—	} No connection.
2	NC	—	
3	SENSE	I	Input of SENSE signal for COUT count from IC101 (CXD2515Q).
4	NC	—	No connection.
5	QINT	O	Command pulse output to sub system controller (IC801).
6	SACK	O	Command acknowledge output to sub system controller (IC801).
7	MREQ	I	Command request input from sub system controller (IC801).
8 to 11	CMD3 to CMD0	I/O	Input and output of data exchange with sub system controller (IC801).
12	LATCH	O	Attenuator data latch pulse output to IC302 (CXD2567M).
13	SHIFT	O	Attenuator data clock output to IC302 (CXD2567M).
14	ATT	O	Attenuator data output to IC302 (CXD2567M).
15	—	—	} No connection.
16	—	—	
17	SENS2	I	Input signal from IC811 (Disc (A) sensor).
18	SENS3	I	Input signal from IC810 (Address sensor).
19	SCOR	I	Sub-code sync (S0+S1) detection input from IC101 (CXD2515Q).
20	NC	—	} No connection.
21	NC	—	
22	NC	—	
23	NC	—	
24	NC	—	
25	GND	—	Ground terminal. (GND)
26	RESET	I	Reset signal input. "L": RESET
27	NC	—	No connection.
28	XIN	I	Clock signal input. (10 MHz)
29	XOUT	O	Clock signal output.
30	NC	—	} No connection.
31	NC	—	
32	VSS	—	Ground terminal. (GND)
33	CLK	O	Data clock signal output to IC101 (CXD2515Q).
34	DATA	O	Data signal output to IC101 (CXD2515Q).
35	MUTE	O	Muting signal output.
36	GFS	I	GFS signal input from IC101 (CXD2515Q). "L": NG, "H": OK
37	FOK	I	FOK signal input from IC101 (CXD2515Q). "L": NG, "H": OK
38	LDON	O	Laser ON/OFF control output optical pick-up block.
39	XLT	O	Data latch pulse signal output to IC101 (CXD2515Q).
40	SCLK	O	Calculation readout clock output to IC101 (CXD2515Q).
41	NC	—	} No connection.
42	—	—	
43	—	—	
44	—	—	
45	SENS1	I	Input signal from IC810 (Disc sensor).

Pin No.	Pin Name	I/O	Description
46	M1L	O	Output to rotate M803 (Table motor) left. *1
47	M1R	O	Output to rotate M803 (Table motor) right. *1
48	M2 IN	O	Output to rotate M802 (Loading motor) in the loading in direction. *2
49	M2 OUT	O	Output to rotate M802 (Loading motor) in the loading out direction. *2
50	M3 OUT	O	Output to rotate M801 (Chucking motor) in the chucking out direction. *3
51	M3 IN	O	Output to rotate M801 (Chucking motor) in the chucking in direction. *3
52	DISC SW	I	Input of S842 (Disc det switch).
53	—	—	No connection.
54	DISC UP	I	Input of S843 (Loading det switch). "L": DISC UP
55	DISC DWN	I	Input of S843 (Loading det switch). "L": DISC DOWN
56	CHK ON	I	Input of S844 (Chucking up/down det switch). "L": CHUCKING ON
57	CHK OFF	I	Input of S844 (Chucking up/down det switch). "L": CHUCKING OFF
58	AFADJ	I	Test mode terminal. It is possible to check the interface between the sub system controller (IC801) and this controller (IC401).
59	ADJ	I	Test mode terminal. GFS is no longer monitored during PLAY, PAUSE or SEARCH, while not stopping even with GFS remaining still at "L" (NG).
60	—	—	} No connection.
61	—	—	
62 to 65	TP3 to TP0	O	Test point.
66	—	—	} No connection.
67	—	—	
68	DAVREF	—	Input terminal of reference voltage D/A input port.
69	ADVREF	—	Input terminal of reference voltage A/D input port.
70	AVSS	—	Ground terminal. (GND)
71	AVCC	—	} Power supply terminal. (+5V)
72	VCC	—	
73	VSS	—	Ground terminal. (GND)
74	—	—	No connection.
75	SQCLK	O	Subcode Q data readout clock output to IC101 (CXD2515Q).
76	—	—	No connection.
77	SUB Q	I	Subcode Q data input from IC101 (CXD2515Q).
78	—	—	} No connection.
79	—	—	
80	NC	—	

*1. Table motor control

	LEFT	RIGHT	BRAKE
M1L ④⑥	PULSE	"L"	"H"
M2R ④⑦	"L"	PULSE	"H"

*2. Loading motor control


	IN	OUT	BRAKE
M2 IN ④⑧	"H"	"L"	"H"
M2 OUT ④⑨	"L"	"H"	"H"

*3. Chucking motor control

	IN	OUT	BRAKE
M3 OUT ⑤⑩	"L"	"H"	"H"
M3 IN ⑤⑪	"H"	"L"	"H"

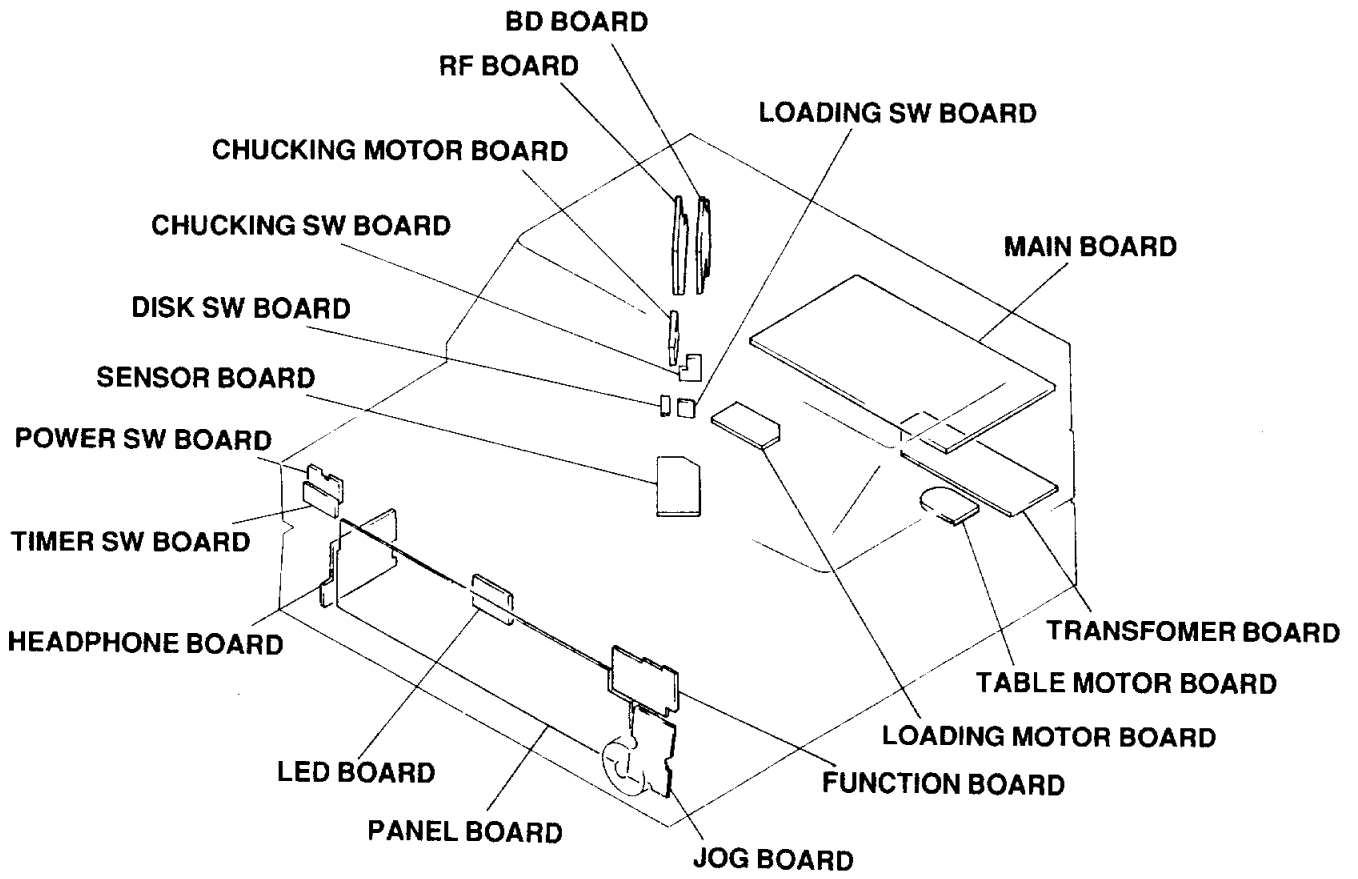
• IC801 SUB SYSTEM CONTROLLER (MB89646PF-104)

Pin No.	Pin Name	I/O	Description
1	MTEST	I	Mechanism microprocessor test pin. Normally High.
2	U-J	I	Japan: High. Overseas: Low.
3	TEST	I	Master microprocessor check pin. Normally High.
4	TIMER	I	Panel TIMER SW.
5	JOG1	I	} JOG input.
6	JOG0	I	
7	QINT	I	Mechanism microprocessor communication.
8	RMMO	I	Remote control input.
9	GND	—	GND
10	NC	—	No connection.
11	GND	—	} GND
12	GND	—	
13	XO	O	Clock oscillation output (10 MHz).
14	XI	I	Clock oscillation input (10 MHz).
15	VSS	—	GND
16	RESET	I	Reset input.
17	INLED	O	Internal lighting LED output.
18	—	—	} Test pin
19	—	—	
20	A12	O	} S-RAM address line.
21	A11	O	
22	A10	O	
23	A9	O	
24	A8	O	
25	A7	O	
26	A6	O	
27	A5	O	
28	A4	O	
29	A3	O	
30	A2	O	
31	A1	O	
32	A0	O	
33	D7	I/O	} S-RAM data line (input/output).
34	D6	I/O	
35	D5	I/O	
36	D4	I/O	
37	D3	I/O	
38	D2	I/O	
39	D1	I/O	
40	D0	I/O	

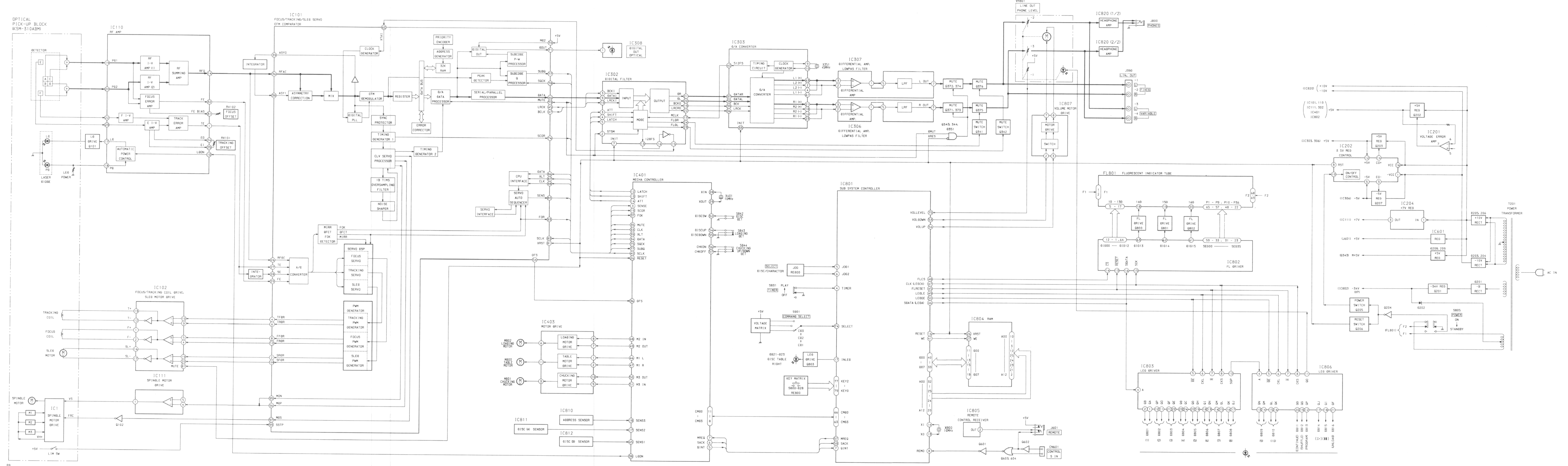
Pin No.	Pin Name	I/O	Description
41	\overline{WE}	O	S-RAM write enable. Low active.
42	—	—	} Test pin
43	—	—	
44	—	—	
45	FLRESET	O	FL driver reset output.
46	SDATA	O	Driver communication data.
47	CLK	O	Driver communication clock.
48	FLCS	O	FL driver CS pin. Reading when low.
49	LED LE	O	Output enable. Normally low.
50	LED OE	O	LED driver latch. * High latch. 
51	NC	—	} No connection.
52	NC	—	
53	VOL DOWN	O	Volume down output.
54	VOL UP	O	Volume up output.
55	VCC	—	+5V power supply.
56	NC	—	No connection.
57	MREQ	O	Mechanism microprocessor communication.
58	VSS	—	GND
59	SACK	I	Mechanism microprocessor communication.
60	—	—	} Test pin
61	—	—	
62	—	—	
63	CMD3	I/O	} Mechanism microprocessor communication. (Data)
64	CMD2	I/O	
65	CMD1	I/O	
66	CMD0	I/O	
67	DAVC	—	} +5V power supply.
68	AVCC	—	
69	AVRH	—	
70	AVRL	—	} GND
71	AVSS	—	
72	—	—	
73	—	—	
74	SELECT	I	Remote control switching, CD1/CD2/CD3.
75	VOL LEVEL	I	Volume AD input.
76	KEY3	I	Pull up.
77	KEY2	I	} Key input.
78	KEY1	I	
79	KEY0	I	
80	—	I	Pull up.

SECTION 6 DIAGRAMS

6-1. CIRCUIT BOARDS LOCATION



6-2. BLOCK DIAGRAM



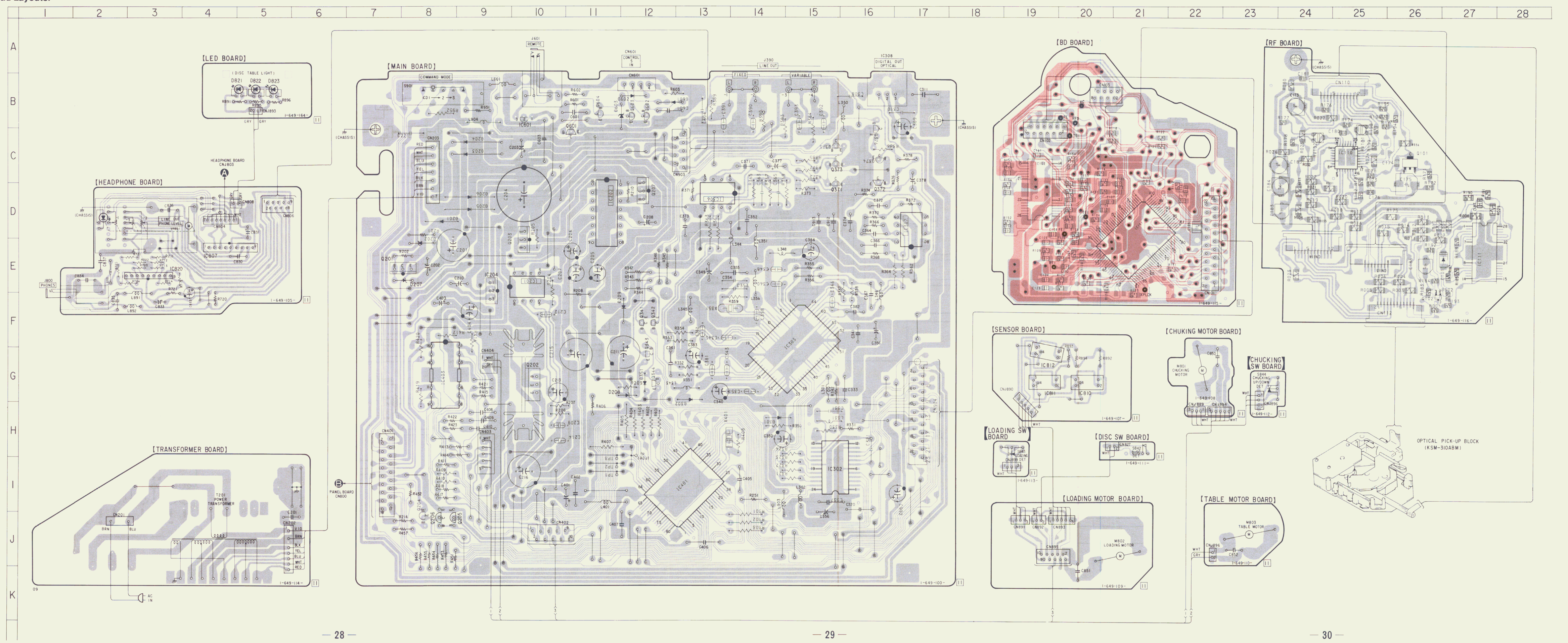
CDP-CX100/CX100S

6-3. PRINTED WIRING BOARD
 • MAIN SECTION
 • See page 22 for Circuit Boards Location and see page 41, 42 for Semiconductor Lead Layouts.

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D101	E-27	Q101	C-26
D201	D-8	Q102	F-26
D202	E-8	Q201	E-7
D203	C-9	Q202	G-10
D204	C-9	Q203	E-9
D205	D-9	Q204	F-8
D206	D-9	Q205	J-9
D207	E-8	Q206	J-8
D208	G-11	Q207	D-12
D209	F-12	Q341	F-12
D301	H-14	Q342	F-12
D302	H-13	Q343	F-12
D351	G-12	Q344	G-12
D601	B-13	Q371	D-15
D602	B-12	Q372	C-16
D603	B-11	Q373	C-15
D821	B-5	Q374	C-16
D822	B-5	Q375	C-15
D823	B-5	Q376	C-16
IC101	D-20	Q601	B-11
IC102	C-19	O602	B-12
IC110	C-25	O603	B-12
IC111	E-27	O604	B-11
IC201	E-10		
IC202	D-11		
IC204	E-9		
IC302	I-15		
IC303	F-15		
IC306	D-13		
IC307	D-17		
IC308	A-16		
IC401	I-13		
IC403	G-8		
IC601	B-10		
IC807	E-4		
IC810	G-20		
IC811	G-19		
IC812	G-19		
IC820	E-3		

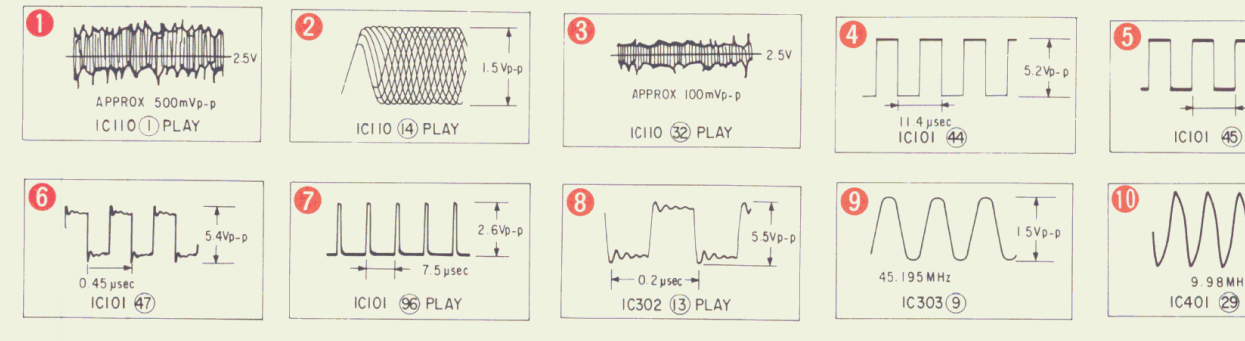
Note:
 • : parts extracted from the component side.
 • : Through hole.
 • : Pattern on the side which is seen.
 • : Pattern of the rear side.



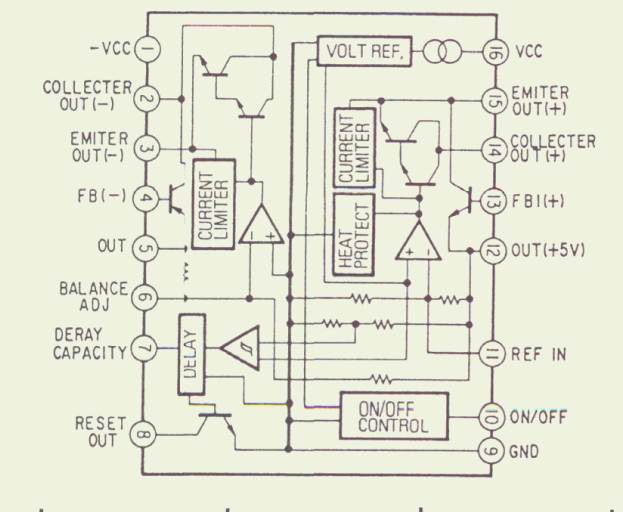
Note:
 • All capacitors are in μF unless otherwise noted. pF or μF 50WV or less are not indicated except for electrolytics and tantalums.
 • All resistors are in Ω and 1/4W or less unless otherwise specified.
 • % : indicates tolerance.
 • Δ : internal component.

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

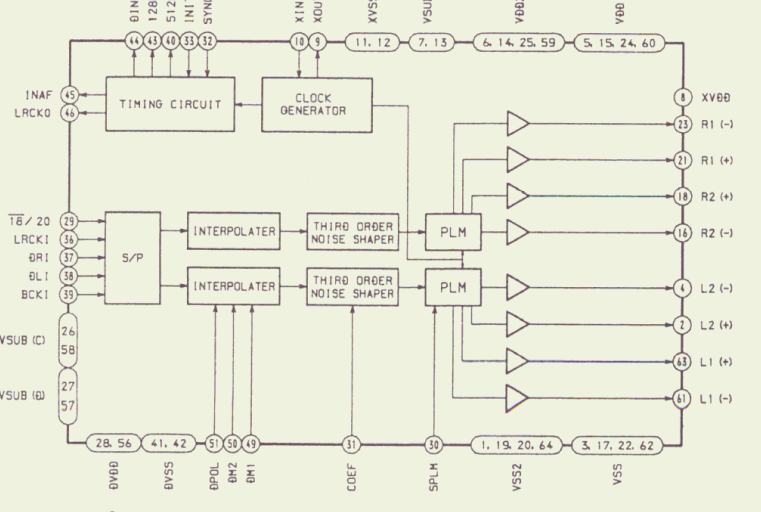
- B- Line
- B- Line
- adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions. no mark: STOP
- Voltagess are taken with a VOM (input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope.
- Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path:
 ⤴ : CD
 ⤵ : digital out



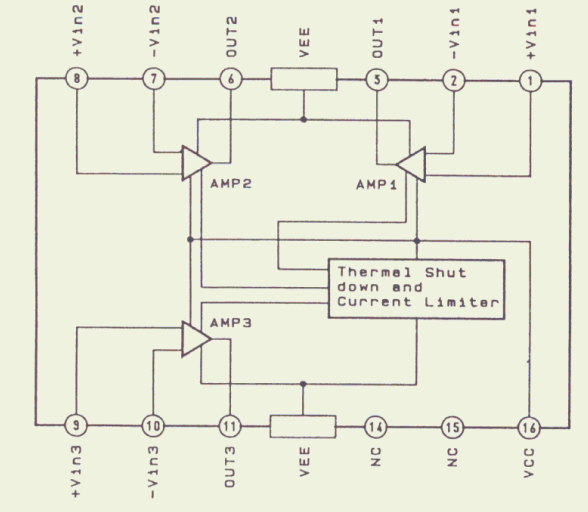
IC202 I5290P-16



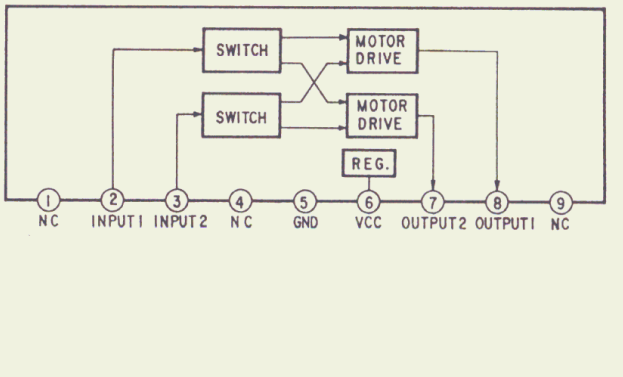
IC303 CXD2562Q



IC403 CXA1291P

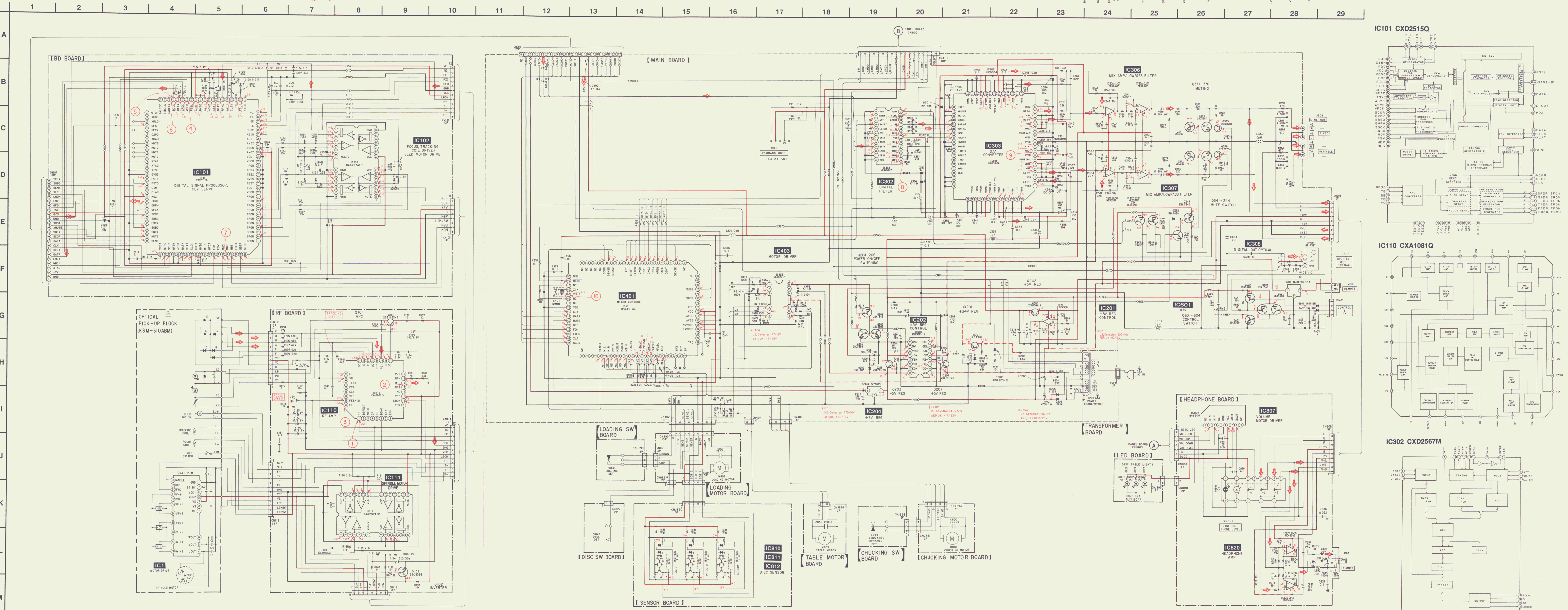


IC807 BA6208

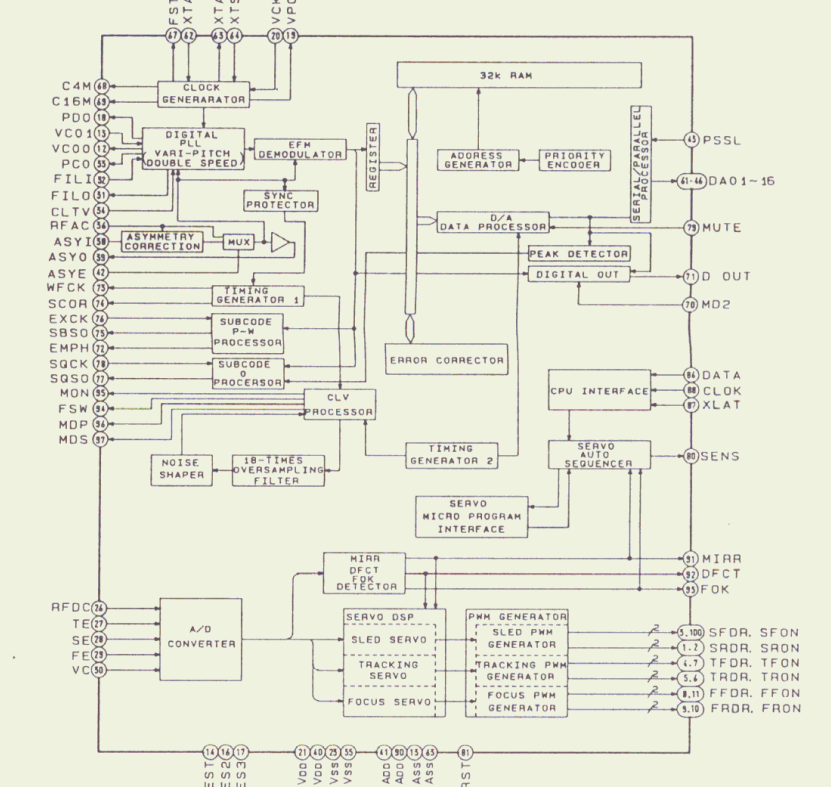


CDP-CX100/CX100S

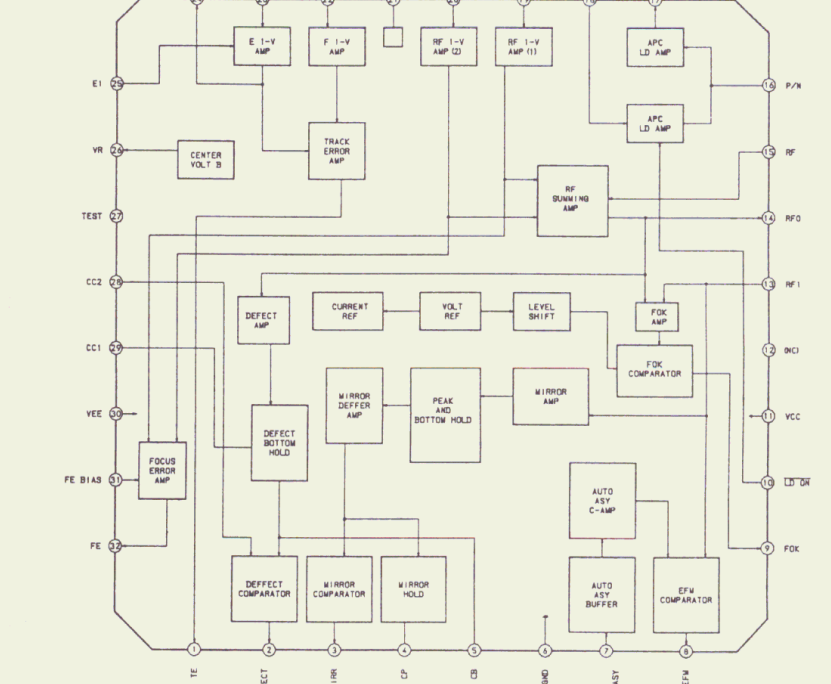
6-4. SCHEMATIC DIAGRAM - MAIN SECTION



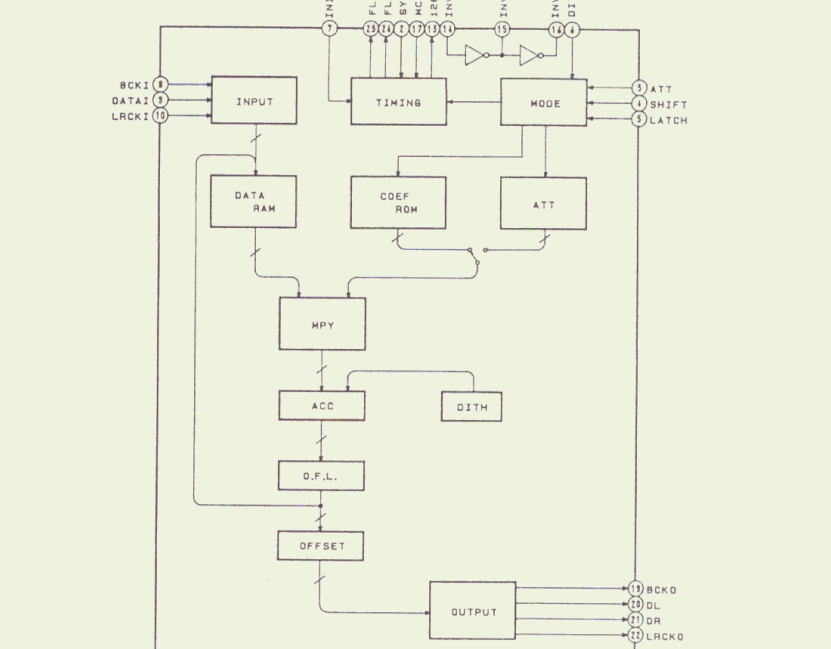
IC101 CXD2515Q



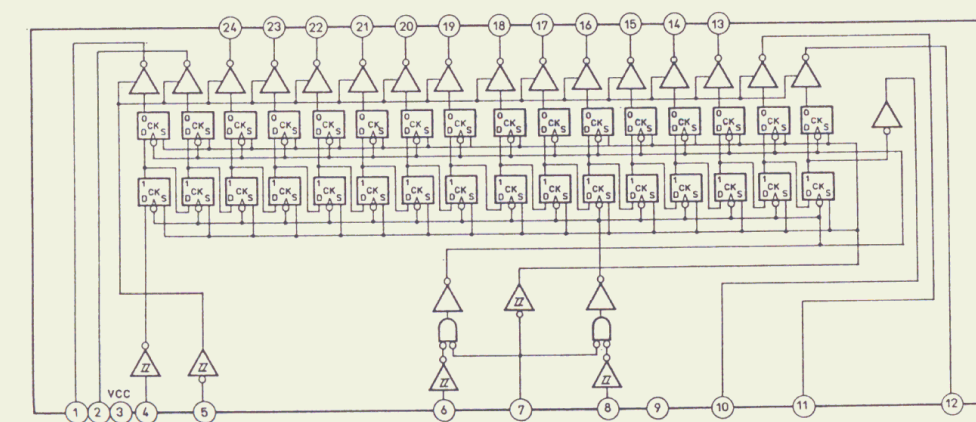
IC110 CXA1081Q



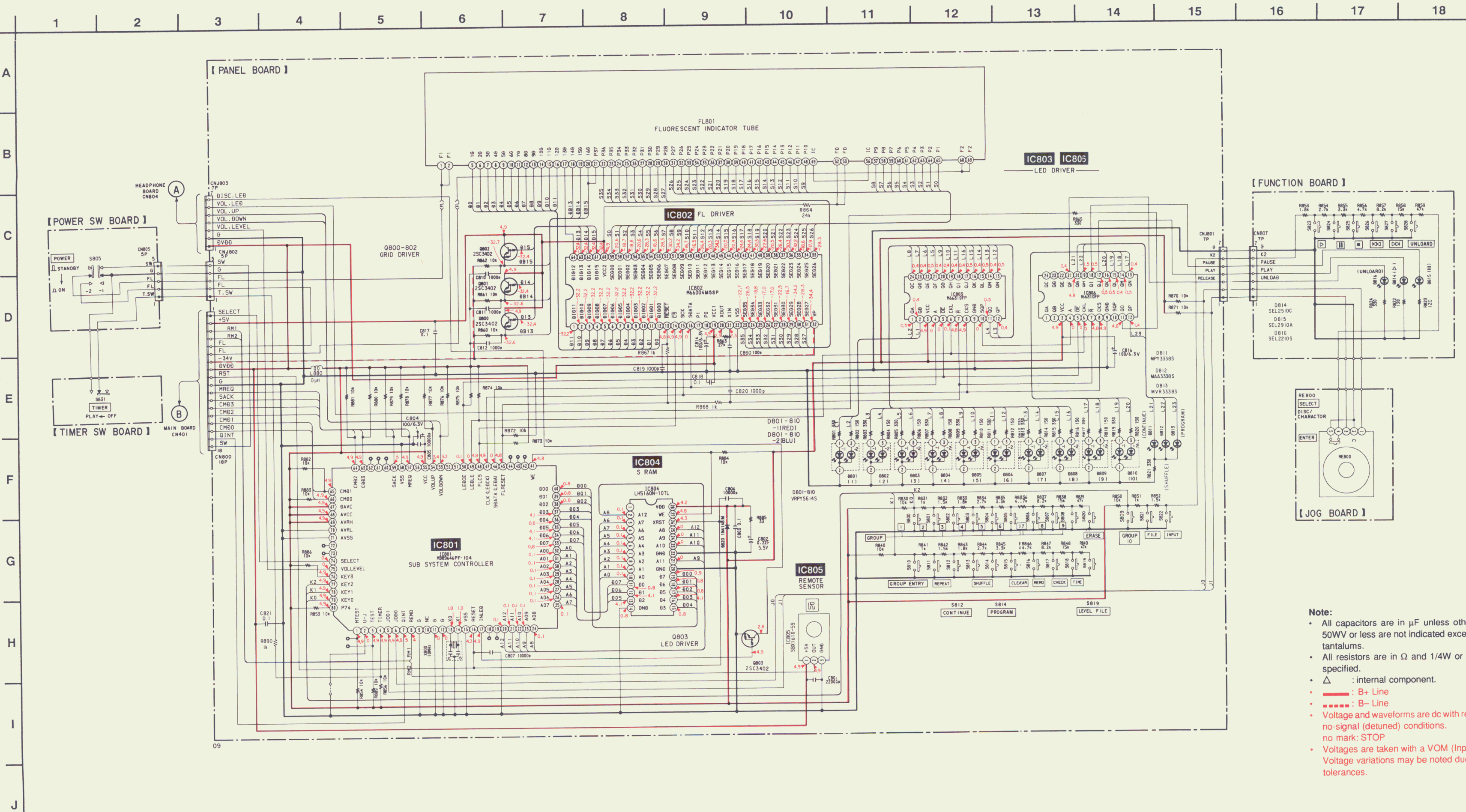
IC302 CXD2567M



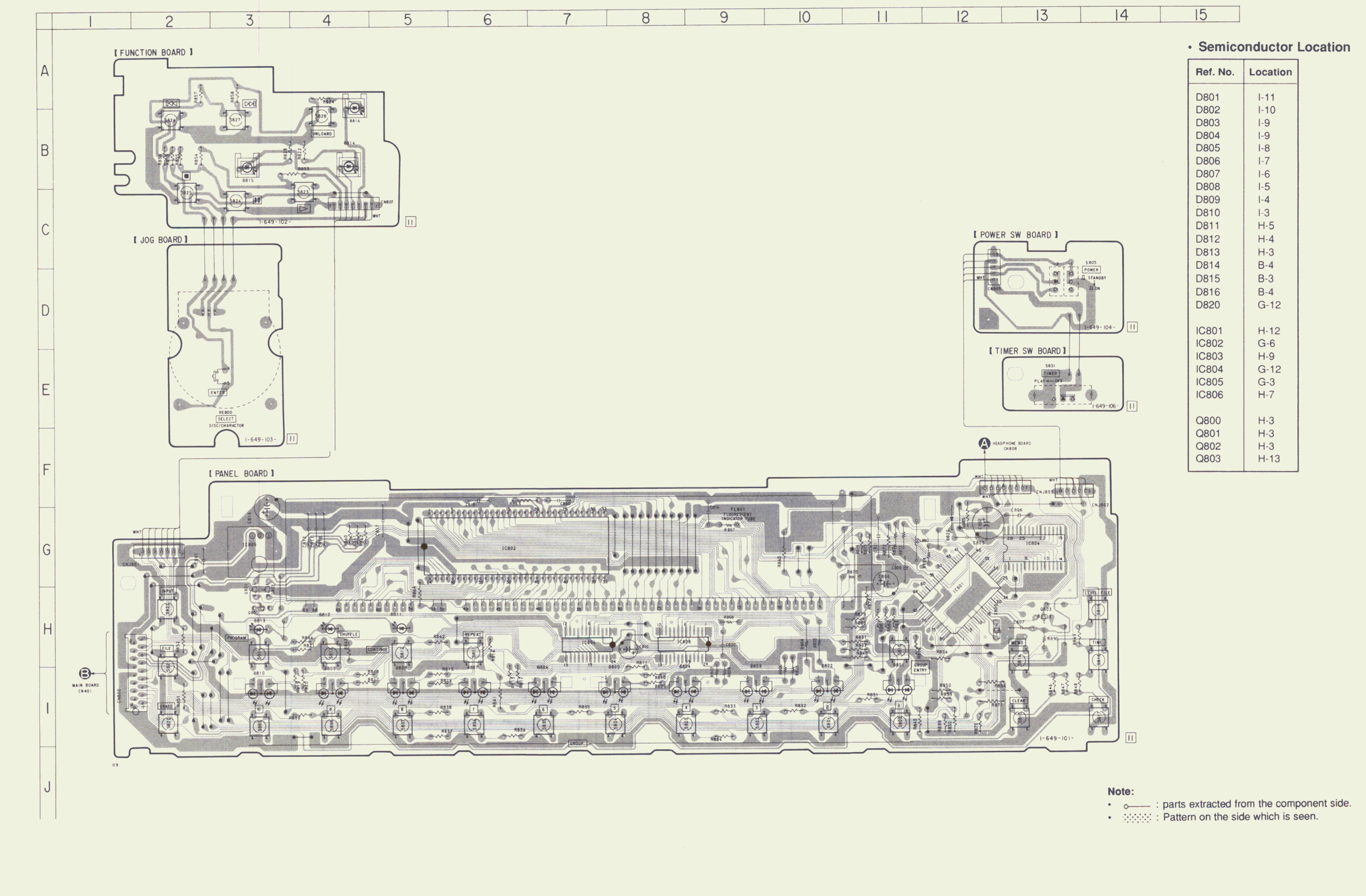
IC803, 806 M66310FP



6-5. SCHEMATIC DIAGRAM
- PANEL SECTION

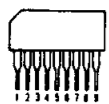


6-6. PRINTED WIRING BOARD
- PANEL SECTION
- See page 22 for Circuit Boards Location and see page 41, 42 for Semiconductor Lead Layouts.

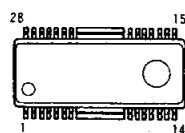


6-7. SEMICONDUCTOR LEAD LAYOUTS

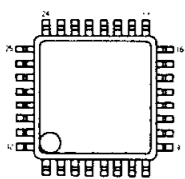
BA6208
RC4556S



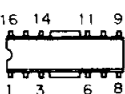
BA6297AFP



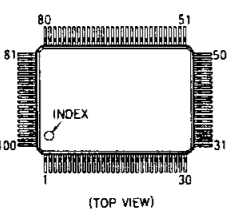
CXA1081Q



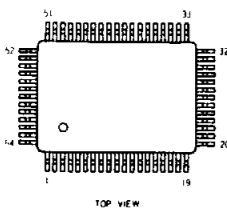
CXA1291P



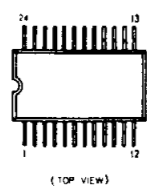
CXD2515Q



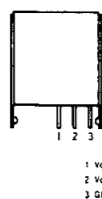
CXD2562Q



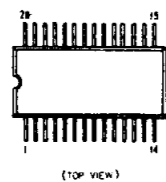
CXD2567M
M66004M5SP
M66310FP



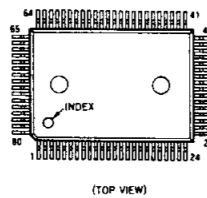
GP1F32T



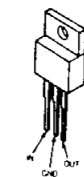
LH5160N-10L



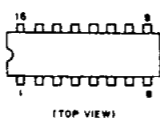
M37451M4-TTX853
MB89646PF-104



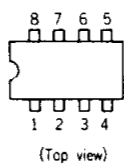
M5F78M07L



M5290P-16



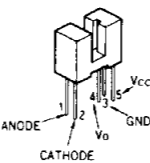
NE5532P
UPC4558C



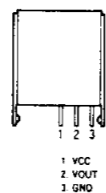
NJM78L05A



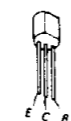
RPI-1391



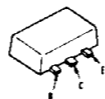
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2SA916LTP



2SB1122-S



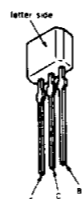
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2SD774-34



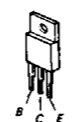
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2SC3623A-LK



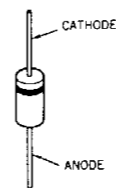
2SD1944-K



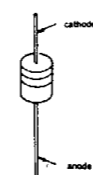
DTA114ES
DTA144ES
DTC114ES
DTC143TS
DTC144ES



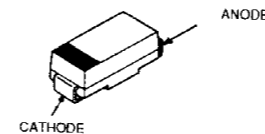
1N4148M



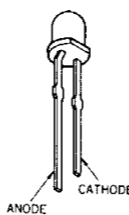
11EQS04
11ES2
RD36ES-B2
RD5.1ES-B2
RD5.6ES-B
RD8.2ES-B2



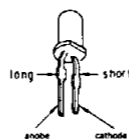
EC10DS2



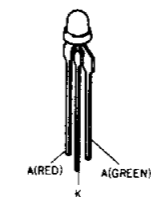
MAA3338S-J210K
MPY3338S-J210K
MVR3338S-J210K
TLYA180AP



SEL2210S-CD
SEL2510C-D
SEL2910A-CD



VRPY5614S



SECTION 7 EXPLODED VIEWS

NOTE:

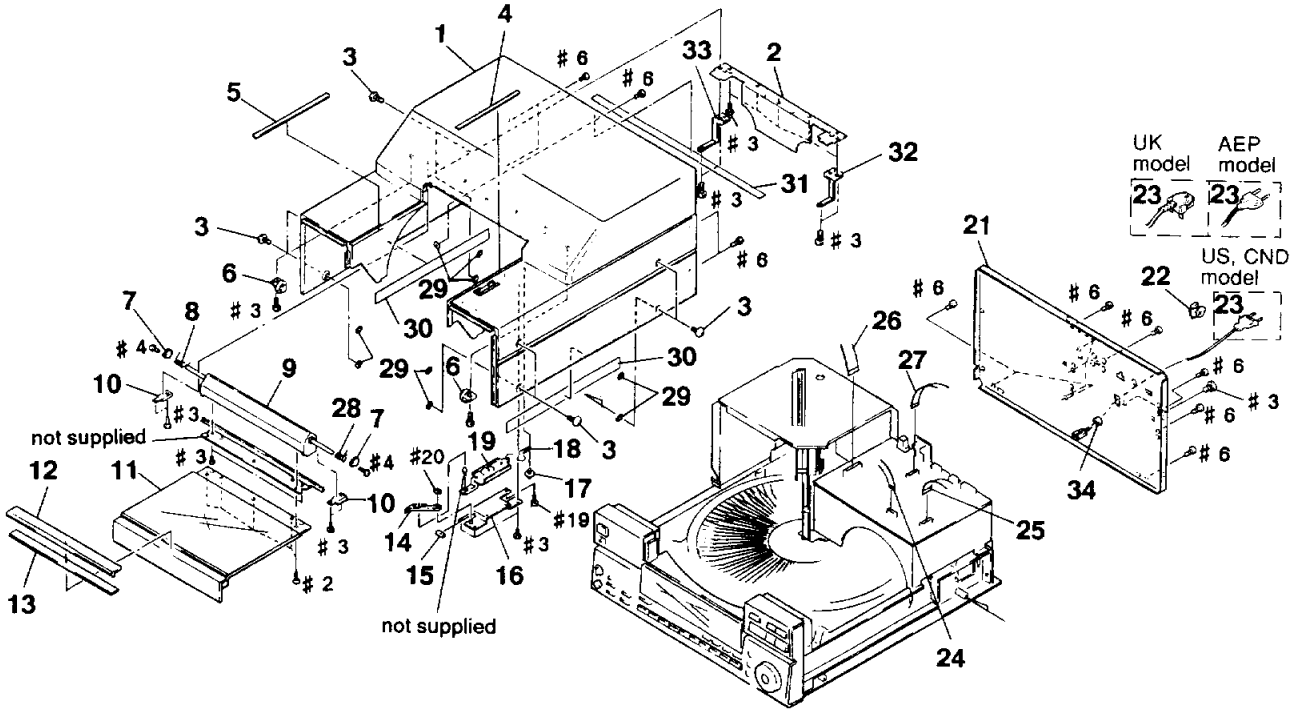
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts Example:
 KNOB, BALANCE (WHITE) ... (RED)
 ↑ ↑
 Parts color Cabinet's color

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

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

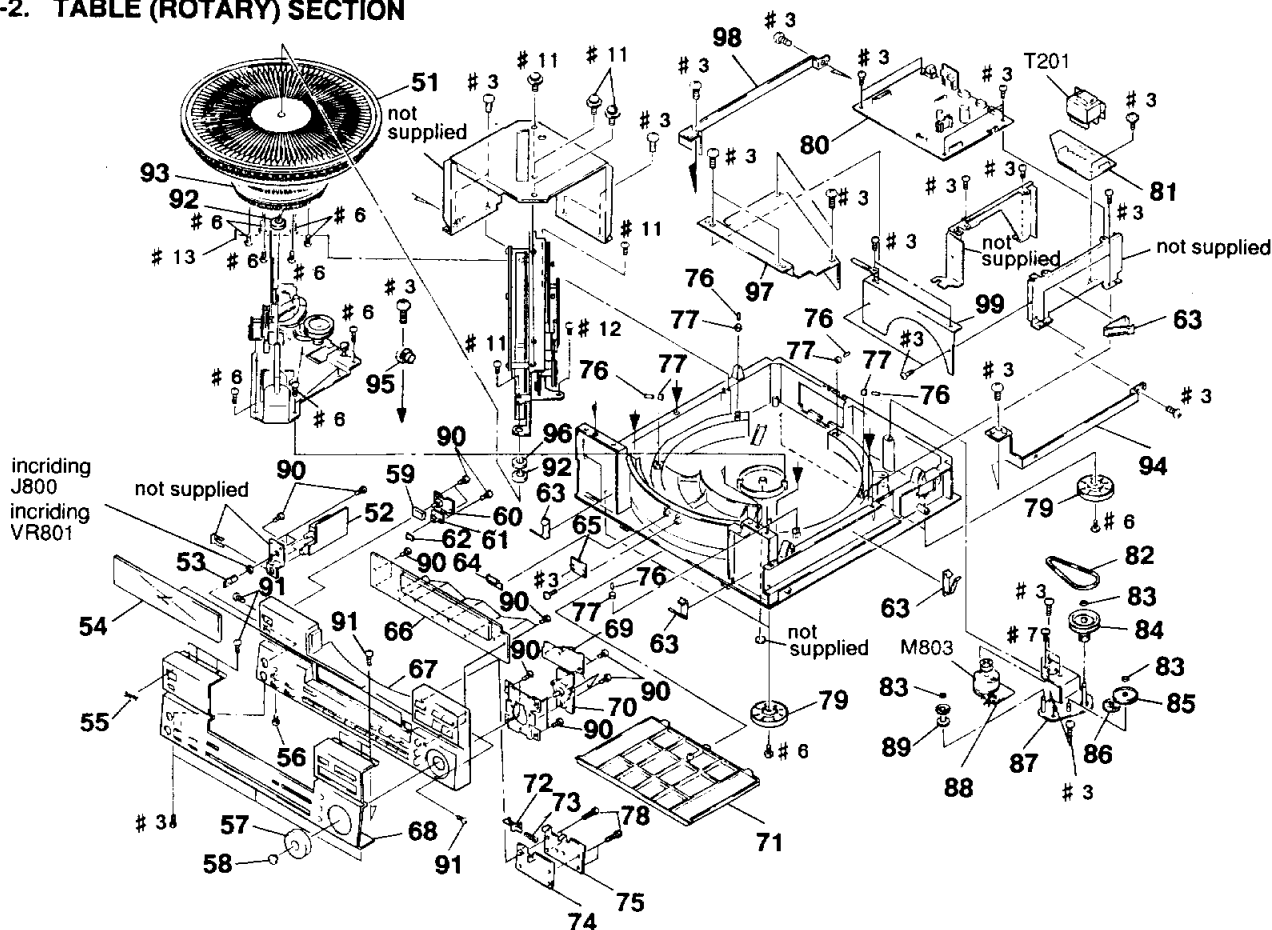
Les composants identifiés par une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-1. CASE, MAIN BOARD SECTION



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
1	4-960-522-01	CASE		* 21	4-960-521-01	PANEL, BACK (CX100:US, Canadian)	
2	4-960-938-01	BRACKET (CASE)		* 21	4-960-521-11	PANEL, BACK (CX100:AEP)	
3	3-363-099-31	SCREW (CASE 3 TP2)		* 21	4-960-521-21	PANEL, BACK (CX100:UK)	
4	4-960-545-01	CUSHION (D)		* 21	4-960-521-41	PANEL, BACK (CX100S)	
5	4-962-284-01	CUSHION (E)		* 22	3-703-244-00	BUSHING (2104), CORD	
6	4-919-393-51	DAMPER		23	1-558-568-21	CORD, POWER (CX100:AEP)	
7	4-960-588-01	GEAR (DAMPER)		23	1-559-583-21	CORD, POWER (CX100:US, Canadian/CX100S)	
8	4-960-584-01	SPRING (L), TORSION		23	1-696-571-11	CORD, POWER (CX100:UK)	
9	4-960-582-01	SHAFT (COVER)		24	1-751-482-11	WIRE (FLAT TYPE) (10 CORE)	
* 10	4-962-191-01	BRACKET (SHAFT)		25	1-751-480-11	WIRE (FLAT TYPE) (18 CORE)	
11	4-960-523-01	COVER		26	1-751-478-11	WIRE (FLAT TYPE) (23 CORE)	
12	4-960-524-01	PANEL (COVER) (CX100)		27	1-751-530-11	WIRE (FLAT TYPE) (9 CORE)	
12	4-960-524-11	PANEL (COVER) (CX100S)		28	4-960-585-01	SPRING (R), TORSION	
13	4-962-286-01	CUSHION (COVER)		29	4-963-157-01	SPACER (GROUND RING)	
14	4-960-537-01	LEVER (LOCK)		* 30	4-963-158-01	CUSHION (SIDE)	
15	4-962-285-01	CUSHION (LOCK)		* 31	4-963-156-01	SPACER (GROUND BP)	
* 16	X-4943-938-1	BRACKET (KNOB) ASSY		* 32	4-963-501-01	BRACKET (SHAFT BR)	
17	4-933-134-01	SCREW (+PTPWH M2. 6X6)		* 33	4-963-500-01	BRACKET (SHAFT BL)	
18	4-960-542-01	SPRING, TENSION		34	1-543-982-11	CORE, FERRITE	
19	4-960-538-01	KNOB (LOCK)					

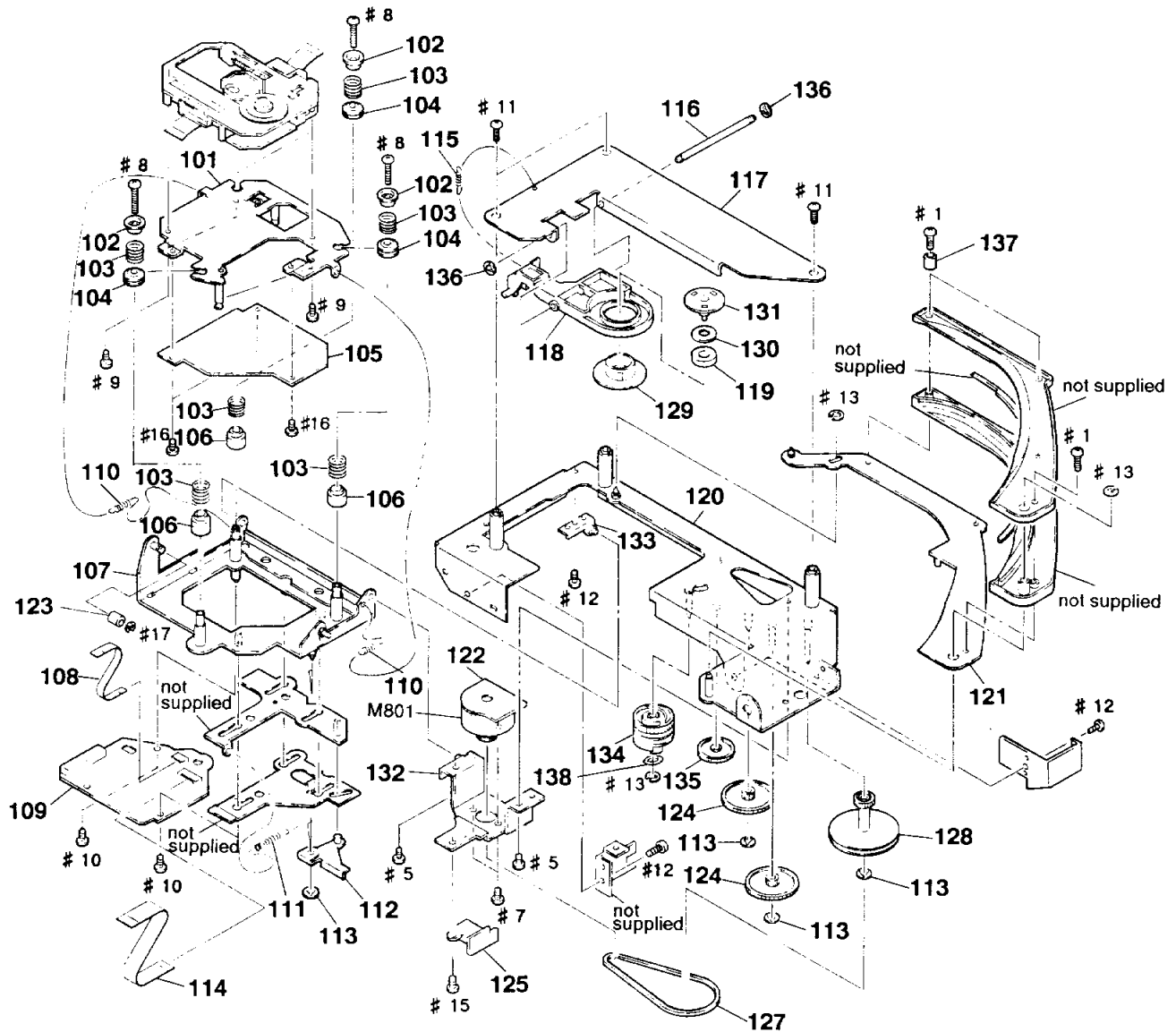
7-2. TABLE (ROTARY) SECTION



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 marquée Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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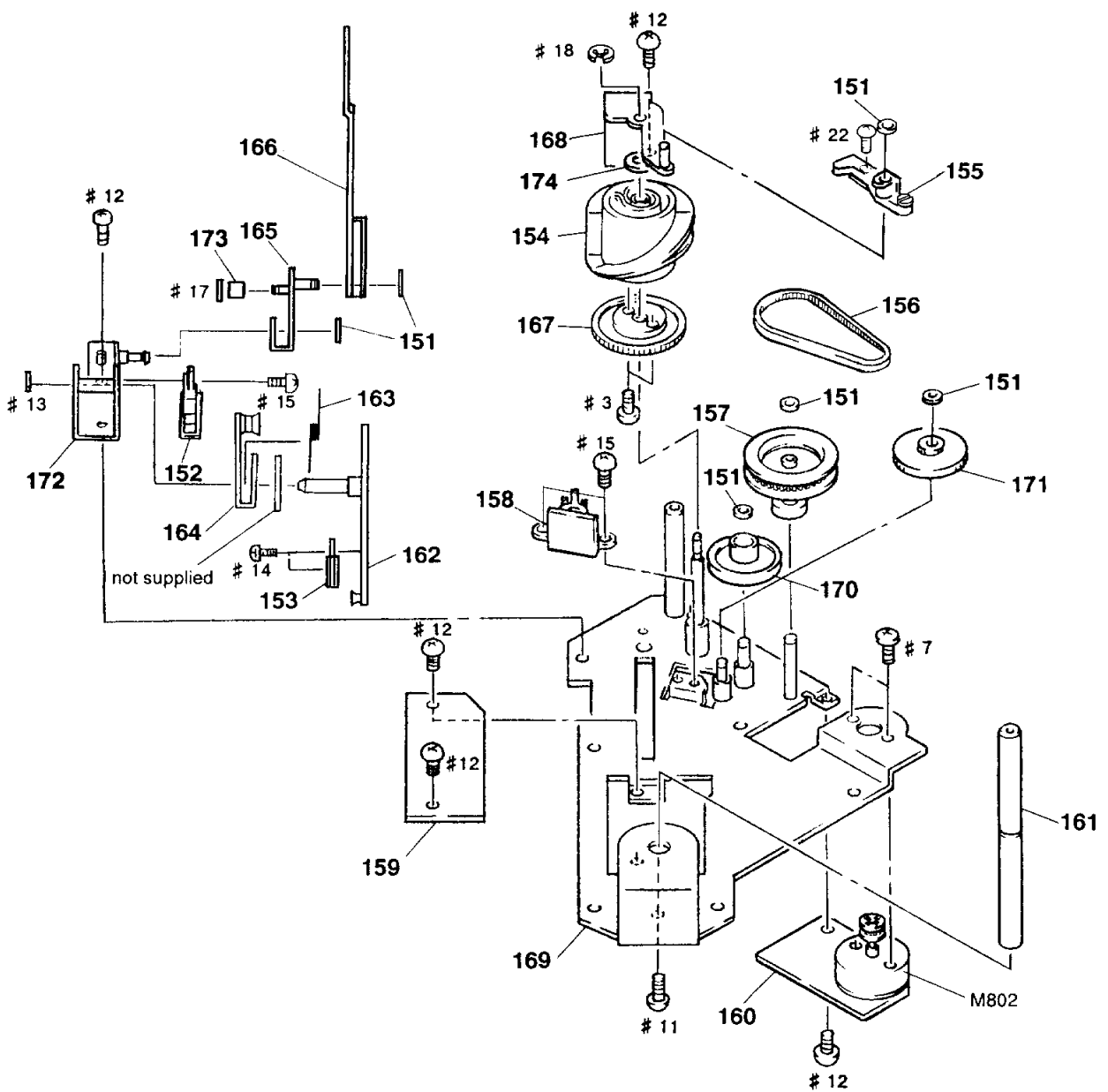
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-960-666-01	TABLE (ROTARY)		78	4-951-620-21	SCREW (2.6X10), +BVTP	
* 52	A-4649-730-A	HEADPHONE BOARD, COMPLETE		79	4-943-148-32	FOOT (F58175SW) (CX100:US, Canadian/CX100S)	
53	A-4660-547-A	KNOB (HDP) ASSY		79	4-943-148-42	FOOT (F58175SW) (CX100:AEP, UK)	
54	4-960-500-01	WINDOW (FL)		* 80	A-4649-744-A	MAIN BOARD, COMPLETE	
55	4-942-568-01	EMBLEM (NO. 5), SONY				(CX100:US, Canadian/CX100S)	
56	3-704-515-21	SCREW (BY/RING)		* 80	A-4649-745-A	MAIN BOARD, COMPLETE (CX100:AEP, UK)	
57	4-960-510-01	KNOB (JOG)		* 81	1-649-114-11	TRANSFORMER BOARD	
58	4-960-509-01	BUTTON (ENTER)		82	4-962-822-01	BELT (TIMING)	
59	4-922-921-01	BUTTON (POWER)		83	3-696-510-01	WASHER (3), STOPPER	
* 60	1-649-104-11	POWER SW BOARD		84	X-4944-234-1	GEAR (PULLEY) ASSY	
* 61	1-649-106-11	TIMER SW BOARD		85	4-960-621-01	GEAR (A)	
62	4-922-518-11	KNOB (TIMER)		86	4-960-622-01	GEAR (B)	
* 63	4-951-062-01	HOLDER (FLEXIBLE)		* 87	X-4943-954-1	BASE (ROTARY) ASSY	
64	4-960-548-01	INDICATOR (BASE)		* 88	1-649-110-11	TABLE MOTOR BOARD	
* 65	1-649-164-11	LED BOARD		89	4-960-668-01	GEAR (D)	
* 66	A-4649-729-A	PANEL BOARD, COMPLETE		90	4-951-620-01	SCREW (2.6X8), +BVTP	
67	X-4943-930-1	BASE ASSY, PANEL		91	4-909-982-31	SCREW, TAPPING	
68	4-960-497-01	PANEL, FRONT (CX100:US, Canadian)		92	3-701-446-21	WASHER, 8	
68	4-960-497-11	PANEL, FRONT (CX100:AEP, UK)		93	4-960-667-01	SENSOR (ROTARY)	
68	4-960-497-21	PANEL, FRONT (CX100S)		* 94	4-963-089-01	BRACKET (GROUND R)	
* 69	1-649-102-11	FUNCTION BOARD		95	X-4944-217-1	SHAFT (HOLD) ASSY	
* 70	1-649-103-11	JOG BOARD		* 96	4-963-239-01	SPACER	
* 71	4-960-550-01	COVER (DUST)		* 97	4-962-287-01	COVER (TRANSFORMER)	
72	4-960-525-01	LOCK		* 98	4-963-090-01	BRACKET (GROUND L)	
73	4-960-535-01	SPRING, COMPRESSION		* 99	4-906-520-01	BRACKET (C)	
74	4-960-536-01	HOLDER (LOCK)		M803	A-4604-834-A	MOTOR ASSY, TABLE	
75	4-960-534-01	BRACKET (LOCK)		Δ T201	1-423-781-11	TRANSFORMER, POWER	
76	4-934-376-01	SHAFT (ROLLER)				(CX100:US, Canadian/CX100S)	
77	X-4924-457-1	ROLLER ASSY		Δ T201	1-423-782-11	TRANSFORMER, POWER (CX100:AEP, UK)	

7-3. CD MECHANISM SECTION 1
(CDM-30)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 101	X-4943-942-1	BASE (BU) ASSY		121	X-4943-946-1	GUIDE (A) ASSY	
102	4-960-617-01	CAP (F)		* 122	1-649-108-11	CHUCKING MOTOR BOARD	
103	4-960-618-01	SPRING (F), COMPRESSION		123	4-963-590-01	ROLLER (FULCRUM PLATE BU)	
104	4-960-615-01	DAMPER (F)		124	4-960-621-01	GEAR (A)	
* 105	A-4649-728-A	RF BOARD, COMPLETE		* 125	1-649-112-11	CHUCKING SW BOARD	
106	4-960-616-01	COLLAR (F)		126	4-962-829-01	COVER (G.P)	
* 107	X-4943-941-1	PLATE (BU) ASSY, FULCRUM		127	4-962-822-01	BELT (TIMING)	
108	1-751-481-11	WIRE (FLAT TYPE)(8 CORE)		128	4-960-620-01	GEAR (PULLEY)	
* 109	A-4649-727-A	BD BOARD, COMPLETE		129	4-960-631-01	PULLEY (A)	
110	4-960-619-01	SPRING (F), TENSION		130	4-960-633-01	YOKE (MAGNET)	
111	4-960-626-01	SPRING (F LOCK), TENSION		131	4-960-632-01	PULLEY (B)	
* 112	X-4943-943-1	LEVER (F LOCK) ASSY		132	X-4943-944-1	PLATE (R) ASSY, FULCRUM	
113	3-696-510-01	WASHER (3), STOPPER		133	X-4943-945-1	PLATE (L) ASSY, FULCRUM	
114	1-751-479-11	WIRE (FLAT TYPE)(12 CORE)		134	4-960-623-01	CAM (CHUCKING)	
115	4-960-635-01	SPRING (C), TENSION		135	4-960-622-01	GEAR (B)	
116	4-960-634-01	SHAFT (Q)		136	3-669-596-01	WASHER (2.3), STOPPER	
* 117	4-960-637-01	BASE (CHUCKING)		* 137	4-885-844-01	SPACER	
118	4-960-630-01	ARM, CHUCKING		138	3-701-441-01	WASHER	
119	3-366-559-11	MAGNET (CHUCK)		M801	A-4604-834-A	MOTOR ASSY, CHUCKING	
* 120	X-4943-940-1	BASE (MD) ASSY					

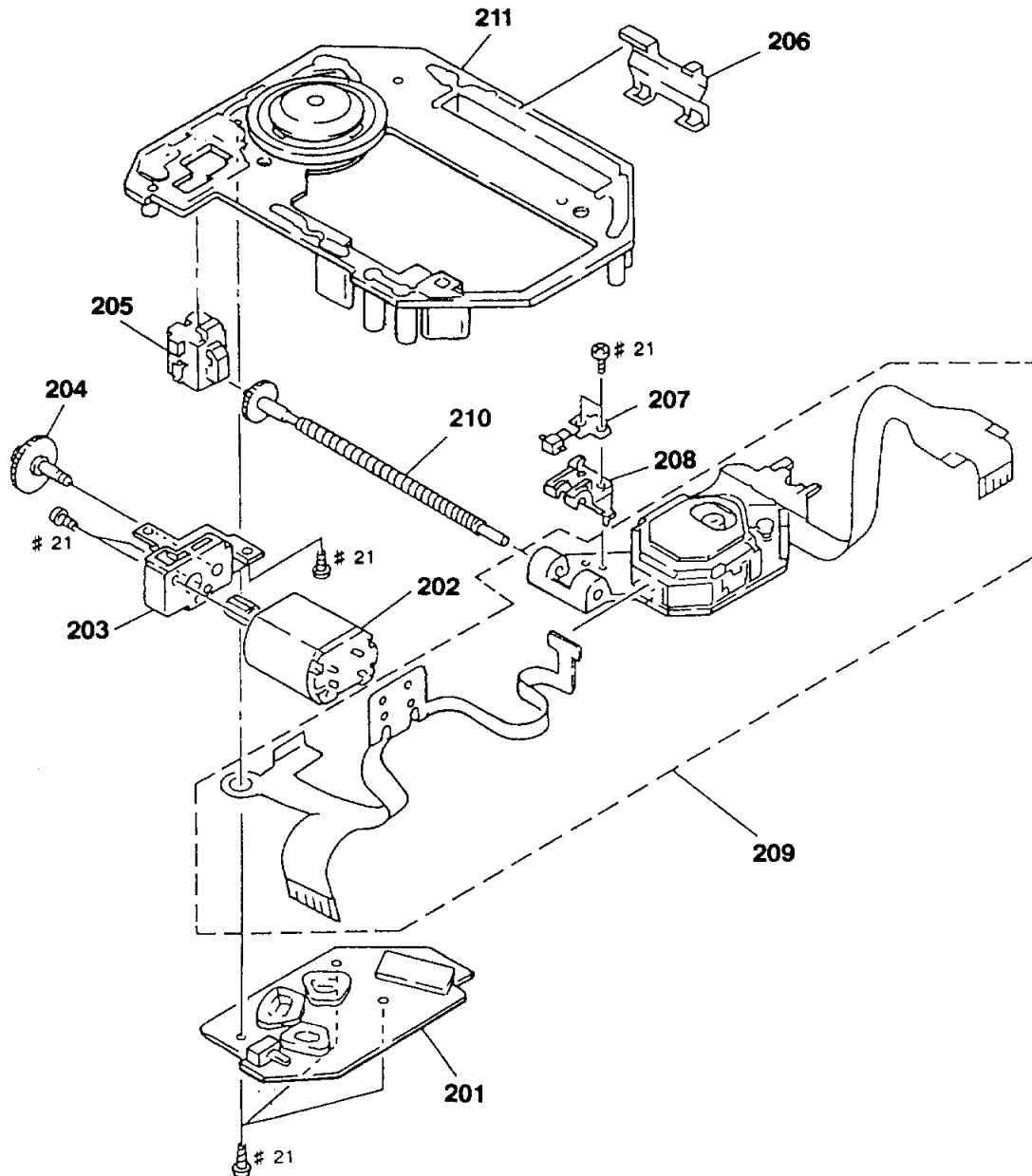
7-4. CD MECHANISM SECTION 2
(CDM-30)



Ref. No.	Part No.	Description
151	3-696-510-01	WASHER (3), STOPPER
* 152	1-649-111-11	DISK SW BOARD
* 153	4-960-663-01	GUIDE (DISK)
154	4-960-660-02	CAM (LOADING)
155	X-4944-380-1	HOLDER (T LOCK) ASSY
156	4-962-822-01	BELT (TIMING)
157	X-4944-234-1	GEAR (PULLEY) ASSY
* 158	1-649-113-11	LOADING SW BOARD
* 159	1-649-107-11	SENSOR BOARD
* 160	1-649-109-11	LOADING MOTOR BOARD
* 161	4-960-665-01	SHAFT (CENTER)
* 162	X-4943-949-1	LEVER (R) ASSY
163	4-962-522-01	SPRING (TOGGLE)

Remark	Ref. No.	Part No.	Description	Remark
	* 164	X-4943-951-1	LEVER (L) ASSY	
	* 165	X-4943-952-1	LEVER (G) ASSY	
	* 166	4-960-662-01	LEVER (LINK)	
	167	4-962-523-01	GEAR (E)	
	168	X-4943-947-1	HOLDER (CAM) ASSY	
	* 169	X-4943-953-1	BASE (LOADING) ASSY	
	170	4-960-659-01	GEAR (C)	
	171	4-960-621-01	GEAR (A)	
	* 172	X-4943-948-1	HOLDER (LEVER) ASSY	
	173	4-963-014-01	ROLLER (LEVER G)	
	174	3-701-444-01	WASHER, 6	
	M802	A-4604-834-A	MOTOR ASSY, LOADING	

**7-5. OPTICAL PICK-UP SECTION
(KSM-310ABM)**



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

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	201	8-835-456-01 DC MOTOR SSC-02E01S			207	2-625-516-01 SCREW A, FEED	
	202	X-2625-210-1 SLED MOTOR GEAR ASSY			208	2-625-515-01 RACK AT	
*	203	2-625-513-01 DRIVE BASE		\triangle 209	8-848-305-01 DEVICE, OPTICAL KSM-310ABM		
	204	2-625-507-01 GEAR (B2)			210	X-2625-209-1 SLED SCREW ASSY	
*	205	A-4910-348-B RETAINER ASSY, THRUST			211	X-2625-461-1 OMD CHASSIS ASSY	
*	206	2-625-514-01 COVER, FLEXIBLE BOARD					

BD

CHUCKING MOTOR

**SECTION 8
ELECTRICAL PARTS LIST**

NOTE:

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

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

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

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable
- Color Indication of Appearance Parts Example:
KNOB, BALANCE (WHITE) ... (RED)

Parts color Cabinet's color

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μA ..., uPA...: μPA ...,
uPB...: μPB ..., uPC...: μPC ...,
uPD...: μPD ...
- CAPACITORS
uF: μF
- COILS
uH: μH
- Hardware (# mark) list is given in the last of this parts list.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4649-727-A	BD BOARD, COMPLETE *****		R104	1-216-085-00	METAL CHIP 33K 5%	1/10W
		< CAPACITOR >		R105	1-216-097-00	METAL CHIP 100K 5%	1/10W
C101	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	R106	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
C102	1-163-038-00	CERAMIC CHIP 0.1uF		R107	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
C103	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	R108	1-216-073-00	METAL CHIP 10K 5%	1/10W
C105	1-135-155-21	TANTALUM CHIP 4.7uF	10% 16V	R109	1-216-121-00	METAL CHIP 1M 5%	1/10W
C106	1-164-346-11	CERAMIC CHIP 1uF		R110	1-216-025-00	METAL CHIP 100 5%	1/10W
C107	1-164-505-11	CERAMIC CHIP 2.2uF		R112	1-216-049-00	METAL CHIP 1K 5%	1/10W
C108	1-163-035-00	CERAMIC CHIP 0.047uF		R113	1-216-077-00	METAL CHIP 15K 5%	1/10W
C109	1-163-011-11	CERAMIC CHIP 0.0015uF	10% 50V	R114	1-216-077-00	METAL CHIP 15K 5%	1/10W
C110	1-163-017-00	CERAMIC CHIP 0.0047uF	5% 50V	R117	1-216-077-00	METAL CHIP 15K 5%	1/10W
C111	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	R118	1-216-077-00	METAL CHIP 15K 5%	1/10W
C112	1-163-038-00	CERAMIC CHIP 0.1uF		R121	1-216-077-00	METAL CHIP 15K 5%	1/10W
C113	1-163-038-00	CERAMIC CHIP 0.1uF		R122	1-216-077-00	METAL CHIP 15K 5%	1/10W
C123	1-164-232-11	CERAMIC CHIP 0.01uF		R123	1-216-073-00	METAL CHIP 10K 5%	1/10W
C124	1-164-005-11	CERAMIC CHIP 0.47uF		R124	1-216-097-00	METAL CHIP 100K 5%	1/10W
C151	1-163-007-11	CERAMIC CHIP 680PF	10% 50V	R125	1-216-049-00	METAL CHIP 1K 5%	1/10W
C152	1-163-007-11	CERAMIC CHIP 680PF	10% 50V	R126	1-216-049-00	METAL CHIP 1K 5%	1/10W
C153	1-163-038-00	CERAMIC CHIP 0.1uF		R127	1-216-049-00	METAL CHIP 1K 5%	1/10W
C154	1-164-336-11	CERAMIC CHIP 0.33uF		R131	1-216-295-00	METAL CHIP 0 5%	1/10W
C155	1-163-007-11	CERAMIC CHIP 680PF	10% 50V	R151	1-216-070-00	METAL CHIP 7.5K 5%	1/10W
C156	1-163-007-11	CERAMIC CHIP 680PF	10% 50V	R152	1-216-070-00	METAL CHIP 7.5K 5%	1/10W
C157	1-163-033-00	CERAMIC CHIP 0.022uF		R153	1-216-070-00	METAL CHIP 7.5K 5%	1/10W
C158	1-163-033-00	CERAMIC CHIP 0.022uF		R154	1-216-070-00	METAL CHIP 7.5K 5%	1/10W
C161	1-163-038-00	CERAMIC CHIP 0.1uF		R155	1-216-070-00	METAL CHIP 7.5K 5%	1/10W
		< CONNECTOR >		R156	1-216-070-00	METAL CHIP 7.5K 5%	1/10W
* CN101	1-568-865-11	SOCKET, CONNECTOR 23P		R161	1-216-308-00	METAL CHIP 4.7 5%	1/10W
CN102	1-568-794-11	SOCKET, CONNECTOR 12P		*****			
* CN103	1-580-469-11	SOCKET, CONNECTOR 8P		*	1-649-108-11	CHUCKING MOTOR BOARD *****	
		< IC >				< CAPACITOR >	
IC101	8-752-351-94	IC CXD2515Q		C850	1-161-375-00	CERAMIC 0.0022uF 20%	50V
IC102	8-759-071-79	IC BA6297AFP				< MOTOR >	
		< RESISTOR >		M801	A-4660-433-A	MOTOR ASSY (CHUCKING)	
R101	1-216-077-00	METAL CHIP 15K 5%	1/10W	*****			
R102	1-216-097-00	METAL CHIP 100K 5%	1/10W				
R103	1-216-077-00	METAL CHIP 15K 5%	1/10W				

CHUCKING SW DISK SW FUNCTION HEADPHONE

Ref. No.	Part No.	Description	Remark
*	1-649-112-11	CHUCKING SW BOARD *****	
		< SWITCH >	
S844	1-571-300-21	SWITCH, ROTARY (CHUCKING UP/DOWN DET)	

*	1-649-111-11	DISK SW BOARD *****	
		< SWITCH >	
S842	1-571-300-21	SWITCH, ROTARY (DISC DET)	

*	1-649-102-11	FUNCTION BOARD *****	
		< CONNECTOR >	
* CN807	1-568-945-11	PIN, CONNECTOR 7P	
		< DIODE >	
D814	8-719-303-02	DIODE SEL2510C-D (▷)	
D815	8-719-313-46	DIODE SEL2910A-CD (■)	
D816	8-719-301-37	DIODE SEL2210S-CD (UNLOAD)	
		< RESISTOR >	
R822	1-249-406-11	CARBON 120 5% 1/4W F	
R823	1-249-406-11	CARBON 120 5% 1/4W F	
R824	1-249-411-11	CARBON 330 5% 1/4W	
R853	1-249-420-11	CARBON 1.8K 5% 1/4W F	
R854	1-249-422-11	CARBON 2.7K 5% 1/4W F	
R855	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R856	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R857	1-249-428-11	CARBON 8.2K 5% 1/4W F	
R858	1-249-431-11	CARBON 15K 5% 1/4W	
R859	1-249-437-11	CARBON 47K 5% 1/4W	
		< SWITCH >	
S823	1-554-303-21	SWITCH, TACTILE (▷)	
S824	1-554-303-21	SWITCH, TACTILE (■)	
S825	1-554-303-21	SWITCH, TACTILE (■)	
S826	1-554-303-21	SWITCH, TACTILE (◁◁)	
S827	1-554-303-21	SWITCH, TACTILE (▷▷)	
S828	1-554-303-21	SWITCH, TACTILE (UNLOAD)	

Ref. No.	Part No.	Description	Remark
*	A-4649-730-A	HEADPHONE BOARD, COMPLETE *****	
		< CAPACITOR >	
C830	1-164-159-11	CERAMIC 0.1uF 50V	
C831	1-126-177-11	ELECT 100uF 20% 10V	
C832	1-124-478-11	ELECT 100uF 20% 25V	
C833	1-124-478-11	ELECT 100uF 20% 25V	
C834	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C835	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C836	1-161-494-00	CERAMIC 0.022uF 25V	
C837	1-164-159-11	CERAMIC 0.1uF 50V	
		< CONNECTOR >	
* CN804	1-568-934-11	PIN, CONNECTOR 7P	
* CN806	1-568-852-11	SOCKET, CONNECTOR 9P	
CN808	1-506-481-11	PIN, CONNECTOR 2P	
		< IC >	
IC807	8-759-962-08	IC BA6208	
IC820	8-759-981-89	IC RC4556S	
		< JACK >	
J800	1-750-162-61	JACK (LARGE TYPE) (PHONES)	
		< COIL >	
L890	1-412-473-21	INDUCTOR 0uH	
L891	1-412-473-21	INDUCTOR 0uH	
L892	1-412-473-21	INDUCTOR 0uH	
		< RESISTOR >	
R701	1-249-435-11	CARBON 33K 5% 1/4W	
R702	1-249-432-11	CARBON 18K 5% 1/4W	
R703	1-249-422-11	CARBON 2.7K 5% 1/4W F	
R704	1-249-429-11	CARBON 10K 5% 1/4W	
R705	1-249-402-11	CARBON 56 5% 1/4W F	
R711	1-249-435-11	CARBON 33K 5% 1/4W	
R712	1-249-432-11	CARBON 18K 5% 1/4W	
R713	1-249-422-11	CARBON 2.7K 5% 1/4W F	
R714	1-249-429-11	CARBON 10K 5% 1/4W	
R715	1-249-402-11	CARBON 56 5% 1/4W F	
R720	1-249-399-11	CARBON 33 5% 1/4W F	
R721	1-249-399-11	CARBON 33 5% 1/4W F	
		< VARIABLE RESISTOR >	
VR801	1-241-917-11	RES, VAR, CARBON 10K/10K/10K (LINE OUT PHONE LEVEL)	

JOG **LED** **LOADING MOTOR** **LOADING SW** **MAIN**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-649-103-11	JOG BOARD ***** < SWITCH, JOG >		*	A-4649-744-A	MAIN BOARD, COMPLETE ***** (CX100:US, Canadian/CX100S)	
RE800	1-692-615-11	SWITCH, JOG (SELECT/ENTER)		*	A-4649-745-A	MAIN BOARD, COMPLETE (CX100:AEP, UK) *****	
*****				*	4-908-502-01	HEAT SINK	
*	1-649-164-11	LED BOARD ***** < DIODE >		7-685-646-81	SCREW +BVTP 3X8 TYPE2		
D821	8-719-045-38	DIODE TLYA180AP(SONY) (DISC TABLE LIGHT)		< CAPACITOR >			
D822	8-719-045-38	DIODE TLYA180AP(SONY) (DISK TABLE LIGHT)		C201	1-124-572-11	ELECT 100uF 20% 63V	
D823	8-719-045-38	DIODE TLYA180AP(SONY) (DISK TABLE LIGHT)		C202	1-126-163-11	ELECT 4.7uF 20% 50V	(CX100:US, Canadian/CX100S)
< RESISTOR >				C202	1-126-875-51	ELECT 4.7uF 20% 63V	(CX100:AEP, UK)
R891	1-247-811-31	CARBON 150 5% 1/4W		C203	1-124-360-00	ELECT 1000uF 20% 16V	(CX100:US, Canadian/CX100S)
R895	1-247-811-31	CARBON 150 5% 1/4W		C203	1-126-027-11	ELECT 1000uF 20% 25V	(CX100:AEP, UK)
R896	1-247-811-31	CARBON 150 5% 1/4W		C204	1-126-937-11	ELECT 4700uF 20% 16V	
*****				C205	1-126-163-11	ELECT 4.7uF 20% 50V	
*	1-649-109-11	LOADING MOTOR BOARD ***** < CAPACITOR >		C206	1-126-059-11	ELECT 10uF 20% 50V	
C851	1-161-375-00	CERAMIC 0.0022uF 20% 50V		C207	1-126-059-11	ELECT 10uF 20% 50V	
< CONNECTOR >				C208	1-126-012-11	ELECT 470uF 20% 16V	
* CN891	1-568-941-11	PIN, CONNECTOR 3P		C209	1-136-165-00	FILM 0.1uF 5% 50V	
CN892	1-506-481-11	PIN, CONNECTOR 2P		C210	1-126-101-11	ELECT 100uF 20% 16V	
* CN893	1-568-943-11	PIN, CONNECTOR 5P		C211	1-124-997-11	ELECT 470uF 20% 10V	(CX100:US, Canadian/CX100S)
CN895	1-750-415-11	CONNECTOR, FFC/FPC 10P		C211	1-126-012-11	ELECT 470uF 20% 16V	(CX100:AEP, UK)
< MOTOR >				C212	1-136-165-00	FILM 0.1uF 5% 50V	
M802	A-4604-834-A	MOTOR ASSY (LOADING)		C213	1-124-994-11	ELECT 100uF 20% 10V	(CX100:US, Canadian/CX100S)
*****				C213	1-126-023-11	ELECT 100uF 20% 16V	(CX100:AEP, UK)
*	1-649-113-11	LOADING SW BOARD ***** < SWITCH >		C214	1-136-165-00	FILM 0.1uF 5% 50V	
S843	1-571-300-21	SWITCH, ROTARY (LOADING DET)		C215	1-124-360-00	ELECT 1000uF 20% 16V	
*****				C216	1-126-012-11	ELECT 470uF 20% 16V	
				C221	1-164-159-11	CERAMIC 0.1uF 50V	
				C308	1-164-159-11	CERAMIC 0.1uF 50V	
				C309	1-126-022-11	ELECT 47uF 20% 16V	
				C310	1-164-159-11	CERAMIC 0.1uF 50V	
				C311	1-164-159-11	CERAMIC 0.1uF 50V	
				C320	1-164-159-11	CERAMIC 0.1uF 50V	
				C321	1-164-159-11	CERAMIC 0.1uF 50V	
				C331	1-162-208-31	CERAMIC 24PF 5% 50V	
				C333	1-162-208-31	CERAMIC 24PF 5% 50V	
				C336	1-126-022-11	ELECT 47uF 20% 16V	
				C337	1-164-159-11	CERAMIC 0.1uF 50V	
				C340	1-124-994-11	ELECT 100uF 20% 10V	
				C341	1-136-165-00	FILM 0.1uF 5% 50V	
				C343	1-136-165-00	FILM 0.1uF 5% 50V	

MAIN

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C345	1-136-165-00	FILM	0.1uF 5% 50V	C604	1-164-159-11	CERAMIC	0.1uF 50V
C346	1-136-165-00	FILM	0.1uF 5% 50V	C912	1-136-165-00	FILM	0.1uF 5% 50V
C348	1-136-165-00	FILM	0.1uF 5% 50V	C913	1-136-165-00	FILM	0.1uF 5% 50V
C349	1-124-994-11	ELECT	100uF 20% 10V	C992	1-126-022-11	ELECT	47uF 20% 16V
C350	1-126-301-11	ELECT	1uF 20% 50V			< CONNECTOR >	
C351	1-136-165-00	FILM	0.1uF 5% 50V	CN203	1-564-510-11	PLUG, CONNECTOR	7P
C352	1-164-159-11	CERAMIC	0.1uF 50V	CN401	1-568-468-11	SOCKET, CONNECTOR	18P
C353	1-162-199-31	CERAMIC	10PF 5% 50V	* CN402	1-568-829-11	SOCKET, CONNECTOR	10P
C354	1-162-199-31	CERAMIC	10PF 5% 50V	* CN403	1-568-954-11	PIN, CONNECTOR	5P
C355	1-164-159-11	CERAMIC	0.1uF 50V	* CN404	1-568-951-11	PIN, CONNECTOR	2P
C356	1-124-994-11	ELECT	100uF 20% 10V	CN601	1-566-213-11	PIN, CONNECTOR	4P (CONTROL S IN)
C358	1-136-165-00	FILM	0.1uF 5% 50V	* CN903	1-568-828-11	SOCKET, CONNECTOR	9P
C360	1-136-165-00	FILM	0.1uF 5% 50V	* CN904	1-568-839-11	SOCKET, CONNECTOR	23P
C361	1-162-280-31	CERAMIC	82PF 10% 50V			< DIODE >	
C362	1-136-165-00	FILM	0.1uF 5% 50V	D201	8-719-200-82	DIODE	11ES2
C363	1-162-213-31	CERAMIC	39PF 5% 50V	D202	8-719-110-08	DIODE	RD8.2ES-B2
C364	1-162-213-31	CERAMIC	39PF 5% 50V	D203	8-719-200-82	DIODE	11ES2
C365	1-162-213-31	CERAMIC	39PF 5% 50V	D204	8-719-200-82	DIODE	11ES2
C366	1-162-213-31	CERAMIC	39PF 5% 50V	D205	8-719-200-82	DIODE	11ES2
C367	1-162-280-31	CERAMIC	82PF 10% 50V	D206	8-719-200-82	DIODE	11ES2
C371	1-106-359-00	MYLAR	4700PF 5% 200V	D207	8-719-114-10	DIODE	RD36ES-B2
C372	1-106-359-00	MYLAR	4700PF 5% 200V	D208	8-719-109-85	DIODE	RD5.1ES-B2
C373	1-130-472-00	MYLAR	0.0012uF 5% 50V	D209	8-719-987-63	DIODE	1N4148M
C374	1-130-472-00	MYLAR	0.0012uF 5% 50V	D301	8-719-987-63	DIODE	1N4148M
C377	1-124-910-11	ELECT	47uF 20% 50V	D302	8-719-210-21	DIODE	11EQS04
C378	1-124-910-11	ELECT	47uF 20% 50V	D351	8-719-987-63	DIODE	1N4148M
C381	1-136-165-00	FILM	0.1uF 5% 50V	D601	8-719-987-63	DIODE	1N4148M
C382	1-136-165-00	FILM	0.1uF 5% 50V	D602	8-719-987-63	DIODE	1N4148M
C383	1-124-994-11	ELECT	100uF 20% 10V	D603	8-719-109-87	DIODE	RD5.6ES-B
C384	1-124-994-11	ELECT	100uF 20% 10V			< IC >	
C390	1-130-472-00	MYLAR	0.0012uF 5% 50V	IC201	8-759-145-58	IC	UPC4558C
C391	1-130-472-00	MYLAR	0.0012uF 5% 50V	IC202	8-759-630-21	IC	M5290P-16
C392	1-130-472-00	MYLAR	0.0012uF 5% 50V	IC204	8-759-605-00	IC	M5F78M07L
C393	1-130-472-00	MYLAR	0.0012uF 5% 50V	IC302	8-752-356-03	IC	CXD2567M
C401	1-126-022-11	ELECT	47uF 20% 16V	IC303	8-759-044-10	IC	CXD2562Q
C402	1-164-159-11	CERAMIC	0.1uF 50V	IC306	8-759-900-72	IC	NE5532P
C403	1-126-022-11	ELECT	47uF 20% 16V	IC307	8-759-900-72	IC	NE5532P
C404	1-124-910-11	ELECT	47uF 20% 50V	IC308	8-749-921-12	IC	GP1F32T (DIGITAL OUT OPTICAL)
			(CX100:AEP, UK)	IC401	8-759-183-58	IC	M37451M4-TTX853
C404	1-126-022-11	ELECT	47uF 20% 16V	IC403	8-759-821-32	IC	CXA1291P
			(CX100:US, Canadian/CX100S)	IC601	8-759-708-05	IC	NJM78L05A
C405	1-162-306-11	CERAMIC	0.01uF 20% 16V			< JACK >	
C406	1-162-306-11	CERAMIC	0.01uF 20% 16V	J390	1-569-443-21	JACK, PIN 4P	(LINE OUT)
C407	1-164-159-11	CERAMIC	0.1uF 50V	J601	1-695-473-11	JACK (EARPHONE)	(REMOTE)
C408	1-164-159-11	CERAMIC	0.1uF 50V				
C409	1-164-159-11	CERAMIC	0.1uF 50V				
C410	1-164-159-11	CERAMIC	0.1uF 50V				
C601	1-162-306-11	CERAMIC	0.01uF 20% 16V				
C602	1-164-159-11	CERAMIC	0.1uF 50V				
C603	1-164-159-11	CERAMIC	0.1uF 50V				

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< COIL >							
L301	1-412-297-11	INDUCTOR	3. 3uH	R214	1-249-417-11	CARBON	1K 5% 1/4W F
L302	1-410-397-21	INDUCTOR	1. 1uH	R251	1-249-417-11	CARBON	1K 5% 1/4W F
L331	1-410-322-11	INDUCTOR	3. 3uH	R301	1-249-417-11	CARBON	1K 5% 1/4W F
L343	1-412-473-21	INDUCTOR	0uH	R302	1-249-417-11	CARBON	1K 5% 1/4W F
L344	1-412-473-21	INDUCTOR	0uH	R303	1-249-417-11	CARBON	1K 5% 1/4W F
L345	1-412-473-21	INDUCTOR	0uH	R321	1-249-417-11	CARBON	1K 5% 1/4W F
L346	1-412-473-21	INDUCTOR	0uH	R322	1-249-417-11	CARBON	1K 5% 1/4W F
L348	1-412-473-21	INDUCTOR	0uH	R323	1-249-417-11	CARBON	1K 5% 1/4W F
L350	1-412-473-21	INDUCTOR	0uH	R324	1-249-417-11	CARBON	1K 5% 1/4W F
L351	1-412-473-21	INDUCTOR	0uH	R330	1-249-417-11	CARBON	1K 5% 1/4W F
L358	1-412-473-21	INDUCTOR	0uH	R331	1-249-409-11	CARBON	220 5% 1/4W F
L401	1-412-473-21	INDUCTOR	0uH	R342	1-249-417-11	CARBON	1K 5% 1/4W F
L601	1-412-473-21	INDUCTOR	0uH	R343	1-249-441-11	CARBON	100K 5% 1/4W
L903	1-412-473-21	INDUCTOR	0uH	R344	1-249-441-11	CARBON	100K 5% 1/4W
L904	1-410-322-11	INDUCTOR	3. 3uH	R345	1-249-425-11	CARBON	4. 7K 5% 1/4W F
				R346	1-249-425-11	CARBON	4. 7K 5% 1/4W F
< TRANSISTOR >							
Q201	8-729-803-76	TRANSISTOR	2SA916LTP	R347	1-249-441-11	CARBON	100K 5% 1/4W
Q202	8-729-905-67	TRANSISTOR	2SD1944-K	R350	1-249-393-11	CARBON	10 5% 1/4W F
Q203	8-729-140-97	TRANSISTOR	2SB734-34	R351	1-249-436-11	CARBON	39K 5% 1/4W
Q204	8-729-900-65	TRANSISTOR	DTA144ES	R352	1-249-436-11	CARBON	39K 5% 1/4W
Q205	8-729-900-89	TRANSISTOR	DTC144ES	R353	1-249-436-11	CARBON	39K 5% 1/4W
Q206	8-729-900-89	TRANSISTOR	DTC144ES	R354	1-249-436-11	CARBON	39K 5% 1/4W
Q207	8-729-140-96	TRANSISTOR	2SD774-34	R355	1-249-436-11	CARBON	39K 5% 1/4W
Q341	8-729-900-61	TRANSISTOR	DTA114ES	R356	1-249-436-11	CARBON	39K 5% 1/4W
Q342	8-729-900-61	TRANSISTOR	DTA114ES	R357	1-249-436-11	CARBON	39K 5% 1/4W
Q343	8-729-900-65	TRANSISTOR	DTA144ES	R358	1-249-436-11	CARBON	39K 5% 1/4W
Q344	8-729-900-89	TRANSISTOR	DTC144ES	R359	1-247-848-11	CARBON	5. 1K 5% 1/4W
Q371	8-729-900-74	TRANSISTOR	DTC143TS	R361	1-249-433-11	CARBON	22K 5% 1/4W
Q372	8-729-900-74	TRANSISTOR	DTC143TS	R362	1-249-433-11	CARBON	22K 5% 1/4W
Q373	8-729-900-74	TRANSISTOR	DTC143TS	R363	1-249-433-11	CARBON	22K 5% 1/4W
Q374	8-729-900-74	TRANSISTOR	DTC143TS	R364	1-249-433-11	CARBON	22K 5% 1/4W
Q375	8-729-141-30	TRANSISTOR	2SC3623A-LK	R365	1-247-872-11	CARBON	51K 5% 1/4W
Q376	8-729-141-30	TRANSISTOR	2SC3623A-LK	R366	1-247-872-11	CARBON	51K 5% 1/4W
Q601	8-729-900-89	TRANSISTOR	DTC144ES	R367	1-247-872-11	CARBON	51K 5% 1/4W
Q602	8-729-900-61	TRANSISTOR	DTA114ES	R368	1-247-872-11	CARBON	51K 5% 1/4W
Q603	8-729-900-61	TRANSISTOR	DTA114ES	R369	1-249-419-11	CARBON	1. 5K 5% 1/4W
Q604	8-729-900-61	TRANSISTOR	DTA114ES	R370	1-249-419-11	CARBON	1. 5K 5% 1/4W
				R371	1-249-419-11	CARBON	1. 5K 5% 1/4W
				R372	1-249-419-11	CARBON	1. 5K 5% 1/4W
				R373	1-247-891-00	CARBON	330K 5% 1/4W
				R374	1-247-891-00	CARBON	330K 5% 1/4W
< RESISTOR >							
R201	1-249-429-11	CARBON	10K 5% 1/4W	R375	1-249-409-11	CARBON	220 5% 1/4W
R202	1-249-423-11	CARBON	3. 3K 5% 1/4W F	R376	1-249-409-11	CARBON	220 5% 1/4W
R204	1-249-417-11	CARBON	1K 5% 1/4W F	R377	1-249-409-11	CARBON	220 5% 1/4W
R205	1-249-425-11	CARBON	4. 7K 5% 1/4W F	R378	1-249-409-11	CARBON	220 5% 1/4W
R206	1-249-429-11	CARBON	10K 5% 1/4W	R383	1-249-413-11	CARBON	470 5% 1/4W F
R207	1-247-807-31	CARBON	100 5% 1/4W	R384	1-249-413-11	CARBON	470 5% 1/4W F
R208	1-249-423-11	CARBON	3. 3K 5% 1/4W F	R385	1-249-393-11	CARBON	10 5% 1/4W F
R209	1-249-413-11	CARBON	470 5% 1/4W F	R386	1-249-393-11	CARBON	10 5% 1/4W F
R210	1-249-425-11	CARBON	4. 7K 5% 1/4W F	R389	1-249-413-11	CARBON	470 5% 1/4W F

MAIN PANEL

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
R390	1-249-413-11	CARBON	470	5%	1/4W	F		4-960-503-01	HOLDER (LED 5 GANG)				
R401	1-249-425-11	CARBON	4.7K	5%	1/4W	F			< CAPACITOR >				
R402	1-249-425-11	CARBON	4.7K	5%	1/4W	F		C801	1-161-494-00	CERAMIC	0.022uF		25V
R403	1-249-425-11	CARBON	4.7K	5%	1/4W	F		C802	1-125-486-11	DOUBLE LAYERS	0.22F		5.5V
R404	1-249-425-11	CARBON	4.7K	5%	1/4W	F		C803	1-164-159-11	CERAMIC	0.1uF		50V
R405	1-249-425-11	CARBON	4.7K	5%	1/4W	F		C804	1-124-584-00	ELECT	100uF	20%	10V
R406	1-249-429-11	CARBON	10K	5%	1/4W			C805	1-136-153-00	FILM	0.01uF	5%	50V
R407	1-249-429-11	CARBON	10K	5%	1/4W			C806	1-136-153-00	FILM	0.01uF	5%	50V
R408	1-247-903-00	CARBON	1M	5%	1/4W			C807	1-136-153-00	FILM	0.01uF	5%	50V
R409	1-249-441-11	CARBON	100K	5%	1/4W			C810	1-162-294-31	CERAMIC	0.001uF	10%	50V
R410	1-249-441-11	CARBON	100K	5%	1/4W			C811	1-162-294-31	CERAMIC	0.001uF	10%	50V
R411	1-247-878-00	CARBON	91K	5%	1/4W			C812	1-162-294-31	CERAMIC	0.001uF	10%	50V
R412	1-247-878-00	CARBON	91K	5%	1/4W								
R413	1-249-441-11	CARBON	100K	5%	1/4W			C814	1-124-584-00	ELECT	100uF	20%	10V
R414	1-249-441-11	CARBON	100K	5%	1/4W			C816	1-124-584-00	ELECT	100uF	20%	10V
R415	1-247-878-00	CARBON	91K	5%	1/4W			C817	1-164-159-11	CERAMIC	0.1uF		50V
R416	1-247-878-00	CARBON	91K	5%	1/4W			C818	1-164-159-11	CERAMIC	0.1uF		50V
R417	1-249-441-11	CARBON	100K	5%	1/4W			C819	1-162-294-31	CERAMIC	0.001uF	10%	50V
R418	1-249-441-11	CARBON	100K	5%	1/4W								
R419	1-247-878-00	CARBON	91K	5%	1/4W			C820	1-162-294-31	CERAMIC	0.001uF	10%	50V
R420	1-247-878-00	CARBON	91K	5%	1/4W			C821	1-164-159-11	CERAMIC	0.1uF		50V
R421	1-249-393-11	CARBON	10	5%	1/4W	F		C860	1-162-282-31	CERAMIC	100PF	10%	50V
R422	1-249-393-11	CARBON	10	5%	1/4W	F							
R423	1-249-393-11	CARBON	10	5%	1/4W	F							
R451	1-249-417-11	CARBON	1K	5%	1/4W	F							
R452	1-249-417-11	CARBON	1K	5%	1/4W	F							
R453	1-249-417-11	CARBON	1K	5%	1/4W	F							
R454	1-249-417-11	CARBON	1K	5%	1/4W	F							
R455	1-249-417-11	CARBON	1K	5%	1/4W	F							
R456	1-249-417-11	CARBON	1K	5%	1/4W	F							
R457	1-249-417-11	CARBON	1K	5%	1/4W	F							
R601	1-249-429-11	CARBON	10K	5%	1/4W								
R602	1-249-429-11	CARBON	10K	5%	1/4W								
R603	1-249-393-11	CARBON	10	5%	1/4W	F							
R951	1-249-432-11	CARBON	18K	5%	1/4W								
R952	1-249-432-11	CARBON	18K	5%	1/4W								
		< SWITCH >											
S901	1-692-655-11	SWITCH, SLIDE (COMMAND MODE)											
		< VIBRATOR >											
X351	1-579-161-11	VIBRATOR, CRYSTAL (45.159MHz)											
X401	1-579-175-11	VIBRATOR, CERAMIC (10MHz)											

*	A-4649-729-A	PANEL BOARD, COMPLETE											

	4-960-501-01	HOLDER (FL TUBE)											
	4-960-502-01	HOLDER (LED 3 GANG)											
		< CONNECTOR >											
CN800	1-568-861-11	SOCKET, CONNECTOR 18P											
		< DIODE >											
D801	8-719-043-43	DIODE	VRPY5614S (1)										
D802	8-719-043-43	DIODE	VRPY5614S (2)										
D803	8-719-043-43	DIODE	VRPY5614S (3)										
D804	8-719-043-43	DIODE	VRPY5614S (4)										
D805	8-719-043-43	DIODE	VRPY5614S (5)										
D806	8-719-043-43	DIODE	VRPY5614S (6)										
D807	8-719-043-43	DIODE	VRPY5614S (7)										
D808	8-719-043-43	DIODE	VRPY5614S (8)										
D809	8-719-043-43	DIODE	VRPY5614S (9)										
D810	8-719-043-43	DIODE	VRPY5614S (10)										
D811	8-719-043-39	DIODE	MPY3338S-J210K (CONTINUE)										
D812	8-719-045-14	DIODE	MAA3338S-J210K (SHUFFLE)										
D813	8-719-043-38	DIODE	MVR3338S-J210K (PROGRAM)										
D820	8-719-987-63	DIODE	1N4148M										
		< FLUORESCENT INDICATOR >											
FL801	1-517-191-11	INDICATOR TUBE, FLUORESCENT											
		< IC >											
IC801	8-759-182-58	IC	MB89646PF-104										
IC802	8-759-183-27	IC	M66004M5SP										
IC803	8-759-183-47	IC	M66310FP										
IC804	8-759-512-81	IC	LH5160N-10L										
IC805	8-741-100-48	IC	SBX1610-59										

PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
IC806	8-759-183-47	IC M66310FP		R847	1-249-428-11	CARBON	8.2K 5% 1/4W F
		< COIL >		R848	1-249-431-11	CARBON	15K 5% 1/4W
L880	1-412-473-21	INDUCTOR 0uH		R849	1-249-437-11	CARBON	47K 5% 1/4W
		< TRANSISTOR >		R850	1-249-429-11	CARBON	10K 5% 1/4W
Q800	8-729-900-80	TRANSISTOR DTC114ES		R851	1-249-417-11	CARBON	1K 5% 1/4W F
Q801	8-729-900-80	TRANSISTOR DTC114ES		R852	1-249-419-11	CARBON	1.5K 5% 1/4W F
Q802	8-729-900-80	TRANSISTOR DTC114ES		R853	1-249-429-11	CARBON	10K 5% 1/4W
Q803	8-729-900-80	TRANSISTOR DTC114ES		R854	1-249-429-11	CARBON	10K 5% 1/4W
		< RESISTOR >		R856	1-249-429-11	CARBON	10K 5% 1/4W
R801	1-249-411-11	CARBON	330 5% 1/4W	R860	1-249-429-11	CARBON	10K 5% 1/4W
R802	1-247-811-31	CARBON	150 5% 1/4W	R861	1-249-429-11	CARBON	10K 5% 1/4W
R803	1-249-411-11	CARBON	330 5% 1/4W	R862	1-249-429-11	CARBON	10K 5% 1/4W
R804	1-247-811-31	CARBON	150 5% 1/4W	R863	1-249-434-11	CARBON	27K 5% 1/4W
R805	1-249-411-11	CARBON	330 5% 1/4W	R864	1-247-864-11	CARBON	24K 5% 1/4W
R806	1-247-811-31	CARBON	150 5% 1/4W	R865	1-249-411-11	CARBON	330 5% 1/4W
R807	1-249-411-11	CARBON	330 5% 1/4W	R870	1-249-429-11	CARBON	10K 5% 1/4W
R808	1-247-811-31	CARBON	150 5% 1/4W	R871	1-249-429-11	CARBON	10K 5% 1/4W
R809	1-249-411-11	CARBON	330 5% 1/4W	R872	1-249-429-11	CARBON	10K 5% 1/4W
R810	1-247-811-31	CARBON	150 5% 1/4W	R873	1-249-429-11	CARBON	10K 5% 1/4W
R811	1-249-411-11	CARBON	330 5% 1/4W	R874	1-249-429-11	CARBON	10K 5% 1/4W
R812	1-247-811-31	CARBON	150 5% 1/4W	R875	1-249-429-11	CARBON	10K 5% 1/4W
R813	1-249-411-11	CARBON	330 5% 1/4W	R876	1-249-429-11	CARBON	10K 5% 1/4W
R814	1-247-811-31	CARBON	150 5% 1/4W	R877	1-249-429-11	CARBON	10K 5% 1/4W
R815	1-249-411-11	CARBON	330 5% 1/4W	R878	1-249-429-11	CARBON	10K 5% 1/4W
R816	1-247-811-31	CARBON	150 5% 1/4W	R879	1-249-429-11	CARBON	10K 5% 1/4W
R817	1-249-411-11	CARBON	330 5% 1/4W	R880	1-249-429-11	CARBON	10K 5% 1/4W
R818	1-247-811-31	CARBON	150 5% 1/4W	R881	1-249-429-11	CARBON	10K 5% 1/4W
R819	1-249-411-11	CARBON	330 5% 1/4W	R882	1-249-429-11	CARBON	10K 5% 1/4W
R820	1-247-811-31	CARBON	150 5% 1/4W	R883	1-249-429-11	CARBON	10K 5% 1/4W
R821	1-249-411-11	CARBON	330 5% 1/4W	R884	1-249-429-11	CARBON	10K 5% 1/4W
R830	1-249-429-11	CARBON	10K 5% 1/4W	R885	1-249-399-11	CARBON	33 5% 1/4W F
R831	1-249-417-11	CARBON	1K 5% 1/4W F	R886	1-249-429-11	CARBON	10K 5% 1/4W
R832	1-249-419-11	CARBON	1.5K 5% 1/4W F	R889	1-249-429-11	CARBON	10K 5% 1/4W
R833	1-249-420-11	CARBON	1.8K 5% 1/4W F	R867	1-249-417-11	CARBON	1K 5% 1/4W
R834	1-249-422-11	CARBON	2.7K 5% 1/4W F	R868	1-249-417-11	CARBON	1K 5% 1/4W
R835	1-249-423-11	CARBON	3.3K 5% 1/4W F	R890	1-249-417-11	CARBON	1K 5% 1/4W
R836	1-249-425-11	CARBON	4.7K 5% 1/4W F			< SWITCH >	
R837	1-249-428-11	CARBON	8.2K 5% 1/4W F	S800	1-554-303-21	SWITCH, TACTILE (1)	
R838	1-249-431-11	CARBON	15K 5% 1/4W	S801	1-554-303-21	SWITCH, TACTILE (2)	
R839	1-249-437-11	CARBON	47K 5% 1/4W	S802	1-554-303-21	SWITCH, TACTILE (3)	
R840	1-249-429-11	CARBON	10K 5% 1/4W	S803	1-554-303-21	SWITCH, TACTILE (4)	
R841	1-249-417-11	CARBON	1K 5% 1/4W F	S804	1-554-303-21	SWITCH, TACTILE (5)	
R842	1-249-419-11	CARBON	1.5K 5% 1/4W F	S805	1-554-303-21	SWITCH, TACTILE (6)	
R843	1-249-420-11	CARBON	1.8K 5% 1/4W F	S806	1-554-303-21	SWITCH, TACTILE (7)	
R844	1-249-422-11	CARBON	2.7K 5% 1/4W F	S807	1-554-303-21	SWITCH, TACTILE (8)	
R845	1-249-423-11	CARBON	3.3K 5% 1/4W F	S808	1-554-303-21	SWITCH, TACTILE (9)	
R846	1-249-425-11	CARBON	4.7K 5% 1/4W F	S809	1-554-303-21	SWITCH, TACTILE (10)	
				S810	1-554-303-21	SWITCH, TACTILE (GROUP ENTRY)	
				S811	1-554-303-21	SWITCH, TACTILE (REPEAT)	

PANEL **POWER SW** **RF**

Ref. No.	Part No.	Description	Remark
S812	1-554-303-21	SWITCH, TACTILE (CONTINUE)	
S813	1-554-303-21	SWITCH, TACTILE (SHUFFLE)	
S814	1-554-303-21	SWITCH, TACTILE (PROGRAM)	
S815	1-554-303-21	SWITCH, TACTILE (CLEAR)	
S816	1-554-303-21	SWITCH, TACTILE (MEMO)	
S817	1-554-303-21	SWITCH, TACTILE (CHECK)	
S818	1-554-303-21	SWITCH, TACTILE (TIME)	
S819	1-554-303-21	SWITCH, TACTILE (LEVEL FILE)	
S820	1-554-303-21	SWITCH, TACTILE (ERASE)	
S821	1-554-303-21	SWITCH, TACTILE (FILE)	
S822	1-554-303-21	SWITCH, TACTILE (INPUT)	
< VIBRATOR >			
X800	1-579-175-11	VIBRATOR, CERAMIC (10MHz)	

*	1-649-104-11	POWER SW BOARD	

< CONNECTOR >			
* CN805	1-568-943-11	PIN, CONNECTOR 5P	
< SWITCH >			
S805	1-572-714-11	SWITCH, PUSH (POWER)	

*	A-4649-728-A	RF BOARD, COMPLETE	

< CAPACITOR >			
C173	1-126-205-11	ELECT CHIP 47uF	20% 6.3V
C174	1-163-009-11	CERAMIC CHIP 0.001uF	10% 50V
C175	1-126-206-11	ELECT CHIP 100uF	20% 6.3V
C176	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V
C180	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C181	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C183	1-124-778-00	ELECT CHIP 22uF	20% 6.3V
C184	1-126-205-11	ELECT CHIP 47uF	20% 6.3V
C185	1-126-205-11	ELECT CHIP 47uF	20% 6.3V
C186	1-126-601-11	ELECT CHIP 2.2uF	20% 50V
C187	1-163-038-00	CERAMIC CHIP 0.1uF	25V
< CONNECTOR >			
CN110	1-580-883-21	SOCKET, CONNECTOR (SMT) 12P	
CN112	1-580-883-21	SOCKET, CONNECTOR (SMT) 12P	
CN113	1-580-862-11	SOCKET, CONNECTOR (SMT) 8P	
CN114	1-580-866-11	SOCKET, CONNECTOR (SMT) 12P	

Ref. No.	Part No.	Description	Remark
< DIODE >			
D101	8-719-210-33	DIODE EC10DS2	
< IC >			
IC110	8-752-033-14	IC CXA1081Q	
IC111	8-759-071-79	IC BA6297AFP	
< TRANSISTOR >			
Q101	8-729-804-41	TRANSISTOR 2SB1122-S	
Q102	8-729-805-43	TRANSISTOR 2SC3396	
< RESISTOR >			
R001	1-216-295-00	METAL CHIP	0 5% 1/10W
R002	1-216-295-00	METAL CHIP	0 5% 1/10W
R003	1-216-296-00	METAL CHIP	0 5% 1/8W
R004	1-216-296-00	METAL CHIP	0 5% 1/8W
R005	1-216-296-00	METAL CHIP	0 5% 1/8W
R006	1-216-296-00	METAL CHIP	0 5% 1/8W
R007	1-216-296-00	METAL CHIP	0 5% 1/8W
R008	1-216-296-00	METAL CHIP	0 5% 1/8W
R009	1-216-296-00	METAL CHIP	0 5% 1/8W
R010	1-216-296-00	METAL CHIP	0 5% 1/8W
R011	1-216-296-00	METAL CHIP	0 5% 1/8W
R012	1-216-296-00	METAL CHIP	0 5% 1/8W
R013	1-216-296-00	METAL CHIP	0 5% 1/8W
R014	1-216-296-00	METAL CHIP	0 5% 1/8W
R015	1-216-296-00	METAL CHIP	0 5% 1/8W
R016	1-216-296-00	METAL CHIP	0 5% 1/8W
R017	1-216-296-00	METAL CHIP	0 5% 1/8W
R018	1-216-296-00	METAL CHIP	0 5% 1/8W
R019	1-216-296-00	METAL CHIP	0 5% 1/8W
R020	1-216-296-00	METAL CHIP	0 5% 1/8W
R021	1-216-296-00	METAL CHIP	0 5% 1/8W
R022	1-216-296-00	METAL CHIP	0 5% 1/8W
R023	1-216-296-00	METAL CHIP	0 5% 1/8W
R024	1-216-296-00	METAL CHIP	0 5% 1/8W
R025	1-216-296-00	METAL CHIP	0 5% 1/8W
R026	1-216-296-00	METAL CHIP	0 5% 1/8W
R027	1-216-296-00	METAL CHIP	0 5% 1/8W
R028	1-216-295-00	METAL CHIP	0 5% 1/10W
R029	1-216-296-00	METAL CHIP	0 5% 1/8W
R030	1-216-296-00	METAL CHIP	0 5% 1/8W
R031	1-216-296-00	METAL CHIP	0 5% 1/8W
R032	1-216-296-00	METAL CHIP	0 5% 1/8W
R033	1-216-296-00	METAL CHIP	0 5% 1/8W
R034	1-216-296-00	METAL CHIP	0 5% 1/8W
R035	1-216-296-00	METAL CHIP	0 5% 1/8W
R036	1-216-296-00	METAL CHIP	0 5% 1/8W
R171	1-216-001-00	METAL CHIP	10 5% 1/10W

RF SENSOR TABLE MOTOR TIMER SW TRANSFORMER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R172	1-216-003-11	METAL GLAZE	12 5% 1/10W			< MOTOR >	
R173	1-216-057-91	METAL GLAZE	2.2K 5% 1/10W				
R174	1-216-081-00	METAL CHIP	22K 5% 1/10W				
R175	1-216-049-00	METAL CHIP	1K 5% 1/10W				
R176	1-216-024-00	METAL GLAZE	91 5% 1/10W				
R177	1-216-079-00	METAL CHIP	18K 5% 1/10W				
R178	1-216-079-00	METAL CHIP	18K 5% 1/10W				
R181	1-216-076-00	METAL CHIP	13K 5% 1/10W				
R182	1-216-076-00	METAL CHIP	13K 5% 1/10W				
R183	1-216-049-00	METAL CHIP	1K 5% 1/10W				
R184	1-216-085-00	METAL CHIP	33K 5% 1/10W				
R185	1-216-085-00	METAL CHIP	33K 5% 1/10W				
R187	1-216-065-00	METAL CHIP	4.7K 5% 1/10W				
R188	1-216-075-00	METAL CHIP	12K 5% 1/10W				
R190	1-216-057-91	METAL GLAZE	2.2K 5% 1/10W				
R191	1-216-061-00	METAL CHIP	3.3K 5% 1/10W				
R192	1-216-075-00	METAL CHIP	12K 5% 1/10W				
R193	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R194	1-216-089-91	METAL GLAZE	47K 5% 1/10W				
R195	1-216-089-91	METAL GLAZE	47K 5% 1/10W				
R196	1-216-089-91	METAL GLAZE	47K 5% 1/10W				
R197	1-216-089-91	METAL GLAZE	47K 5% 1/10W				
R198	1-216-092-00	METAL GLAZE	62K 5% 1/10W				
R199	1-216-092-00	METAL GLAZE	62K 5% 1/10W				
		< VARIABLE RESISTOR >					
RV101	1-223-276-11	RES, ADJ, CERMET 22K					
RV102	1-223-258-21	RES, ADJ, CERMET 4.7K					

*	1-649-107-11	SENSOR BOARD					

		< IC >					
IC810	8-749-924-18	PHOTO INTERRUPTER	RPI-1391				
IC811	8-749-924-18	PHOTO INTERRUPTER	RPI-1391				
IC812	8-749-924-18	PHOTO INTERRUPTER	RPI-1391				
		< RESISTOR >					
R892	1-249-416-11	CARBON	820 5% 1/4W F				
R893	1-249-416-11	CARBON	820 5% 1/4W F				
R894	1-249-416-11	CARBON	820 5% 1/4W F				

*	1-649-110-11	TABLE MOTOR BOARD					

		< CAPACITOR >					
C852	1-161-375-00	CERAMIC	0.0022uF 20% 50V				

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.
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Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS *****	
	1-467-244-11	REMOTE COMMANDER (CX100)	
	1-558-271-11	CORD, CONNECTION	
	3-757-299-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH) (CX100:Canadian, AEP, UK)	
	3-757-299-21	MANUAL, INSTRUCTION (ENGLISH) (CX100:US/CX100S)	
	3-757-299-41	MANUAL, INSTRUCTION (GERMAN, DUTCH, ITALIAN, PORTUGUESE) (CX100:AEP)	
	3-943-535-01	COVER, BATTERY (CX100)	
*	4-949-235-01	HOOK	
*	4-961-161-01	CUSHION	
*	4-961-162-01	INDIVIDUAL CARTON (CX100)	
	4-962-895-01	HOLDER (BOOKLET)	
	4-963-012-01	INDIVIDUAL CARTON (CX100S)	

		***** HARDWARE LIST *****	
#1	7-682-649-09	SCREW +PWH 3X10	
#2	7-685-248-19	SCREW +KTP 3X12 TYPE2 NON-SLIT	
#3	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#4	7-685-671-19	SCREW +BVTP 5X10 TYPE2 N-S	
#5	7-682-545-09	SCREW +B 3X4	
#6	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#7	7-621-775-00	SCREW +B 2.6X3	
#8	7-621-772-40	SCREW +B 2X8	
#9	7-685-103-01	SCREW +PTP 2X5 TYPE1	
#10	7-621-772-20	SCREW +B 2X5	
#11	7-682-947-01	SCREW +PSW 3X6	
#12	7-682-547-09	SCREW +BVIT 3X6 (S)	
#13	7-624-106-04	STOP RING 3.0, TYPE -E	
#14	7-682-544-09	SCREW +B 3X3	
#15	7-621-775-20	SCREW +B 2.6X5	
#16	7-621-770-87	SCREW +B 2.6X5	
#17	7-624-104-04	STOP RING 2.0, TYPE-E	
#18	7-624-108-04	STOP RING 4.0, TYPE-E	
#19	7-685-645-79	SCREW +BVTP 3X6 TYPE2 N-S	
#20	7-624-105-04	STOP RING 2.3 TYPE-E	
#21	7-628-253-10	SCREW +PS 2X5	
#22	7-682-648-09	SCREW +PWH 3X8	

