

CDP-H3750

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Tourist Model



This set is the CD player section
in FH-E705C, MHC-2750/3750.

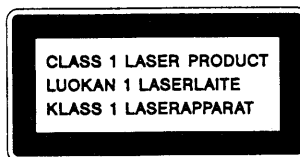
Model Name Using Similar Mechanism	NEW
CD Mechanism Type	CDM23-5BD3
Optical Pick-Up Block Type	BU-5BD3

SPECIFICATIONS

System	Compact disc digital audio system
Laser	Semiconductor laser ($\lambda = 780 \text{ nm}$) Emission duration: continuous
Laser output	Max. $44.6 \mu\text{W}^*$ * This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.
Signal to noise ratio	
Dynamic range	More than 90 dB
Harmonic distortion	Less than 0.05% (at 1 kHz)
Channel separation	More than 90 dB
Output level	1.6 V (at 50 kilohms)
Load impedance	More than 10 kilohms

Design and specifications subject to change
without notice.

For the United Kingdom and European
countries.



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

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 PUB-
LISHED 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 COM-
POSANTS QUE PAR DES PIÈCES SONY DONT LES
NUMÉROS SONT DONNÉS DANS CE MANUEL OU
DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

COMPACT DISC PLAYER
SONY[®]



SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

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

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

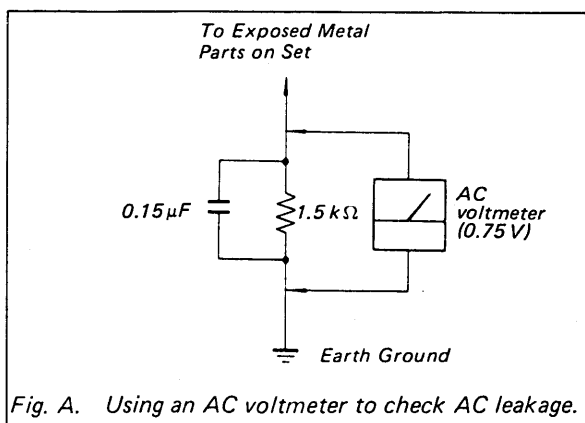


Fig. A. Using an AC voltmeter to check AC leakage.

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

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

During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.

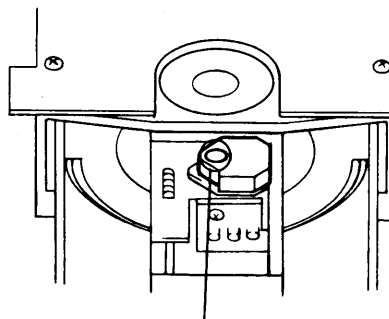
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

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

LASER DIODE AND FOCUS SERCH OPERATION CHECK

1. Make POWER switch on with no disc inserted and disc table closed.
2. Confirm that the following operation is performed while observing the objective lens.



- Confirm that laser beam is spread.
- Up and down motion of the objective lens. (3 times)

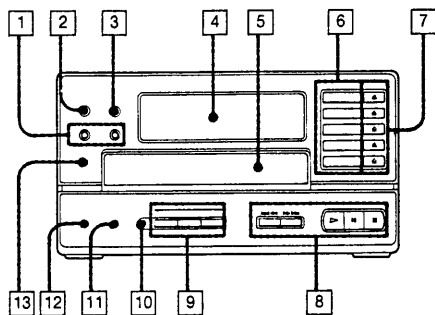
TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
1. GENERAL		
1-1.	Parts Identification	3
2. DISASSEMBLY		
2-1.	Remove the Main Block	4
2-2.	Exchange of Stocker Assy	4
2-3.	Exchange of Rotary Encoder	5
3. ELECTRICAL BLOCK CHECKING		6
4. DIAGRAMS		
4-1.	Semiconductor Lead Layouts	8
4-2.	Circuit Boards Location	9
4-3.	Printed Wiring Boards	10
4-4.	Schematic Diagram	13
5. EXPLODED VIEWS		
5-1.	Cabinet Section	19
5-2.	CD Mechanism Section (1)	20
5-3.	CD Mechanism Section (2)	21
5-4.	Optical Pick-Up Section	22
6. ELECTRICAL PARTS LIST		23

SECTION 1
GENERAL

This section is extracted from instruction manual.

1-1. PARTS IDENTIFICATION

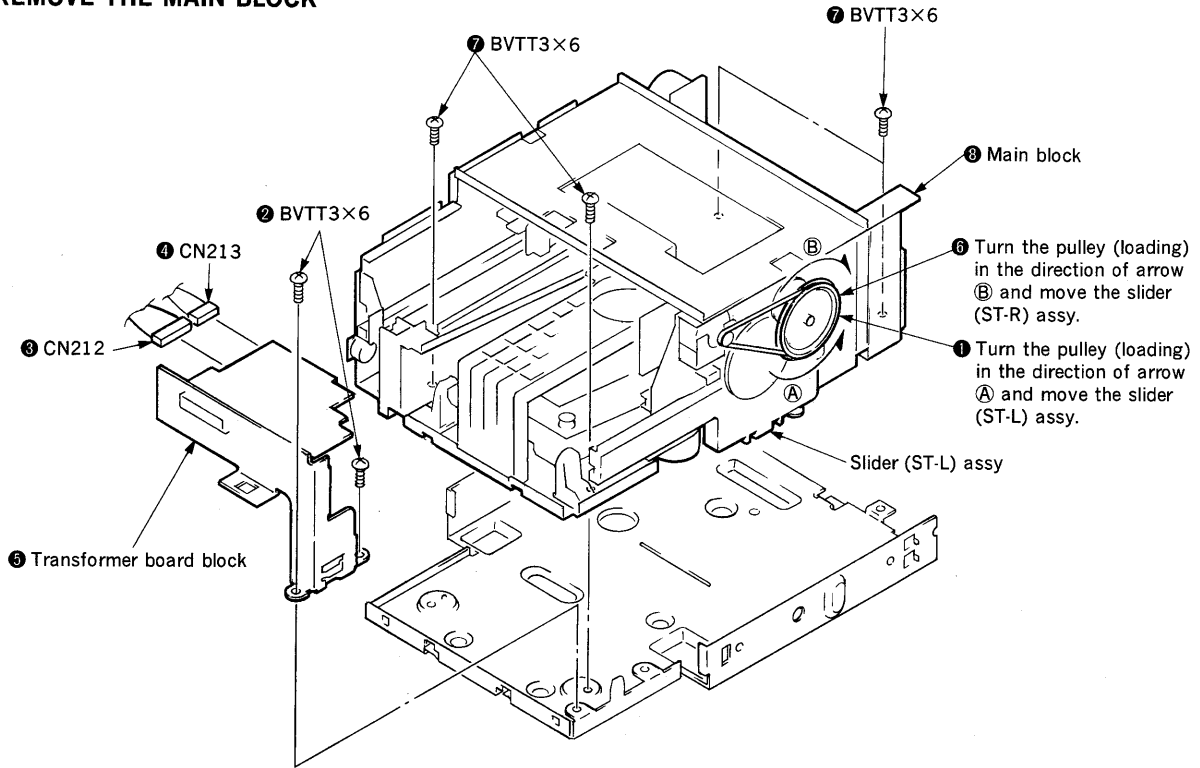


- 1 CHARACTER </> buttons 74
- 2 MEMO INPUT button 74
- 3 CURSOR button 74
- 4 Display window
- 5 Disc tray door
- 6 DISC 1 — 5 selectors and disc tray indicators 28 34
- 7 OPEN/CLOSE \triangle buttons 28
- 8 CD operation buttons
 - : Stop button
 - ||: Pause button
 - >: Play button
 - ◀◀◀▶▶▶: Manual search (when kept depressed)/AMS* (when pressed) buttons
- 9 PLAY MODE buttons
 - PROGRAM button 44
 - SHUFFLE button 40
 - CONTINUE button 30
- 10 REPEAT button 42
- 11 TIME/MEMO button 32 76
- 12 SOUND FIELD FILE button 78
- 13 ERASE button 75 78

SECTION 2 DISASSEMBLY

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

2-1. REMOVE THE MAIN BLOCK



2-2. EXCHANGE OF STOCKER ASSY

How to Attachment

- ① Turn the pulley (loading) set the chassis hole position to slider (ST-L) assy. (See Fig. A)
- ② Turn the pulley (loading) ① set the position of illustration for slider (TB).
- ③ Attach the stocker assy.

Note) Sure attach to ditch of chassis side for shaft or claw of stocker assy.

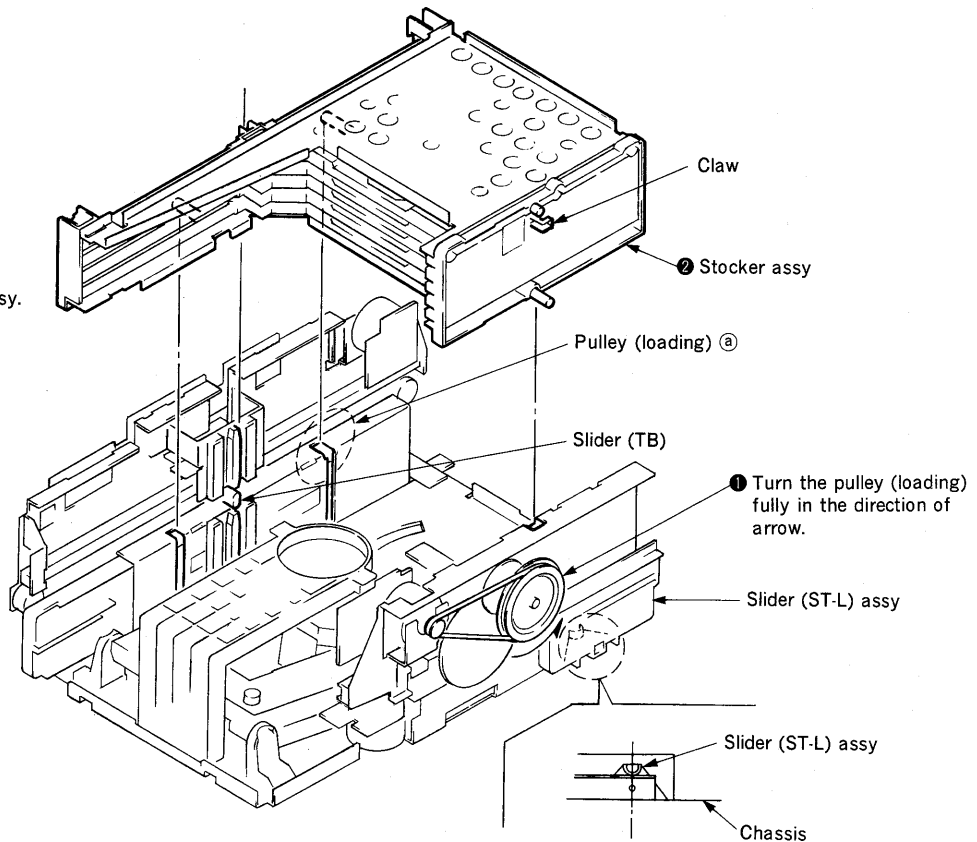
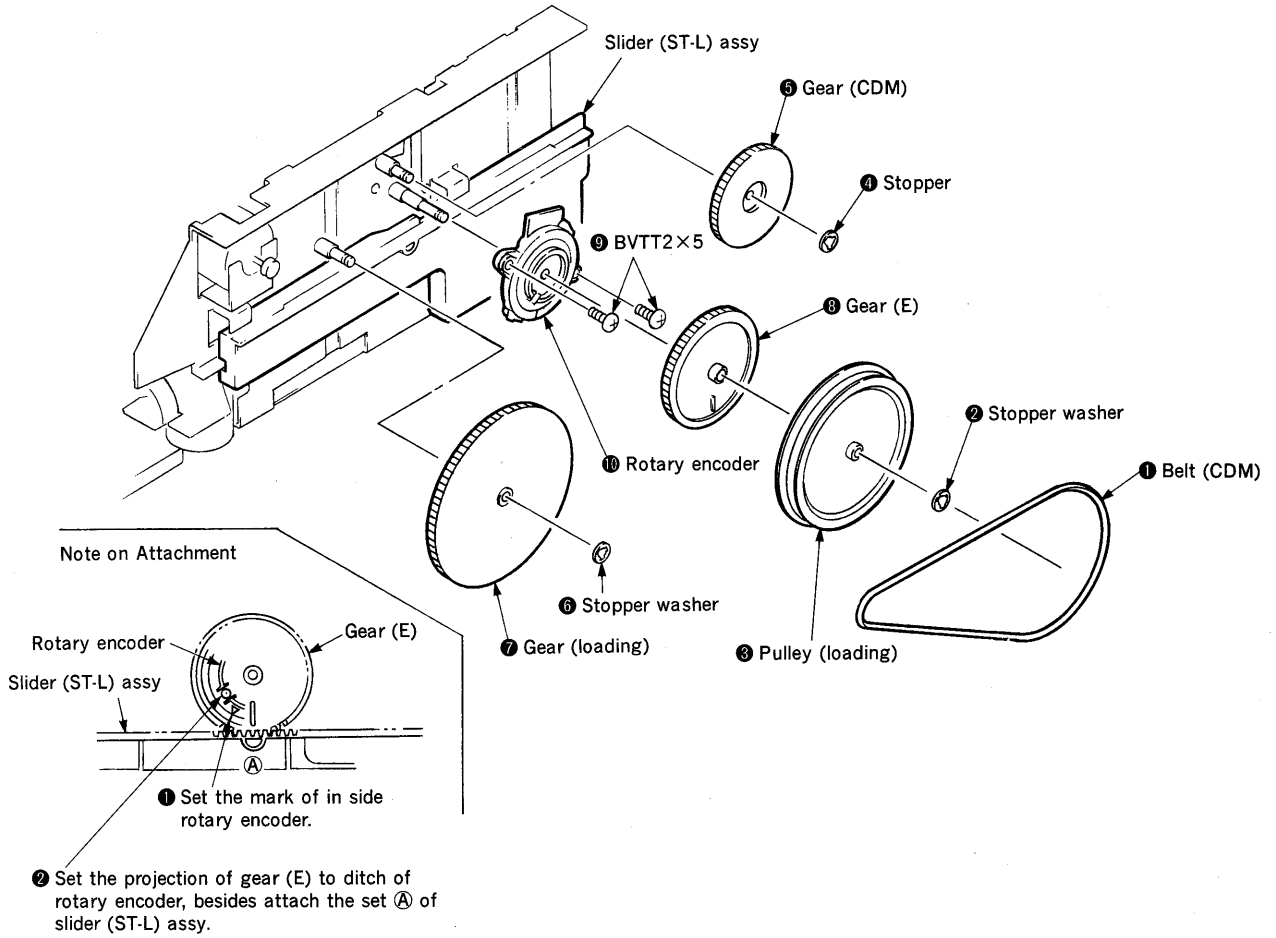


Fig. A

2-3. EXCHANGE OF ROTARY ENCODER

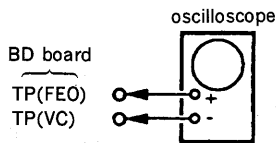


SECTION 3 ELECTRICAL BLOCK CHECKING

Note :

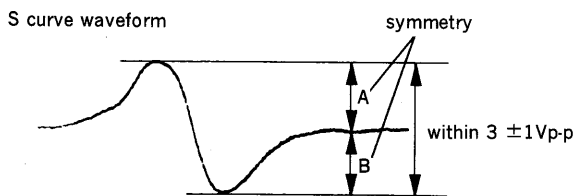
1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10MΩ impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal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

S Curve Check



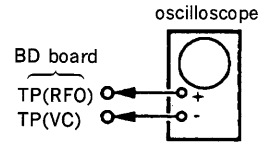
Procedure :

1. Connect oscilloscope to test point TP (FEO) on BD board.
2. Connect between test point TP (FES) and TP (VC) by lead wire.
3. Turned Power switch on and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
4. Check the oscilloscope waveform (S curve) is symmetrical between A and B. And confirm peak to peak level within $3 \pm 1V_{p-p}$.



5. After check, remove the lead wire connected in step 2.
- Note :**
- Try to measure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.
 - Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check

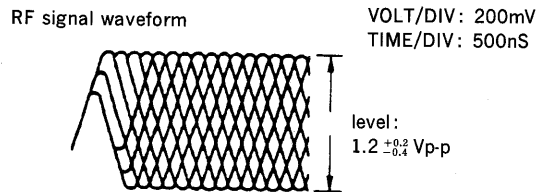


Procedure :

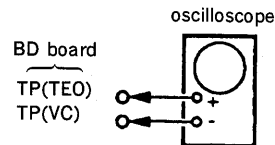
1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note :

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

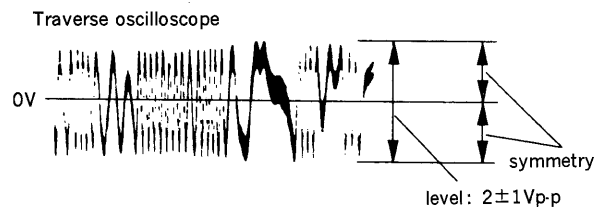


E-F Balance Check



Procedure :

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

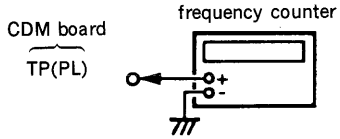


6. Remove the lead wire connected in step 1.

RF PLL Free-run Frequency Check

Procedure :

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



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

Focus/Tracking Gain

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

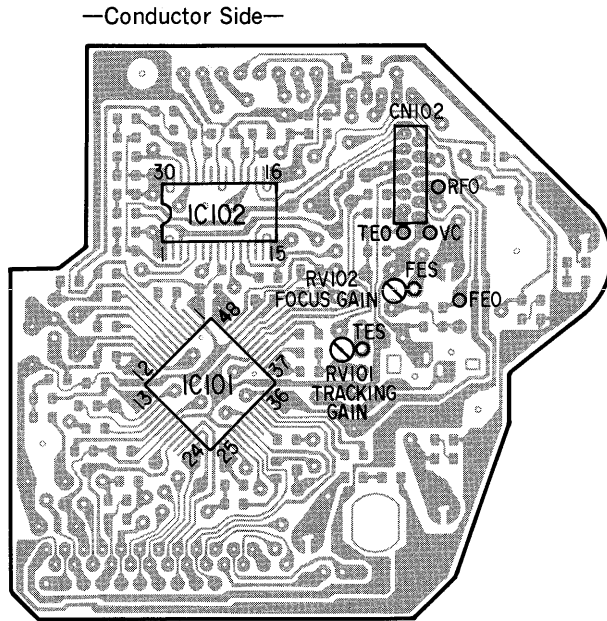
There is no problem.

Therefore, do not perform, this adjustment.

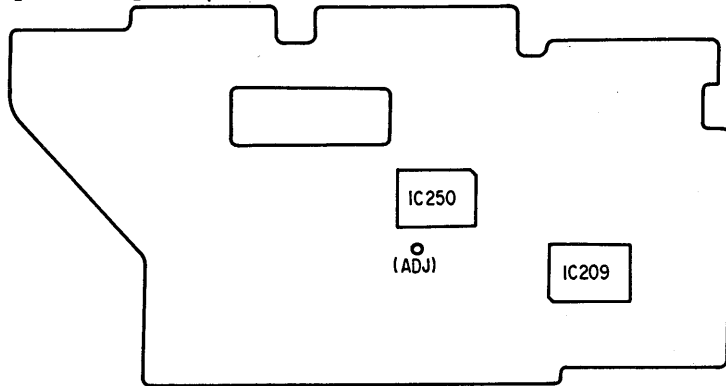
Please note that it should be fixed to mechanical center position when you moved and do not know original position.

Checking Location :

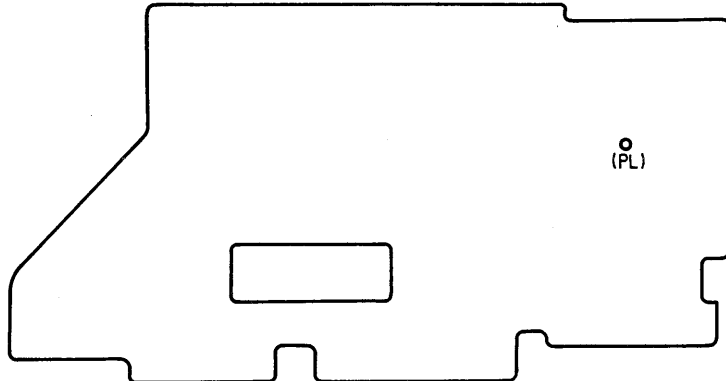
[BD Board]



[CDM BORD] -Component Side-



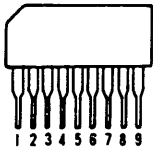
[CDM BOARD] -Conductor Side-



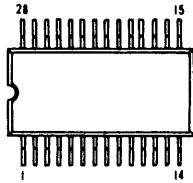
SECTION 4 DIAGRAMS

4-1. SEMICONDUCTOR LEAD LAYOUTS

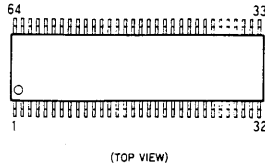
BA6418N



LH5160N-10L

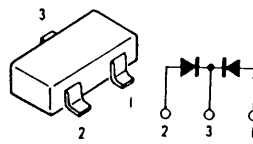


M66004M4FP

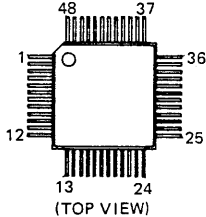


(TOP VIEW)

DCB010

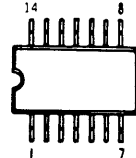


CXA1372AQ



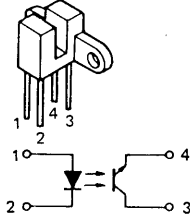
(TOP VIEW)

**MC14011BF
MC14093BF**

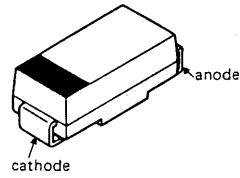


(TOP VIEW)

ON1023-S

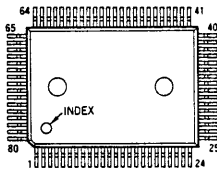


EC10DS2



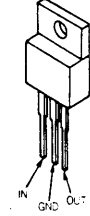
CXD2500AQ

μ PD75516GF
-399-3B9
 μ PD75518GF
-059-3B9

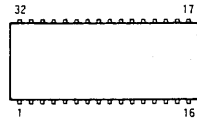


(TOP VIEW)

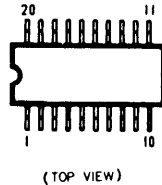
**M5F7807L
M5F7808L**



M5218AFP

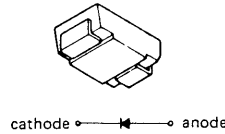


PCM67U

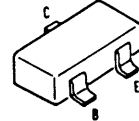


(TOP VIEW)

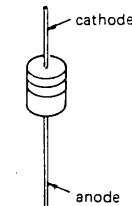
**LN1361C
LN1461C**



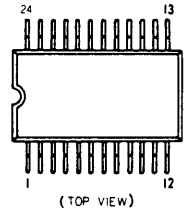
**DTC144EK
2SA1602
2SC4154-F**



**UZP-6.8BB
11EQS04
11ES2**

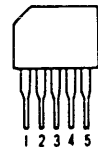


CXD2554M

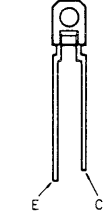


(TOP VIEW)

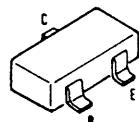
M5293L



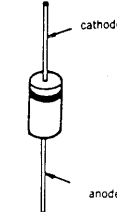
TPS626-F



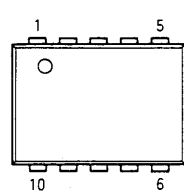
2SB1122-S



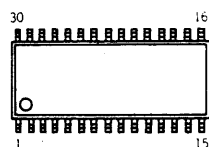
IN4148M



LA5601

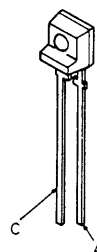


LAG532M

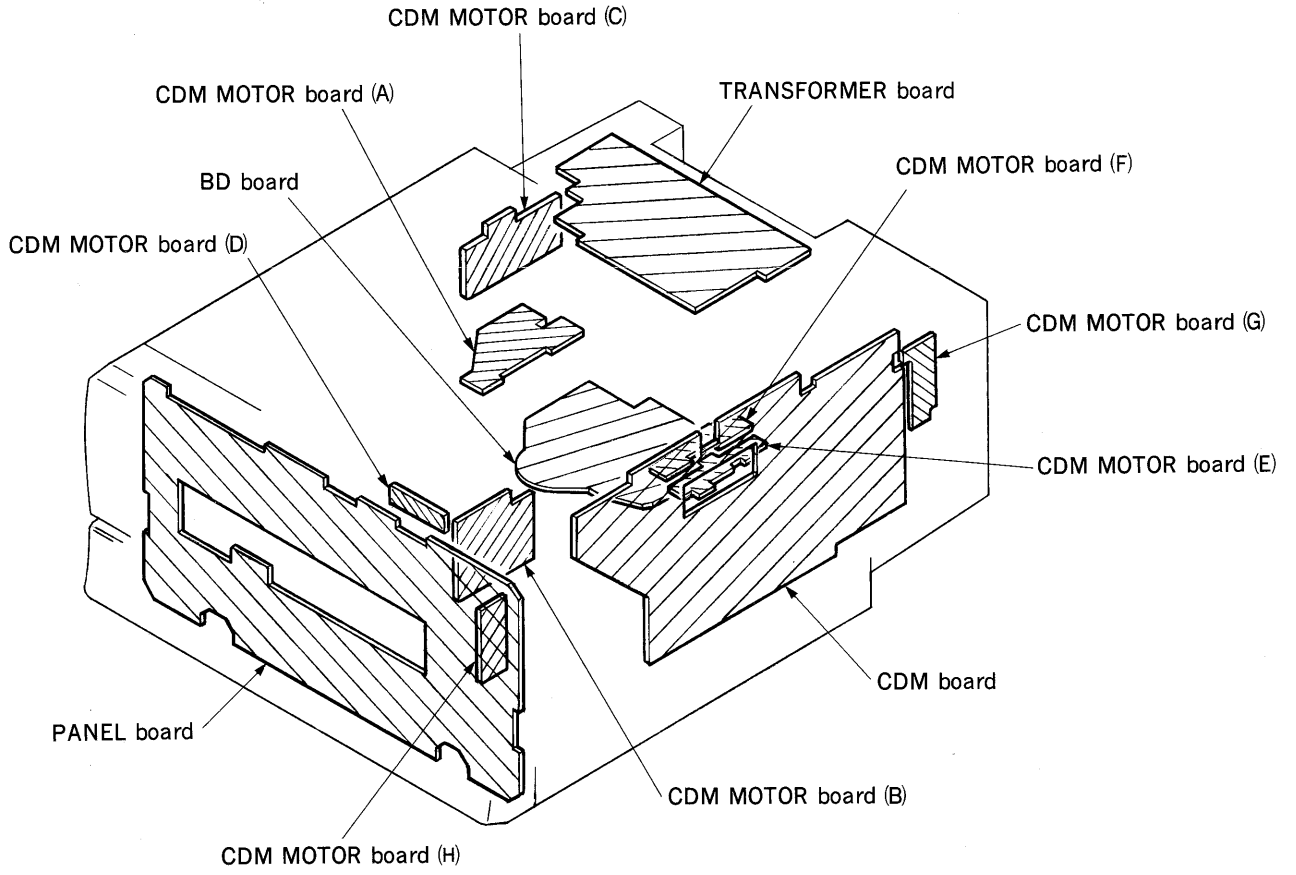


TOP VIEW

TLN117



4-2. CIRCUIT BOARDS LOCATION

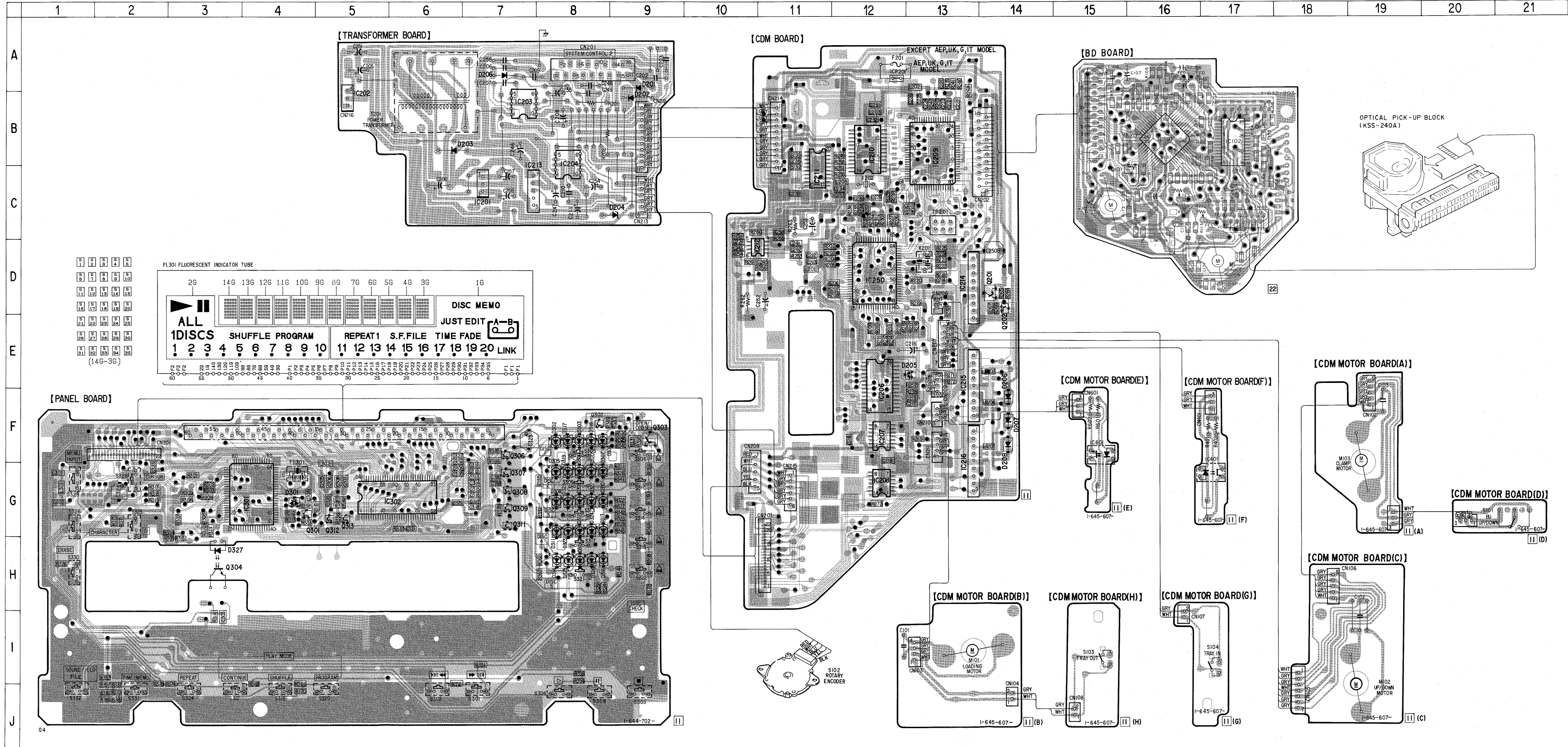


● Semiconductor Location

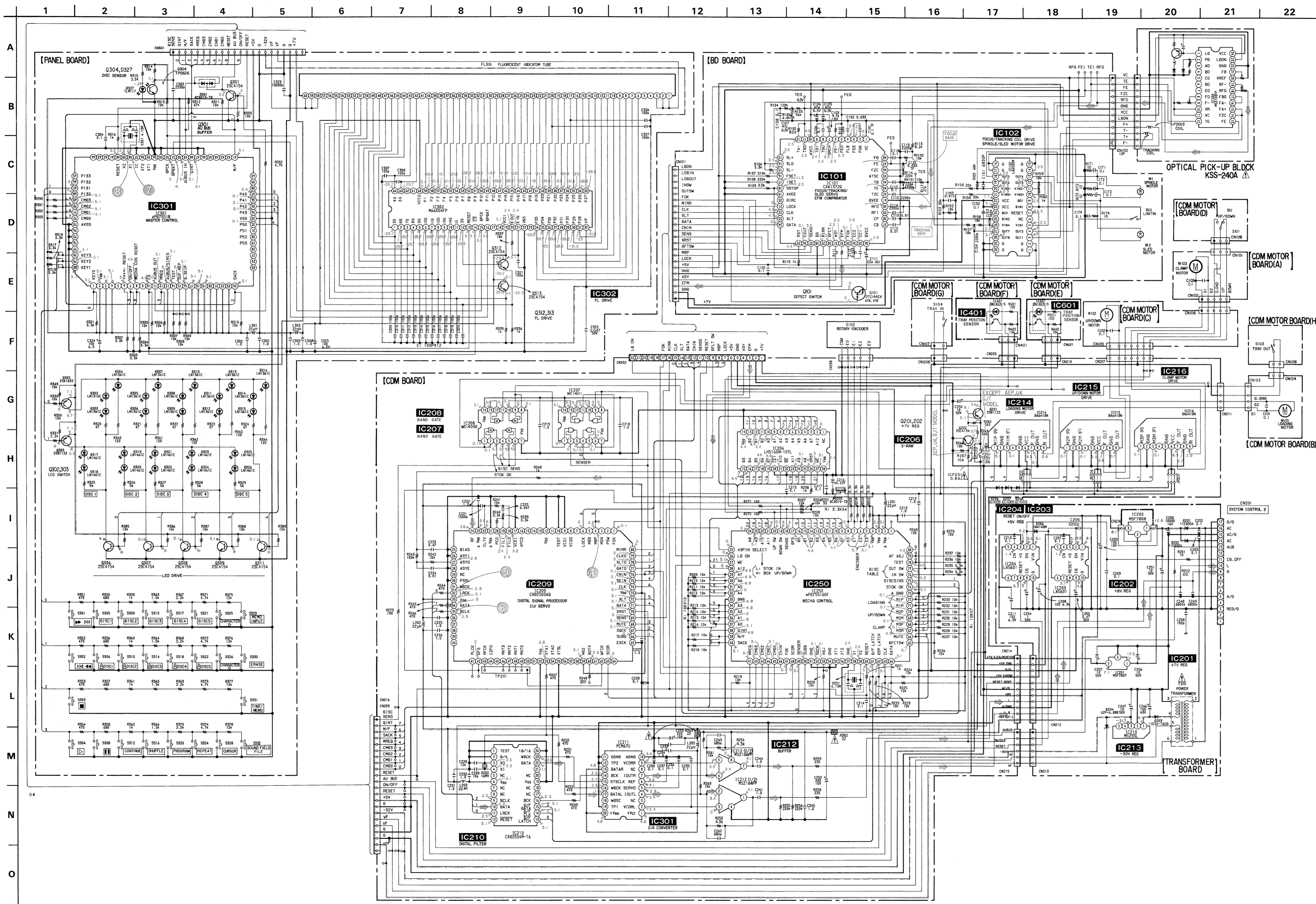
Ref. No.	Location	Ref. No.	Location
D201	A-9	IC101	B-16
D202	B-9	IC102	B-17
D203	B-6	IC201	C-7
D204	C-9	IC202	B-5
D205	E-13	IC203	B-7
D206	F-14	IC204	B-8
(D206)	A-7	IC206	E-12
D207	F-14	IC207	F-12
D208	F-14	IC208	G-12
D301	G-4	IC209	B-13
D302	F-8	IC210	B-12
D303	F-8	IC211	C-11
D304	F-8	IC212	D-10
D305	G-8	IC213	C-7
D306	G-8	IC214	D-13
D307	G-8	IC215	E-13
D308	G-8	IC216	F-13
D309	G-8	IC250	D-12
D310	G-8	IC301	G-4
D311	G-8	IC302	G-6
D312	G-8	IC401	G-17
D313	G-8	IC601	F-15
D314	H-8		
D315	H-8	Q101	C-16
D316	H-8	Q201	D-14
D317	F-8	Q202	D-14
D318	F-8	Q301	G-4
D319	G-8	Q302	F-8
D320	G-8	Q303	F-9
D321	G-8	Q304	H-3
D322	G-8	Q306	F-7
D323	G-8	Q307	G-7
D324	G-8	Q308	G-7
D325	H-8	Q309	G-7
D326	H-8	Q311	G-7
D327	H-3	Q312	G-5
		Q313	G-5

(): TRANSFORMER BOARD

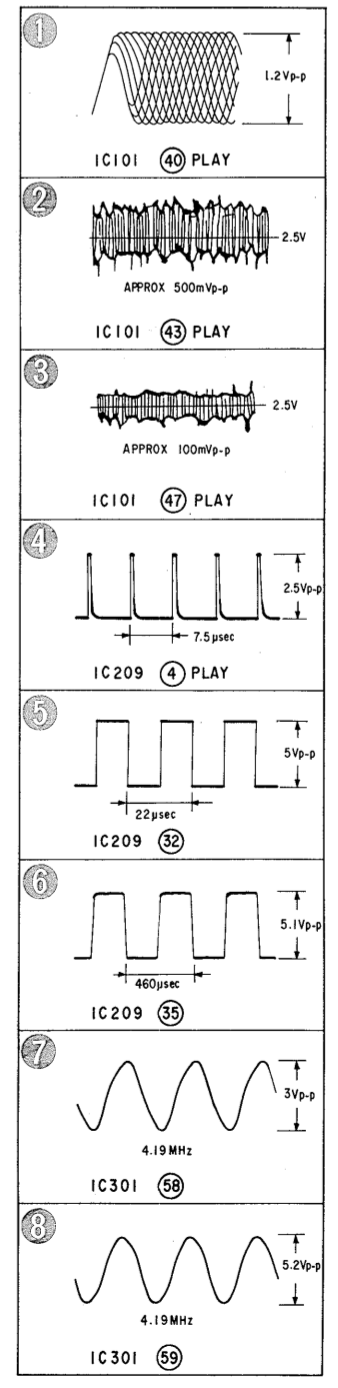
4-3. PRINTED WIRING BOARDS ● Refer to page 9 for Semiconductor Lead Layouts.



- Note:
- : parts extracted from the component side.
 - : Through hole.
 - ▨ : Pattern on the side which is seen.
 - (with dot) : Pattern of the rear side.
 - (with G) : Germany model
 - (with IT) : Italian model



• Waveforms



Note:

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

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.

○ : B+ Line
 □ : B- Line
 □ : adjustment for repair.

○ Voltage and waveforms are dc with respect to ground under no-signal conditions.
 no mark: STOP

○ Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.

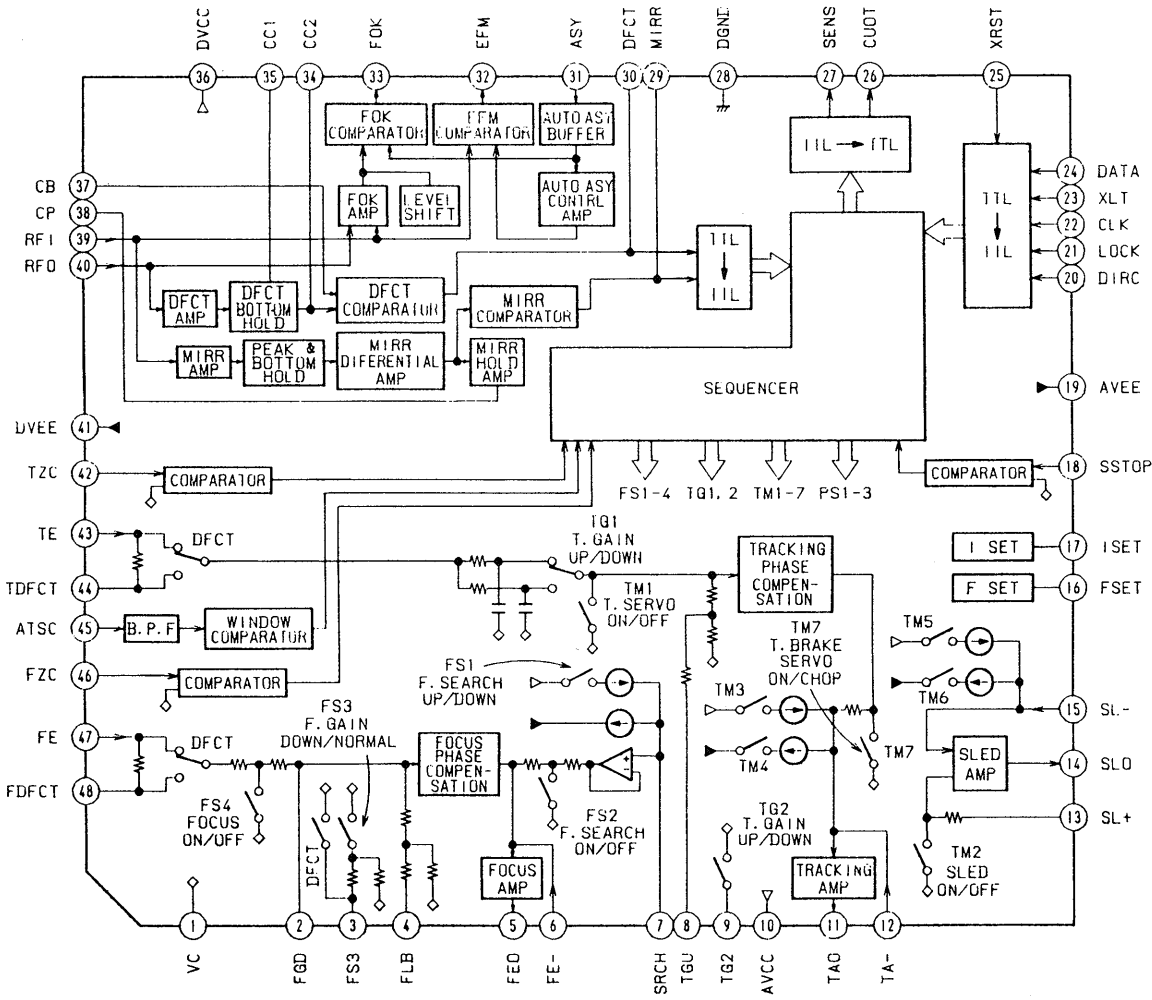
○ Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.

○ Signal path.

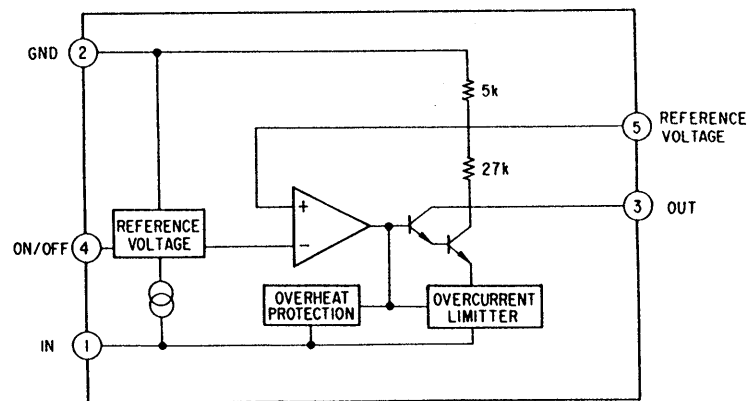
○ : CD
 ○ IT: Italian model

● IC Block Diagrams

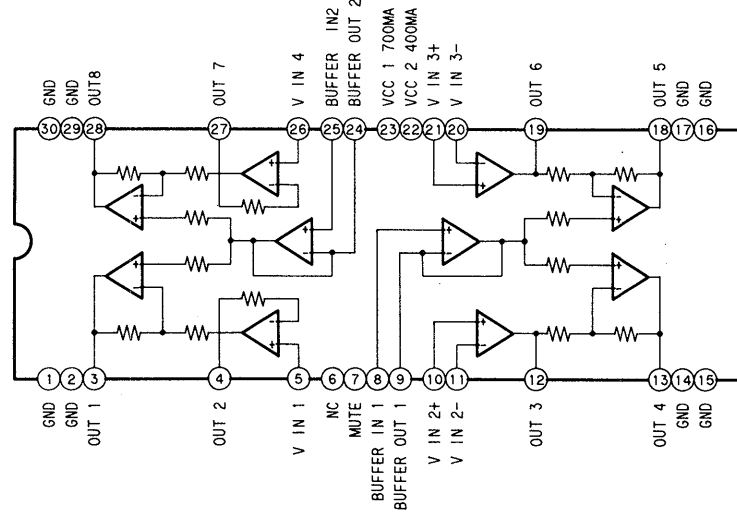
IC101 CXA1372Q



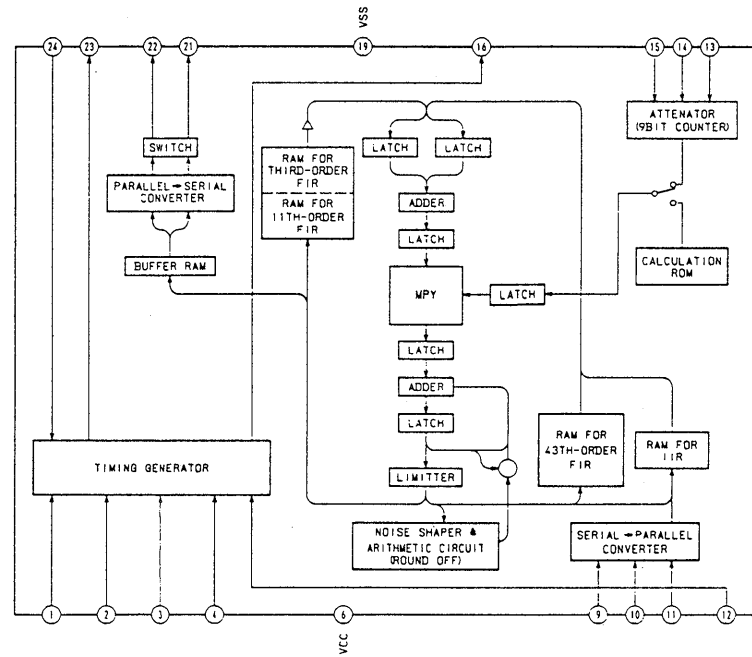
IC213 M5293L



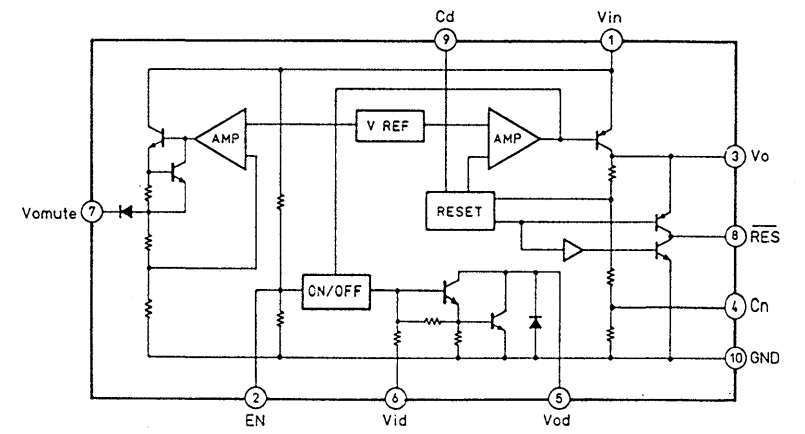
IC102 LA6532M



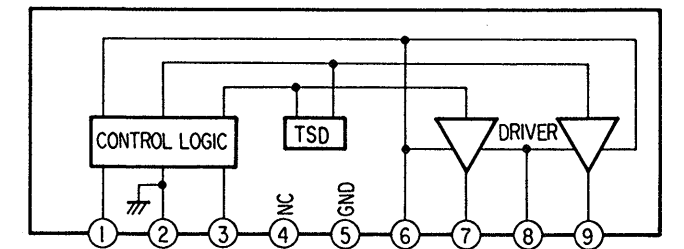
IC210 CXD2554M



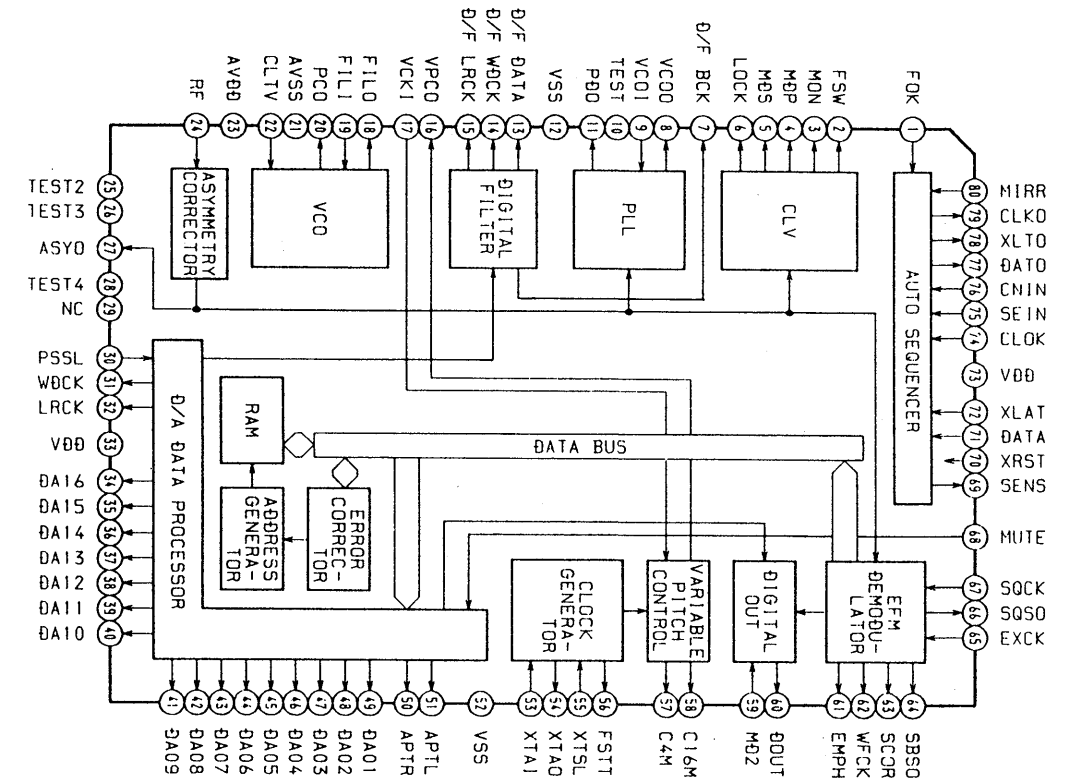
IC203, 204 LA5601



IC214-216 BA6418N



IC209 CXD2500AQ



SECTION 5 EXPLODED VIEWS

NOTE:

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

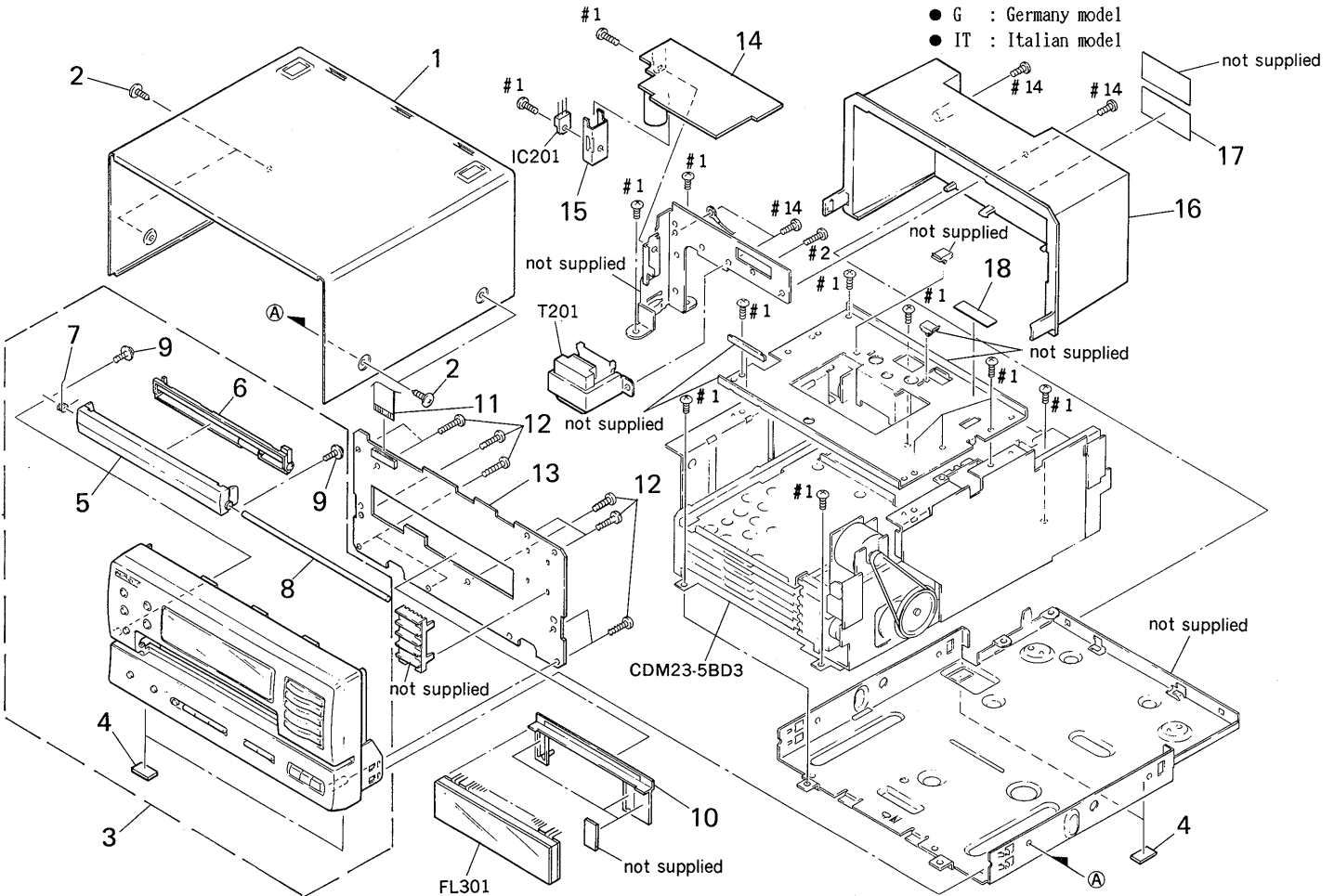
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
Example :
KNOB, BALANCE (WHITE)... (RED)
 ↑ ↑
 Parts Color Cabinet's Color
- Hardware (# mark) list is given in the last of this parts list.

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.

- CND : Canadian model
- G : Germany model
- IT : Italian model

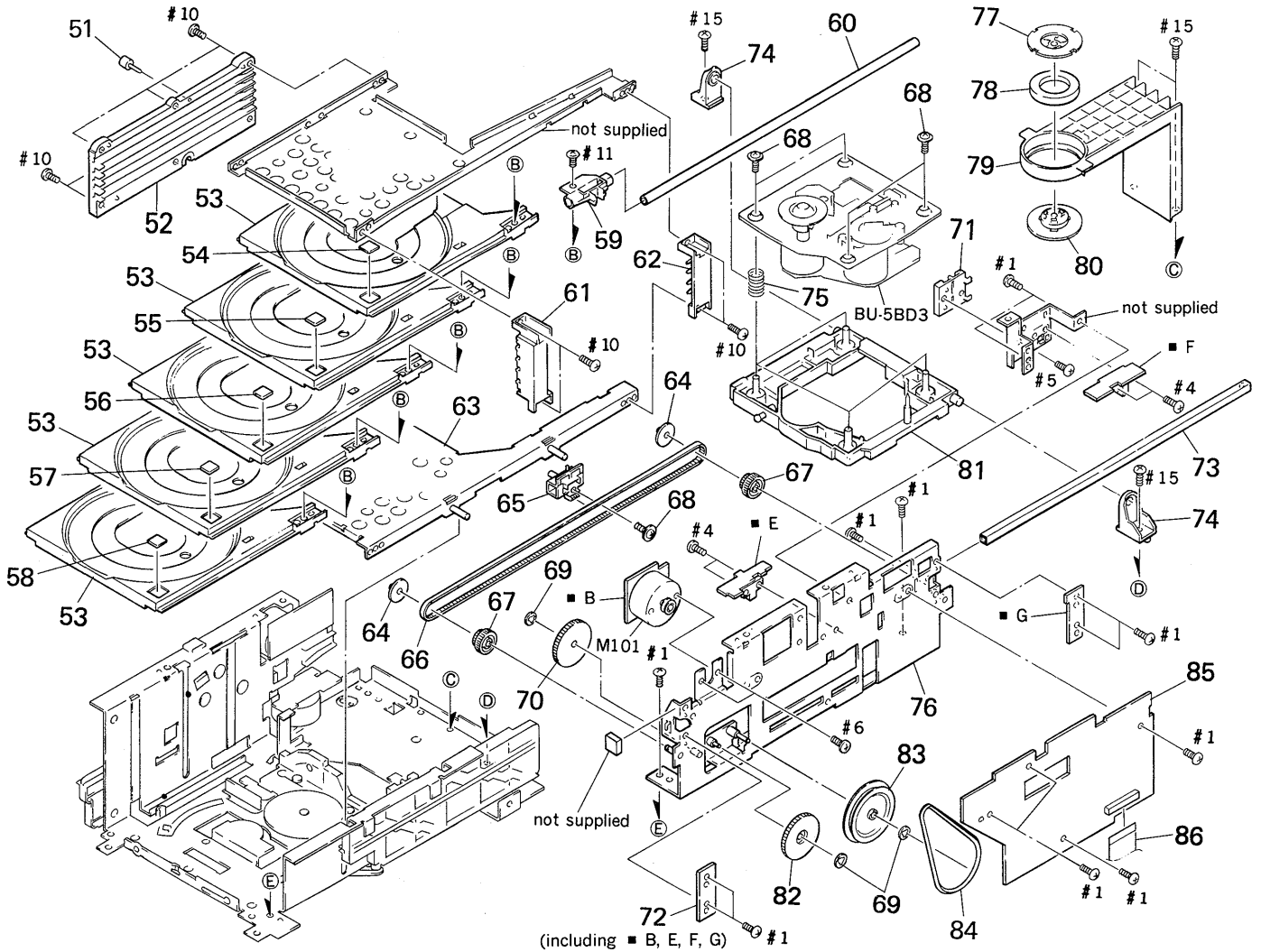
5-1. CABINET SECTION



Ref. No.	Part No.	Description	Remark
* 1	4-944-522-42	CASE (K211522)	
2	3-363-099-01	SCREW (CASE 3 TP2)	
3	X-4942-946-1	PANEL ASSY, FRONT	
4	4-930-336-21	FOOT (FELT)	
5	4-954-694-01	DOOR (A)	
6	4-954-698-01	DOOR (B)	
7	4-954-693-01	SPRING (DOOR)	
8	4-954-695-01	SHAFT (DOOR)	
9	4-933-134-01	SCREW (+PTPWH M2. 6X6)	
* 10	4-954-701-01	HOLDER (FL TUBE)	
11	1-696-633-11	WIRE (FLAT TYPE)	
12	4-951-620-01	SCREW (2. 6X8), +BVTP	

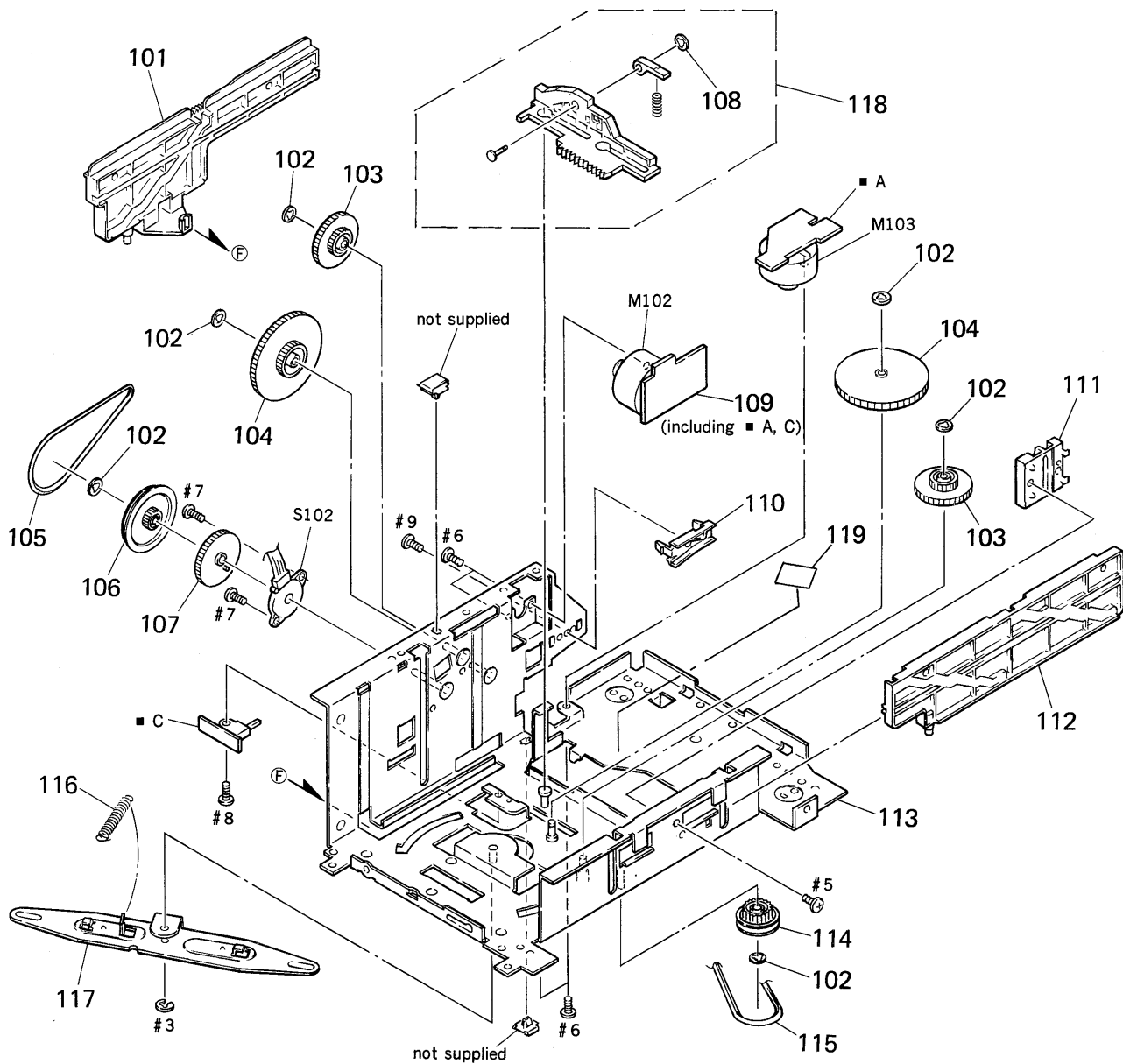
Ref. No.	Part No.	Description	Remark
* 13	A-4649-455-A	PANEL BOARD, COMPLETE (EXCEPT AEP, UK, G, IT)	
* 13	A-4649-462-A	PANEL BOARD, COMPLETE (G)	
* 13	A-4649-465-A	PANEL BOARD, COMPLETE (AEP, UK, IT)	
* 14	A-4649-456-A	TRANSFORMER BOARD, COMPLETE (EXCEPT AEP, UK, G, IT)	
* 14	A-4649-461-A	TRANSFORMER BOARD, COMPLETE (G)	
* 14	A-4649-464-A	TRANSFORMER BOARD, COMPLETE (AEP, UK, IT)	
* 15	3-309-144-21	HEAT SINK	
* 16	4-954-699-01	PANEL, BACK	
* 17	4-941-548-01	LABEL, CLASS 1 (EXCEPT US, CND)	
* 18	3-703-044-26	LABEL, CAUTION (CND)	
FL301	1-519-738-11	INDICATOR TUBE, FLUORESCENT	
IC201	8-759-071-48	IC M5F7807L	
Δ T201	1-450-984-11	TRANSFORMER, POWER	

5-2. CD MECHANISM NECTION (1)
(CDM23-5BD3)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-954-649-01	SHAFT (ST-L)		* 71	4-954-621-01	STOPPER (TB)	
52	4-954-644-01	BRACKET (STOCKER L)		* 72	1-645-607-11	CDM MOTOR BOARD	
53	4-954-638-01	TABLE, DISK		* 73	4-954-631-01	SHAFT (SL GUIDE)	
54	4-954-651-01	EMBLEM (TABLE)		* 74	4-954-623-01	FULCRUM (BU)	
55	4-954-651-11	EMBLEM (TABLE)		75	4-948-503-01	SPRING (BU), COMPRESSION	
56	4-954-651-21	EMBLEM (TABLE)		* 76	X-4942-941-1	BRACKET (SL-A) ASSY	
57	4-954-651-31	EMBLEM (TABLE)		77	4-929-762-01	YOKE, CHUCKING	
58	4-954-651-41	EMBLEM (TABLE)		78	1-452-676-11	MAGNET	
59	4-954-639-01	GUIDE (TB)		79	4-954-650-01	HOLDER (MG)	
60	4-954-648-01	SHAFT (TABLE GUIDE)		80	4-955-230-01	PULLEY (CHECKING)	
61	4-954-645-01	GUIDE (ST-RF)		* 81	X-4942-942-1	HOLDER (BU) ASSY	
62	4-954-646-01	GUIDE (ST-RR)		82	4-954-625-01	GEAR (CDM)	
* 63	X-4942-943-1	BRACKET (ST-B) ASSY		83	3-372-516-01	PULLEY (LOADING)	
64	4-954-628-01	FLANGE (PULLEY)		84	4-954-624-01	BELT (CDM)	
65	4-954-630-01	SLIDER (TB)		* 85	A-4649-352-A	CDM BOARD, COMPLETE (EXCEPT AEP, UK, G, IT)	
66	4-954-634-01	BELT (SL)		* 85	A-4649-463-A	CDM BOARD, COMPLETE (G)	
67	4-954-629-01	PULLEY (SL)		* 85	A-4649-466-A	CDM BOARD, COMPLETE (AEP, UK, IT)	
68	4-933-134-01	SCREW (+PTPWH M2, 6X6)		86	1-696-634-11	WIRE (FLAT TYPE)	
69	3-669-595-00	WASHER (2), STOPPER		M101	A-4660-232-A	MOTOR (CDM) ASSY	
70	4-954-627-01	GEAR (SL)					

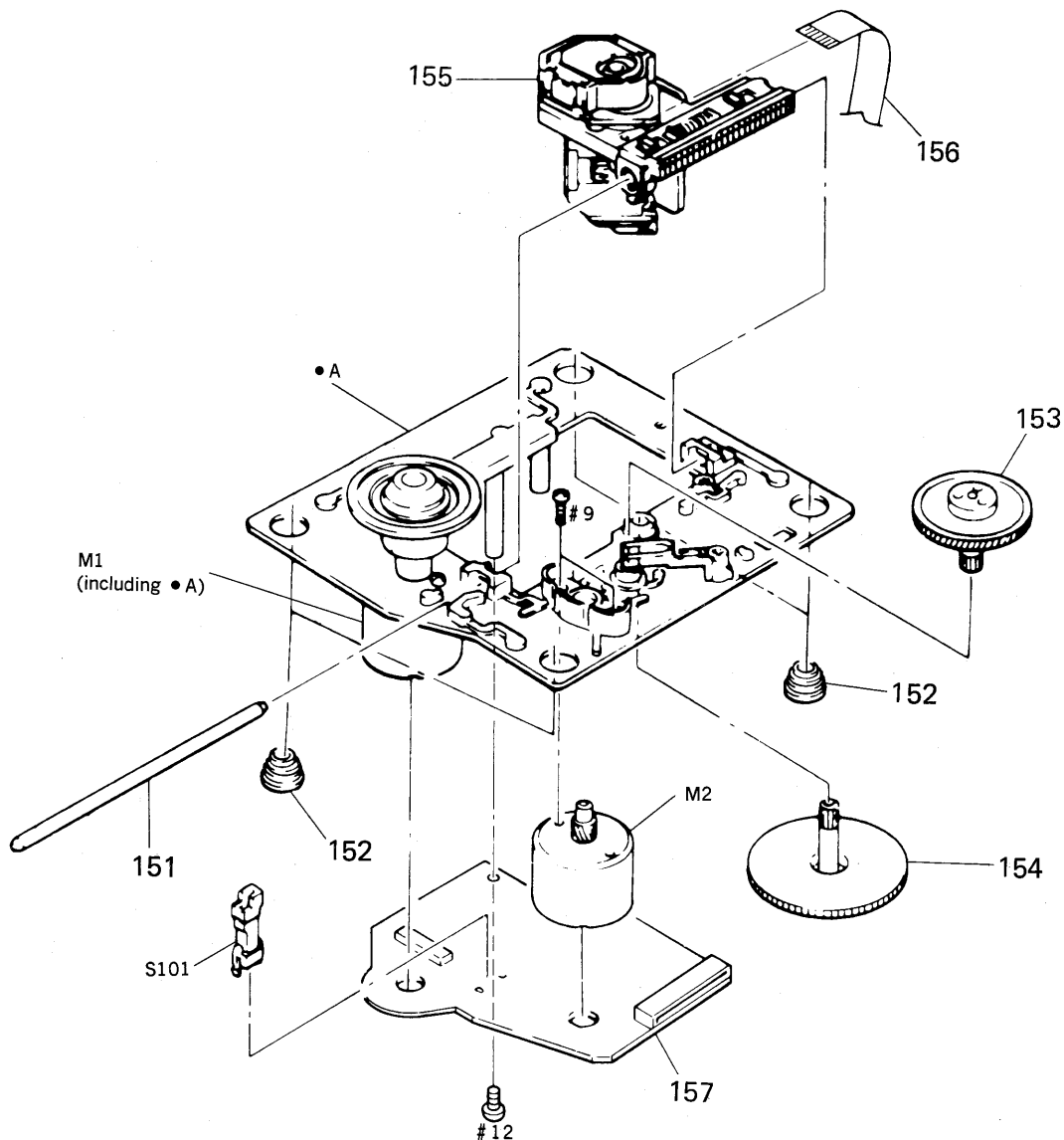
5-3. CD MECHANISM SECTION (2)
(CDM23-5BD3)



Ref. No.	Part No.	Description	Remark
101	X-4942-939-1	SLIDER (ST-L) ASSY	
102	3-669-595-00	WASHER (2), STOPPER	
103	4-954-625-01	GEAR (CDM)	
104	3-372-517-01	GEAR (LOADING)	
105	4-954-624-01	BELT (CDM)	
106	3-372-516-01	PULLEY (LOADING)	
107	4-954-636-01	GEAR (E)	
108	3-681-678-00	WASHER, SLIT	
* 109	1-645-607-11	CDM MOTOR BOARD	
* 110	4-954-633-01	GUIDE (TB-LR)	
* 111	4-954-621-01	STOPPER (TB)	

Ref. No.	Part No.	Description	Remark
112	X-4942-940-1	SLIDER (ST-R) ASSY	
* 113	X-4942-937-1	CHASSIS (CDM) ASSY	
114	4-954-637-01	PULLEY (BU)	
115	4-954-635-01	BELT (BU)	
116	4-955-168-01	SPRING, TENSION	
* 117	4-954-632-01	LEVER (JOINT)	
118	A-4660-167-A	SLIDER (BU CAM) ASSY	
* 119	4-928-473-01	INSULATOR	
M102	A-4460-232-A	MOTOR (CDM) ASSY	
M103	A-4460-232-A	MOTOR (CDM) ASSY	
S102	1-466-819-11	ENCORDER, ROTARY	

5-4. OPTICAL PICK-UP SECTION (BU-5BD3)



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

Ref. No.	Part No.	Description	Remark
151	4-917-565-01	SHAFT, SLED	
152	4-951-940-01	INSULATOR (BU)	
153	4-917-567-01	GEAR (M)	
154	4-917-564-01	GEAR (P), FLATNESS	
\triangle 155	8-848-144-11	DEVICE, OPTICAL KSS-240A	

Ref. No.	Part No.	Description	Remark
156	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
* 157	A-4617-371-A	BD BOARD, COMPLETE	
M1	X-4917-523-3	MOTOR ASSY, SPINDLE	
M2	X-4917-504-1	MOTOR ASSY, SLED	
S101	1-572-085-11	SWITCH, LEAF (LIMIT IN)	

SECTION 6 ELECTRICAL PARTS LIST

BD

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -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

- 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...: μ A.. uPA...: μ PA..
uPB...: μ PB.. uPC...: μ PC.. uPD...: μ PD..
- CAPACITORS
uF: μ F
- COILS
uH: μ H

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.

- CND : Canadian model
- G : Germany model
- IT : Italian model

Ref. No.	Part No.	Description	Remark
*	A-4617-371-A	BD BOARD, COMPLETE *****	
		< CAPACITOR >	
C101	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C102	1-163-989-11	CERAMIC CHIP 0.033uF	10% 25V
C103	1-126-163-11	ELECT 4.7uF	20% 50V
C104	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C105	1-126-154-11	ELECT 47uF	20% 6.3V
C106	1-126-154-11	ELECT 47uF	20% 6.3V
C107	1-126-154-11	ELECT 47uF	20% 6.3V
C108	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C109	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C110	1-163-989-11	CERAMIC CHIP 0.033uF	10% 25V
C111	1-131-367-00	TANTALUM 22uF	10% 20V
C112	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C113	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C114	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V
C115	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V
C117	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C118	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C119	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V
C120	1-163-989-11	CERAMIC CHIP 0.033uF	10% 25V
C151	1-163-019-00	CERAMIC CHIP 0.0068uF	10% 50V
C152	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C153	1-163-006-11	CERAMIC CHIP 560PF	10% 50V
C154	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V
C155	1-163-023-00	CERAMIC CHIP 0.015uF	5% 50V
C171	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C172	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C173	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C174	1-163-038-00	CERAMIC CHIP 0.1uF	25V
		< CONNECTOR >	
CN101	1-568-796-11	SOCKET, CONNECTOR 22P	
CN102	1-568-795-11	SOCKET, CONNECTOR 12P	
		< IC >	
IC101	8-752-053-73	IC CXA1372AQ	

Ref. No.	Part No.	Description	Remark
IC102	8-759-822-36	IC LA6532M	
		< JUMPER RESISTOR >	
J101	1-216-295-00	METAL CHIP 0 5%	1/10W
J102	1-216-295-00	METAL CHIP 0 5%	1/10W
		< TRANSISTOR >	
Q101	8-729-901-01	TRANSISTOR DTC144EK	
		< RESISTOR >	
R101	1-216-097-00	METAL CHIP 100K 5%	1/10W
R102	1-216-095-00	METAL CHIP 82K 5%	1/10W
R103	1-216-091-00	METAL CHIP 56K 5%	1/10W
R104	1-216-099-00	METAL CHIP 120K 5%	1/10W
R105	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
R106	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R107	1-216-114-00	METAL GLAZE 510K 5%	1/10W
R108	1-216-105-00	METAL CHIP 220K 5%	1/10W
R109	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R110	1-216-049-00	METAL CHIP 1K 5%	1/10W
R111	1-216-049-00	METAL CHIP 1K 5%	1/10W
R112	1-216-083-00	METAL CHIP 27K 5%	1/10W
R113	1-216-071-00	METAL CHIP 8.2K 5%	1/10W
R114	1-216-105-00	METAL CHIP 220K 5%	1/10W
R152	1-216-073-00	METAL CHIP 10K 5%	1/10W
R153	1-216-085-00	METAL CHIP 33K 5%	1/10W
R154	1-216-085-00	METAL CHIP 33K 5%	1/10W
R155	1-216-093-00	METAL CHIP 68K 5%	1/10W
R156	1-216-081-00	METAL CHIP 22K 5%	1/10W
R157	1-216-079-00	METAL CHIP 18K 5%	1/10W
R158	1-216-079-00	METAL CHIP 18K 5%	1/10W
R159	1-216-079-00	METAL CHIP 18K 5%	1/10W
R160	1-216-049-00	METAL CHIP 1K 5%	1/10W
R171	1-216-001-00	METAL CHIP 10 5%	1/10W
R172	1-216-001-00	METAL CHIP 10 5%	1/10W
R173	1-216-001-00	METAL CHIP 10 5%	1/10W
R174	1-216-001-00	METAL CHIP 10 5%	1/10W

BD CDM

Ref. No.	Part No.	Description	Remark
< VARIABLE RESISTOR >			
RV101	1-238-600-11	RES, ADJ, CARBON 10K	
RV101	1-241-630-11	RES, ADJ, CARBON 10K	
RV102	1-238-600-11	RES, ADJ, CARBON 10K	
RV102	1-241-630-11	RES, ADJ, CARBON 10K	
< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF (LIMIT IN)	

*	A-4649-352-A	CDM BOARD, COMPLETE (EXCEPT AEP, UK, G, IT)	
*	A-4649-463-A	CDM BOARD, COMPLETE (G)	
*	A-4649-466-A	CDM BOARD, COMPLETE (AEP, UK, IT)	

*	4-942-204-01	PLATE, GROUND	
< CAPACITOR >			
C212	1-164-346-11	CERAMIC CHIP 1uF	16V
C213	1-164-346-11	CERAMIC CHIP 1uF	16V
C214	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C215	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C216	1-125-486-11	DOUBLE LAYERS 0.22F	5.5V
C217	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C218	1-164-346-11	CERAMIC CHIP 1uF	16V
C219	1-164-346-11	CERAMIC CHIP 1uF	16V
C220	1-163-809-11	CERAMIC CHIP 0.047uF	10% 25V
C221	1-163-145-00	CERAMIC CHIP 0.0015uF	5% 50V
C222	1-164-346-11	CERAMIC CHIP 1uF	16V
C223	1-164-005-11	CERAMIC CHIP 0.47uF	25V
C224	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C225	1-164-346-11	CERAMIC CHIP 1uF	16V
C226	1-164-346-11	CERAMIC CHIP 1uF	16V
C227	1-164-346-11	CERAMIC CHIP 1uF	16V
C228	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C229	1-163-229-11	CERAMIC CHIP 12PF	5% 50V
C230	1-163-227-11	CERAMIC CHIP 10PF	5% 50V
C231	1-164-346-11	CERAMIC CHIP 1uF	16V
C232	1-164-346-11	CERAMIC CHIP 1uF	16V
C233	1-164-346-11	CERAMIC CHIP 1uF	16V
C234	1-164-346-11	CERAMIC CHIP 1uF	16V
C235	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C236	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C237	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C238	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C241	1-164-346-11	CERAMIC CHIP 1uF	16V
C242	1-163-137-00	CERAMIC CHIP 680PF	5% 50V
C243	1-163-137-00	CERAMIC CHIP 680PF	5% 50V
C244	1-164-346-11	CERAMIC CHIP 1uF	16V

Ref. No.	Part No.	Description	Remark
C245	1-164-346-11	CERAMIC CHIP 1uF	16V
C250	1-126-405-11	ELECT CHIP 10uF	20% 50V
C252	1-126-924-11	ELECT 330uF	20% 10V
C253	1-126-923-11	ELECT 220uF	20% 10V
< CONNECTOR >			
* CN202	1-695-629-11	CONNECTOR, FFC/FPC (ZIF) 22P	
CN203	1-580-891-11	SOCKET, CONNECTOR (SMT) 22P	
* CN206	1-568-951-11	PIN, CONNECTOR 2P	
* CN208	1-573-275-11	PIN, CONNECTOR 5P	
CN209	1-506-468-11	PIN, CONNECTOR 3P	
CN210	1-506-468-11	PIN, CONNECTOR 3P	
CN211	1-506-469-11	PIN, CONNECTOR 4P	
< DIODE >			
D205	8-719-990-39	DIODE DCB010	
D206	8-719-210-33	DIODE EC10DS2	
D207	8-719-210-33	DIODE EC10DS2	
D208	8-719-210-33	DIODE EC10DS2	
< FUSE >			
<u>△</u> F201	1-532-775-11	FUSE, MICRO (SECONDARY) 125V, 0.8A (EXCEPT AEP, UK, G, IT)	
< IC >			
IC206	8-759-512-81	IC LH5160N-10L	
IC207	8-759-008-79	IC MC14011BF	
IC208	8-759-009-21	IC MC14093BF	
IC209	8-752-337-26	IC CXD2500AQ	
IC210	8-752-337-10	IC CXD2554M	
IC211	8-759-506-63	IC PCM67U	
IC212	8-759-636-55	IC M5218AFP	
IC214	8-759-501-73	IC BA6418N	
IC215	8-759-501-73	IC BA6418N	
IC216	8-759-501-73	IC BA6418N	
IC250	8-759-076-35	IC μ PD75516GF-399-3B9	
< IC LINK >			
<u>△</u> ICP201	1-532-838-21	LINK, IC 0.3A (AEP, UK, G, IT)	
< JUMPER RESISTOR >			
JR202	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR204	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR207	1-216-295-00	METAL CHIP 0 5% 1/10W	
< COIL >			
L201	1-410-385-11	INDUCTOR CHIP 22uH	
L202	1-410-385-11	INDUCTOR CHIP 22uH	

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

CDM

CDM MOTOR

Ref. No.	Part No.	Description	Remark
L203	1-410-385-11	INDUCTOR CHIP 22uH	
L205	1-410-385-11	INDUCTOR CHIP 22uH	
< TRANSISTOR >			
Q201	8-729-804-41	TRANSISTOR 2SB1122-S	
Q202	8-729-602-21	TRANSISTOR 2SC4154-F	
< RESISTOR >			
R202	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R203	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R204	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R205	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R206	1-216-073-00	METAL CHIP 10K 5%	1/10W
R207	1-216-073-00	METAL CHIP 10K 5%	1/10W
R208	1-216-073-00	METAL CHIP 10K 5%	1/10W
R209	1-216-073-00	METAL CHIP 10K 5%	1/10W
R210	1-216-073-00	METAL CHIP 10K 5%	1/10W
R211	1-216-073-00	METAL CHIP 10K 5%	1/10W
R212	1-216-073-00	METAL CHIP 10K 5%	1/10W
R213	1-216-073-00	METAL CHIP 10K 5%	1/10W
R214	1-216-073-00	METAL CHIP 10K 5%	1/10W
R215	1-216-073-00	METAL CHIP 10K 5%	1/10W
R216	1-216-073-00	METAL CHIP 10K 5%	1/10W
R217	1-216-073-00	METAL CHIP 10K 5%	1/10W
R218	1-216-073-00	METAL CHIP 10K 5%	1/10W
R219	1-216-073-00	METAL CHIP 10K 5%	1/10W
R220	1-216-073-00	METAL CHIP 10K 5%	1/10W
R221	1-216-049-00	METAL CHIP 1K 5%	1/10W
R222	1-216-073-00	METAL CHIP 10K 5%	1/10W
R223	1-216-073-00	METAL CHIP 10K 5%	1/10W
R224	1-216-073-00	METAL CHIP 10K 5%	1/10W
R225	1-216-073-00	METAL CHIP 10K 5%	1/10W
R226	1-216-073-00	METAL CHIP 10K 5%	1/10W
R227	1-216-073-00	METAL CHIP 10K 5%	1/10W
R228	1-216-073-00	METAL CHIP 10K 5%	1/10W
R229	1-216-073-00	METAL CHIP 10K 5%	1/10W
R230	1-216-073-00	METAL CHIP 10K 5%	1/10W
R231	1-216-073-00	METAL CHIP 10K 5%	1/10W
R232	1-216-073-00	METAL CHIP 10K 5%	1/10W
R233	1-216-073-00	METAL CHIP 10K 5%	1/10W
R234	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R235	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R236	1-216-073-00	METAL CHIP 10K 5%	1/10W
R237	1-216-073-00	METAL CHIP 10K 5%	1/10W
R238	1-216-049-00	METAL CHIP 1K 5%	1/10W
R239	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R240	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R241	1-216-073-00	METAL CHIP 10K 5%	1/10W

Ref. No.	Part No.	Description	Remark
R242	1-216-073-00	METAL CHIP 10K 5%	1/10W
R243	1-216-097-00	METAL CHIP 100K 5%	1/10W
R244	1-216-041-00	METAL CHIP 470 5%	1/10W
R245	1-216-041-00	METAL CHIP 470 5%	1/10W
R246	1-216-041-00	METAL CHIP 470 5%	1/10W
R247	1-216-041-00	METAL CHIP 470 5%	1/10W
R248	1-216-033-00	METAL CHIP 220 5%	1/10W
R249	1-216-041-00	METAL CHIP 470 5%	1/10W
R250	1-216-041-00	METAL CHIP 470 5%	1/10W
R251	1-216-041-00	METAL CHIP 470 5%	1/10W
R252	1-216-041-00	METAL CHIP 470 5%	1/10W
R253	1-216-064-00	METAL CHIP 4.3K 5%	1/10W
R254	1-216-064-00	METAL CHIP 4.3K 5%	1/10W
R255	1-216-105-00	METAL CHIP 220K 5%	1/10W
R256	1-216-105-00	METAL CHIP 220K 5%	1/10W
R257	1-216-013-00	METAL CHIP 33 5%	1/10W
R258	1-216-033-00	METAL CHIP 220 5%	1/10W
R259	1-216-033-00	METAL CHIP 220 5%	1/10W
R260	1-216-073-00	METAL CHIP 10K 5%	1/10W
R261	1-216-073-00	METAL CHIP 10K 5%	1/10W
△R262	1-249-397-11	CARBON 22 5%	1/4W F
△R263	1-249-397-11	CARBON 22 5%	1/4W F
R264	1-216-043-00	METAL CHIP 560 5%	1/10W
R265	1-216-043-00	METAL CHIP 560 5%	1/10W
R266	1-216-073-00	METAL CHIP 10K 5%	1/10W
R267	1-216-073-00	METAL CHIP 10K 5%	1/10W
R268	1-216-049-00	METAL CHIP 1K 5%	1/10W
R269	1-216-025-00	METAL CHIP 100 5%	1/10W
R270	1-216-025-00	METAL CHIP 100 5%	1/10W
R271	1-216-025-00	METAL CHIP 100 5%	1/10W
R272	1-216-025-00	METAL CHIP 100 5%	1/10W
R273	1-216-025-00	METAL CHIP 100 5%	1/10W
< TEST PIN >			
* TP201	1-695-630-11	PIN, CONNECTOR 6P	
< VIBRATOR >			
X201	1-577-359-21	VIBRATOR, CERAMIC (4.19MHz)	
X202	1-567-908-11	VIBRATOR, CRYSTAL (16MHz)	

* 1-645-607-11	CDM MOTOR BOARD		

< CAPACITOR >			
C101	1-164-159-11	CERAMIC 0.1uF	50V
C102	1-164-159-11	CERAMIC 0.1uF	50V
C103	1-164-159-11	CERAMIC 0.1uF	50V

<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>
---	---

CDM MOTOR

PANEL

Ref. No.	Part No.	Description	Remark
< CONNECTOR >			
* CN105	1-568-934-11	PIN, CONNECTOR 7P	
* CN106	1-568-954-11	PIN, CONNECTOR 5P	
< IC >			
IC401	8-759-071-52	IC ON1023-S	
IC601	8-759-071-52	IC ON1023-S	
< RESISTOR >			
△R401	1-249-407-11	CARBON 150 5% 1/4W F	
R402	1-249-429-11	CARBON 10K 5% 1/4W	
△R601	1-249-407-11	CARBON 150 5% 1/4W F	
R602	1-249-429-11	CARBON 10K 5% 1/4W	
< SWITCH >			
S101	1-571-300-21	SWITCH, ROTARY (BU UP/DOWN)	
S103	1-692-080-11	SWITCH, PUSH (1 KEY) (TRAY OUT)	
S104	1-692-080-11	SWITCH, PUSH (1 KEY) (TRAY IN)	

*	A-4649-455-A	PANEL BOARD, COMPLETE (EXCEPT AEP, UK, G, IT)	
*	A-4649-462-A	PANEL BOARD, COMPLETE (G)	
*	A-4649-465-A	PANEL BOARD, COMPLETE (AEP, UK, IT)	

*	4-954-701-01	HOLDER (FL TUBE)	
< CAPACITOR >			
C301	1-164-346-11	CERAMIC CHIP 1uF 16V	
C302	1-164-346-11	CERAMIC CHIP 1uF 16V	
C303	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V	
C304	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C305	1-164-346-11	CERAMIC CHIP 1uF 16V	
C306	1-164-346-11	CERAMIC CHIP 1uF 16V	
C307	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C308	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C309	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C310	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C311	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C312	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C313	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C314	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C315	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C316	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C317	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C318	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C319	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C320	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	

Ref. No.	Part No.	Description	Remark
C321	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C322	1-163-035-00	CERAMIC CHIP 0.047uF 10% 25V	
C323	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C324	1-126-206-11	ELECT CHIP 100uF 20% 6.3V	
C325	1-126-206-11	ELECT CHIP 100uF 20% 6.3V	
C326	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C327	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
< CONNECTOR >			
CN301	1-580-874-11	SOCKET, CONNECTOR (SMT) 22P	
< DIODE >			
D301	8-719-990-39	DIODE DCB010	
D302	8-719-027-34	DIODE LN1361C (DISC 1)	
D303	8-719-027-34	DIODE LN1361C (DISC 1)	
D304	8-719-027-34	DIODE LN1361C (DISC 1)	
D305	8-719-027-34	DIODE LN1361C (DISC 2)	
D306	8-719-027-34	DIODE LN1361C (DISC 2)	
D307	8-719-027-34	DIODE LN1361C (DISC 2)	
D308	8-719-027-34	DIODE LN1361C (DISC 3)	
D309	8-719-027-34	DIODE LN1361C (DISC 3)	
D310	8-719-027-34	DIODE LN1361C (DISC 3)	
D311	8-719-027-34	DIODE LN1361C (DISC 4)	
D312	8-719-027-34	DIODE LN1361C (DISC 4)	
D313	8-719-027-34	DIODE LN1361C (DISC 4)	
D314	8-719-027-34	DIODE LN1361C (DISC 5)	
D315	8-719-027-34	DIODE LN1361C (DISC 5)	
D316	8-719-027-34	DIODE LN1361C (DISC 5)	
D317	8-719-023-03	DIODE LN1461C (DISC 1)	
D318	8-719-023-03	DIODE LN1461C (DISC 1)	
D319	8-719-023-03	DIODE LN1461C (DISC 2)	
D320	8-719-023-03	DIODE LN1461C (DISC 2)	
D321	8-719-023-03	DIODE LN1461C (DISC 3)	
D322	8-719-023-03	DIODE LN1461C (DISC 3)	
D323	8-719-023-03	DIODE LN1461C (DISC 4)	
D324	8-719-023-03	DIODE LN1461C (DISC 4)	
D325	8-719-023-03	DIODE LN1461C (DISC 5)	
D326	8-719-023-03	DIODE LN1461C (DISC 5)	
D327	8-719-029-95	DIODE TLM117	
< FLUORESCENT INDICATOR >			
FL301	1-519-738-11	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC301	8-759-077-15	IC uPD75518GF-059-3B9	
IC302	8-759-077-16	IC M66004M4FP	

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.

PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< COIL >					
L301	1-410-385-11	INDUCTOR CHIP 22uH		R331	1-216-057-00	METAL CHIP 2.2K 5%	1/10W
L302	1-410-385-11	INDUCTOR CHIP 22uH		R332	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
		< TRANSISTOR >		R333	1-216-073-00	METAL CHIP 10K 5%	1/10W
Q301	8-729-602-21	TRANSISTOR 2SC4154-F		R335	1-216-049-00	METAL CHIP 1K 5%	1/10W
Q302	8-729-602-36	TRANSISTOR 2SA1602		R336	1-216-049-00	METAL CHIP 1K 5%	1/10W
Q303	8-729-804-41	TRANSISTOR 2SB1122-S					
Q304	8-729-018-23	TRANSISTOR TPS626-F		R337	1-216-079-00	METAL CHIP 18K 5%	1/10W
Q306	8-729-602-21	TRANSISTOR 2SC4154-F		R340	1-216-027-00	METAL CHIP 120 5%	1/10W
				R341	1-216-027-00	METAL CHIP 120 5%	1/10W
Q307	8-729-602-21	TRANSISTOR 2SC4154-F		R342	1-216-027-00	METAL CHIP 120 5%	1/10W
Q308	8-729-602-21	TRANSISTOR 2SC4154-F		R343	1-216-027-00	METAL CHIP 120 5%	1/10W
Q309	8-729-602-21	TRANSISTOR 2SC4154-F					
Q311	8-729-602-21	TRANSISTOR 2SC4154-F		R344	1-216-027-00	METAL CHIP 120 5%	1/10W
Q312	8-729-602-21	TRANSISTOR 2SC4154-F		R349	1-216-073-00	METAL CHIP 10K 5%	1/10W
				R350	1-216-073-00	METAL CHIP 10K 5%	1/10W
Q313	8-729-602-21	TRANSISTOR 2SC4154-F		R351	1-216-041-00	METAL CHIP 470 5%	1/10W
		< RESISTOR >		R352	1-216-041-00	METAL CHIP 470 5%	1/10W
R301	1-216-061-00	METAL CHIP 3.3K 5%	1/10W				
R302	1-216-061-00	METAL CHIP 3.3K 5%	1/10W	R353	1-216-041-00	METAL CHIP 470 5%	1/10W
R303	1-216-061-00	METAL CHIP 3.3K 5%	1/10W	R354	1-216-041-00	METAL CHIP 470 5%	1/10W
R304	1-216-061-00	METAL CHIP 3.3K 5%	1/10W	R355	1-216-045-00	METAL CHIP 680 5%	1/10W
R305	1-216-073-00	METAL CHIP 10K 5%	1/10W	R356	1-216-045-00	METAL CHIP 680 5%	1/10W
				R357	1-216-045-00	METAL CHIP 680 5%	1/10W
R306	1-216-073-00	METAL CHIP 10K 5%	1/10W				
R307	1-216-073-00	METAL CHIP 10K 5%	1/10W	R358	1-216-045-00	METAL CHIP 680 5%	1/10W
R308	1-216-073-00	METAL CHIP 10K 5%	1/10W	R359	1-216-049-00	METAL CHIP 1K 5%	1/10W
R309	1-216-073-00	METAL CHIP 10K 5%	1/10W	R360	1-216-049-00	METAL CHIP 1K 5%	1/10W
R310	1-216-073-00	METAL CHIP 10K 5%	1/10W	R361	1-216-049-00	METAL CHIP 1K 5%	1/10W
				R362	1-216-049-00	METAL CHIP 1K 5%	1/10W
R311	1-216-073-00	METAL CHIP 10K 5%	1/10W				
R312	1-216-089-00	METAL CHIP 47K 5%	1/10W	R363	1-216-053-00	METAL CHIP 1.5K 5%	1/10W
R313	1-216-073-00	METAL CHIP 10K 5%	1/10W	R364	1-216-053-00	METAL CHIP 1.5K 5%	1/10W
R314	1-216-073-00	METAL CHIP 10K 5%	1/10W	R365	1-216-053-00	METAL CHIP 1.5K 5%	1/10W
R315	1-216-061-00	METAL CHIP 3.3K 5%	1/10W	R366	1-216-053-00	METAL CHIP 1.5K 5%	1/10W
				R367	1-216-057-00	METAL CHIP 2.2K 5%	1/10W
R316	1-216-049-00	METAL CHIP 1K 5%	1/10W				
R317	1-216-061-00	METAL CHIP 3.3K 5%	1/10W	R368	1-216-057-00	METAL CHIP 2.2K 5%	1/10W
R318	1-216-061-00	METAL CHIP 3.3K 5%	1/10W	R369	1-216-057-00	METAL CHIP 2.2K 5%	1/10W
R319	1-216-061-00	METAL CHIP 3.3K 5%	1/10W	R370	1-216-057-00	METAL CHIP 2.2K 5%	1/10W
R320	1-216-017-00	METAL CHIP 47 5%	1/10W	R371	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
				R372	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R321	1-216-017-00	METAL CHIP 47 5%	1/10W				
R322	1-216-017-00	METAL CHIP 47 5%	1/10W	R373	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R323	1-216-017-00	METAL CHIP 47 5%	1/10W	R374	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R324	1-216-017-00	METAL CHIP 47 5%	1/10W	R375	1-216-075-00	METAL CHIP 12K 5%	1/10W
R325	1-216-019-00	METAL CHIP 56 5%	1/10W	R376	1-216-075-00	METAL CHIP 12K 5%	1/10W
				R377	1-216-075-00	METAL CHIP 12K 5%	1/10W
R326	1-216-019-00	METAL CHIP 56 5%	1/10W				
R327	1-216-019-00	METAL CHIP 56 5%	1/10W	R378	1-216-075-00	METAL CHIP 12K 5%	1/10W
R328	1-216-019-00	METAL CHIP 56 5%	1/10W	R385	1-216-073-00	METAL CHIP 10K 5%	1/10W
R329	1-216-019-00	METAL CHIP 56 5%	1/10W	R386	1-216-073-00	METAL CHIP 10K 5%	1/10W
R330	1-216-073-00	METAL CHIP 10K 5%	1/10W	R387	1-216-073-00	METAL CHIP 10K 5%	1/10W
				R388	1-216-073-00	METAL CHIP 10K 5%	1/10W
				R389	1-216-073-00	METAL CHIP 10K 5%	1/10W

PANEL

TRANSFORMER

Ref. No.	Part No.	Description	Remark
< SWITCH >			
S301	1-692-296-11	SWITCH, KEY BOARD (▶▶ ▶▶)	
S302	1-692-296-11	SWITCH, KEY BOARD (◀◀ ◀◀)	
S303	1-692-296-11	SWITCH, KEY BOARD (■)	
S304	1-692-296-11	SWITCH, KEY BOARD (▷)	
S305	1-692-296-11	SWITCH, KEY BOARD (DISC 1)	
S306	1-692-296-11	SWITCH, KEY BOARD (△ DISC 1)	
S308	1-692-296-11	SWITCH, KEY BOARD (■)	
S309	1-692-296-11	SWITCH, KEY BOARD (DISC 2)	
S310	1-692-296-11	SWITCH, KEY BOARD (△ DISC 2)	
S312	1-692-296-11	SWITCH, KEY BOARD (CONTINUE)	
S313	1-692-296-11	SWITCH, KEY BOARD (DISC 3)	
S314	1-692-296-11	SWITCH, KEY BOARD (△ DISC 3)	
S316	1-692-296-11	SWITCH, KEY BOARD (SHUFFLE)	
S317	1-692-296-11	SWITCH, KEY BOARD (DISC 4)	
S318	1-692-296-11	SWITCH, KEY BOARD (△ DISC 4)	
S320	1-692-296-11	SWITCH, KEY BOARD (PROGRAM)	
S321	1-692-296-11	SWITCH, KEY BOARD (DISC 5)	
S322	1-692-296-11	SWITCH, KEY BOARD (△ DISC 5)	
S324	1-692-296-11	SWITCH, KEY BOARD (REPEAT)	
S325	1-692-296-11	SWITCH, KEY BOARD (CHARATER ▷)	
S326	1-692-296-11	SWITCH, KEY BOARD (CHARATER ◁)	
S328	1-692-296-11	SWITCH, KEY BOARD (CURSOR)	
S329	1-692-296-11	SWITCH, KEY BOARD (MEMO INPUT)	
S330	1-692-296-11	SWITCH, KEY BOARD (ERASE)	
S331	1-692-296-11	SWITCH, KEY BOARD (TIME/MEMO)	
S332	1-692-296-11	SWITCH, KEY BOARD (SOUND FIELD FILE)	
< VIBRATOR >			
X301	1-577-359-21	VIBRATOR, CERAMIC (4.19MHz)	

*	A-4649-456-A	TRANSFORMER BOARD, COMPLETE (EXCEPT AEP, UK, G, IT)	
*	A-4649-461-A	TRANSFORMER BOARD, COMPLETE (G)	
*	A-4649-464-A	TRANSFORMER BOARD, COMPLETE (AEP, UK, IT)	

*	3-309-144-21	HEAT SINK	
	7-682-547-04	SCREW +BVTT 3X6 (S)	
< CAPACITOR >			
C200	1-126-939-11	ELECT 10000uF 20% 16V	
C202	1-164-159-11	CERAMIC 0.1uF 50V	
C203	1-164-159-11	CERAMIC 0.1uF 50V	
C205	1-124-443-00	ELECT 100uF 20% 10V	
C206	1-161-375-00	CERAMIC 0.0022uF 20% 50V	
C207	1-164-159-11	CERAMIC 0.1uF 50V	
C208	1-124-443-00	ELECT 100uF 20% 10V	

Ref. No.	Part No.	Description	Remark
C209	1-164-159-11	CERAMIC 0.1uF 50V	
C210	1-164-159-11	CERAMIC 0.1uF 50V	
C211	1-124-443-00	ELECT 100uF 20% 10V	
C246	1-124-572-11	ELECT 100uF 20% 63V	
C247	1-124-907-11	ELECT 10uF 20% 50V	
C248	1-161-329-00	CERAMIC 0.0068uF 20% 16V	
C249	1-161-329-00	CERAMIC 0.0068uF 20% 16V	
C251	1-124-907-11	ELECT 10uF 20% 50V	
C254	1-124-902-00	ELECT 0.47uF 20% 50V	
C255	1-124-902-00	ELECT 0.47uF 20% 50V	
C256	1-124-907-11	ELECT 10uF 20% 50V	
C257	1-124-907-11	ELECT 10uF 20% 50V	
C258	1-162-282-31	CERAMIC 100PF 10% 50V	
< CONNECTOR >			
* CN201	1-569-624-11	SOCKET, CONNECTOR 17P (SYSTEM CONTROL 2)	
* CN213	1-564-499-11	PIN, CONNECTOR 6P	
* CN216	1-562-327-00	SOCKET, CONNECTOR 3P	
< DIODE >			
D201	8-719-210-21	DIODE 11EQS04	
D202	8-719-210-21	DIODE 11EQS04	
D203	8-719-200-82	DIODE 11ES2	
D204	8-719-014-86	DIODE UZP-6.8BB	
D206	8-719-987-63	DIODE 1N4148M	
< IC >			
IC201	8-759-604-86	IC M5F7807L	
IC202	8-759-604-30	IC M5F7808L	
IC203	8-759-821-93	IC LA5601	
IC204	8-759-821-93	IC LA5601	
IC213	8-759-633-42	IC M5293L	
< RESISTOR >			
△R201	1-249-393-11	CARBON 10 5% 1/4W F	
△R202	1-249-405-11	CARBON 100 5% 1/4W F	
< TRANSFORMER >			
△T201	1-450-984-11	TRANSFORMER, POWER	

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.

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS *****	
11	1-696-633-11	WIRE (FLAT TYPE)	
78	1-452-676-11	MAGNET	
86	1-696-634-11	WIRE (FLAT TYPE)	
△155	8-848-144-11	DEVICE, OPTICAL KSS-240A	
156	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
M1	X-4917-523-3	MOTOR ASSY, SPINDLE	
M2	X-4917-504-1	MOTOR ASSY, SLED	
M101	A-4660-232-A	MOTOR (CDM) ASSY	
M102	A-4460-232-A	MOTOR (CDM) ASSY	
M103	A-4460-232-A	MOTOR (CDM) ASSY	
S102	1-466-819-11	ENCORDER, ROTARY	

HARDWARE LIST

#1	7-682-546-04	SCREW +BVTT 3X5 (S)
#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S
#3	7-624-106-04	STOP RING 3.0, TYPE -E
#4	7-682-546-09	SCREW +PTT 3X5 (S)
#5	7-685-645-79	SCREW +BTP 3X6 TYPE2 N-S
#6	7-621-775-00	SCREW +B 2. 6X3
#7	7-621-255-35	SCREW +BVTT 2X5 (S)
#8	7-621-773-95	SCREW +BVTT 2. 6X6 (S)
#9	7-685-531-14	SCREW +BTP 2. 6X4 TYPE2 N-S
#10	7-621-770-XX	SCREW +PTT 2. 6X8 (S)
#11	7-685-133-19	SCREW +BTP 2. 6X6 TYPE2 N-S
#12	7-685-134-19	SCREW +BTP 2. 6X8 TYPE2 N-S
#13	7-621-255-15	SCREW +P 2X3
#14	7-682-547-09	SCREW +BVTT 3X6 (S)
#15	7-682-547-04	SCREW +BVTT 3X6 (S)

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

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

CDP-H3750

SONY[®] SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Tourist Model

SUPPLEMENT-1

File this supplement-1 with the Service Manual.

Subject :

1. TEST MODE
2. BLOCK DIAGRAM
3. IC PIN DESCRIPTION

TEST MODE

1. Press the three keys: **DISC1**, **DISC5** Δ and \blacksquare simultaneously to enter the Test Mode.

(1) FL Tube All Lighting

This mode is entered just after power is turned on.

(2) FL Tube Segment Check

This mode is entered when **DISC1** Δ key is pressed in mode (1).

Make sure that the mode changes from * 1 to * 2 to * 3 and then to * 1 and so on in turn each time **DISC1** Δ key is pressed.

* 1

```

■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■
■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■
■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■
■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■
■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■
    
```

SHUFFLE PROGRAM REPEAT1 S.F.FILE
 4 5 6 7 8 9 10 11 12 13 14 15 16

* 2

```

■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■
■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■
■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■
■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■
■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■
    
```

SHUFFLE PROGRAM REPEAT1 S.F.FILE
 4 5 6 7 8 9 10 11 12 13 14 15 16

* 3

```

■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■
■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■
■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■
■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■
■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■
    
```

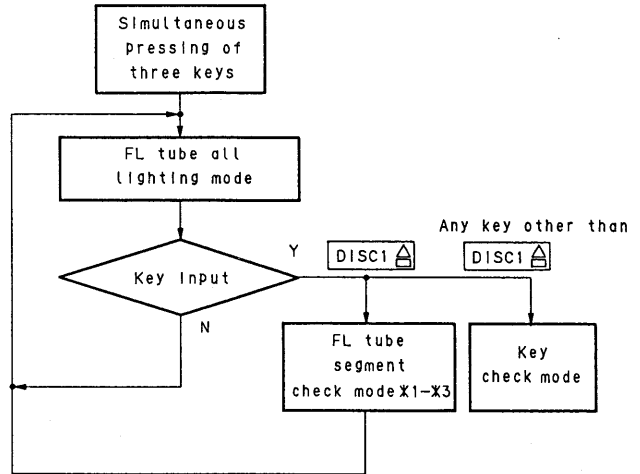
SHUFFLE PROGRAM REPEAT1 S.F.FILE
 4 5 6 7 8 9 10 11 12 13 14 15 16

(3) Key Check

This mode is entered and "1" is displayed when and key other than **DISC1** Δ is pressed in mode (1). The number displayed is incremented each time any new key is pressed. Make sure that "7" is displayed when all the different keys have been pressed.

Note that once a key has been pressed, even if that key is pressed again, it is not be counted.

* To exit mode (2) and mode (3), press the three keys: **DISC1**, **DISC5** Δ and \blacksquare simultaneously.

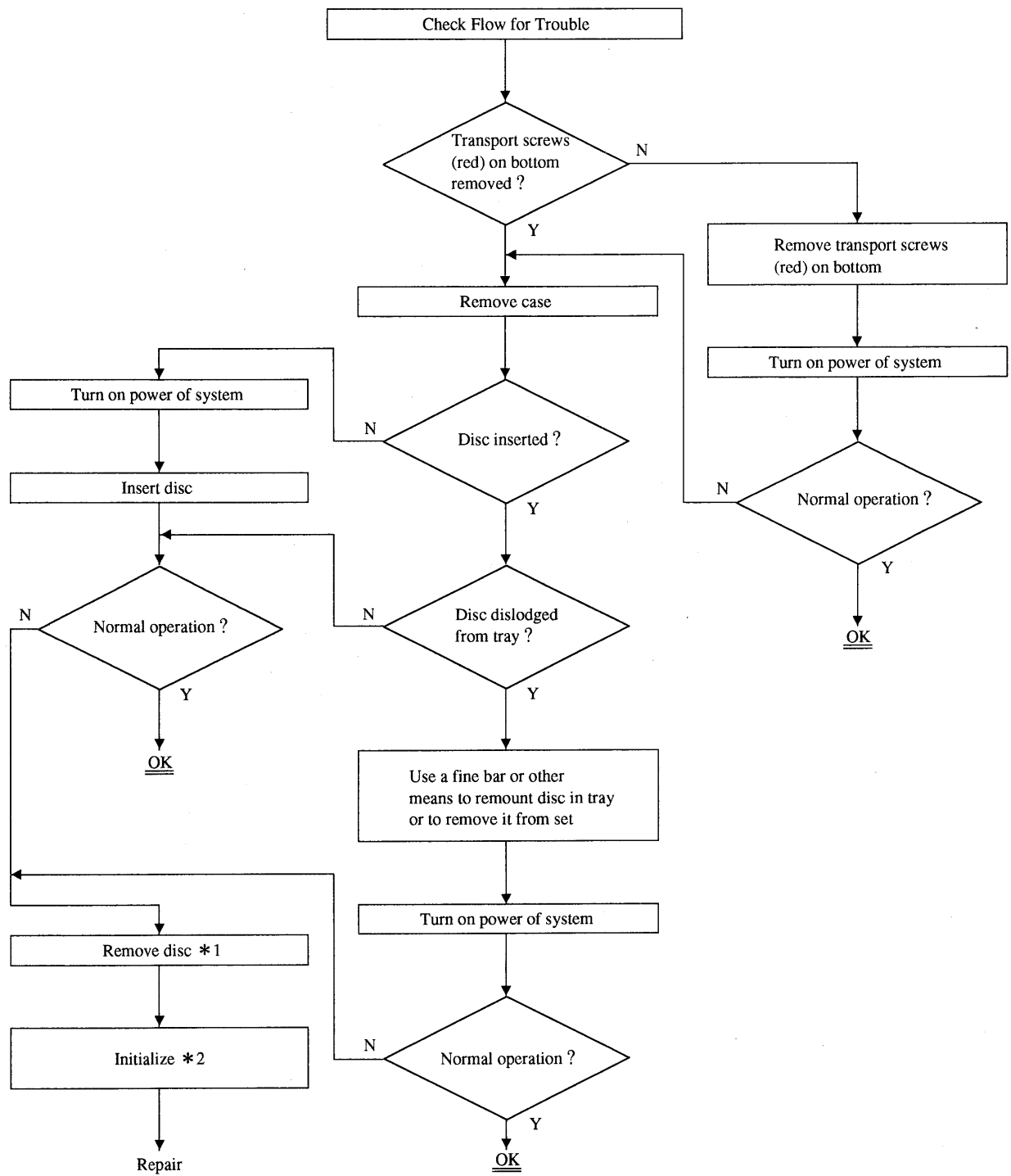


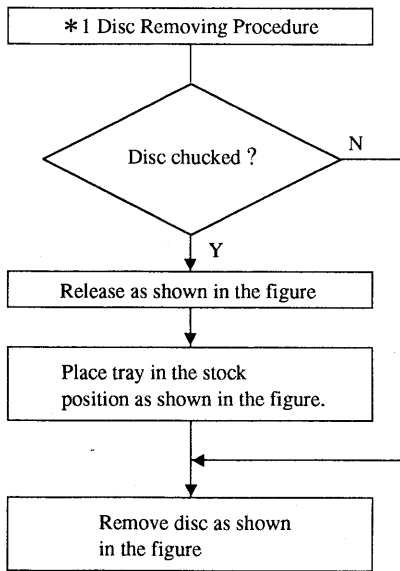
2. Test Mode for CD System Controller (IC250)

(1) ADJUST Mode

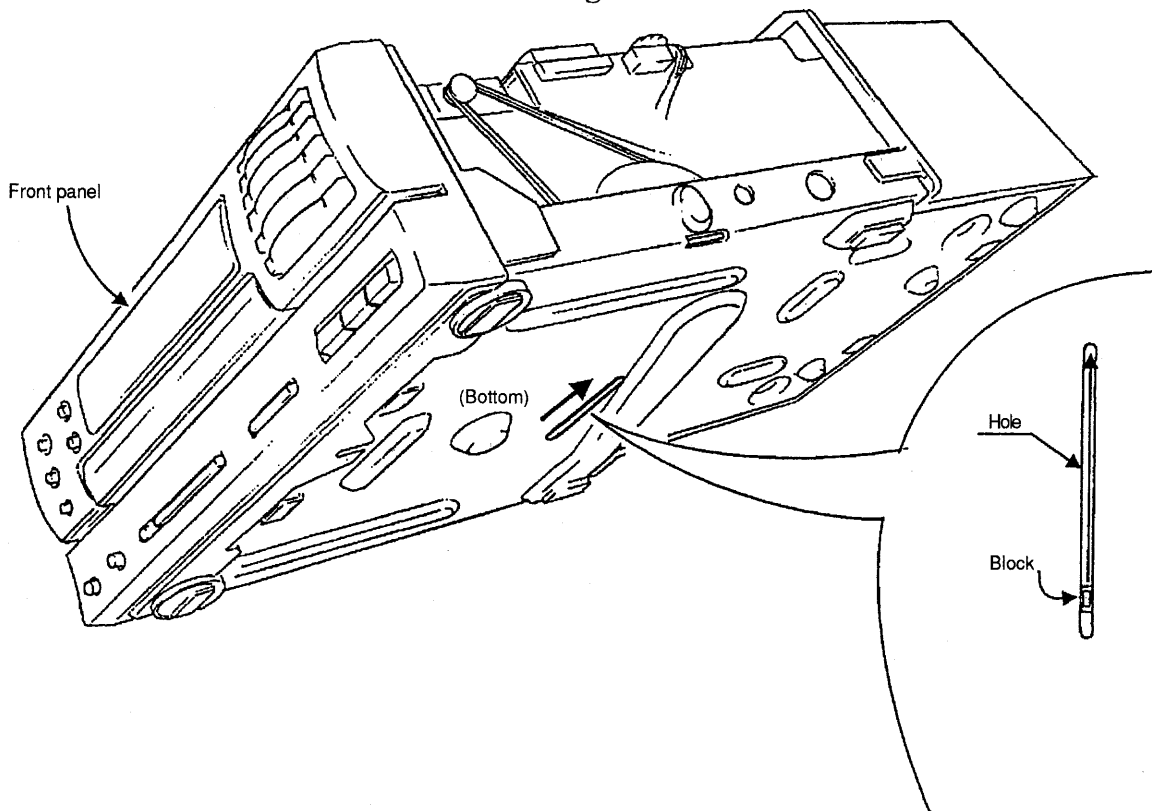
In this mode, the system looks like performing normal operation except that :

- When IC250 pin ⑤ (ADJ) is set "L" after power is turned on :
 - ① The system will not monitor GFS during PLAY, PAUSE and SEARCH. It will not STOP even if GFS remains "L" (NG).
 - ② No high speed feed is performed during SEARCH.
 - ③ Focus gain will be returned to normal during PLAY. (Usually, when focus is locked, the gain is decreased to reduce noise.)
- When IC250 pin ⑦ (AFADJ) is set "L" after power is turned on :
 - ① CLV mode during PLAY will be CLV-S (rough servo) independent of the state of pin ⑨ (ADJ) as the CLV-S lock function.

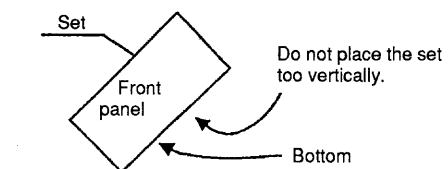


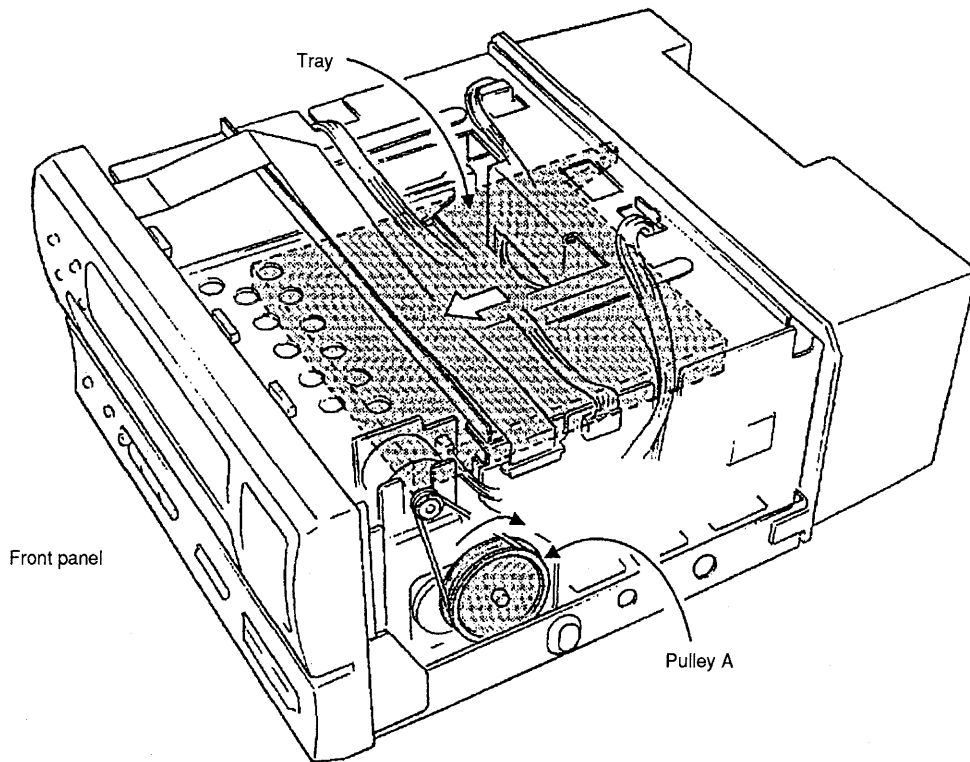


Disc Removing Procedure

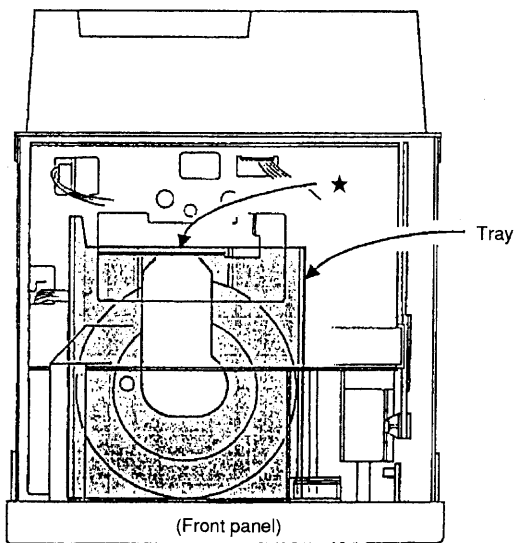


- 1) Insert a fine bar into the hole and move the block in the arrow direction.
(If disc is chucked, to prevent fall of disc, place the set as illustrated below.)

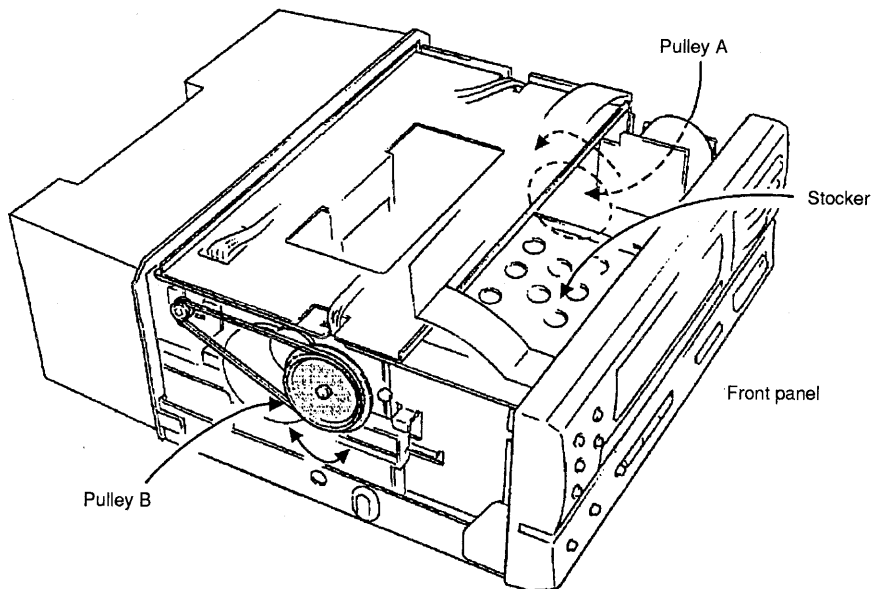




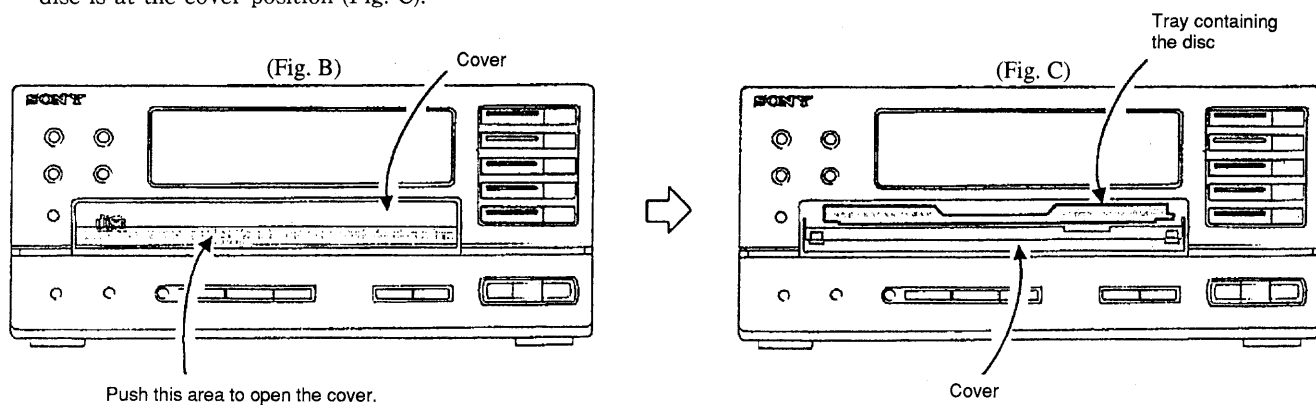
- 2) Rotate pulley A clockwise (↻). While observing the disc tray moves in the arrow (⇔) direction, move the tray until its rear is aligned with others (★ marked portion). (See Fig. A)



(Fig. A)



- 3) Rotating pulley B will move the stocker where disc trays are stocked up and down. Open the cover on the front panel (Fig. B) and adjust so that the tray containing the disc is at the cover position (Fig. C).



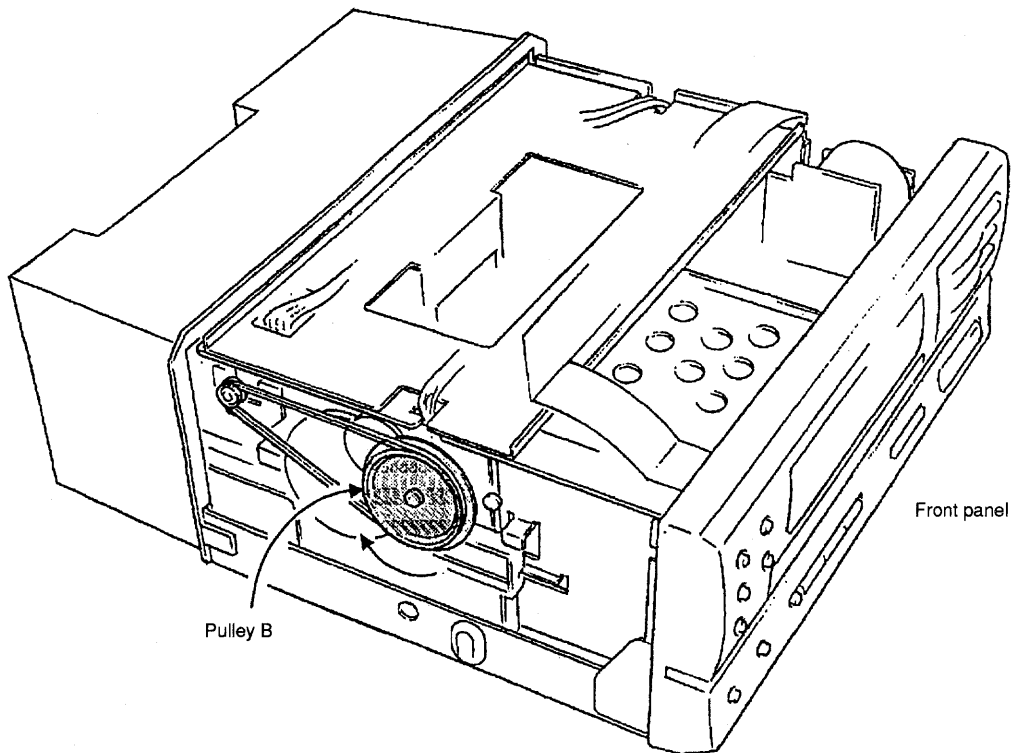
- 4) Rotating pulley A counterclockwise (↺) will eject the tray containing disc. Remove the disc, then rotate pulley A clockwise to return the tray to the position as shown in Fig. A.

- If some trays contain disc, repeat Items 3) and 4).

* 2 Initializing Procedure

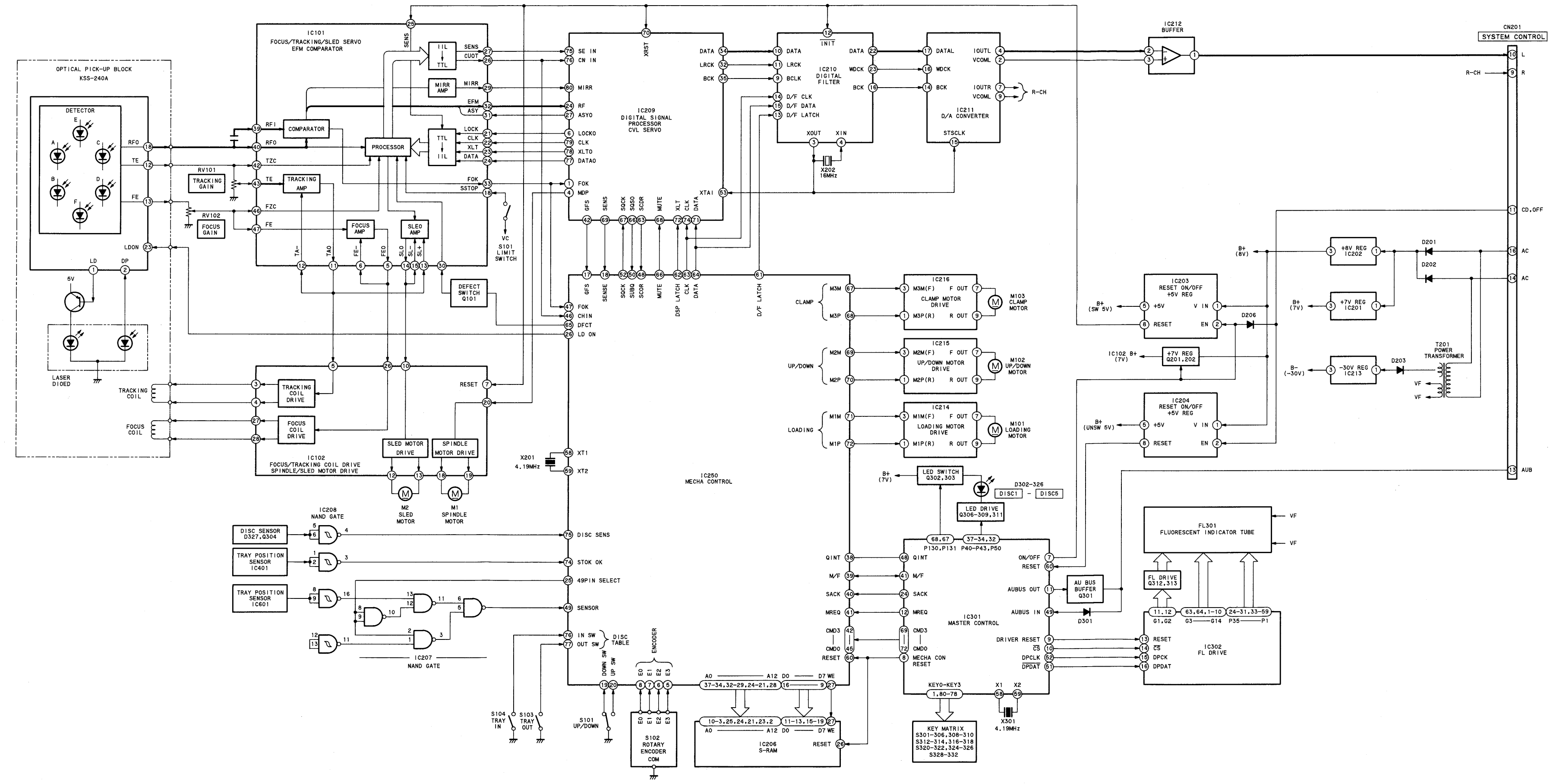
- 1) If mechanism is operated when power of system is turned on :
Make sure that all disc are removed. Open DISC No. 1.
↓
Turn off power of system.
↓
“OFF” characters flash on the CD display.
- 2) If mechanism is operated when power of system is turned on :
Move disc tray as shown in the figure.

Initializing Procedure



- * Make sure that all the trays are arranged to the position shown in Fig. A, then rotate pulley B in the arrow direction until it stops.

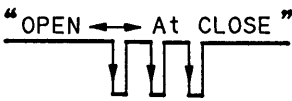
BLOCK DIAGRAM



IC PIN DESCRIPTION

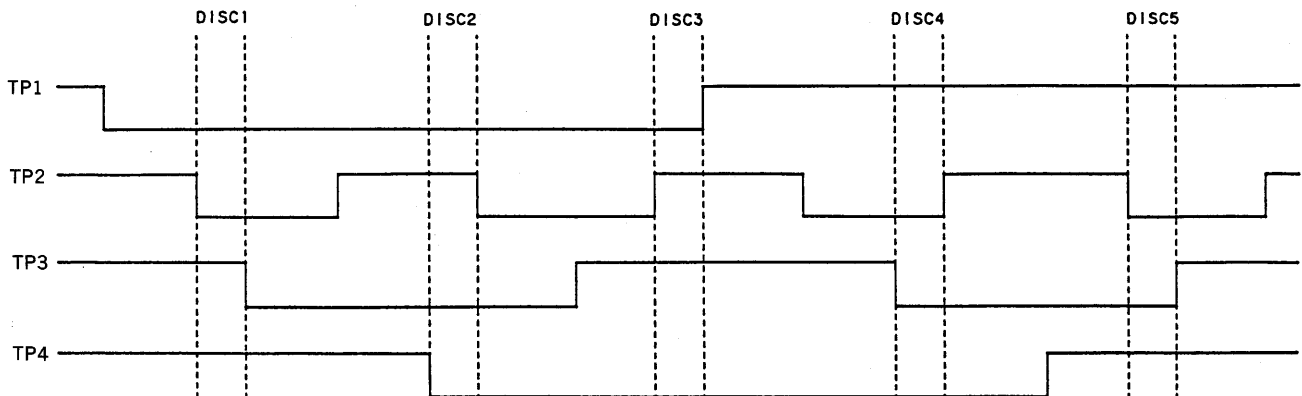
• IC250 μ PD75516GF-399-3B9 Mechanism Controller Microprocessor

For operations with the CD unit's IC101 (RF signal processing and servo), IC209 (DSP and digital filter) loading control, IC206 (SRAM), and data exchange with IC301 (master controller).

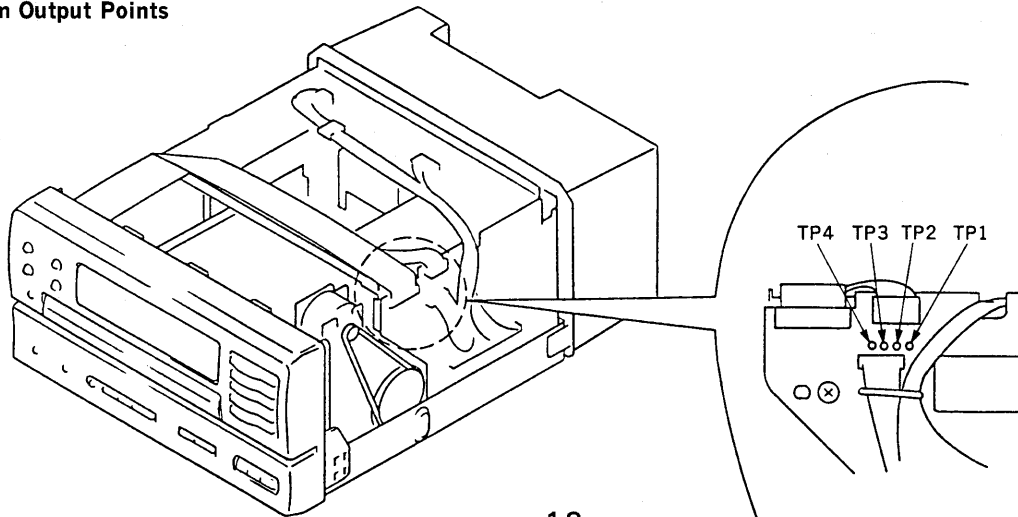
Pin No.	Pin Name	I/O	Description
1	NC		No connect pin
2	AVDD	—	Power pin (+5V)
3, 4	VDD	—	Power pin (+5V)
5—8	E3—0	I	Stocker position detection encoder input (4-bit parallel decoder). * 1
9—16	D7—0	O	Data output port of IC206 (64K SRAM) (8-bit parallel data).
17	GFS	I	GFS signal input from IC209 (CXD2500BQ). "L" for NG, "H" for OK.
18	SENSE	I	SENS input from IC101 (CXD1372Q) and IC209 (CXD2500BQ).
19	$\overline{\text{DOWN SW}}$	I	Down input of S101 (BD Up and Down switch).
20	$\overline{\text{UP SW}}$	I	Up input of S101 (BD Up and Down switch).
21—24	A11—8	O	IC106 (64K SRAM) address output port.
25	49 PIN SELECT	O	Pin ④ function select. Always "L" for use of Stock IN in this set.
26	LD ON	O	BD laser diode control output. "H" to toggle ON, "L" to toggle OFF.
27	WE	O	IC206 (64K SRAM) write enable output. "H" to disable, "L" to enable.
28—32	A12, A7—4	O	IC206 (64K SRAM) address output port.
33	GND	—	Power pin (GND)
34—37	A3—0	O	IC206 (64K SRAM) address output port.
38	QINT	I/O	Interrupt signal output during communication with master controller. * 2
39	M/ $\overline{\text{F}}$	I/O	To determine type of communication with master controller. "H" for mechanism command data, "L" for file command data.
40	SACK	I/O	Answer code input from master controller during communication with master.
41	MREQ	I/O	Master request signal input for communication with master controller.
42—45	CMD3—0	I/O	Command data line in communication with master controller.
46	CHIN	I	Track jump count input from IC101 (CXD1372Q).
47	FOK	I	Focus OK signal input from IC101 (CXD1372Q). "H" for OK.
48	SCOR	I	Sub code sink S0+S1 detection input from IC209 (CXD2500BQ).
49	SENDER	I	STOK IN signal input in this set. 
50	SUBQ	I	Sub code Q data input from IC209 (CXD2500BQ).
51	GND	—	Power pin (GND)
52	SQCK	O	Sub code Q data read clock output to IC209 (CXD2500BQ).
53	$\overline{\text{ADJ}}$	I	Test Mode input. "L" to enter Test Mode.
54	GND	—	Power pin (GND)
55	XT1	—	Not used (GND)
56	XT2	—	Not used (Open)
57	GND	—	Power pin (GND)
58, 59	X1, 2	I	System clock input (4.19MHz)
60	$\overline{\text{RESET}}$	I	System clock input. "L" to reset.
61	D/F LATCH	O	IC210 (MSM6538) latch signal output.
62	DSP LATCH	O	IC209 (CXD2500BQ) latch signal output.
63	CLK	O	Clock data output to IC210 (MSM6538).

Pin No.	Pin Name	I/O	Description
64	DATA	O	Data output to IC210 (MSM6538).
65	DFCT SW	O	Used during focus search to turn OFF (set "H") flaw detection circuit of ON/OFF select output DISC in DEFECT circuit of IC101 (CXD1372Q).
66	MUTE	O	Muting control output. "H" to mute.
67	M3M	O	Clamp motor control output
68	M3P	O	
69	M2M	O	Stocker motor control output
70	M2P	O	
71	M1M	O	Loading motor control output
72	M1P	O	
73	AGND	—	Power pin (GND)
74	STOK OK	I	Tray position detection input. "L" for stocker UP/DOWN enabled position.
75	DISC SENS	I	Used to determine whether disc is present or not. "┌":With, "—":Without
76	IN SW	I	S103 (Loading In switch) input
77	OUT SW	I	S104 (Loading Out switch) input
78	TEST	I	Test Mode input. "L" for Test Mode.
79	AF ADJ	I	
80	NC		No connect pin

* 1 Encoder output waveform from DISC1 to DISC5



Waveform Output Points



- * 2 Communications between mechanism microprocessor IC250 and master microprocessor IC301
 Format in general communications. (1) and (2)

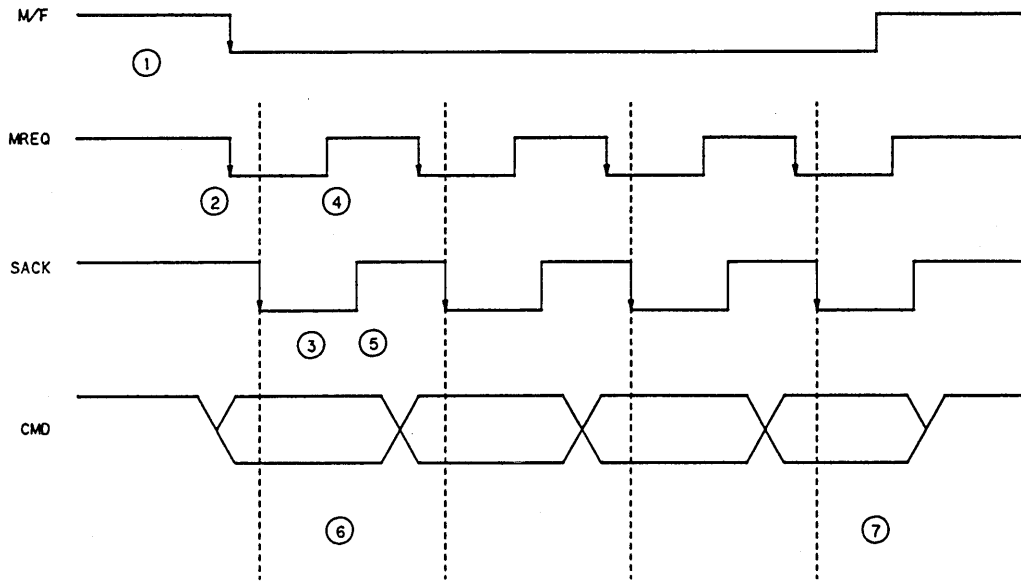
Initial Communication

Initial communication is made between mechanism microprocessor IC250 and master microprocessor IC301 in their respective initial routines. This has a different format from general communications. Handshake is performed in MTREQ and SACK. If any fault occurs in initial communication, the communication stops at that points, so the indicator remains extinguished.

(1) Command Receive and Transmission

Communications between mechanism controller and master controller are made using eight signal lines between their ports (CMD1, CMD2, CMD3, CMD4, MREQ, SACK, M/F and QINT).

Format of Receive and Transmission from Master

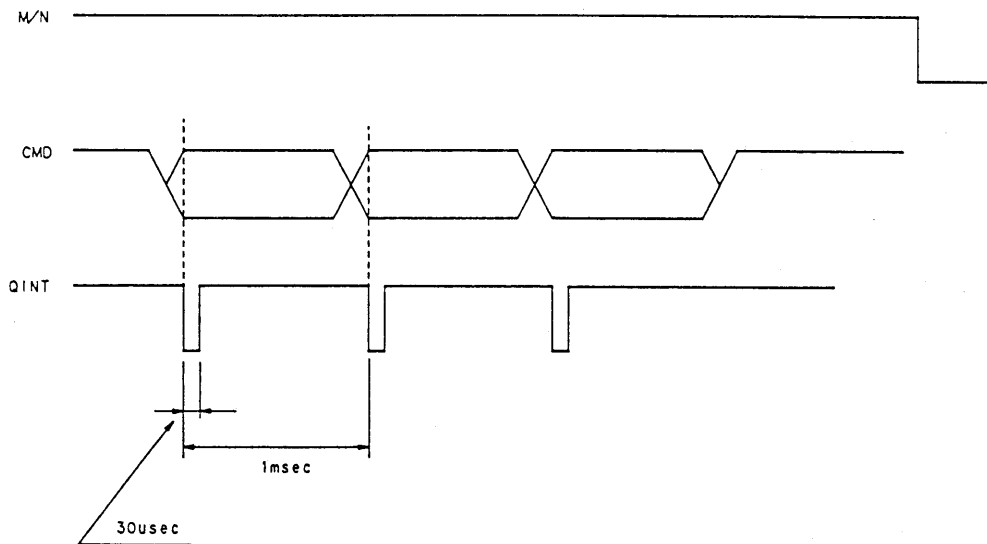


Timing of transmit from master controller to mechanism controller

- ① M/F pin is to be set "High" when master microprocessor sends mechanism command and "Low" when it sends a file command. Mechanism controller will not make Q data communication when M/F pin is "Low".
- ② When sending a command from master microprocessor to mechanism controller, the data is put on the CMD line and this pin (MREQ) is set "Low".
- ③ Mechanism controller monitors the MREQ pin in its main routine. It latches the CMD data when the pin is at "Low" level. Then, it sets this pin (SACK) "Low".
- ④ Master controller confirms that the SACK pin is set "Low" and it sets the MREQ pin "High".
- ⑤ Then, when the MREQ pin is "High" and the SACK pin is "Low", mechanism controller sets the SACK "High" and it is ready to accept the send command.
- ⑥ The signal from master begins with "A"—"E". If the mechanism controller receives any code other than this, it treats as an error.
- ⑦ This signal ends with "F". After this is confirmed, the flag is set and the command is then decoded in the main routine.

(2) Format of Transmission to Master

The QINT pin, M/F pin and MD port are used to send a command to master microprocessor. This transmission from mechanism controller to master microprocessor is used for responses to DISC status information, SW state and file information. Also, the same transmission format is used to send Q data from mechanism controller to master.



When data can be sent from mechanism controller, the data is then sent to the CMD line. Therefore the QINT pin of mechanism controller is dropped by about 30 μsec.

The timing of data transmission is controlled by timer process within microprocessor so that data will be sent at intervals of 1 msec.

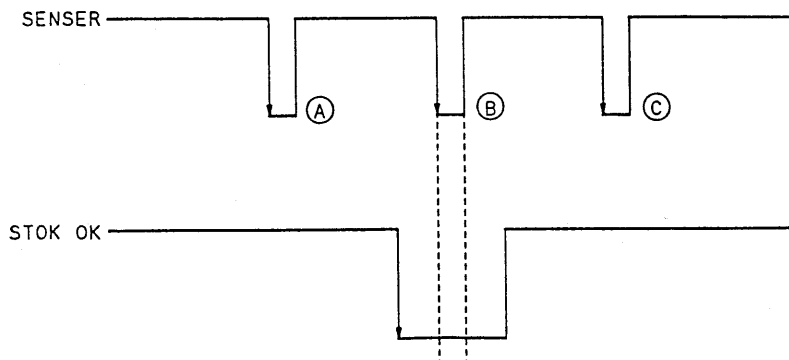
The QINT pin of master controller is an interrupt port, so data sent from mechanism controller is to be received. Any request from master microprocessor (MREQ pin "Low") during data transmission to master will take first priority in processing.

Basic Condition of Mechanism Controller

Mechanism controller takes precedence over instruction from master microprocessor.

(3) Timing at Pins ④ and ⑦ of IC250


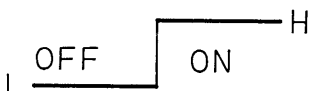

Waveform at SENSER (IC250 pin ④) and STOK OK (IC250 pin ⑦) when tray is OPEN/CLOSE



As shown above, the center pulse (B) of SENSER mute fall within the pulse of STOK OK when tray is OPEN/CLOSE. If any of the pulses on both sides (A and C) of SENSER is input for BOX UP/DOWN, the mechanism microprocessor reduces the tray speed, stops in the position (B) and allows UP/DOWN movement.

If there is any abnormality in the OPEN/CLOSE relationship, these two waveforms should be checked.

● IC301 μ PD75518GF-059-3B9

Pin No.	Signal	Pin Name	Description
1	AN0	KEY0	KEY analog input
2	AVREF		+5V
3, 4	VDD		
5	P113		Open
6	P112	DRIVER	Driver reset 
7	P111	ICON OFF	Servo system ON/OFF 
8	P110	MEC REST	Mechanism controller reset 
9	P103		Open
10	P102	\overline{CS}	Driver chip select
11	P101	BUS OUT	Audio bus output port
12	P100	\overline{MREQ}	For communication with mechanism controller, and master request.
13	P93	AUB/ \overline{SIR}	Switching between BUS and SIRCS (no function)
14	P92	\overline{TEST}	This pin is set "L" and POWER is ON to display the accident code
15	P91	$\overline{SUF, REP}$	This pin is set "L" to operate ALL DISCS SHUFFLE REPT
16	P90	$\overline{SFIL/EDT}$	This pin is set "L" to change S. F. FILE key to EDIT key
17-20	P83-80		+5V
21-23	P73-71		+5V
24	P70	SACK	For communication with mechanism controller, and Answer Code from master.
25-28	P63-60		Open
29-31	P53-51		
32	P50	LED4	LED data
33	VSS		GND
34-37	P43-40	LED3-0	LED data
38-40	P23-20		Open
46, 47	P13, 12		GND
48	INT1	QINT	Interrupt from mechanism controller
49	INT0	BUSIN	Interrupt of audio bus
50	P03		+5V
51	SO0	DPDAT	Output as serial port, used as serial clock to send displayed data to driver.
52	SCK0	DPCK	
53	P00		GND
54	VSS		GND
55	XT1		GND
56	XT2		Open
57	IC		GND
58	X1		4.19MHz oscillator
59	X2		
60	\overline{RESET}		Reset input for this microprocessor

Pin No.	Signal	Pin Name	Description
61—64	P143—140		Open
65, 66	P133, 132		
67, 68	P131, 130	LEDG1, 0	LED digital 1, 0.
69—72	P123—120	CMD3—0	Communication with mechanism controller (data 3—0)
73	AVSS		GND
74—77	P153—150		GND
78—80	AN3—1	KEY3—1	KEY analog input

CDP-H3750

SONY. SERVICE MANUAL

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

CORRECTION-1

Correct your service manual as shown below.

 : indicates corrected portion.

Page	INCORRECT			CORRECT	
	<u>No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Description</u>
21	M102	A-4460-232-A	MOTOR (CDM) ASSY	A-4660-232-A	MOTOR (CDM) ASSY
	M103	A-4460-232-A	MOTOR (CDM) ASSY	A-4660-232-A	MOTOR (CDM) ASSY