

16252257/16254562

SERVICE MANUAL

US Model

16252257

E Model

16254562

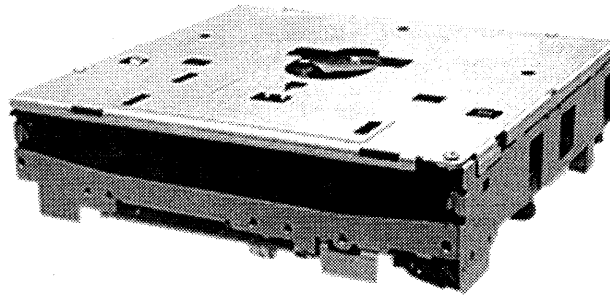


Photo : 16254562

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COMPACT DISC MECHANISM

SONY®



SERVICING NOTES

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.

Laser Diode Properties

- Material: GaAlAs
 - Wavelength: 780 nm
 - Emission Duration: continuous
 - Laser Output Power: less than $44.6 \mu\text{W}$ *
- * This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block.

CAUTION

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

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.

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.

SAFETY-RELATED COMPONENT WARNING!!

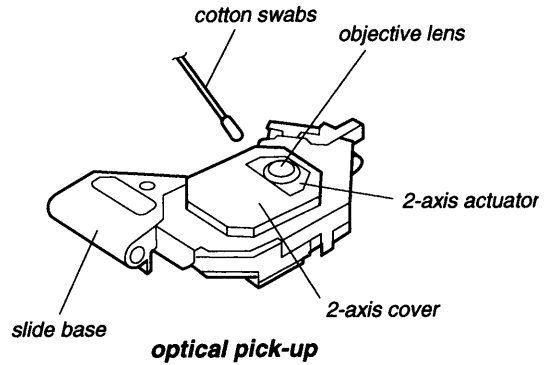
COMPONENTS IDENTIFIED BY MARK Δ OR DOTTED LINE WITH MARK Δ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

NOTES ON PICK-UP FLEXIBLE BOARD

The pick-up flexible board in this set is secured to the optical pick-up with an adhesive tape. Once the tape is removed, an adhering force becomes weak, and it cannot be reused.

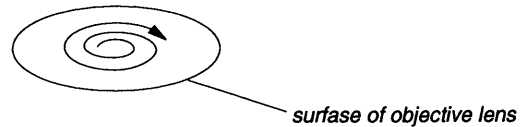
Therefore, if the optical pick-up is replaced, replace also the pick-up flexible board with a new one.

NOTES ON CLEANING THE OBJECTIVE LENS



Apply CD lens cleaner B-4 (Part No.: J-2501-000-A) to cotton swabs (narrow type) (Part No.: J-2501-023-A) to be lightly wet. Use a force (about 5 g (0.18 oz)) to make the objective lens in contact with the bottom lightly, and clean the lens by spirals as following below.

Replace the cotton swab and repeat this cleaning two or three times.



Notes:

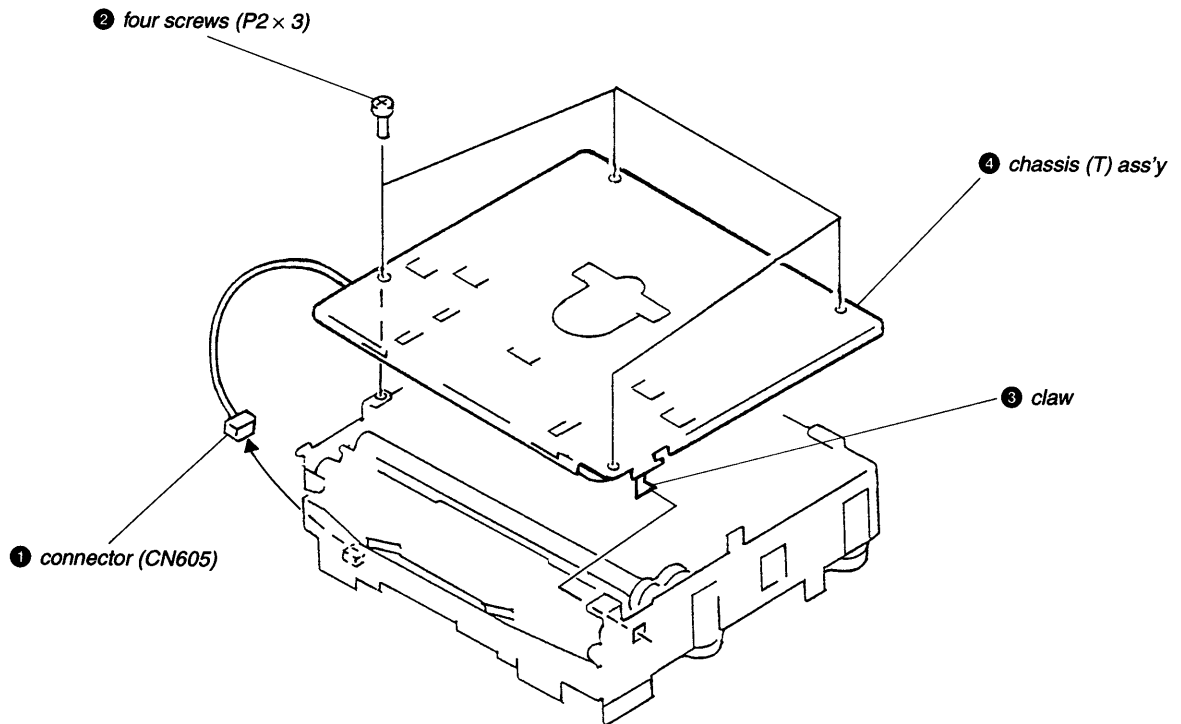
Do not force to push the objective lens. Otherwise, the plate spring supporting the objective lens will be bent, causing a deteriorated RF waveform.

Never touch anything other than the objective lens. Otherwise, a significant deterioration occurs in the RF waveform.

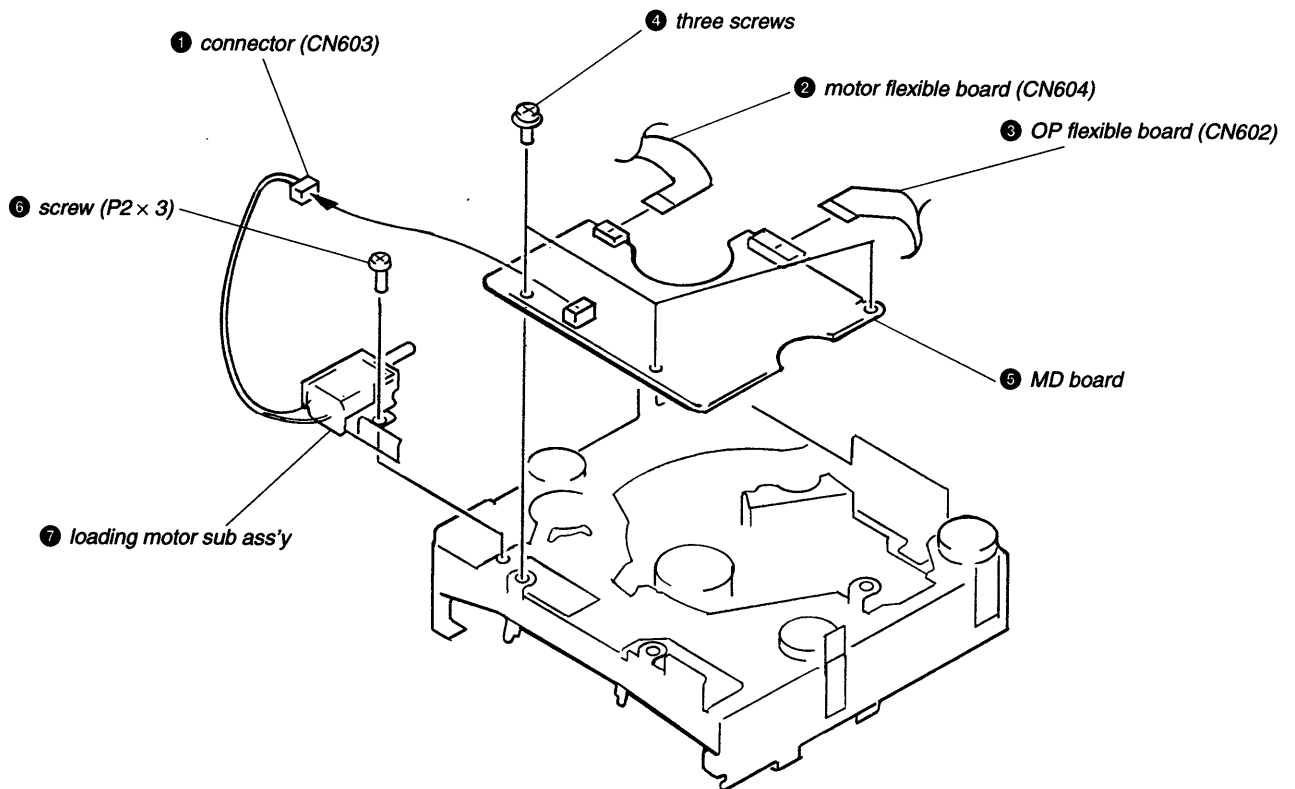
SECTION 1 DISASSEMBLY

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

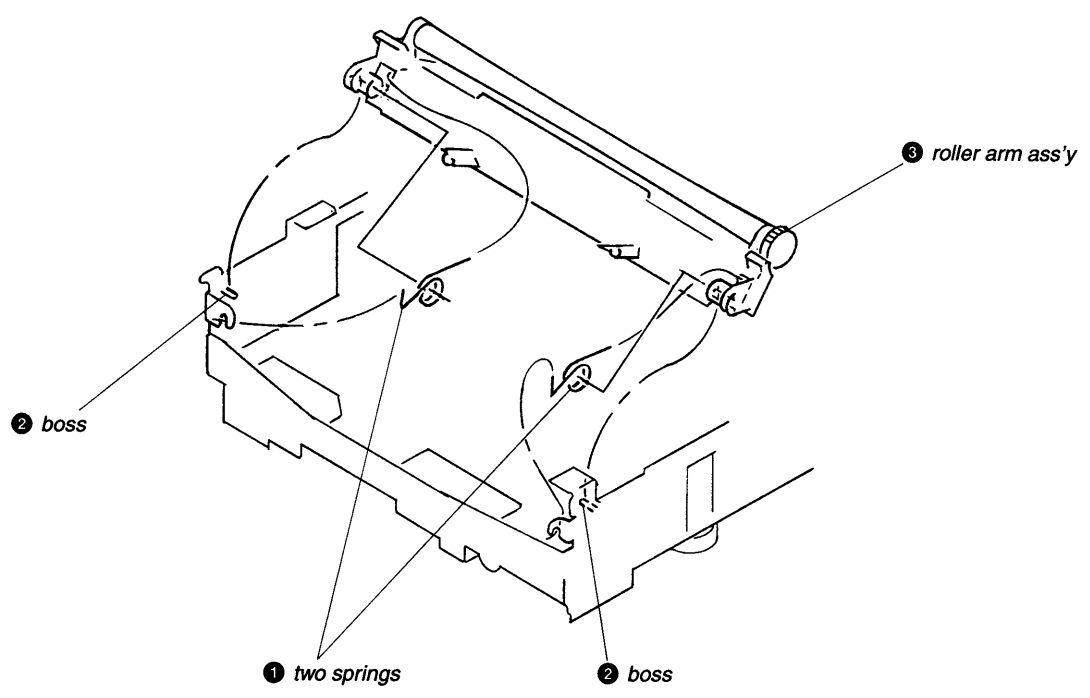
CHASSIS (T) ASS'Y



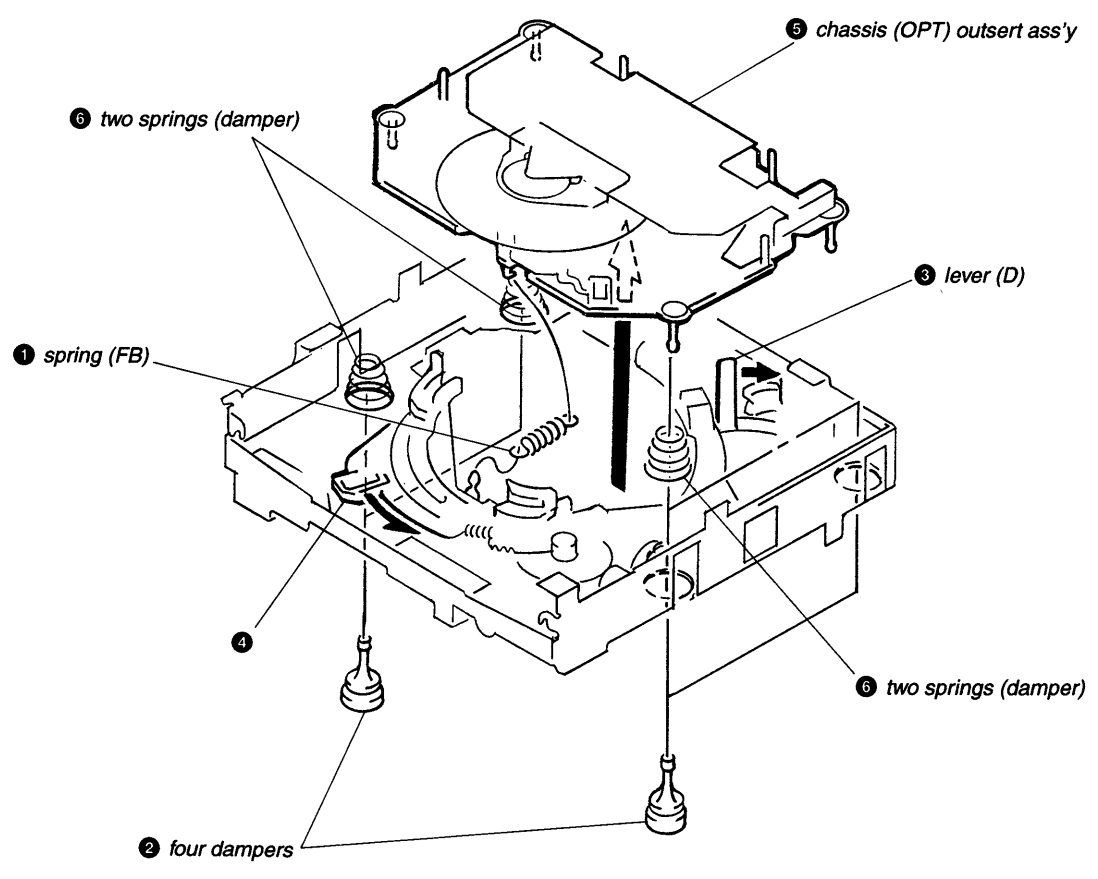
MD BOARD, LOADING MOTOR



ROLLER ARM ASS'Y



CHASSIS (OPT) OUTSERT ASS'Y



SECTION 2 DIAGRAMS

2-1. IC PIN FUNCTION DESCRIPTION MD BOARD IC601 μ PD78052GC-122-3B9 (SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Function
1	SIZE	I	Disc size detection (Not used)
2	D-OUT	I	Disc detection
3	D-IN	I	Disc detection
4	AVSS	-	Analog system ground
5	FO	O	Focusing offset automatic adjustment signal output
6	-	O	Not used (open)
7	AVREF1	I	Reference voltage for D/A converter
8	FGSNS	I	Sense signal input (for Focus gain)
9	-	O	Not used (open)
10	-	O	Not used (open)
11	SQIN	I	Sub-code Q data input
12	-	O	Not used (open)
13	SQCK	O	Sub-code Q reading clock output
14	POWER	O	System power ON/OFF control
15	-	O	Not used (open)
16	D MS CD	I	Master to CD command data input
17	D CD MS	O	CD to master display data output
18	SCK	I	Master to CD communication clock signal input
19	-	O	Not used (open)
20	SRQ	O	CD to master control signal output
21	-	O	Not used (open)
22	-	O	Not used (open)
23	-	O	Not used (open)
24	-	O	Not used (open)
25	-	O	Not used (open)
26	-	O	Not used (open)
27	-	O	Not used (open)
28	-	O	Not used (open)
29	-	O	Not used (open)
30	-	O	Not used (open)
31	APC	O	Automatic power control for laser output
32	SLEDON	O	Sledding servo ON/OFF control
33	VSS	-	Digital system ground
34	FG0	O	Focusing gain automatic adjustment
35	FG1	O	Focusing gain automatic adjustment
36	-	O	Not used (open)
37	-	O	Not used (open)
38	-	O	Not used (open)
39	-	O	Not used (open)
40	D/A ON	O	D/A converter ON/OFF control

Pin No.	Pin Name	I/O	Function
41	–	O	Not used (open)
42	GFS	I	Guard frame sync state input
43	FOK	I	Focus OK signal input
44	ADJOK0	O	Automatic adjustment setting command monitor output (Not used)
45	ADJOK1	O	Automatic adjustment setting command monitor output (Not used)
46	ADJOK2	O	Automatic adjustment setting command monitor output (Not used)
47	ADJOK3	O	Automatic adjustment setting command monitor output (Not used)
48	–	O	Not used (open)
49	–	O	Not used (open)
50	FGG	O	Focusing gain automatic adjustment signal output
51	–	O	Not used (open)
52	DCLK	O	Serial data transfer clock output
53	$\overline{\text{DLAT}}$	O	Latch data output
54	DDATA	O	Serial data output
55	$\overline{\text{XRESET}}$	O	System reset output “L” : reset
56	D-MUTE	O	Mute ON/OFF control
57	LOAD	O	Loading motor control
58	EJECT	O	Loading motor control
59	LEON	O	Not used
60	$\overline{\text{RESET}}$	I	Reset input
61	SENSE	I	Sense signal input
62	$\overline{\text{SLEEP}}$	I	Sleep mode ON/OFF control (Fixed at “H”)
63	SCOR	I	Sync signal at the beginning of frame sync
64	–	O	Not used (open)
65	C.OUT	I	Counter signal for the number of tracks
66	INT ON	O	Interruption counterplan circuit ON/OFF control
67	CS	I	Master to CD control signal
68	VDD	–	Power supply (+5v)
69	X2	O	Main system clock (4.19MHz)
70	X1	I	Main system clock (4.19MHz)
71	GND	–	Ground
72	–	–	Not used (open)
73	–	I	Not used (open)
74	AVDD	–	Power supply for analog system
75	AVREF0	–	A/D converter reference voltage
76	–	O	Not used (open)
77	–	O	Not used (open)
78	–	O	Not used (open)
79	$\overline{\text{LSW}}$	I	Least disc track detection
80	$\overline{\text{DSW}}$	I	Disc loading completion detection

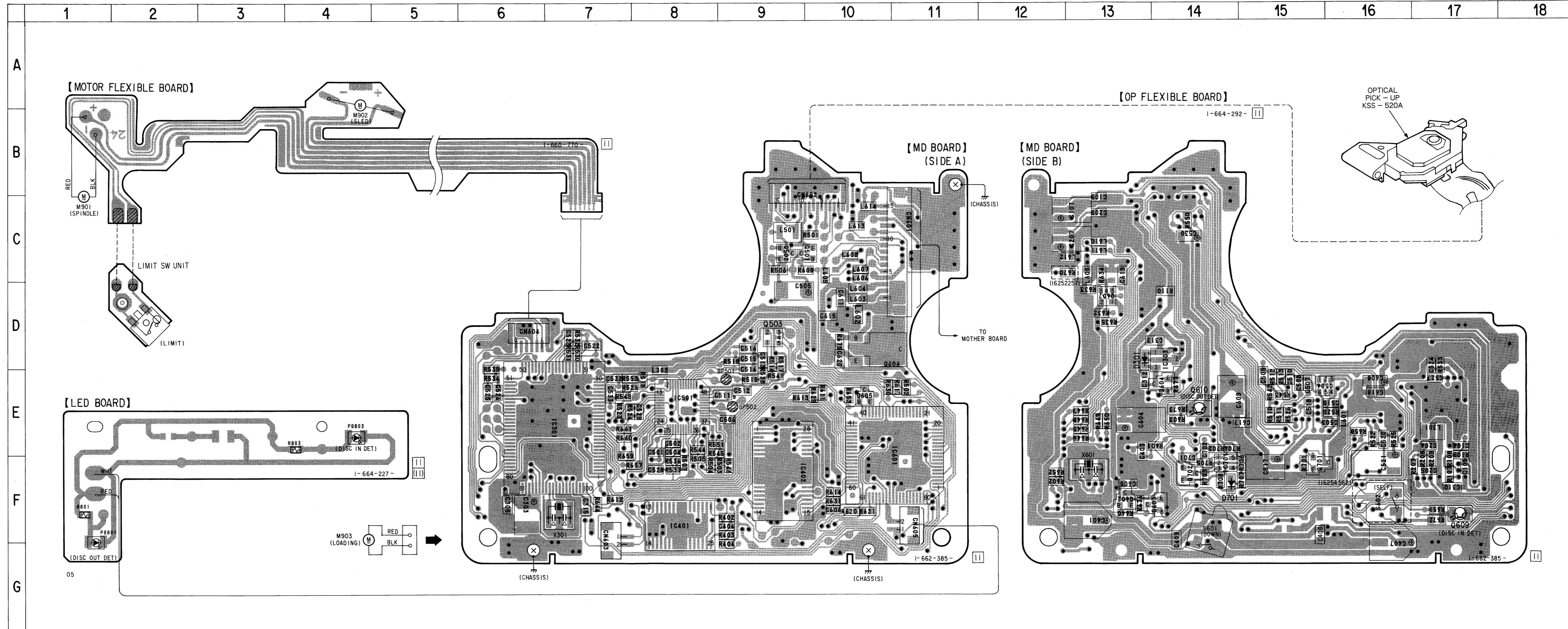
2-2. PRINTED WIRING BOARDS

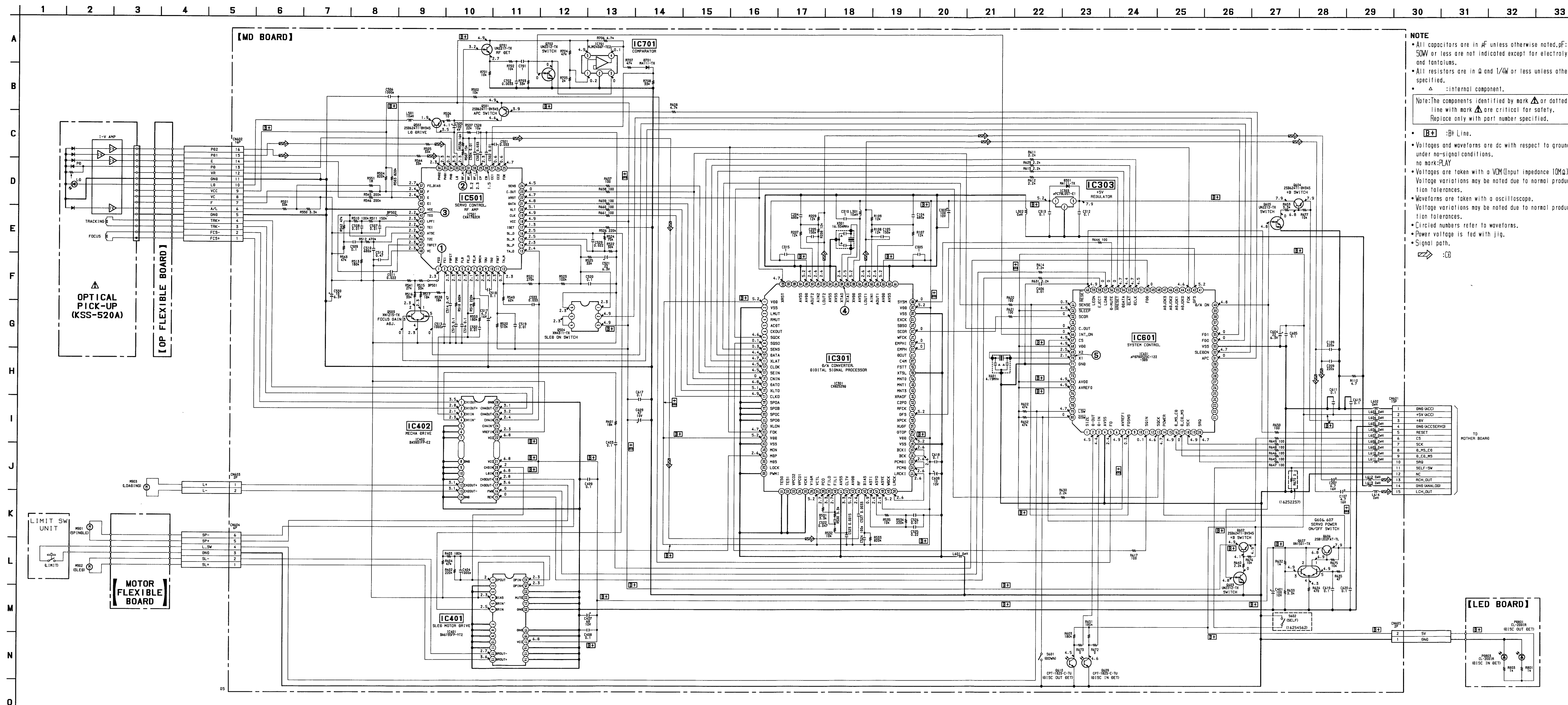
• Semiconductor Location

Ref. No.	Location
D301	D-13
D701	F-14
IC301	E-7
IC303	D-14
IC401	F-8
IC402	F-9
IC501	E-8
IC601	E-11
IC701	F-14
PD801	F-1
PD803	E-4
Q501	C-10
Q502	C-9
Q503	D-9
Q504	E-16
Q602	F-13
Q603	F-14
Q604	E-14
Q605	E-10
Q606	D-10
Q607	D-13
Q609	F-17
Q610	E-14
Q701	F-15
Q702	F-14

Note on Printed Wiring Board:
 • : parts extracted from the component side.
 • : parts extracted from the conductor side.
 • Δ : internal component.
 • : Pattern from the side which enables seeing.
 (The other layers' patterns are not indicated.)

Caution:
 Pattern face side: Parts on the pattern face side seen from the (Side B) pattern face are indicated.
 Parts face side: Parts on the parts face side seen from the (Side A) parts face are indicated.





NOTE

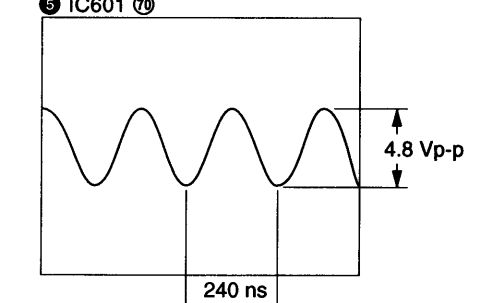
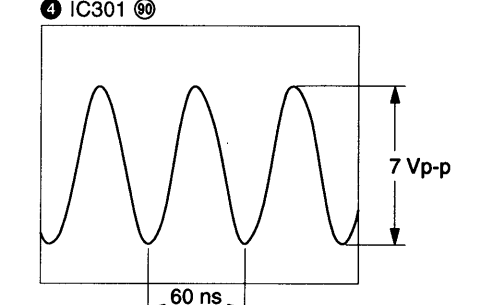
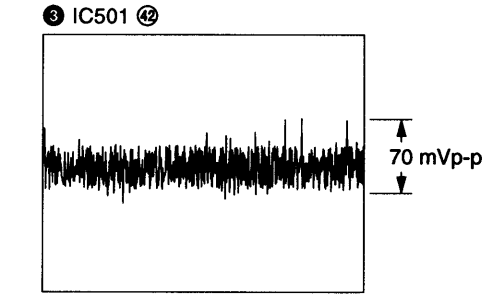
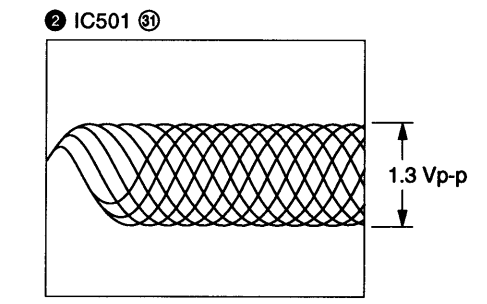
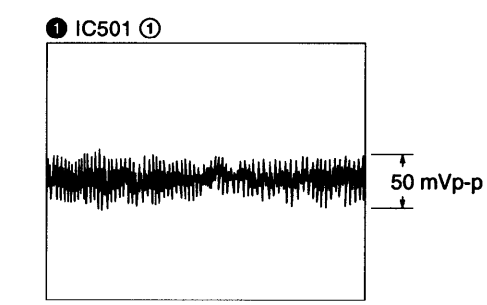
- All capacitors are in μF unless otherwise noted; pF: 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- Δ : internal component.

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

- [B+]**: B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
- no mark: PLAY
- Voltages are taken with a VOM (input impedance $10\text{M}\Omega$). 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.
- Power voltage is fed with jig.
- Signal path.

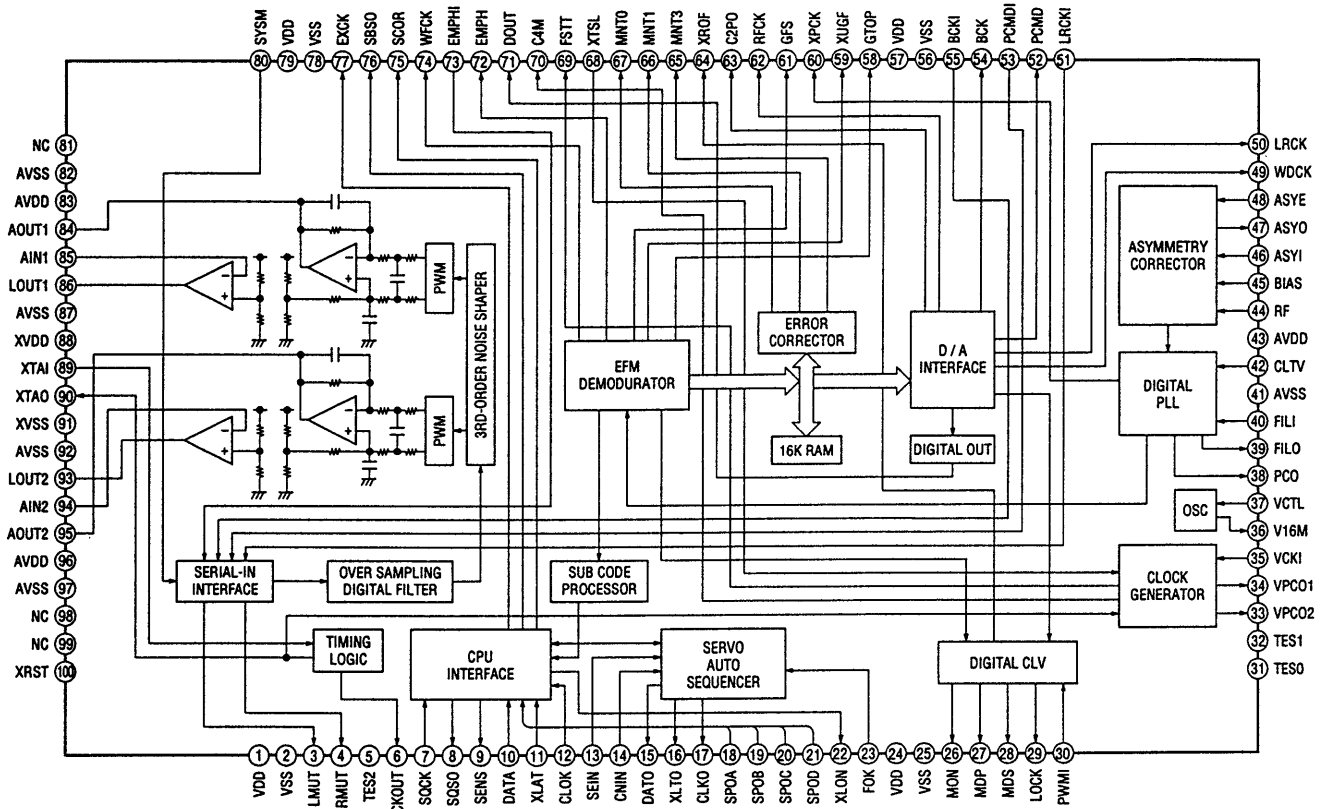
\Rightarrow : CD

• Waveforms

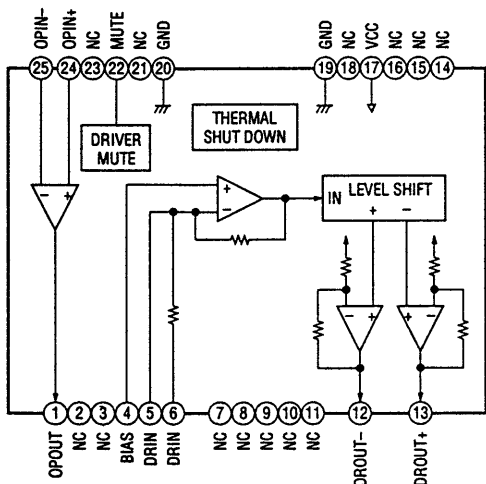


• IC Block Diagrams

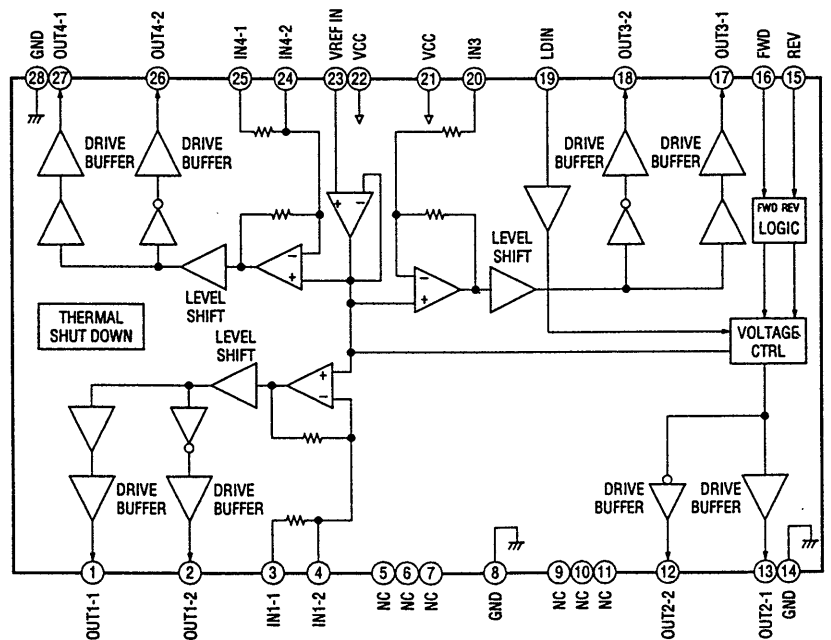
IC301 CDX2529Q (MD BOARD)



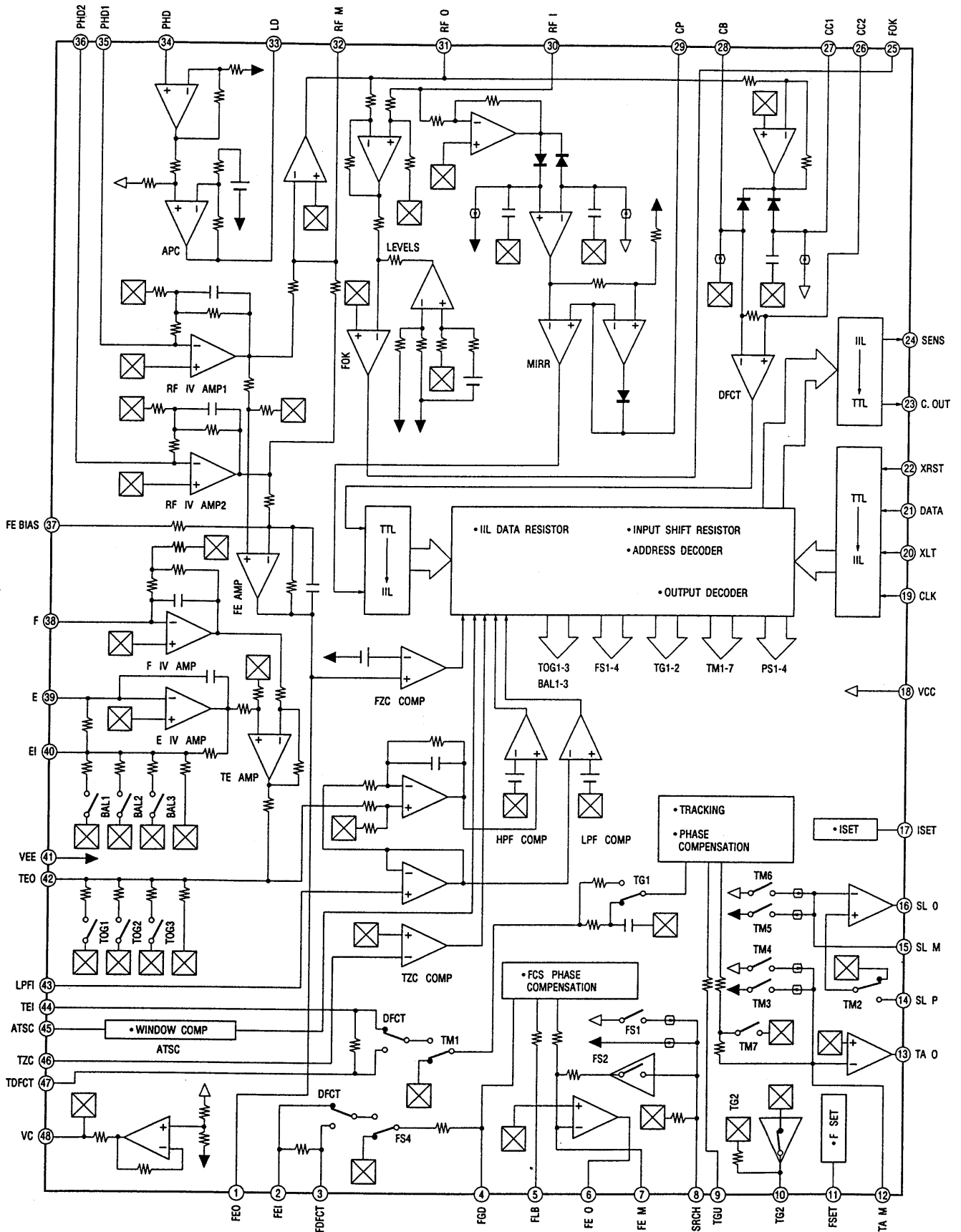
IC401 BA6195FP-YT2 (MD BOARD)



IC402 BA5931FP-E2 (MD BOARD)



IC501 CXA1782CR (MD BOARD)



SEE ADDITIONAL INFORMATION

SECTION 3 EXPLODED VIEWS

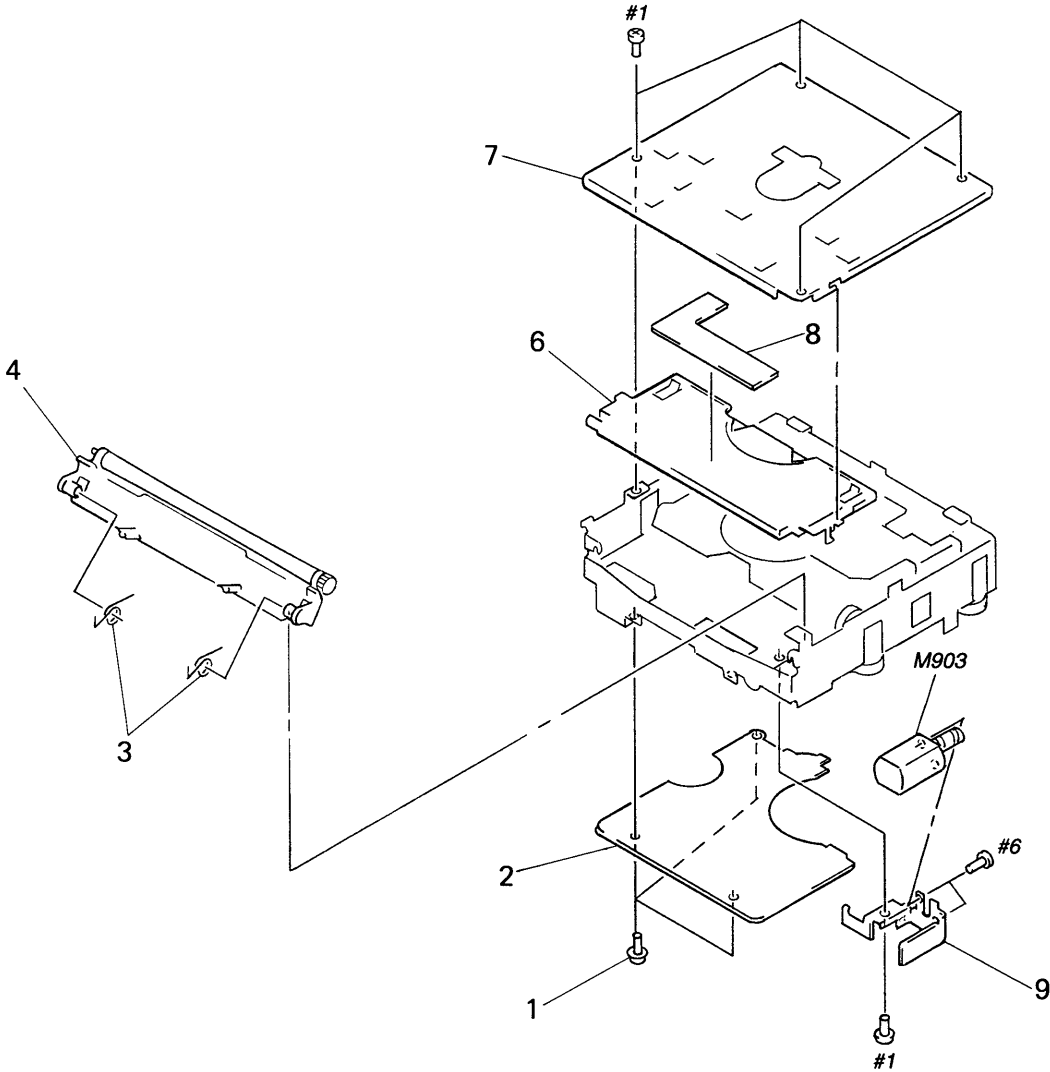
NOTE:

- -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

- 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 are given in the last of the electrical parts list.

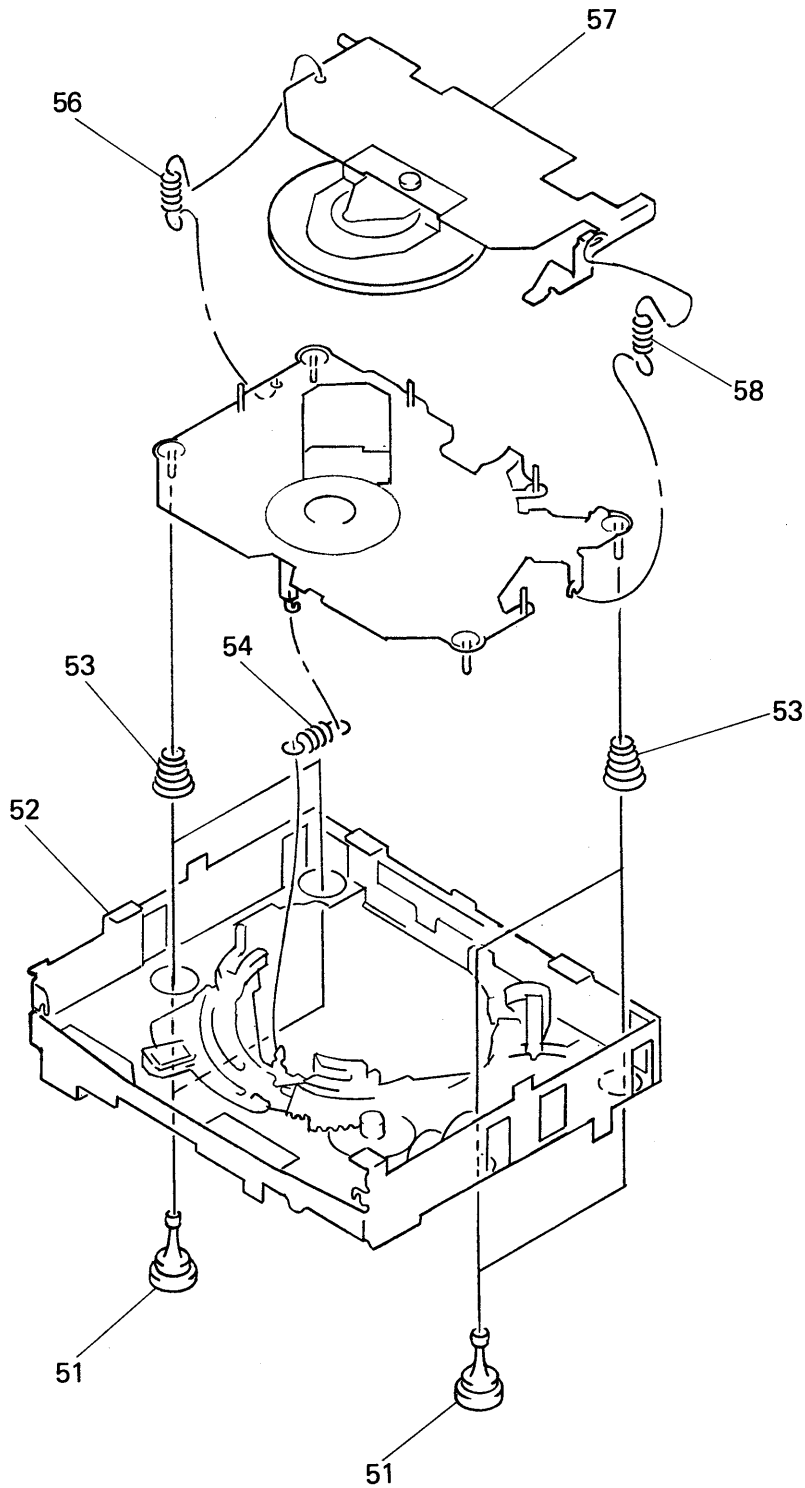
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

(1) MECHANISM DECK SECTION-1



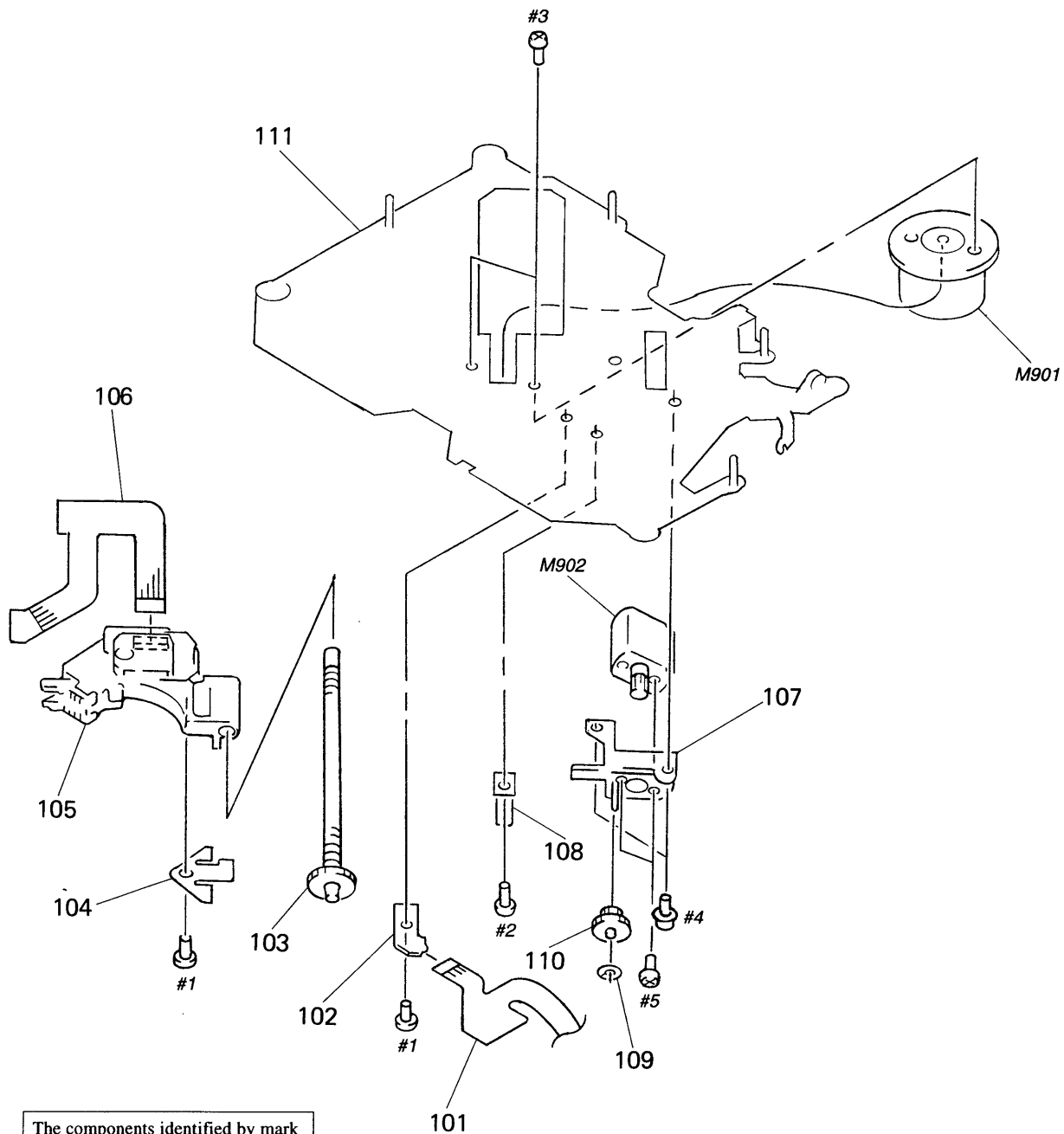
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	3-918-103-01	SCREW		6	3-934-184-01	DISK, GUIDE	
* 2	A-3309-698-A	MD BOARD, COMPLETE (16254562)		* 7	3-934-183-01	CHASSIS (T)	
* 2	A-3309-700-A	MD BOARD, COMPLETE (16252257)		8	A-3294-165-A	LED BOARD, COMPLETE	
3	3-934-175-01	SPRING (RA)		* 9	3-934-176-01	BRACKET (MOTOR)	
4	X-3373-095-1	ARM ASSY, ROLLER (16252257)		M903	A-3291-915-A	MOTOR SUB ASSY, LO (LOADING)	
4	X-3373-823-1	ARM ASSY, ROLLER (16254562)					

(2) MECHANISM DECK SECTION-2



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	3-934-173-01	DAMPER		56	3-012-925-01	SPRING (S)	
52	X-3373-094-1	CHASSIS (M) COMPLETE ASSY		57	X-3373-093-1	ARM COMPLETE ASSY, CHUCKING	
53	3-934-174-01	SPRING (DAMPER)		58	3-939-104-01	SPRING (CH), TENSION	
54	3-012-924-01	SPRING (FB)					

(3) MECHANISM DECK SECTION-3



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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	1-660-770-11	MOTOR FLEXIBLE BOARD		108	3-931-829-01	SPRING (SL), PLATE	
102	A-3309-695-A	LIMIT SW UNIT		109	3-348-953-21	WASHER	
103	A-3291-910-A	SHAFT (FEED) ASSY		110	3-012-800-01	GEAR (SL, MIDWAY)	
104	3-931-834-01	SPRING (FEED), PLATE		111	X-3371-887-1	OUTSERT ASSY, CHASSIS (OPT)	
Δ 105	8-848-402-02	OPTICAL PICK-UP KSS-520A/J-N		M901	X-3373-825-1	MOTOR ASSY (SPINDLE)	
106	1-664-292-11	OP FLEXIBLE BOARD		M902	A-3291-912-A	MOTOR ASSY, SLED	
107	X-3371-504-1	BASE (DRIVING) ASSY					

LED**MD****SECTION 4
ELECTRICAL PARTS LIST****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.

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	A-3294-165-A	LED BOARD, COMPLETE		C403	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
		*****		C404	1-164-357-11	CERAMIC CHIP	1000PF 5% 50V
		< DIODE >		C407	1-128-065-11	ELECT	68uF 20% 10V
PD801	8-719-045-75	DIODE CL-200IR-X-TU (DISC OUT DET)		C408	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
PD803	8-719-045-75	DIODE CL-200IR-X-TU (DISC IN DET)		C409	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
		< RESISTOR >		C501	1-164-677-11	CERAMIC CHIP	0.033uF 10% 16V
R801	1-216-049-11	METAL GLAZE 1K 5% 1/10W		C502	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V
R803	1-216-049-11	METAL GLAZE 1K 5% 1/10W		C503	1-164-677-11	CERAMIC CHIP	0.033uF 10% 16V
		*****		C504	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V
*	A-3309-698-A	MD BOARD, COMPLETE (16254562)		C505	1-104-848-11	TANTAL. CHIP	100uF 20% 4V
		*****		C506	1-164-357-11	CERAMIC CHIP	1000PF 5% 50V
*	A-3309-700-A	MD BOARD, COMPLETE (16252257)		C507	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V
		*****		C508	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V
	3-708-377-01	SLIDER, SURF LOCK (16P)		C509	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
		< CAPACITOR >		C510	1-164-471-11	CERAMIC CHIP	680PF 5% 50V
C104	1-164-471-11	CERAMIC CHIP	680PF 5% 50V	C511	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V
C105	1-164-217-11	CERAMIC CHIP	150PF 5% 50V	C512	1-107-823-11	CERAMIC CHIP	0.47uF 10% 16V
C107	1-110-453-11	SOLID CHIP	4.7uF 20% 16V	C513	1-164-357-11	CERAMIC CHIP	1000PF 5% 50V
C109	1-162-957-11	CERAMIC CHIP	220PF 5% 50V	C514	1-107-823-11	CERAMIC CHIP	0.47uF 10% 16V
C204	1-164-471-11	CERAMIC CHIP	680PF 5% 50V	C515	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C205	1-164-217-11	CERAMIC CHIP	150PF 5% 50V	C516	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C207	1-110-453-11	SOLID CHIP	4.7uF 20% 16V	C517	1-110-453-11	SOLID CHIP	4.7uF 20% 16V
C209	1-162-957-11	CERAMIC CHIP	220PF 5% 50V	C518	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C303	1-113-500-11	TANTAL. CHIP	100uF 20% 10V	C519	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V
C305	1-109-982-11	CERAMIC CHIP	1uF 10% 10V	C520	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C310	1-109-982-11	CERAMIC CHIP	1uF 10% 10V	C521	1-113-514-11	ELECT CHIP	22uF 20% 6.3V
C312	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	C522	1-104-760-11	CERAMIC CHIP	0.047uF 10% 50V
C313	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	C523	1-162-965-11	CERAMIC CHIP	0.0015uF 10% 50V
C315	1-109-982-11	CERAMIC CHIP	1uF 10% 10V	C524	1-162-927-11	CERAMIC CHIP	100PF 5% 50V
C401	1-128-393-11	ELECT	100uF 20% 10V	C525	1-164-489-11	CERAMIC CHIP	0.22uF 10% 16V
				C526	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V
				C527	1-162-967-11	CERAMIC CHIP	0.0033uF 10% 50V
				C528	1-162-915-11	CERAMIC CHIP	10PF 0.5PF 50V
				C529	1-164-227-11	CERAMIC CHIP	0.022uF 10% 25V
				C530	1-135-259-11	TANTAL. CHIP	10uF 20% 6.3V

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C532	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V	L610	1-414-760-21	INDUCTOR CHIP	0uH
C533	1-163-989-11	CERAMIC CHIP	0.033uF 10% 25V	L611	1-414-760-21	INDUCTOR CHIP	0uH
C604	1-113-514-11	ELECT CHIP	22uF 20% 6.3V	L612	1-414-760-21	INDUCTOR CHIP	0uH
C605	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	L613	1-414-760-21	INDUCTOR CHIP	0uH
C606	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V	L614	1-414-760-21	INDUCTOR CHIP	0uH
C608	1-104-851-11	TANTAL. CHIP	10uF 20% 10V			< TRANSISTOR >	
C609	1-135-166-21	TANTALUM CHIP	47uF 10% 10V	Q501	8-729-141-48	TRANSISTOR	2SB624-BV345
C611	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	Q502	8-729-141-48	TRANSISTOR	2SB624-BV345
C615	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	Q503	8-729-403-17	TRANSISTOR	XN1215
C617	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	Q504	8-729-011-47	TRANSISTOR	XN4311
C618	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	Q602	8-729-141-48	TRANSISTOR	2SB624-BV345
C619	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	Q603	8-729-424-59	TRANSISTOR	UN2212
C620	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	Q604	8-729-141-48	TRANSISTOR	2SB624-BV345
C701	1-109-982-11	CERAMIC CHIP	1uF 10% 10V	Q605	8-729-424-59	TRANSISTOR	UN2212
C702	1-162-967-11	CERAMIC CHIP	0.0033uF 10% 50V	Q606	8-729-822-84	TRANSISTOR	2SB1202FAST
		< CONNECTOR >		Q607	8-729-402-13	TRANSISTOR	XN1501
CN601	1-774-732-11	PIN, CONNECTOR (PC BOARD)	15P	Q609	8-729-041-49	PHOTO TRANSISTOR	CPT-182S-C-TU (DISC IN DET)
CN602	1-569-530-11	HOUSING, CONNECTOR	16P	Q610	8-729-041-49	PHOTO TRANSISTOR	CPT-182S-C-TU (DISC OUT DET)
CN603	1-580-055-21	PIN, CONNECTOR	2P	Q701	8-729-424-70	TRANSISTOR	UN2217
CN604	1-770-347-21	CONNECTOR, FPC	6P	Q702	8-729-424-59	TRANSISTOR	UN2212
CN605	1-580-055-21	PIN, CONNECTOR	2P			< RESISTOR >	
		< DIODE >		R107	1-216-834-11	METAL CHIP	12K 5% 1/16W
D301	8-719-404-49	DIODE	MA111	R108	1-216-834-11	METAL CHIP	12K 5% 1/16W
D701	8-719-404-49	DIODE	MA111	R109	1-216-834-11	METAL CHIP	12K 5% 1/16W
		< IC >		R110	1-216-308-00	METAL CHIP	4.7 5% 1/10W
IC301	8-752-380-64	IC	CXD2529Q	R207	1-216-834-11	METAL CHIP	12K 5% 1/16W
IC303	8-759-150-61	IC	UPC78L05T	R208	1-216-834-11	METAL CHIP	12K 5% 1/16W
IC401	8-759-335-52	IC	BA6195FP-YT2	R209	1-216-834-11	METAL CHIP	12K 5% 1/16W
IC402	8-759-454-19	IC	BA5931FP-E2	R401	1-216-836-11	METAL CHIP	18K 5% 1/16W
IC501	8-752-076-45	IC	CXA1782CR	R402	1-216-849-11	METAL CHIP	220K 5% 1/16W
IC601	8-759-457-84	IC	uPD78052GC-122-3B9	R403	1-216-848-11	METAL CHIP	180K 5% 1/16W
IC701	8-759-710-82	IC	NJM2406F	R404	1-216-841-11	METAL CHIP	47K 5% 1/16W
		< COIL >		R501	1-216-839-11	METAL CHIP	33K 5% 1/16W
L301	1-412-058-11	INDUCTOR CHIP	10uH	R502	1-216-833-11	METAL CHIP	10K 5% 1/16W
L302	1-414-760-21	INDUCTOR CHIP	0uH	R503	1-218-917-11	METAL GLAZE	820K 0.50% 1/16W
L501	1-412-058-11	INDUCTOR CHIP	10uH	R504	1-218-917-11	METAL GLAZE	820K 0.50% 1/16W
L601	1-414-760-21	INDUCTOR CHIP	0uH	R505	1-218-883-11	METAL GLAZE	33K 0.50% 1/16W
L602	1-414-772-11	INDUCTOR CHIP	0uH	R506	1-216-001-00	METAL CHIP	10 5% 1/10W
L603	1-414-772-11	INDUCTOR CHIP	0uH	R507	1-216-835-11	METAL CHIP	15K 5% 1/16W
L604	1-414-772-11	INDUCTOR CHIP	0uH	R510	1-216-845-11	METAL CHIP	100K 5% 1/16W
L605	1-414-772-11	INDUCTOR CHIP	0uH	R511	1-216-847-11	METAL CHIP	150K 5% 1/16W
L606	1-414-760-21	INDUCTOR CHIP	0uH	R512	1-216-853-11	METAL CHIP	470K 5% 1/16W
L607	1-414-760-21	INDUCTOR CHIP	0uH	R513	1-216-848-11	METAL CHIP	180K 5% 1/16W
L608	1-414-760-21	INDUCTOR CHIP	0uH	R515	1-216-839-11	METAL CHIP	33K 5% 1/16W
L609	1-414-760-21	INDUCTOR CHIP	0uH	R516	1-216-840-11	METAL CHIP	39K 5% 1/16W

MD

Ref. No.	Part No.	Description	Remark
R517	1-216-836-11	METAL CHIP	18K 5% 1/16W
R518	1-216-855-11	METAL CHIP	680K 5% 1/16W
R519	1-216-849-11	METAL CHIP	220K 5% 1/16W
R520	1-218-273-11	METAL GLAZE	510K 5% 1/16W
R521	1-216-850-11	METAL CHIP	270K 5% 1/16W
R522	1-218-294-11	METAL GLAZE	30K 5% 1/16W
R523	1-216-845-11	METAL CHIP	100K 5% 1/16W
R524	1-218-296-11	METAL GLAZE	75K 5% 1/16W
R525	1-216-839-11	METAL CHIP	33K 5% 1/16W
R526	1-216-849-11	METAL CHIP	220K 5% 1/16W
R530	1-216-827-11	METAL CHIP	3. 3K 5% 1/16W
R531	1-216-827-11	METAL CHIP	3. 3K 5% 1/16W
R532	1-216-833-11	METAL CHIP	10K 5% 1/16W
R533	1-216-856-11	METAL CHIP	820K 5% 1/16W
R534	1-216-849-11	METAL CHIP	220K 5% 1/16W
R535	1-216-833-11	METAL CHIP	10K 5% 1/16W
R536	1-218-291-11	METAL GLAZE	16K 5% 1/16W
R537	1-216-837-11	METAL CHIP	22K 5% 1/16W
R538	1-216-836-11	METAL CHIP	18K 5% 1/16W
R541	1-216-838-11	METAL CHIP	27K 5% 1/16W
R542	1-216-841-11	METAL CHIP	47K 5% 1/16W
R543	1-216-841-11	METAL CHIP	47K 5% 1/16W
R544	1-218-883-11	METAL GLAZE	33K 0. 50% 1/16W
R545	1-218-902-11	METAL GLAZE	200K 0. 50% 1/16W
R546	1-218-902-11	METAL GLAZE	200K 0. 50% 1/16W
R549	1-218-447-11	METAL GLAZE	62K 5% 1/16W
R550	1-216-827-11	METAL CHIP	3. 3K 5% 1/16W
R551	1-216-857-11	METAL CHIP	1M 5% 1/16W
R553	1-216-848-11	METAL CHIP	180K 5% 1/16W
R602	1-216-841-11	METAL CHIP	47K 5% 1/16W
R603	1-216-848-11	METAL CHIP	180K 5% 1/16W
R608	1-216-829-11	METAL CHIP	4. 7K 5% 1/16W
R611	1-216-825-11	METAL CHIP	2. 2K 5% 1/16W
R612	1-216-825-11	METAL CHIP	2. 2K 5% 1/16W
R613	1-216-825-11	METAL CHIP	2. 2K 5% 1/16W
R614	1-216-825-11	METAL CHIP	2. 2K 5% 1/16W
R617	1-216-809-11	METAL CHIP	100 5% 1/16W
R620	1-216-809-11	METAL CHIP	100 5% 1/16W
R621	1-216-809-11	METAL CHIP	100 5% 1/16W
R629	1-216-825-11	METAL CHIP	2. 2K 5% 1/16W
R630	1-216-825-11	METAL CHIP	2. 2K 5% 1/16W
R631	1-216-825-11	METAL CHIP	2. 2K 5% 1/16W
R632	1-218-847-11	METAL GLAZE	1K 0. 50% 1/16W
R633	1-218-859-11	METAL GLAZE	3. 3K 0. 50% 1/16W
R634	1-216-041-00	METAL CHIP	470 5% 1/10W
R635	1-216-805-11	METAL CHIP	47 5% 1/16W
R640	1-216-825-11	METAL CHIP	2. 2K 5% 1/16W
R644	1-216-809-11	METAL CHIP	100 5% 1/16W

Ref. No.	Part No.	Description	Remark
R645	1-216-809-11	METAL CHIP	100 5% 1/16W
R646	1-216-809-11	METAL CHIP	100 5% 1/16W
R647	1-216-809-11	METAL CHIP	100 5% 1/16W
R648	1-216-809-11	METAL CHIP	100 5% 1/16W
R649	1-216-809-11	METAL CHIP	100 5% 1/16W
R650	1-216-809-11	METAL CHIP	100 5% 1/16W
R651	1-216-848-11	METAL CHIP	180K 5% 1/16W
R652	1-216-841-11	METAL CHIP	47K 5% 1/16W
R653	1-216-827-11	METAL CHIP	3. 3K 5% 1/16W
R657	1-216-809-11	METAL CHIP	100 5% 1/16W
R658	1-216-809-11	METAL CHIP	100 5% 1/16W
R659	1-216-809-11	METAL CHIP	100 5% 1/16W
R660	1-216-809-11	METAL CHIP	100 5% 1/16W
R661	1-216-809-11	METAL CHIP	100 5% 1/16W
R670	1-216-864-11	METAL CHIP	0 5% 1/16W (16252257)
R672	1-216-295-00	CONDUCTOR, CHIP	(2012)
R673	1-216-295-00	CONDUCTOR, CHIP	(2012)
R675	1-216-833-11	METAL CHIP	10K 5% 1/16W
R676	1-216-833-11	METAL CHIP	10K 5% 1/16W
R677	1-216-833-11	METAL CHIP	10K 5% 1/16W
R701	1-216-833-11	METAL CHIP	10K 5% 1/16W
R702	1-216-833-11	METAL CHIP	10K 5% 1/16W
R703	1-216-839-11	METAL CHIP	33K 5% 1/16W
R704	1-218-887-11	METAL GLAZE	47K 0. 50% 1/16W
R705	1-218-854-11	METAL GLAZE	2K 0. 50% 1/16W
R706	1-216-829-11	METAL CHIP	4. 7K 5% 1/16W
R707	1-216-841-11	METAL CHIP	47K 5% 1/16W
R708	1-216-839-11	METAL CHIP	33K 5% 1/16W
< SWITCH >			
S601	1-762-742-23	SWITCH, DETECTION (SMALL TYPE)	(DOWN)
S602	1-762-742-23	SWITCH, DETECTION (SMALL TYPE)	(SELF) (16254562)
< VIBRATOR >			
X301	1-760-401-11	VIBRATOR, CERAMIC	(16. 934MHz)
X601	1-767-305-21	VIBRATOR, CERAMIC	(4. 19MHz)

SEE ADDITIONAL INFORMATION

Ref. No. Part No. Description Remark

MISCELLANEOUS

- 101 1-660-770-11 MOTOR FLEXIBLE BOARD
- 102 A-3309-695-A LIMIT SW UNIT
- △105 8-848-402-02 OPTICAL PICK-UP KSS-520A/J-N
- 106 1-664-292-11 OP FLEXIBLE BOARD
- M901 X-3373-825-1 MOTOR ASSY (SPINDLE)

- M902 A-3291-912-A MOTOR ASSY, SLED
- M903 A-3291-915-A MOTOR SUB ASSY, LO (LOADING)

HARDWARE LIST

- #1 7-627-553-37 PRECISION SCREW +P 2X3 TYPE 3
- #2 7-627-553-17 PRECISION SCREW +P 2X2 TYPE 3
- #3 7-627-552-07 SCREW, PRECISION +P 1.7X2.5
- #4 7-628-253-00 SCREW +PS 2X4
- #5 7-627-850-28 SCREW, PRECISION +P 1.4X3

- #6 7-627-853-27 PRECISION SCREW +P 2X3 TYPE 3

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

16252257/16254562

SONY®

SERVICE MANUAL

US Model

16252257

E Model

16254562

SUPPLEMENT-1

File this supplement with the service manual.

Subject: Mechanism Parts Supply Classification Changed

(ENG-98018)

- This service manual supplement-1 contains only exploded views which has been modified.

EXPLODED VIEWS

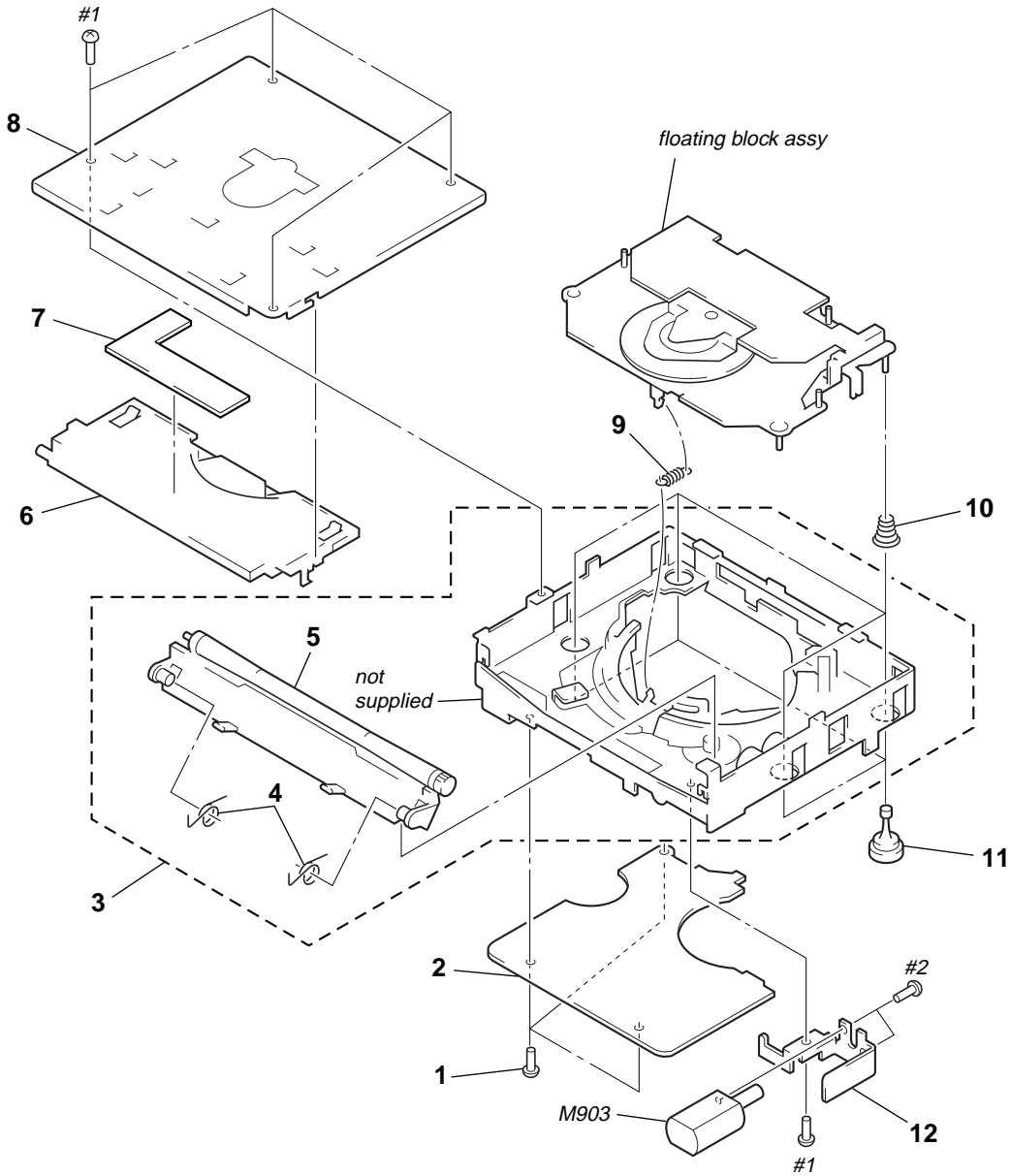
NOTE:

- 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

- 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.

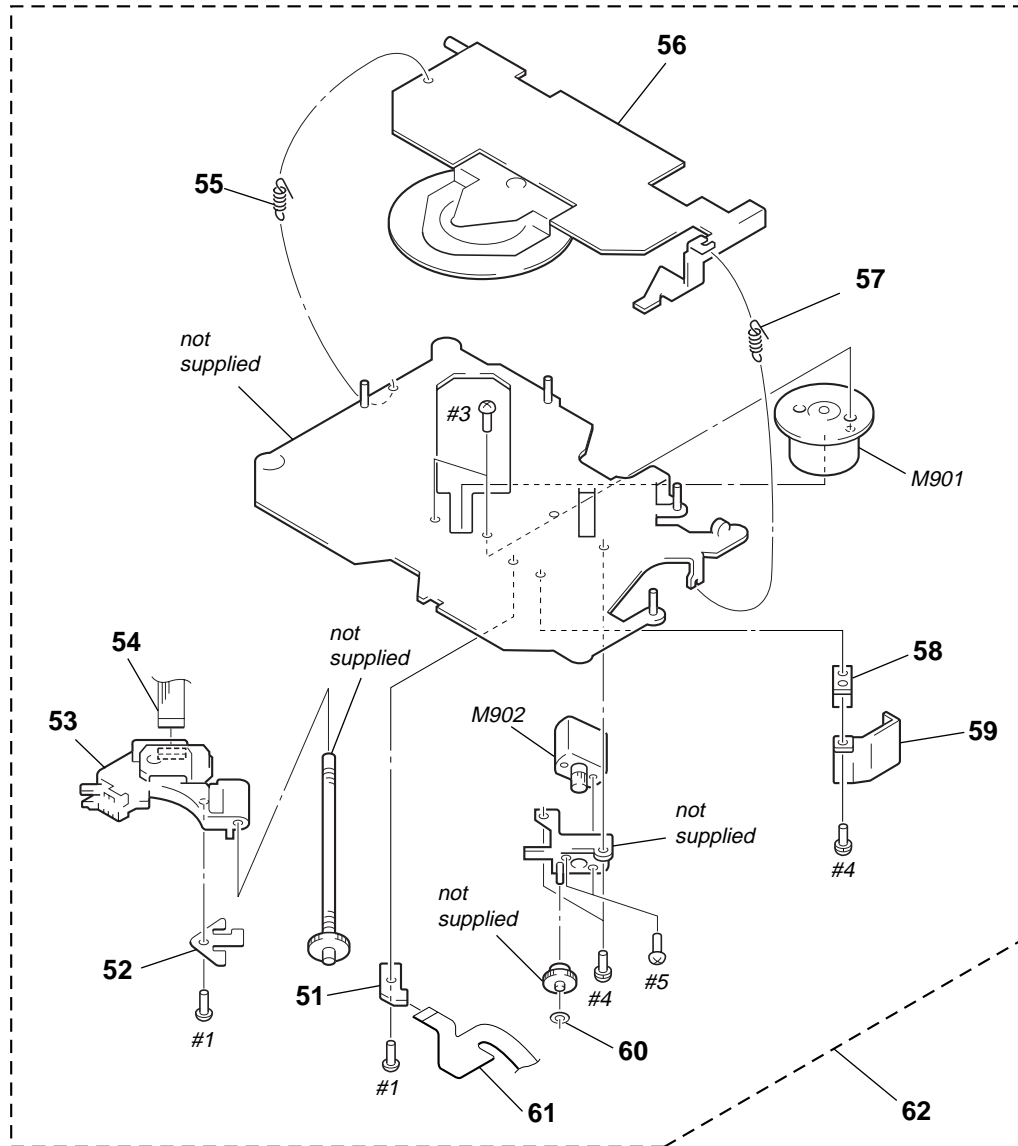
The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

(1) MECHANISM DECK SECTION-1



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	3-918-103-01	SCREW		* 8	3-934-183-01	CHASSIS (T) (16254562)	
* 2	A-3309-698-A	MD BOARD, COMPLETE (16254562)		* 8	3-934-183-11	CHASSIS (T) (16252257)	
* 2	A-3309-700-A	MD BOARD, COMPLETE (16252257)		9	3-012-924-01	SPRING (FB)	
3	X-3375-676-2	CHASSIS (M) COMPLETE ASSY		10	3-934-174-01	SPRING (DAMPER), COMPRESSION	
4	3-934-175-01	SPRING (RA)		11	3-934-173-01	DAMPER	
5	X-3375-678-1	ARM ASSY, ROLLER 2		* 12	3-934-176-01	BRACKET (MOTOR)	
6	3-025-446-01	GUIDE (DISC)		M903	A-3291-915-A	MOTOR SUB ASSY, LO (LOADING)	
7	A-3294-165-A	LED BOARD, COMPLETE					

(2) MECHANISM DECK SECTION-2



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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	A-3309-695-A	SW BOARD, COMPLETE		58	3-020-552-01	SPRING (SL), LEAF	
52	3-021-502-01	SPRING (FEED), LEAF		59	3-019-426-01	COVER, BASE	
\triangle 53	8-848-402-08	OPTICAL PICK-UP KSS-520A/K1RP		60	3-348-953-21	WASHER	
54	1-664-292-11	OP FLEXIBLE BOARD		61	1-660-770-11	MOTOR FLEXIBLE BOARD	
55	3-012-925-01	SPRING (S)		62	A-3291-908-A	FLOATING BLOCK ASSY	
56	X-3373-093-1	ARM COMPLETE ASSY, CHUCKING		M901	X-3373-825-1	MOTOR ASSY (SPINDLE)	
57	3-939-104-01	SPRING (CH), TENSION		M902	A-3301-486-A	MOTOR ASSY, SLED	

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS *****	
△53	8-848-402-08	OPTICAL PICK-UP KSS-520A/K1RP	
54	1-664-292-11	OP FLEXIBLE BOARD	
61	1-660-770-11	MOTOR FLEXIBLE BOARD	
M901	X-3373-825-1	MOTOR ASSY (SPINDLE)	
M902	A-3301-486-A	MOTOR ASSY, SLED	
M903	A-3291-915-A	MOTOR SUB ASSY, LO (LOADING)	

HARDWARE LIST

- #1 7-627-553-37 PRECISION SCREW +P 2X3 TYPE 3
- #2 7-627-553-27 PRECISION SCREW +P 2X2.5 TYPE3
- #3 7-627-552-07 SCREW,PRECISION +P 1.7X2.5
- #4 7-628-253-00 SCREW +PS 2X4
- #5 7-627-850-28 SCREW,PRECISION +P 1.4X3

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