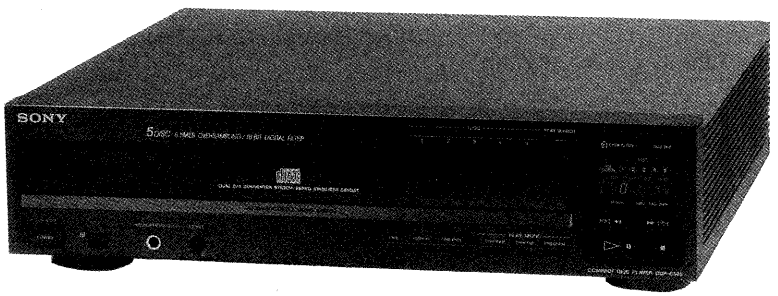
CDP-C505

SERVICE MANUAL

US Model
Canadian Model



Model Name Using Similar Mechanism	CDP-190/390
Optical Pick-up Block Type	BU-5BD3

SPECIFICATIONS

System	Compact disc digital audio system
Laser	Semiconductor laser ($\lambda = 780$ nm) Emission duration: continuous
Laser output	Max. 44.6 μW* * This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.
Frequency response	2 Hz – 20 kHz ($\pm$0.5 dB)
Signal to noise ratio	More than 100 dB
Dynamic range	More than 93 dB
Harmonic distortion	Less than 0.01% (1 kHz)
Channel separation	More than 95 dB (1 kHz)
Wow and flutter	Below measurable limit
Outputs	LINE OUT (phono jacks) Output level 2 V (at 50 kilohms) Load impedance over 10 kilohms PHONES (stereo phone jack) Output level 0 – 10 mW (variable) (at 32 ohms)

General

Power requirements	120 V AC, 60 Hz
Power consumption	11 W
Dimensions	Approx. 430 × 110 × 385 mm (w/h/d) (17 × 4 3/8 × 15 1/4 inches) not including projecting parts and controls
Weight	Approx. 4.9 kg (10 lbs 13 oz), net

Supplied accessories

Audio signal connecting cord
(phono plug × 2 ↔ phono plug × 2) (1)
Remote commander (1)
R6 (Size AA) batteries (2)
Operating Manual (1)

Design and specifications subject to change without notice.

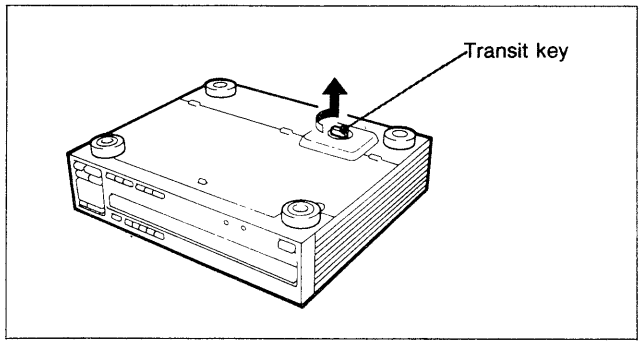
使用時は添付資料も参照のこと
Refer to the additional documents.

COMPACT DISC PLAYER

SONY®

Note on the Transit Key

The white transit key on the bottom exterior of the unit protects the optical system against shock during transportation. Before operating the CD player, be sure to remove the key by following the instructions on the label, and store it in a safe place.
When transporting the unit, replace the key in its original hole and lock it in place.



SAFETY-RELATED COMPONENT WARNING!!

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

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

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 microampers). 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)

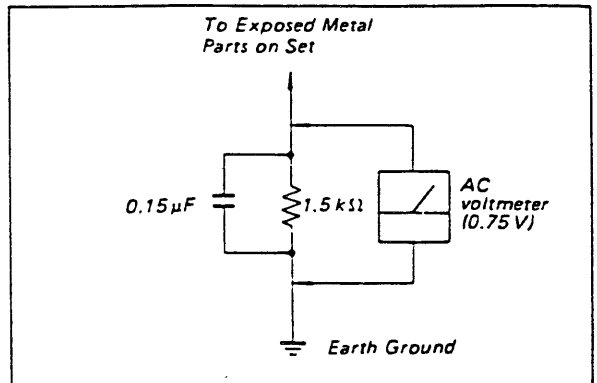


Fig. A. Using an AC voltmeter to check AC leakage.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs a laser. Therefore, be sure to follow carefully the instructions below when servicing.

CAUTION

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

1. Laser Diode Properties
   - Material: GaAlAs
   - Wavelength: 780 mm
   - Emission Duration: continuous
   - Laser Output Power: less than 44.6 μW*

     * This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block.

2. During service, do not take the Optical Pick-up Block apart, and do not adjust the APC circuit. If there is a breakdown in the APC circuit (including laser diode), replace the entire Optical Pick-up Block (including APC board).

SERVICING NOTE

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

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

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

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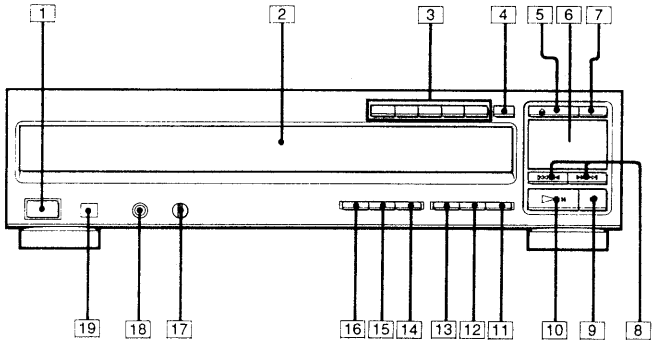
SECTION 1
GENERAL

1-1. LOCATION OF CONTROLS

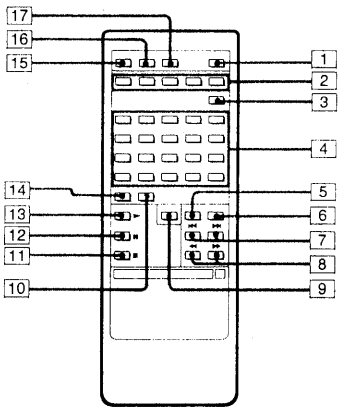
Front Panel



1 POWER switch
2 Disc tray
3 DISC 1 - 5 buttons
4 PEAK SEARCH button
5 ⏏ OPEN/CLOSE button
6 Display window
7 DISC SKIP button
8 ⏮ ◀◀/▶▶ ⏭ (AMS*/RMS**: manual search) buttons
9 ■ (stop) button
10 ▶II (play/pause) button
11 PROGRAM button
12 SHUFFLE button
13 CONTINUE button
14 TIME FADE button
15 REPEAT button
16 TIME button
17 (Headphones) LEVEL control
18 HEADPHONES jack
19 Remote sensor

* AMS is the abbreviation of Automatic Music Sensor.
** RMS is the abbreviation of Random Music Sensor.

Remote Commander

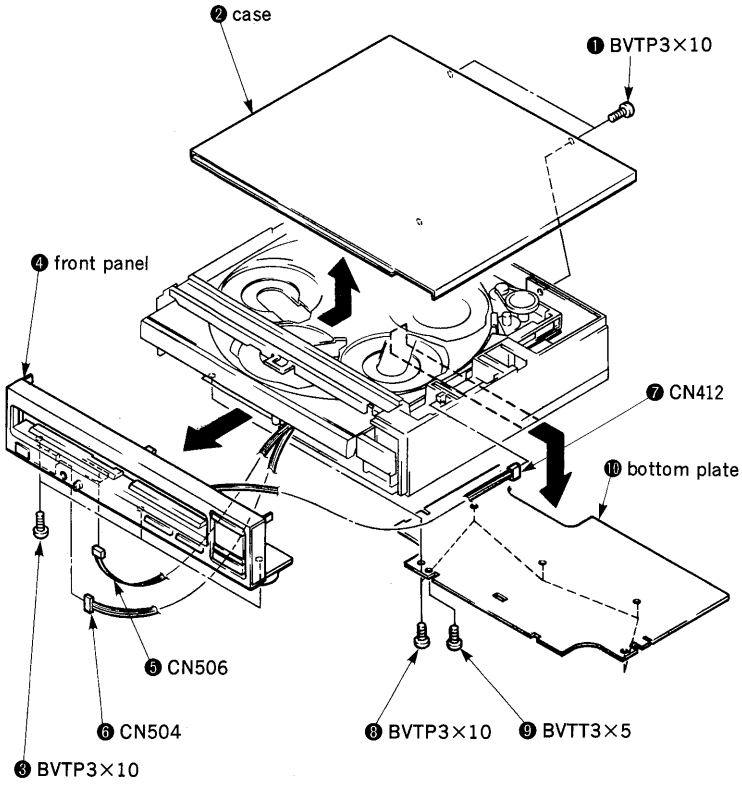


1 MUSIC SCAN button
2 DISC 1 – 5 buttons
3 DISC SKIP button
4 Numeric buttons
5 TIME button
6 REPEAT button
7 ⏮ ⏭ (AMS*) buttons
8 ◀◀ ▶▶ (manual search) buttons
9 FADER button
10 CHECK button
11 ■ (stop) button
12 II (pause) button
13 ▶ (play) button
14 >20 (over 20) button
15 CONTINUE button
16 SHUFFLE button
17 PGM (program) button

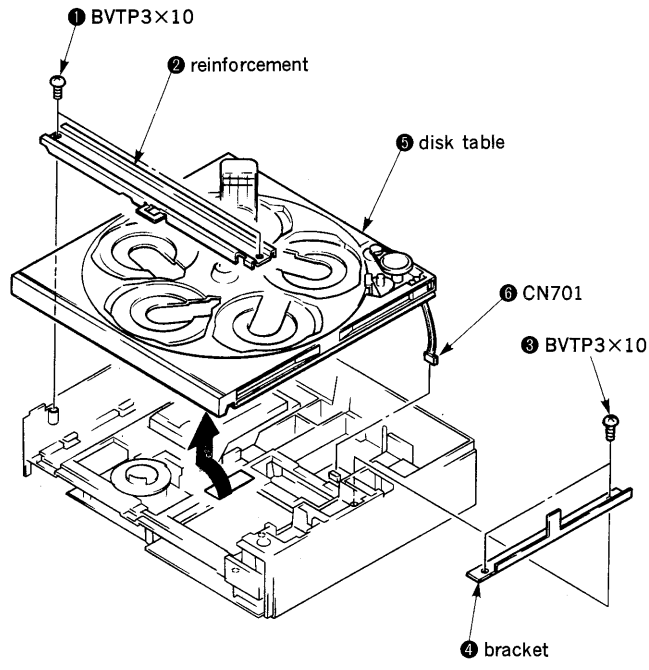
SECTION 2
DIASASSEMBLY

Note : Follow the disassembly procedure in numerical order given.

2-1. FRONT PANEL, CASE AND BOTTOM PLATE

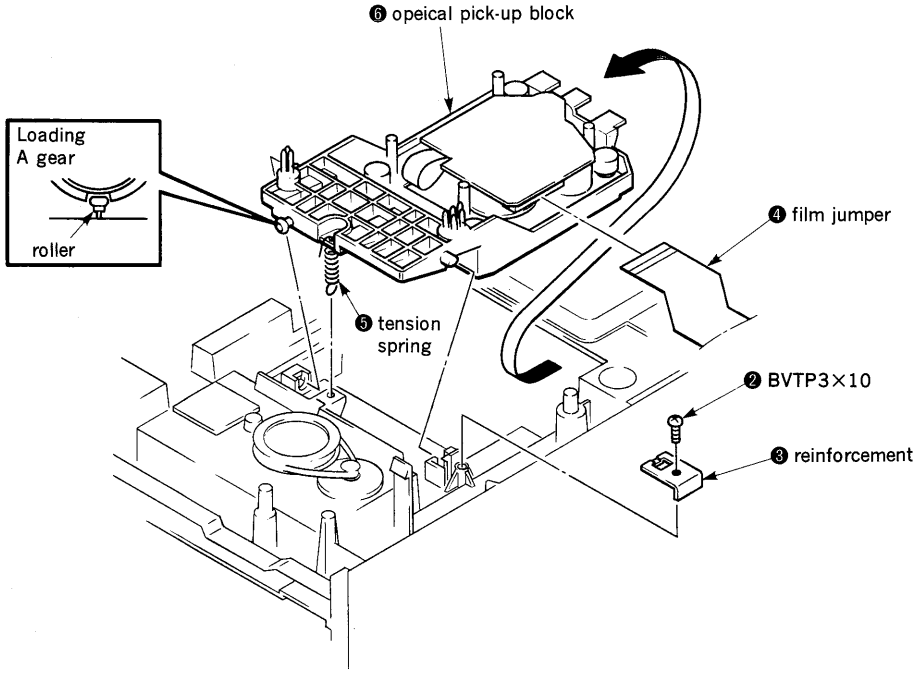


2-2. DISK TABLE



2-3. OPTICAL PICK-UP BLOCK

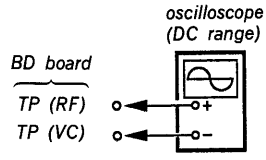
❶ Replace the set up side down.



SECTION 3
ELECTRICAL ADJUSTMENTS

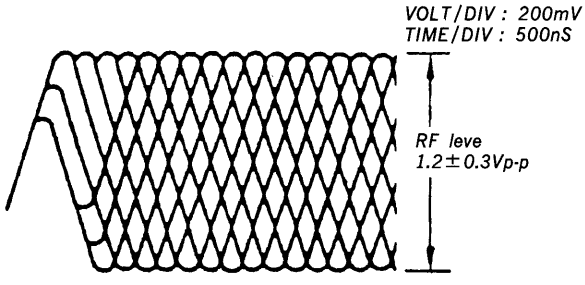
1. Perform adjustments in the order given.
2. Use YEDS-18 disc (3-702-101-1) unless otherwise indicated.
3. Use the oscilloscope with more than 10MΩ impedance.

RF Level Check
Procedure :



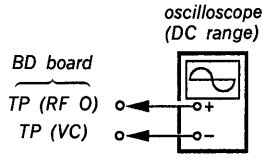
1. Connect oscilloscope to test point TP (RF) and TP (VC) on BD board.
2. Confirm that RF level and eye pattern is optimum.
   Oputimum eye pattern means that shape "◇" can be clearly distinguished at the center of the wave form.

RF signal Reference Waveform (eye pattern)



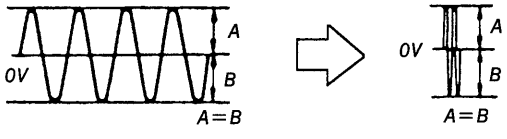
REFERENCE

E-F Balance Check
Procedure :

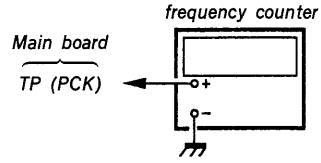


1. Connect test point TP (AF ADJ) and TP (TES) to ground with lead wire.
2. Connect oscilloscope to test point TP (TE O) and TP (VC) on BD board.
3. Turn POWER switch on.
4. Put disc (YEDS-18) in and play back.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0V.
6. After check, remove the lead wire connected in step 1.

Note : Take sweep time as long as possible to obtain best waveform.



RF PLL Free-run Frequency Check
Procedure :



1. Turn POWER switch on.
2. Put disc (YEDS-18) in and play back.
3. Confirm that reading on frequency counter is 4.3218MHz.

Focus/Tracking Gain Adjustment

A frequency responce analyzer is necessary in order to perform this adjustment exactly.

However, this gain cas a margin, so even if it is slightly off. there is no problem. Therefore, do not perform this adjustment.

Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate.

However, as these reciprocate, the adjustment is the point where both are satisfied.

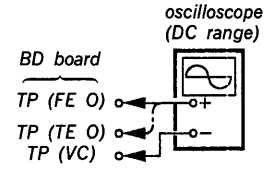
- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

Symptoms \ Gain	Focus	Tracking
• The time until music starts becmes longer for STOP →▷ PLAY or automatic selection. (⏮, ⏭ buttons pressed.) (Normally takes about 1 seconds.)	low	low or high
• Music does not start and disc continues to rotate for STOP →▷ PLAY or automatic selection. (⏮, ⏭ buttons pressed.)	—	low
• Sound is interrupted during PLAY. Or time counter display stops progressing.	—	low
• More noise during 2-axis device operation.	high	high

The following is a simple adjustment method.

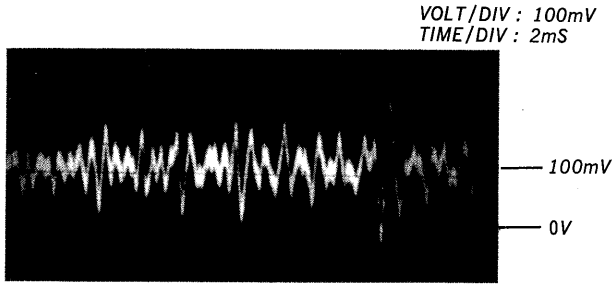
—Primary Adjustment—

Note : Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment.
If the positions after the primary adjustment are only a little different, returs the controls to the original position.

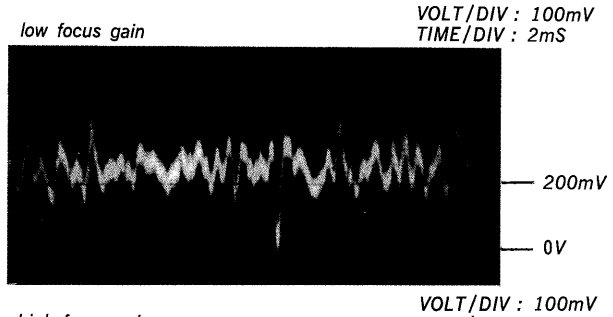


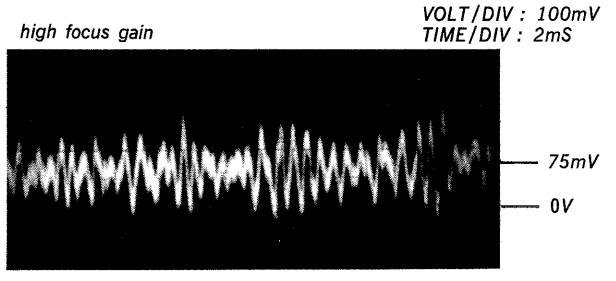
Procedure :

1. Keep the set horizontal.
   (If the set is not horizontal, this adjustment cannot be performed due to the gravity against the 2-axis device.)
2. Insert disc (YEDS-18) and press ▷ PLAY button.
3. Connect oscilloscope to TP (FEO) and TP (VC) on BD board.
4. Adjustment RV102 on BD board so that the waveform is as shown in the figure below. (focus gain adjustment)



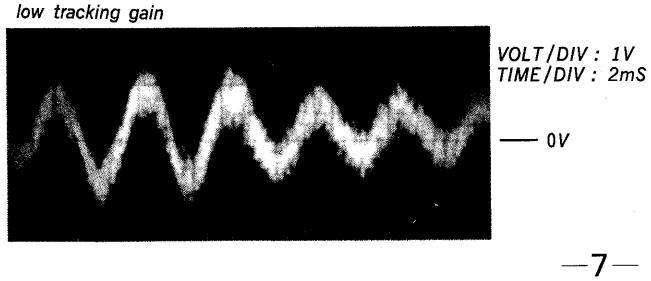
• Incorrent Examples (DC level changes more than on adjusted waveform)

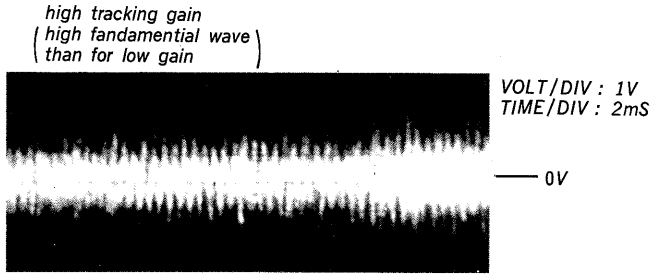




5. Connect oscilloscope to TP (TEO) and TP (VC) on BD board.
6. Adjust RV101 on BD board so that the waveform is as shown the flgure below. (tracking gain adjustment)

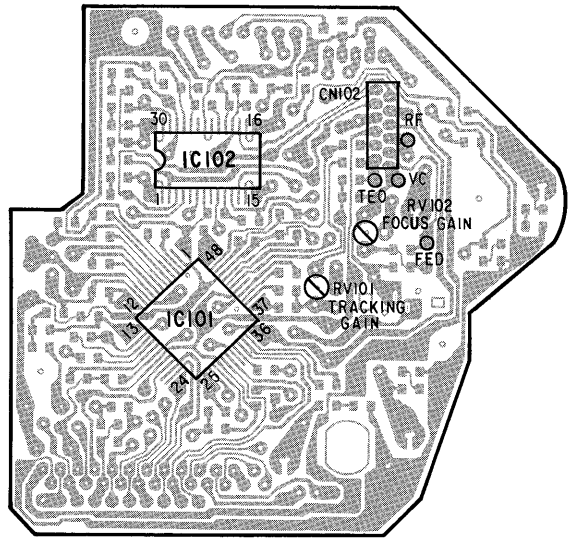
• Incorrect Examples (fundamentia wave appears)



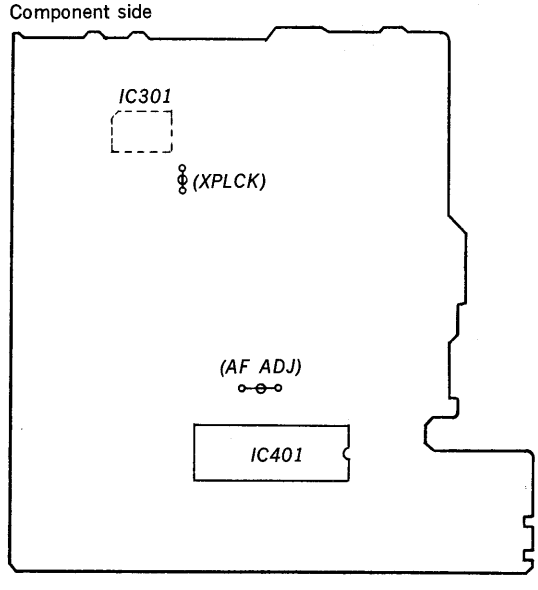


Adjustment Location :

[BD board]

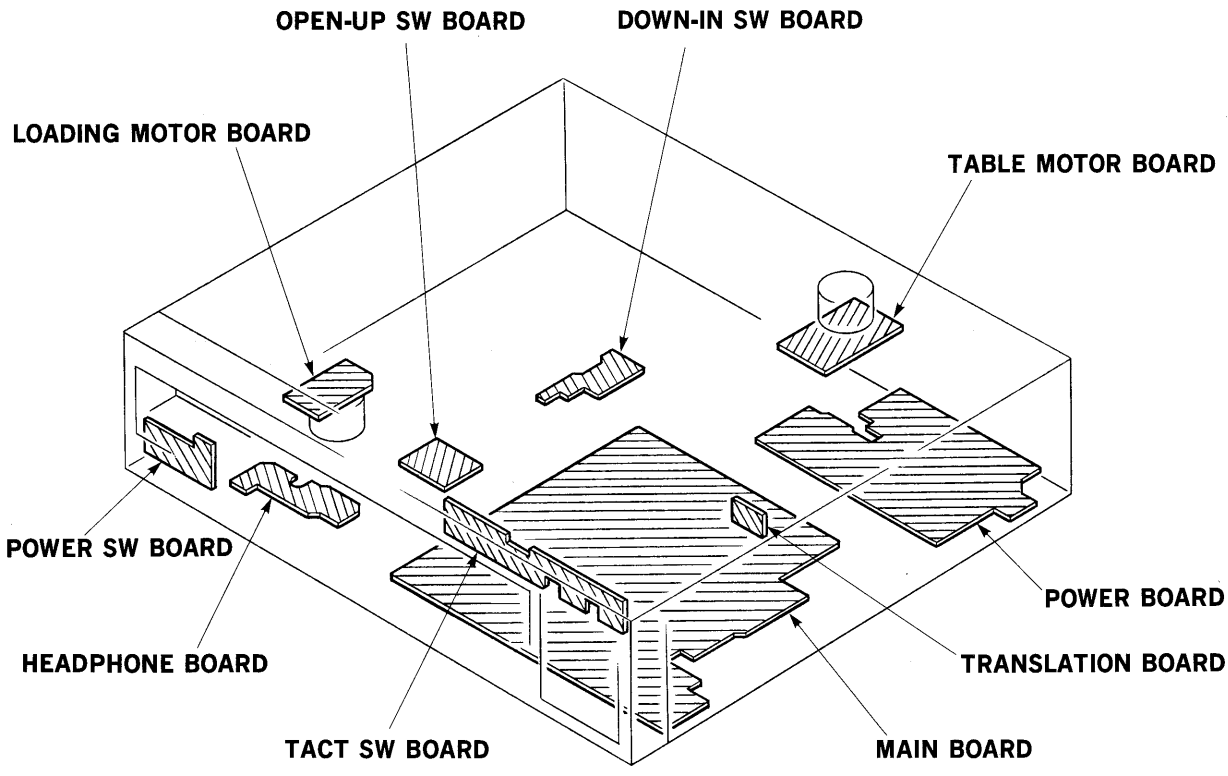


[Main board]



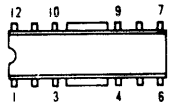
SECTION 4
DIAGRAMS

4-1. CIRCUIT BOARDS LOCATION

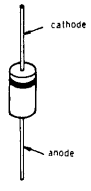


4-2. SEMICONDUCTOR LEAD LAYOUTS

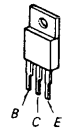
CXA1291P



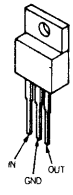
10E2N



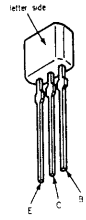
2SB1094-L



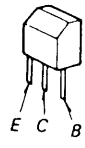
MC7808CT



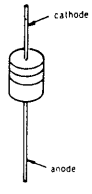
BA1L3Z
2SA1175-HFE



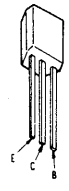
2SD774-34



RD3.9ES-B2
RD4.7ES-B2
1SS202-1
11ES2



DTA144ES
DTC114ES
DTC143TS
DTC144ES



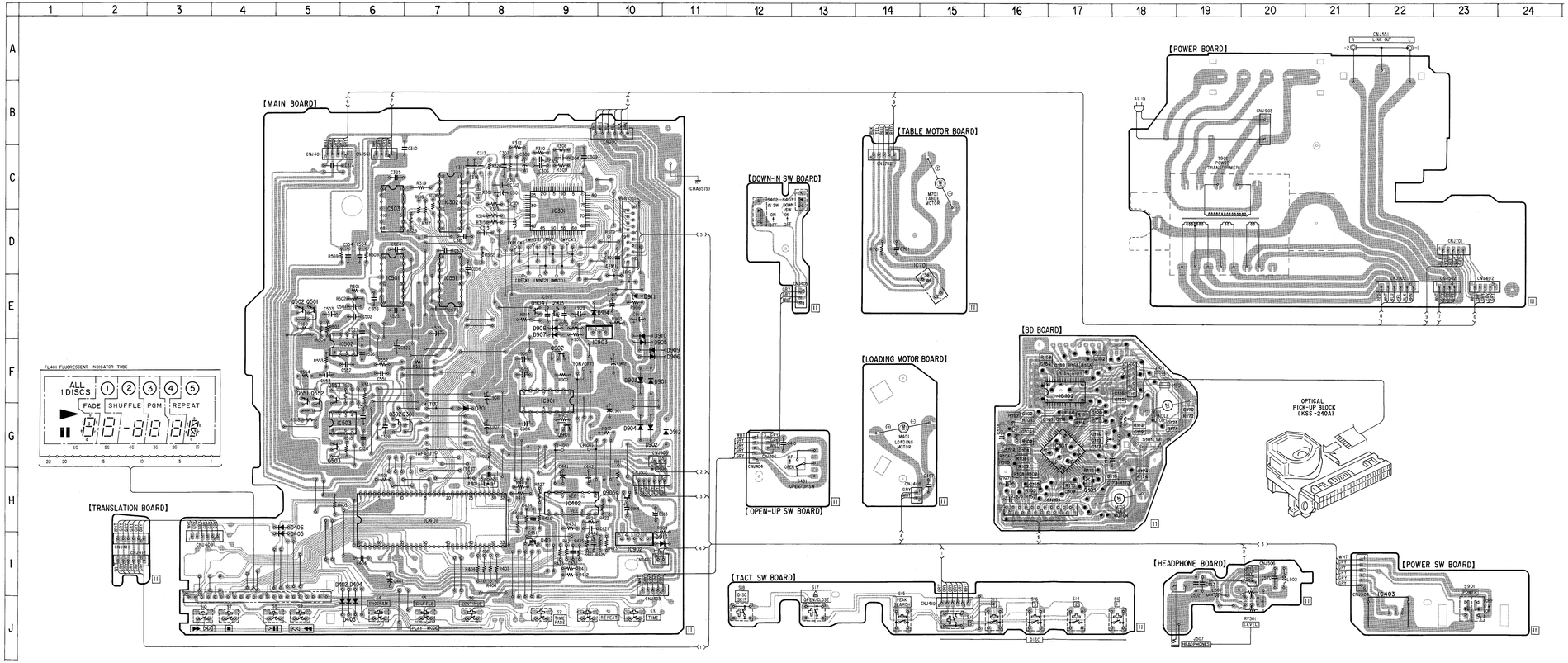
CDP-C505 CDP-C505

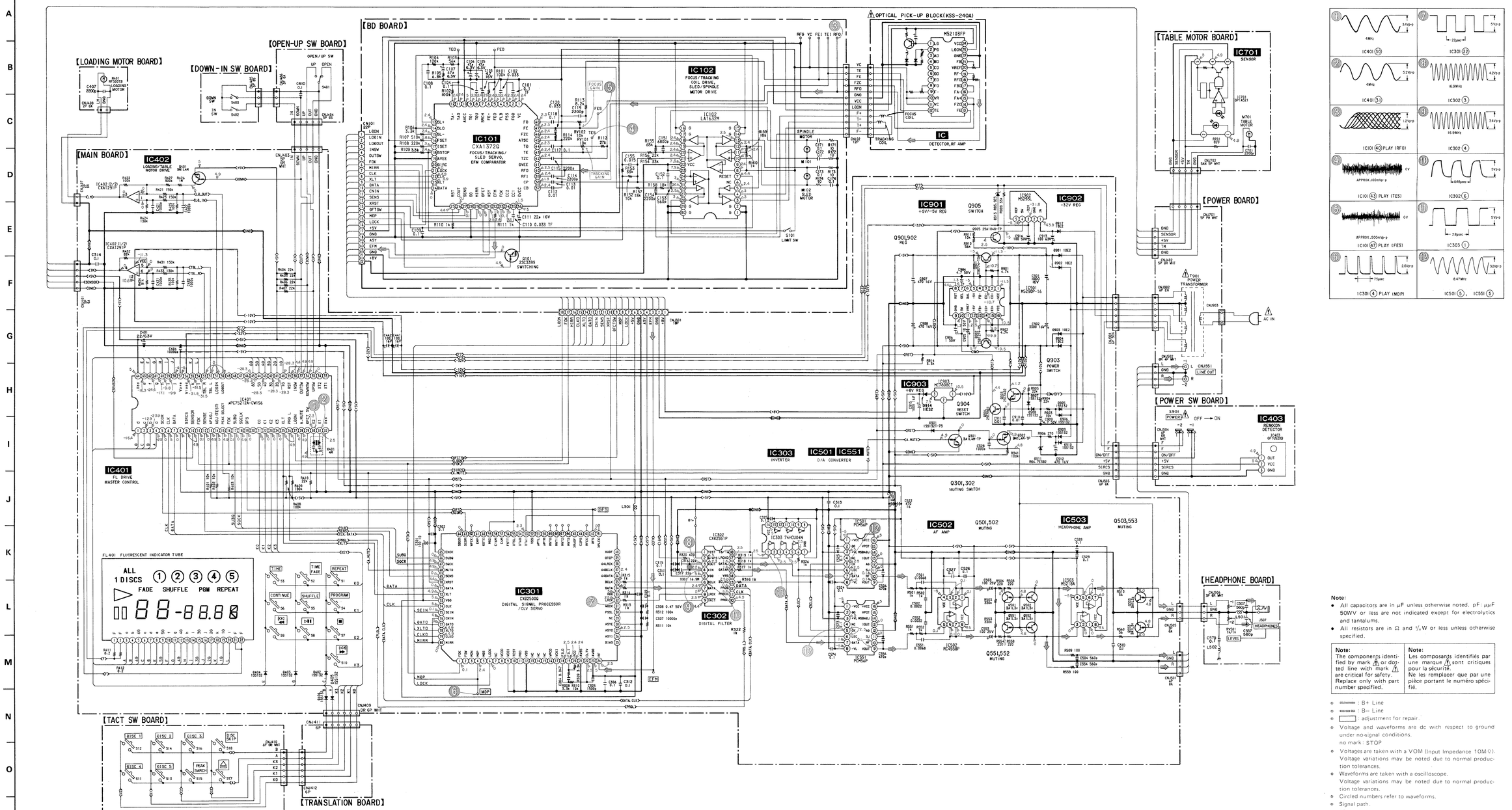
4-3. PRINTED WIRING BOARDS

• Semiconductor Location

Ref. No.	Location
D301	G-7
D402	J-6
D403	J-6
D404	J-6
D405	I-5
D406	H-5
D901	F-10
D902	G-10
D903	F-10
D904	G-10
D905	F-10
D906	F-10
D907	E-9
D908	E-9
D909	F-10
D910	F-10
D911	E-10
D912	G-11
D913	I-11
D914	E-9
IC101	G-17
IC102	F-17
IC301	C-9
IC302	C-7
IC303	C-6
IC401	H-7
IC402	H-9
IC403	I-22
IC501	E-6
IC502	F-6
IC503	G-6
IC551	E-7
IC701	E-15
IC901	F-9
IC902	I-10
IC903	E-10
Q101	H-17
Q301	G-7
Q302	G-6
Q401	I-9
Q501	E-5
Q502	E-5
Q503	G-5
Q551	F-5
Q552	F-5
Q553	F-5
Q901	G-9
Q902	F-9
Q903	E-9
Q904	E-9
Q905	H-10

Note:
- ○—— : parts extracted from the component side.
- ● : Through hole.
- ▨ : Pattern on the side which is seen.
- ▨ : Pattern of the rear side.





Note:

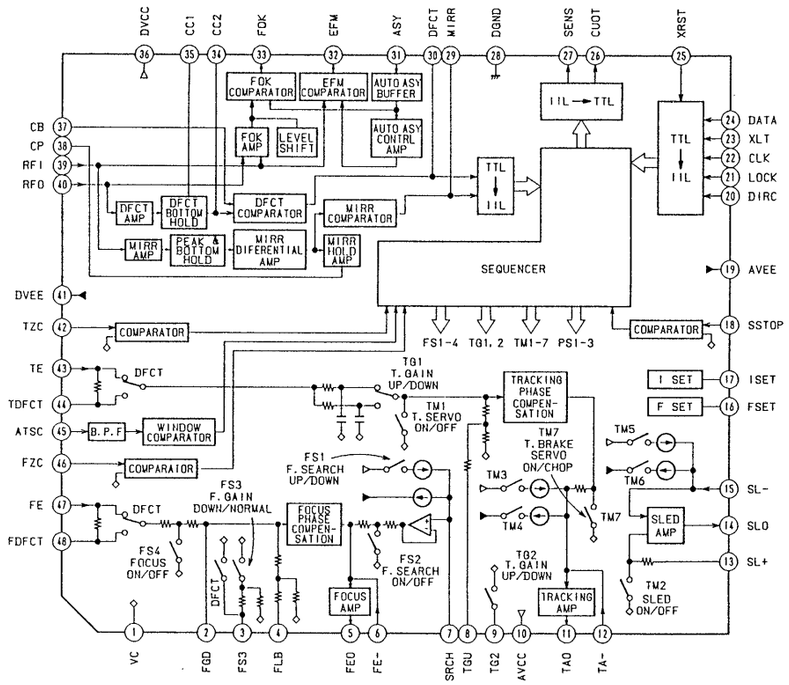
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.

Note:	**Note:**
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.

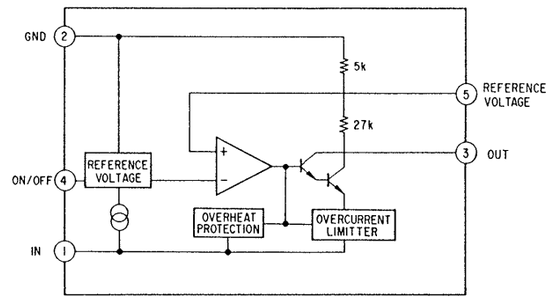
- ▭▭▭ : B+ Line
- ▭▭▭ : B– Line
- ▭ : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : STOP
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD

• IC Block Diagrams

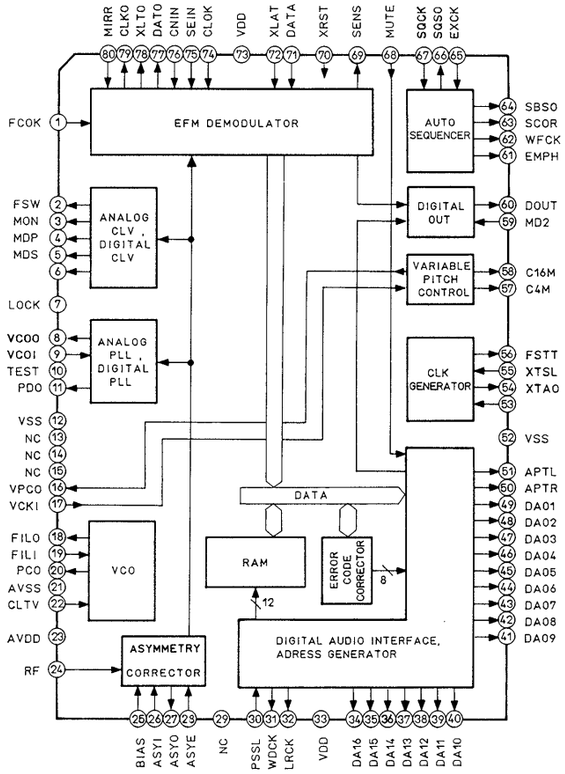
IC101 CXA1372Q



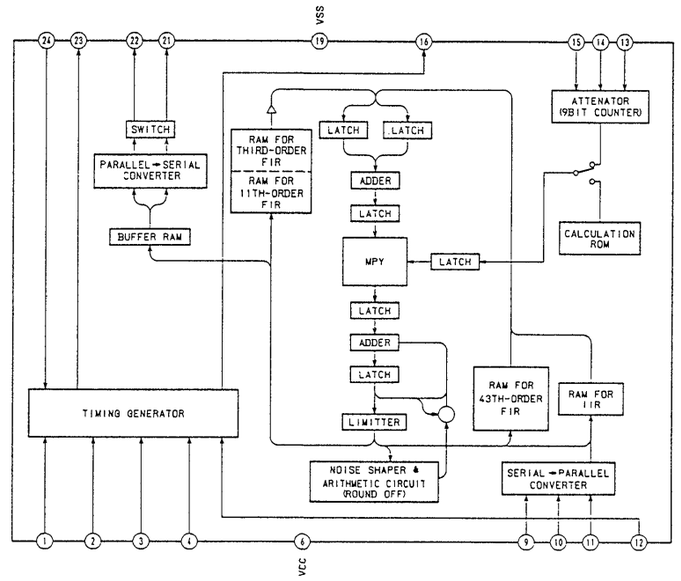
IC902 M5293L



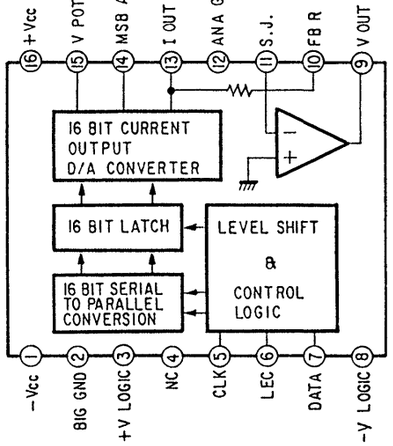
IC301 CXD2500Q



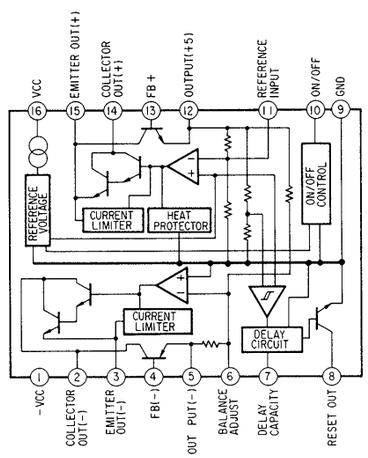
IC302 CXD2551P



IC501, 551 PCM56P



IC901 M5290P-16



SECTION 5
EXPLODED VIEWS

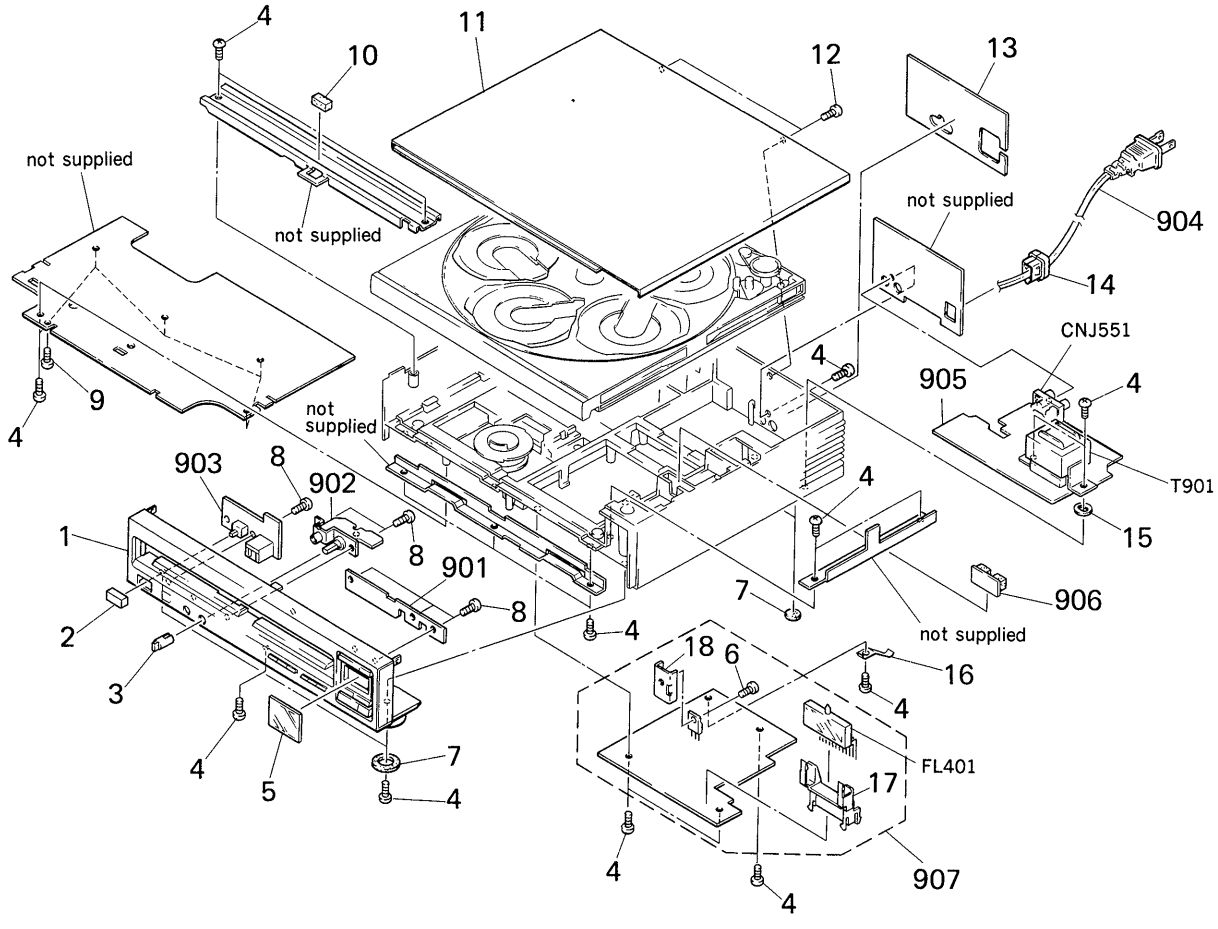
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
  Example:
  (RED) . . . KNOB, BALANCE (WHITE)
  ↑ ↑
  Cabinet's Color Parts' Color

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

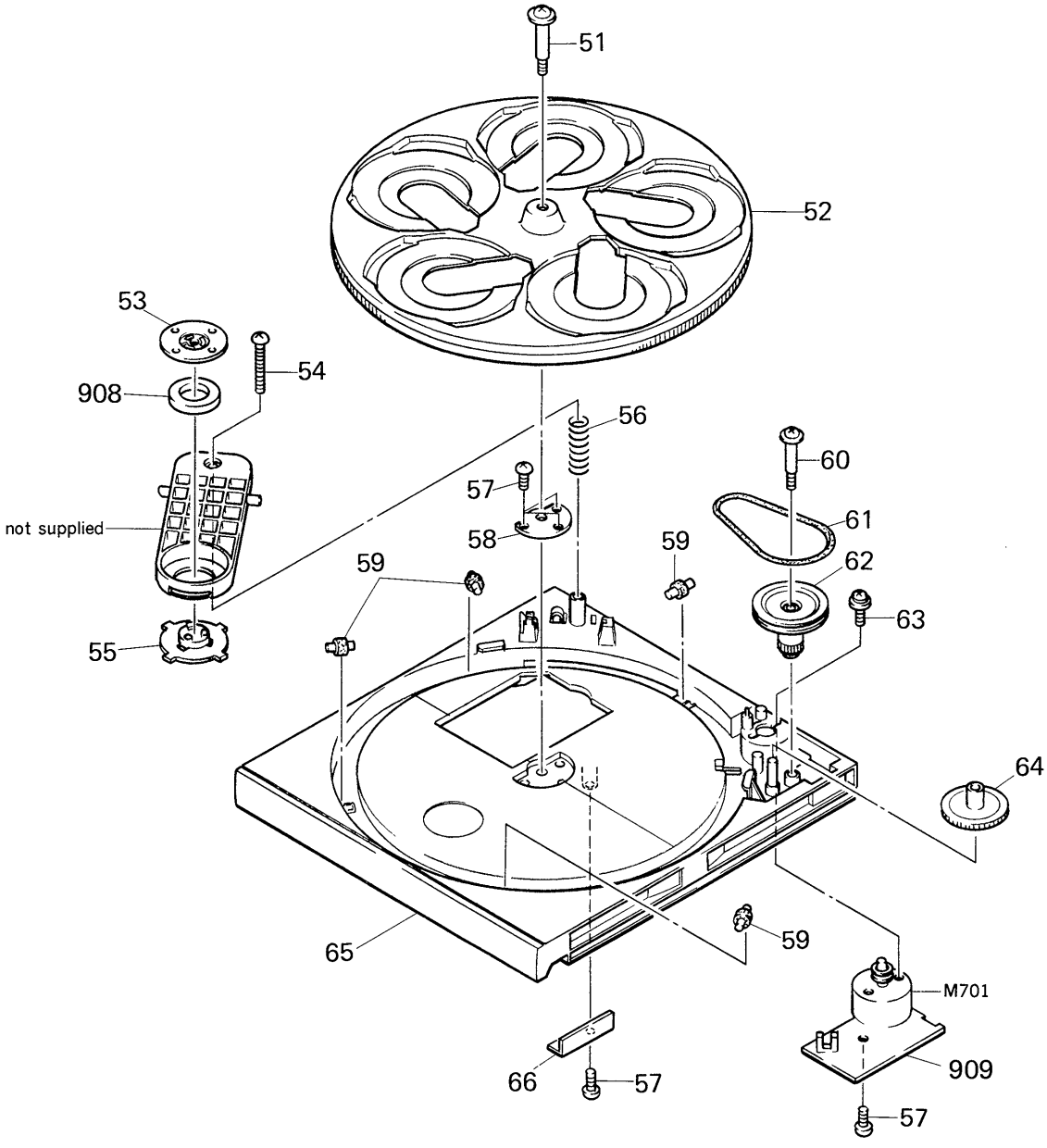
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifé.

5-1. CABINET SECTION



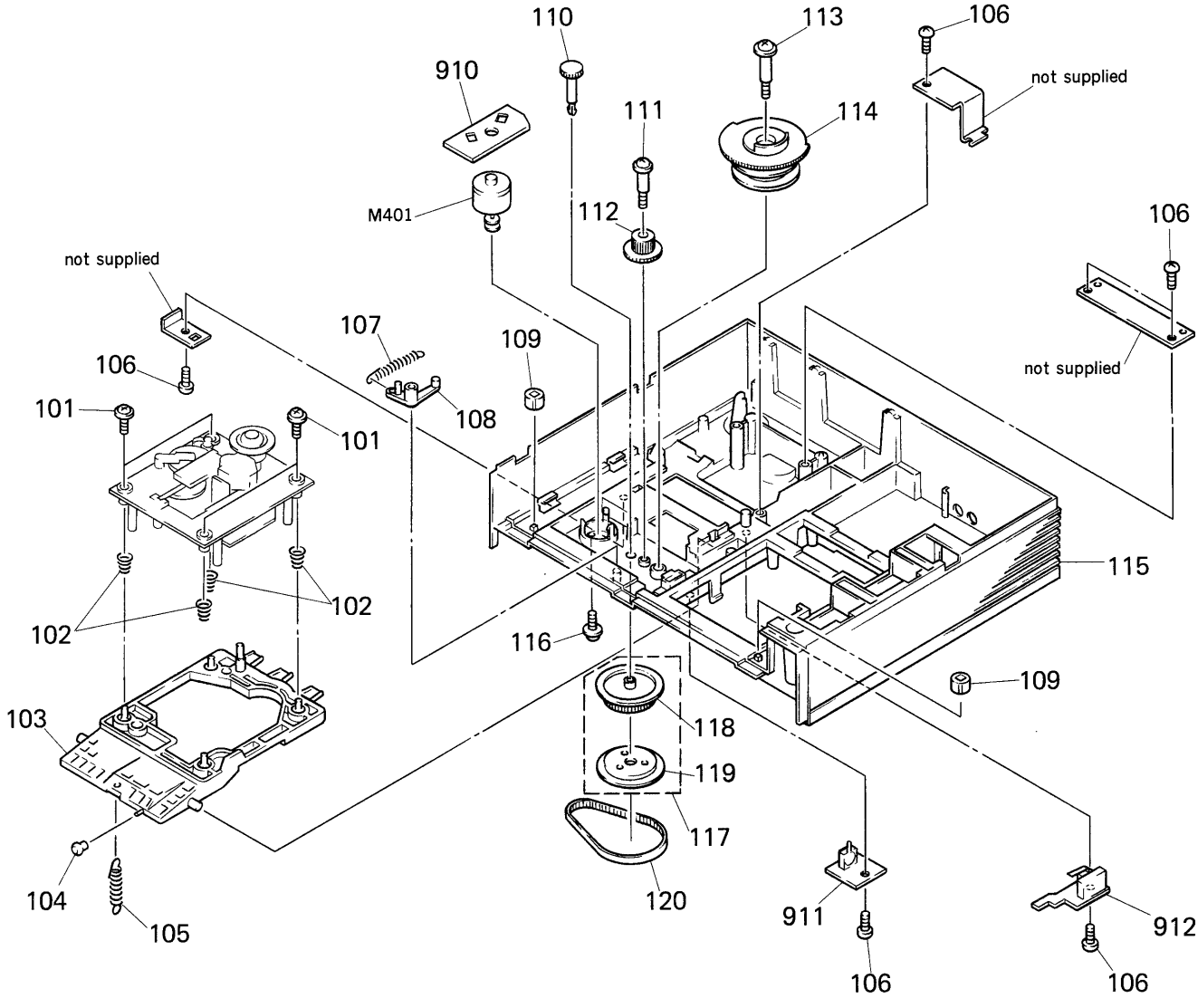
No.	Part No.	Description	Remarks
1	X-4924-451-1	PANEL ASSY, FRONT	
2	4-922-921-01	BUTTON (POWER)	
3	4-922-531-11	KNOB (A TYPE), LOV	
4	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
5	4-934-367-01	WINDOW (FL)	
6	7-682-547-04	SCREW +BVTT 3X6 (S)	
7	4-926-391-01	FOOT (FELT)	
8	4-928-635-01	SCREW, +BV (2.6X8) TAPPING	
9	7-685-870-01	SCREW +BVTT 3X5 (S)	
10	9-911-842-XX	CUSHION (S)	
11	4-930-503-21	CASE	
12	4-909-982-31	SCREW, TAPPING	
13	*4-934-344-01	(US).....PLATE(BACK PANEL), INDICATION	
	*4-934-345-01	(Canadian)..PLATE(BACK PANEL), INDICATION	
14	*3-703-244-00	BUSHING (2104), CORD	
15	4-870-539-00	PLATE, GROUND	
16	*4-930-512-01	PLATE, GROUND	
17	*4-926-396-01	HOLDER (FL)	
18	*3-309-144-21	HEAT SINK	
901	*1-634-799-11	PC BOARD, TACT SW	
902	*1-634-797-11	PC BOARD, HEADPHONE	
903	*1-634-798-11	PC BOARD, POWER SW	
904	⚠.1-575-105-11	CORD, POWER	
905	*1-634-806-11	PC BOARD, POWER	
906	*1-634-800-11	PC BOARD, TRANSLATION	
907	*A-4617-405-A	MOUNTED PCB, MAIN	
CNJ551	1-566-921-11	JACK, PIN 2P (LINE OUT)	
FL401	1-519-585-11	INDICATOR TUBE, FLUORESCENT	
T901	⚠.1-449-954-11	TRANSFORMER, POWER	

5-2. DISK TABLE SECTION



No.	Part No.	Description	Remarks
51	4-923-597-01	SCREW, STEP	
52	*4-926-383-01	TABLE (B), DISK	
53	4-921-029-01	YOKE, CHUCKING	
54	7-682-554-04	SCREW +B 3X25	
55	4-921-022-01	PULLEY, CHUCKING	
56	4-926-395-01	SPRING, COMPRESSION	
57	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
58	*4-926-387-01	BRACKET (CENTER SHAFT)	
59	*X-4924-409-1	SHAFT (ROLLER B) ASSY	
60	4-926-384-01	SCREW, STEP	
61	4-926-399-01	BELT	
62	4-926-385-01	GEAR (C)	
63	7-621-759-35	+PSW, 2.6X5	
64	4-926-386-01	GEAR (B)	
65	4-934-369-01	TABLE (A), DISK	
66	*4-926-388-01	BRACKET (ADJUSTMENT)	
M701	A-4604-232-A	MOTOR ASSY, ROTARY	
908	1-452-340-21	MAGNET	
909	*1-634-807-11	PC BOARD, TABLE MOTOR	

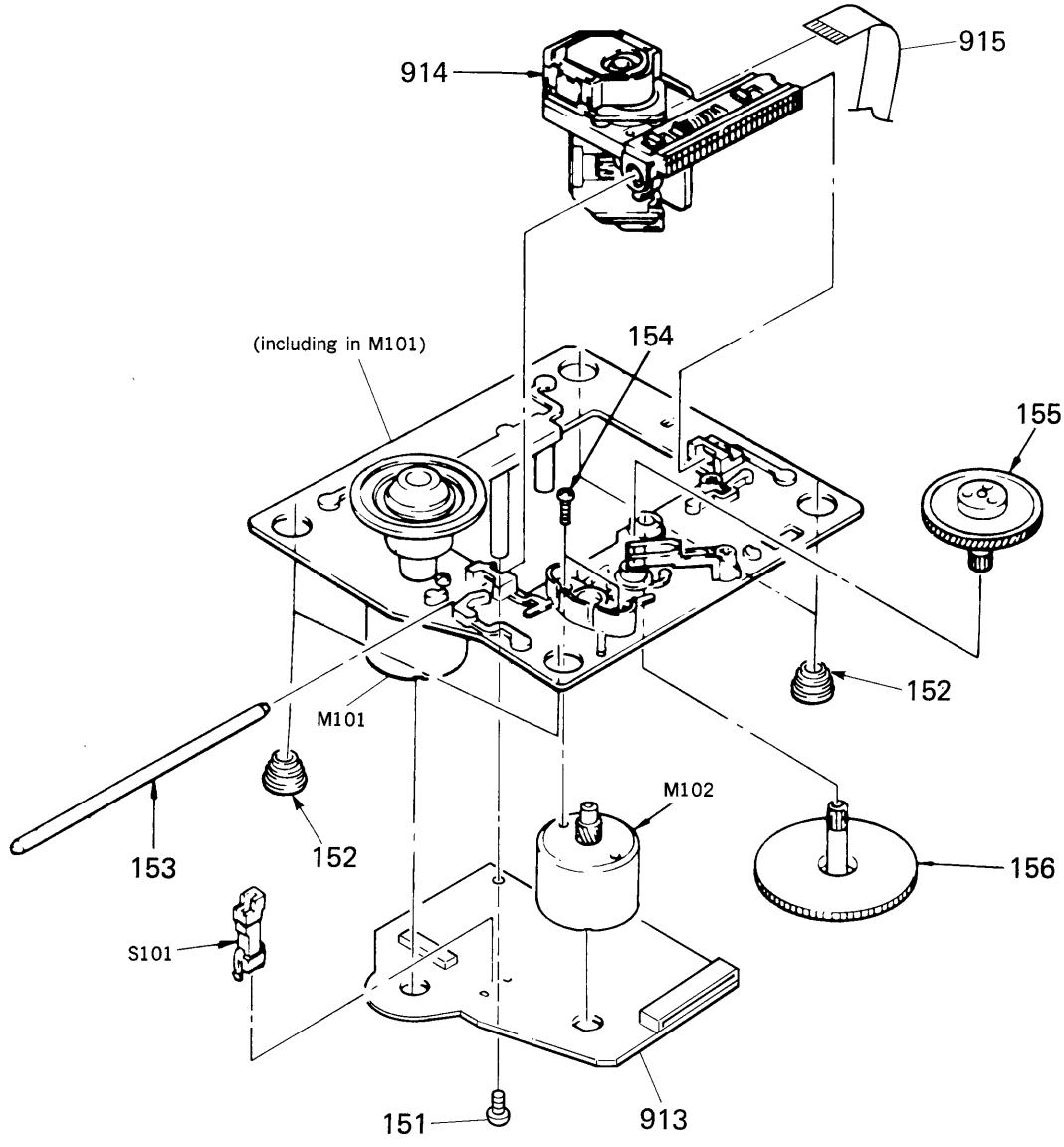
5-3. FRAME SECTION



No.	Part No.	Description	Remarks
101	4-933-134-01	SCREW (+PTPWH M2.6X6)	
102	4-917-541-01	SPRING (B)	
103	*4-934-373-01	BRACKET (BU)	
104	4-927-631-01	ROLLER (L)	
105	4-937-911-01	SPRING, TENSION	
106	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
107	4-924-412-01	SPRING (B), TENSION	
108	4-917-519-01	LEVER, SET	
109	*4-930-520-01	CUSHION	
110	4-924-425-01	GEAR (LOADING B)	
111	4-926-320-01	SCREW (B), STEP	
112	4-924-426-01	GEAR (LOADING C)	

No.	Part No.	Description	Remarks
113	4-926-317-01	SCREW, STEP	
114	4-930-508-01	GEAR (LOADING A)	
115	*4-930-591-01	CHASSIS (2)	
116	7-621-759-35	+PSW, 2.6X5	
117	X-4924-443-1	PULLEY ASSY	
118	4-930-507-01	PULLEY (LOADING)	
119	4-930-596-01	PULLEY (FLANGE)	
120	4-924-478-01	BELT (TIMING)	
910	*1-634-808-11	PC BOARD, LOADING MOTOR	
911	*1-634-810-11	PC BOARD, OPEN-UP SW	
912	*1-634-809-11	PC BOARD, DOWN-IN SW	
M401	A-4604-228-A	MOTOR ASSY, LOADING	

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



Note:	Note:
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.

No.	Part No.	Description	Remarks
151	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	
152	4-933-126-01	INSULATOR (A)	
153	4-917-565-01	SHAFT, SLED	
154	7-621-255-15	SCREW +P 2X3	
155	4-917-567-01	GEAR (M)	
156	4-917-564-01	GEAR (P), FLATNESS	
913	*A-4617-371-A	MOUNTED PCB, BD	
914	⚠8-848-144-11	DEVICE, OPTICAL KSS-240A	
915	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
M101	X-4917-523-3	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	
S101	1-572-085-11	SWITCH, LEAF (LIMIT)	

SECTION 6
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.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA...,
UPC...: μPC, UPD...: μPD...

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		
901	*1-634-799-11	PC BOARD, TACT SW		
902	*1-634-797-11	PC BOARD, HEADPHONE		
903	*1-634-798-11	PC BOARD, POWER SW		
904	⚠1-575-105-11	CORD, POWER		
905	*1-634-806-11	PC BOARD, POWER		
906	*1-634-800-11	PC BOARD, TRANSLATION		
907	*A-4617-405-A	MOUNTED PCB, MAIN		
908	1-452-340-21	MAGNET		
909	*1-634-807-11	PC BOARD, TABLE MOTOR		
910	*1-634-808-11	PC BOARD, LOADING MOTOR		
911	*1-634-810-11	PC BOARD, OPEN-UP SW		
912	*1-634-809-11	PC BOARD, DOWN-IN SW		
913	*A-4617-371-A	MOUNTED PCB, BD		
914	⚠8-848-144-11	DEVICE, OPTICAL KSS-240A		
915	1-575-001-11	WIRE, FLAT TYPE (12 CORE)		
C101	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C102	1-163-989-11	CERAMIC CHIP 0.033MF	10%	25V
C103	1-126-094-11	ELECT 4.7MF	20%	16V
C104	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C105	1-126-154-11	ELECT 47MF	20%	6.3V
C106	1-126-154-11	ELECT 47MF	20%	6.3V
C107	1-126-154-11	ELECT 47MF	20%	6.3V
C108	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C109	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C110	1-163-989-11	CERAMIC CHIP 0.033MF	10%	25V
C111	1-131-367-00	TANTALUM 22MF	20%	16V
C112	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C113	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C114	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V
C115	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V
C116	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V
C117	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C118	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C119	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V
C120	1-163-989-11	CERAMIC CHIP 0.033MF	10%	25V
C151	1-163-019-00	CERAMIC CHIP 0.0068MF	10%	50V
C152	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C153	1-163-006-11	CERAMIC CHIP 560PF	10%	50V
C154	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V
C155	1-163-023-00	CERAMIC CHIP 0.015MF	10%	50V
C171	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C172	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C173	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C174	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C301	1-124-443-00	ELECT 100MF	20%	10V

Ref.No.	Part No.	Description		
C302	1-164-159-11	CERAMIC 0.1MF		50V
C304	1-136-161-00	FILM 0.047MF	5%	50V
C305	1-161-374-11	CERAMIC 0.0015MF	30%	16V
C306	1-164-159-11	CERAMIC 0.1MF		50V
C307	1-161-379-00	CERAMIC 0.01MF	30%	16V
C308	1-124-902-00	ELECT 0.47MF	20%	50V
C309	1-164-159-11	CERAMIC 0.1MF		50V
C310	1-164-159-11	CERAMIC 0.1MF		50V
C311	1-164-159-11	CERAMIC 0.1MF		50V
C312	1-164-159-11	CERAMIC 0.1MF		50V
C313	1-164-159-11	CERAMIC 0.1MF		50V
C314	1-164-159-11	CERAMIC 0.1MF		50V
C315	1-164-159-11	CERAMIC 0.1MF		50V
C316	1-162-207-31	CERAMIC 22PF	5%	50V
C317	1-162-207-31	CERAMIC 22PF	5%	50V
C325	1-164-159-11	CERAMIC 0.1MF		50V
C328	1-162-294-31	CERAMIC 0.001MF	10%	50V
C401	1-124-638-11	ELECT 22MF	20%	6.3V
C404	1-161-379-00	CERAMIC 0.01MF	30%	16V
C407	1-161-494-00	CERAMIC 0.022MF		25V
C410	1-164-159-11	CERAMIC 0.1MF		50V
C421	1-162-294-31	CERAMIC 0.001MF	10%	50V
C422	1-162-294-31	CERAMIC 0.001MF	10%	50V
C431	1-162-294-31	CERAMIC 0.001MF	10%	50V
C432	1-162-294-31	CERAMIC 0.001MF	10%	50V
C441	1-126-101-11	ELECT 100MF	20%	16V
C442	1-126-101-11	ELECT 100MF	20%	16V
C501	1-106-363-00	MYLAR 0.0068MF	5%	50V
C502	1-106-351-00	MYLAR 0.0022MF	5%	50V
C503	1-124-478-11	ELECT 100MF	20%	25V
C504	1-162-291-31	CERAMIC 560PF	10%	50V
C506	1-130-467-00	MYLAR 470PF	5%	50V
C507	1-162-291-31	CERAMIC 560PF	10%	50V
C521	1-126-103-11	ELECT 470MF	20%	16V
C522	1-126-103-11	ELECT 470MF	20%	16V
C523	1-164-159-11	CERAMIC 0.1MF		50V
C524	1-164-159-11	CERAMIC 0.1MF		50V
C526	1-164-159-11	CERAMIC 0.1MF		50V
C527	1-164-159-11	CERAMIC 0.1MF		50V
C528	1-164-159-11	CERAMIC 0.1MF		50V
C529	1-164-159-11	CERAMIC 0.1MF		50V
C551	1-106-363-00	MYLAR 0.0068MF	5%	50V
C552	1-106-351-00	MYLAR 0.0022MF	5%	50V
C553	1-124-478-11	ELECT 100MF	20%	25V
C554	1-162-291-31	CERAMIC 560PF	10%	50V

Ref.No.	Part No.	Description			
C556	1-130-467-00	MYLAR	470PF	5%	50V
C557	1-162-291-31	CERAMIC	560PF	10%	50V
C570	1-164-159-11	CERAMIC	0.1MF		50V
C573	1-164-159-11	CERAMIC	0.1MF		50V
C574	1-164-159-11	CERAMIC	0.1MF		50V
C701	1-161-375-00	CERAMIC	0.0022MF	30%	16V
C901	1-124-360-00	ELECT	1000MF	20%	16V
C902	1-124-887-00	ELECT	3300MF	20%	16V
C904	1-124-927-11	ELECT	4.7MF	20%	50V
C905	1-123-875-11	ELECT	10MF	20%	50V
C906	1-124-791-11	ELECT	1MF	20%	50V
C907	1-126-103-11	ELECT	470MF	20%	16V
C908	1-126-103-11	ELECT	470MF	20%	16V
C909	1-124-927-11	ELECT	4.7MF	20%	50V
C910	1-164-159-11	CERAMIC	0.1MF		50V
C911	1-164-159-11	CERAMIC	0.1MF		50V
C912	1-126-103-11	ELECT	470MF	20%	16V
C913	1-124-572-11	ELECT	100MF	20%	63V
C914	1-124-122-11	ELECT	100MF	20%	50V
C915	1-124-360-00	ELECT	1000MF	20%	16V
CN101	1-568-796-11	SOCKET, CONNECTOR 22P			
CN102	1-568-795-11	SOCKET, CONNECTOR 12P			
CNJ301	1-568-468-11	SOCKET, CONNECTOR 18P			
CNJ402	*1-564-339-61	PIN, CONNECTOR 5P			
CNJ403	*1-564-339-00	PIN, CONNECTOR 5P			
CNJ407	*1-564-336-00	PIN, CONNECTOR 2P			
CNJ411	*1-564-340-00	PIN, CONNECTOR 6P			
CNJ502	*1-564-338-00	PIN, CONNECTOR 4P			
CNJ504	*1-564-499-11	PIN, CONNECTOR 6P			
CNJ506	*1-564-337-00	PIN, CONNECTOR 3P			
CNJ551	1-566-921-11	JACK, PIN 2P (LINE OUT)			
CNJ701	*1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P			
CNJ902	*1-564-509-11	PLUG, CONNECTOR 6P			
CNJ903	*1-564-321-00	PIN, CONNECTOR 2P			
D301	8-719-107-94	DIODE 1SS202-1			
D402	8-719-107-94	DIODE 1SS202-1			
D403	8-719-107-94	DIODE 1SS202-1			
D404	8-719-107-94	DIODE 1SS202-1			
D405	8-719-107-94	DIODE 1SS202-1			
D406	8-719-107-94	DIODE 1SS202-1			
D901	8-719-200-77	DIODE 10E2N			
D902	8-719-200-77	DIODE 10E2N			
D903	8-719-200-77	DIODE 10E2N			
D904	8-719-200-77	DIODE 10E2N			
D905	8-719-107-94	DIODE 1SS202-1			
D906	8-719-107-94	DIODE 1SS202-1			
D907	8-719-107-94	DIODE 1SS202-1			
D908	8-719-107-94	DIODE 1SS202-1			
D909	8-719-107-94	DIODE 1SS202-1			
D910	8-719-107-94	DIODE 1SS202-1			
D911	8-719-109-81	ZENER DIODE RD4.7ES-B2			
D912	8-719-200-77	DIODE 10E2N			
D913	8-719-109-72	ZENER DIODE RD3.9ES-B2			
D914	8-719-200-82	DIODE 11ES2			
FL401	1-519-585-11	INDICATOR TUBE, FLUORESCENT			

Ref.No.	Part No.	Description			
IC101	8-752-037-33	IC CXA1372Q			
IC102	8-759-821-94	IC LA6532M			
IC301	8-752-333-31	IC CXD2500Q			
IC302	8-752-334-06	IC CXD2551P			
IC303	8-759-917-18	IC SN74HCU04N			
IC401	8-759-149-33	IC UPD75212ACW-196			
IC402	8-752-035-28	IC CXA1291P			
IC403	8-749-920-83	IC GP1U52XB			
IC501	8-759-998-22	IC PCM56P			
IC502	8-759-945-58	IC RC4558P			
IC503	8-759-634-51	IC M5218AP			
IC551	8-759-998-22	IC PCM56P			
IC701	8-719-970-19	IC GP1A521			
IC901	8-759-630-21	IC M5290P-16			
IC902	8-759-633-42	IC M5293L			
IC903	8-759-013-08	IC MC7808CT			
J101	1-216-295-00	METAL GLAZE	0	5%	1/10W
J102	1-216-295-00	METAL GLAZE	0	5%	1/10W
J507	1-568-519-21	JACK, LARGE TYPE (HEADPHONES)			
L301	*1-410-858-11	INDUCTOR	0UH		
L501	*1-410-858-11	INDUCTOR	0UH		
L502	*1-410-858-11	INDUCTOR	0UH		
M101	X-4917-523-3	MOTOR ASSY (SPINDLE)			
M102	X-4917-504-1	MOTOR ASSY (SLED)			
M401	A-4604-228-A	MOTOR ASSY, LOADING			
M701	A-4604-232-A	MOTOR ASSY, ROTARY			
Q101	8-729-901-01	TRANSISTOR DTC144EK			
Q301	8-729-900-89	TRANSISTOR DTC144ES			
Q302	8-729-900-65	TRANSISTOR DTA144ES			
Q401	8-729-900-65	TRANSISTOR DTA144ES			
Q501	8-729-142-28	TRANSISTOR BA1L3Z			
Q502	8-729-142-28	TRANSISTOR BA1L3Z			
Q503	8-729-142-28	TRANSISTOR BA1L3Z			
Q551	8-729-142-28	TRANSISTOR BA1L3Z			
Q552	8-729-142-28	TRANSISTOR BA1L3Z			
Q553	8-729-142-28	TRANSISTOR BA1L3Z			
Q901	8-729-140-96	TRANSISTOR 2SD774-34			
Q902	8-729-111-67	TRANSISTOR 2SB1094-L			
Q903	8-729-900-80	TRANSISTOR DTC114ES			
Q904	8-729-900-74	TRANSISTOR DTC143TS			
Q905	8-729-119-76	TRANSISTOR 2SA1175-HFE			
R101	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R102	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R103	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R104	1-216-099-00	METAL GLAZE	120K	5%	1/10W
R105	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R106	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R107	1-216-114-00	METAL GLAZE	510K	5%	1/10W
R108	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R109	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R110	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R111	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R112	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R113	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R114	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R152	1-216-073-00	METAL GLAZE	10K	5%	1/10W

Ref.No.	Part No.	Description			
R153	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R154	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R155	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R156	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R157	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R158	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R159	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R160	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R171	1-216-001-00	METAL GLAZE	10	5%	1/10W
R172	1-216-001-00	METAL GLAZE	10	5%	1/10W
R173	1-216-001-00	METAL GLAZE	10	5%	1/10W
R174	1-216-001-00	METAL GLAZE	10	5%	1/10W
R308	1-249-423-11	CARBON	3.3K	5%	1/4W
R309	1-249-423-11	CARBON	3.3K	5%	1/4W
R310	1-249-429-11	CARBON	10K	5%	1/4W
R311	1-249-429-11	CARBON	10K	5%	1/4W
R312	1-249-441-11	CARBON	100K	5%	1/4W
R313	1-249-417-11	CARBON	1K	5%	1/4W
R314	1-249-417-11	CARBON	1K	5%	1/4W
R315	1-249-417-11	CARBON	1K	5%	1/4W
R316	1-249-417-11	CARBON	1K	5%	1/4W
R317	1-249-417-11	CARBON	1K	5%	1/4W
R318	1-249-417-11	CARBON	1K	5%	1/4W
R319	1-249-417-11	CARBON	1K	5%	1/4W
R320	1-249-413-11	CARBON	470	5%	1/4W
R322	1-249-417-11	CARBON	1K	5%	1/4W
R326	1-249-417-11	CARBON	1K	5%	1/4W
R341	1-249-441-11	CARBON	100K	5%	1/4W
R401	1-249-429-11	CARBON	10K	5%	1/4W
R402	1-249-429-11	CARBON	10K	5%	1/4W
R403	1-249-429-11	CARBON	10K	5%	1/4W
R404	1-249-433-11	CARBON	22K	5%	1/4W
R405	1-249-433-11	CARBON	22K	5%	1/4W
R406	1-249-433-11	CARBON	22K	5%	1/4W
R407	1-249-433-11	CARBON	22K	5%	1/4W
R408	1-249-441-11	CARBON	100K	5%	1/4W
R409	1-249-441-11	CARBON	100K	5%	1/4W
R410	1-249-433-11	CARBON	22K	5%	1/4W
R411	1-249-392-11	CARBON	8.2	5%	1/4W
R412	1-249-392-11	CARBON	8.2	5%	1/4W
R421	1-247-883-00	CARBON	150K	5%	1/4W
R422	1-249-441-11	CARBON	100K	5%	1/4W
R423	1-247-883-00	CARBON	150K	5%	1/4W
R424	1-247-882-11	CARBON	130K	5%	1/4W
R425	1-249-441-11	CARBON	100K	5%	1/4W
R426	1-247-903-00	CARBON	1M	5%	1/4W
R427	1-247-890-11	CARBON	300K	5%	1/4W
R431	1-247-883-00	CARBON	150K	5%	1/4W
R432	1-249-440-11	CARBON	82K	5%	1/4W
R433	1-247-882-11	CARBON	130K	5%	1/4W
R434	1-247-878-00	CARBON	91K	5%	1/4W
R435	1-249-441-11	CARBON	100K	5%	1/4W
R501	1-249-417-11	CARBON	1K	5%	1/4W
R502	1-249-417-11	CARBON	1K	5%	1/4W
R503	1-247-891-00	CARBON	330K	5%	1/4W
R504	1-249-409-11	CARBON	220	5%	1/4W
R508	1-249-409-11	CARBON	220	5%	1/4W

Ref.No.	Part No.	Description			
R509	1-249-405-11	CARBON	100	5%	1/4W
R510	1-249-402-11	CARBON	56	5%	1/4W
R551	1-249-417-11	CARBON	1K	5%	1/4W
R552	1-249-417-11	CARBON	1K	5%	1/4W
R553	1-247-891-00	CARBON	330K	5%	1/4W
R554	1-249-409-11	CARBON	220	5%	1/4W
R558	1-249-409-11	CARBON	220	5%	1/4W
R559	1-249-405-11	CARBON	100	5%	1/4W
R560	1-249-402-11	CARBON	56	5%	1/4W
R701	1-249-416-11	CARBON	820	5%	1/4W
R901	1-249-425-11	CARBON	4.7K	5%	1/4W
R902	1-249-425-11	CARBON	4.7K	5%	1/4W
R903	1-249-429-11	CARBON	10K	5%	1/4W
R904	1-249-433-11	CARBON	22K	5%	1/4W
R905	1-249-433-11	CARBON	22K	5%	1/4W
R906	1-249-410-11	CARBON	270	5%	1/4W
R909	1-249-435-11	CARBON	33K	5%	1/4W
R910	1-249-438-11	CARBON	56K	5%	1/4W
R911	1-249-429-11	CARBON	10K	5%	1/4W
R914	1-249-423-11	CARBON	3.3K	5%	1/4W

RV101	1-238-016-11	RES, ADJ, CARBON 10K
RV102	1-238-016-11	RES, ADJ, CARBON 10K
RV501	1-241-031-11	RES, VAR, CARBON 1K/1K (HEADPHONES LEVEL)
S1	1-554-088-00	SWITCH, KEY BOARD (REPEAT)
S2	1-554-088-00	SWITCH, KEY BOARD (TIME FADE)
S3	1-554-088-00	SWITCH, KEY BOARD (TIME)
S4	1-554-088-00	SWITCH, KEY BOARD (PROGRAM)
S5	1-554-088-00	SWITCH, KEY BOARD (SHUFFLE)
S6	1-554-088-00	SWITCH, KEY BOARD (CONTINUE)
S7	1-554-088-00	SWITCH, KEY BOARD (■)
S8	1-554-088-00	SWITCH, KEY BOARD (▷▯▯)
S9	1-554-088-00	SWITCH, KEY BOARD (▯▯◁ ◀◀)
S10	1-554-088-00	SWITCH, KEY BOARD (▶▶ ▷▯▯)
S11	1-554-596-21	SWITCH, KEY BOARD (DISC 4)
S12	1-554-596-21	SWITCH, KEY BOARD (DISC 1)
S13	1-554-596-21	SWITCH, KEY BOARD (DISC 5)
S14	1-554-596-21	SWITCH, KEY BOARD (DISC 2)
S15	1-554-596-21	SWITCH, KEY BOARD (PEAK SEARCH)
S16	1-554-596-21	SWITCH, KEY BOARD (DISC 3)
S17	1-554-596-21	SWITCH, KEY BOARD (▲OPEN/CLOSE)
S18	1-554-596-21	SWITCH, KEY BOARD (DISC SKIP)
S101	1-572-085-11	SWITCH, LEAF (LIMIT)
S401	1-571-300-11	SWITCH, ROTARY (OPEN/UP)
S402	1-554-205-00	SWITCH, PUSH (IN)
S403	1-570-973-11	SWITCH (DOWN)
S901 ⚠	1-571-305-11	SWITCH, PUSH (1 KEY)(POWER)
T901 ⚠	1-449-954-11	TRANSFORMER, POWER
X301	1-567-908-11	VIBRATOR, CRYSTAL (16.9MHZ)
X401	1-577-358-21	VIBRATOR, CERAMIC (4MHZ)

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

Note:
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
	ACCESSORY & PACKING MATERIAL	
	1-465-399-11	COMMANDER, REMOTE (RM-D506)
	1-559-533-11	CORD, CONNECTION
	*3-704-217-01	LABEL (CERTIFICATION)
	3-707-584-01	COVER, BATTERY
	3-751-429-21	MANUAL, INSTRUCTION (ENGLISH)
	3-751-429-31	(Canadian)...MANUAL, INSTRUCTION (FRENCH)
	4-930-510-01	PLATE, LOCK
	*4-937-901-01	CUSHION (FRONT)
	*4-937-902-01	CUSHION (REAR)
	*4-937-903-11	INDIVIDUAL CARTON

9-955-814-11

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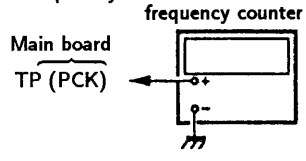
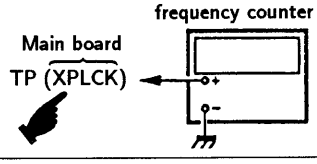
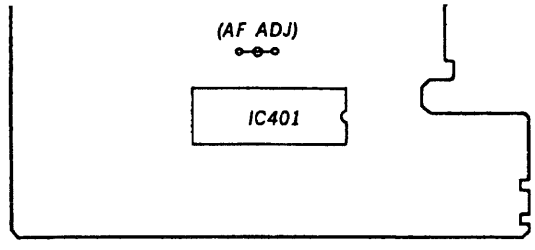
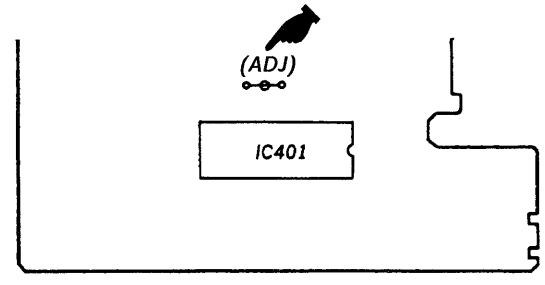
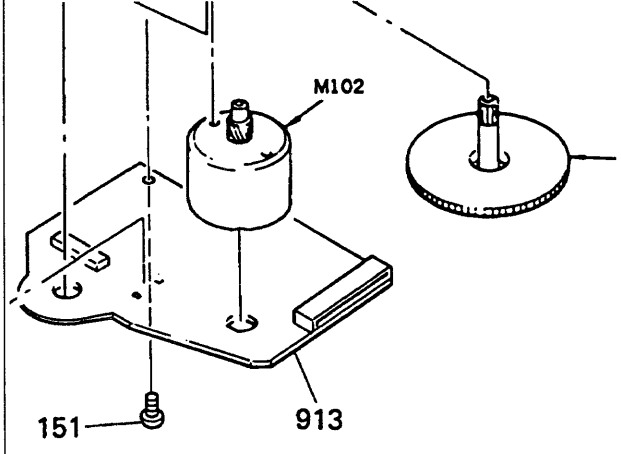
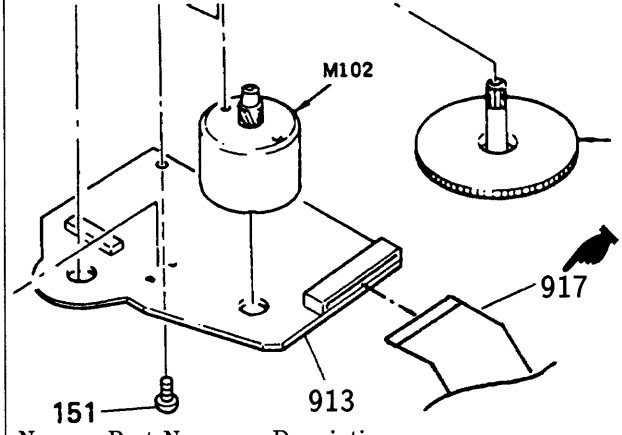
SONY
SERVICE MANUAL

US Model
Canadian Model

CORRECTION-1

Correct your service manual as shown below.

☛ : indicates corrected portion.

Page	INCORRECT	CORRECT
6	E-F Blance Check **Procedure :** 1. Connect test point TP (AFADJ) and TP (TES) to ground with lead wire.	E-F Blance Check **Procedure :** 1. Connect test point TP (ADJ) to ground and TP (TES) to TP (VC) with lead wire.
	RF PLL Free-run Frequency Check **Procedure :** 	RF PLL Free-run Frequency Check **Procedure :** 
7	**Adjustment Location** 【Main Board】 	**Adjustment Location** 【Main Board】 
24		 No. Part No. Description 917 1-535-847-11 JUMPER, FILM (WITH TERMINAL) ☛

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SONY
SERVICE MANUAL

US Model
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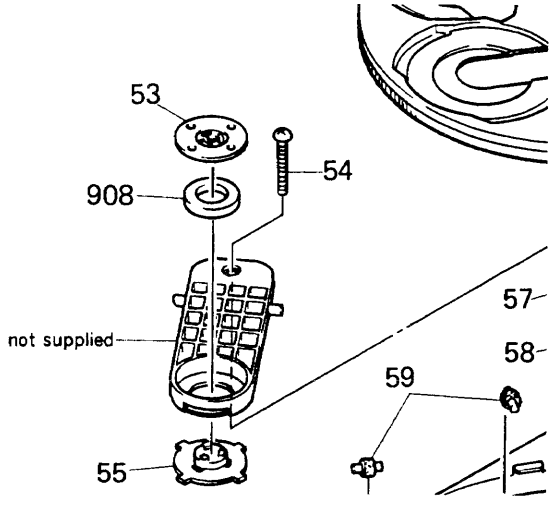
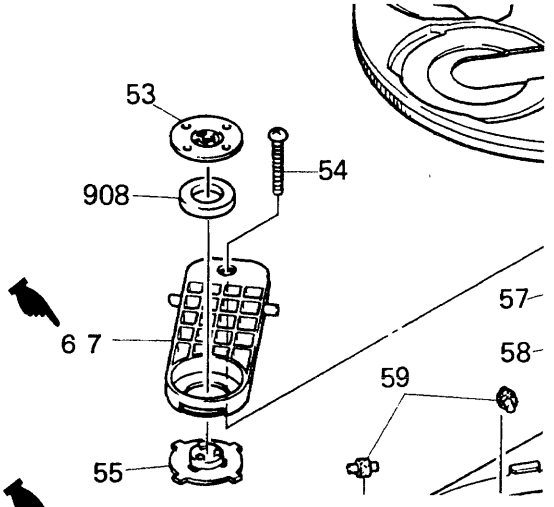
CORRECTION-2

Correct your service manual as shown below.

☛ : **indicates corrected portion.**

Page	INCORRECT	CORRECT
20		 67 *4-930-506-02 BRACKET (PRESS PULLEY)

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