

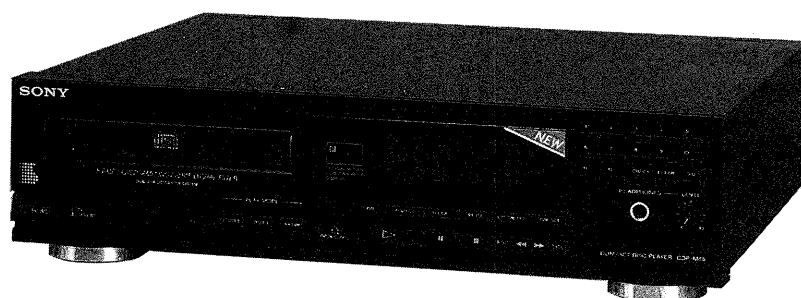
CDP-M48/M49/M69

SERVICE MANUAL

AEP Model
CDP-M48

AEP Model
Australian Model
E Model
CDP-M49

AEP Model
E Model
CDP-M69



This photo is CDP-M69.

SPECIFICATIONS

Compact disc player

Frequency response	2 Hz – 20 kHz $\pm$ 0.5 dB
Signal to noise ratio	More than 100 dB
Dynamic range	More than 92 dB
Harmonic distortion	Less than 0.008%
Channel separation	More than 95 dB

Outputs

LINE OUT (phono jacks)	Output level 2 V (at 50 kilohms) Load impedance over 10 kilohms
---------------------------	--

HEADPHONES (stereo phone jack) (CDP-M49/M69)	Output level max. 10 mW Load impedance 32 ohms
--	---

General

Power requirements	AEP model: 220V AC (or 240V AC adjustable by Sony personnel), 50/60Hz UK model: 240V AC (or 220V AC adjustable by Sony personnel), 50/60Hz Other model: 110V – 120V AC (or 220V – 240V AC adjustable by Sony personnel), 50/60 Hz
Power consumption	11W
Dimensions (approx., including projections)	355 x 95 x 305 mm (w/h/d) (14 x 3 7/8 x 12 1/8 inches)
Weight (approx.)	3.0 kg (6 lbs 10 oz)

Model Name Using Similar Mechanism	CDP-M18
CD Mechanism Name	CDM14-5BD1
Base Unit Name	BU-5BD1

Supplied accessories

	CDP-M69	CDP-M48/M49
Audio cord	1 (2 phono plugs – 2 phono plugs)	
Remote commander	1	–
Sony SUM-3 (NS) batteries	2	–

Remote commander

Remote control system	Infrared control
Power requirements	3 V DC with two R6 (size AA) batteries
Dimensions	Approx. 40 x 20 x 175 mm (w/h/d) 1 5/8 x 13/16 x 7 inches
Weight	Approx. 95 g (3.4 oz) Including batteries

Design and specifications subject to change without notice.



COMPACT DISC PLAYER
SONY

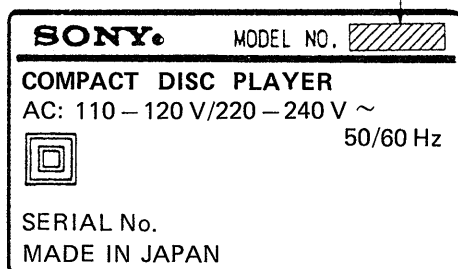
TABLE OF CONTENTS

Section	Title	Page
Specifications		1
Servicing Note		2
Protection of Eyes from Laser Beam During Servicing		3
SECTION 1. GENERAL		
1-1. Location and Function of Controls		4
SECTION 2. DISSASSEMBLY OF BASE UNIT		
SECTION 3. ELECTRICAL ADJUSTMENTS		
SECTION 4. DIAGRAMS		
Waveforms		9
IC Block Diagram		9
4-1. Printed Wiring Boards		11
4-2. Schematic Diagram		15
SECTION 5. EXPLODED VIEWS		
SECTION 6. ELECTRICAL PARTS LIST		

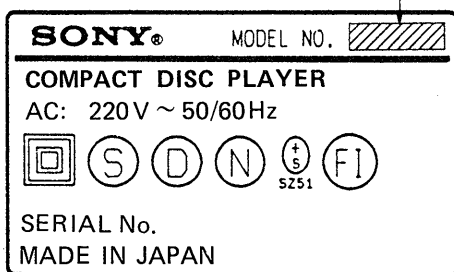
MODEL IDENTIFICATIONS

—Specition Label—

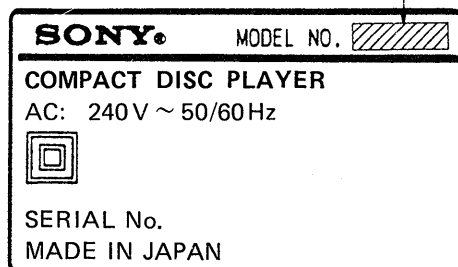
E model:

CDP-M49
CDP-M69

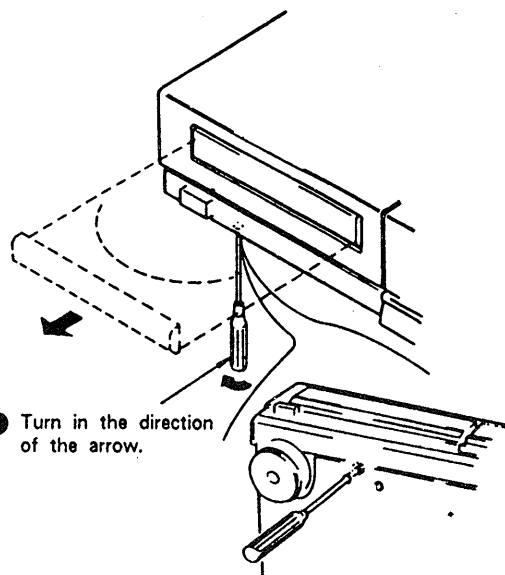
AEP model:

CDP-M48
CDP-M49
CDP-M69

Australian model:



CDP-M49

HOW TO OPEN THE DISC TRAY WHEN
POWER SWITCH TURNS OFF

Caution : When you work, keep the set horizontal.

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 more than 25 cm away from the objective lens.

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.

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 nm
- Emission Duration: continuous
- Laser Output: max. 44.6 μ 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.

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).

BESKYTTELSE AF ØJNE MOD LASERSTRÅLING UNDER SERVICE

I dette apparat anvendes laserlys. Derfor skal nedenstående instruktioner nøje følges under service.

Følg iøvrigt instruktionerne i servicemanualen.

ADVARSEL!!

Under service må øjnene ikke komme nær objektiv-linsen på den optiske pick-up enhed. I tilfælde af at det er nødvendigt at kontrollere udsendelsen af laserlys, skal det ske i en afstand af mere end 25 cm fra den optiske pick-up.

1. Laser-diode data

- Materiale: GaAlAs
- Bølgelængde: 780 nm
- Udstraling: Kontinuerlig
- Laseroutput: Max. 0,4 mW*

* Målt i 1,6 mm afstand fra overfladen af objektiv-linsen på den optiske pick-up enhed.

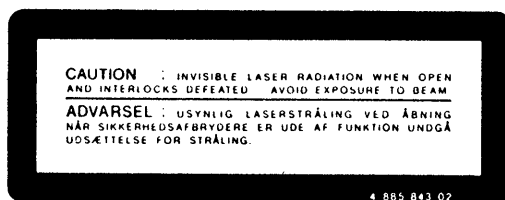
- Klassifikation: Klasse IIIb.

2. Adskil aldrig den optiske pick-up enhed under service, og juster ikke APC kredsløbet (Automatic Power Control). Hvis APC kredsløbet (incl. laser-dioden) bryder ned, skal hele den optiske pick-up enhed (incl. APC printkortet) udskiftes.

LASER ADVARSEL MÆRKNING

Følgende mærkning findes indvendig i apparatet:

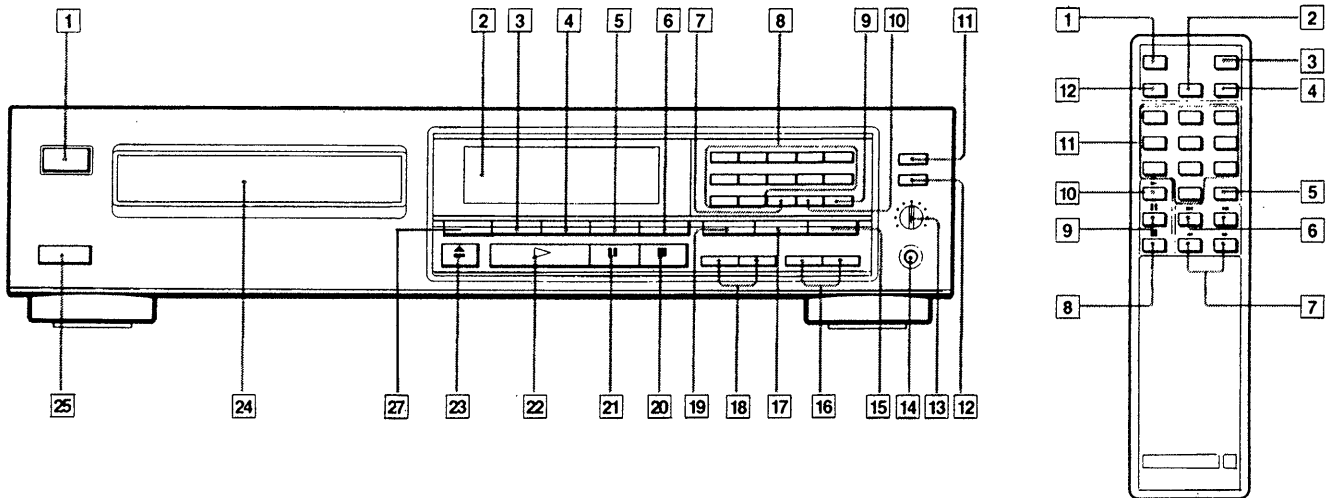
1. Advarsel Mærkning



VAROITUS: Laite sisältää, laserdiodin, joka lähettää (näkyvätöntä) silmille vaarallista lasersäteilyä.

SECTION 1 GENERAL

1-1. LOCATION AND FUNCTION OF CONTROLS



- 1 POWER switch
- 2 Display window
- 3 TIME button
- 4 A. SPACE button
- 5 REPEAT button
- 6 FADER (FADE IN/FADE OUT) button
- 7 CHECK (program check) button
- 8 Numeric buttons
- 9 > 12 (over 12) button
- 10 CLEAR (program clear) button
- 11 EDIT/TIME FADE button
- 12 TIME SET button
- 13 HEADPHONES LEVEL control (for CDP-M69/M49)
- 14 HEADPHONES jack (for CDP-M69/M49)
- 15 PROGRAM button
- 16 ◀◀▶▶ (manual search) buttons
- 17 SHUFFLE button
- 18 ◀◀▶▶ (AMS*/RMS**) buttons
- 19 CONTINUE button
- 20 ■ (stop) button
- 21 || (pause) button
- 22 ▶ (play) button
- 23 ▲ (open/close) button
- 24 Disc tray
- 25 Remote sensor
- 26 ◀◀▶▶ (AMS*/RMS**) / ◀◀▶▶ (manual search) buttons
- 27 PEAK SEARCH button (Australian, E Model).

- 1 REPEAT button
- 2 SHUFFLE button
- 3 FADER (FADE IN/FADE OUT) button
- 4 PGM (program) button
- 5 > 10 (over 10) button
- 6 ◀◀▶▶ AMS buttons
- 7 ◀◀▶▶ (manual search) buttons
- 8 ■ (stop) button
- 9 || (pause) button
- 10 ▶ (play) button
- 11 Numeric buttons
- 12 CONTINUE button

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

SECTION 2

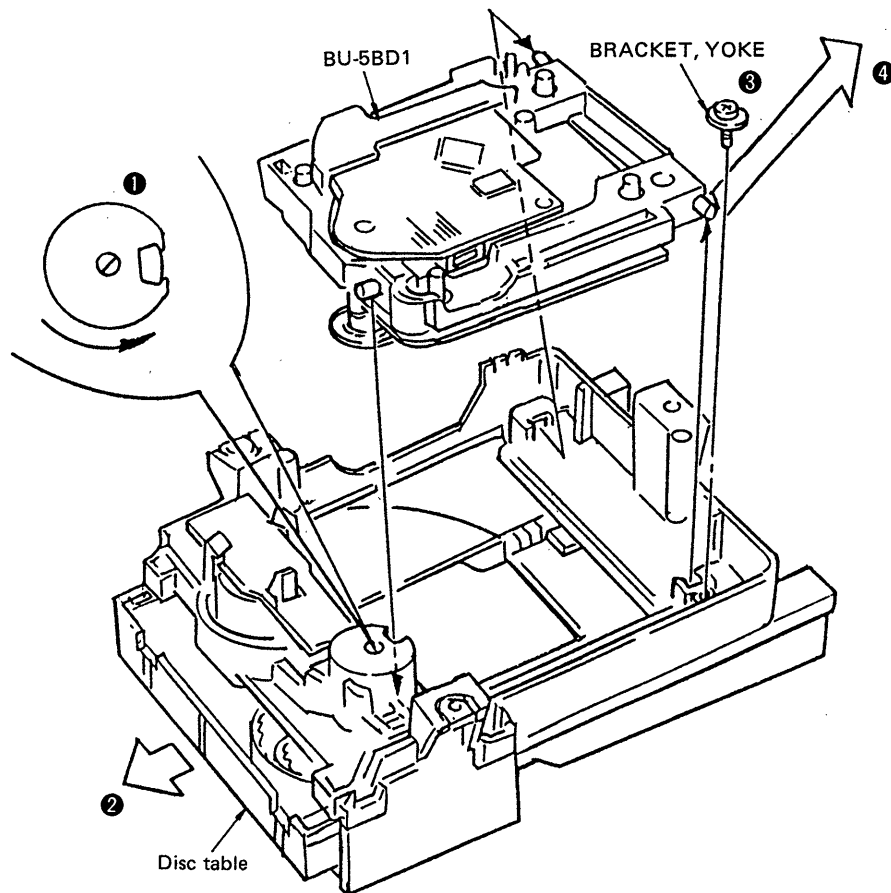
DISSASSEMBLY OF BASE UNIT

REMOVE THE MD (BU-5BD)

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

SEE ADDITIONAL
INFORMATION

- ①. Turn the cam to the direction of arrow (Counter clock wise) by minus screw driver.
- ②. Take off the disc table.
- ③. Remove the bracket yoke.
- ④. Remove the MD (BU-5BD1) to the direction of arrow.



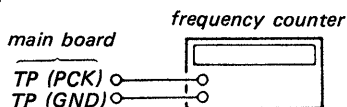
SECTION 3 ELECTRICAL ADJUSTMENTS

ELECTRICAL ADJUSTMENTS

1. Perform adjustments in the order given.
2. Use YEDS-18 (Part No. 3-702-101-01) disc unless otherwise indicated.
3. Use the oscilloscope with more than $10M\Omega$ impedance.

RF PLL Free-run Frequency Check

Procedure:

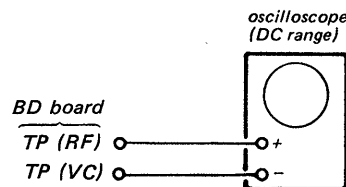


1. Connect the frequency counter to the test points TP (PCK) and TP (GND).
2. Turn POWER switch on.
3. Put the disc (YEDS-18) in and press Δ button.
4. Confirm that the reading on the frequency counter is locked at 4.3218 MHz.

RF LEVEL Check

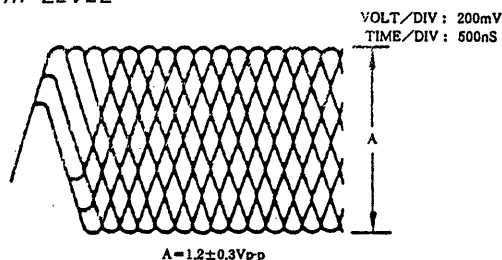
This adjustment should be made after replacing the Optical Pick-up Block.

Procedure:



1. Connect oscilloscope to the test points TP (RF) and TP (VC).
2. Turn POWER switch on.
3. Put the disc (YEDS-18) in and press Δ button.
4. Confirm that an optimum waveform eye pattern. Optimum eye pattern means that shape "◇" can be clearly distinguished at the center of the waveform.

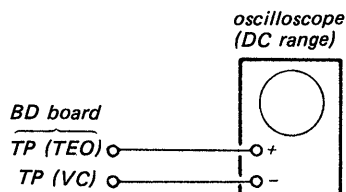
RF LEVEL



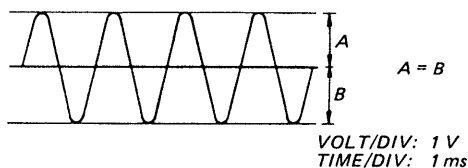
E-F Balance Check

This adjustment should be made after replacing the Optical Pick-up Block.

Procedure:



1. Connect the oscilloscope to the test points TP (TEO) and TP (VC).
2. Ground TP (ADJ), TP (TEST).
3. Turn POWER switch on.
4. Put the disc (YEDS-18) in and press Δ button.
5. Confirm that the traverse waveform is symmetrical above and below.
6. After adjustment, remove the TP (ADJ), TP (TEST) in ground.





Note:

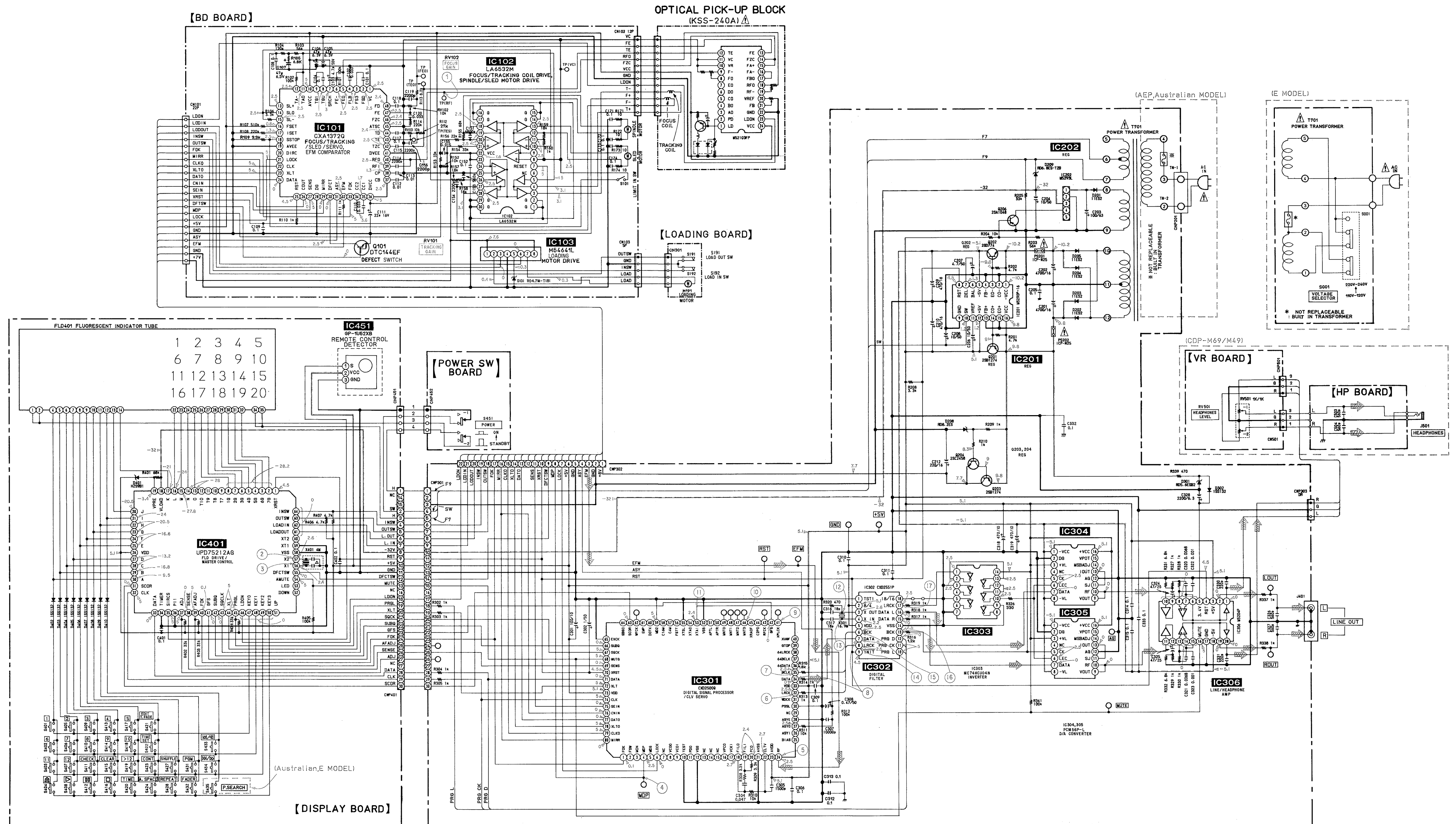
- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{2}W$ or less unless otherwise specified.
- %: indicates tolerance.
- Δ : internal component.
- $\text{---} \text{---} \text{---}$: 8+ Line
- $\text{---} \text{---} \text{---}$: 8- Line
- $\text{---} \text{---} \text{---}$: 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 $10M\Omega$). 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.
- Signal path.
- $\text{---} \text{---} \text{---}$: CD

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

4-2. SCHEMATIC DIAGRAM

A
B
C
D
E
F
G
H
I
J
K



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.

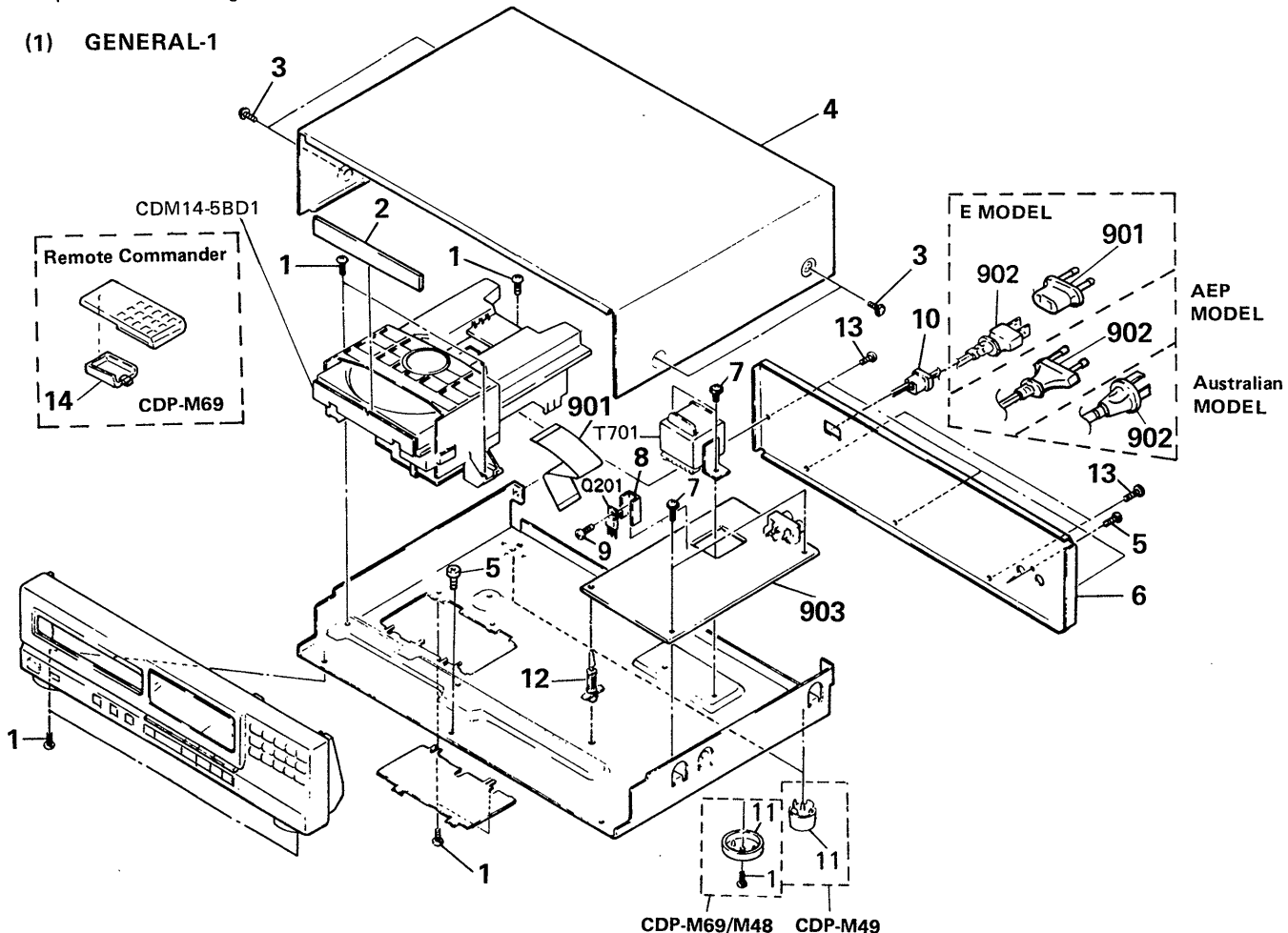
- Color Indication of Appearance Parts
Example:
(RED) ... KNOB, BALANCE (WHITE)

↑
Cabinet's Color

↑
Parts Color

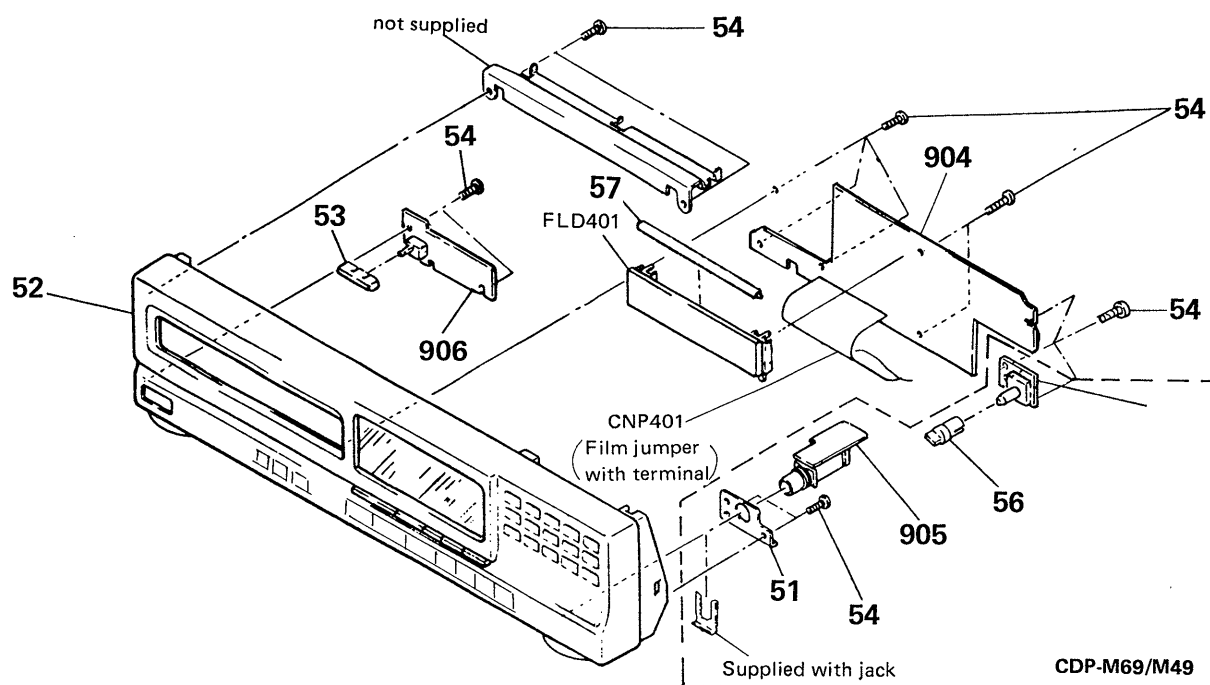
The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

(1) GENERAL-1



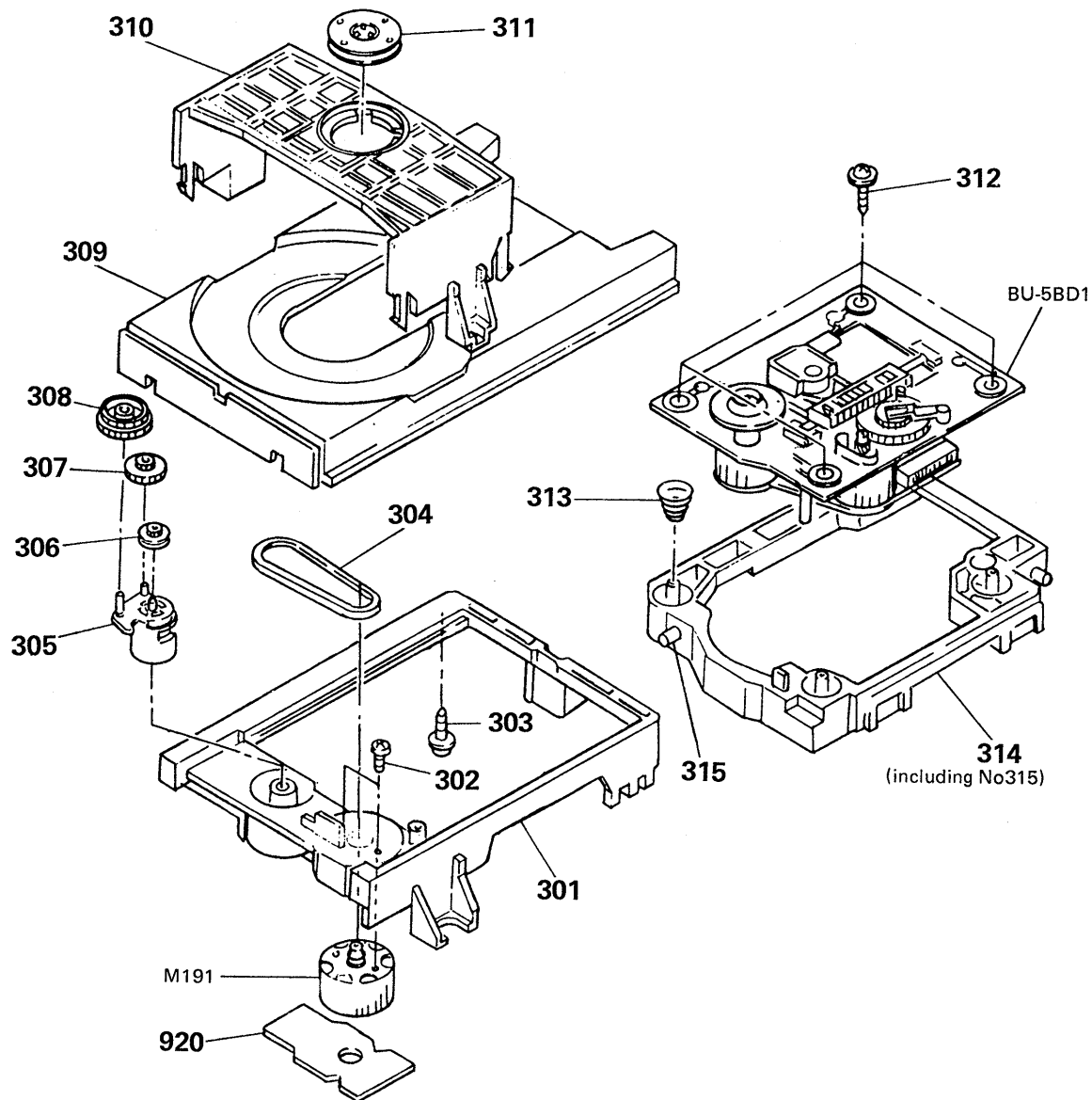
No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	7-682-548-04	SCREW +BVTT 3X8 (S)		11	4-933-601-01	(M49).....FOOT	
2	4-929-534-01	PANEL, LOADING			*4-934-883-01	(M48/M69)...FOOT	
3	3-704-366-31	SCREW (CASE) (M3X6)		12	*4-924-098-31	HOLDER, PC BOARD	
4	4-919-376-31	CASE		13	7-682-547-09	SCREW +BVTT 3X6 (S)	
5	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S		14	4-384-285-01	(M69)...COVER, BATTERY	
6	*4-927-388-11	(M69:AEP)...PANEL, BACK		901	1-575-002-11	WIRE, FLAT TYPE (22 CORE)	
	*4-927-388-21	(M69:E).....PANEL, BACK		902	△.1-575-104-11	(E).....CORD, POWER	
	*4-927-388-41	(M49:AEP)...PANEL, BACK			△.1-575-453-11	(AEP)...CORD, POWER	
	*4-927-388-51	(M49:E).....PANEL, BACK			△.1-575-677-11	(AUS)...CORD, POWER	
	*4-927-388-81	(M49:AUS)...PANEL, BACK		903	*A-4617-495-A	(AEP,AUS)...MOUNTED PCB, MAIN	
	*4-927-388-71	(M48:AEP)...PANEL, BACK			*A-4617-496-A	(E).....MOUNTED PCB, MAIN	
7	2-383-566-00	SCREW +PTTWH 3X8		910	△.1-526-565-12	(AE)...AC PLUG ADAPTOR	
8	4-902-345-01	HEAT SINK					
9	7-682-547-09	SCREW +B 3X6					
10	*3-703-244-00	(AEP,AUS)...BUSHING (2104), CORD					
	*3-703-571-11	(E).....BUSHING (4516), CORD					

(2) GENERAL-2



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
51	4-927-374-01	(M69/M49)...BRACKET (JACK)		904	*1-634-642-11	PC BOARD, DISPLAY	
52	X-4917-595-1	(M69:AEP)....PANEL ASSY, FRONT		905	*1-634-643-11	(M49/M69)...PC BOARD, HP	
	X-4917-602-1	(M69:E).....PANEL ASSY, FRONT		906	*1-634-641-11	PC BOARD, POWER SW	
	X-4917-596-1	(M48:AEP)....PANEL ASSY, FRONT		908	*1-634-644-11	(M49/M69)...PC BOARD, VR	
	X-4917-597-1	(M49:AEP)....PANEL ASSY, FRONT					
	X-4917-603-1	(M49:E,AUS)...PANEL ASSY, FRONT		CNP401	1-535-825-11	JUMPER, FILM (WITH TERMINAL)	
53	4-929-535-01	BUTTON (POWER)		FLD401	1-519-556-11	INDICATOR TUBE, FLUORESCENT	
54	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S					
56	4-933-116-01	(M69/M49)...KNOB (C, TYPE), VOL					
57	*4-927-353-01	SHEET (FL)					

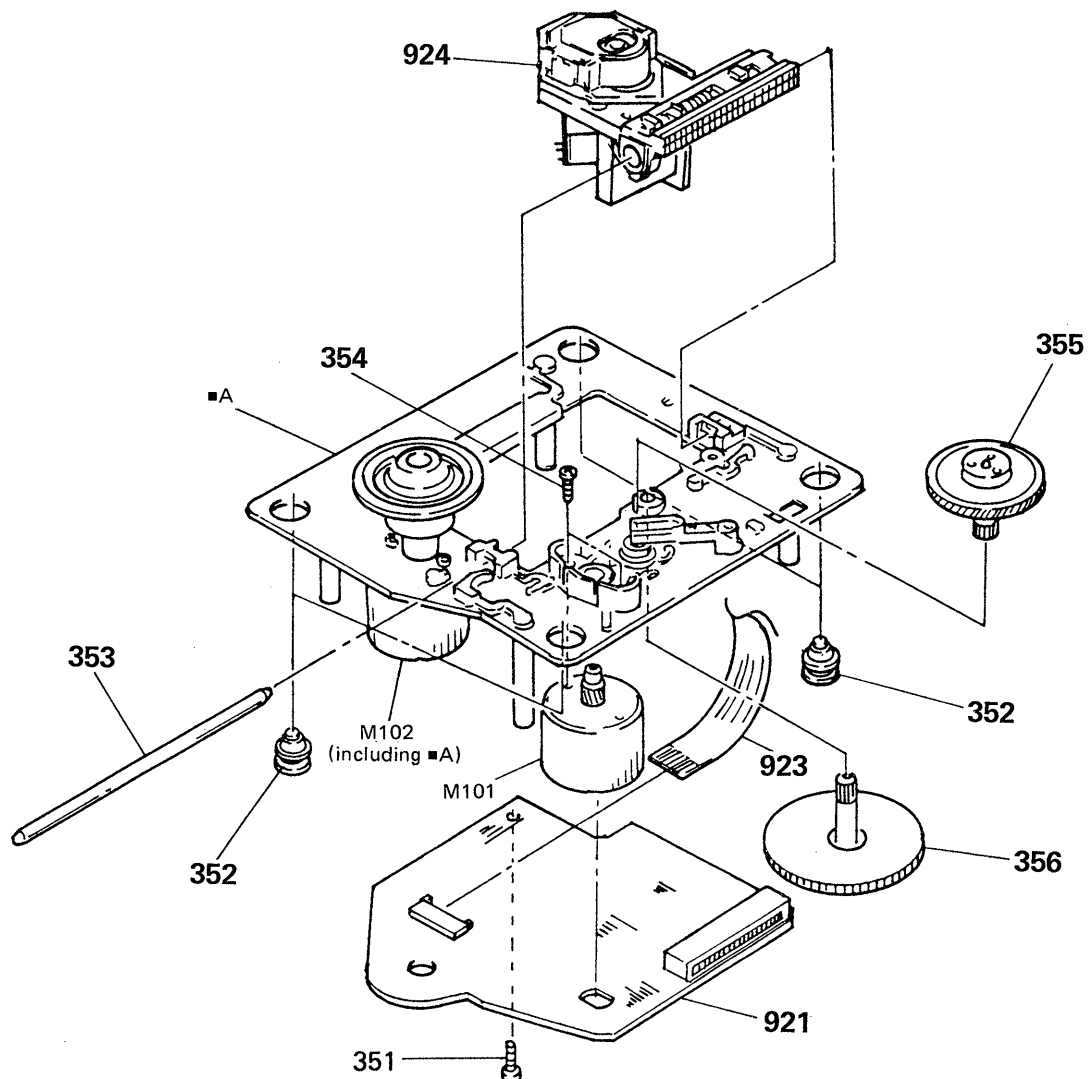
(3) MD SECTION-1 (CDM14-5BD1)



No.	Part No.	Description	Remarks
301	4-933-111-01	CHASSIS (MD)	
302	7-621-775-10	SCREW +B 2.6X4	
303	*4-917-583-21	BRACKET, YOKE	
304	4-927-649-01	BELT	
305	4-933-109-01	CAM	
306	4-927-651-01	PULLEY (S)	
307	4-927-628-01	GEAR (C)	
308	4-933-107-01	GEAR (PL)	
309	4-933-112-01	TABLE, DISK	

No.	Part No.	Description	Remarks
310	4-933-110-01	HOLDER (MG)	
311	A-4675-347-A	MG ASSY	
312	4-933-134-01	SCREW (+PTPWH M2.6X6)	
313	4-917-541-01	SPRING (B)	
314	4-933-129-01	HOLDER (BU)(INCLUDET SHAFT CAM)	
315	4-933-108-01	SHAFT (CAM)	
920	*1-632-202-11	PC BOARD, LOADING	
M191	A-4604-363-A	MOTOR (L) ASSY (LOADING)	

(4) MD SECTION-2 (BU-5BD1)



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
351	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S		921	*A-4617-161-A	MOUNTED PCB, BD	
352	4-933-126-01	INSULATOR (A)		923	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
353	4-917-565-01	SHAFT, SLED		924	△.8-848-144-11	DEVICE, OPTICAL KSS-240A (RP)	
354	7-621-255-15	SCREW +P 2X3		M101	△.X-4917-504-1	ASSY, MOTOR (SLED)	
355	4-917-567-01	GEAR (M)		M102	△.X-4917-523-3	ASSY, MOTOR (SPINDLE)	
356	4-917-564-01	GEAR (P), FLATNESS					

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

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: μ F, PF: μ PF.

RESISTORS

- All resistors are in ohms.
- F: nonflammable

COILS

- MMH: mH, UH: μ H

SEMICONDUCTORS

In each case, U: μ , for example:

UA...: μ A..., UPA...: μ PA...,
UPC...: μ PC, UPD...: μ PD...

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	Ref.No.	Part No.	Description
901	1-575-002-11	WIRE, FLAT TYPE (22 CORE)	C202	1-126-842-11	ELECT 4700MF 20% 16V
902	Δ 1-575-104-11	(E)....CORD, POWER	C203	1-126-880-11	ELECT 100MF 20% 63V
	Δ 1-575-453-11	(AEP)....CORD, POWER	C204	1-126-059-11	ELECT 10MF 20% 50V
	Δ 1-575-677-11	(AUS)....CORD, POWER	C205	1-162-851-11	CERAMIC 0.1MF 20% 16V
903	*A-4617-495-A	(AEP,AUS)...MOUNTED PCB, MAIN	C206	1-126-059-11	ELECT 10MF 20% 50V
	*A-4617-496-A	(E).....MOUNTED PCB, MAIN	C207	1-124-045-00	ELECT 4.7MF 20% 50V
904	*1-634-642-11	PC BOARD, DISPLAY	C208	1-126-059-11	ELECT 10MF 20% 50V
905	*1-634-643-11	(M49/M69)...PC BOARD, HP	C209	1-126-012-11	ELECT 470MF 20% 16V
906	*1-634-641-11	PC BOARD, POWER SW	C210	1-126-012-11	ELECT 470MF 20% 16V
908	*1-634-644-11	(M49/M69)...PC BOARD, VR	C212	1-126-024-11	ELECT 220MF 20% 16V
910	Δ 1-526-565-12	(AE)...AC PLUG ADAPTOR	C301	1-124-994-11	ELECT 100MF 20% 10V
920	*1-632-202-11	PC BOARD, LOADING	C302	1-126-301-11	ELECT 1MF 20% 50V
921	*A-4617-161-A	MOUNTED PCB, BD	C304	1-136-161-00	FILM 0.047MF 5% 50V
923	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	C305	1-161-374-11	CERAMIC 0.0015MF 30% 16V
924	Δ 8-848-144-11	DEVICE, OPTICAL KSS-240A (RP)	C306	1-164-159-11	CERAMIC 0.1MF 50V
C101	1-163-038-00	CERAMIC CHIP 0.1MF 25V	C307	1-162-306-11	CERAMIC 0.01MF 20% 16V
C102	1-163-989-11	CERAMIC CHIP 0.033MF 10% 25V	C308	1-126-300-11	ELECT 0.47MF 20% 50V
C103	1-126-094-11	ELECT 4.7MF 20% 16V	C309	1-164-159-11	CERAMIC 0.1MF 50V
C104	1-163-038-00	CERAMIC CHIP 0.1MF 25V	C310	1-164-159-11	CERAMIC 0.1MF 50V
C105	1-126-154-11	ELECT 47MF 20% 6.3V	C311	1-164-159-11	CERAMIC 0.1MF 50V
C106	1-126-154-11	ELECT 47MF 20% 6.3V	C312	1-164-159-11	CERAMIC 0.1MF 50V
C107	1-126-154-11	ELECT 47MF 20% 6.3V	C313	1-164-159-11	CERAMIC 0.1MF 50V
C108	1-163-038-00	CERAMIC CHIP 0.1MF 25V	C314	1-164-159-11	CERAMIC 0.1MF 50V
C109	1-163-038-00	CERAMIC CHIP 0.1MF 25V	C315	1-164-159-11	CERAMIC 0.1MF 50V
C110	1-163-989-11	CERAMIC CHIP 0.033MF 10% 25V	C316	1-162-205-31	CERAMIC 18PF 5% 50V
C111	1-131-367-00	TANTALUM 22MF 20% 16V	C317	1-162-205-31	CERAMIC 18PF 5% 50V
C112	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	C318	1-124-997-11	ELECT 470MF 20% 10V
C113	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	C319	1-124-997-11	ELECT 470MF 20% 10V
C114	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V	C320	1-130-481-00	MYLAR 0.0068MF 5% 50V
C115	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V	C321	1-130-481-00	MYLAR 0.0068MF 5% 50V
C116	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V	C322	1-130-471-00	MYLAR 0.001MF 5% 50V
C117	1-163-038-00	CERAMIC CHIP 0.1MF 25V	C323	1-130-471-00	MYLAR 0.001MF 5% 50V
C118	1-163-038-00	CERAMIC CHIP 0.1MF 25V	C324	1-123-332-00	ELECT 47MF 20% 25V
C119	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V	C325	1-123-332-00	ELECT 47MF 20% 25V
C120	1-163-989-11	CERAMIC CHIP 0.033MF 10% 25V	C326	1-162-291-31	CERAMIC 560PF 10% 50V
C151	1-163-019-00	CERAMIC CHIP 0.0068MF 10% 50V	C327	1-162-291-31	CERAMIC 560PF 10% 50V
C152	1-163-038-00	CERAMIC CHIP 0.1MF 25V	C328	1-124-893-11	ELECT 2200MF 20% 6.3V
C153	1-163-006-11	CERAMIC CHIP 560PF 10% 50V	C330	1-162-286-31	CERAMIC 220PF 10% 50V
C154	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V	C331	1-162-286-31	CERAMIC 220PF 10% 50V
C155	1-163-023-00	CERAMIC CHIP 0.015MF 10% 50V	C332	1-164-159-11	CERAMIC 0.1MF 50V
C171	1-163-038-00	CERAMIC CHIP 0.1MF 25V	C333	1-164-159-11	CERAMIC 0.1MF 50V
C172	1-163-038-00	CERAMIC CHIP 0.1MF 25V	C401	1-164-159-11	CERAMIC 0.1MF 50V
C173	1-163-038-00	CERAMIC CHIP 0.1MF 25V	C402	1-164-159-11	CERAMIC 0.1MF 50V
C174	1-163-038-00	CERAMIC CHIP 0.1MF 25V	C503	1-162-291-31	(M49/M69)...CERAMIC 560PF 10% 50V
C201	1-126-842-11	ELECT 4700MF 20% 16V	C504	1-162-291-31	(M49/M69)...CERAMIC 560PF 10% 50V

Ref.No.	Part No.	Description
CN101	1-568-796-11	SOCKET, CONNECTOR 22P
CN102	1-568-795-11	SOCKET, CONNECTOR 12P
CN103	*1-564-721-11	PIN, CONNECTOR (SMALL TYPE) 5P
CN301	*1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P
CNP201	*1-564-321-00	PIN, CONNECTOR 2P
CNP301	*1-568-933-11	SOCKET, CONNECTOR 30P
CNP302	*1-568-822-11	SOCKET, CONNECTOR 22P
CNP303	*1-564-337-61	PIN, CONNECTOR 3P
CNP401	1-535-825-11	JUMPER, FILM (WITH TERMINAL)
D101	8-719-105-72	DIODE RD4.7M-B1
D201	8-719-200-82	DIODE 11ES2
D202	8-719-200-82	DIODE 11ES2
D203	8-719-200-82	DIODE 11ES2
D204	8-719-200-82	DIODE 11ES2
D205	8-719-200-82	DIODE 11ES2
D208	8-719-110-08	DIODE RD8.2ES-B2
D209	8-719-120-90	DIODE RD6.8ES-L3
D301	8-719-123-54	DIODE RD6.2ES-B2
D302	8-719-107-94	DIODE 1SS202-1
D401	8-719-933-57	DIODE HZS9B2L
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
D407	8-719-107-94	DIODE 1SS202-1
D408	8-719-107-94	DIODE 1SS202-1
D409	8-719-107-94	DIODE 1SS202-1
D410	8-719-107-94	DIODE 1SS202-1
FLD401	1-519-556-11	INDICATOR TUBE, FLUORESCENT
IC101	8-752-037-33	IC CXA1372Q
IC102	8-759-821-94	IC LA6532M
IC103	8-759-633-65	IC M54641L
IC201	8-759-630-21	IC M5290P-16
IC202	8-759-633-42	IC M5293L
IC301	8-752-333-31	IC CXD2500Q
IC302	8-752-334-06	IC CXD2551P
IC303	8-759-917-18	IC SN74HC04N
IC304	8-759-998-22	IC PCM56P
IC305	8-759-998-22	IC PCM56P
IC306	8-759-631-39	IC M5204P
IC401	8-759-148-63	IC UPD75212AGF-522-3BE
IC451	8-749-920-83	IC GP1U52XB
J101	1-216-295-00	METAL GLAZE 0 5% 1/10W
J102	1-216-295-00	METAL GLAZE 0 5% 1/10W
J401	1-566-921-11	JACK, PIN 2P (LINE OUT)
J501	1-568-519-21	(M69/M49)...JACK, LARGE TYPE (HEADPHONES)
M101	△.X-4917-504-1	ASSY, MOTOR (SLED)
M102	△.X-4917-523-3	ASSY, MOTOR (SPINDLE)
M191	A-4604-363-A	MOTOR (L) ASSY (LOADING)
PS201	△.1-532-685-00	LINK, IC
PS202	△.1-532-637-00	LINK, IC
Q101	8-729-901-01	TRANSISTOR DTC144EK
Q201	8-729-111-67	TRANSISTOR 2SB1094-L
Q202	8-729-140-96	TRANSISTOR 2SD774-34

Ref.No.	Part No.	Description
Q203	8-729-111-67	TRANSISTOR 2SB1094-L
Q204	8-729-230-45	TRANSISTOR 2SC2458-YGR
Q206	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
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
R201	1-249-425-11	CARBON 4.7K 5% 1/4W
R202	1-249-425-11	CARBON 4.7K 5% 1/4W
R203	1-249-438-11	CARBON 56K 5% 1/4W
R204	1-249-429-11	CARBON 10K 5% 1/4W
R205	1-249-435-11	CARBON 33K 5% 1/4W
R208	1-249-423-11	CARBON 3.3K 5% 1/4W
R209	1-249-417-11	CARBON 1K 5% 1/4W
R210	1-249-417-11	CARBON 1K 5% 1/4W
R302	1-249-417-11	CARBON 1K 5% 1/4W
R303	1-249-417-11	CARBON 1K 5% 1/4W
R304	1-249-417-11	CARBON 1K 5% 1/4W
R305	1-249-417-11	CARBON 1K 5% 1/4W
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	1-249-420-11	CARBON 1.8K 5% 1/4W
R316	1-249-418-11	CARBON 1.2K 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
R326	1-249-411-11	CARBON 330 5% 1/4W
R327	1-249-417-11	CARBON 1K 5% 1/4W

Note: 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
R328	1-249-417-11	CARBON 1K 5% 1/4W
R329	1-249-417-11	CARBON 1K 5% 1/4W
R330	1-249-417-11	CARBON 1K 5% 1/4W
R331	1-249-427-11	CARBON 6.8K 5% 1/4W
R332	1-249-427-11	CARBON 6.8K 5% 1/4W
R337	1-249-417-11	CARBON 1K 5% 1/4W
R338	1-249-417-11	CARBON 1K 5% 1/4W
R339	1-249-413-11	CARBON 470 5% 1/4W
R341	1-249-441-11	CARBON 100K 5% 1/4W
R401	1-249-439-11	CARBON 68K 5% 1/4W
R402	1-249-435-11	CARBON 33K 5% 1/4W
R403	1-249-435-11	CARBON 33K 5% 1/4W
R404	1-249-435-11	CARBON 33K 5% 1/4W
R405	1-249-441-11	CARBON 100K 5% 1/4W
R406	1-249-425-11	CARBON 4.7K 5% 1/4W
R407	1-249-425-11	CARBON 4.7K 5% 1/4W
RV101	1-238-016-11	RES, ADJ, CARBON 10K (TRACKING GAIN)
RV102	1-238-016-11	RES, ADJ, CARBON 10K (FOCUS GAIN)
RV501	1-238-884-11	(M69/M49)...RES, VAR, CARBON 1K/1K (HEADPHONES LEVEL)
S001	△, 1-571-722-11	(E)...SWITCH, VOLTAGE SELECTION
S101	1-572-085-11	SWITCH, LEAF (LIMIT IN)
S191	1-572-086-11	SWITCH, LEAF (LOAD OUT)
S192	1-572-086-11	SWITCH, LEAF (LOAD IN)
S401	1-554-596-21	SWITCH, KEY BOARD (1)
S402	1-554-596-21	SWITCH, KEY BOARD (6)
S403	1-554-596-21	SWITCH, KEY BOARD (11)
S404	1-554-596-21	SWITCH, KEY BOARD (OPEN/CLOSE ▲)
S405	1-554-596-21	SWITCH, KEY BOARD (2)
S406	1-554-596-21	SWITCH, KEY BOARD (7)
S407	1-554-596-21	SWITCH, KEY BOARD (12)
S408	1-554-596-21	SWITCH, KEY BOARD (▶)
S409	1-554-596-21	SWITCH, KEY BOARD (3)
S410	1-554-596-21	SWITCH, KEY BOARD (8)
S411	1-554-596-21	SWITCH, KEY BOARD (CHECK)
S412	1-554-303-21	SWITCH, KEY BOARD (■)
S413	1-554-596-21	SWITCH, KEY BOARD (4)
S414	1-554-596-21	SWITCH, KEY BOARD (9)
S415	1-554-596-21	SWITCH, KEY BOARD (CLEAR)
S416	1-554-596-21	SWITCH, KEY BOARD (■)
S417	1-554-596-21	SWITCH, KEY BOARD (5)
S418	1-554-303-21	SWITCH, KEY BOARD (10)
S419	1-554-596-21	SWITCH, KEY BOARD (>12)
S420	1-554-596-21	SWITCH, KEY BOARD (TIME)
S421	1-554-596-21	SWITCH, KEY BOARD (EDIT/TIME FADE)
S422	1-554-596-21	SWITCH, KEY BOARD (TIME SET)
S423	1-554-303-21	SWITCH, KEY BOARD (CONTINUE)

Ref.No.	Part No.	Description
S424	1-554-596-21	SWITCH, KEY BOARD (A SPACE)
S427	1-554-303-21	SWITCH, KEY BOARD (SHUFFLE)
S428	1-554-596-21	SWITCH, KEY BOARD (REPEAT)
S431	1-554-596-21	SWITCH, KEY BOARD (PROGRAM)
S432	1-554-596-21	SWITCH, KEY BOARD (FADER)
S433	1-554-303-21	SWITCH, KEY BOARD (◀◀/▶▶)
S434	1-554-596-21	SWITCH, KEY BOARD (▶▶/▶▶)
S435	1-554-596-21	(E,AUS)...SWITCH, KEY BOARD (PEAK SEARCH)
S451	1-571-305-11	SWITCH, PUSH (1 KEY)(POWER)
T701	△, 1-449-922-11	(AEP,AUS)...TRANSFORMER, POWER
T701	△, 1-449-923-11	(E).....TRANSFORMER, POWER
X301	1-567-926-11	VIBRATOR, CRYSTAL (16.9MHz)
X401	1-567-819-11	VIBRATOR, CERAMIC (4MHz)

ACCESSORY & PACKING MATERIAL

1-465-281-11	(M69)...REMOTE COMMANDER
1-559-533-11	CORD, CONNECTION
3-701-630-00	BAG, POLYETHYLENE
3-750-792-11	(M49:E,AUS/M69:E)...MANUAL, INSTRUCTION
3-750-792-41	(M49:AEP/M69).....MANUAL, INSTRUCTION
3-750-792-51	(M49:AEP/M69).....MANUAL, INSTRUCTION
*3-795-629-11	(AEP)...INSTRUCTION
*4-922-998-01	CUSHION
*4-927-392-41	(M69)...INDIVIDUAL CARTON
*4-927-392-51	(M49)...INDIVIDUAL CARTON
*4-927-392-61	(M48)...INDIVIDUAL CARTON

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

CDP-M48/M49/M69

SONY[®] SERVICE MANUAL

AEP Model
CDP-M48

AEP Model
Australian Model
E Model
CDP-M49

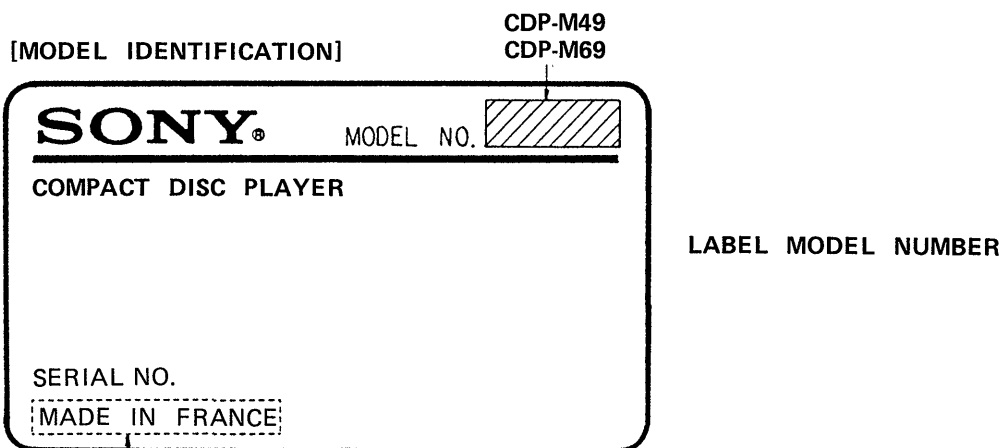
AEP Model
E Model
CDP-M69

SUPPLEMENT-1

File this supplement with the service manual.

This SUPPLEMENT-1 is for CDP-M49/M69 made in France.

Refer to the CDP-M48/M49/M69 service manual for related information not contained in this SUPPLEMENT-1.



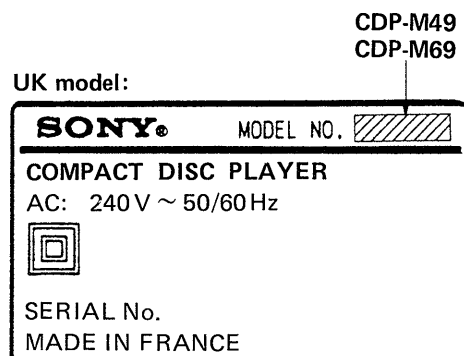
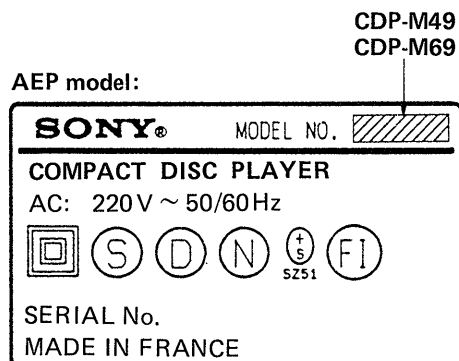
Identify the set with the indication of "MADE IN FRANCE" here.

TABLE OF CONTENTS

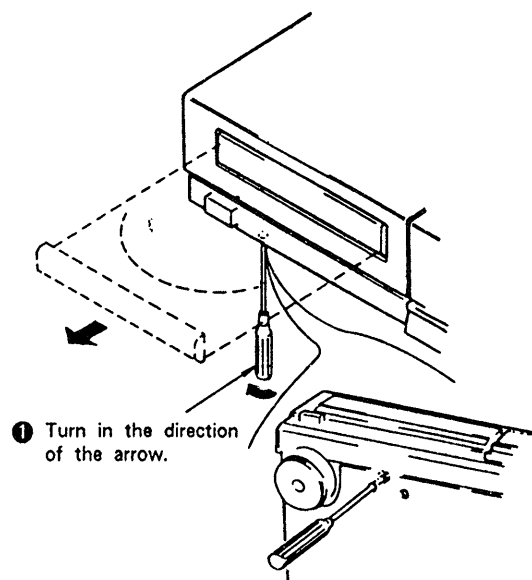
Section	Title	Page
SECTION 1.	DISASSEMBLY.....	3
SECTION 2.	ELECTRICAL ADJUSTMENTS.....	4
SECTION 3.	DIAGRAMS	
3-1.	Printed Wiring Boards.....	6
3-2.	Schematic Diagram.....	9
3-3.	IC Block Diagram.....	13
SECTION 4.	EXPLODED VIEWS.....	15
SECTION 5.	ELECTRICAL PARTS LIST.....	18

MODEL IDENTIFICATIONS

—Specication Label —



HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF



Caution : When you work, keep the set horizontal.

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 more than 25 cm away from the objective lens.

SAFETY-RELATED COMPONENT WARNING!!

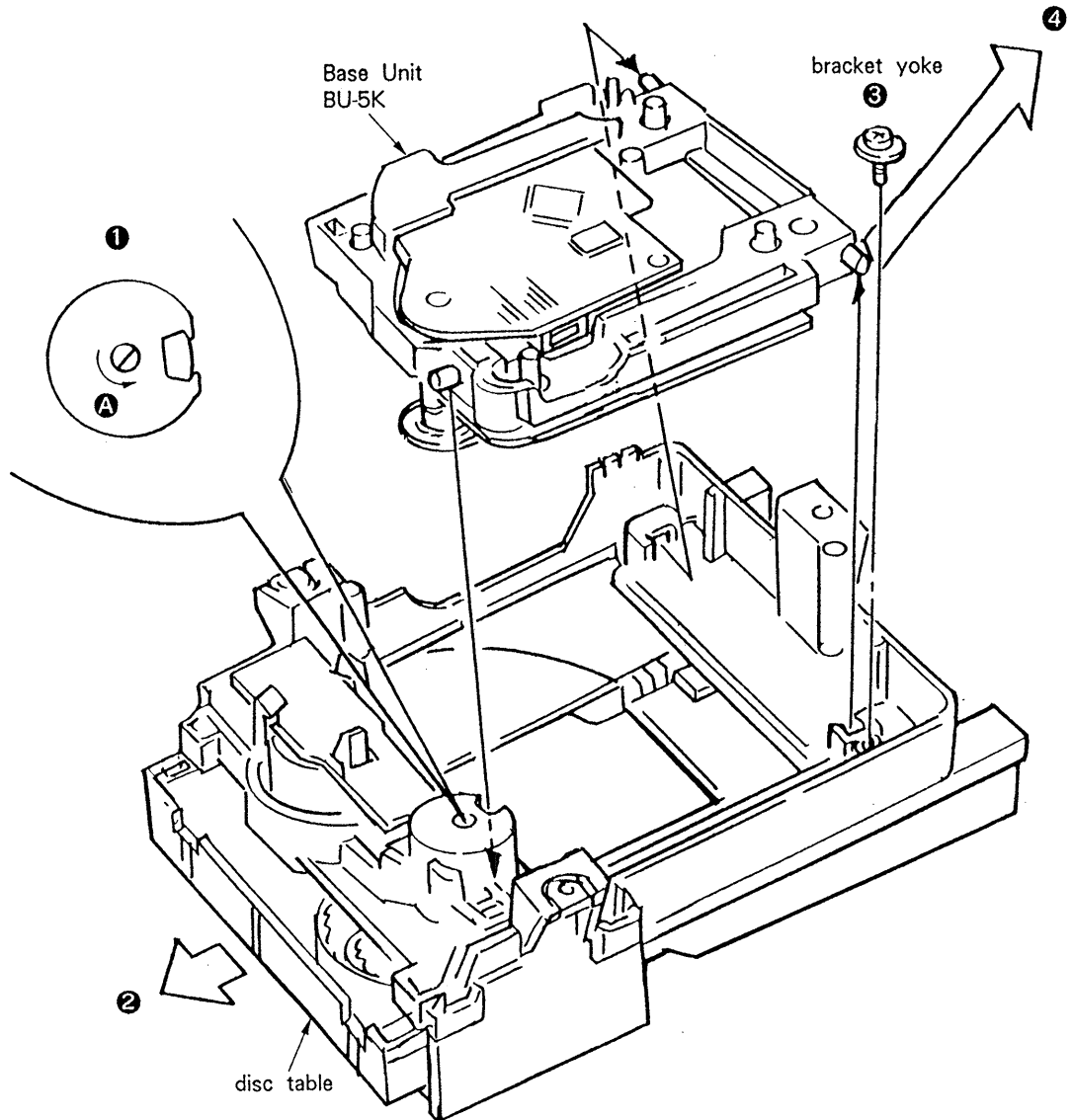
COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1

DISSASSEMBLY OF BASE UNIT

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

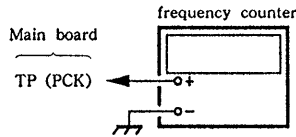
1. Remove CD mechanism from the set and turn over.
2. Turn the cam in the Arrow **A** direction by the **—** driver.
3. Take out disc table.
4. Remove bracket yoke.
5. Remove BU-5K in the Arrow **4** direction.



SECTION 2 ELECTRICAL ADJUSTMENTS

1. Perform adjustments in the order given.
2. Use YEDS-18 (Part No : 3-702-101-1) disc unless otherwise indicated.
3. Use the oscilloscope with more than 10 MΩ impedance.

RF PLL Frequency Adjustment/Lock Frequency Check Procedure :

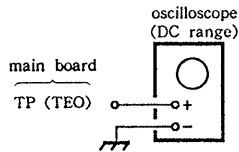


1. Connect test point TP (ASY) to ground with lead wire.
2. Turn POWER switch on.
3. Connect the frequency counter to test point TP (PCK).
4. Adjust RV201 so that the reading on frequency counter is 4,3218 MHz±30 KHz.
.....(RF PLL frequency adjustment)
5. Remove lead wire connecting TP (ASY) to ground.
6. Set disc (YEDS-18) and press ▷ PLAY button.
7. Confirm that the reading on frequency counter is 4,3218 MHz.
.....(Lock frequency check)
8. Turn POWER switch off.

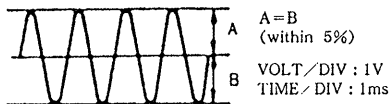
E-F Balance Adjustment

This adjustment should be made when replacing TOP (T-type Optical Pick-up).

Procedure :



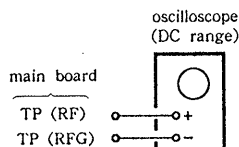
1. Connect test point TP (ADJ) and TP (TES) to ground with lead wire.
2. Connect oscilloscope to test point TP (TEO).
3. Set disc (YEDS-18) and turn POWER switch on.
4. Adjust RV101 so that the traverse waveform is symmetrical above and below.
5. Turn POWER switch off.
6. After adjustment, remove the lead wire connected in step 1.



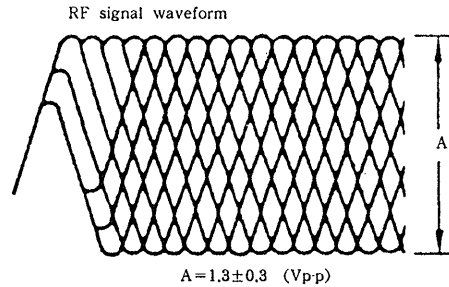
Focus Bias Adjustment

This adjustment should be made when replacing TOP (T-type Optical Pick-up).

Procedure :



1. Connect oscilloscope to test point TP (RF) and test point TP (RFG).
2. Set disc (YEDS-18) and turn POWER switch on.
3. Adjust RV102 for an optimum waveform eye pattern or so that the peak is maximum. Optimum eye pattern means that shape "◇" can be clearly distinguished at the center of the waveform.
4. Turn POWER switch off.



REFERENCE

Focus/Tracking Gain Adjustments

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

However, this gain has 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 shock when the 2-axis device operate.

However, as these reciprocate, the adjustment is at 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 becomes 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

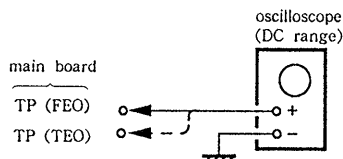
The following is a simple adjustment method.

—Primary Adjustment—

Note : Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment.

If the position after the primary adjustment are only a little different, return the controls to the original position.

Procedure :



1. Keep the set horizontal.

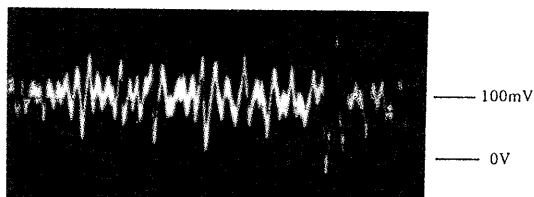
(If the set is not horizontal, this adjustment cannot be performed due to the gravity against the 2-axis device.)

2. Set disc (YEDS-18) and turn POWER switch on.

3. Connect oscilloscope to main amp board TP (FEO).

4. Adjust RV103 so that the waveform is as shown in the figure below. (focus gain adjustment)

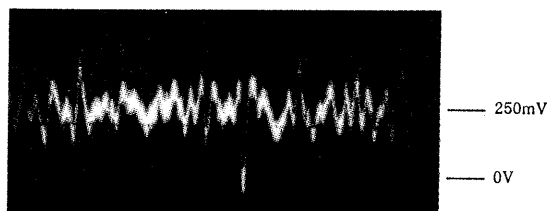
VOLT/DIV : 100mV
TIME/DIV : 2mS



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

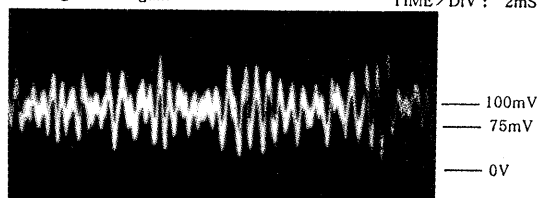
low focus gain

VOLT/DIV : 100mV
TIME/DIV : 2mS



high focus gain

VOLT/DIV : 100mV
TIME/DIV : 2mS



5. Connect oscilloscope to main board TP (TEO).

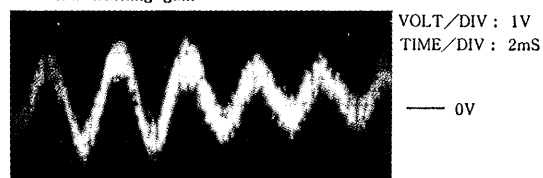
6. Adjust RV104 so that the waveform is as shown in the figure below. (tracking gain adjustment)

7. Turn POWER switch off.



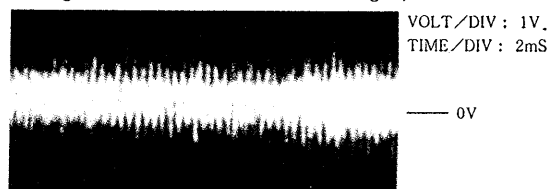
• Incorrect Examples (fundamental wave appears)

low tracking gain

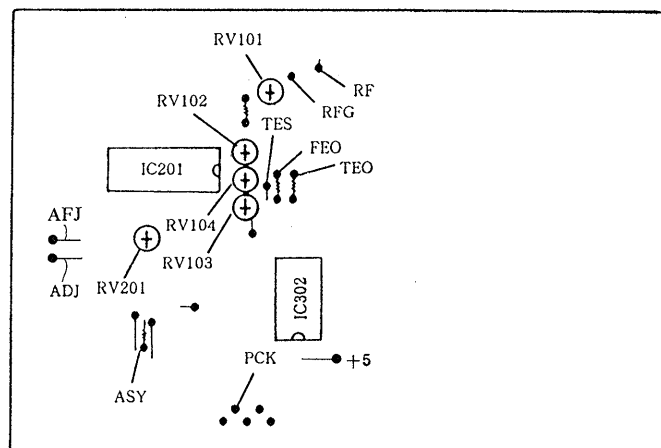


high tracking gain

(higher fundamental wave than for low gain)

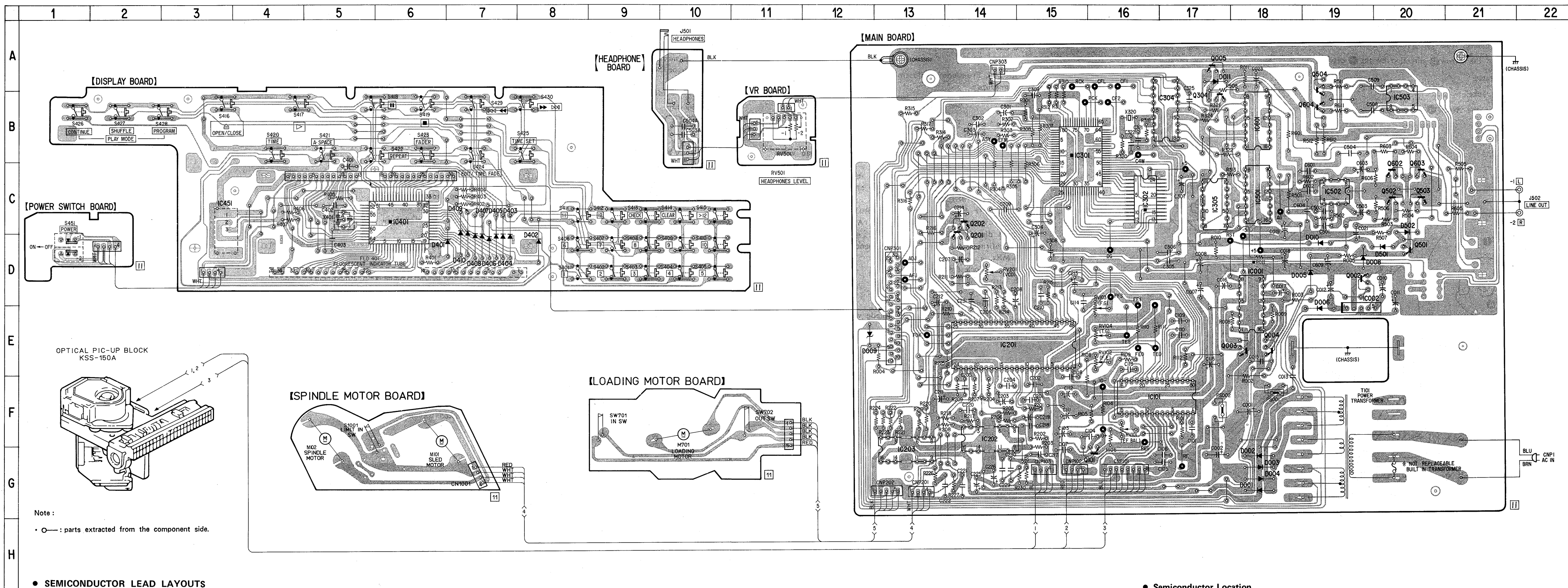


Adjustment Location : main board —component side—

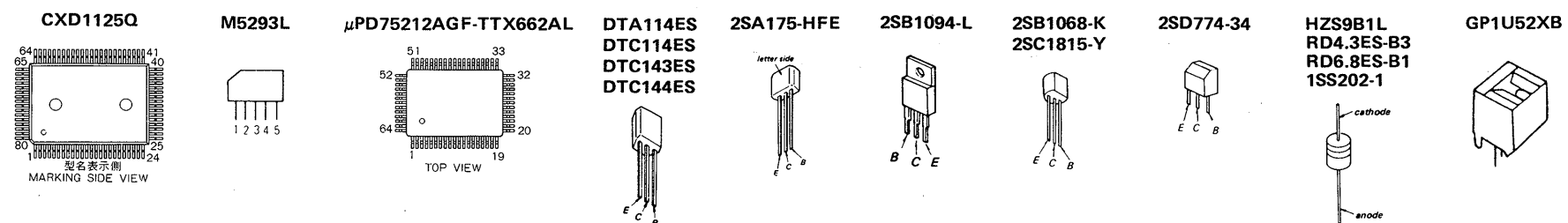


SEE ADDITIONAL
INFORMATIONSEE ADDITIONAL
INFORMATION

4-1. PRINTED WIRING BOARDS



● SEMICONDUCTOR LEAD LAYOUTS



● Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D001	G-18	D403	C-7	IC001	D-18	IC451	C-3	Q202	C-14
D002	G-18	D404	D-7	IC002	E-19	IC501	C-18	Q304	B-17
D003	G-18	D405	C-7	IC101	F-16	IC502	C-19	Q502	C-20
D004	G-18	D406	D-7	IC201	E-14	IC503	B-20	Q503	C-20
D005	D-19	D407	C-7	IC202	F-14			Q504	A-19
D006	E-19	D408	D-19	IC203	G-13	Q002	D-19	Q602	C-20
D008	D-19	D409	C-7	IC301	B-15	Q003	E-18	Q603	C-20
D009	E-12	D410	D-7	IC302	C-16	Q004	E-18	Q604	B-19
D010	D-19	D410	D-7	IC304	B-17	Q005	A-17		
D011	A-17	D501	D-20	IC305	C-17	Q101	G-16		
D402	D-7	D502	C-20	IC401	C-6	Q201	D-14		

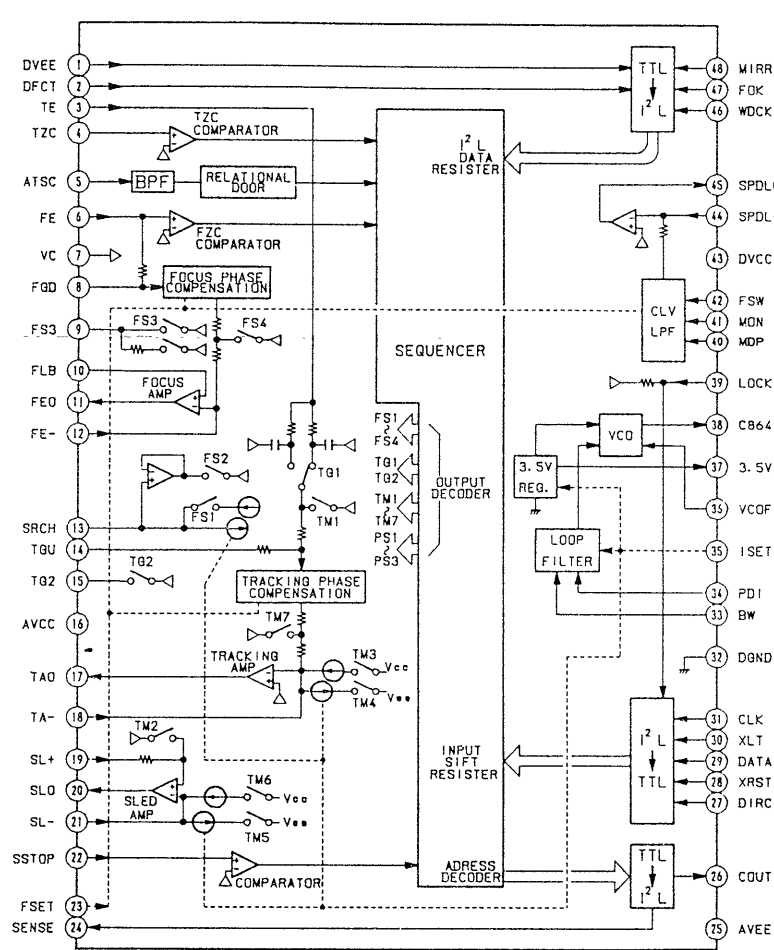
SEE ADDITIONAL INFORMATION

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

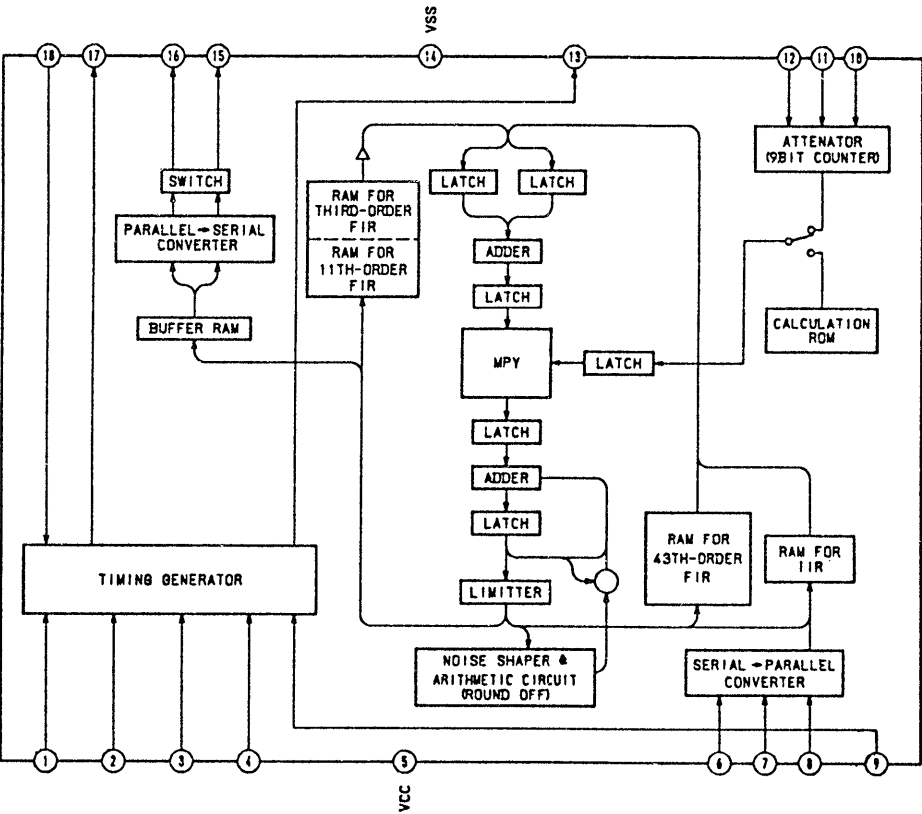
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
- no mark : PLAY
- Voltages are taken with a VOM (input impedance 10M Ω).
- Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope.
- Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.

① RF PLAY: 1.2Vp-p	② FE PLAY: APPROX. 100Vmvp-p	③ TE PLAY: APPROX. 500Vmvp-p	④ XTAL 250nSEC 5.2V -0.2V	⑤ C210 480nSEC 5V 0V	⑥ MDP PLAY: 550μSEC 5V -2.4V
⑦ MDS PLAY: 130μs 5V 0V	⑧ VCO 0 95nSEC 3.1V -1.4V	⑨ VCO 1 95nSEC 4.5V -0.6V	⑩ XIN 60nSEC 1Vp-p	⑪ LRCK 22μSEC 5Vp-p 0V	

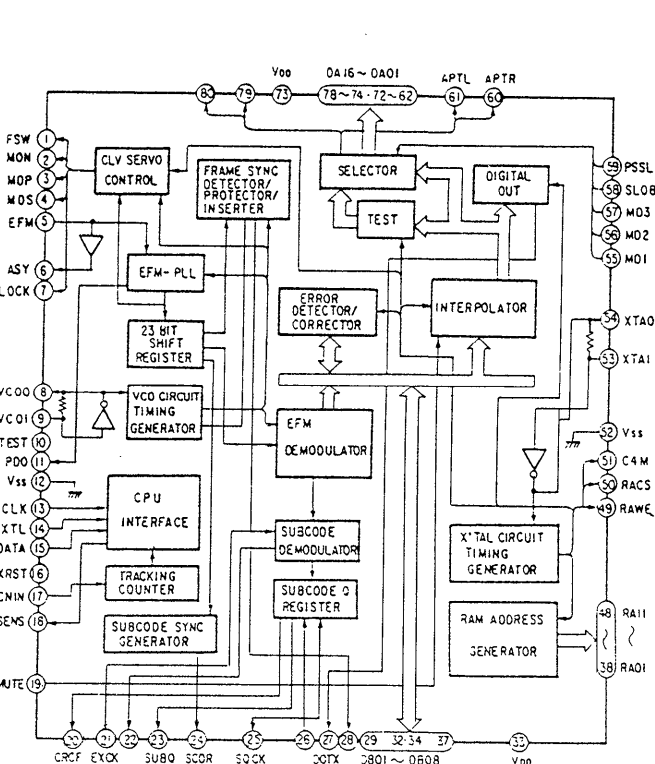
IC201 CXA1082BS



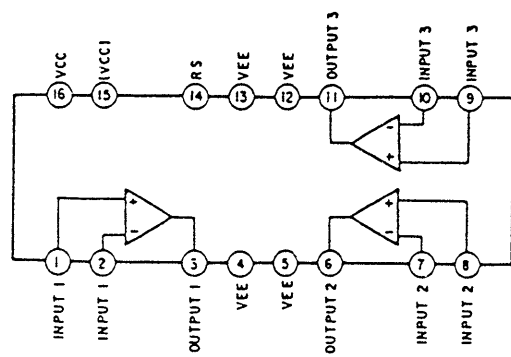
IC304 CXD2551P



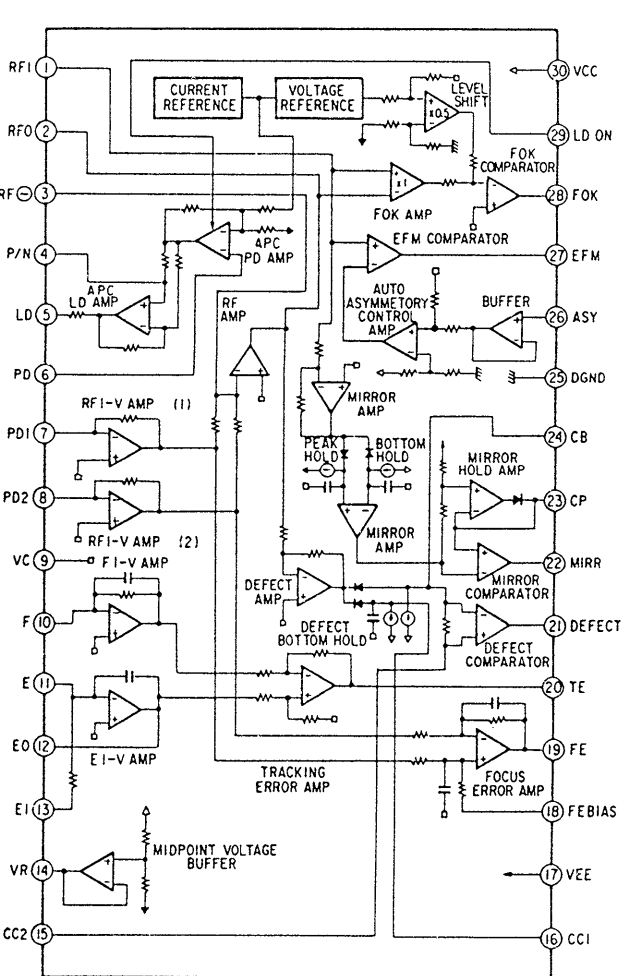
IC301 CXD1125Q



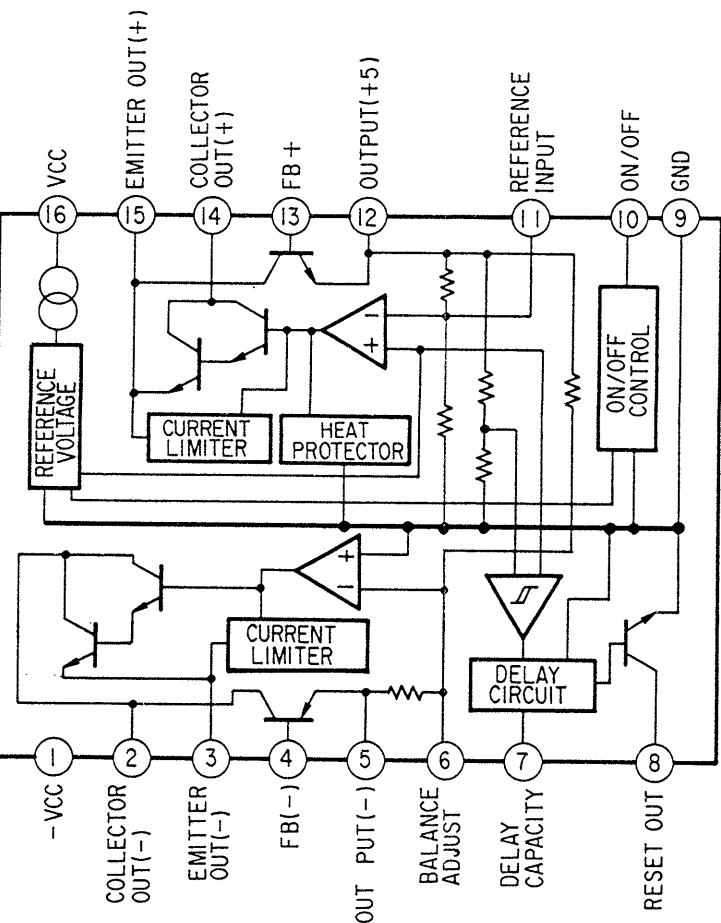
IC202, 203 LA6520



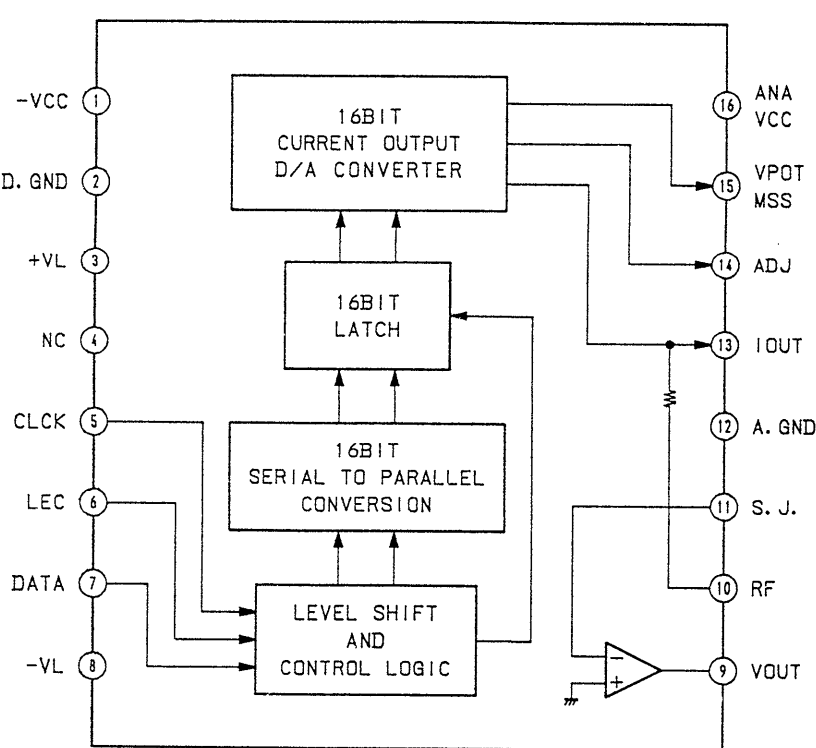
IC101 CXA1081S



IC001 M5290P



IC501, 601 PCM56P



SECTION 4 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.

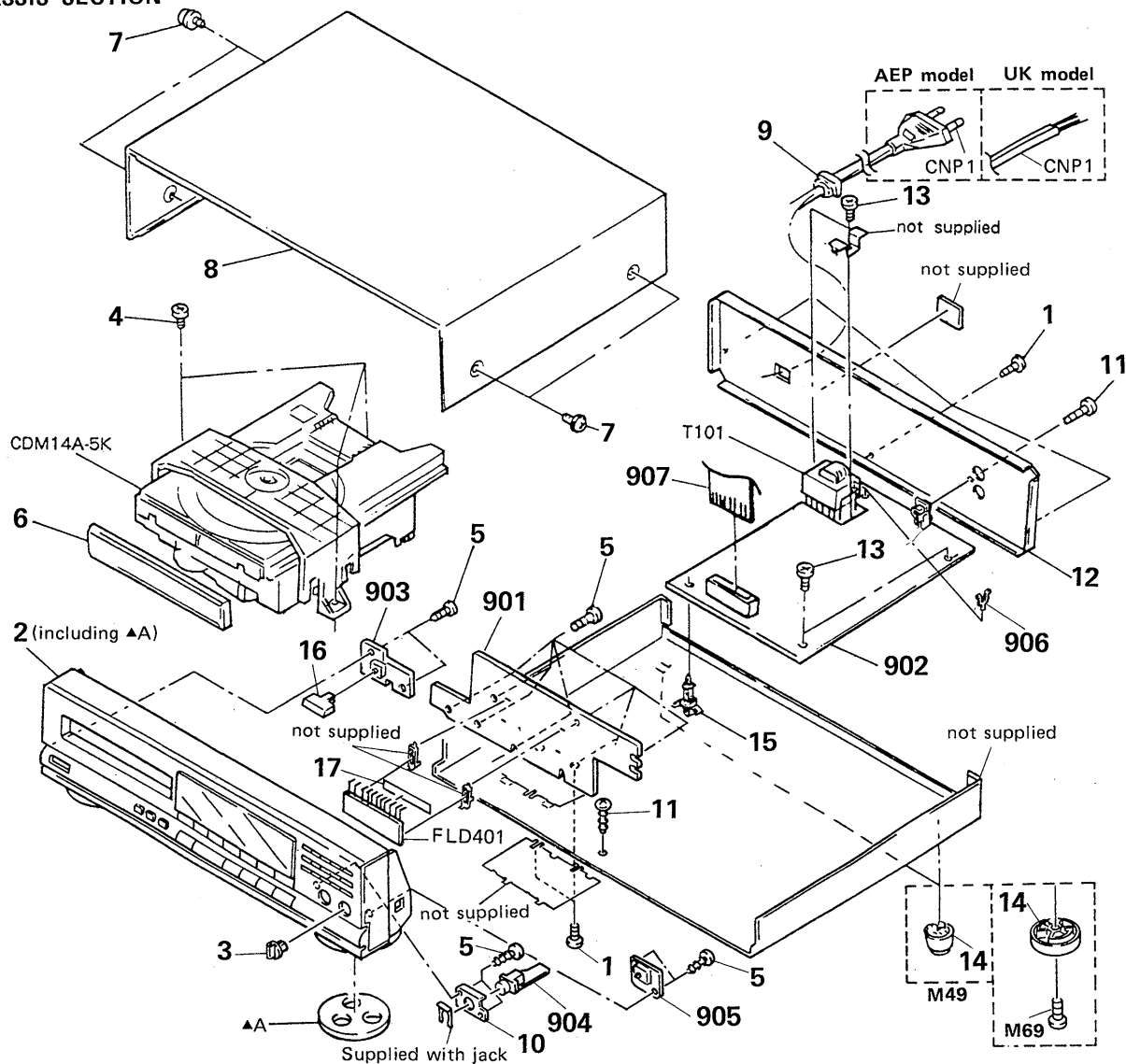
Color Indication of Appearance Parts
Example:

(RED) ...KNO
↑
Cabinet's Color

CE (WHITE)
↑
Parts Color

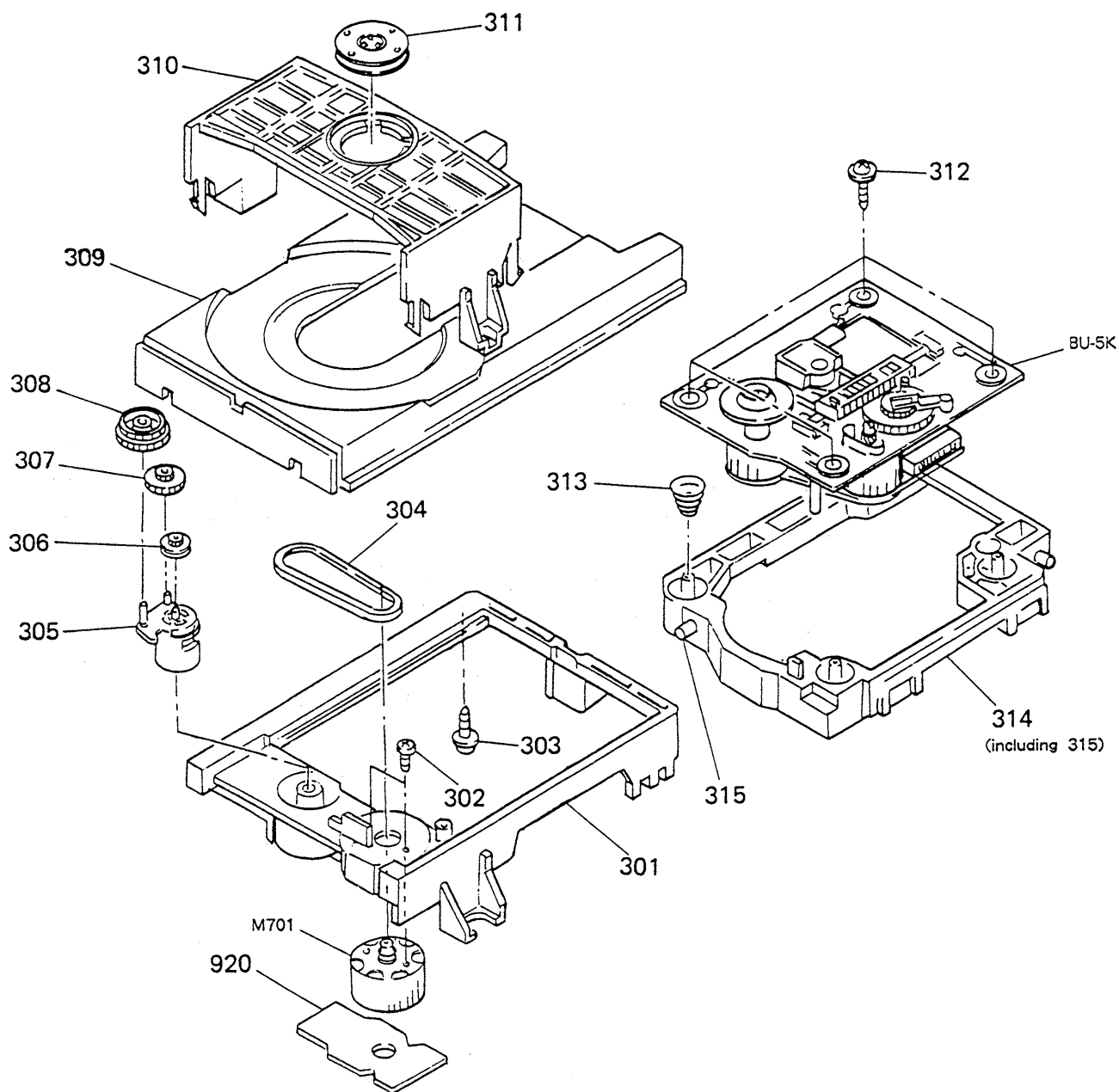
The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

1. CHASSIS SECTION



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	7-682-548-09	SCREW +BVTT 3X8 (S)		15	*4-924-098-31	HOLDER, PC BOARD	
2	X-4917-595-1	(M69)...PANEL ASSY, FRONT		16	4-929-535-01	BUTTON (POWER)	
	X-4917-597-1	(M49)...PANEL ASSY, FRONT		17	*4-927-395-01	PLATE, LIGHT INTERCEPTION	
3	4-933-116-01	KNOB (C, TYPE), LOV		901	*A-4617-297-A	MOUNTED PCB, DISPLAY	
4	7-682-548-04	SCREW +BVTT 3X8 (S)		902	*A-4617-298-A	MOUNTED PCB, MAIN	
5	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S		903	*1-633-957-11	PC BOARD, POWER SWITCH	
6	4-929-534-01	PANEL, LOADING		904	*1-633-958-11	PC BOARD, HEADPHONE	
7	3-704-366-31	SCREW (CASE) (M3X6)		905	*1-633-959-11	PC BOARD, VR	
8	4-919-376-31	CASE		906	*1-535-771-11	TERMINAL	
9	*3-703-244-00	BUSHING (2104), CORD		907	1-535-825-11	JUMPER, FILM (WITH TERMINAL)	
10	4-927-374-01	BRACKET (JACK)		CNP1	△.1-574-390-11	(UK)...CORD, POWER	
11	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S		CNP1	△.1-574-127-11	(AEP)...CORD, POWER	
12	*4-927-378-01	PANEL (ALSACE), BACK		FLD401	1-519-556-11	INDICATOR TUBE, FLUORESCENT	
13	2-383-566-00	SCREW		TI01	△.1-449-967-11	TRANSFORMER, POWER	
14	4-933-601-01	(M49)...FOOT					
	4-933-701-01	(M69)...FOOT					

2. CD MECHANISM SECTION
(CDM14A-5K)



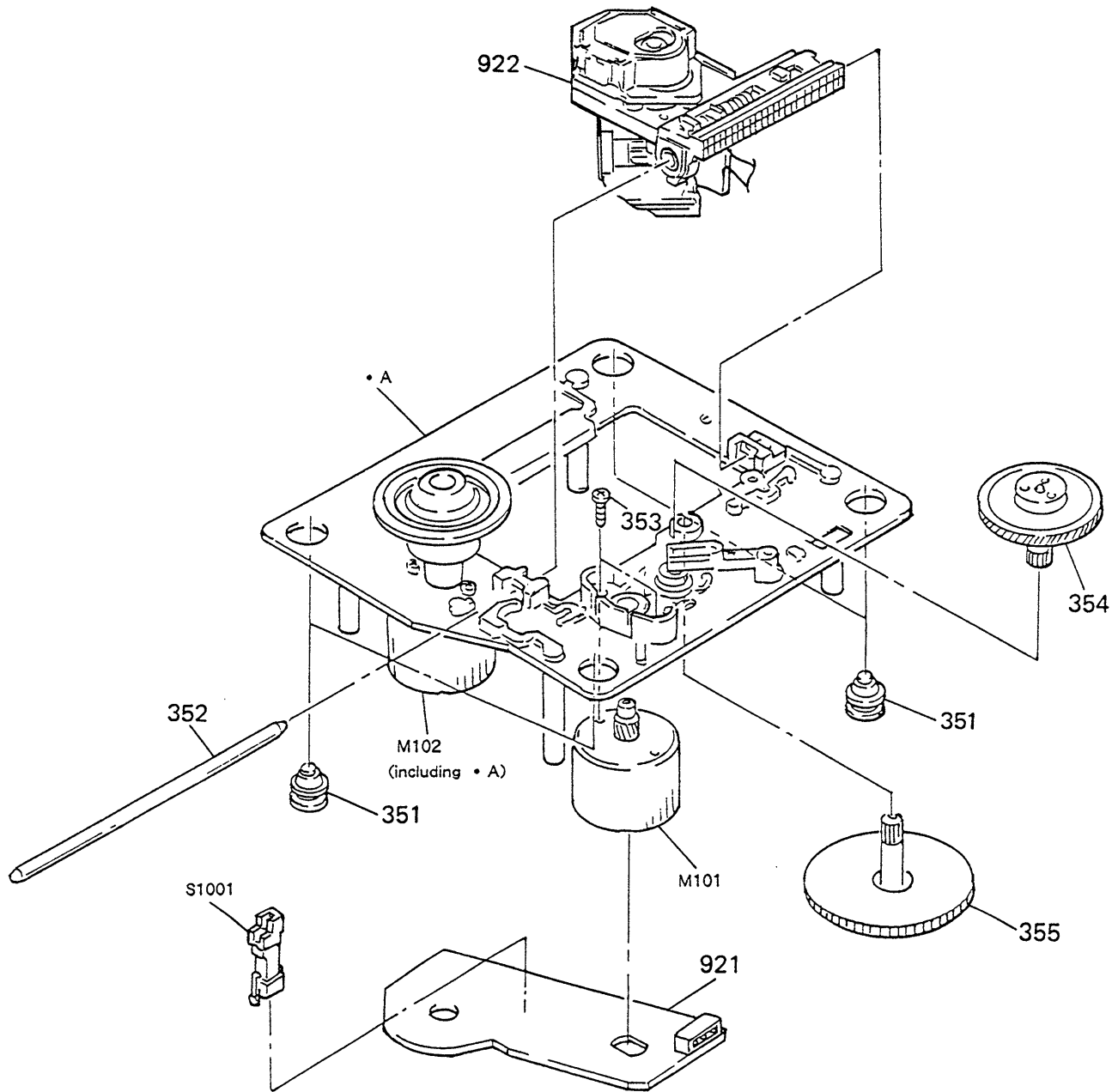
No.	Part No.	Description
301	4-933-111-01	CHASSIS. (MD)
302	7-621-775-10	SCREW +B 2.6X4
303	*4-917-583-21	BRACKET, YOKE
304	4-927-649-01	BELT
305	4-933-109-01	CAM
306	4-927-651-01	PULLEY (S)
307	4-927-628-01	GEAR (C)
308	4-933-107-01	GEAR (PL)
309	4-933-112-01	TABLE, DISK

Remarks

No.	Part No.	Description
310	4-933-110-01	HOLDER (MG)
311	A-4675-347-A	MG ASSY
312	4-933-134-01	SCREW (+PTPWH M2.6X6)
313	4-917-541-01	SPRING (B)
314	4-933-129-01	HOLDER (BU)
315	4-933-108-01	SHAFT (CAM)
920	*1-632-169-11	PC BOARD, LOADING MOTOR
M701	A-4608-362-A	MOTOR (L) ASSY

Remarks

3. OPTICAL PICK-UP BLOCK (BU-5K)



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

No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
351	4-933-126-01	INSULATOR (A)		921	*1-632-460-11	PC BOARD, SL/SP MOTOR	
352	4-917-565-01	SHAFT, SLED		922	 8-848-062-01	DEVICE, OPTICAL KSS-150A (H)	
353	7-621-255-15	SCREW +P 2X3		M101	X-4917-504-1	ASSY, MOTOR (SLED)	
354	4-917-567-01	GEAR (M)		M102	X-4917-523-1	ASSY, MOTOR (SPINDLE)	
355	4-917-564-01	GEAR (P), FLATNESS		S1001	1-570-822-11	SWITCH, LEAF (LIMIT IN SW)	

SECTION 5 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: μ F, PF: μ F.

RESISTORS

- All resistors are in ohms.
- F: nonflammable

COILS

- MMH: mH, UH: μ H

SEMICONDUCTORS

In each case, U: μ , for example:

UA...: μ A..., UPA...: μ PA...,

UPC...: μ PC, UPD...: μ PD...

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

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
901	*A-4617-297-A	MOUNTED PCB, DISPLAY	C208	1-124-477-11	ELECT 47MF 20% 16V
902	*A-4617-298-A	MOUNTED PCB, MAIN	C209	1-162-294-31	CERAMIC 0.001MF 10% 50V
903	*1-633-957-11	PC BOARD, POWER SWITCH	C210	1-162-282-31	CERAMIC 100PF 10% 50V
904	*1-633-958-11	PC BOARD, HEADPHONE	C211	1-126-233-11	ELECT 22MF 20% 25V
905	*1-633-959-11	PC BOARD, VR	C212	1-126-233-11	ELECT 22MF 20% 25V
906	*1-535-771-11	TERMINAL	C213	1-126-233-11	ELECT 22MF 20% 25V
907	1-535-825-11	JUMPER, FILM (WITH TERMINAL)	C214	1-124-791-11	ELECT 1MF 20% 50V
920	*1-632-169-11	PC BOARD, LOADING MOTOR	C217	1-161-375-00	CERAMIC 0.0022MF 20% 16V
921	*1-632-460-11	PC BOARD, SL/SP MOTOR	C218	1-162-291-31	CERAMIC 560PF 10% 50V
922	8-848-062-01	DEVICE, OPTICAL KSS-150A (RP)	C219	1-123-875-11	ELECT 10MF 20% 50V
C001	1-126-017-11	ELECT 6800MF 20% 16V	C220	1-136-165-00	FILM 0.1MF 5% 50V
C002	1-124-898-11	ELECT 4700MF 20% 16V	C221	1-164-159-11	CERAMIC 0.1MF 50V
C007	1-124-472-11	ELECT 470MF 20% 10V	C222	1-164-159-11	CERAMIC 0.1MF 50V
C008	1-124-472-11	ELECT 470MF 20% 10V	C225	1-126-101-11	ELECT 100MF 20% 16V
C010	1-124-791-11	ELECT 1MF 20% 50V	C226	1-126-101-11	ELECT 100MF 20% 16V
C011	1-123-875-11	ELECT 10MF 20% 50V	C229	1-164-159-11	CERAMIC 0.1MF 50V
C012	1-124-572-11	ELECT 100MF 20% 63V	C230	1-164-159-11	CERAMIC 0.1MF 50V
C013	1-164-159-11	CERAMIC 0.1MF 50V	C231	1-162-282-31	CERAMIC 100PF 10% 50V
C015	1-164-159-11	CERAMIC 0.1MF 50V	C301	1-124-902-00	ELECT 0.47MF 20% 50V
C016	1-124-927-11	ELECT 4.7MF 20% 50V	C302	1-106-379-12	MYLAR 0.033MF 5% 100V
C017	1-123-875-11	ELECT 10MF 20% 50V	C303	1-162-306-11	CERAMIC 0.01MF 20% 16V
C018	1-124-472-11	ELECT 470MF 20% 10V	C304	1-124-902-00	ELECT 0.47MF 20% 50V
C019	1-124-472-11	ELECT 470MF 20% 10V	C305	1-164-159-11	CERAMIC 0.1MF 50V
C021	1-123-875-11	ELECT 10MF 20% 50V	C306	1-164-159-11	CERAMIC 0.1MF 50V
C023	1-126-233-11	ELECT 22MF 20% 25V	C307	1-124-478-11	ELECT 100MF 20% 25V
C101	1-106-351-00	MYLAR 0.0022MF 5% 50V	C308	1-126-233-11	ELECT 22MF 20% 25V
C103	1-124-477-11	ELECT 47MF 20% 16V	C309	1-136-173-00	FILM 0.47MF 5% 50V
C104	1-162-294-31	CERAMIC 0.001MF 10% 50V	C321	1-162-202-31	CERAMIC 13PF 5% 50V
C105	1-162-199-31	CERAMIC 10PF 5% 50V	C322	1-162-203-31	CERAMIC 15PF 5% 50V
C106	1-162-199-31	CERAMIC 10PF 5% 50V	C325	1-162-283-31	CERAMIC 120PF 10% 50V
C107	1-136-173-00	FILM 0.47MF 5% 50V	C401	1-124-443-00	ELECT 100MF 20% 10V
C108	1-161-375-00	CERAMIC 0.0022MF 20% 16V	C402	1-164-159-11	CERAMIC 0.1MF 50V
C109	1-106-367-00	MYLAR 0.01MF 5% 100V	C403	1-164-159-11	CERAMIC 0.1MF 50V
C110	1-106-367-00	MYLAR 0.01MF 5% 100V	C501	1-161-329-00	CERAMIC 0.0068MF 20% 16V
C111	1-124-478-11	ELECT 100MF 20% 25V	C502	1-161-375-00	CERAMIC 0.0022MF 20% 16V
C112	1-124-478-11	ELECT 100MF 20% 25V	C503	1-126-233-11	ELECT 22MF 20% 25V
C113	1-106-379-12	MYLAR 0.033MF 5% 100V	C503A	1-164-159-11	CERAMIC 0.1MF 50V
C114	1-161-377-00	CERAMIC 0.0047MF 20% 16V	C504	1-164-159-11	CERAMIC 0.1MF 50V
C115	1-126-233-11	ELECT 22MF 20% 25V	C504A	1-164-159-11	CERAMIC 0.1MF 50V
C201	1-136-165-00	FILM 0.1MF 5% 50V	C508	1-164-159-11	CERAMIC 0.1MF 50V
C202	1-106-379-12	MYLAR 0.033MF 5% 100V	C509	1-164-159-11	CERAMIC 0.1MF 50V
C203	1-124-927-11	ELECT 4.7MF 20% 50V	C601	1-161-329-00	CERAMIC 0.0068MF 20% 16V
C204	1-136-165-00	FILM 0.1MF 5% 50V	C602	1-161-375-00	CERAMIC 0.0022MF 20% 16V
C205	1-162-306-11	CERAMIC 0.01MF 20% 16V	C603	1-126-233-11	ELECT 22MF 20% 25V
C206	1-161-377-00	CERAMIC 0.0047MF 20% 16V	C604	1-164-159-11	CERAMIC 0.1MF 50V
C207	1-124-927-11	ELECT 4.7MF 20% 50V	C609	1-124-120-11	ELECT 220MF 20% 16V

Ref.No.	Part No.	Description
CN101	*1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P
CN102	*1-564-706-31	PIN, CONNECTOR (SMALL TYPE) 4P
CN103	*1-564-706-31	PIN, CONNECTOR (SMALL TYPE) 4P
CN201	*1-568-953-11	PIN, CONNECTOR 4P
CN202	*1-568-954-11	PIN, CONNECTOR 5P
CN301	*1-568-933-11	SOCKET, CONNECTOR 30P
CN303	*1-568-951-11	PIN, CONNECTOR 2P
CN1001	*1-568-942-11	PIN, CONNECTOR 4P
CNP1	Δ.1-574-390-11	(UK)....CORD, POWER
CNP1	Δ.1-574-127-11	(AEP)...CORD, POWER
D001	8-719-950-59	DIODE MPG06D-6052
D002	8-719-950-59	DIODE MPG06D-6052
D003	8-719-950-59	DIODE MPG06D-6052
D004	8-719-950-59	DIODE MPG06D-6052
D005	8-719-950-59	DIODE MPG06D-6052
D006	8-719-950-59	DIODE MPG06D-6052
D008	8-719-109-76	DIODE RD4.3ES-B3
D009	8-719-109-96	DIODE RD6.8ES-B1
D010	8-719-107-94	DIODE 1SS202-1
D011	8-719-107-94	DIODE 1SS202-1
D401	8-719-933-56	DIODE HZS9B1L
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
D407	8-719-107-94	DIODE 1SS202-1
D408	8-719-107-94	DIODE 1SS202-1
D409	8-719-107-94	DIODE 1SS202-1
D410	8-719-107-94	DIODE 1SS202-1
D501	8-719-107-94	DIODE 1SS202-1
D502	8-719-107-94	DIODE 1SS202-1
FLD401	1-519-556-11	INDICATOR TUBE, FLUORESCENT
IC001	8-759-630-21	IC M5290P-16
IC002	8-759-633-42	IC M5293L
IC101	8-752-034-00	IC CXA1081S
IC201	8-752-032-30	IC CXA1082BS
IC202	8-759-805-18	IC LA6520
IC203	8-759-805-18	IC LA6520
IC301	8-752-334-00	IC CXD1125Q
IC302	8-759-994-18	IC UM6116M-2L
IC304	8-752-334-06	IC CXD2551P
IC305	8-759-917-18	IC MC74HCU04N
IC401	8-759-148-72	IC UPD75212AGF-TTX662AL
IC451	8-749-920-83	IC GP1U52XB
IC501	8-759-998-22	IC PCM56P
IC502	8-759-995-08	IC MC4558
IC503	8-759-981-85	IC RC4556D
IC601	8-759-998-22	IC PCM56P
J501	1-568-519-51	JACK, LARGE TYPE (HEADPHONES)
J502	1-569-442-11	JACK, PIN 2P (LINE OUT)
M101	X-4917-504-1	MOTOR ASSY (SLED)
M102	X-4917-523-3	MOTOR ASSY (SPINDLE)
M701	A-4608-362-A	MOTOR (L) ASSY
PS001	1-532-637-00	LINK, IC
PS002	1-532-637-00	LINK, IC

Ref.No.	Part No.	Description
Q002	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q003	8-729-140-96	TRANSISTOR 2SD774-34
Q004	8-729-111-67	TRANSISTOR 2SB1094-L
Q005	8-729-281-52	TRANSISTOR 2SC1815-Y
Q101	8-729-116-57	TRANSISTOR 2SB1068-K
Q201	8-729-900-80	TRANSISTOR DTC114ES
Q202	8-729-900-89	TRANSISTOR DTC144ES
Q304	8-729-900-80	TRANSISTOR DTC114ES
Q501	8-729-900-61	TRANSISTOR DTA114ES
Q502	8-729-900-74	TRANSISTOR DTC143TS
Q503	8-729-900-74	TRANSISTOR DTC143TS
Q504	8-729-281-52	TRANSISTOR 2SC1815-Y
Q602	8-729-900-74	TRANSISTOR DTC143TS
Q603	8-729-900-74	TRANSISTOR DTC143TS
Q604	8-729-281-52	TRANSISTOR 2SC1815-Y
R002	1-249-438-11	CARBON 56K 5% 1/4W
R003	1-249-429-11	CARBON 10K 5% 1/4W
R004	1-249-429-11	CARBON 10K 5% 1/4W
R005	1-249-409-11	CARBON 220 5% 1/4W
R008	1-249-425-11	CARBON 4.7K 5% 1/4W
R009	1-249-425-11	CARBON 4.7K 5% 1/4W
R010	1-249-429-11	CARBON 10K 5% 1/4W
R011	1-249-429-11	CARBON 10K 5% 1/4W
R101	1-247-864-11	CARBON 24K 5% 1/4W
R104	1-249-397-11	CARBON 22 5% 1/4W
R105	1-247-806-11	CARBON 91 5% 1/4W
R106	1-249-433-11	CARBON 22K 5% 1/4W
R108	1-249-432-11	CARBON 18K 5% 1/4W
R109	1-249-432-11	CARBON 18K 5% 1/4W
R110	1-249-425-11	CARBON 4.7K 5% 1/4W
R111	1-249-425-11	CARBON 4.7K 5% 1/4W
R112	1-249-417-11	CARBON 1K 5% 1/4W
R201	1-247-882-11	CARBON 130K 5% 1/4W
R202	1-249-432-11	CARBON 18K 5% 1/4W
R203	1-249-432-11	CARBON 18K 5% 1/4W
R204	1-249-439-11	CARBON 68K 5% 1/4W
R205	1-247-889-00	CARBON 270K 5% 1/4W
R206	1-249-435-11	CARBON 33K 5% 1/4W
R207	1-249-423-11	CARBON 3.3K 5% 1/4W
R208	1-249-425-11	CARBON 4.7K 5% 1/4W
R209	1-247-896-11	CARBON 510K 5% 1/4W
R210	1-249-417-11	CARBON 1K 5% 1/4W
R211	1-249-414-11	CARBON 560 5% 1/4W
R212	1-249-433-11	CARBON 22K 5% 1/4W
R213	1-249-441-11	CARBON 100K 5% 1/4W
R214	1-247-844-11	METAL 3.6K 5% 1/4W
R215	1-249-441-11	CARBON 100K 5% 1/4W
R216	1-249-429-11	CARBON 10K 5% 1/4W
R217	1-247-881-00	CARBON 120K 5% 1/4W
R218	1-249-427-11	CARBON 6.8K 5% 1/4W
R219	1-249-435-11	CARBON 33K 5% 1/4W
R220	1-249-437-11	CARBON 47K 5% 1/4W
R221	1-247-881-00	CARBON 120K 5% 1/4W
R222	1-247-884-11	CARBON 160K 5% 1/4W
R223	1-247-881-00	CARBON 120K 5% 1/4W
R224	1-247-884-11	CARBON 160K 5% 1/4W
R225	1-249-429-11	CARBON 10K 5% 1/4W

Ref.No. Part No. Description

R226 1-249-393-11 CARBON 10 5% 1/4W
R227 1-249-393-11 CARBON 10 5% 1/4W
R230 1-249-393-11 CARBON 10 5% 1/4W

R231 1-249-393-11 CARBON 10 5% 1/4W
R301 1-247-903-00 CARBON 1M 5% 1/4W
R302 1-249-433-11 CARBON 22K 5% 1/4W

R303 1-249-429-11 CARBON 10K 5% 1/4W
R304 1-249-441-11 CARBON 100K 5% 1/4W
R305 1-249-441-11 CARBON 100K 5% 1/4W

R306 1-249-429-11 CARBON 10K 5% 1/4W
R307 1-249-441-11 METAL 100K 5% 1/4W
R308 1-249-441-11 METAL 100K 5% 1/4W

R310 1-249-417-11 CARBON 1K 5% 1/4W
R311 1-249-417-11 CARBON 1K 5% 1/4W
R312 1-249-417-11 CARBON 1K 5% 1/4W

R313 1-249-411-11 CARBON 330 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

R320 1-249-411-11 CARBON 330 5% 1/4W
R321 1-249-411-11 CARBON 330 5% 1/4W
R322 1-249-411-11 CARBON 330 5% 1/4W

R324 1-249-411-11 CARBON 330 5% 1/4W
R401 1-249-439-11 CARBON 68K 5% 1/4W
R402 1-249-435-11 CARBON 33K 5% 1/4W

R403 1-249-435-11 CARBON 33K 5% 1/4W
R404 1-249-435-11 CARBON 33K 5% 1/4W
R405 1-249-441-11 CARBON 100K 5% 1/4W

R406 1-249-425-11 CARBON 4.7K 5% 1/4W
R407 1-249-425-11 CARBON 4.7K 5% 1/4W
R501 1-249-416-11 CARBON 820 5% 1/4W

R502 1-249-416-11 CARBON 820 5% 1/4W
R503 1-249-409-11 CARBON 220 5% 1/4W
R504 1-249-409-11 CARBON 220 5% 1/4W

R505 1-249-409-11 CARBON 220 5% 1/4W
R506 1-247-891-00 CARBON 330K 5% 1/4W
R507 1-249-441-11 CARBON 100K 5% 1/4W

R508 1-249-429-11 CARBON 10K 5% 1/4W
R511 1-249-402-11 CARBON 56 5% 1/4W
R512 1-249-425-11 CARBON 4.7K 5% 1/4W

R601 1-249-416-11 CARBON 820 5% 1/4W
R602 1-249-416-11 CARBON 820 5% 1/4W
R603 1-249-409-11 CARBON 220 5% 1/4W

R604 1-249-409-11 CARBON 220 5% 1/4W
R605 1-249-409-11 CARBON 220 5% 1/4W
R606 1-247-891-00 CARBON 330K 5% 1/4W

R611 1-249-402-11 CARBON 56 5% 1/4W
R612 1-249-425-11 CARBON 4.7K 5% 1/4W

RV101 1-228-995-00 RES, ADJ, CARBON 22K (E-F BALANCE)
RV102 1-228-993-00 RES, ADJ, CARBON 4.7K (FOCUS BIAS)
RV103 1-228-995-00 RES, ADJ, CARBON 22K (FOCUS GAIN)

RV104 1-228-995-00 RES, ADJ, CARBON 22K (TRACKING GAIN)
RV201 1-228-990-00 RES, ADJ, METAL GLAZE 1K (RF PLL)
RV501 1-238-884-11 RES, VAR, CARBON 1K/1K (HEADPHONES LEVEL)

Ref.No. Part No. Description

S401 1-554-303-21 SWITCH, KEY BOARD (1)
S402 1-554-303-21 SWITCH, KEY BOARD (2)
S403 1-554-303-21 SWITCH, KEY BOARD (3)

S404 1-554-303-21 SWITCH, KEY BOARD (4)
S405 1-554-303-21 SWITCH, KEY BOARD (5)
S406 1-554-303-21 SWITCH, KEY BOARD (6)

S407 1-554-303-21 SWITCH, KEY BOARD (7)
S408 1-554-303-21 SWITCH, KEY BOARD (8)
S409 1-554-303-21 SWITCH, KEY BOARD (9)

S410 1-554-303-21 SWITCH, KEY BOARD (10)
S411 1-554-303-21 SWITCH, KEY BOARD (11)
S412 1-554-303-21 SWITCH, KEY BOARD (12)

S413 1-554-303-21 SWITCH, KEY BOARD (CHECK)
S414 1-554-303-21 SWITCH, KEY BOARD (CLEAR)
S415 1-554-303-21 SWITCH, KEY BOARD (>12)

S416 1-554-303-21 SWITCH, KEY BOARD (OPEN/CLOSE)
S417 1-554-303-21 SWITCH, KEY BOARD (>)
S418 1-554-303-21 SWITCH, KEY BOARD (■)

S419 1-554-303-21 SWITCH, KEY BOARD (■)
S420 1-554-303-21 SWITCH, KEY BOARD (TIME)
S421 1-554-303-21 SWITCH, KEY BOARD (A.SPACE)

S422 1-554-303-21 SWITCH, KEY BOARD (REPEAT)
S423 1-554-303-21 SWITCH, KEY BOARD (FADER)
S424 1-554-303-21 SWITCH, KEY BOARD (EDIT/TIME FADE)

S425 1-554-303-21 SWITCH, KEY BOARD (TIME SET)
S426 1-554-303-21 SWITCH, KEY BOARD (CONTINUE)
S427 1-554-303-21 SWITCH, KEY BOARD (SHUFFLE)

S428 1-554-303-21 SWITCH, KEY BOARD (PROGRAM)
S429 1-554-303-21 SWITCH, KEY BOARD (<< <<)
S430 1-554-303-21 SWITCH, KEY BOARD (>> >>)

S451 1-571-305-11 SWITCH, PUSH (1 KEY)(POWER)
S1001 1-570-822-11 SWITCH, LEAF (LIMIT IN)

SW701 1-572-086-11 SWITCH, LEAF (IN)
SW702 1-572-086-11 SWITCH, LEAF (OUT)

T101 A.1-449-967-11 TRANSFORMER, POWER

X320 1-577-328-21 VIBRATOR, CRYSTAL (16.944MHz)
X401 1-567-819-11 VIBRATOR, CERAMIC (4MHz)

ACCESSORY & PACKING MATERIAL

1-465-291-11 (M69)...REMOTE COMMANDER
1-559-533-11 CORD, CONNECTION

3-750-792-61 MANUAL, INSTRUCTION
3-750-792-71 (AEP)...MANUAL, INSTRUCTION

*4-927-355-01 CUSHION

*4-927-394-01 (M69)...INDIVIDUAL CARTON
*4-927-394-11 (M49)...INDIVIDUAL CARTON

CDP-M48/M49/M69

SONY[®] SERVICE MANUAL

AEP Model
CDP-M48

AEP Model
Australian Model
E Model
CDP-M49

AEP Model
E Model
CDP-M69

SUPPLEMENT-2

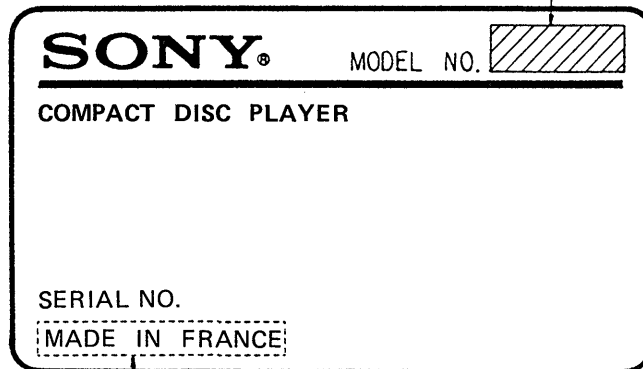
File this supplement with the service manual.

This SUPPLEMENT-1 is for CDP-M48 made in France.

Refer to the CDP-M48/M49/M69 service manual and SUPPLEMENT-1
for related information not contained in this SUPPLEMENT-2.

[MODEL IDENTIFICATION]

CDP-M48



LABEL MODEL NUMBER

Identify the set with the indication of "MADE IN FRANCE" here.

ACCESSORY & PACKING MATERIAL

*4-927-394-21 (M48) ...INDIVIDUAL CARTON

SECTION 4 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.

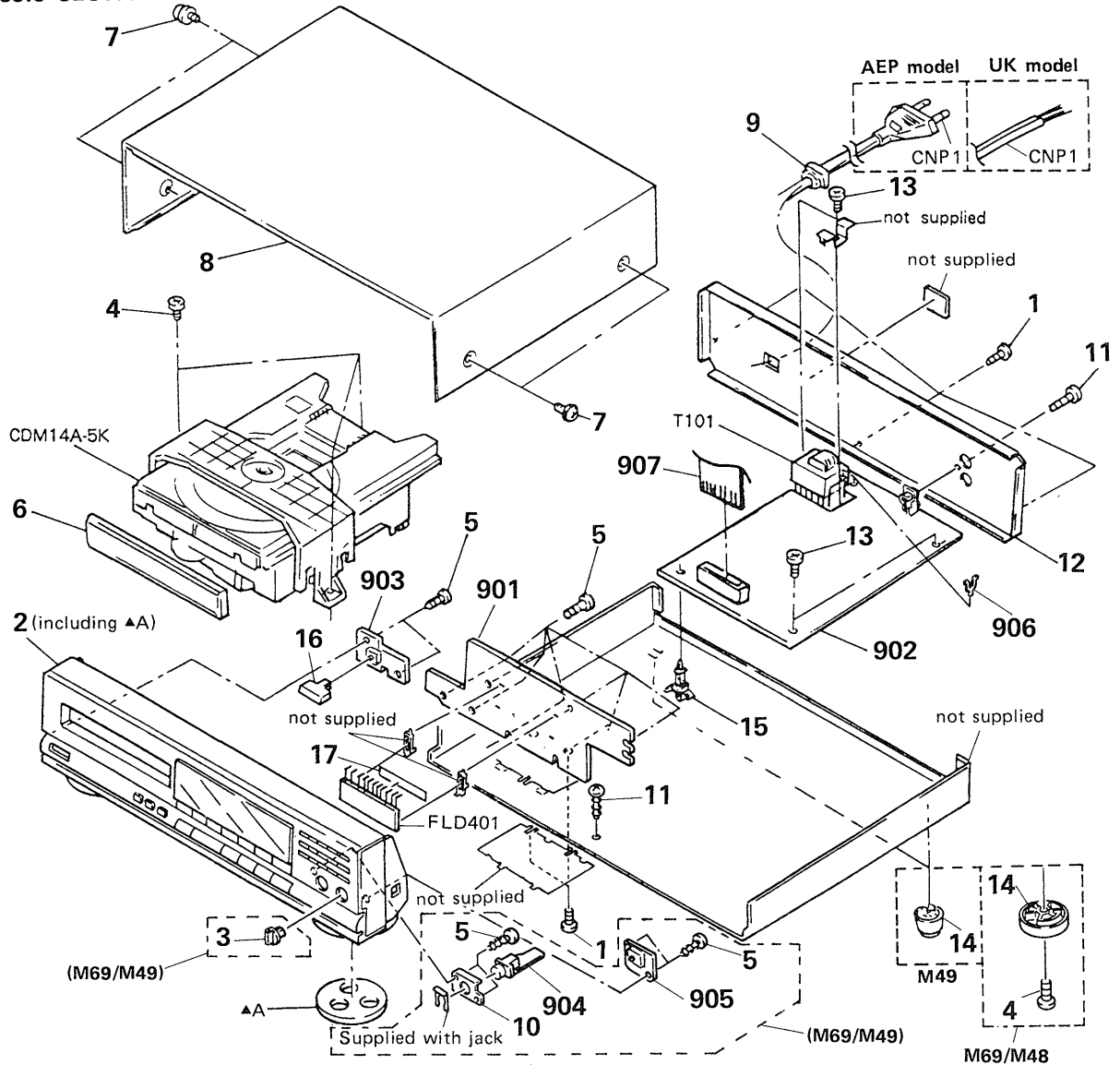
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
Example:
(RED) ... KNOB, BALANCE (WHITE)

↑
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.

1. CHASSIS SECTION



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	7-682-548-09	SCREW +BVTT 3X8 (S)		15	*4-924-098-31	HOLDER, PC BOARD	
2	X-4917-595-1	(M69)...PANEL ASSY, FRONT		16	4-929-535-01	BUTTON (POWER)	
2	X-4917-597-1	(M49)...PANEL ASSY, FRONT		17	*4-927-395-01	PLATE, LIGHT INTERCEPTION	
2	X-4917-596-1	(M48)...PANEL ASSY, FRONT		901	*A-4617-297-A	(M69/M49)...MOUNTED PCB, DISPLAY	
3	4-933-116-01	(M69/M49)...KNOB (C, TYPE), LOV		901	*A-4617-447-A	(M48)...MOUNTED PCB, DISPLAY	
4	7-682-548-04	SCREW +BVTT 3X8 (S)		902	*A-4617-298-A	(M69/M49)...MOUNTED PCB, MAIN	
5	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S		902	*A-4617-448-A	(M48)...MOUNTED PCB, MAIN	
6	4-929-534-01	PANEL, LOADING		903	*1-633-957-11	PC BOARD, POWER SWITCH	
7	3-704-366-31	SCREW (CASE) (M3X6)		904	*1-633-958-11	(M69/M49)...PC BOARD, HEADPHONE	
8	4-919-376-31	CASE		905	*1-633-959-11	(M69/M49)...PC BOARD, VR	
9	*3-703-244-00	BUSHING (2104), CORD		906	*1-535-771-11	TERMINAL	
10	4-927-374-01	(M69/M49)...BRACKET (JACK)		907	1-535-825-11	JUMPER, FILM (WITH TERMINAL)	
11	7-685-646-79	SCREW +BVTT 3X8 TYPE2 N-S		CNP1	1-556-562-11	(UK)...CORD, POWER	
12	*4-927-378-01	PANEL (ALSACE), BACK		CNP1	1-574-127-11	(AEP)...CORD, POWER	
13	2-383-566-00	SCREW		FLD401	1-519-556-11	INDICATOR TUBE, FLUORESCENT	
14	4-933-601-01	(M49)...F00T		T101	1-449-967-11	TRANSFORMER, POWER	
14	4-934-883-01	(M69/M48)...F00T					

CDP-M48/M49/M69

SONY SERVICE MANUAL

AEP Model
CDP-M48

AEP Model
Australian Model
E Model
CDP-M49

AEP Model
E Model
CDP-M69

CORRECTION-1

Correct your service manual as shown below.

 : indicates corrected portion.

Page	INCORRECT	CORRECT
6	E-F Balance Check Procedure : 2. Ground TP (ADJ), TP (TEST).	E-F Balance Check Procedure : 2. Connect test point <u>TP (ADJ)</u> to <u>ground</u> and <u>TP (TES)</u> to <u>TP (VC)</u> with lead wire.  

CDP-M48/M49/M69

SONY[®] SERVICE MANUAL

AEP Model
CDP-M48

AEP Model
Australian Model
E Model
CDP-M49

CORRECTION-2

Correct your service manual as shown below.

AEP Model
E Model
CDP-M69

 : indicates corrected portion.

Page	INCORRECT			CORRECT		
	No.	Part No.	Description	No.	Part No.	Description
19	52	X-4917-602-1 (M69:E)...	PANEL ASSY, FRONT	52	X-4918-602-1 (M69:E)...	PANEL ASSY, FRONT
		X-4917-603-1 (M49:E, AUS)...	PANEL ASSY, FRONT		X-4918-603-1 (M49:E, AUS)...	PANEL ASSY, FRONT