CDP-291/391

SERVICE MANUAL

US Model
Canadian Model
AEP Model
E Model
Australian Model

Photo : CDP-391

Model Name Using Similar Mechanism	CDP-190/390
CD Mechanism Name	CDM14-5BD1
Base Unit Name	BU-5BD1

SPECIFICATIONS

Compact disc player

Frequency response	2Hz – 20 kHz ± 0.5 dB
Signal to noise ratio	More than 97 dB
Dynamic range	More than 90 dB
Harmonic distortion	Less than 0.035%
Channel separation	More than 93 dB

Outputs

LINE OUT (phono jacks)	Output level 2 V (at 50 kilohms) Load impedance over 10 kilohms
PHONES (stereo phone jack)	Output level max. 10 mW Load impedance 32 ohms

General

Power requirements	AEP Model : 220 V AC (or 240 V AC adjustable by Sony personnel), 50/60 Hz Australian Model : 240 V AC, 50/60 Hz US, Canadian Models : 120 V AC, 60 Hz E Model : 110, 120, 220, or 240 V AC adjustable, 50/60 Hz
Power consumption	10 W
Dimensions (approx., including projections)	430×100×280 mm (w/h/d) (17×4×11 1/8 inches)
Weight (approx.)	3.5 kg (7 lbs 12 oz)

Supplied accessories

Audio cord	1 (2 phono plugs – 2 phono plugs)
Remote commander (for CDP-391 only)	1
R6 (size AA) batteries (for CDP-391 only)	2

Remote commander RM-D190 (for CDP-391 only)

Remote control system	Infrared control
Power requirements	3 V DC with two R6 (size AA) batteries
Dimensions	Approx. 40×20×175 mm (w/h/d) (1 5/8×13/16×7 inches)
Weight	Approx. 95 g (4 oz) Including batteries

Design and specifications subject to change without notice.

COMPACT DISC PLAYER

SONY®

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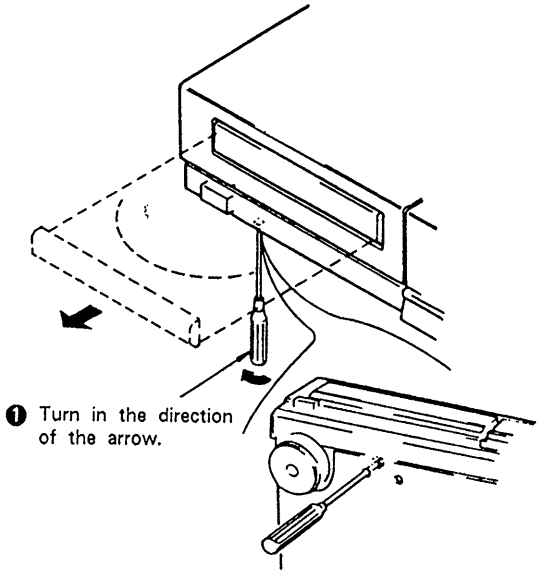
HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF



Caution : When you work, keep the set horizontal.

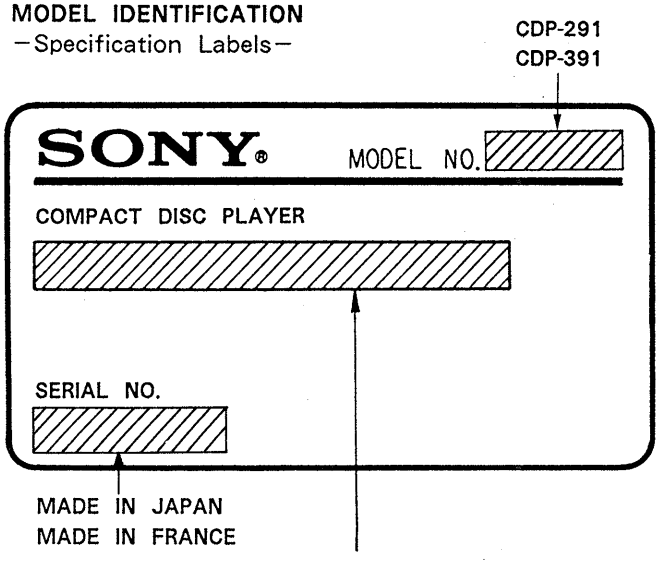
SAFETY-RELATED COMPONENT WARNING!!

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.

MODEL IDENTIFICATION
—Specification Labels—



US, Canadian model : AC : 120V 60Hz 10W
AEP model : AC : 220V~50/60Hz
UK model : AC : 240V~50/60Hz
E model : AC : 110—120, 220—240V~ 50/60Hz 10W
Australian model : AC : 240V~50/60Hz

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 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)

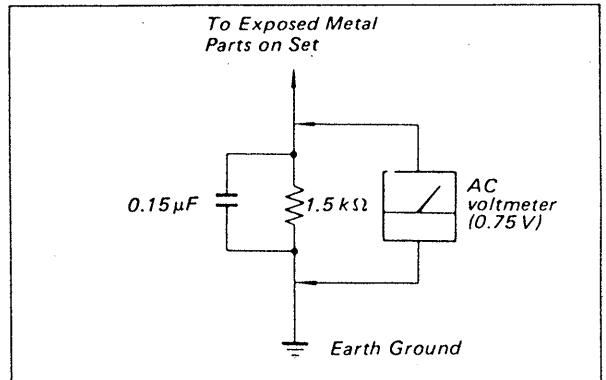


Fig. A. Using an AC voltmeter to check AC leakage.

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 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.

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 Optiocal Pick-up Block (including APC borad).

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

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

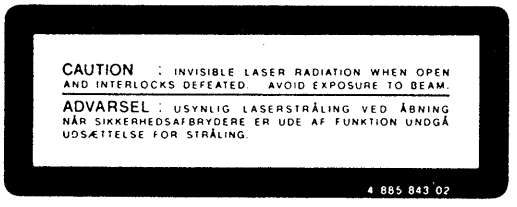
   - Klassifikation: Klasse IIIb.

2. Adskil aldrig den optiske pick-up enhed under service, og juster ikke APC kredsløbet (Automatic Power Control). Hvis APC kredsløbet (incl. laserdioden) 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

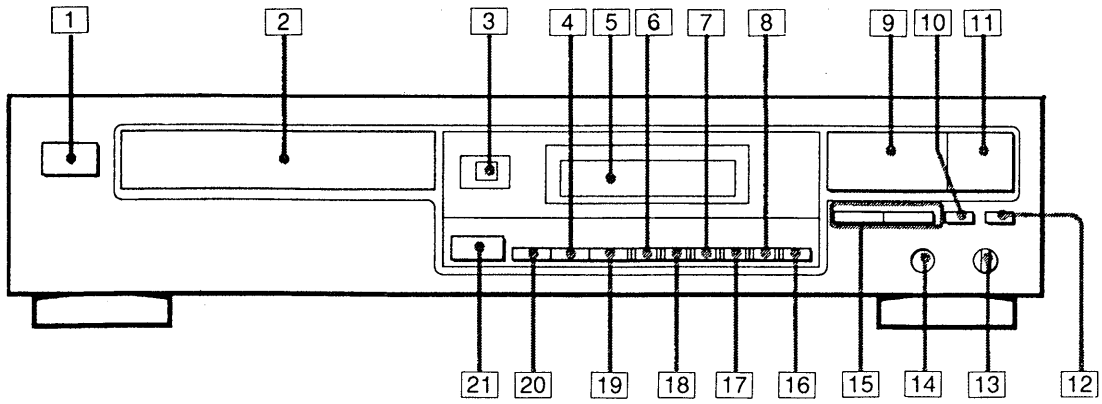


VAROITUS: Laite sisältää, laserdiodin, joka lähettää (näkymätöntä) silmille vaarallista lasersateilyä.

SECTION 1
GENERAL

1-1. LOCAITON OF CONTROLS

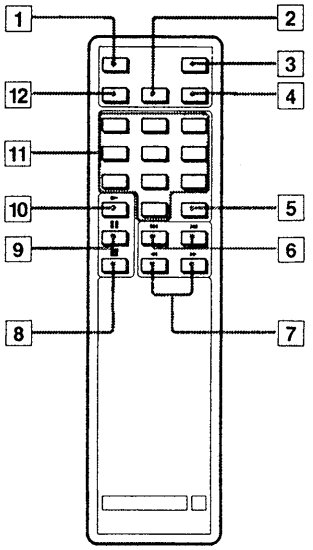
Front Panel



1 POWER switch
2 Disc tray
3 Remote sensor
4 SHUFFLE button
5 Display window
6 CHECK (program check) button
7 TIME button
8 FADER button
9 ▶II (play/pause) button
10 EDIT/TIME FADE button
11 ■ (stop) button
12 TIME SET button
13 PHONES LEVEL control
14 PHONES jack
15 ⏮ ◀◀/▶▶ ⏭ (AMS*/RMS**/manual search) buttons
16 PEAK SEARCH button
17 REPEAT button
18 CLEAR (program clear) button
19 PROGRAM button
20 CONTINUE button
21 ⏏ (open/close) button

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

Remote Commander (CDP-391 only)



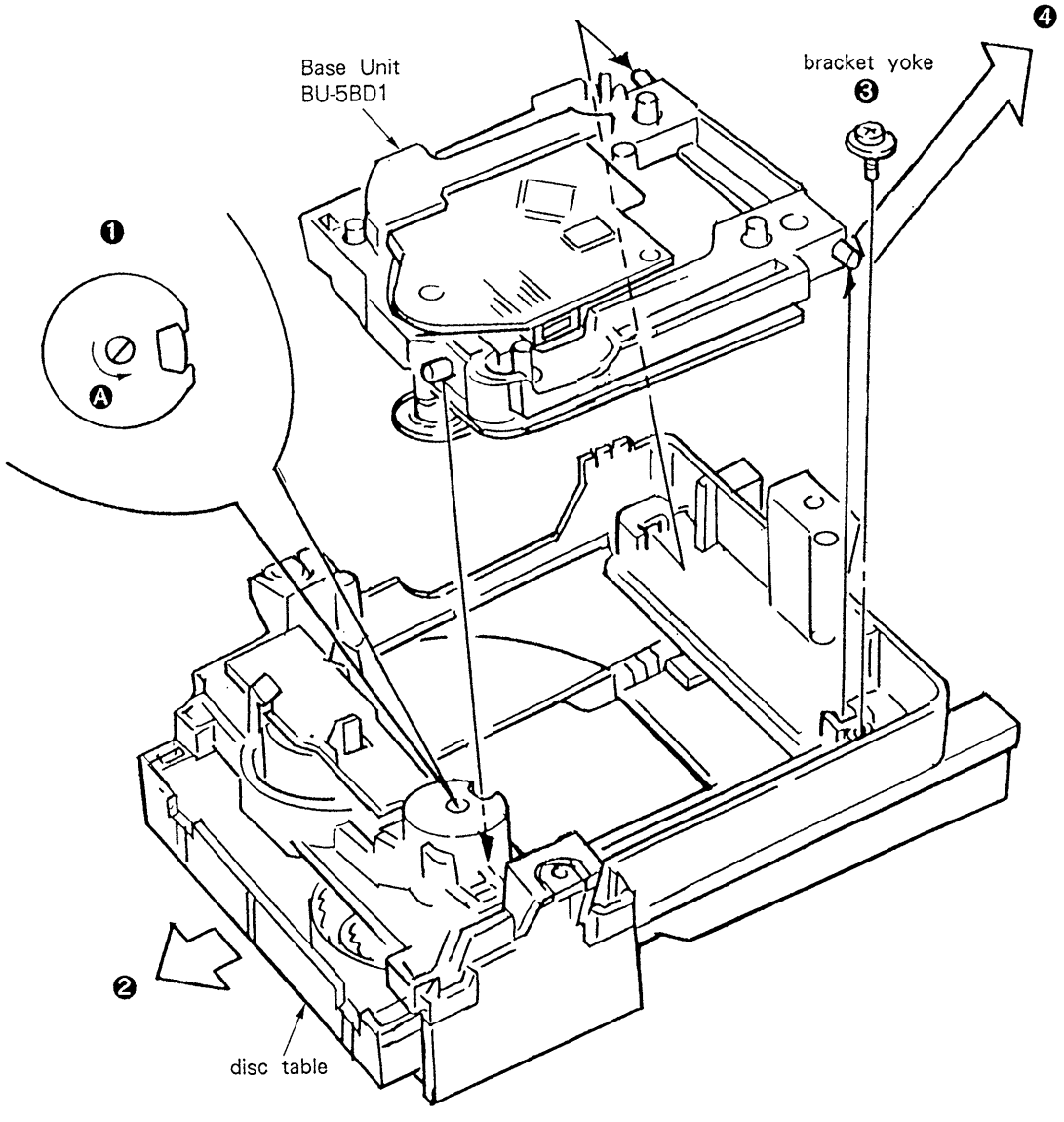
1 REPEAT button
2 SHUFFLE button
3 FADER button
4 PGM (program) button
5 >10 (over 10) button
6 ⏮ ⏭ AMS buttons
7 ◀◀ ▶▶ (manual search) buttons
8 ■ (stop) button
9 II (pause) button
10 ▶ (play) button
11 Numeric buttons
12 CONTINUE button

SECTION 2
DISASSEMBLY

BASE UNIT REMOVAL

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

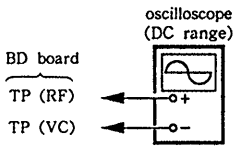
1. Remove CD mechanism from the set and turn over.
2. Turn the cam in the Arrow Ⓐ direction by the ⊖ driver.
3. Take out disc table.
4. Remove bracket yoke.
5. Remove BU-5BD1 in the Arrow ❹ direction.



SECTION 3
ELECTRICAL ADJUSTMENTS

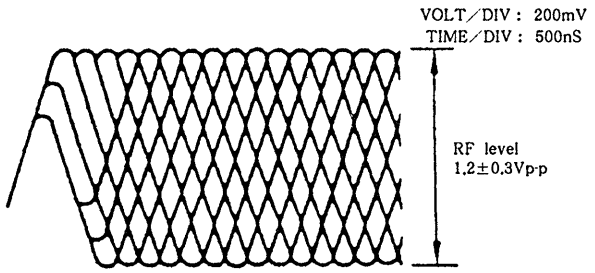
1. Perform adjustments in the order given.
2. Use YEDS-18 disc (3-702-101-1) unless otherwise indicated.
3. Use the oscilloscope with more than 10 MΩ impedance.

RF Level Check
Procedure ;



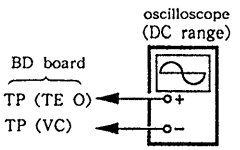
1. Connect oscilloscope to test point TP (RF) and TP (VC) on BD board.
2. Confirm that RF level and eye pattern is optimum.
   Oputimum eye pattern means that shape "◇" can be clearly distinguished at the center of the wave form.

RF Signal Reference Waveform (eye pattern)



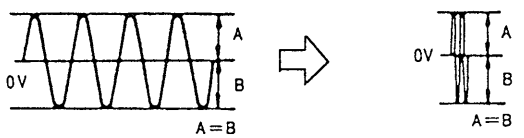
REFERENCE

E-F Balance Check
Procedure :

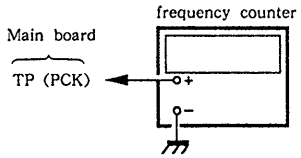


1. Connect test point TP (ADJ) and TP (TES) to ground with lead wire.
2. Connect oscilloscope to test point TP (TE O) and TP (VC) on BD board.
3. Turn POWER switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 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 playback.
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 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 mechanical shock when the 2-axis device operate.

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

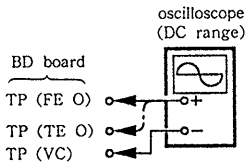
- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

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.

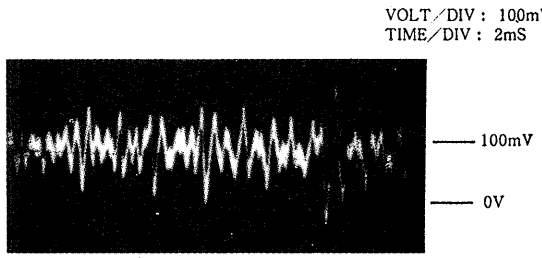
–Primary Adjustment–

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

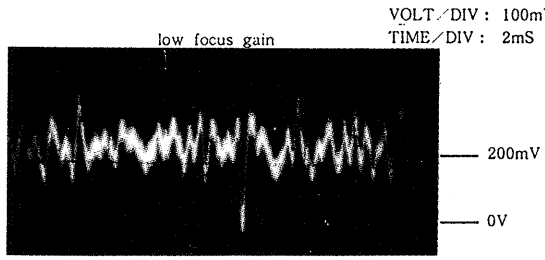


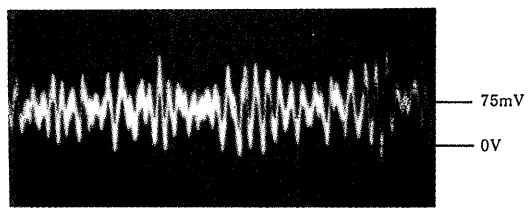
Procedure :

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. Insert disc (YEDS-18) and press ▷ PLAY button.
3. Connect oscilloscope to TP (FEO) and TP (VC) on BD board.
4. Adjustment RV101 on digital board so that the waveform is as shown in the figure below. (focus gain adjustment)

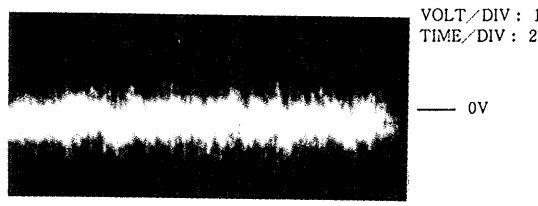


• Incorrent Examples (DC level changes more than on adjusted waveform)

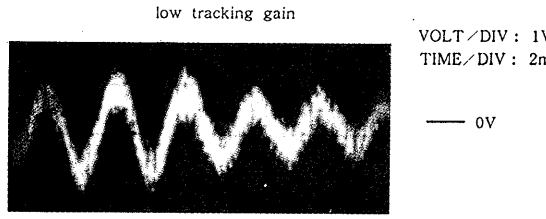


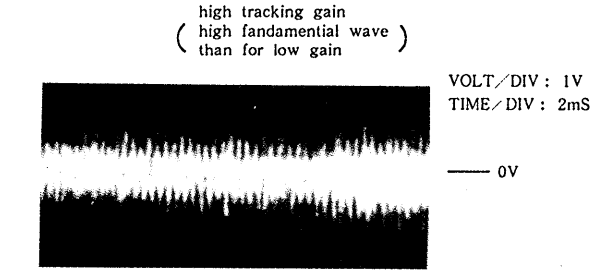


5. Connect oscilloscope to TP (TEO) and TP (VC) on BD board.
6. Adjust RV102 on digital board so that the waveform is as shown the figure below. (tracking gain adjustment)



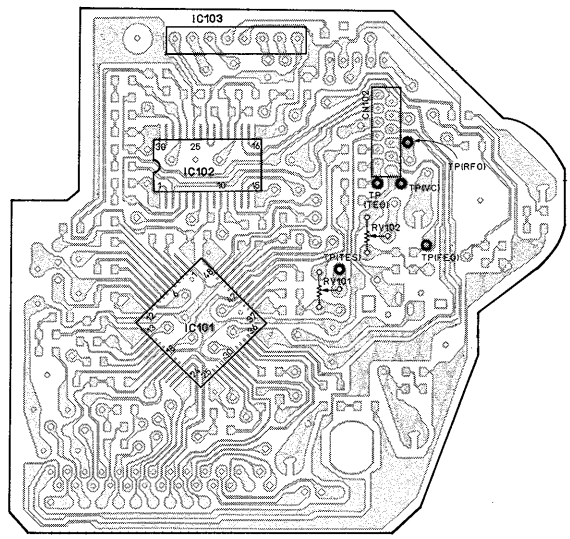
• Incorrect Examples (fundamential wave appears)



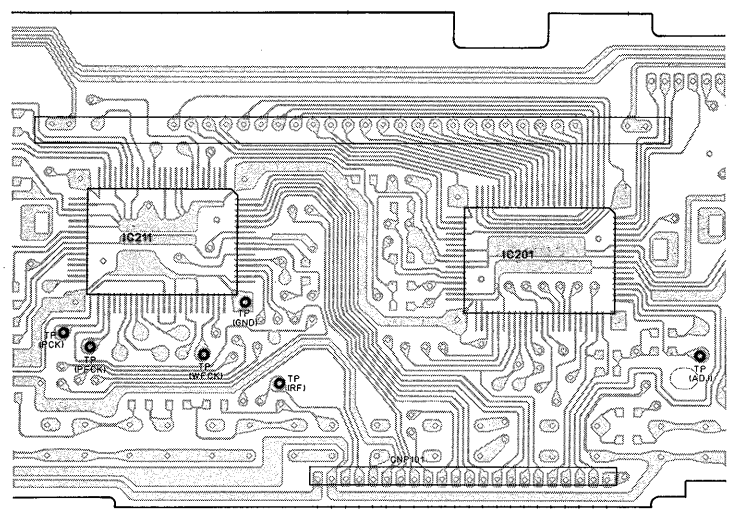


Adjustment Location :

【BD board】

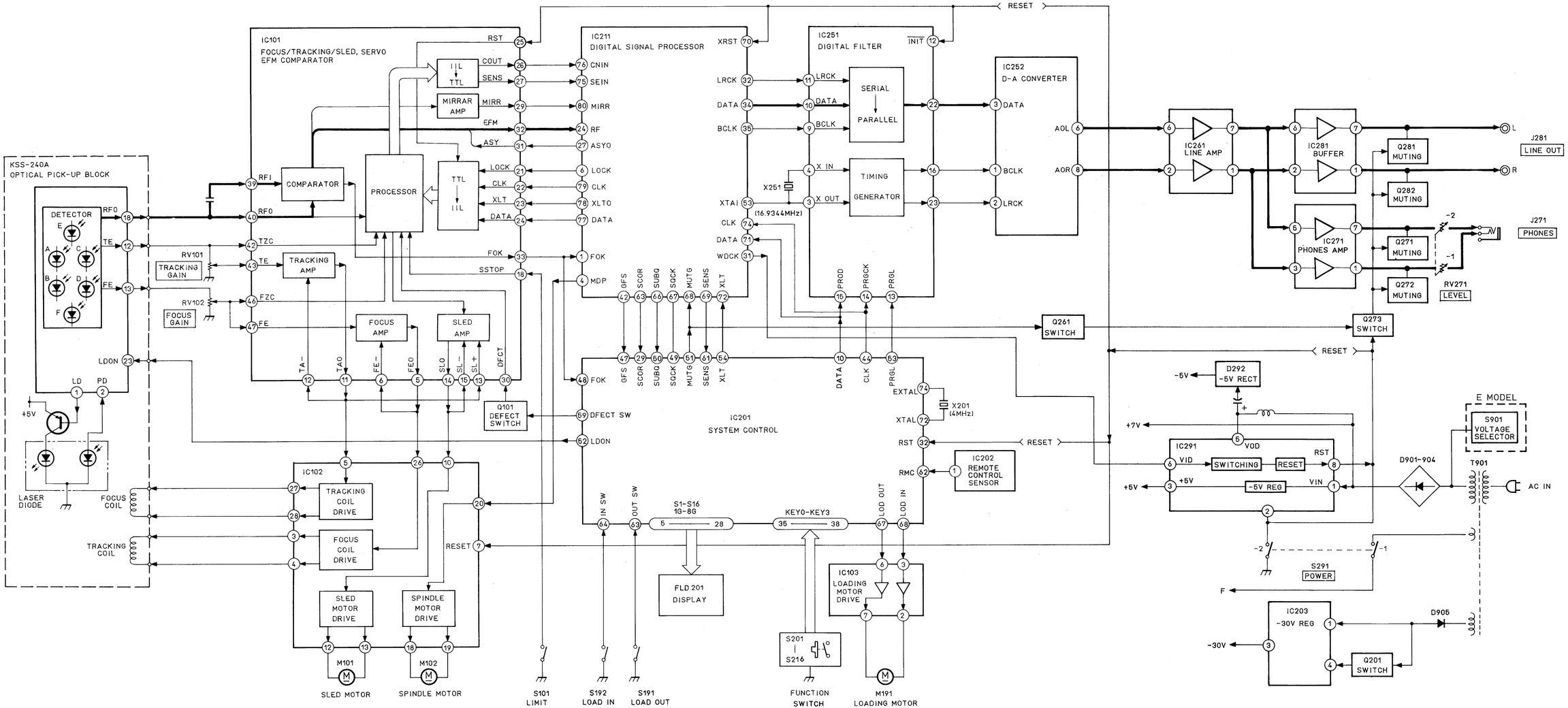


【Main board】



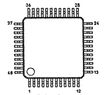
SECTION 4
DIAGRAMS

4-1. BLOCK DIAGRAM

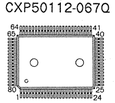


• SEMICONDUCTOR LEAD LAYOUTS

CXA-1372Q



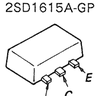
CXD2500Q
CXP50112-067Q



DTC144EK
2SA1179-M5M6
2SC3395
2SD596-DV345

2SA1341

2SD1615A-GP



DAN202U

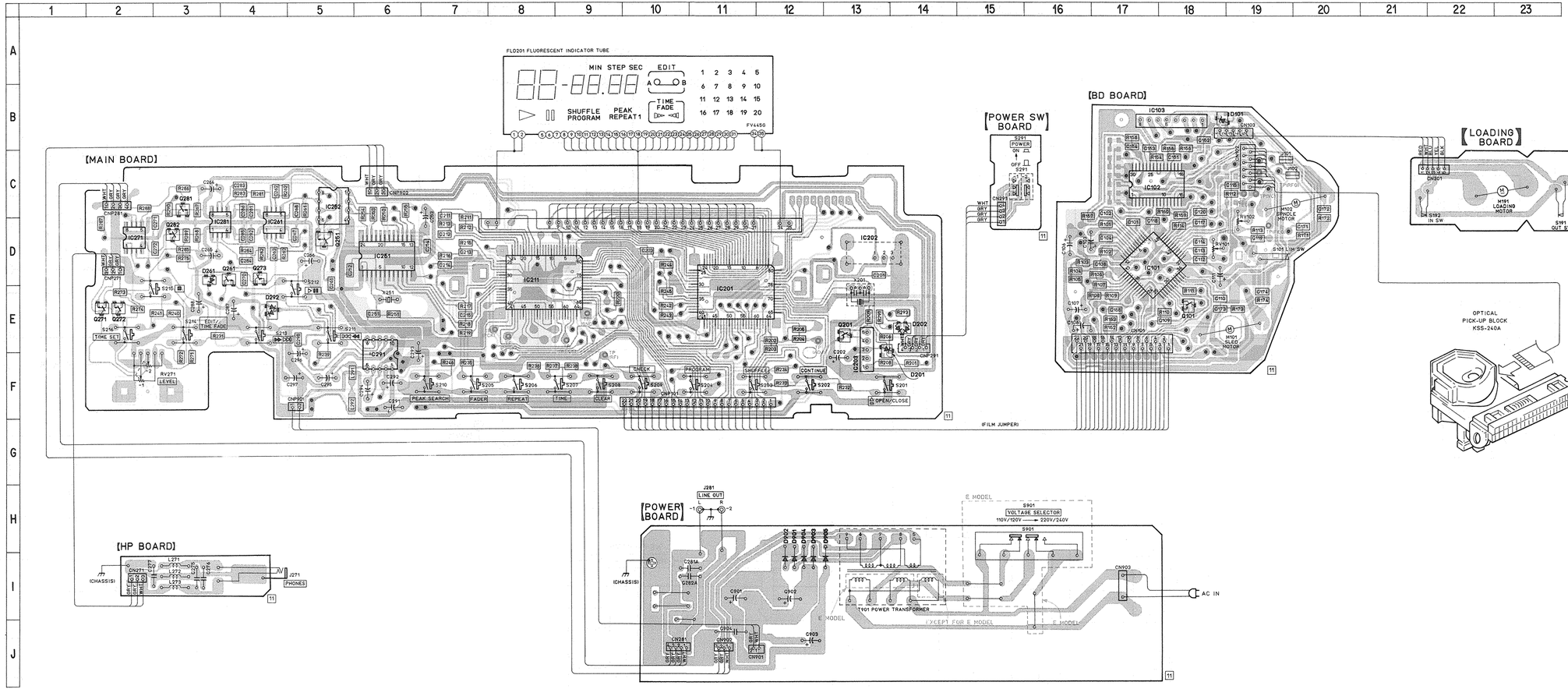
RD4.7M-B1
RD6.8M-B2

1SS226

11ES2

• SEMICONDUCTOR LOCATION

Ref. No.	Location
IC101	D-17
IC102	C-17
IC103	B-17
IC201	E-11
IC202	D-13
IC203	F-13
IC211	D-8
IC251	D-6
IC252	C-5
IC261	D-4
IC271	D-2
IC281	D-4
IC291	E-6
Q101	E-18
Q201	E-13
Q251	D-5
Q261	D-4
Q271	E-2
Q272	E-2
Q273	D-4
Q281	C-3
Q282	D-3
D101	B-18
D201	E-13
D202	E-14
D261	D-3
D292	E-4
D901	H-12
D902	H-12
D903	H-12
D904	H-12
D905	H-13



Note :

- ● : Through hole.
- ▒ : Pattern on the side which is seen.
- ▒ : Pattern of the rear side.

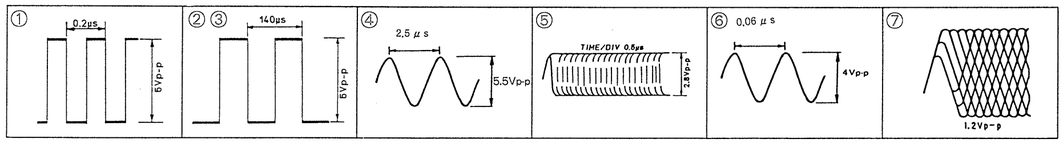
Note :

- All capacitors are in μ F unless otherwise noted. pF : μ μ F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- △ : internal component.

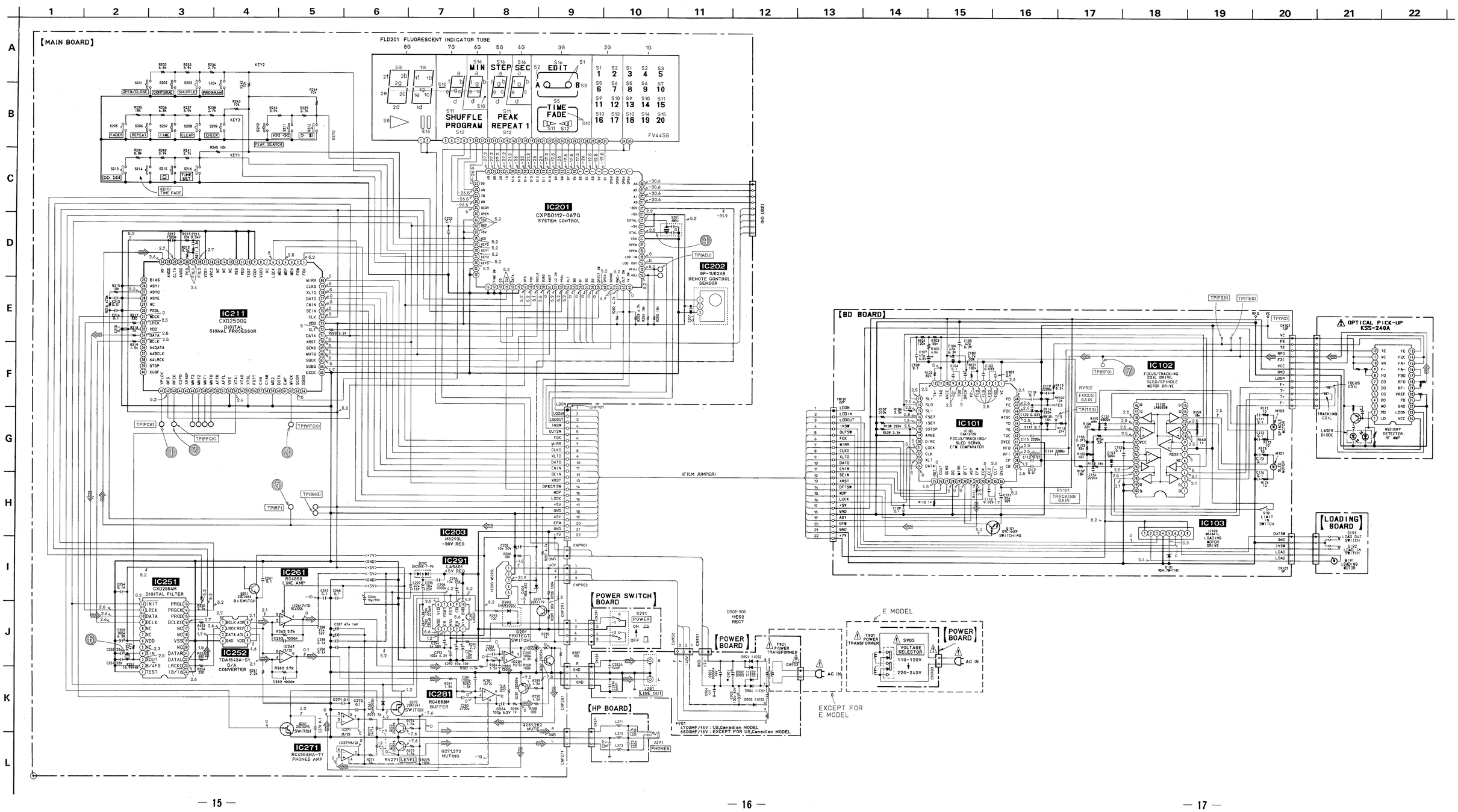
Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ▭▭▭ : B+ Line
- ▭ ▭ ▭ : B− Line
- ▭ : adjustment for repair.
- 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 a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ▱▱ : CD

• WAVEFORM



4-3. SCHEMATIC DIAGRAM

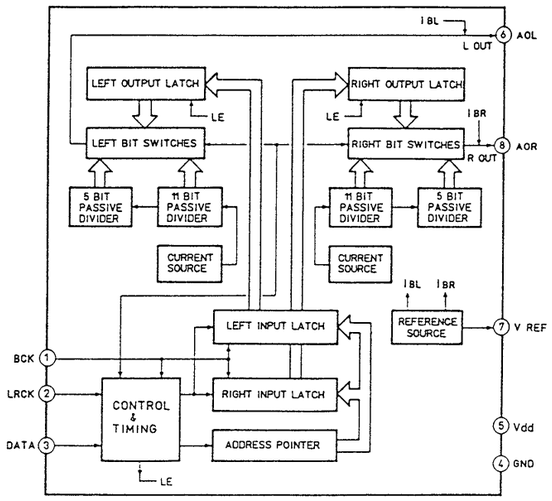


4-4. IC101 (CXA1372Q) PIN DESCRIPTIONS

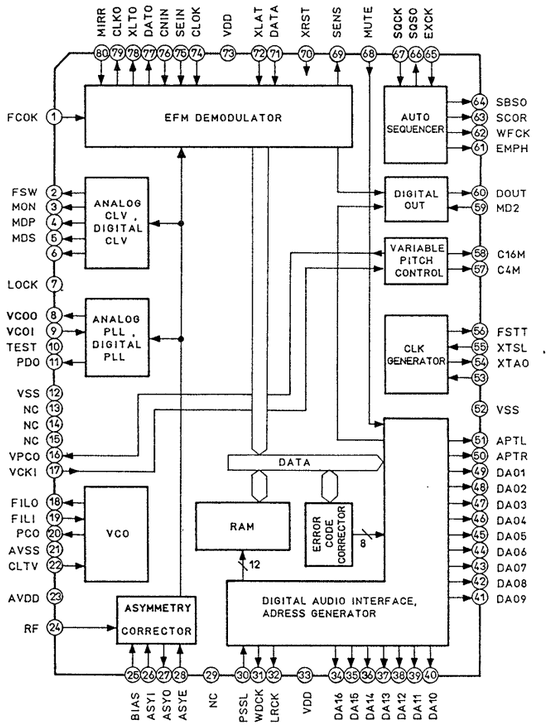
PIN NO.	PIN NAME	I/O	FUNCTION
1	VC		2.5 Volts power supply.
2	FGD	I	Focus gain adjusting capacitor connected between ② pin and ③ pin.
3	FS3	I	Focus gain adjusting capacitor connected between ② pin and ③ pin.
4	FLB	I	Focus Servo low frequency boost-up capacitor connected.
5	FEO	O	Focus drive output.
6	FE−	I	Focus error amp inverted input.
7	SRCH	I	Connected capacitor to making the focus serch waveform.
8	TGU	I	Tracking gain adjusting capacitor connected between ⑧ pin and ⑨ pin.
9	TG2	I	Tracking gain adjusting capacitor connected between ⑧ pin and ⑨ pin.
10	AV CC		+5 Volts power supply.
11	TAO	O	Tracking drive output.
12	TA−	I	Tracking amp inverted input.
13	SL+	I	Sled amp non-inverted input.
14	SLO	O	Sled drive output.
15	SL−	I	Sled amp non-inverted input.
16	FSET	I	Phase stabilizer setting resistor connected.
17	ISET	I	Current setting resistor connected.
18	SSTOP	I	Limit switch connection port.
19	AV EE		Ground (0V).
20	DIRC	I	Direct control port. Non-connected.
21	LOCK	I	Sled free-run protection is operate at "L".
22	CLK	I	Serial data transmission clock input form digital signal processor.
23	XLT	I	Latch input from digital signal processor.
24	DATA	I	Serial input from digital signal processor.
25	SENS	O	Outputs internal state corresponding to address.
26	XRST	I	System reset input. Reset at "L".
27	C. OUT	O	Tracking counter output.
28	D GND		Digitel ground. Grounded
29	MIRR	O	Mirror output digital signal processor.
30	DFCT	O	Deffect output. Deffect at "H".
31	ASY	I	Auto symmetry control input.
32	EFM	O	EFM Comparator output.
33	FOK	O	Focus OK.
34	CC2	I	Deffect bottom hold input.
35	CC1	O	Deffect bottom hold output.
36	DV CC		+5 Volts power supply.
37	CB	I	Deffect bottom hold capacitor connected.
38	CP	I	Mirror hold capacitor connected.
39	RFI	I	RF Signal input (Capacitance coupled).
40	RFO	I	RF Signal input (Direct Coupled).
41	DV EE		Grounded (0V).
42	TZC	I	Tracking Zero-cross comparator input.
43	TE	I	Tracking error amp input.
44	TDFCT	I	Deffect correction hold capacitor connected.
45	ATSC	I	Anti-shock input.
46	FZC	I	Focus Zero-cross comparator input.
47	FE	I	Focus error input.
48	FDFCT	I	Deffect correction hold capacitor connected.

4-5. IC BLOCK DIAGRAM

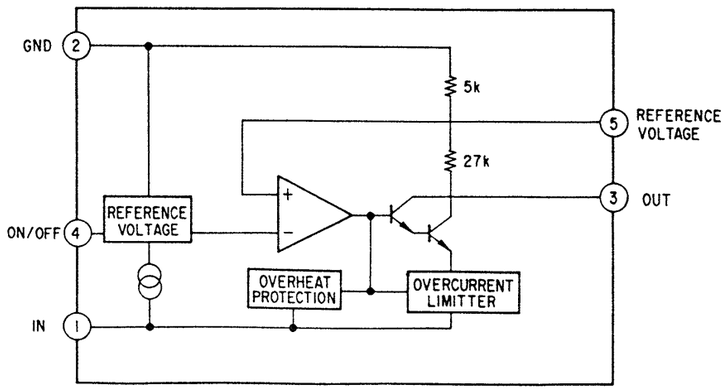
IC252 TDA1543



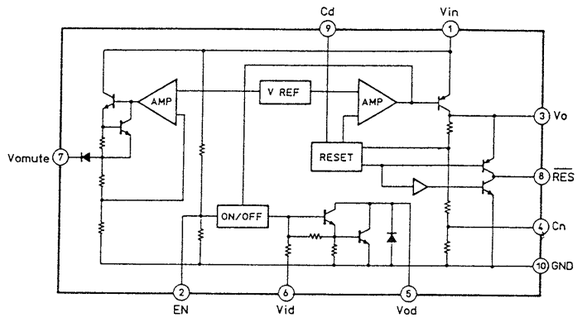
IC211 CXD2500Q



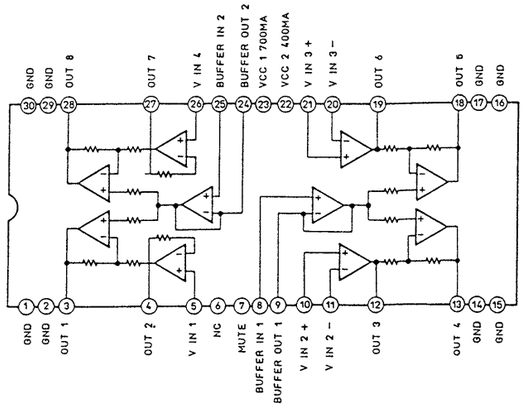
IC203 M5293L



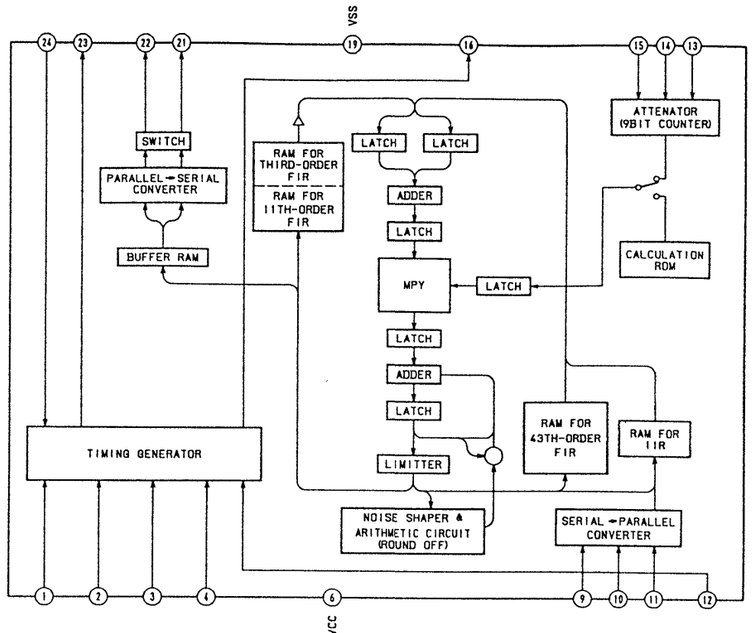
IC291 LA5601



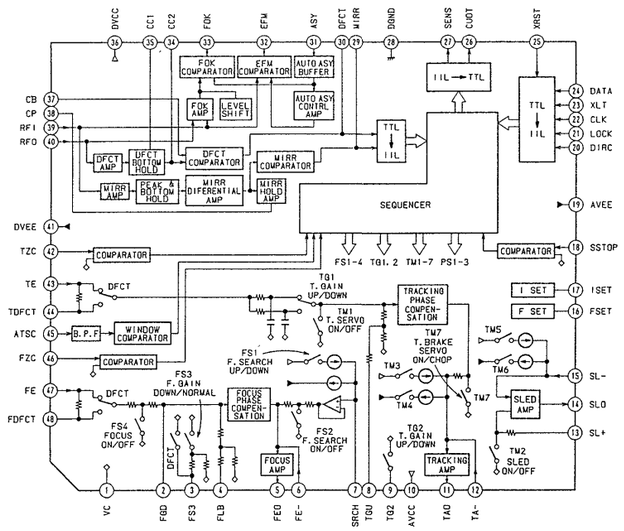
IC102 LA6532



C251 CXD2554M



IC101 CXA1372Q



SECTION 5
EXPLODED VIEWS

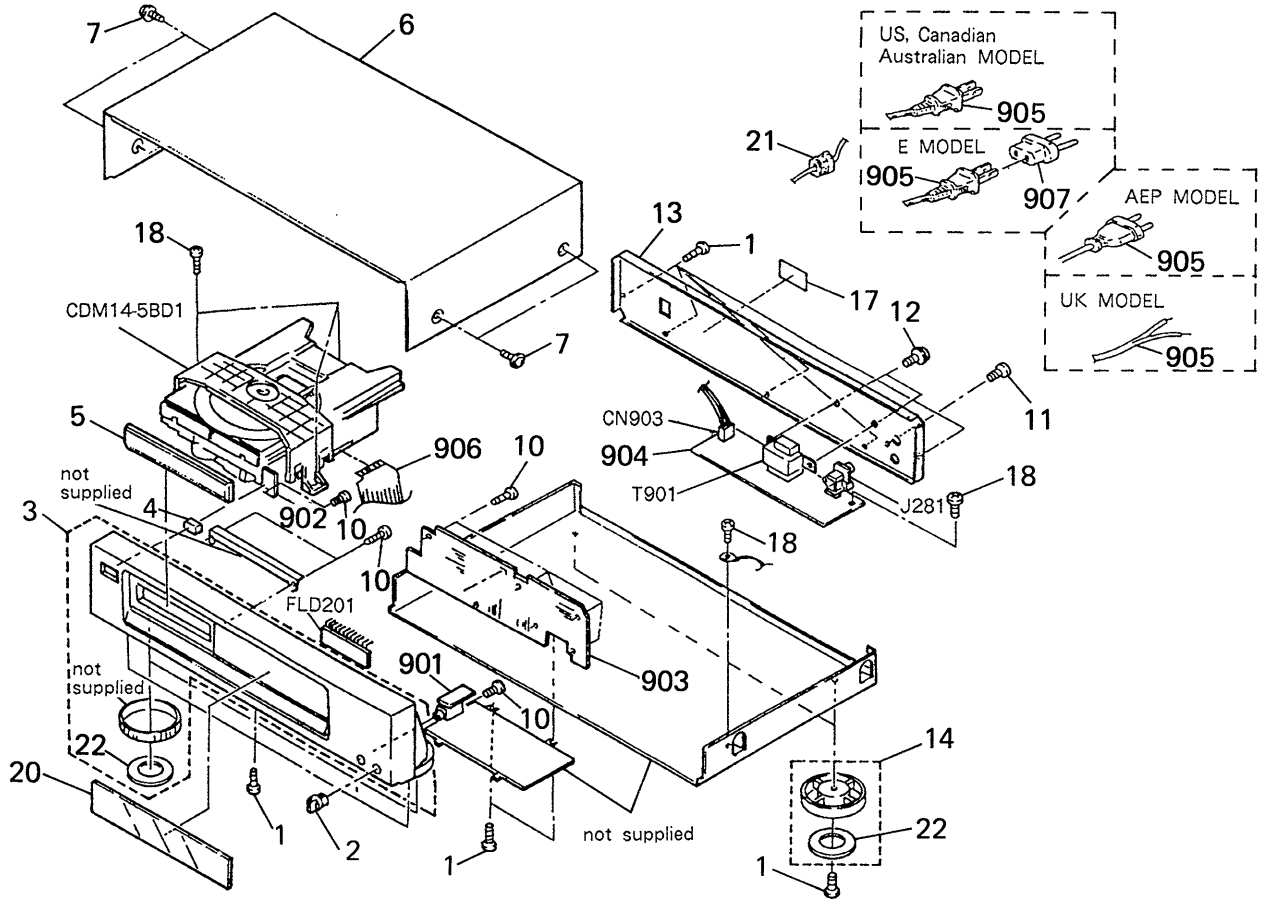
NOTE:

- 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.

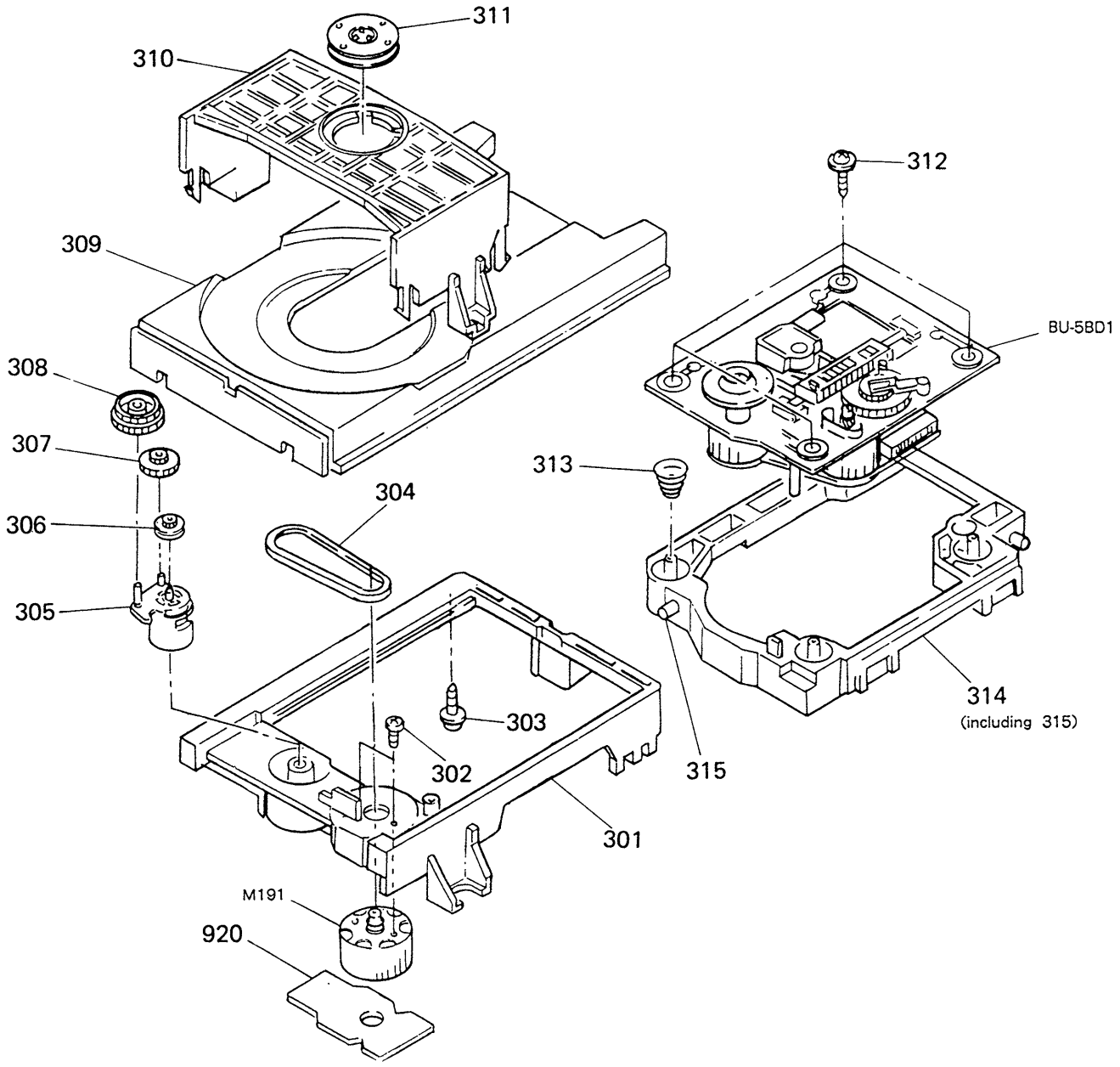
(1)



No.	Part No.	Description	Remarks
1	7-682-548-09	SCREW +BVTT 3X8 (S)	
2	4-933-116-11	KNOB (C, TYPE), VOL	
3	X-4939-701-1	(391:US,Canadian).....PANEL ASSY, FRONT	
	X-4939-702-1	(MADE IN JAPAN,391:AEP,E,Australian) ...PANEL ASSY, FRONT	
	X-4939-703-1	(MADE IN FRANCE,391)...PANEL ASSY, FRONT	
	X-4939-704-1	(291:US,Canadian).....PANEL ASSY, FRONT	
	X-4939-705-1	(MADE IN JAPAN,291:AEP,E,Australian) ...PANEL ASSY, FRONT	
	X-4939-706-1	(MADE IN FRANCE,291)...PANEL ASSY, FRONT	
4	4-922-921-01	BUTTON (POWER)	
5	4-939-704-01	(291:E,Australian,391).....PANEL, LOADING	
	4-939-704-11	(291:EXCEPT E,Australian)..PANEL, LOADING	
6	*4-929-035-31	CASE	
7	3-704-366-31	SCREW (CASE) (M3X6)	
10	4-928-635-01	SCREW, +BV (2.6X8) TAPPING	
11	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
12	7-682-562-09	SCREW +BVTT 4X10 (S)	
13	*4-939-707-01	(391:US).....PANEL, BACK	
	*4-939-707-11	(391:Canadian).....PANEL, BACK	
	*4-939-707-21	(MADE IN JAPAN 391:AEP)...PANEL, BACK	
	*4-939-707-31	(MADE IN FRANCE).....PANEL, BACK	
	*4-939-707-41	(391:E).....PANEL, BACK	
	*4-939-707-51	(391:Australian).....PANEL, BACK	
	*4-939-708-01	(291:US).....PANEL, BACK	
	*4-939-708-11	(291:Canadian).....PANEL, BACK	
	*4-939-708-21	(MADE IN JAPAN 291:AEP)...PANEL, BACK	
	*4-939-708-31	(291:E).....PANEL, BACK	
	*4-939-708-41	(291:Australian).....PANEL, BACK	
14	X-3304-938-2	(EXCEPT US,Canadian)....FOOT ASSY	
	X-4885-950-1	(US,Canadian).....FOOT ASSY	
17	*4-941-548-01	(EXCEPT US,Canadian)...LABEL, CLASS 1	
18	7-682-547-04	SCREW +BVTT 3X6 (S)	

No.	Part No.	Description	Remarks
20	4-939-706-01	(391)...PLATE, INDICATION	
	4-939-706-11	(291)...PLATE, INDICATION	
21	*3-703-244-00	(AEP,UK,Australian)..BUSHING (2104), CORD	
	*3-703-571-11	(US,Canadian,E)...BUSHING (S)(4515), CORD	
22	4-923-836-11	CUSHION	
901	*1-636-124-11	(MADE IN JAPAN)....PC BOARD, H.P	
	*1-636-128-11	(MADE IN FRANCE)...PC BOARD, H.P	
902	*1-636-125-11	(MADE IN JAPAN)....PC BOARD, POWER SW	
	*1-636-129-11	(MADE IN FRANCE)...PC BOARD, POWER SW	
903	*A-4617-513-A	(MADE IN FRANCE)...MOUNTED PCB, MAIN	
	*A-4617-517-A	(MADE IN JAPAN)....MOUNTED PCB, MAIN	
904	*1-636-126-11	(MADE IN JAPAN)....PC BOARD, POWER	
	*1-636-130-11	(MADE IN FRANCE)...PC BOARD, POWER	
905	⚠1-558-945-21	(US,Canadian)...CORD, POWER (POLAR SPR-1)	
	⚠1-574-127-31	(MADE IN FRANCE:AEP)...CORD, POWER	
	⚠1-574-390-31	(UK).....CORD, POWER	
	⚠1-575-653-21	(E).....CORD, POWER	
	⚠1-575-651-21	(MADE IN JAPAN:AEP)....CORD, POWER	
	⚠1-575-677-11	(Australian).....CORD, POWER	
906	1-535-798-11	JUMPER, FILM (WITH TERMINAL)	
907	1-569-007-11	(E)...ADAPTOR, CONVERSION	
CN903	⚠*1-580-230-11	PIN, CONNECTOR 2P	
FLD201	1-519-611-11	INDICATOR TUBE, FLUORESCENT	
J281	1-569-442-11	JACK, PIN 2P (LINE OUT)	
T901	⚠1-450-212-11	(US,Canadian).....TRANSFORMER, POWER	
T901	⚠1-450-213-11	(MADE IN JAPAN:AEP,Australian) ....TRANSFORMER, POWER	
T901	⚠1-450-214-11	(E).....TRANSFORMER, POWER	
T901	⚠1-450-216-11	(MADE IN FRANCE)...TRANSFORMER, POWER	

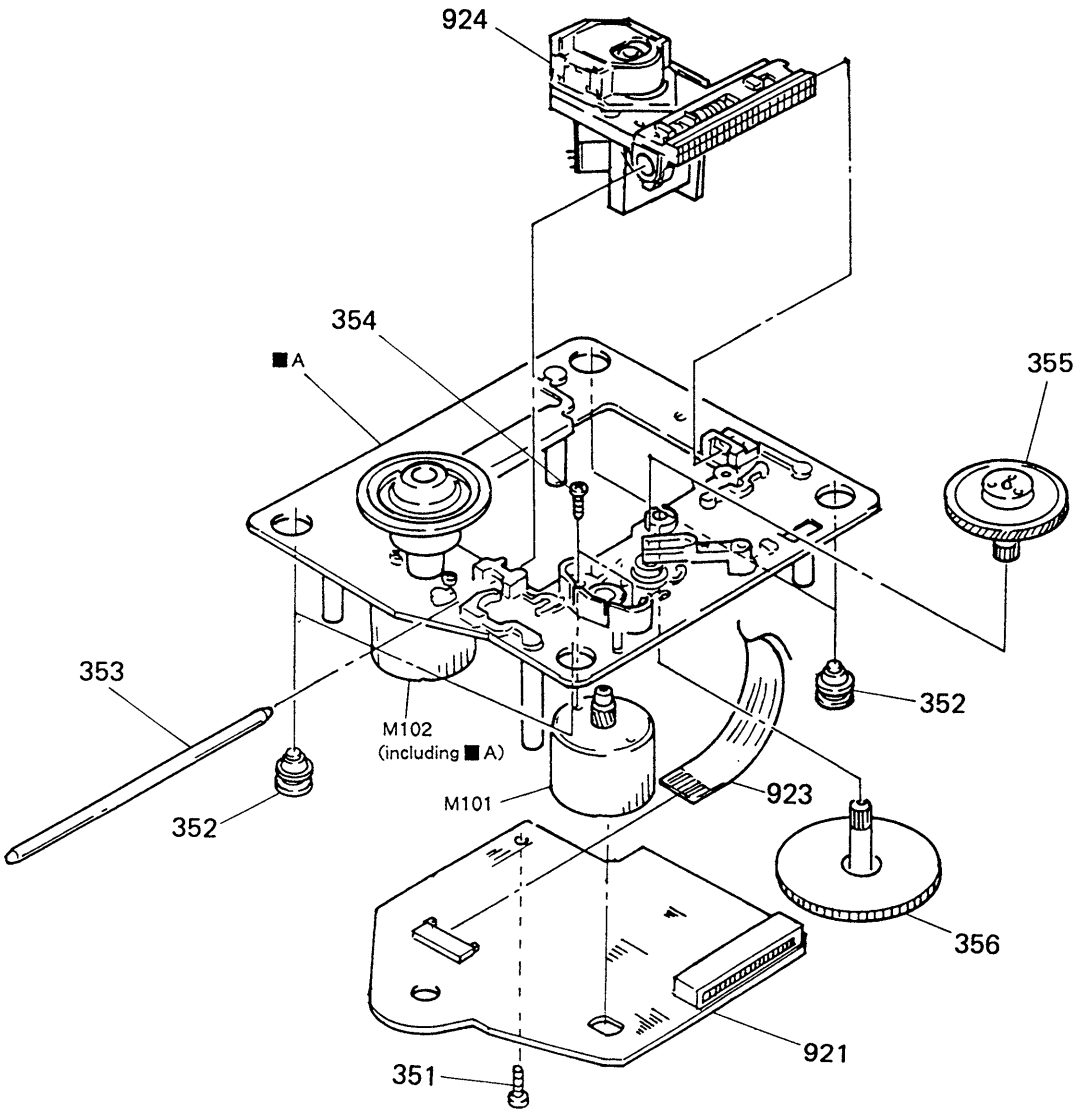
(2) CD MECHANISM SECTION (CDM14-5BD1)



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	*1-452-538-11	MAGNET	
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	*1-632-202-11	PC BOARD, LOADING	
M191	A-4604-363-A	(MADE IN JAPAN)....MOTOR (L) ASSY	
M191	A-4604-615-A	(MADE IN FRANCE)...MOTOR (L) ASSY	

(3) OPTICAL PICK-UP BLOCK (BU-5BD1)



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
351	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	
352	4-933-126-01	INSULATOR (A)	
353	4-917-565-01	SHAFT, SLED	
354	7-621-255-15	SCREW +P 2X3	
355	4-917-567-01	GEAR (M)	
356	4-917-564-01	GEAR (P), FLATNESS	

No.	Part No.	Description	Remarks
921	*A-4617-161-A	(MADE IN JAPAN)....MOUNTED PCB, BD	
	*A-4617-532-A	(MADE IN FRANCE)...MOUNTED PCB, BD	
923	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
924	⚠8-848-144-11	DEVICE, OPTICAL KSS-240A	
M101	X-4917-504-1	MOTOR ASSY (SLED)	
M102	X-4917-523-3	MOTOR ASSY (SPINDLE)	

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	*1-636-124-11	(MADE IN JAPAN)....PC BOARD, H.P
	*1-636-128-11	(MADE IN FRANCE)...PC BOARD, H.P
902	*1-636-125-11	(MADE IN JAPAN)....PC BOARD, POWER SW
	*1-636-129-11	(MADE IN FRANCE)...PC BOARD, POWER SW
903	*A-4617-513-A	(MADE IN FRANCE)...MOUNTED PCB, MAIN
	*A-4617-517-A	(MADE IN JAPAN)....MOUNTED PCB, MAIN
904	*1-636-126-11	(MADE IN JAPAN)....PC BOARD, POWER
	*1-636-130-11	(MADE IN FRANCE)...PC BOARD, POWER
905	⚠1-558-945-21	(US,Canadian)...CORD, POWER(POLAR SPR-1)
	⚠1-574-127-31	(MADE IN FRANCE:AEP)...CORD, POWER
	⚠1-574-390-31	(UK).....CORD, POWER
	⚠1-575-653-21	(E).....CORD, POWER
	⚠1-575-651-21	(MADE IN JAPAN:AEP)....CORD, POWER
	⚠1-575-677-11	(Australian).....CORD, POWER
906	1-535-798-11	JUMPER, FILM (WITH TERMINAL)
907	1-569-007-11	(E)...ADAPTOR, CONVERSION
920	*1-632-202-11	PC BOARD, LOADING
921	*A-4617-161-A	(MADE IN JAPAN)....MOUNTED PCB, BD
	*A-4617-532-A	(MADE IN FRANCE)...MOUNTED PCB, BD
923	1-575-001-11	WIRE, FLAT TYPE (12 CORE)
924	⚠8-848-144-11	DEVICE, OPTICAL KSS-240A
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
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

Ref.No.	Part No.	Description
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
C201	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C202	1-124-261-00	ELECT 10MF 20% 50V
C203	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C211	1-163-809-11	CERAMIC CHIP 0.047MF 10% 25V
C212	1-163-011-11	CERAMIC CHIP 0.0015MF 10% 50V
C213	1-164-232-11	CERAMIC CHIP 0.01MF 50V
C214	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C215	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C251	1-163-101-00	CERAMIC CHIP 22PF 5% 50V
C252	1-163-101-00	CERAMIC CHIP 22PF 5% 50V
C253	1-124-225-00	ELECT 100MF 20% 6.3V
C254	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C261	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C262	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V
C263	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V
C264	1-124-225-00	ELECT 100MF 20% 6.3V
C265	1-124-225-00	ELECT 100MF 20% 6.3V
C266	1-126-157-11	ELECT 10MF 20% 10V
C267	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C268	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C270	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C271	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C272	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C275	1-162-291-31	CERAMIC 560PF 10% 50V
C276	1-162-291-31	CERAMIC 560PF 10% 50V
C277	1-164-159-11	CERAMIC 0.1MF 50V
C281A	1-162-291-31	CERAMIC 560PF 10% 50V
C281	1-163-010-11	CERAMIC CHIP 0.0012MF 10% 50V
C282A	1-162-291-31	CERAMIC 560PF 10% 50V
C282	1-163-010-11	CERAMIC CHIP 0.0012MF 10% 50V
C283	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V
C284	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V
C285	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C286	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C287	1-124-589-11	ELECT 47MF 20% 16V
C288	1-124-589-11	ELECT 47MF 20% 16V
C291	1-126-096-11	ELECT 10MF 20% 25V
C292	1-126-157-11	ELECT 10MF 20% 10V
C293	1-124-225-00	ELECT 100MF 20% 6.3V
C294	1-126-160-11	ELECT 1MF 20% 50V
C295	1-126-096-11	ELECT 10MF 20% 25V
C296	1-126-096-11	ELECT 10MF 20% 25V

Ref.No.	Part No.	Description
C297	1-124-589-11	ELECT 47MF 20% 16V
C298	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V
C901	1-124-898-51	(US,Canadian)...ELECT 4700MF 20% 16V
C901	1-126-017-11	(EXCEPT US,Canadian) ...ELECT 6800MF 20% 16V
C902	1-126-939-11	ELECT 10000MF 20% 16V
C903	1-124-572-11	ELECT 100MF 20% 63V
C904	1-164-159-11	CERAMIC 0.1MF 50V
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
CN271	*1-568-941-11	PIN, CONNECTOR 3P
CN281	*1-568-953-11	PIN, CONNECTOR 4P
CN291	*1-568-953-11	PIN, CONNECTOR 4P
CN301	*1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P
CN901	*1-568-951-11	PIN, CONNECTOR 2P
CN902	*1-568-952-11	PIN, CONNECTOR 3P
CN903⚠	*1-580-230-11	PIN, CONNECTOR 2P
D101	8-719-105-72	DIODE RD4.7M-B1
D201	8-719-106-18	DIODE RD6.8M-B3
D202	8-719-941-86	DIODE DAN202U
D261	8-719-941-86	DIODE DAN202U
D292	8-719-800-76	DIODE 1SS226
D901	8-719-200-82	DIODE 11ES2
D902	8-719-200-82	DIODE 11ES2
D903	8-719-200-82	DIODE 11ES2
D904	8-719-200-82	DIODE 11ES2
D905	8-719-200-82	DIODE 11ES2
FLD201	1-519-611-11	INDICATOR TUBE, FLUORESCENT
IC101	8-752-050-82	IC CXA1372Q
IC102	8-759-821-94	IC LA6532M
IC103	8-759-633-65	IC M54641L
IC201	8-752-816-23	IC CXP50112-067Q
IC202	8-749-920-83	IC GP1U52XB
IC203	8-759-633-42	IC M5293L
IC211	8-752-334-51	IC CXD2500Q
IC251	8-752-337-10	IC CXD2554M
IC252	8-759-990-13	IC TDA1543A
IC261	8-759-981-92	IC RC4558M
IC271	8-759-981-86	IC RC4556MA
IC281	8-759-981-92	IC RC4558M
IC291	8-759-821-93	IC LA5601
J101	1-216-295-00	METAL GLAZE 0 5% 1/10W
J102	1-216-295-00	METAL GLAZE 0 5% 1/10W
J271	1-568-519-11	JACK, LARGE TYPE (PHONO)
J281	1-569-442-11	JACK, PIN 2P (LINE OUT)
L271	1-412-473-21	INDUCTOR 0UH
L272	1-412-473-21	INDUCTOR 0UH
L273	1-412-473-21	INDUCTOR 0UH
L291	1-410-658-31	INDUCTOR CHIP 220UH
L292	1-410-658-31	INDUCTOR CHIP 220UH
M101	X-4917-504-1	MOTOR ASSY (SLED)
M102	X-4917-523-3	MOTOR ASSY (SPINDLE)
M191	A-4604-363-A	(MADE IN JAPAN)....MOTOR (L) ASSY
M191	A-4604-615-A	(MADE IN FRANCE)...MOTOR (L) ASSY
Q101	8-729-901-01	TRANSISTOR DTC144EK
Q201	8-729-820-76	TRANSISTOR 2SA1179-M5M6
Q251	8-729-106-68	TRANSISTOR 2SD1615A-GP

Ref.No.	Part No.	Description
Q261	8-729-805-45	TRANSISTOR 2SC3395
Q271	8-729-141-75	TRANSISTOR 2SD596-DV345
Q272	8-729-141-75	TRANSISTOR 2SD596-DV345
Q273	8-729-805-76	TRANSISTOR 2SA1341
Q281	8-729-141-75	TRANSISTOR 2SD596-DV345
Q282	8-729-141-75	TRANSISTOR 2SD596-DV345
R101	1-216-097-00	METAL GLAZE 100K 5% 1/10W
R102	1-216-095-00	METAL GLAZE 82K 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
R202	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
R203	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
R204	1-216-079-00	METAL GLAZE 18K 5% 1/10W
R205	1-216-079-00	METAL GLAZE 18K 5% 1/10W
R206	1-216-079-00	METAL GLAZE 18K 5% 1/10W
R207	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
R208	1-216-097-00	METAL GLAZE 100K 5% 1/10W
R209	1-216-097-00	METAL GLAZE 100K 5% 1/10W
R211	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W
R212	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W
R213	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R215	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R216	1-216-113-00	METAL GLAZE 470K 5% 1/10W
R217	1-216-037-00	METAL GLAZE 330 5% 1/10W
R218	1-216-049-00	METAL GLAZE 1K 5% 1/10W
R219	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W
R220	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W
R231	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W
R232	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W
R233	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W
R234	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W
R235	1-216-079-00	METAL GLAZE 18K 5% 1/10W
R236	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W
R237	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W

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
R238	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W
R239	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W
R240	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W
R241	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W
R242	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R243	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R244	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R245	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R246	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W
R251	1-216-041-00	METAL GLAZE 470 5% 1/10W
R252	1-216-049-00	METAL GLAZE 1K 5% 1/10W
R253	1-216-045-00	METAL GLAZE 680 5% 1/10W
R254	1-216-037-00	METAL GLAZE 330 5% 1/10W
R255	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W
R261	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W
R262	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W
R263	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W
R267	1-216-097-00	METAL GLAZE 100K 5% 1/10W
R268	1-216-097-00	METAL GLAZE 100K 5% 1/10W
R271	1-216-019-00	METAL GLAZE 56 5% 1/10W
R272	1-216-019-00	METAL GLAZE 56 5% 1/10W
R273	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W
R274	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W
R275	1-216-097-00	METAL GLAZE 100K 5% 1/10W
R281	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W
R282	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W
R283	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W
R284	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W
R285	1-216-049-00	METAL GLAZE 1K 5% 1/10W
R286	1-216-049-00	METAL GLAZE 1K 5% 1/10W
R287	1-216-025-00	METAL GLAZE 100 5% 1/10W
R288	1-216-025-00	METAL GLAZE 100 5% 1/10W
R289	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W
R290	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W
R291	1-216-298-00	METAL GLAZE 2.2 5% 1/10W
R293	1-216-025-00	METAL GLAZE 100 5% 1/10W
RV101	1-238-016-11	RES, ADJ, CARBON 10K (TRACKING GAIN)
RV102	1-238-016-11	RES, ADJ, CARBON 10K (FOUCS GAIN)
RV271	1-238-748-11	RES, VAR, CARBON 1K/1K (LEVEL)
S101	1-572-085-11	SWITCH, LEAF (LIMIT IN)
S191	1-572-086-11	SWITCH, LEAF (OUT SW)
S192	1-572-086-11	SWITCH, LEAF (IN SW)
S201	1-554-303-21	(MADE IN JAPAN)....SWITCH, KEY BOARD (⏏ OPEN/CLOSE)
S201	1-554-303-81	(MADE IN FRANCE)...SWITCH, KEY BOARD (⏏ OPEN/CLOSE)
S202	1-554-303-21	(MADE IN JAPAN)....SWITCH, KEY BOARD (CONTINUE)
S202	1-554-303-81	(MADE IN FRANCE)...SWITCH, KEY BOARD (CONTINUE)
S203	1-554-303-21	(MADE IN JAPAN)....SWITCH, KEY BOARD (SHUFFLE)
S203	1-554-303-81	(MADE IN FRANCE)...SWITCH, KEY BOARD (SHUFFLE)
S204	1-554-303-21	(MADE IN JAPAN)....SWITCH, KEY BOARD (PROGRAM)
S204	1-554-303-81	(MADE IN FRANCE)...SWITCH, KEY BOARD (PROGRAM)
S205	1-554-303-21	(MADE IN JAPAN)....SWITCH, KEY BOARD (FADER)
S205	1-554-303-81	(MADE IN FRANCE)...SWITCH, KEY BOARD (FADER)
S206	1-554-303-21	(MADE IN JAPAN)....SWITCH, KEY BOARD (REPEAT)
S206	1-554-303-81	(MADE IN FRANCE)...SWITCH, KEY BOARD (REPEAT)
S207	1-554-303-21	(MADE IN JAPAN)....SWITCH, KEY BOARD (TIME)
S207	1-554-303-81	(MADE IN FRANCE)...SWITCH, KEY BOARD (TIME)
S208	1-554-303-21	(MADE IN JAPAN)....SWITCH, KEY BOARD (CLEAR)
S208	1-554-303-81	(MADE IN FRANCE)...SWITCH, KEY BOARD (CLEAR)
S209	1-554-303-21	(MADE IN JAPAN)....SWITCH, KEY BOARD (CHECK)
S209	1-554-303-81	(MADE IN FRANCE)...SWITCH, KEY BOARD (CHECK)
S210	1-554-303-21	(MADE IN JAPAN)....SWITCH, KEY BOARD (PEAK SEARCH)
S210	1-554-303-81	(MADE IN FRANCE)...SWITCH, KEY BOARD (PEAK SEARCH)
S211	1-554-303-21	(MADE IN JAPAN)....SWITCH, KEY BOARD (⏮ ◀◀)
S211	1-554-303-81	(MADE IN FRANCE)...SWITCH, KEY BOARD (⏮ ◀◀)
S212	1-554-303-21	(MADE IN JAPAN)....SWITCH, KEY BOARD (▷ ❚❚)
S212	1-554-303-81	(MADE IN FRANCE)...SWITCH, KEY BOARD (▷ ▯▯)
S213	1-554-303-21	(MADE IN JAPAN)....SWITCH, KEY BOARD (▶▶ ⏭)
S213	1-554-303-81	(MADE IN FRANCE)...SWITCH, KEY BOARD (▶▶ ⏭)
S214	1-554-303-21	(MADE IN JAPAN)....SWITCH, KEY BOARD (EDIT/TIME FADE)
S214	1-554-303-81	(MADE IN FRANCE)...SWITCH, KEY BOARD (EDIT/TIME FADE)
S215	1-554-303-21	(MADE IN JAPAN)....SWITCH, KEY BOARD (■)
S215	1-554-303-81	(MADE IN FRANCE)...SWITCH, KEY BOARD (■)
S216	1-554-303-21	(MADE IN JAPAN)....SWITCH, KEY BOARD (TIME SET)
S216	1-554-303-81	(MADE IN FRANCE)...SWITCH, KEY BOARD (TIME SET)
S291	1-571-305-11	SWITCH, PUSH (1 KEY)(POWER)
S901 ⚠	1-571-722-11	(E)....SWITCH, VOLTAGE SELECTION
T901 ⚠	1-450-212-11	(US,Canadian).....TRANSFORMER, POWER
T901 ⚠	1-450-213-11	(MADE IN JAPAN:AEP,Australian) ....TRANSFORMER, POWER
T901 ⚠	1-450-214-11	(E).....TRANSFORMER, POWER
T901 ⚠	1-450-216-11	(MADE IN FRANCE)...TRANSFORMER, POWER
X201	1-577-358-21	VIBRATOR, CERAMIC 4MHz
X251	1-567-908-11	VIBRATOR, CRYSTAL 16.9344MHz

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ACCESSORY & PACKING MATERIAL

1-465-291-11 (391)...REMOTE COMMANDER (RM-D190)

1-558-271-11 CORD, CONNECTION
1-559-533-11 (MADE IN JAPAN)...CORD, CONNECTION

2-181-754-01 (391)...COVER, BATTERY

3-703-390-04 (US).....INSTRUCTION
*3-750-090-01 (Canadian).....INSTRUCTION
*3-795-629-15 (MADE IN JAPAN:AEP)...INSTRUCTION

3-752-078-11 (EXCEPT US).....MANUAL, INSTRUCTION
3-752-078-21 (US).....MANUAL, INSTRUCTION
3-752-078-41 (MADE IN JAPAN:AEP)...MANUAL, INSTRUCTION
3-752-078-61 (MADE IN FRANCE:AEP)..MANUAL, INSTRUCTION

*3-703-710-41 (MADE IN JAPAN)..STICKER, SONY SYMBOL(12)

*4-925-389-01 (MADE IN JAPAN)....CUSHION
*4-929-506-02 (MADE IN FRANCE)...CUSHION

*4-939-717-01 (MADE IN FRANCE 391:AEP,UK)
...INDIVIDUAL CARTON
*4-939-718-11 (MADE IN JAPAN 391)....INDIVIDUAL CARTON
*4-939-717-11 (MADE IN FRANCE 291)...INDIVIDUAL CARTON
*4-939-718-21 (MADE IN JAPAN 291)....INDIVIDUAL CARTON

9-955-981-11

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Audio Group

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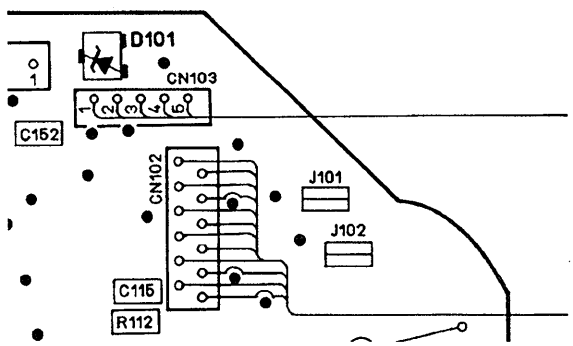
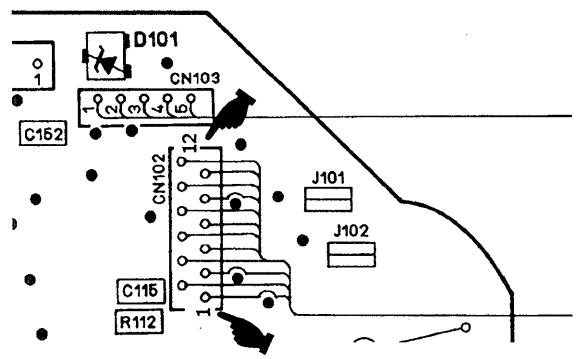
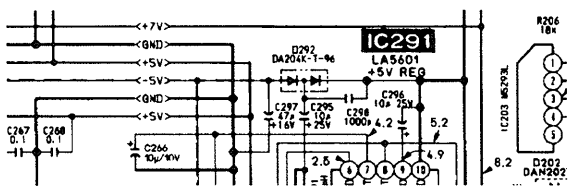
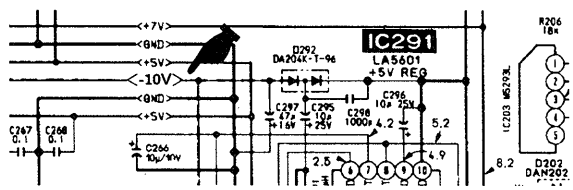
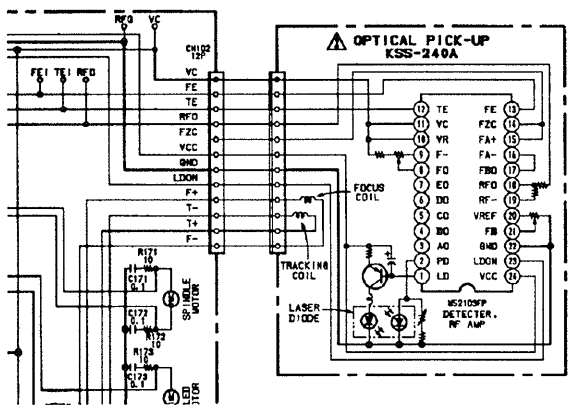
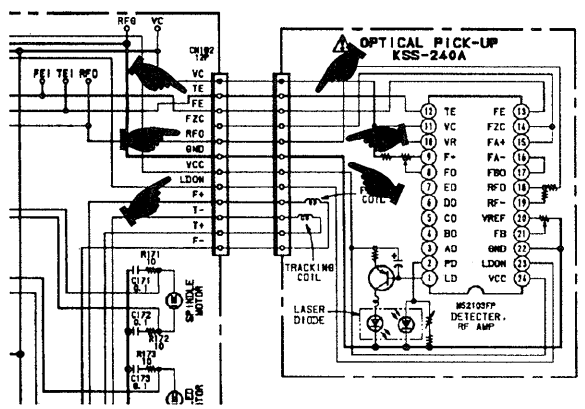
SONY
SERVICE MANUAL

US Model
Canadian Model
AEP Model
E Model
Australian Model

CORRECTION-1

Please correct your service manual.

☛ : **indicates corrected portion.**

Page	INCORRECT	CORRECT
7	E-F Balance Check Procedure : 1. Connect test point TP (ADJ) and TP (TES) to ground with lead wire.	E-F Balance Check Procedure : 1. Connect test point TP (ADJ) to ground and TP (TES) to TP (VC) with lead wire.
14	【BD BOARD】 	【BD BOARD】 
15		
17		

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