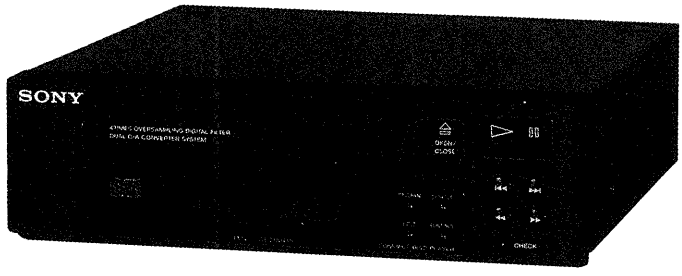
# CDP-H500

# SERVICE MANUAL

*US Model*




**This set is the CD player section in MHC-5500.**

| | |
|---|---|
| Model Name Using Similar Mechanism | CDP-H300 |
| CD Transport Mechanism Type | CDM13A-5BD3 |
| Optical Pick-Up Block Type | BU-5BD3 |

## SPECIFICATIONS

| | |
|---|---|
| Dimensions | Approx. 225 × 65 × 220 mm (w/h/d) |
| Weight | 1.8 kg |
| System | Compact disc digital audio system |
| Laser | Semiconductor laser ($\lambda$ = 780 nm) Emission duration: continuous |
| Laser output | Max 44.6 uW* |

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

**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.**

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

## COMPACT DISC PLAYER

SONY®

# SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

## LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 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 2 V AC range are suitable. (See Fig. A)

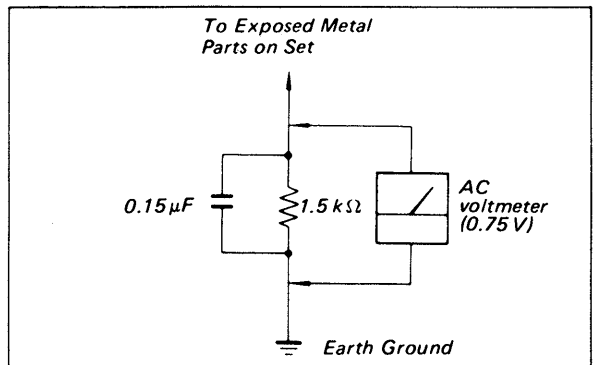
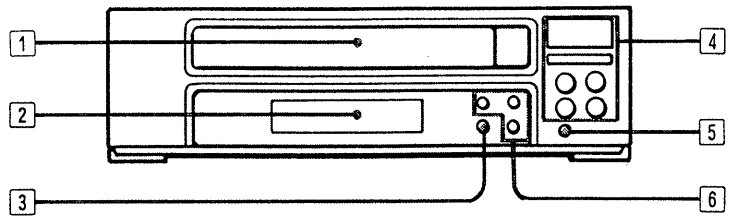



*Fig. A. Using an AC voltmeter to check AC leakage.*

# SECTION 1
# GENERAL

## 1-1. LOCATION OF CONTROLS

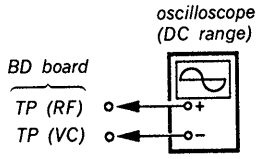



1 Disc tray
2 Display window
3 EDIT button
4 CD operation buttons
⏏ OPEN/CLOSE button
▷II (play/pause) button
■ (stop) button
◀◀/▶▶ (manual search) buttons
I◀◀/▶▶I (Automatic Music Sensor) buttons
5 REPEAT button
6 Play mode selectors
CONTINUE play button
SHUFFLE play button
PROGRAM play button

# SECTION 2
# ELECTRICAL ADJUSTMENTS

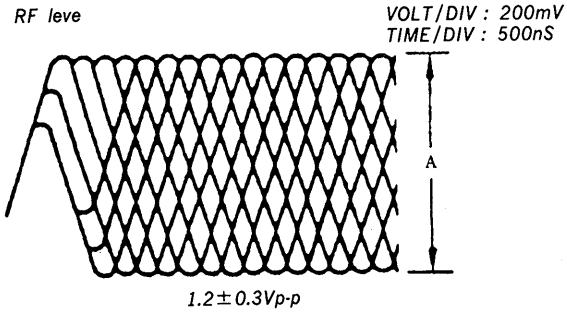
1. Perform adjustments in the order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10MΩ impedance.

### RF Level Check
**Procedure :**



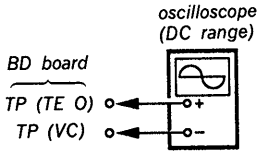

1. Connect oscilloscope to test point TP (RF) and TP (VC) on BD board.
2. Confirm that RF level and eye pattern is optimum.
   Oputimum eye pattern means that shape "◇" can be clearly distinguished at the center of the wave form.

### RF signal Reference Waveform (eye pattern)



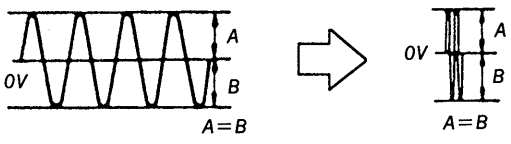

**REFERENCE**

### E-F Balance Check
**Procedure :**

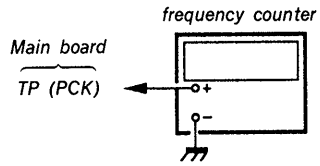



1. Connect test point TP (ADJ) and TP (TES) to ground with lead wire.
2. Connect oscilloscope to test point TP (TE O) and TP (VC) on BD board.
3. Turn POWER switch on.
4. Put disc (YEDS-18) in and play back.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to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

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




### RF PLL Free-run Frequency Check
**Procedure :**




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

### Focus/Tracking Gain Adjustment

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

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

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

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

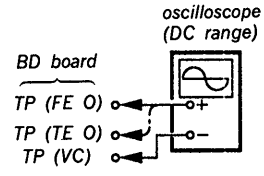
- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

| Gain / Symptoms | Focus | Tracking |
|---|---|---|
| • The time until music starts becmes longer for STOP →▷ PLAY or automatic selection. (I◀◀, ▶▶I 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. (I◀◀, ▶▶I buttons pressed.) | — | low |
| • Sound is interrupted during PLAY. Or time counter display stops progressing. | — | low |
| • More noise during 2-axis device operation. | high | high |

The following is a simple adjustment method.

### —Primary Adjustment—

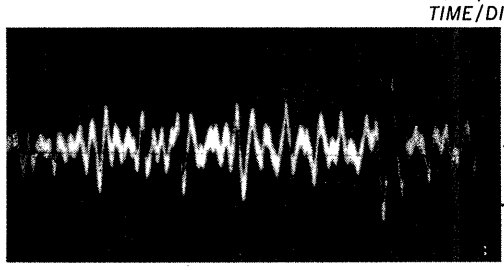
**Note :** Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment.
If the positions after the primary adjustment are only a little different, returs the controls the original position.



**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 BD board so that the waveform is as shown in the figure below. (focus gain adjustment)

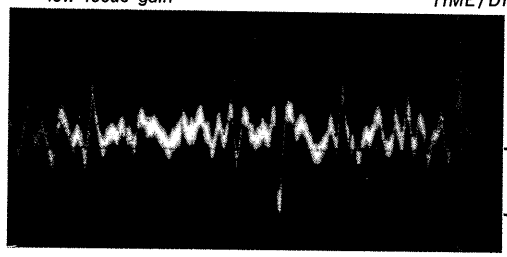
VOLT/DIV : 100mV
TIME/DIV : 2mS




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

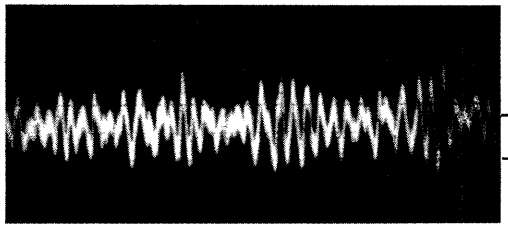
low focus gain

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

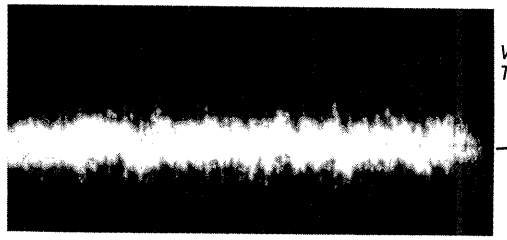



high focus gain

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

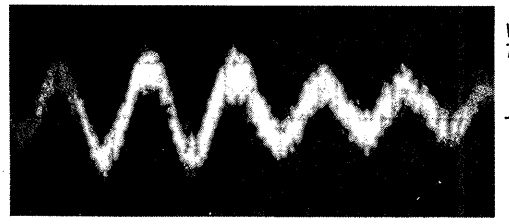



5. Connect oscilloscope to TP (TEO) and TP (VC) on BD board.
6. Adjusted RV102 on BD board so that the waveform is as shown the figure below. (tracking gain adjustment)

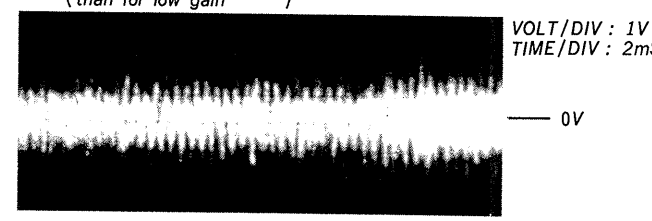



• Incorrect Examples (fundamentia wave appears)

low tracking gain

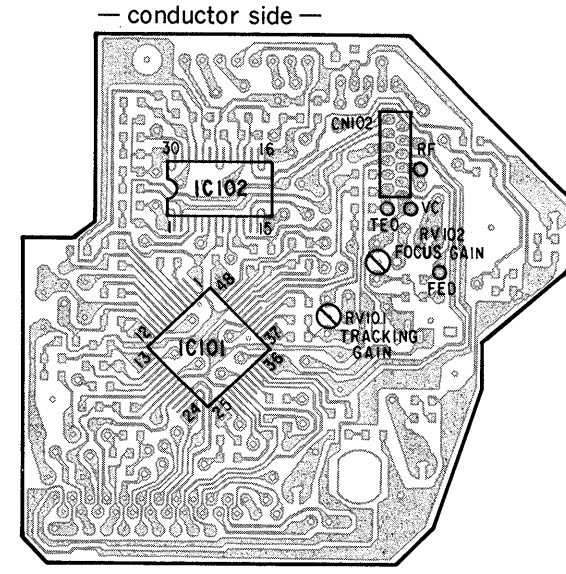



high tracking gain
(high fandamential wave than for low gain)

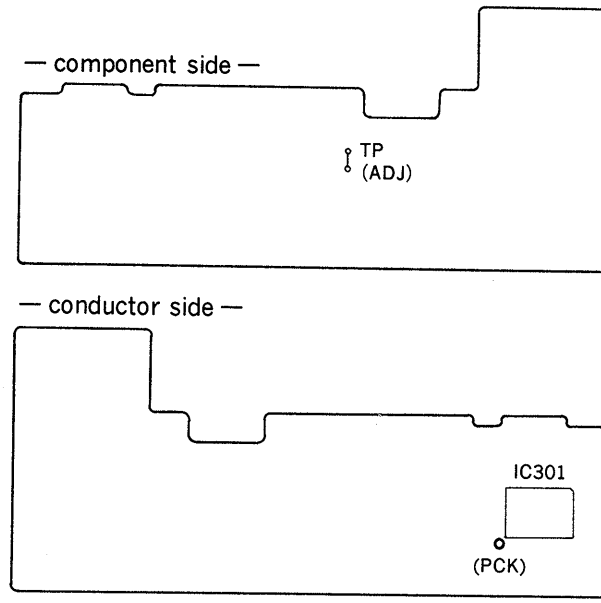



**Adjustment Locations :**

**【BD board】**




**【Main board】**



# SECTION 3
# DIAGRAMS

## 3-1. SEMICONDUCTOR LEAD LAYOUTS

**M5F7807**


**EC10DS2**

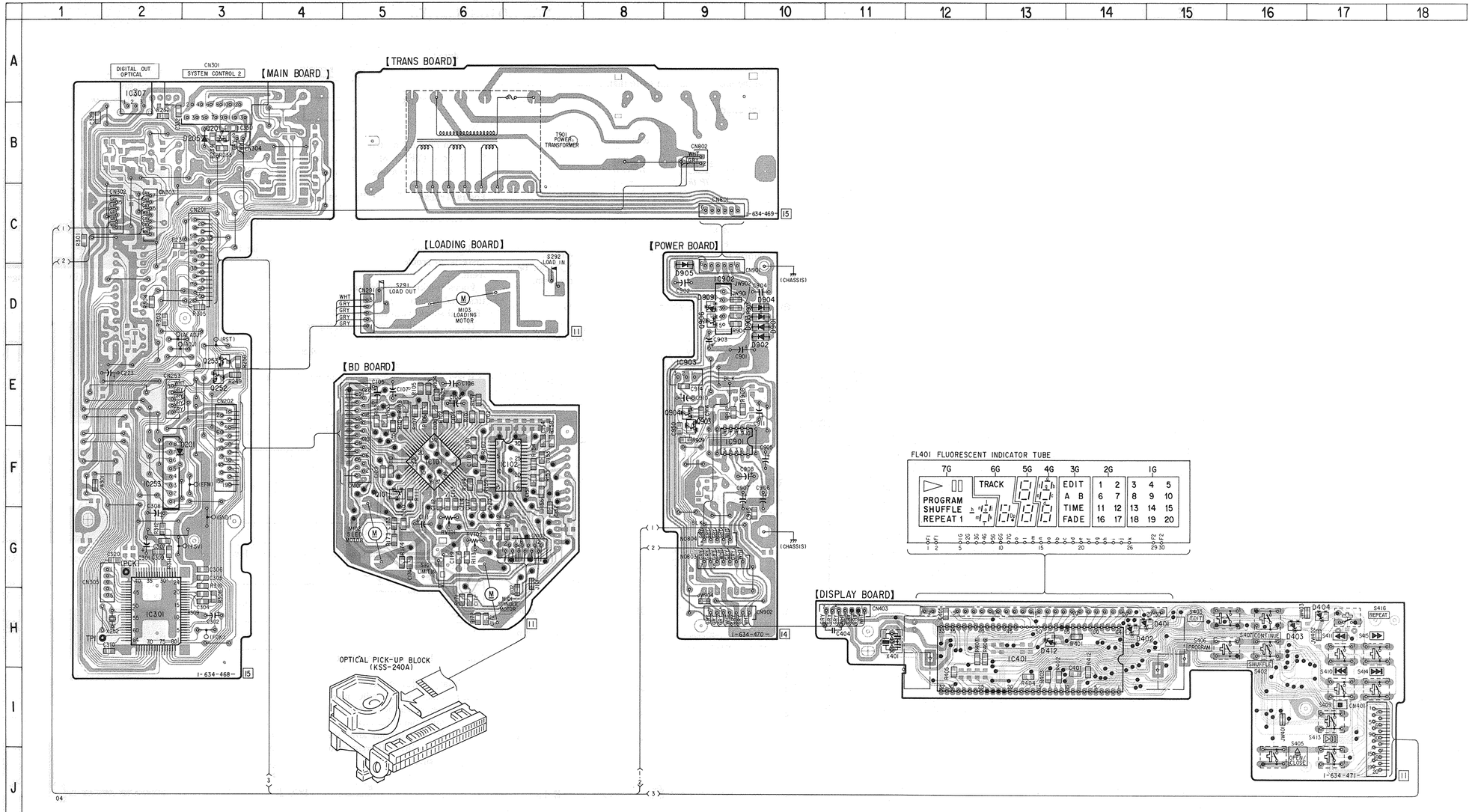
**UZ-4.7BSC**
**11EQS04**

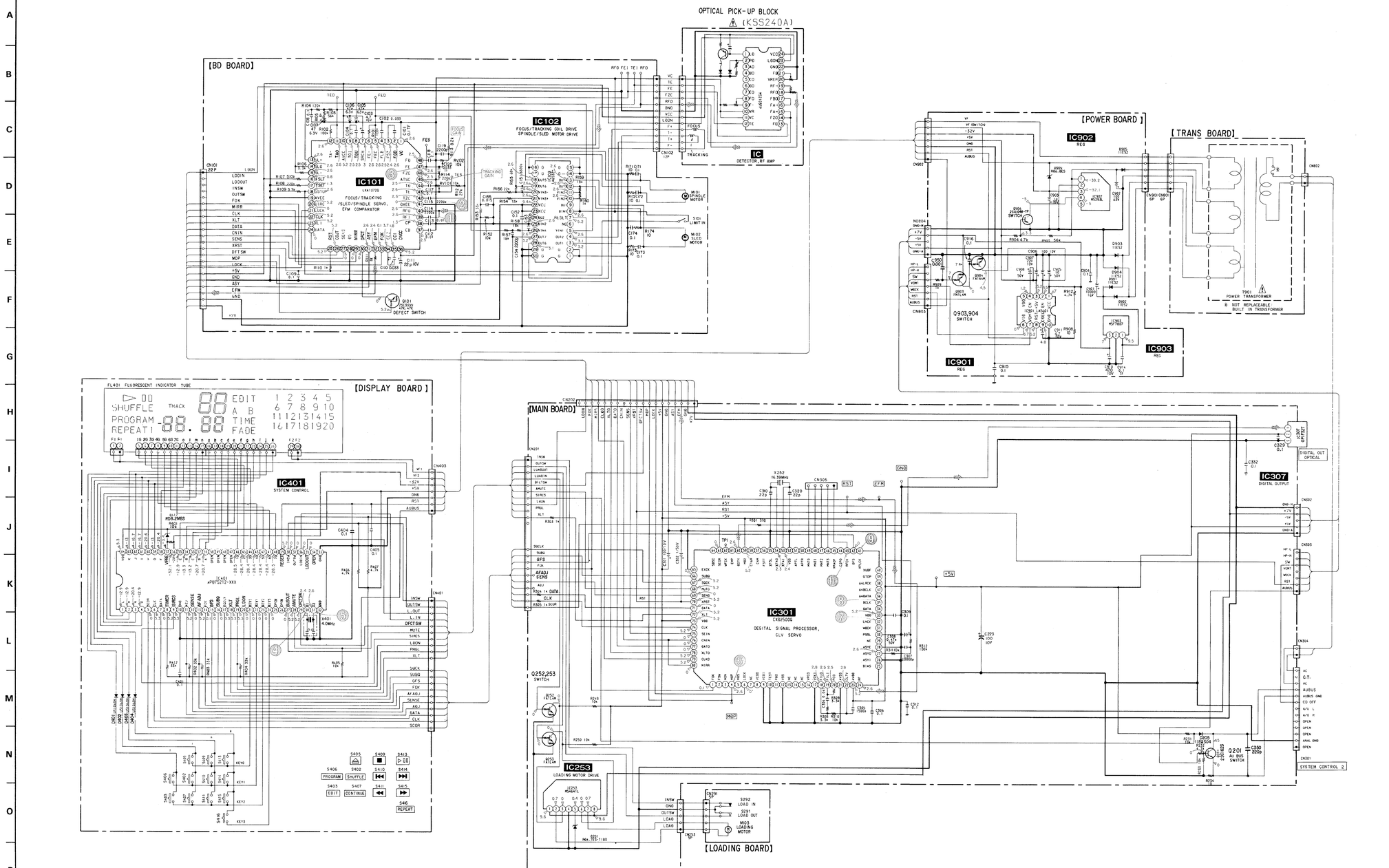

● Semiconductor Location

| Ref. No. | Location |
|---|---|
| D201 | F-3 |
| D205 | B-3 |
| D401 | H-15 |
| D402 | H-14 |
| D403 | H-16 |
| D404 | H-17 |
| D412 | H-13 |
| D901 | D-10 |
| D902 | D-10 |
| D903 | D-10 |
| D904 | D-10 |
| D905 | D-9 |
| D909 | D-9 |
| IC101 | F-6 |
| IC102 | F-7 |
| IC253 | F-2 |
| IC301 | H-2 |
| IC307 | A-2 |
| IC401 | H-13 |
| IC901 | F-9 |
| IC902 | D-9 |
| IC903 | E-9 |
| Q101 | F-5 |
| Q201 | B-3 |
| Q252 | E-3 |
| Q253 | E-3 |
| Q903 | E-9 |
| Q904 | E-9 |
| Q906 | D-9 |

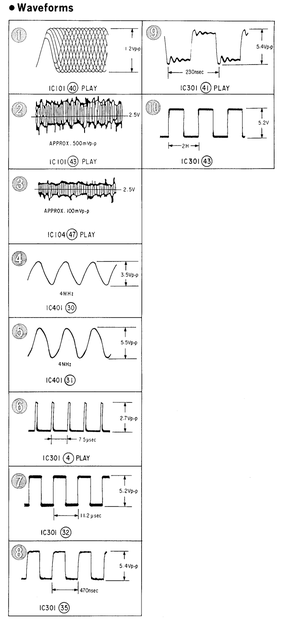
Note:
- ● ○—— : parts extracted from the component side.
- ● ● : Through hole.
- ● ▨ : Pattern on the side which is seen.
- ○ ▨ : Pattern of the rear side.

## 3-2. PRINTED WIRING BOARDS






● Waveforms




**Note:**

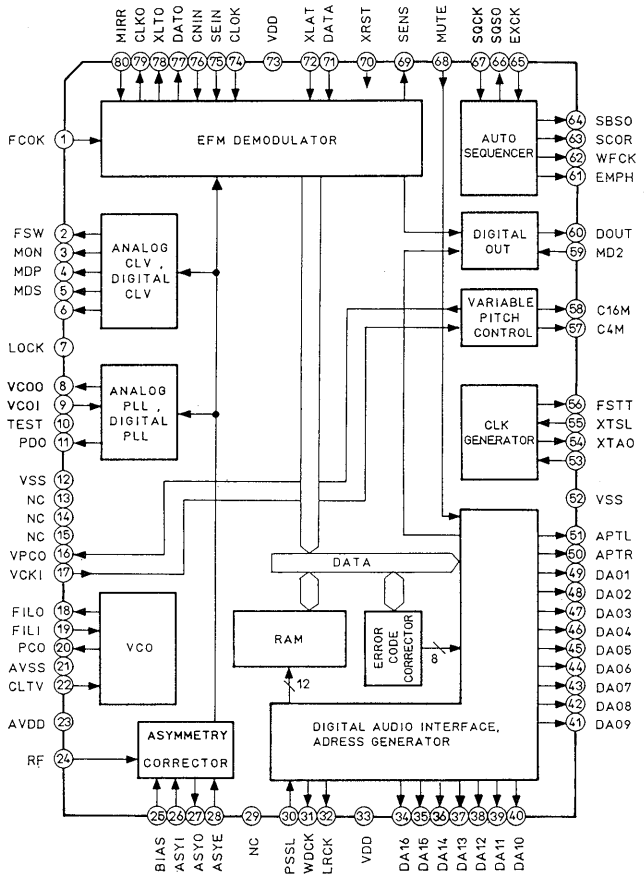
- All capacitors are in μF unless otherwise noted. pF: μμF
  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : internal component.

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

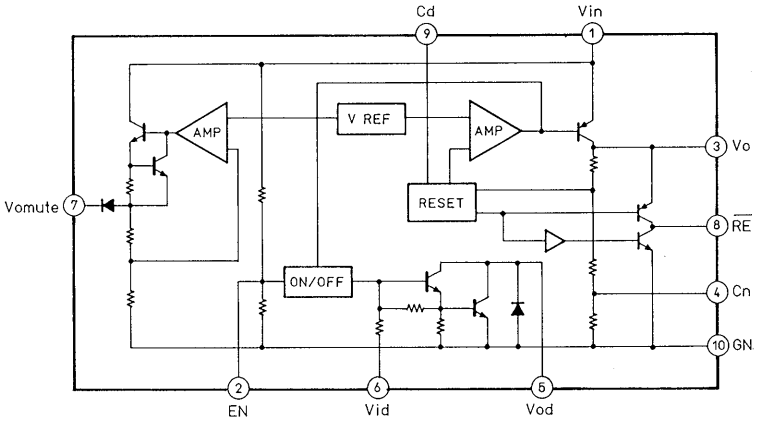
- ▭▭▭ : B+ Line
- ▭▭▭ : B− Line
- ▭ : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no signal conditions.
  no mark : STOP
- Voltages are taken with a VOM (Input impedance 10MΩ).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are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

## • IC Block Diagrams

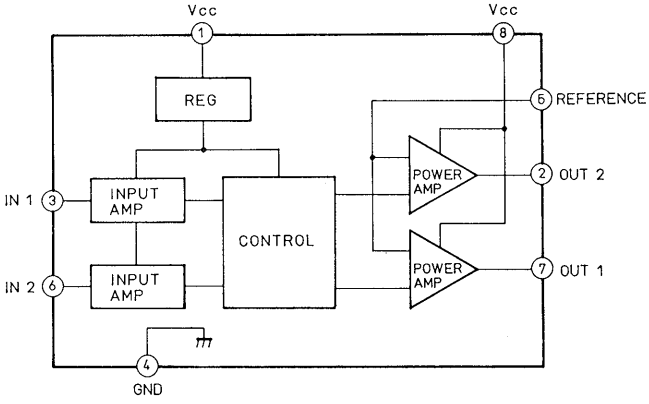
### IC301 CXD2500Q



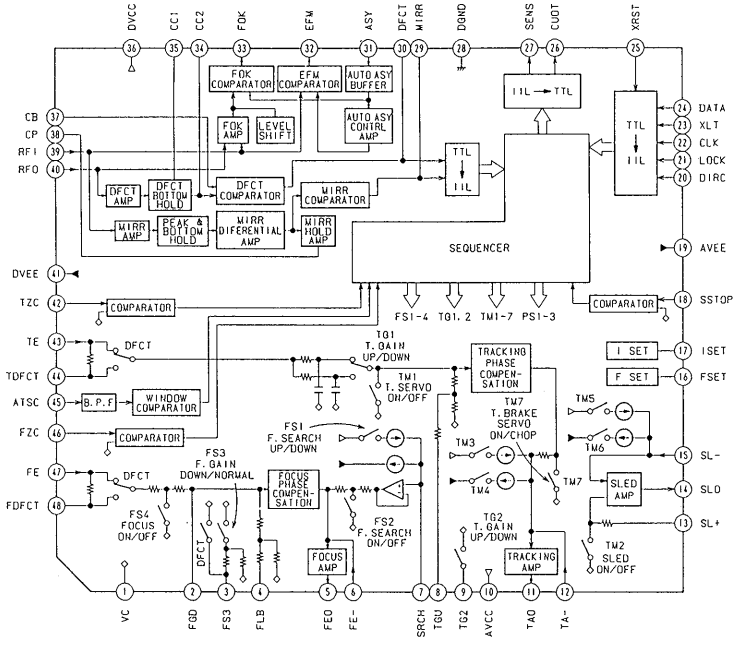

### IC901 LA5601



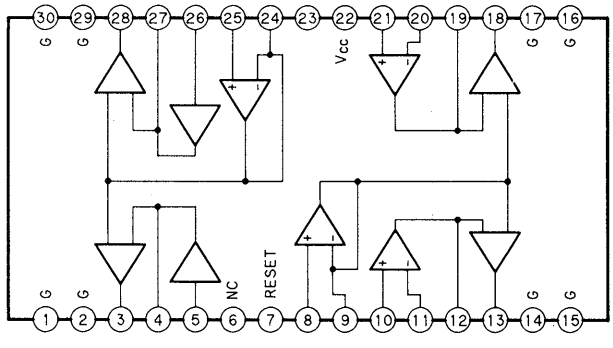

### IC253 M54641L



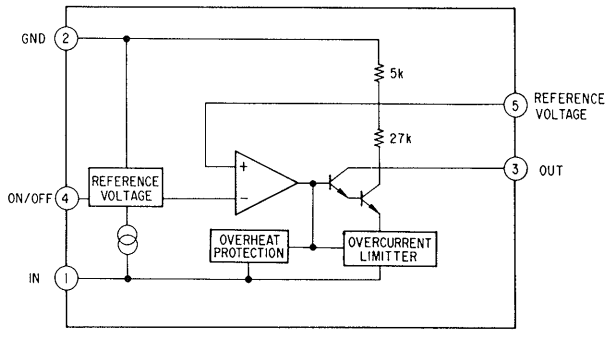

### IC101 CXA1372Q




### IC102 LA6532M




### IC902 M5293L



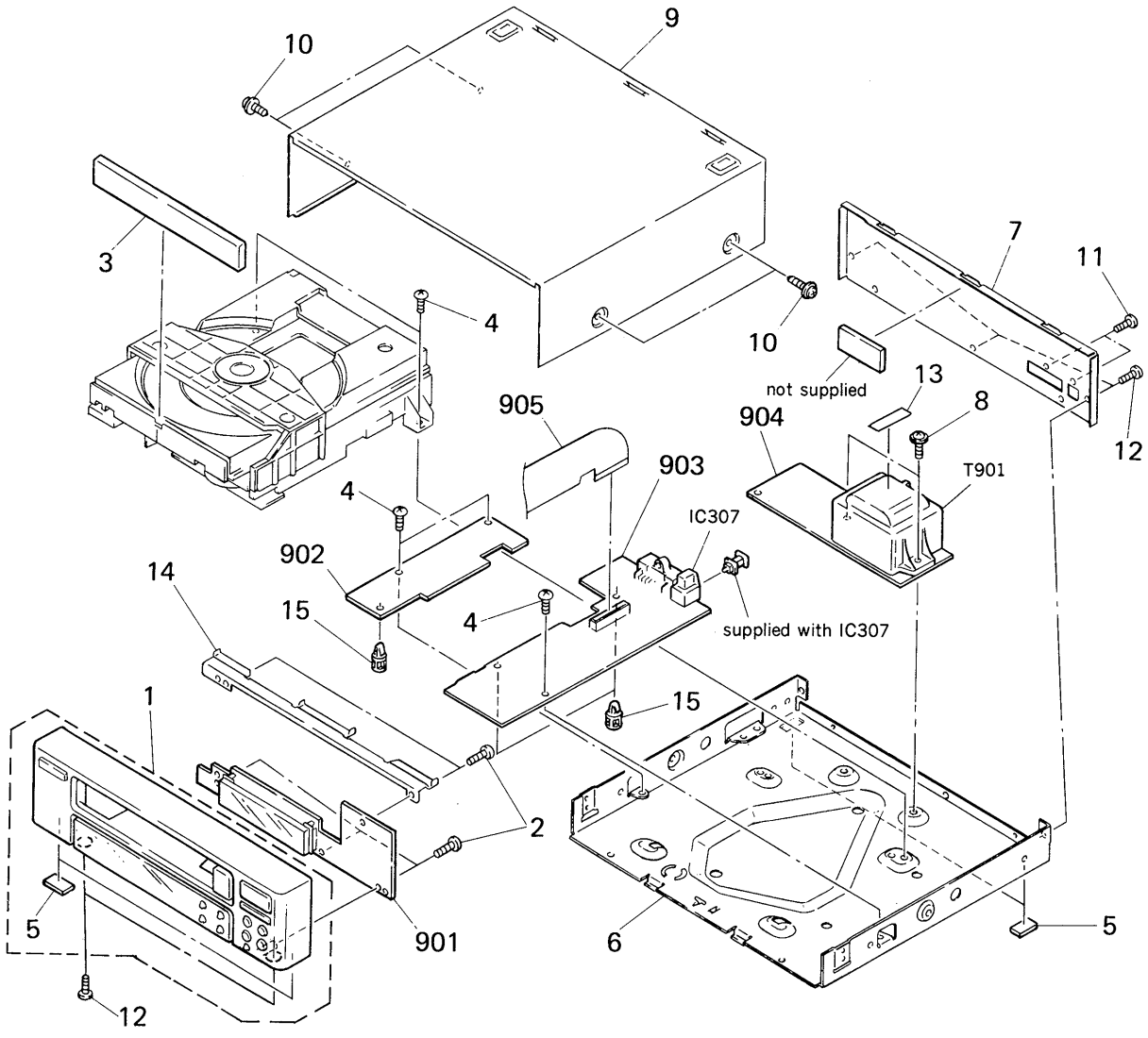
# SECTION 4
# EXPLODED VIEWS

**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.

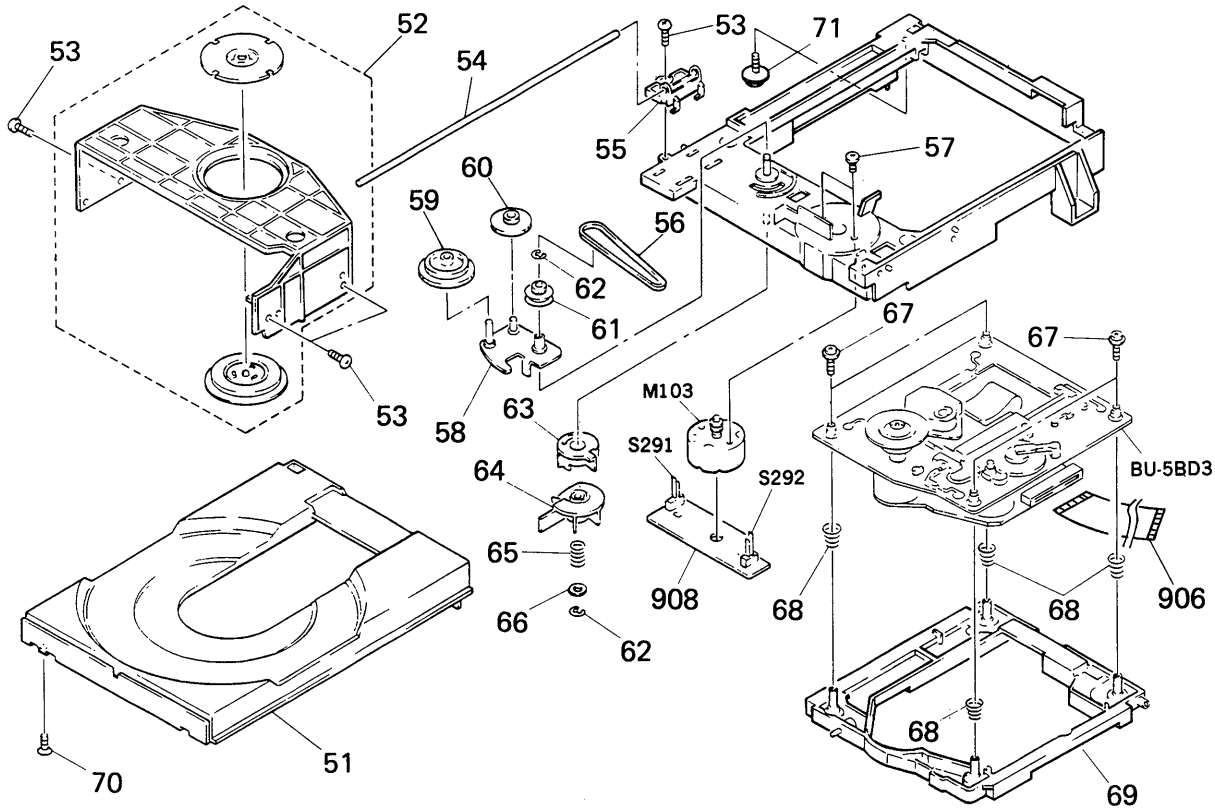
## 4-1. CHASSIS BLOCK




| Ref.No | Part No. | Description | Remarks |
|---|---|---|---|
| 1 | X-4929-711-1 | PANEL ASSY, FRONT | 5 |
| 2 | 7-685-134-19 | SCREW +BTP 2.6X8 TYPE2 N-S | |
| 3 | 4-929-753-01 | PANEL, LOADING | |
| 4 | 7-682-547-04 | SCREW +BVTT 3X6 (S) | |
| 5 | 4-930-336-01 | FOOT (FELT) | |
| 6 | *4-929-757-01 | CHASSIS | |
| 7 | *4-929-750-11 | PANEL, BACK | |
| 8 | 4-929-742-01 | SCREW (3X10), +P TTWH | |
| 9 | 4-932-844-31 | CASE | |
| 10 | 3-704-366-01 | SCREW (CASE) (M3X8) | |
| 11 | 7-685-646-79 | SCREW +BVTP 3X8 TYPE2 N-S | |

| Ref.No | Part No. | Description | Remarks |
|---|---|---|---|
| 12 | 7-682-547-09 | SCREW +BVTT 3X6 (S) | |
| 13 | 3-831-441-XX | CUSHION (B), CABINET | |
| 14 | *4-929-752-01 | REINFORCEMENT | |
| 15 | 3-682-057-11 | SPACER (SMALL) | |
| 901 | *A-4617-397-A | MOUNTED PCB, DISPLAY | |
| 902 | *A-4617-390-A | MOUNTED PCB, POWER | |
| 903 | *A-4617-389-A | MOUNTED PCB, MAIN | |
| 904 | *1-634-469-11 | PC BOARD, TRANS | |
| 905 | 1-535-833-11 | JUMPER, FILM (WITH TERMINAL) | |
| IC307 | 8-749-921-12 | IC GP1F32T | |
| T901 | ⚠1-450-274-11 | TRANSFORMER, POWER | |

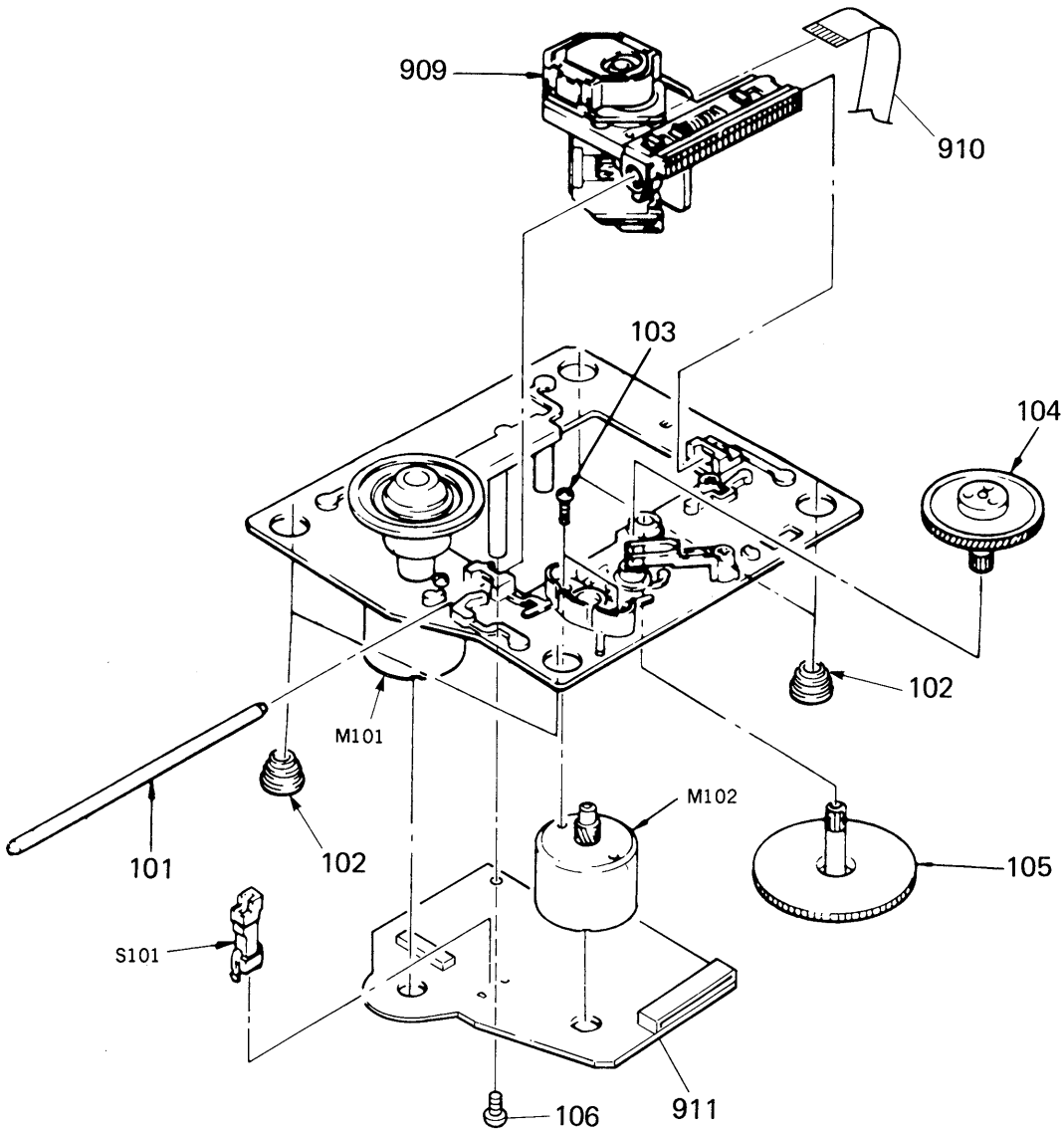
## 4-2. CD MECHANISM SECTION (CDM13A-5BD3)




| Ref.No | Part No. | Description | Remarks |
|---|---|---|---|
| 51 | 4-929-732-01 | TABLE, DISK | |
| 52 | A-4604-219-A | HOLDER (MG) ASSY | |
| 53 | 7-685-646-79 | SCREW +BVTP 3X8 TYPE2 N-S | |
| 54 | 4-929-721-01 | SHAFT | |
| 55 | 4-929-723-01 | GUIDE (T) | |
| 56 | 4-927-649-01 | BELT | |
| 57 | 7-621-775-10 | SCREW +B 2.6X4 | |
| 58 | X-4929-703-1 | ARM ASSY, SWING | |
| 59 | 4-927-620-01 | GEAR (P) | |
| 60 | 4-927-628-01 | GEAR (C) | |
| 61 | 4-929-724-01 | PULLEY (B) | |
| 62 | 7-624-105-04 | STOP RING 2.3, TYPE -E | |
| 63 | 4-929-727-01 | CAM (A) | |

| Ref.No | Part No. | Description | Remarks |
|---|---|---|---|
| 64 | 4-929-729-01 | CAM (B) | |
| 65 | 3-659-338-00 | SPRING, COMPRESSION | |
| 66 | 4-927-654-01 | WASHER (LIMITER) | |
| 67 | 4-933-134-01 | SCREW (+PTPWH M2.6X6) | |
| 68 | 4-917-541-01 | SPRING (B) | |
| 69 | 4-929-747-01 | HOLDER (BU) | |
| 70 | 7-685-234-19 | SCREW +KTP 2.6X8 TYPE2NON-SLIT | |
| 71 | 4-917-583-21 | BRACKET, YOKE | |
| 906 | 1-535-845-11 | JUMPER, FILM (WITH TERMINAL) | |
| 908 | 1-634-461-11 | PC BOARD LOADING | |
| M103 | A-4608-362-A | MOTOR (L) ASSY | |
| S291 | 1-571-924-11 | SWITCH, LEAF (LOAD OUT) | |
| S292 | 1-571-924-11 | SWITCH, LEAF (LOAD IN) | |

## 4-3. OPTICAL PICK-UP BLOCK (BU-5BD3)




**Note:** 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 | Remarks |
|---|---|---|---|
| 101 | 4-917-565-01 | SHAFT, SLED | |
| 102 | 4-933-126-01 | INSULATOR (A) | |
| 103 | 7-621-255-15 | SCREW +P 2X3 | |
| 104 | 4-917-567-01 | GEAR (M) | |
| 105 | 4-917-564-01 | GEAR (P), FLATNESS | |
| 106 | 7-685-134-19 | SCREW +BTP 2.6X8 TYPE2 N-S | |

| Ref.No | Part No. | Description | Remarks |
|---|---|---|---|
| 909 | ⚠8-848-144-11 | DEVICE, OPTICAL KSS-240A | |
| 910 | 1-575-001-11 | WIRE, FLAT TYPE (12 CORE) | |
| 911 | *A-4617-371-A | MOUNTED PCB, BD | |
| M101 | X-4917-523-3 | MOTOR ASSY (SPINDLE) | |
| M102 | X-4917-504-1 | MOTOR ASSY (SLED) | |
| S101 | 1-572-085-11 | SWITCH,LEAF(LIMIT IN) | |

# 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: 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.

| Ref.No | Part No. | Description |
|---|---|---|
| 901 | ★A-4617-397-A | MOUNTED PCB, DISPLAY |
| 902 | ★A-4617-641-A | MOUNTED PCB, POWER |
| 903 | ★A-4617-640-A | MOUNTED PCB, MAIN |
| 904 | ★1-634-469-11 | PC BOARD, TRANS |
| 905 | 1-535-833-11 | JUMPER, FILM (WITH TERMINAL) |
| 906 | 1-535-845-11 | JUMPER, FILM (WITH TERMINAL) |
| 907 | ★1-436-461-11 | PC, BOARD LOADING |
| 908 | ⚠.8-848-144-11 | DEVICE, OPTICAL KSS-240A |
| 909 | 1-575-001-11 | WIRE, FLAT TYPE (12 CORE) |
| 910 | ★A-4617-371-A | MOUNTED PCB, BD |

CAPACITOR

| | | | | | |
|---|---|---|---|---|---|
| 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 |
| 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 |
| C223 | 1-124-443-00 | ELECT | 100MF | 20% | 10V |
| C301 | 1-124-443-00 | ELECT | 100MF | 20% | 10V |
| C302 | 1-124-791-11 | ELECT | 1MF | 20% | 50V |
| C304 | 1-163-035-00 | CERAMIC CHIP | 0.047MF | | 50V |
| C305 | 1-163-011-11 | CERAMIC CHIP | 0.0015MF | 10% | 50V |
| C306 | 1-163-038-00 | CERAMIC CHIP | 0.1MF | | 25V |
| C307 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C308 | 1-124-902-00 | ELECT | 0.47MF | 20% | 50V |
| C309 | 1-163-038-00 | CERAMIC CHIP | 0.1MF | | 25V |
| C310 | 1-163-101-00 | CERAMIC CHIP | 22PF | 5% | 50V |
| C312 | 1-163-038-00 | CERAMIC CHIP | 0.1MF | | 25V |
| C320 | 1-163-101-00 | CERAMIC CHIP | 22PF | 5% | 50V |
| C329 | 1-163-038-00 | CERAMIC CHIP | 0.1MF | 5% | 50V |
| C332 | 1-163-038-00 | CERAMIC CHIP | 0.1MF | | 25V |
| C350 | 1-163-013-11 | CERAMIC CHIP | 2200P | 5% | 25V |
| C401 | 1-163-038-00 | CERAMIC CHIP | 0.1MF | | 25V |
| C404 | 1-163-165-00 | FILM | 0.1MF | 5% | 50V |
| C405 | 1-163-038-00 | CERAMIC CHIP | 0.1MF | | 25V |
| C901 | 1-126-939-11 | ELECT | 10000MF | 20% | 16V |
| C902 | 1-126-063-11 | ELECT | 100MF | 20% | 63V |
| C903 | 1-123-875-11 | ELECT | 10MF | 20% | 50V |
| C904 | 1-136-165-00 | FILM | 0.1MF | 5% | 50V |
| C905 | 1-123-875-11 | ELECT | 10MF | 20% | 50V |
| C906 | 1-124-443-00 | ELECT | 100MF | 20% | 10V |
| C907 | 1-126-923-11 | ELECT | 220MF | 20% | 10V |
| C908 | 1-126-301-11 | ELECT | 1MF | 20% | 50V |
| C910 | 1-126-925-11 | ELECT | 470MF | 20% | 10V |
| C911 | 1-124-927-11 | ELECT | 4.7MF | 20% | 50V |
| C914 | 1-163-038-00 | CERAMIC CHIP | 0.1MF | | 25V |
| C915 | 1-163-038-00 | CERAMIC CHIP | 0.1MF | | 25V |
| C916 | 1-163-038-00 | CERAMIC CHIP | 0.1MF | | 25V |
| C950 | 1-163-009-11 | CERAMIC CHIP | 0.001MF | 10% | 50V |
| CN101 | 1-568-796-11 | SOCKET, CONNECTOR 22P | | | |
| CN102 | 1-568-795-11 | SOCKET, CONNECTOR 12P | | | |
| CN291 | ★1-564-498-11 | PIN, CONNECTOR 5P | | | |
| CN201 | 1-568-838-11 | SOCKET, CONNECTOR 21P | | | |
| CN202 | 1-568-802-11 | SOCKET, CONNECTOR 19P | | | |
| CN253 | ★1-564-339-00 | PIN, CONNECTOR 5P | | | |
| CN301 | ★1-565-291-11 | SOCKET, CONNECTOR 13P | | | |
| CN302 | ★1-564-339-00 | PIN, CONNECTOR 5P | | | |
| CN303 | ★1-564-341-11 | PIN, CONNECTOR 7P | | | |
| CN305 | ★1-564-339-00 | PIN, CONNECTOR 5P | | | |
| CN401 | 1-569-566-11 | SOCKET, CONNECTOR 20P | | | |
| CN801 | 1-568-668-11 | CONNECTOR, BOARD TO BOARD 6P | | | |
| CN802 | ★1-564-336-00 | PIN, CONNECTOR 2P | | | |
| CN901 | 1-568-662-11 | CONNECTOR, BOARD TO BOARD 6P | | | |
| CN902 | ★1-564-341-11 | PIN, CONNECTOR 7P | | | |
| D201 | 8-719-010-34 | DIODE UZ-4.7BSC | | | |
| D205 | 8-719-210-21 | DIODE 11EQS04 | | | |
| D401 | 8-719-400-18 | DIODE MA152WK | | | |
| D402 | 8-719-400-18 | DIODE MA152WK | | | |
| D403 | 8-719-400-18 | DIODE MA152WK | | | |
| D404 | 8-719-400-18 | DIODE MA152WK | | | |
| D412 | 8-719-106-36 | DIODE RD8.2M-B3 | | | |
| D901 | 8-719-210-33 | DIODE EC10DS2 | | | |
| D902 | 8-719-210-33 | DIODE EC10DS2 | | | |
| D903 | 8-719-210-33 | DIODE EC10DS2 | | | |
| D904 | 8-719-210-33 | DIODE EC10DS2 | | | |
| D905 | 8-719-210-33 | DIODE EC10DS2 | | | |
| D909 | 8-719-106-17 | DIODE RD6.8M-B2 | | | |
| FLD401 | 1-519-600-11 | INDICATOR TUBE, FLUORESCENT | | | |
| IC101 | 8-752-037-33 | IC CXA1372Q | | | |
| IC102 | 8-759-821-94 | IC LA6532M | | | |
| IC253 | 8-759-633-65 | IC M54641L | | | |
| IC301 | 8-752-333-31 | IC CXD2500Q | | | |
| IC307 | 8-749-921-12 | IC GP1F32T | | | |
| IC401 | 8-759-150-20 | IC UPD75212ACW-204 | | | |
| IC901 | 8-759-821-93 | IC LA5601 | | | |

| Ref.No | Part No. | Description | | | |
|---|---|---|---|---|---|
| IC902 | 8-759-633-42 | IC M5293L | | | |
| IC903 | 8-759-604-86 | IC M5F7807L | | | |
| J101 | 1-216-295-00 | METAL GLAZE | 0 | 5% | 1/10W |
| J102 | 1-216-295-00 | METAL GLAZE | 0 | 5% | 1/10W |
| JW401 | 1-216-295-00 | METAL GLAZE | 0 | 5% | 1/10W |
| JW402 | 1-216-295-00 | METAL GLAZE | 0 | 5% | 1/10W |
| JW403 | 1-216-295-00 | METAL GLAZE | 0 | 5% | 1/10W |
| JW901 | 1-216-295-00 | METAL GLAZE | 0 | 5% | 1/10W |
| JW902 | 1-216-295-00 | METAL GLAZE | 0 | 5% | 1/10W |
| JW904 | 1-216-295-00 | METAL GLAZE | 0 | 5% | 1/10W |
| M101 | X-4917-523-3 | MOTOR ASSY (SPINDLE) | | | |
| M102 | X-4917-504-1 | MOTOR ASSY (SLED) | | | |
| M103 | A-4608-362-A | MOTOR (L) ASSY | | | |
| Q101 | 8-729-901-01 | TRANSISTOR DTC144EK | | | |
| Q201 | 8-729-100-66 | TRANSISTOR 2SC1623 | | | |
| Q252 | 8-729-112-97 | TRANSISTOR FA1L4M-L31 | | | |
| Q253 | 8-729-112-97 | TRANSISTOR FA1L4M-L31 | | | |
| Q903 | 8-729-113-66 | TRANSISTOR FN1L4M-M31 | | | |
| Q904 | 8-729-113-13 | TRANSISTOR FA1A4M-L33 | | | |
| Q906 | 8-729-216-22 | TRANSISTOR 2SA1162 | | | |

RESISTOR

| | | | | | |
|---|---|---|---|---|---|
| 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 |
| R231 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W |
| R232 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W |
| R233 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W |
| R234 | 1-216-001-00 | METAL GLAZE | 10 | 5% | 1/10W |
| R249 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W |
| R250 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W |
| R301 | 1-216-037-00 | METAL GLAZE | 330 | 5% | 1/10W |
| R303 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W |
| R304 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W |
| R305 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W |
| R308 | 1-216-061-00 | METAL GLAZE | 3.3K | 5% | 1/10W |
| R309 | 1-216-061-00 | METAL GLAZE | 3.3K | 5% | 1/10W |
| R310 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W |
| R311 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W |

| Ref.No | Part No. | Description | | | |
|---|---|---|---|---|---|
| R312 | 1-216-097-00 | METAL GLAZE | 100K | 5% | 1/10W |
| R401 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W |
| R402 | 1-216-085-00 | METAL GLAZE | 33K | 5% | 1/10W |
| R403 | 1-216-085-00 | METAL GLAZE | 33K | 5% | 1/10W |
| R404 | 1-216-085-00 | METAL GLAZE | 33K | 5% | 1/10W |
| R405 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W |
| R406 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W |
| R407 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W |
| R412 | 1-216-085-00 | METAL GLAZE | 33K | 5% | 1/10W |
| R903 | 1-216-091-00 | METAL GLAZE | 56K | 5% | 1/10W |
| R904 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W |
| R908 | 1-216-001-00 | METAL GLAZE | 10 | 5% | 1/10W |
| R909 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W |
| R912 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W |
| RV101 | 1-238-016-11 | RES, ADJ, CARBON 10K | | | |
| RV102 | 1-238-016-11 | RES, ADJ, CARBON 10K | | | |
| S101 | 1-572-085-11 | SWITCH, LEAF (LIMIT IN) | | | |
| S291 | 1-571-924-11 | SWITCH, LEAF (LOAD OUT) | | | |
| S292 | 1-571-924-11 | SWITCH, LEAF (LOAD IN) | | | |
| S402 | 1-554-596-21 | SWITCH, KEY BOARD (SHUFFLE) | | | |
| S403 | 1-554-596-21 | SWITCH, KEY BOARD (EDIT) | | | |
| S405 | 1-554-596-21 | SWITCH, KEY BOARD (OPEM/CLOSE ⏏) | | | |
| S406 | 1-554-596-21 | SWITCH, KEY BOARD (PROGRAM) | | | |
| S407 | 1-554-596-21 | SWITCH, KEY BOARD (CONTINUE) | | | |
| S409 | 1-554-596-21 | SWITCH, KEY BOARD (■) | | | |
| S410 | 1-554-596-21 | SWITCH, KEY BOARD (⏮) | | | |
| S411 | 1-554-596-21 | SWITCH, KEY BOARD (◀◀) | | | |
| S413 | 1-554-596-21 | SWITCH, KEY BOARD (▷II) | | | |
| S414 | 1-554-596-21 | SWITCH, KEY BOARD (⏭) | | | |
| S415 | 1-554-596-21 | SWITCH, KEY BOARD (▶▶) | | | |
| S416 | 1-572-184-11 | SWITCH, KEYBOARD (REPEAT) | | | |
| T901 | ⚠1-450-274-11 | TRANSFORMER, POWER | | | |
| X252 | 1-567-926-11 | VIBRATOR, CRYSTAL (16.39MHz) | | | |
| X401 | 1-577-358-21 | VIBRATOR, CERAMIC (4MHz) | | | |

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

9-955-660-21

Sony Corporation
Audio Group

English
9010432-1
Printed in Japan




Published by Customer Relations and Service Group

# CDP-H500

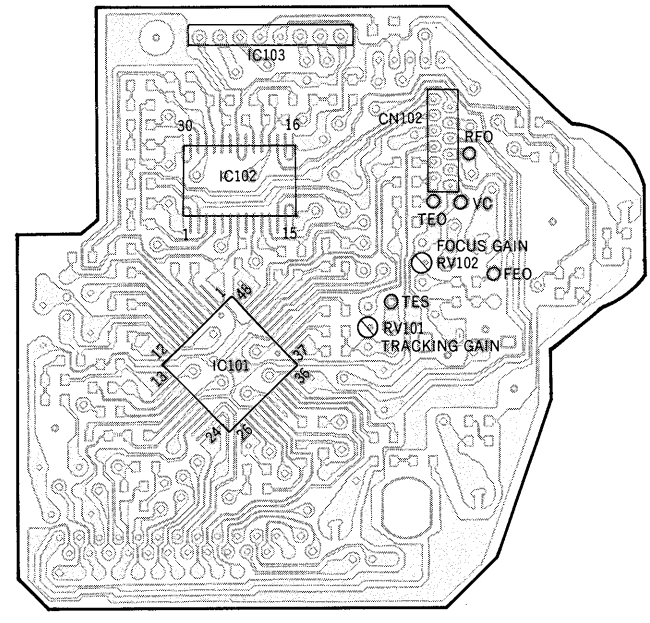
SONY
# SERVICE MANUAL

US Model

## CORRECTION-1

Correct your service manual as shown below.

☛ : indicates corrected portion.

| Page | INCORRECT | CORRECT |
|---|---|---|
| 4 | **E-F Balance Check**<br>**Procedure :**<br>1. Connect test point TP (ADJ) and TP (TES) to ground with lead wire. | **E-F Balance Check**<br>**Procedure :**<br>1. Connect test point TP (ADJ) to ground and TP (TES) to TP (VC) with lead wire. |
| 5 | **Focus/Tracking Gain Adjustment**<br>4. Adjustment RV101 on BD board so that the waveform is as shown in the figure below. (focus gain adjustment)<br>6. Adjusted RV102 on BD board so that the waveform is as shown the figure below. (tracking gain adjustment) | **Focus/Tracking Gain Adjustment**<br>4. Adjust RV102 on BD board so that the waveform is as shown in the figure below. (focus gain adjustment)<br>6. Adjust RV101 on BD board so that the waveform is as shown in the figure below. (tracking gain adjustment) |
| 5 | | Adjustment Location :<br>【BD board】<br>  |


9-955-660-91

Sony Corporation
Audio Group

English
9110431-1
Printed in Japan



Published by Customer Relations and Service Group