

# CDP-502ESII/552ESDII /620ESII/650ESDII

## SERVICE MANUAL

Refer to RM-D302/D502 Service Manual issued separately for information of the remote controller supplied with this set.

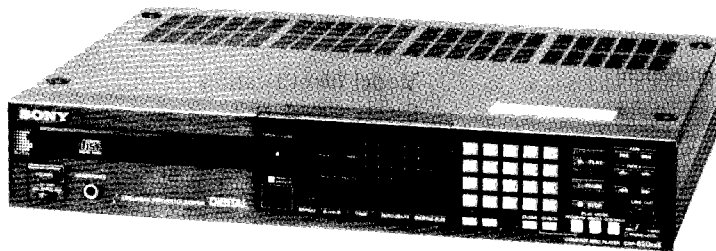


Photo: CDP-620ESII

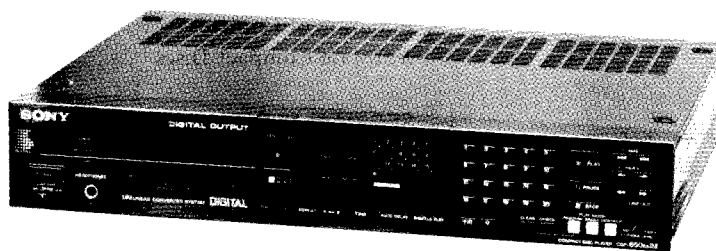


Photo: CDP-650ESDII

CDP-620ESII/650ESDII:  
*US Model*  
*Canadian Model*

CDP-502ESII/552ESDII:  
*AEP Model*  
*UK Model*  
*E Model*

### SPECIFICATIONS

|                     |   |
|---------------------|---|
| System              | Compact disc digital audio system   |
| Disc                | Compact disc  |
| Laser               | Semiconductor laser ( $\lambda = 780 \text{ nm}$ )  |
| Laser output        | Max. 0.4 mW*  |
|                     | * This output is the value measured at a distance of about 1.6 mm from the objective lens surface on the Optical Pick-up Block. |
| Spindle speed       | 200 r.p.m. to 500 r.p.m. (CLV)  |
| Scan velocity       | 1.2 - 1.4 m/sec.  |
| Error correction    | Sony Super Strategy Cross Interleave Reed Solomon Code  |
| Number of channels  | 2   |
| D-A conversion      | 16-bit linear   |
| Frequency response  | 2 - 20,000 Hz $\pm$ 0.5 dB  |
| Harmonic distortion | Less than 0.0025% (1 kHz)   |
| Dynamic range       | More than 96 dB   |
| Channel separation  | More than 95 dB (1 kHz)   |
| Wow and flutter     | Below measurable limit  |

### Outputs

|                                    |
|------------------------------------|
| Line outputs                       |
| FIXED (phono jacks)                |
| Output level 2 V rms (at MSB)      |
| Load impedance over 10 kilohms     |
| VARIABLE (phone jacks)             |
| Max. output level 2 V rms (at MSB) |
| Load impedance over 50 kilohms     |
| Headphones (stereo phone jack)     |
| 28 mW at 32 ohms                   |
| CDP-552ESDII/650ESDII:             |
| DIGITAL OUT (phono jacks)          |
| Max. output level 0.5 Vp-p         |
| Load impedance 75 ohms             |

- Continued on page 2 -

### ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

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

### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  $\triangle$  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.



# COMPACT DISK PLAYER

# SONY®



## TABLE OF CONTENTS

|                    |  |
|--------------------|--|
| <b>Disc</b>        |  |
| Track pitch        | 1.6 $\mu$ m  |
| Sampling frequency | 44.1 kHz   |
| Quantization       | 16 bit linear quantizing/channel   |
| Modulation system  | EFM  |
| Transfer rate      | 2.03 Mbit/sec. (before modulation)                                       |
| <b>General</b>     |  |
| Power requirements |  |
|                    | US/Canadian model: 120 V AC, 60 Hz                                       |
|                    | AEP model: 220 V ac (or 240 V ac adjustable by Sony personnel), 50/60 Hz |
|                    | UK model: 240 V ac (or 220 V ac adjustable by Sony personnel), 50 Hz     |
|                    | E model: 110, 120, 220 or 240 V adjustable, 50/60 Hz                     |
| Power consumption  |  |
|                    | 16 W   |
| Dimensions         |  |
|                    | CDP-502ESII/620ESII:   |
|                    | Approx. 430 x 85 x 335 mm (w/h/d)  |
|                    | (17 x 3 $\frac{3}{8}$ x 13 $\frac{1}{4}$ inches)                         |
|                    | including projecting parts and controls                                  |
|                    | CDP-552ESDII/650ESDII:   |
|                    | Approx. 430 x 85 x 365 mm (w/h/d)  |
|                    | (17 x 3 $\frac{3}{8}$ x 14 $\frac{3}{8}$ inches)                         |
|                    | including projecting parts and controls                                  |
| Weight             |  |
|                    | CDP-502ESII/620ESII:   |
|                    | Approx. 8.5 kg (18 lbs, 12 oz), net                                      |
|                    | CDP-552ESDII/650ESDII:   |
|                    | Approx. 9.3 kg (20 lbs, 8 oz), net                                       |

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## FEATURES

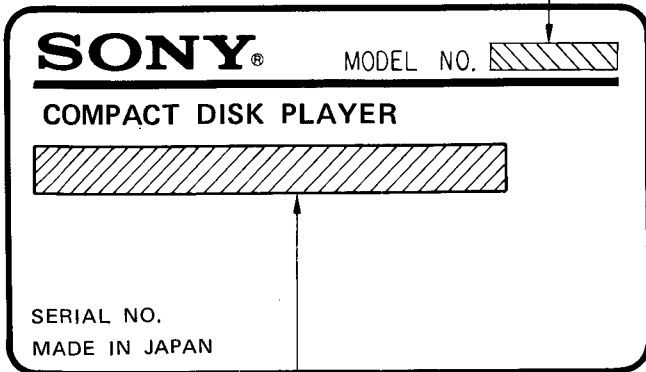
- High performance and high fidelity.
- Direct digital signal output provides for the highest possible sound quality, when this unit is connected to an external D/A converter. (CDP-552ESDII/650ESDII)
- Feather-touch function buttons for direct mode change.
- Linear motor for quick selection search.
- A variety of playing modes: CONTINUE mode, PROGRAM mode and SINGLE mode.
- Index function for quick location of the part you want.
- Repeat function for one selection, the whole disc, programmed selections, selections with random order or a particular portion.
- Auto delay function allows you to delay the playback of the first selection 2 seconds.

## MODEL IDENTIFICATION

— Specification Labels —

### CDP-502ESII/620ESII:

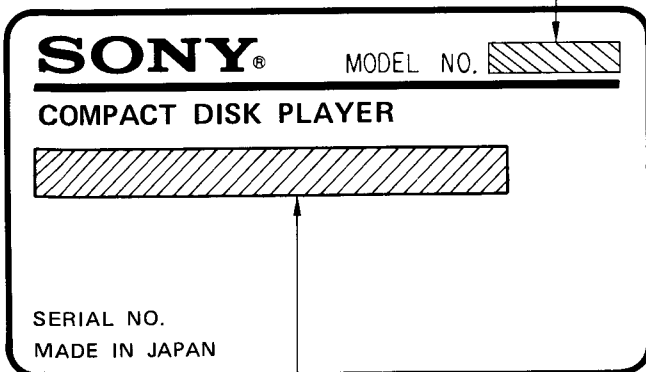
US, Canadian model: CDP-620ESII  
AEP, UK, E model: CDP-502ESII



US, Canadian model: AC: 120 V ~ 60 Hz 16 W  
AEP model: AC: 220 V ~ 50/60 Hz 16 W  
UK model: AC: 240 V ~ 50/60 Hz 16 W  
E model: AC: 110, 120, 220, 240 V ~ 50/60 Hz 16 W

### CDP-552ESDII/650ESDII:

US, Canadian model: CDP-650ESDII  
AEP, UK, E model: CDP-552ESDII



US, Canadian model: AC: 120 V ~ 60 Hz 16 W  
AEP model: AC: 220 V ~ 50/60 Hz 16 W  
UK model: AC: 240 V ~ 50/60 Hz 16 W  
E model: AC: 110, 120, 220, 240 V ~ 50/60 Hz 16 W

## SAFETY CHECK-OUT (US Model)

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 microamperes). 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)

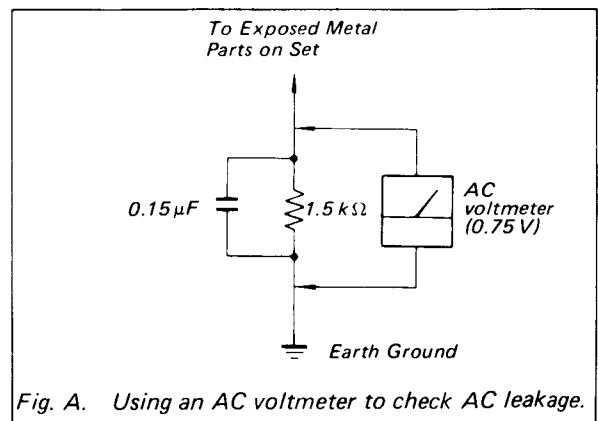


Fig. A. Using an AC voltmeter to check AC leakage.

## PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

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

### WARNING !!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 25 cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.

### CAUTION:

The use of optical instrument with this product will increase eye hazard.

### 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. 0.4 mW\*
  - \* This output is the value measured at a distance of about 1.6 mm from the objective lens surface on the Optical Pick-up Block.
- Classification: Class IIIb

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-dioe data

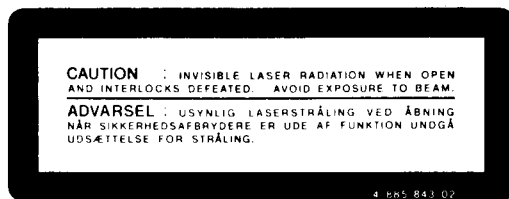
- Materiale: GaAlAs
- Bølgelængde: 780 nm
- Udstråling: Kontinuerlig
- Laseroutput: Max. 0,4 mW\*
  - \* Målt i 1,6 mm afstand fra overfladen af objektiv-linsen på den optiske pick-up enhed.
- Klassifikation: Klasse IIIb.

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.



## — SERVICING NOTE —

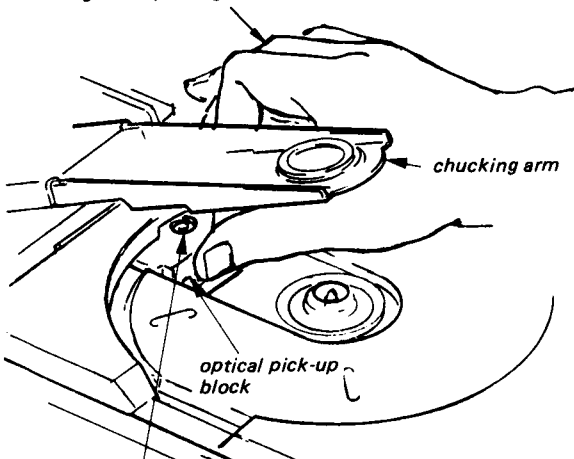
### NOTES ON LASER DIODE EMISSION CHECK

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.

### LASER DIODE AND FOCUS SEARCH OPERATION CHECK

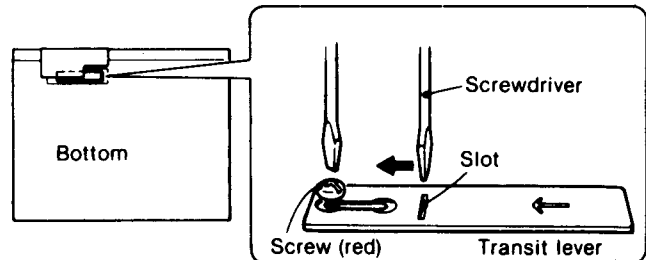
1. Make POWER switch on with no disc inserted and disc table closed.
2. Confirm that the following operation at right is performed while observing the objective lens.

① Hold down optical pick-up block and chucking arm by a finger.



- ② Confirm that laser beam is spread.
- ③ Up and down motion of the objective lens. (3 times)

A transit lever is provided at the bottom of the unit to protect the optical system against shock during transportation. Before starting repairing, make following procedures.

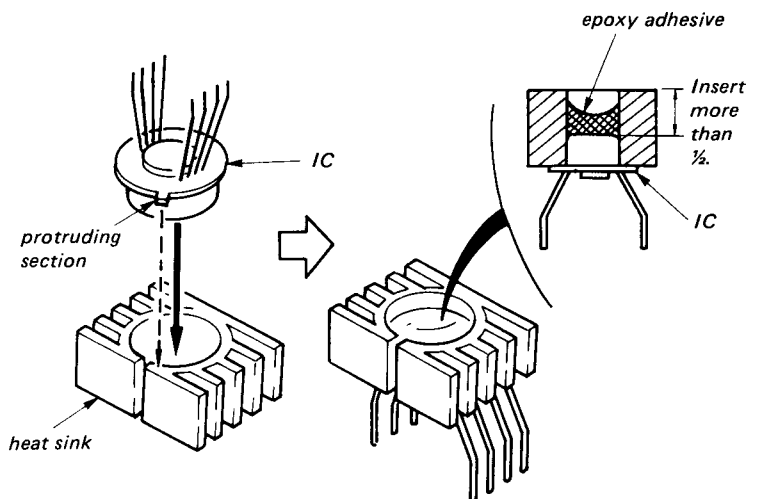


1. Loosen the screw (red) with the screwdriver.
2. Insert the screwdriver into the slot in the lever and move it in the direction of the arrow until it stops.
3. Tighten the screw.

### NOTES ON IC REPLACEMENT

- When replacing IC401, 501, first clean the IC head and the inside of the heat sink with alcohol, then mount the heat sink and fill the heat sink indented portion with an epoxy type adhesive\*, as shown in the illustration below.

\* Epoxy type adhesive: Sony bond SC1000 or other quick drying 2 liquid compound.



**— CAUTION FOR ELECTROSTATIC BREAKDOWN —**

**NOTES ON HANDLING THE BASE UNIT (BU-1C)**

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.

The printed matter below is included in the repair parts. During repair, use the procedure in the printed matter.

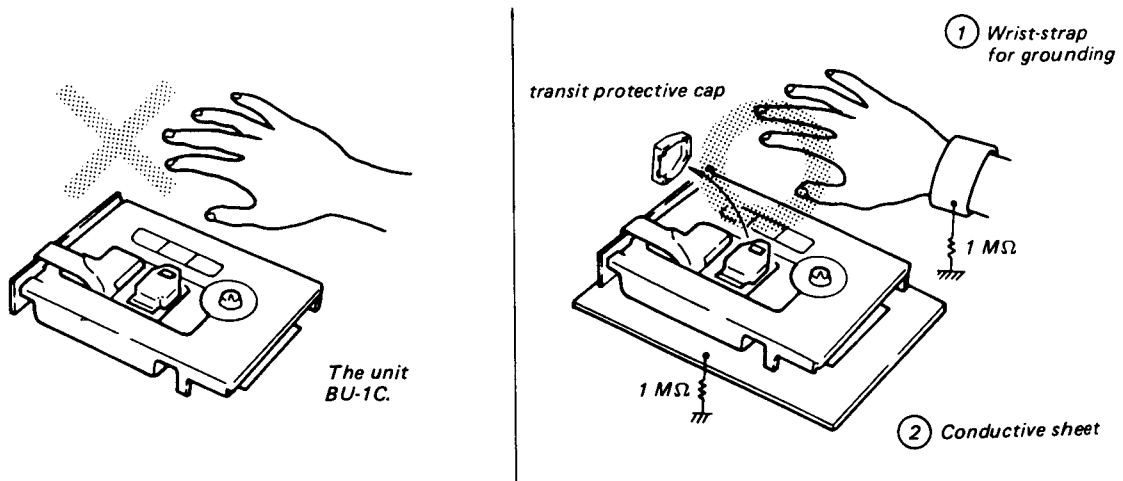
The following method is an example for reference purposes:

1. Place a conductive sheet on the workbench. (The black sheet used as repair parts wrapping).
2. Place the set on the conductive sheet so that the chassis touches the sheet. (This makes it the same potential as the conductive sheet).
3. Place your hands on the conductive sheet. (This makes them the same potential as the sheet).
4. Remove the optical pick-up block.
5. Perform work on top of the conductive sheet. Be careful that clothing does not touch the optical pick-up block.

**Printed Matter Included in the Repair Parts**

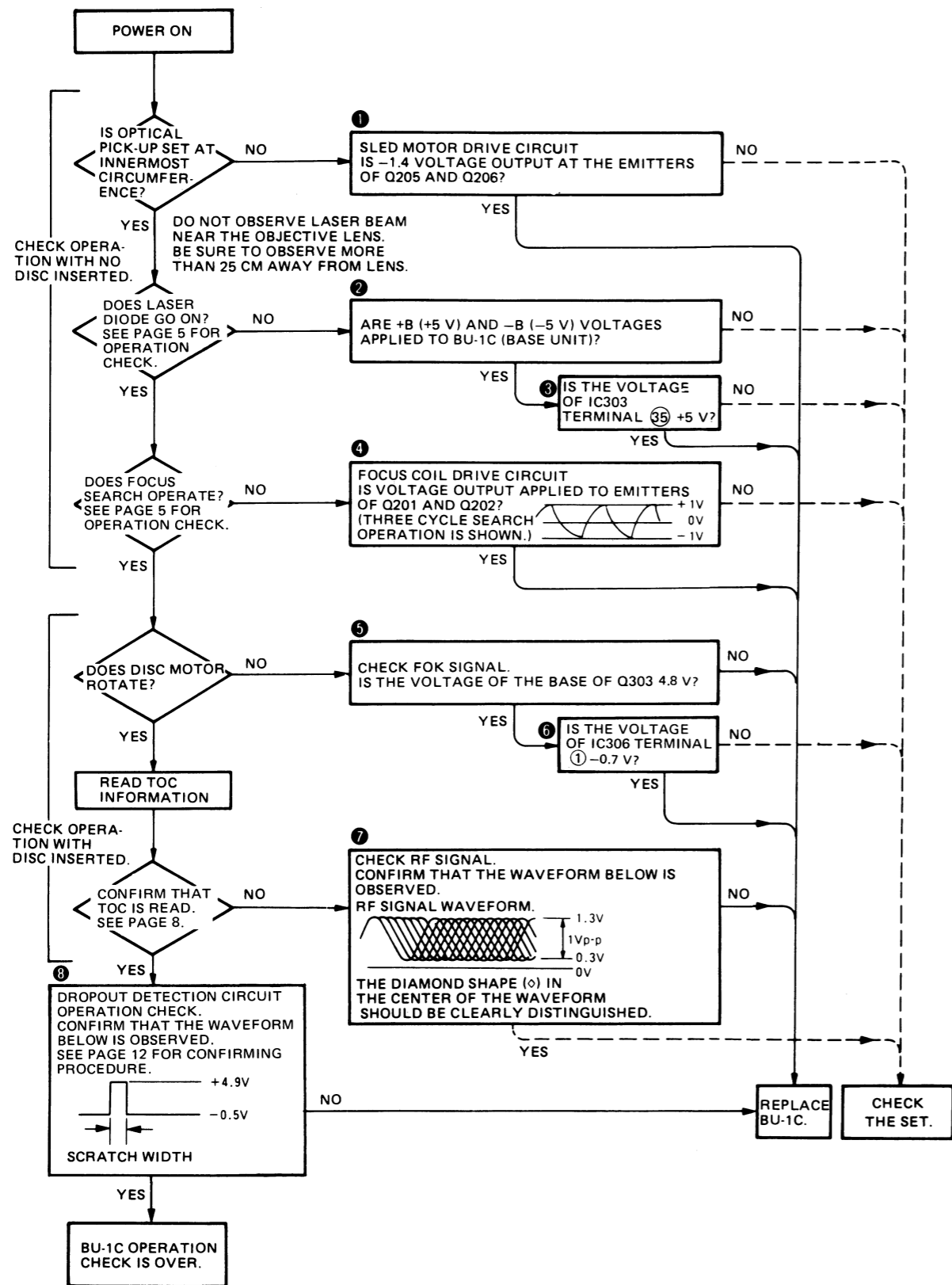
**When opening or repairing a BU-1C, the procedure for grounding as follows is required to prevent damage caused by static electricity.**

1. Grounding for the human body.  
Be sure to put on a wrist-strap for grounding (with impedance lower than  $10^8 \Omega$ ) whose other end is grounded. The strap works to drain away the static electricity built-up on the human body.
2. Grounding for the work table.  
Be sure to lay on the table a conductive sheet (with impedance lower than  $10^9 \Omega$ ) such as sheet of copper which is grounded.
3. As static electricity built-up on clothes is not drained away, be careful not to let your clothes touch the BU-1C.

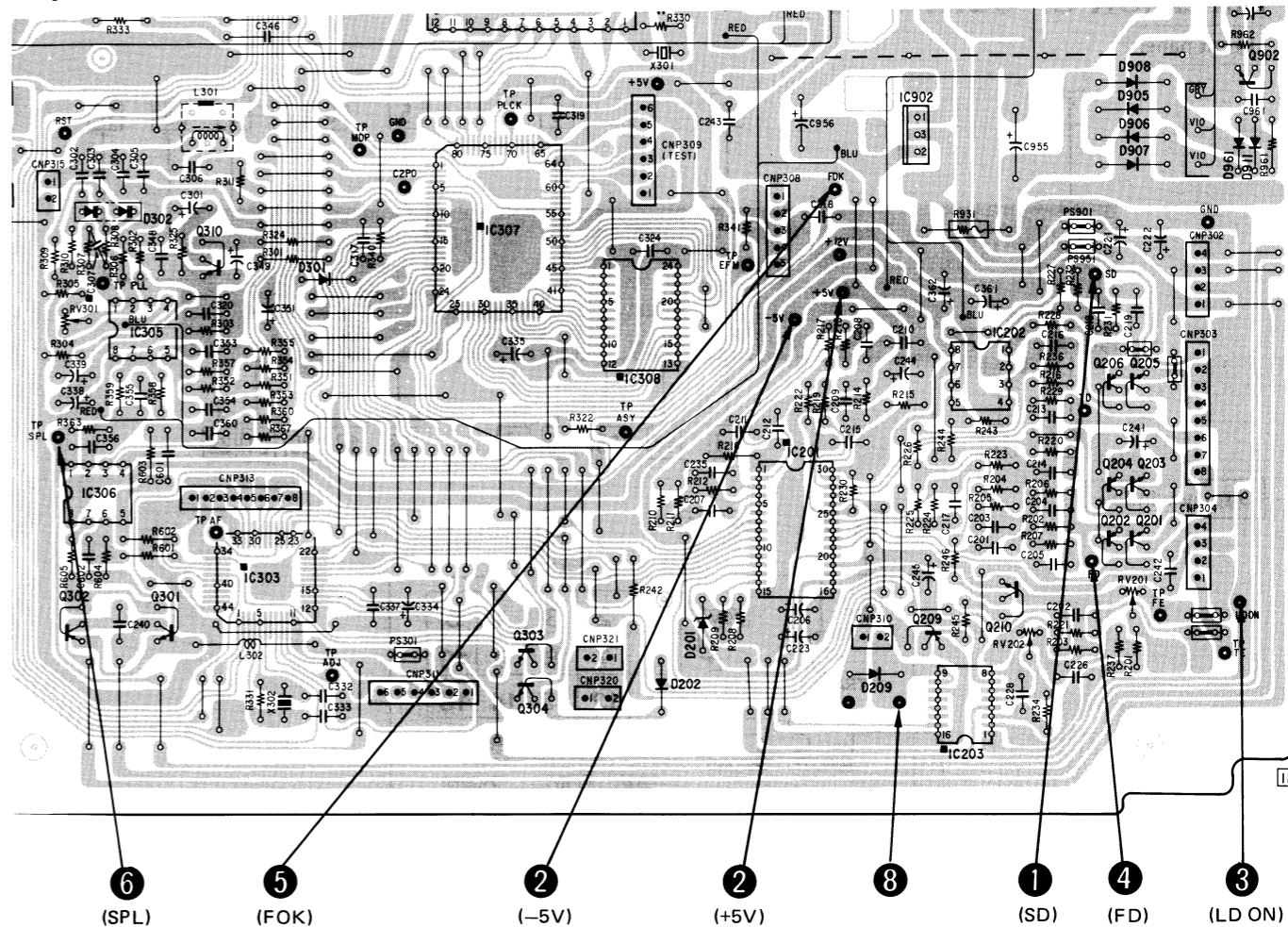


**FLOW CHART OF BU-1C (BASE UNIT) TROUBLESHOOTING**

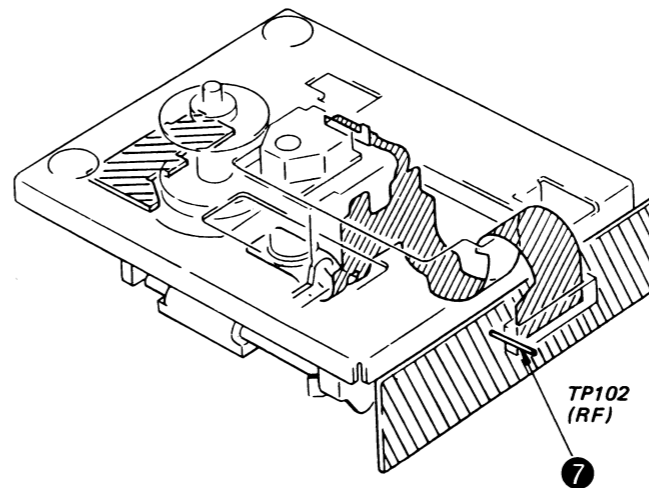
- Confirm all connectors around BU-1C (base unit) are secured before the following check.



[SERVO BOARD]



BU-1C (BASE UNIT)



CHECKING TOC INFORMATION READING

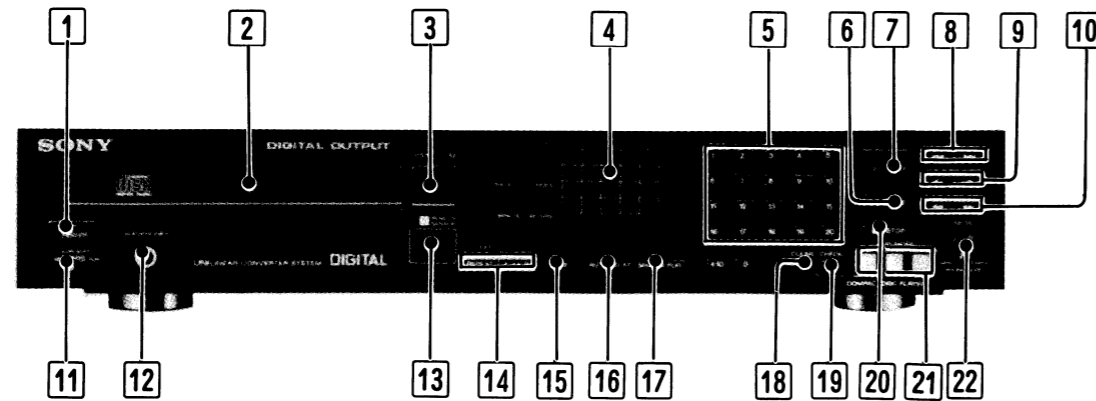
If TOC information is read correctly, the number of selections on the disc and the total playing time will be displayed. The display will be as follows for YEDS-1.



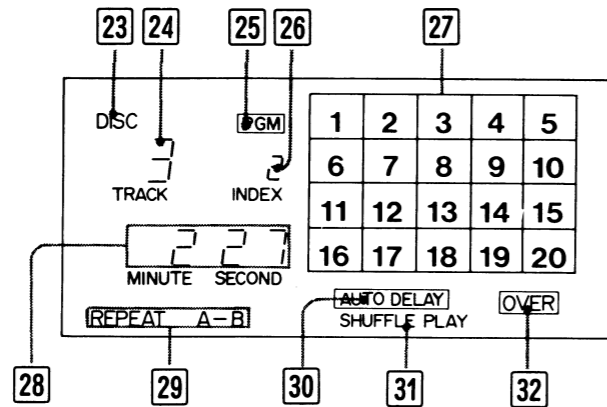
the number of selections total playing time

FUNCTION OF CONTROLS

Front panel

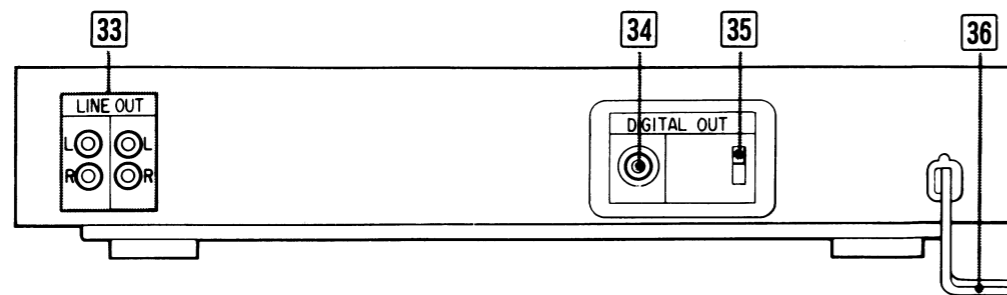


Display window

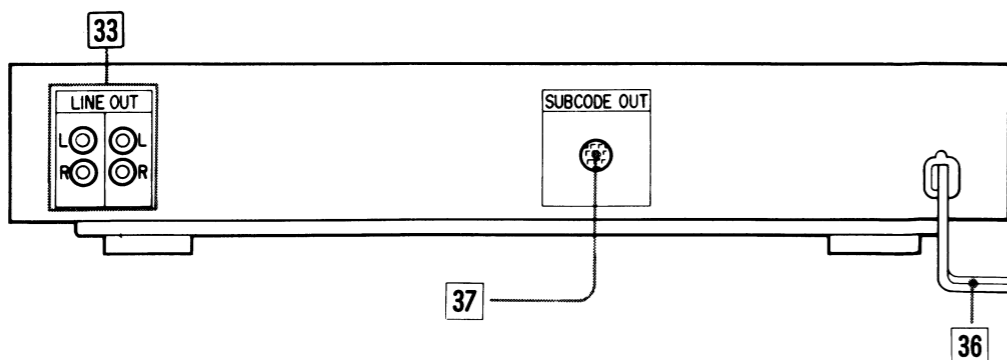


Rear panel

CDP-552ESDII/650ESDII:



CDP-502ESII/620ESII:



Front panel

- 1 **POWER switch**
- 2 **Disc compartment**  
Place a compact disc here.
- 3 **▲ OPEN/CLOSE button**
- 4 **Display window**
- 5 **Direct selection buttons**  
Select the desired selection directly by number.
- 6 **|| PAUSE button and indicator**  
Press to pause during play. To release the pause mode, press it again.
- 7 **▶ PLAY button and indicator**
- 8 **AMS (Automatic Music Sensor) buttons**  
Press to search for the desired selection.
- 9 **INDEX buttons**  
Press to search for a particular index number to begin playback at that point.
- 10 **Manual search buttons**  
Press to search for the desired portion of the selection.
- 11 **TIMER switch**  
Slide to play back when using the timer available optionally.
- 12 **HEADPHONES jack (stereo phone jack)**
- 13 **Remote sensor and indicator (for remote control)**  
Picks up the infrared transmitting signal from the supplied remote commander.
- 14 **REPEAT programming buttons**  
Press to repeat play. There are five types of repeat play: one selection, all selections, A ↔ B, program and shuffle repeat.
- 15 **TIME (elapsed or remaining time) button**  
Shows the elapsed time, the remaining time on both the selection being played and the whole disc.
- 16 **AUTO DELAY button**  
Inserts two seconds of blank space before the beginning of each selection.
- 17 **SHUFFLE PLAY button**  
Press to play selections in a random order.
- 18 **CLEAR button**  
Press to clear the programmed selections.
- 19 **CHECK button**  
Press to check the order of the programmed selections.

- 20 **■ STOP button**
- 21 **PLAY MODE buttons**  
**PROGRAM button:** Press to play the programmed selections.  
**SINGLE button:** Press to play one selection.  
**CONTINUE button:** Press to play from the first (or desired) selection to the last selection.
- 22 **LINE OUT/PHONE LEVEL (headphone level) control**  
Adjusts the output levels for LINE OUT jacks on the rear panel or the HEADPHONES jack on the front panel.

Display window

- 23 **DISC indicator**  
Lights up when the disc compartment is closed with a disc in place or when the disc compartment is opened.
- 24 **TRACK indicator**  
Shows the track number of the selection being played.
- 25 **PGM (program) indicator**  
Lights up while programming is being done and while checking the programmed order.
- 26 **INDEX indicator**  
Displays the index number of the selection being played.
- 27 **Music calendar display window**  
Displays disc selection numbers up to 20 selections.
- 28 **Time counter**  
Shows the elapsed time the selection has been played.
- 29 **REPEAT indicator**  
Lights up during repeat play.
- 30 **AUTO DELAY indicator**  
Lights up when the AUTO DELAY button is pressed.
- 31 **SHUFFLE PLAY indicator**  
Lights up when the SHUFFLE PLAY button is pressed.
- 32 **OVER indicator**  
Lights up when a disc with more than 20 selections is inserted.

## Rear panel

The illustration on page 3 shows the model available in European countries.

### 33 LINE OUT jacks

**FIXED:** Output level is constant.

**VARIABLE:** Output level can be changed with the LINE OUT control and supplied remote commander.

### 34 DIGITAL OUT jack

Directly outputs the digital audio and subcode data read from the disc.

Connect to the DIGITAL IN jack of an optional DAS-702ES D/A converter unit.

### 35 DIGITAL OUT switch

Slide to select the output signal from the DIGITAL OUT jack.

**ON:** for audio and subcode data output

**ON (FOR AUDIO USE):** for audio data output only. Set to this position when listening to music through a connected D/A converter unit.

**OFF:** for no digital data output. Set to this position when listening to music through the LINE OUT jacks.

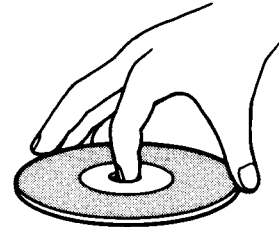
### 36 AC power cord

### 37 SUBCODE OUT connector

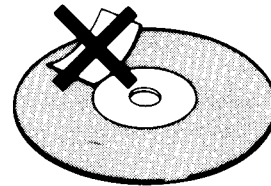
This connector is provided to extend the utility of this compact disc player by allowing for the connection of optional equipment which will be available in the future.

## NOTES ON COMPACT DISCS

Handle the disc by its edge, and to keep the disc clean, do not touch the rainbow colored surface.



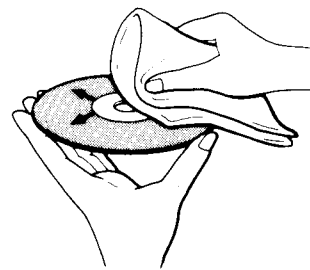
Do not stick paper or tape on the labeled surface.



Not this way

Do not expose the disc to direct sunlight or heat sources such as hot air ducts, or leave it in a car parked in direct sunlight where there can be a considerable rise in the temperature.

Before playing, clean the disc with the cleaning cloth. Wipe the disc from the center out.



Do not use solvents such as benzine, thinner, commercially available cleaners or anti-static spray intended for analog discs.

After playing, store the disc in its case.

## SECTION 1 OUTLINE

### 1-1. CIRCUIT DESCRIPTION

The circuits on this set are almost the same as those on CDP-502ES/620ES and CDP-552ESD/650ESD, which is already on the market. Therefore, only the dropout detection circuit and mechanism control IC (IC303), which change base unit BU-1 to BU-1C, will be explained here. Refer to the circuit descriptions in the CDP-502ES/620ES and CDP-552ESD/650ESD Service Manual for other portions.

#### 1. Dropout Detection Circuit

This circuit is on the base unit BU-1C RF board. If there are any bubbles or scratches made on the disc when it is produced, these will adversely affect tracking, or focus servo, when the disc is played. This will cause mechanical noise to be generated from the pick-up, sound skipping, or electrical noise. This circuit detects these bubbles and scratches, and the output then lowers tracking gain or focus gain loop gain to prevent these problems.

Next the operation will be explained. Please look at Fig. 1. During PLAY, the RF signal output from IC101 pin ③ is applied to D101 via IC102-1 buffer. This RF signal is envelope wave detected at D101. Therefore, during normal operation (no bubbles or scratches on the disc) D101 cathode side has a DC component. Bias is applied via D103 and R115 so that IC102-2 comparator output is low at this time. D102, R114 and C113 perform the role of adjusting auto bias relative to RF signal level fluctuation and also act as a smoothing circuit so that IC102-2 bias dose not change even if there is dropout.

Then, if there are bubbles or scratches, the RF signal is cut, and IC102-2 pin ② voltage goes lower than that of IC102-2 pin ③ via C111, and during this period, comparator output IC102-2 pin ① is inverted and becomes high. This signal switches IC203 switch, and tracking gain and focus gain loop gain are lowered.

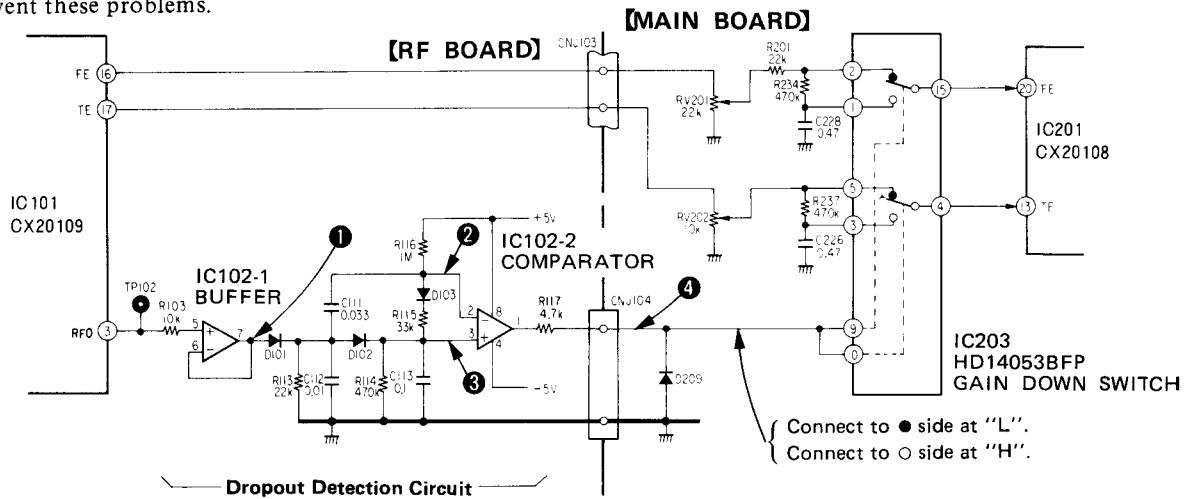


Fig. 1 Dropout Detection Circuit and Gain Down Switch Circuit

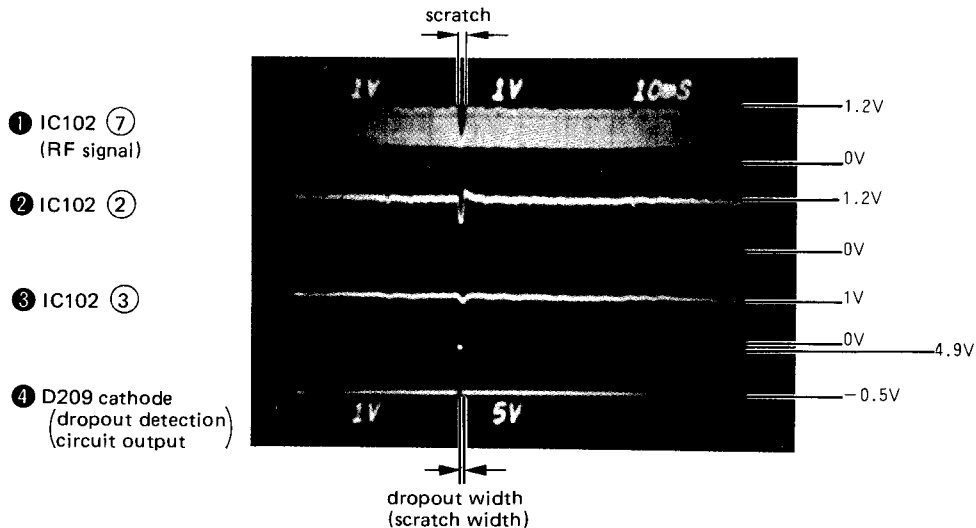


Fig. 2 Waveform when Dropout is Detected

(Measured on YEDS-1 disc with tape of about 1 mm width stuck on as in Fig. 3)

● **Dropout Detection Circuit Operation Check**

1. Stick black or red tape (about 1 mm wide) onto the disc as shown in Fig. 3. (This is to get the dropout detection circuit output pulse.) Do not stick it on the part where the TOC is recorded, however.
2. Play the disc prepared in step 1.
3. Confirm that a waveform as shown in Fig. 2 ④ is on main board D209 cathode side. Operation is normal if this pulse appears.

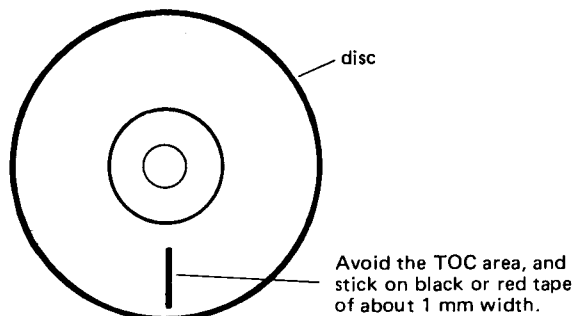


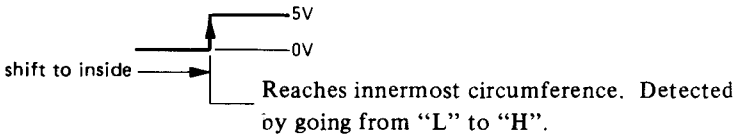
Fig. 3 Tape Location

**2. Mechanism Control IC (IC303)**

The mechanism control IC (IC303) uses the DATA pin, CLOCK pin and LATCH pin to instruct IC201 (servo IC CX20108) and IC307 (digital processing/CLV servo IC CX23035), and also has TOC data and Q data memorized, which it uses in performing direct search, etc.

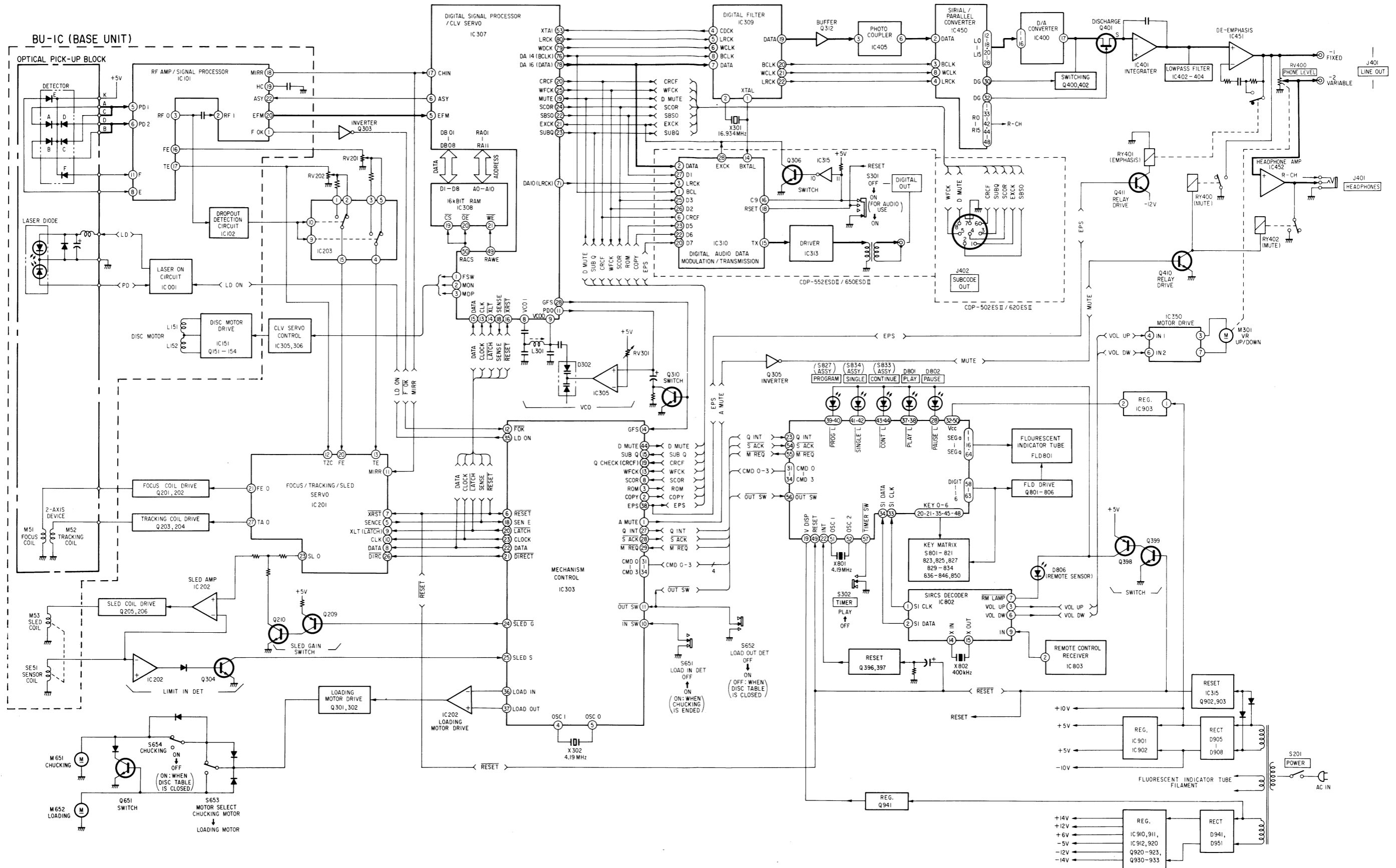
**Pin Functions**

| Pin No. | I/O | Pin Name | Function  |
|---------|-----|----------|---|
| 1       | OUT | A MUTE   | Audio signal muting control output. "H" during muting.  |
| 2       | OUT | COPY     | Signal output pin for CD copy inhibit to IC310. "L" for copy inhibit.   |
| 3       | OUT | ROM      | Disc identification signal output. Normally "L". "H" for CD ROM disc.   |
| 4       | —   | OSCO     | Clock pin.  |
| 5       | —   | OSCI     | Clock pin.  |
| 6       | IN  | RESET    | Reset input pin. Goes "H" in about 1.5 seconds after power ON.  |
| 7       | IN  | TEST     | LSI test pin. Not used.   |
| 8       | IN  | SCOR     | SUB Q sync signal input pin.  |
| 9       | IN  | ADJ      | When this pin goes "L", IC303 detects servo or other abnormalities and disc load out is not performed. Used for servo and PLL adjustment. Also, direct search is not performed, and access can only be done by conventional track jump. |
| 10      | IN  | IN SW    | Input pin which detects that the disc table is closed. "L" for CLOSE.   |
| 11      | IN  | OUT SW   | Input pin which detects that the disc table is open. "L" for OPEN.  |
| 12      | IN  | FOK      | Focus OK signal input pin.  |
| 13      | IN  | WFCK     | WFCK (Write Frame Clock) input pin.   |
| 14      | IN  | GFS      | Guarded Frame Sync input pin. "H" is input when disc data can be read normally.   |
| 15      | IN  | SUB Q    | SUB Q signal (selection address, emphasis data, etc.) input pin.  |
| 16      | —   | GND      | Ground pin.   |
| 17      | —   | NC       | Not used.   |
| 18      | IN  | SENSE    | Input pin for IC201, IC307 SENS output.   |
| 19      | IN  | Q CHECK  | Inputs CRC results of SUB Q output from IC307.  |

| Pin No. | I/O    | Pin Name                   | Function  |
|---------|--------|----------------------------|---|
| 20      | OUT    | $\overline{\text{LATCH}}$  | Latch output pin for serial data to IC201, IC307.   |
| 21      | OUT    | $\overline{\text{DIRECT}}$ | Output pin to IC201 during 1 track jump. Normally "H". Reverses track jump pulse direction at "L". When "H" again, set to normal tracking mode. Outputs "L" for a set time by detection of TZC (Tracking Zero Cross) rise and fall. |
| 22      | OUT    | DATA                       | Output pin for serial data to IC201, IC307.   |
| 23      | OUT    | CLOCK                      | Output pin for serial data transmission clock to IC201, IC307.  |
| 24      | OUT    | $\overline{\text{SLED G}}$ | Output pin which controls sled motor gain. Normally "H". "L" during access.   |
| 25      | IN     | SLED S                     | Input pin which detects optical block at innermost circumference.<br>   |
| 26      | IN     | AF ADJ                     | Not used. Normally "H".   |
| 27      | OUT    | Q INT                      | Trigger output pin for data sent to IC801.  |
| 28      | OUT    | $\overline{\text{S ACK}}$  | IC801 M REQ signal acknowledge signal output pin.   |
| 29      | IN     | $\overline{\text{M REQ}}$  | IC801 M REQ signal input pin.   |
| 30      | —      | NC                         | Not used.   |
| 31 – 34 | IN/OUT | CMD0 – CMD3                | Data input/output with IC801.   |
| 35      | OUT    | LD ON                      | Output pin which controls laser diode ON/OFF.   |
| 36      | OUT    | LOAD IN                    | Output pin which drives loading motor to close side.  |
| 37      | OUT    | LOAD OUT                   | Output pin which drives loading motor to open side.   |
| 38      | OUT    | EPS                        | Output pin which detects disc emphasis and switches emphasis ON/OFF.  |
| 39      | —      | VDD                        | Power supply pin (5 V)  |
| 40      | OUT    | REC MUTE                   | Synchro REC MUTE signal output pin. Not used.   |
| 41      | OUT    | PAUSE                      | Synchro PAUSE release signal output pin. Not used.  |
| 42      | IN     | $\overline{\text{REC M}}$  | Synchro REC signal input pin. Not used.   |
| 43      | —      | NC                         | Not used.   |
| 44      | OUT    | D MUTE                     | Digital signal muting control output pin. "H" for muting.   |



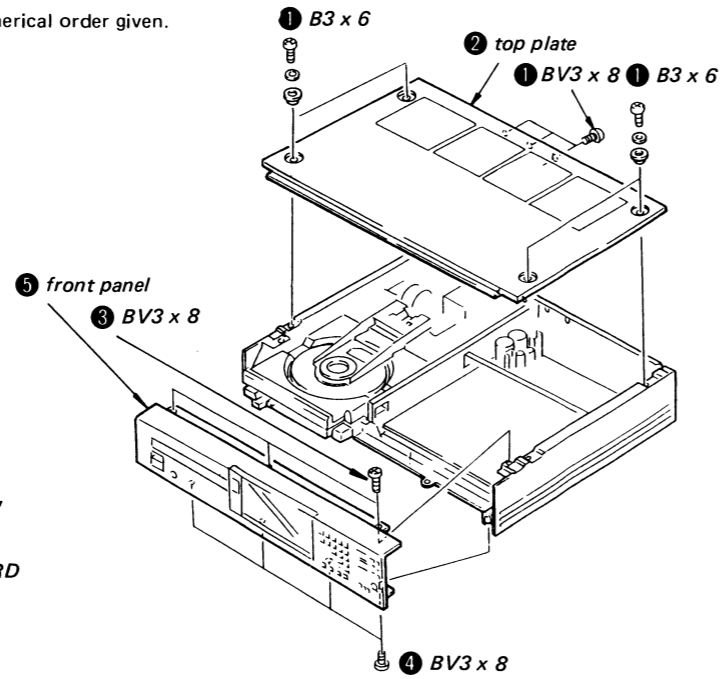
1-2. BLOCK DIAGRAM



SECTION 2  
DISASSEMBLY

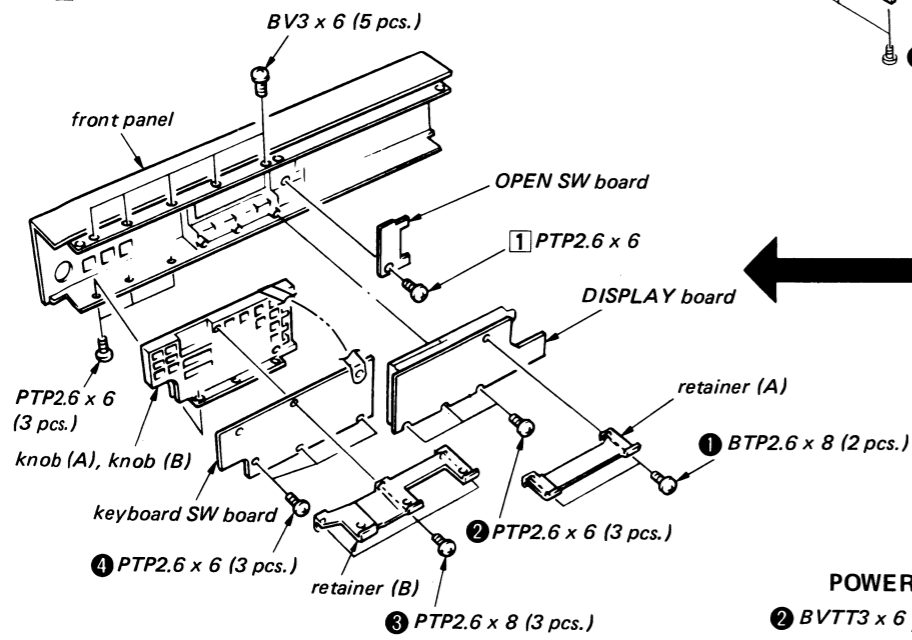
Note: Follow the disassembly procedure in the numerical order given.

FRONT PANEL AND TOP PLATE

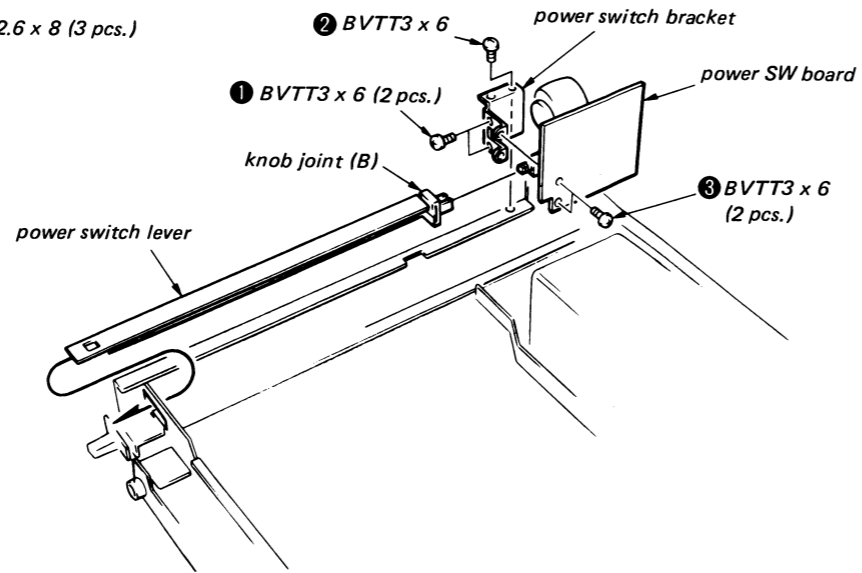


DISPLAY BOARD, KEYBOARD SW BOARD,  
OPEN SW BOARD

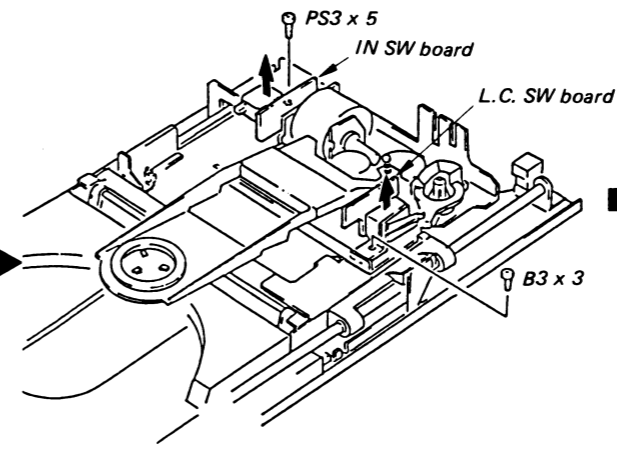
- 1 - 4 : DISPLAY BOARD, KEYBOARD SW BOARD
- 7 : OPEN SW BOARD



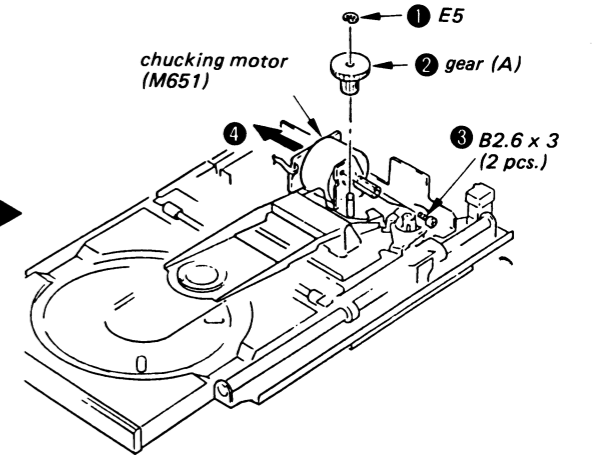
POWER SW BOARD



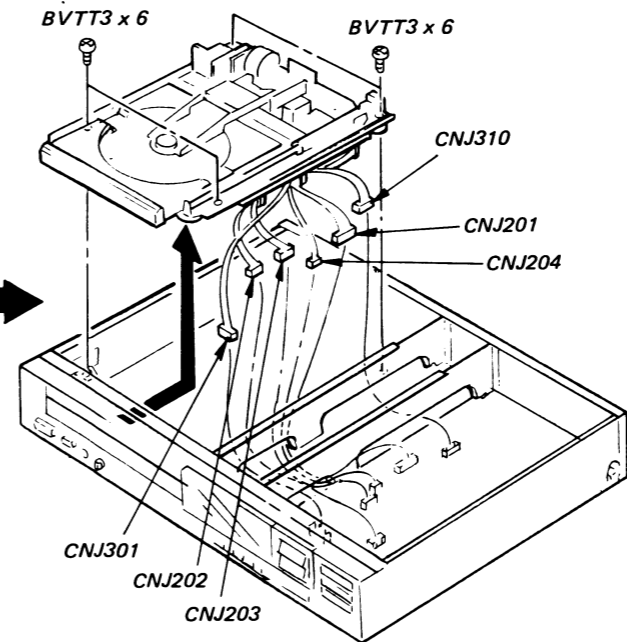
IN SW/L.C. SW BOARD



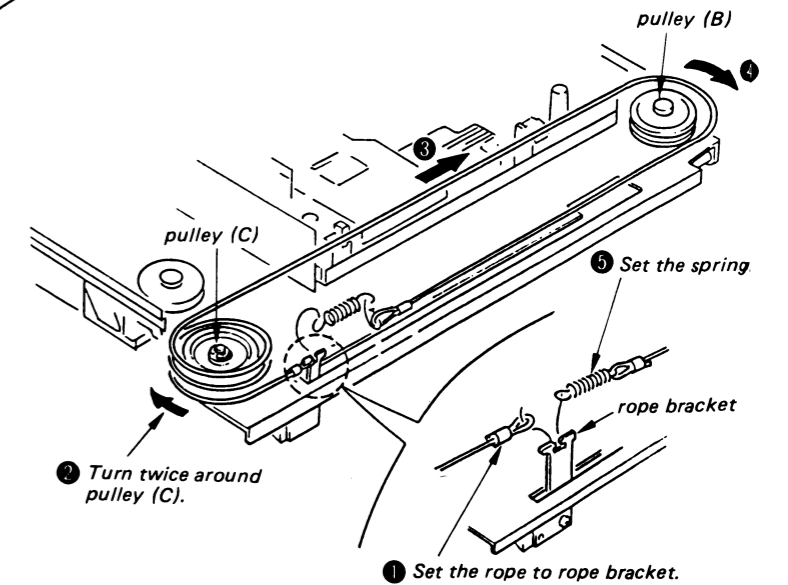
CHUCKING MOTOR (M651)



MECHANISM SECTION

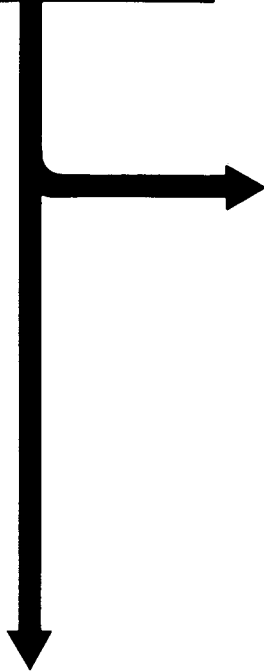


ROPE STRINGING



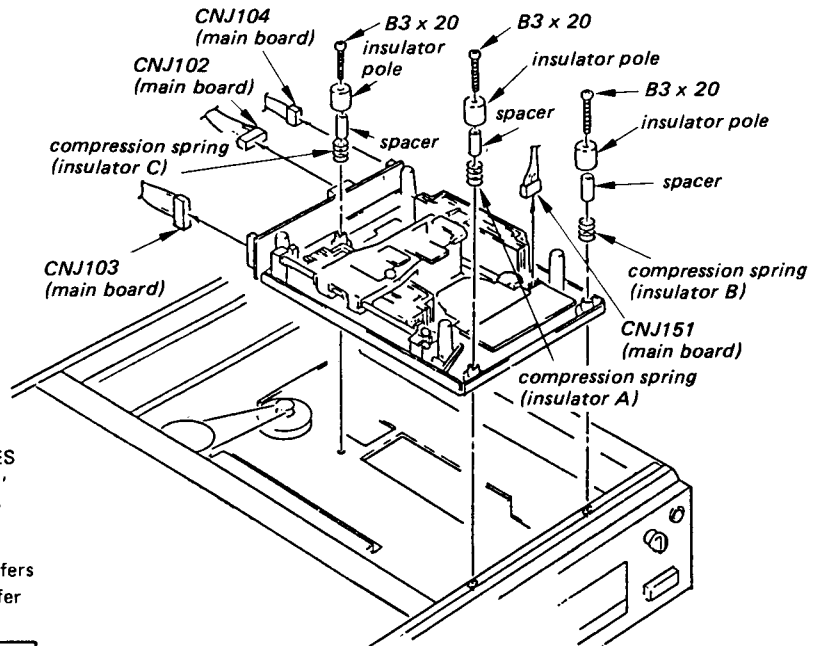
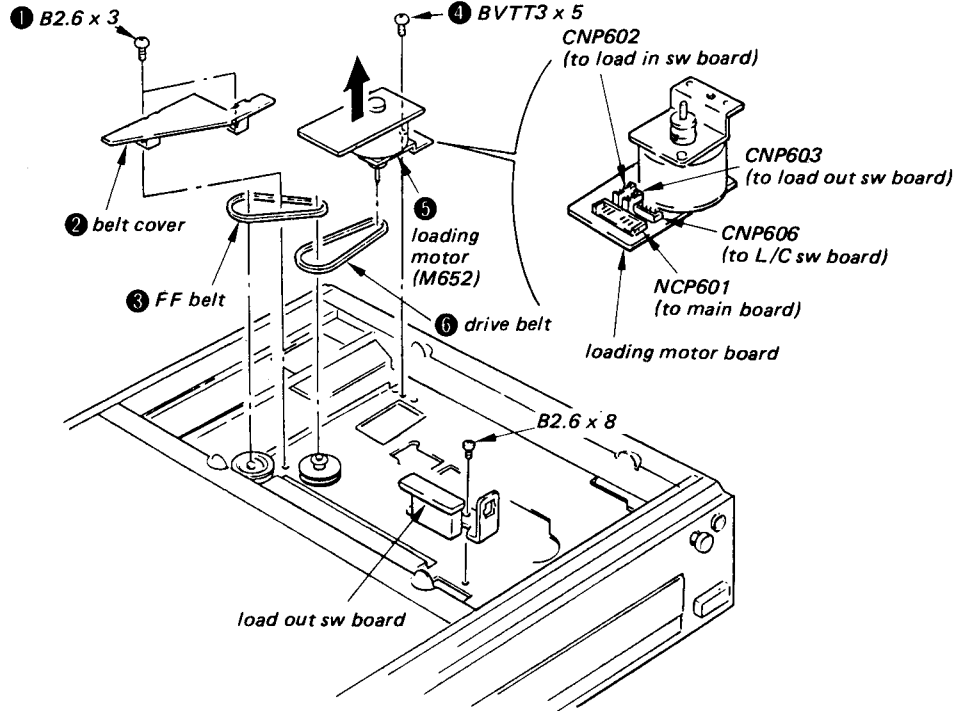
**BOTTOM PLATE**

Remove bottom plate by taking out 7 screws (BV3 x 8).  
(It is possible to check main board from conductor side.)



**BASE UNIT (BU-1C)**

**LOADING MOTOR (M652), FF BELT, DRIVE BELT, LOAD OUT SW BOARD**



- Note (1):** When replacing BU-1C, refer to "NOTES ON HANDLING BASE UNIT (BU-1C)" on page 6 to prevent damage caused by static electricity.
- Note (2):** Each compression spring (insulator) differs in size and turns. When installing it, refer to the following list.

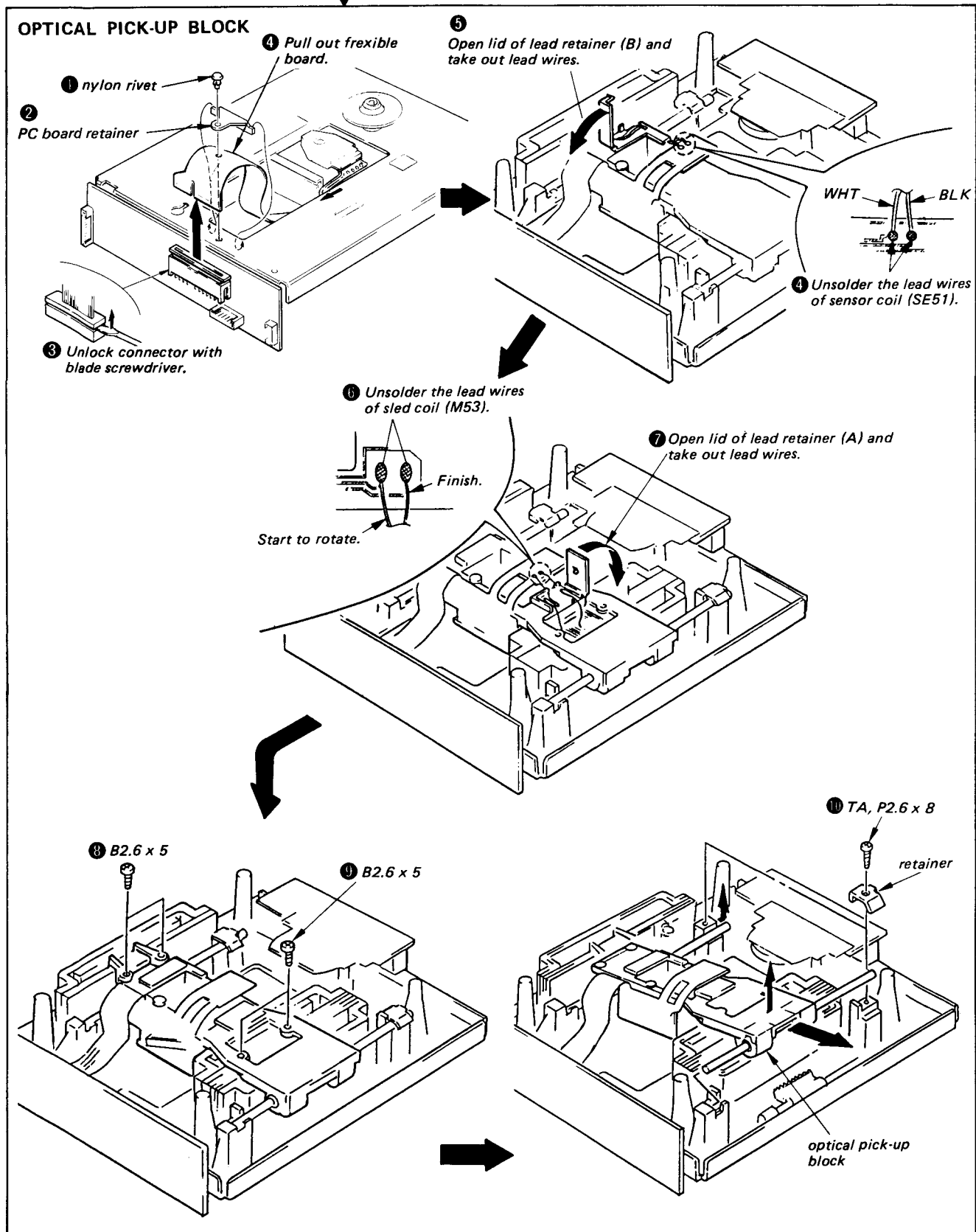
| compression spring (insulator) | turn number | color  |
|--------------------------------|-------------|--------|
| A                              | 6           | silver |
| B                              | 4.5         | gold   |
| C                              | 3.5         | black  |

**Note (3):** RF board is included in BU-1C and can not be replaced in itself.

**BASE UNIT (BU-1C)**

(See page 19.)

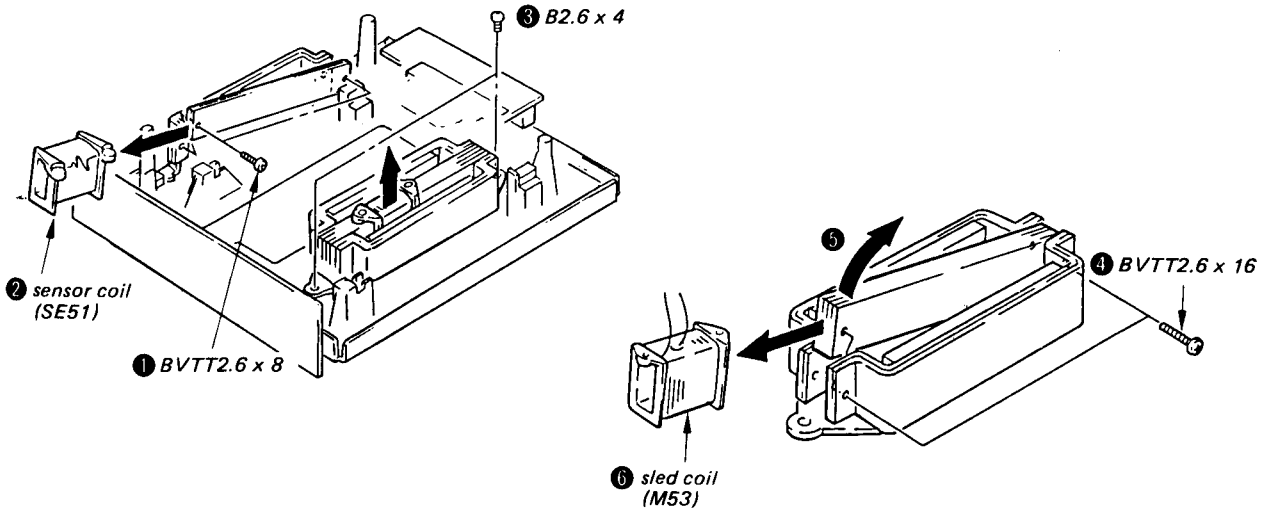
Refer to "NOTES ON HANDLING BASE UNIT (BU-1C)" on page 6 to prevent damage caused by static electricity.



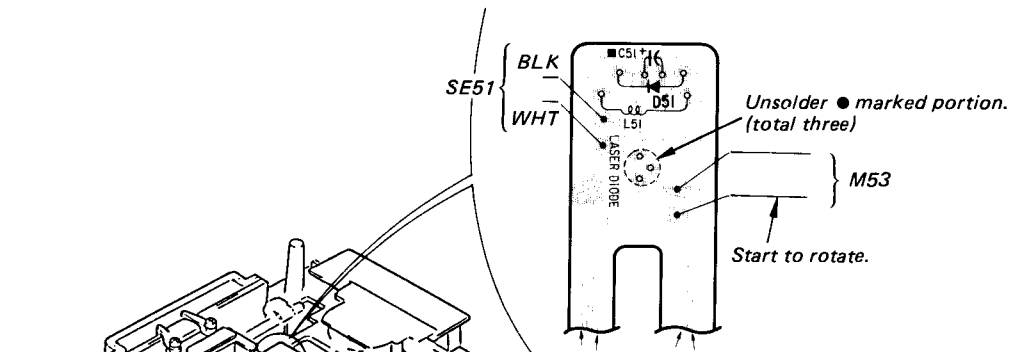
**SLED COIL (M53), SENSOR COIL (SE51)**

①, ② : sensor coil (SE51)

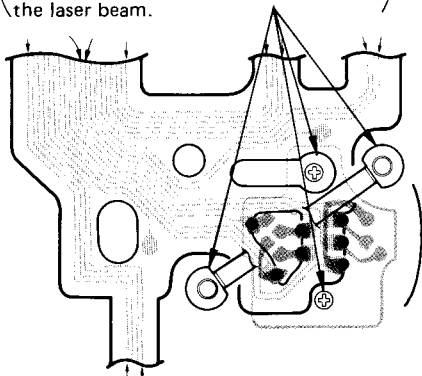
③~⑥ : sled coil (M53)



**FLEXIBLE BOARD**



**Note: Be sure not to remove the screws.**  
 (The screws fix the detector. Therefore, if the screws are removed or loosened, the detector moves and cannot receive the laser beam.)



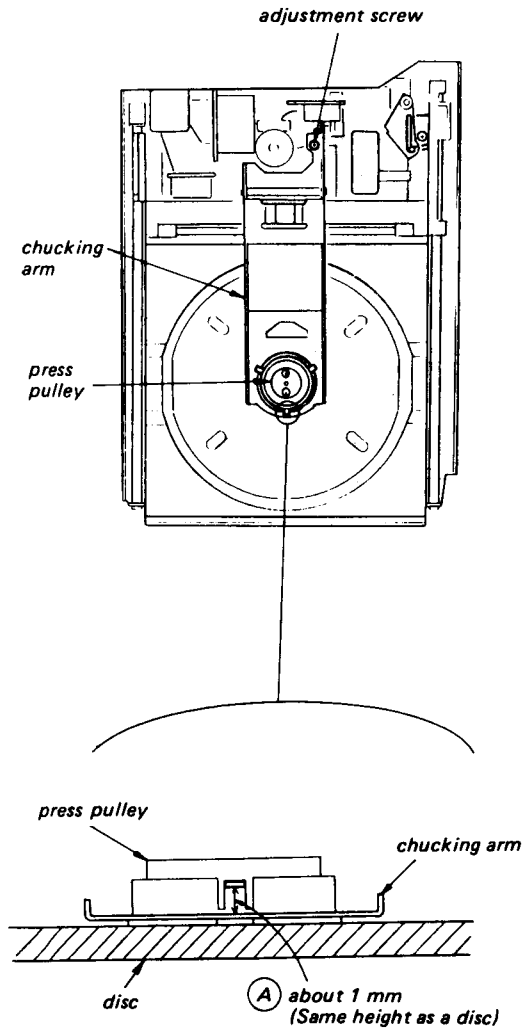
Unsolder ● marked portion. (total four)

**SECTION 3  
ADJUSTMENTS**

**3-1. MECHANICAL ADJUSTMENT  
CHUCKING ARM HEIGHT ADJUSTMENT**

Adjust the height of portion (A) with disc inserted and disc table closed.

Repeat loading and confirm that chucking arm does not touch disc pulley.



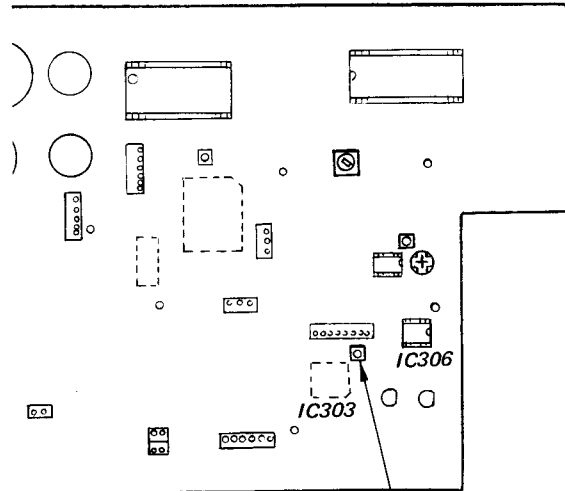
**3-2. ELECTRICAL ADJUSTMENTS**

1. Perform adjustments in the order given.
2. Use YEDS-1 disc (3-703-696-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10 MΩ impedance.

**Adjustment Mode**

1. Connect servo board test point AF and ground.  
(This is to prevent the disc table from opening even though pits are not read, by making microcomputer IC303 pin ⑨ low.)
2. Turn POWER switch on.  
(To reset microcomputer.)  
After adjustment, remove the lead wire connecting test points AF and ground.

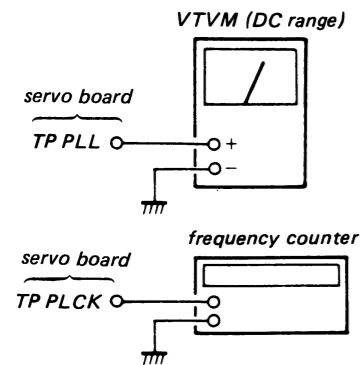
**Adjustment Location:** servo board



test point AF  
(Connect this test point to ground.)

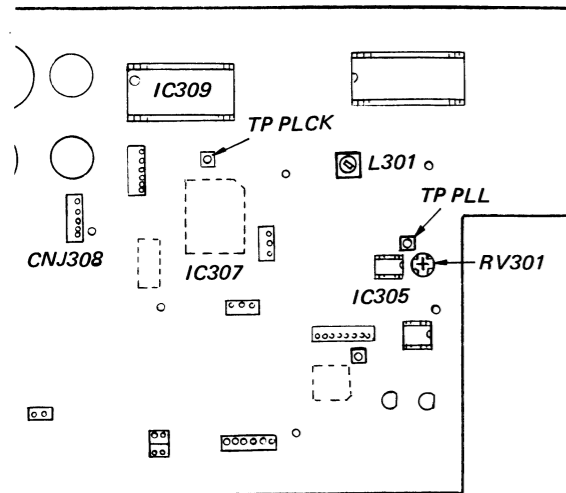
**RF PLL Adjustment**

**Procedure:**



1. Turn POWER switch ON (stop mode).
2. Remove connector CNJ308.
3. Put set into adjustment mode. (See page 22.)
4. Connect VTVM to servo board test point TP PLL.
5. Adjust main board RV301 so that reading on VTVM is 0 V ±50 mV.
6. Connect the frequency counter to servo board test point TP PLCK.
7. Adjust servo board L301 so that the reading on frequency counter is 4.4018 MHz ±20 kHz.
8. Reconnect lead wires connected in adjustment mode and connect the connector CNJ308.
9. Put disc (YEDS-1) in and press ▷PLAY button.
10. Confirm that reading on frequency counter is 4.3218 MHz.

Adjustment Location: servo board



**REFERENCE**

**Focus/Tracking Gain Adjustment**

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 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.

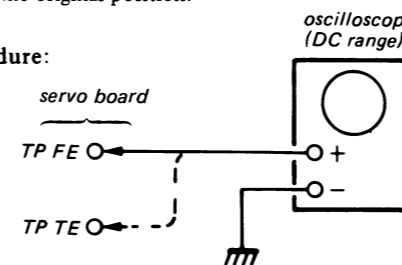
| Symptoms   | Gain | Focus       | Tracking    |
|--|------|-------------|-------------|
| • The time until music starts becomes longer for STOP → ▷PLAY or automatic selection (◀▶▶▶ buttons pressed.) (Normally takes about 1 seconds.) |      | low         | low or high |
| • Music does not start and disc continues to rotate for STOP → ▷PLAY or automatic selection. (◀▶▶▶ buttons pressed.)                           |      | -           | low         |
| • Disc table opens shortly after STOP → ▷PLAY.   |      | low or high | -           |
| • 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.

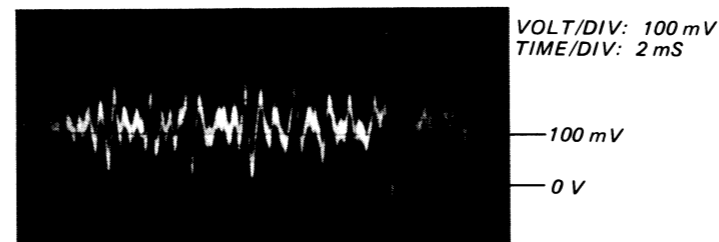
- Primary Adjustment -

**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.

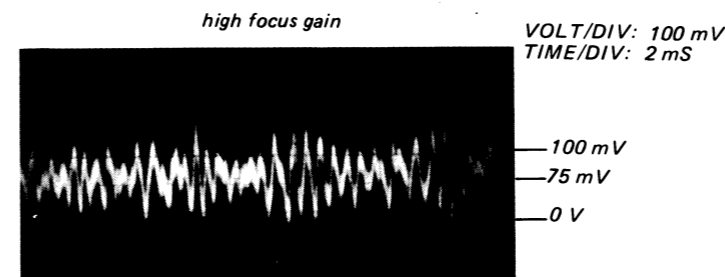
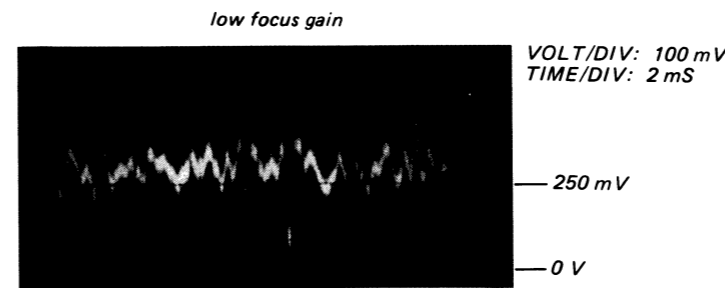
**Procedure:**



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. Put set in adjustment mode. (See page 23.)
3. Insert disc (YEDS-1) and press ▷PLAY button.
4. Connect oscilloscope to servo board TP FE.
5. Adjustment RV201 so that the waveform is as shown in the figure below. (focus gain adjustment)

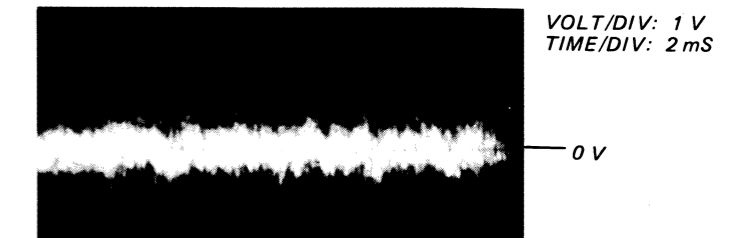


- Incorrect Examples (DC level changes more than on adjusted waveform)

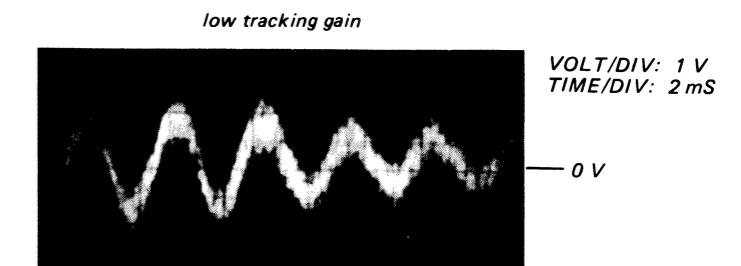


6. Connect oscilloscope to main board TP TE.

7. Adjust RV202 so that the waveform is as shown in the figure below. (tracking gain adjustment)



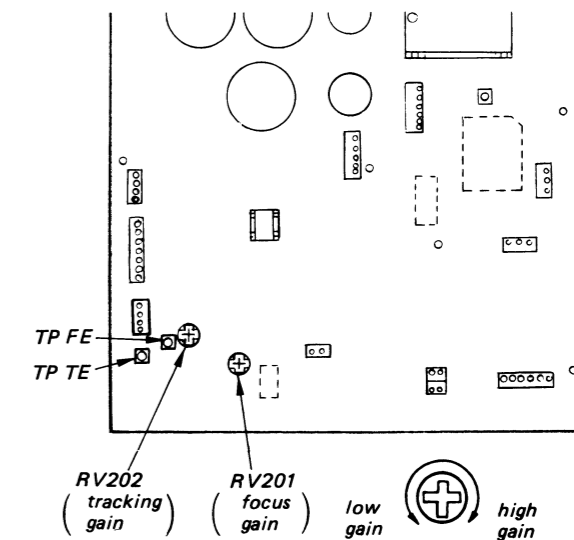
- Incorrect Examples (fundamental wave appears)



- high tracking gain (higher fundamental wave than for low gain)



Adjustment Location: servo board



SECTION 4  
DIAGRAMS

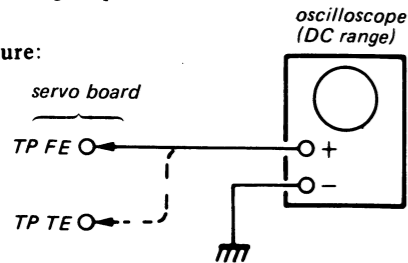
4-1. BU-1C (BASE UNIT) SECTION M

The following is a simple adjustment method.

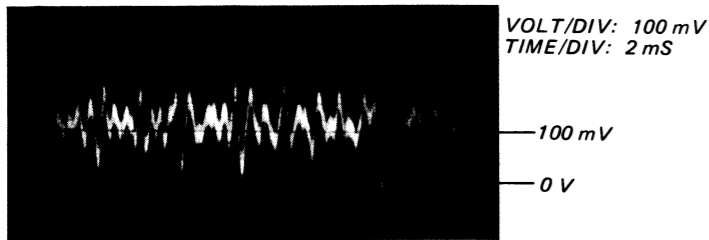
- Primary Adjustment -

**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.

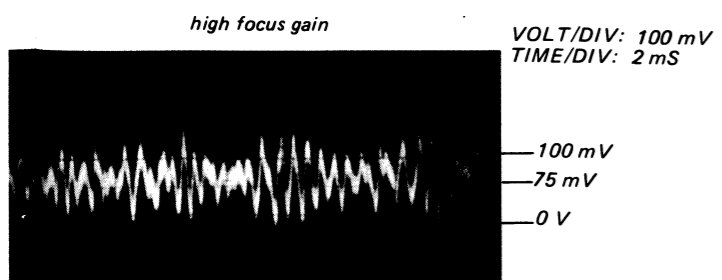
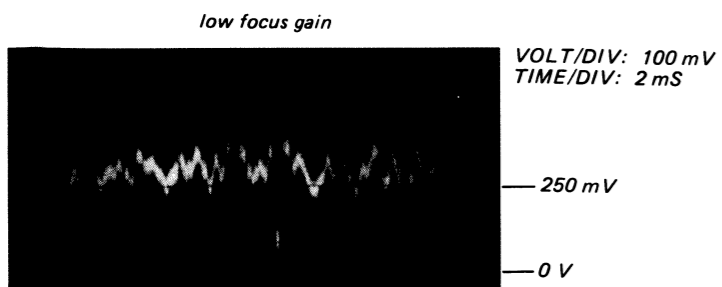
Procedure:



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. Put set in adjustment mode. (See page 23.)
3. Insert disc (YEDS-1) and press ▷PLAY button.
4. Connect oscilloscope to servo board TP FE.
5. Adjustment RV201 so that the waveform is as shown in the figure below. (focus gain adjustment)



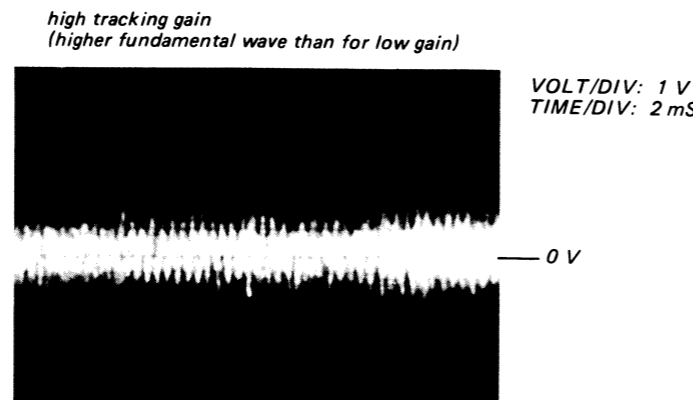
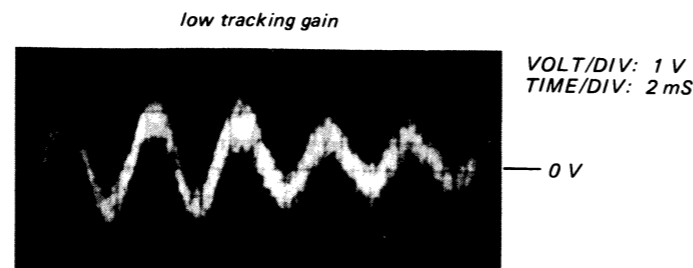
- Incorrect Examples (DC level changes more than on adjusted waveform)



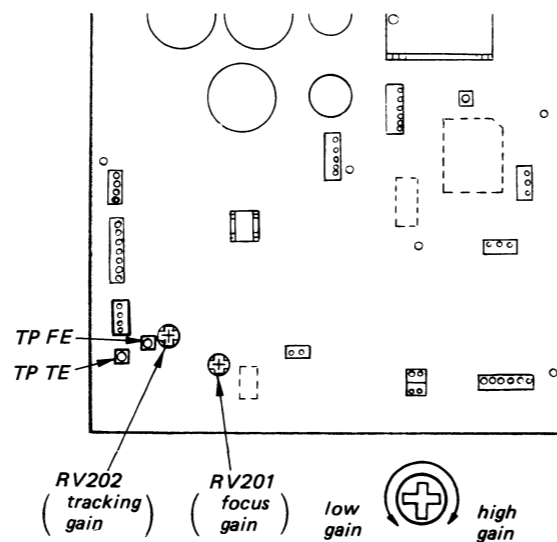
6. Connect oscilloscope to main board TP TE.
7. Adjust RV202 so that the waveform is as shown in the figure below. (tracking gain adjustment)



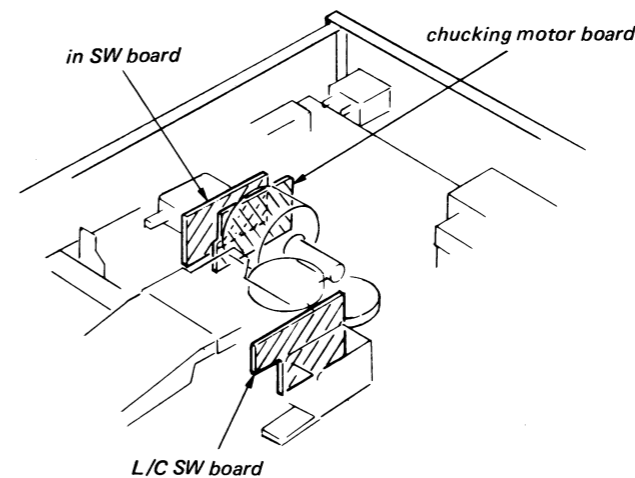
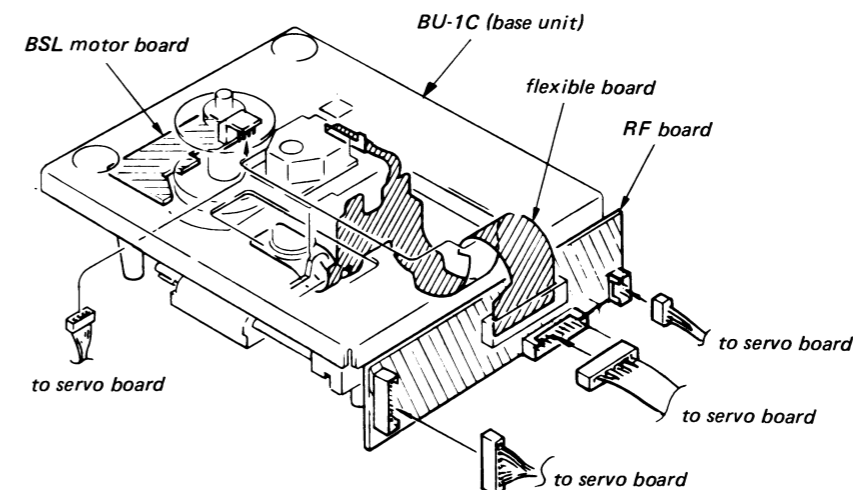
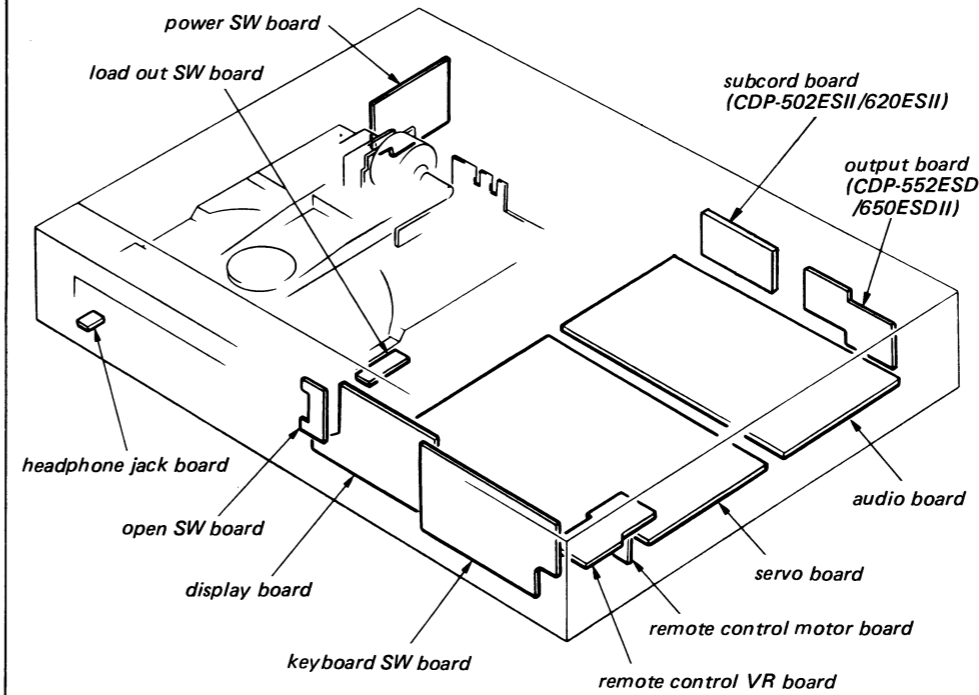
- Incorrect Examples (fundamental wave appears)



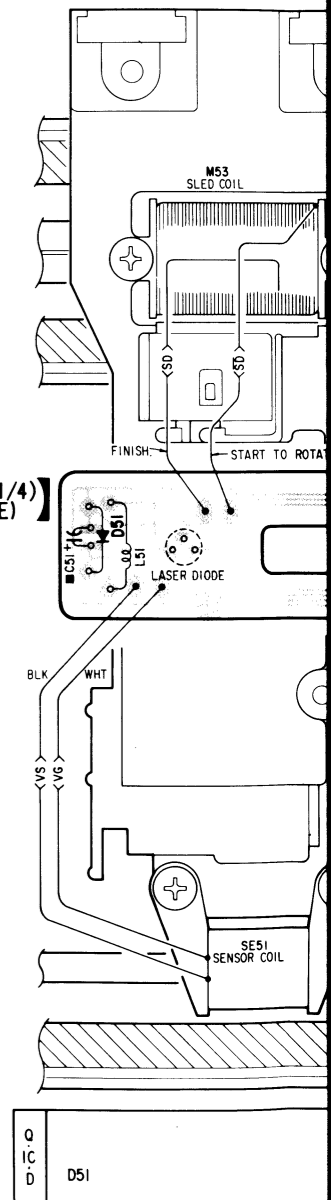
Adjustment Location: servo board



CIRCUIT BOARDS LOCATION



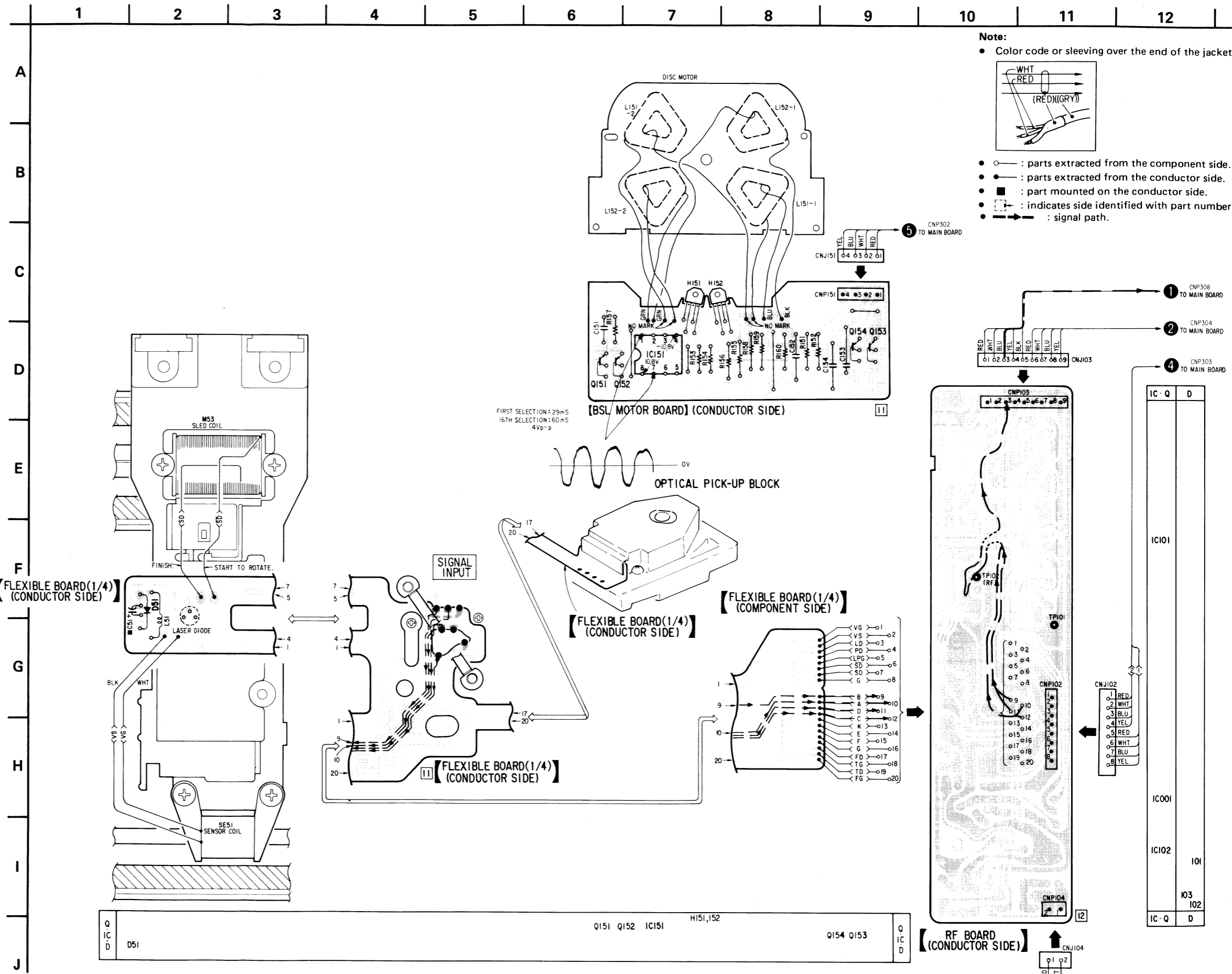
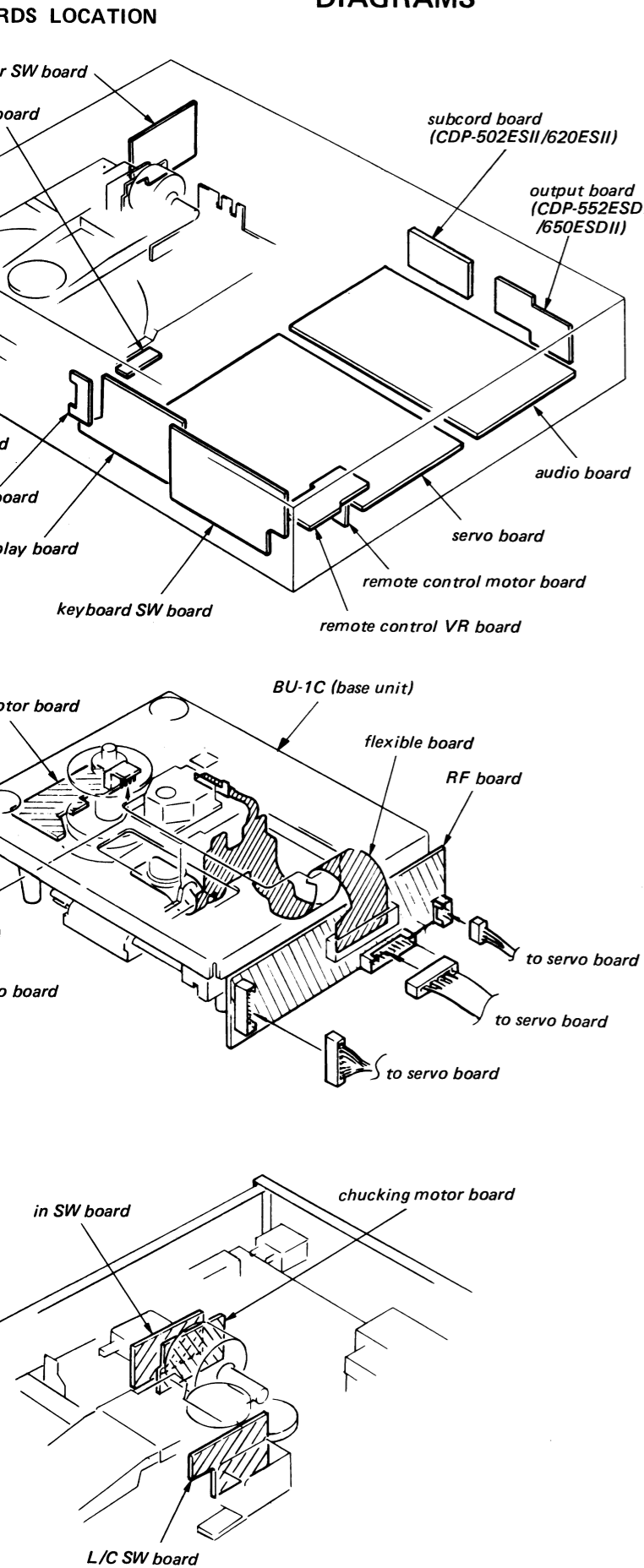
[FLEXIBLE BOARD (1/4)]  
(CONDUCTOR SIDE)





SECTION 4  
DIAGRAMS

4-1. BU-1C (BASE UNIT) SECTION MOUNTING DIAGRAM

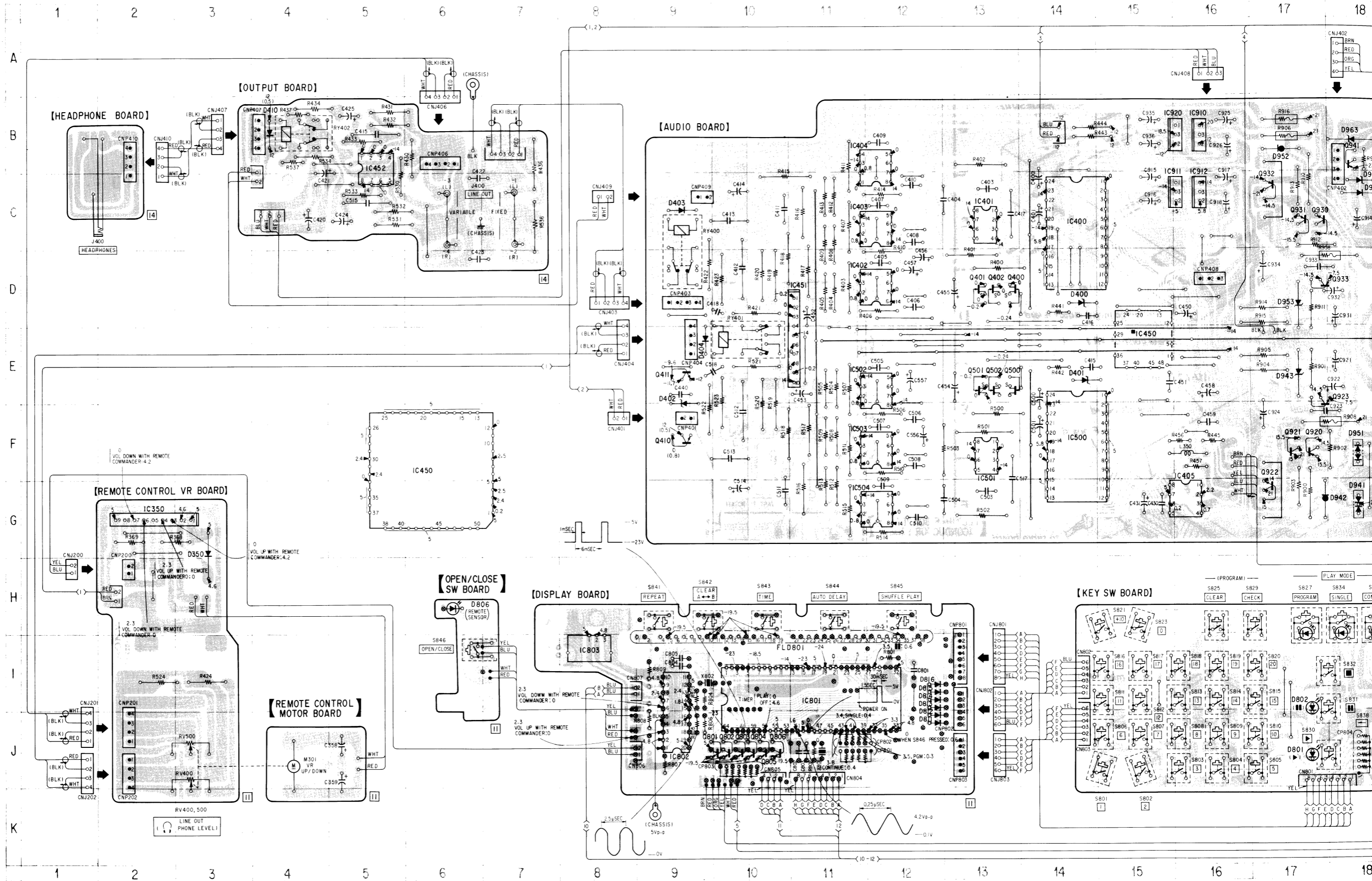


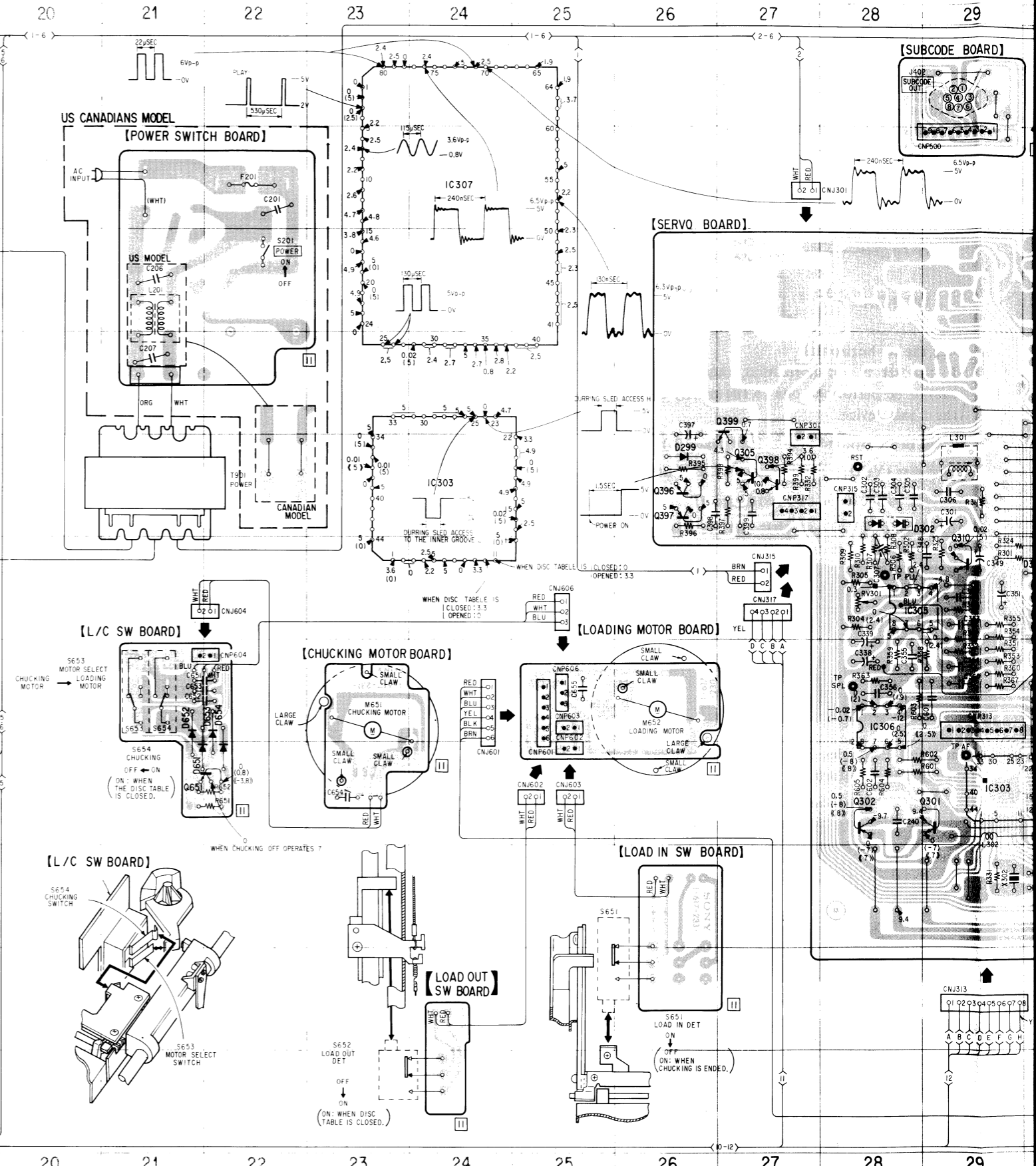
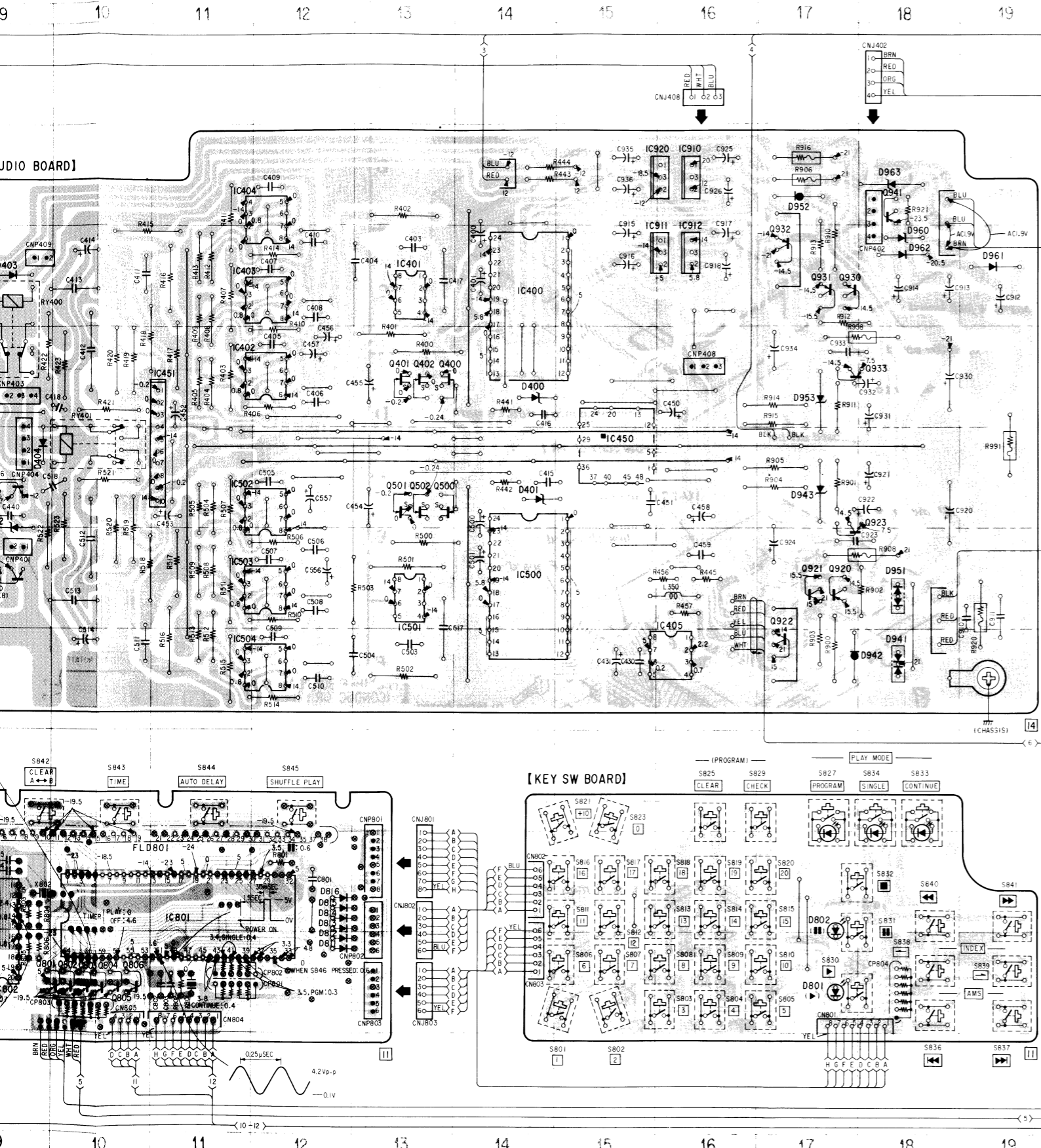
4-2. CDP-502ESII/620ESII MOUNTING DIAGRAM

- See page 51 for Semiconductor Lead Layouts.
- See page 48 for Power Supply section (AEP, UK, E Model).
- See page 25 for Circuit Board Location.
- See page 25 for BU-1C section.

• SEMICONDUCTOR LOCATION

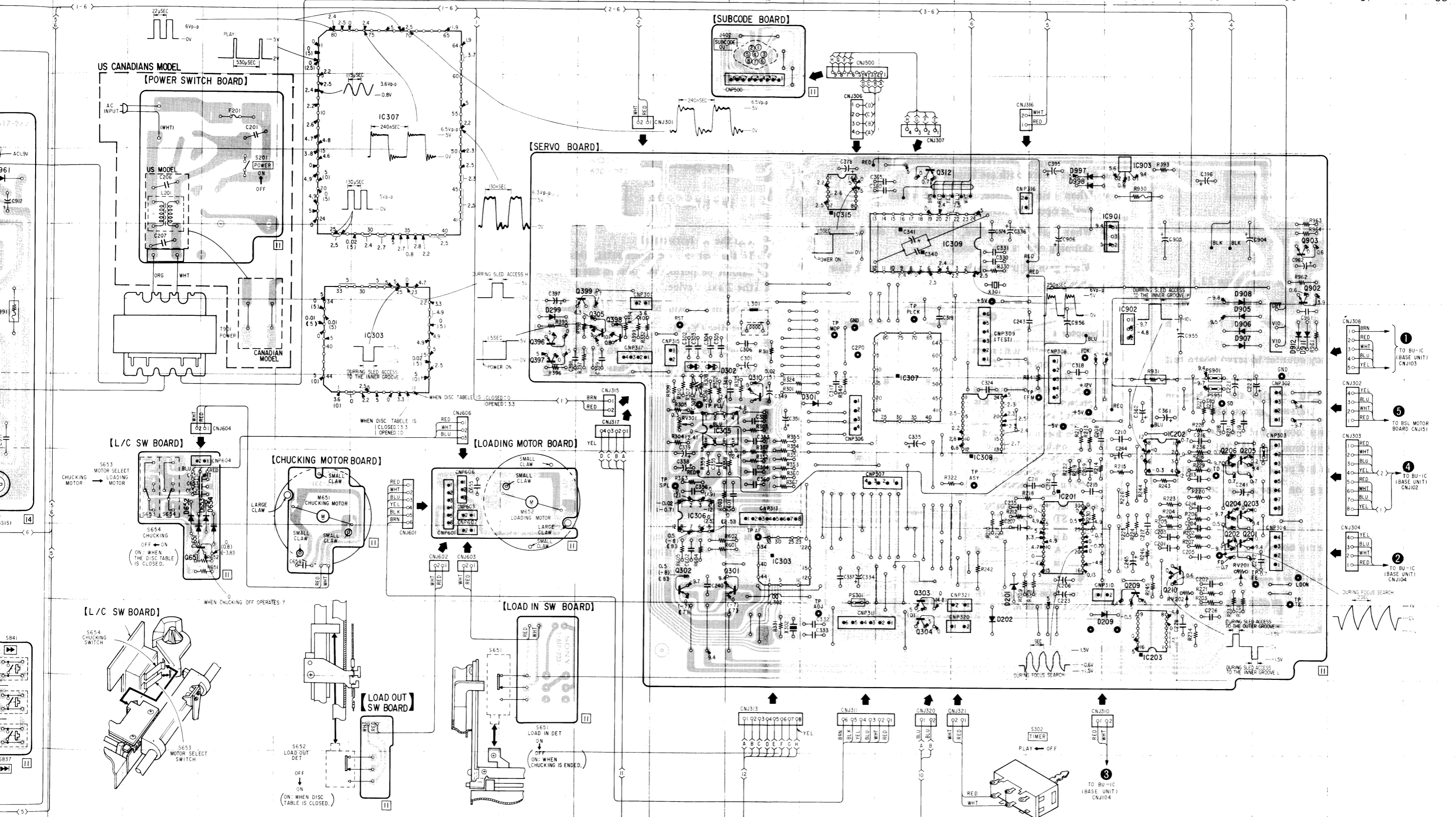
| Ref. No. | Location | Ref. No. | Location |
|----------|----------|----------|----------|
| D201     | H-32     | IC451    | E-11     |
| D202     | I-32     | IC452    | B-5      |
| D209     | I-34     | IC500    | F-14     |
| D299     | E-26     | IC501    | F-13     |
| D301     | F-30     | IC502    | E-12     |
| D302     | E-28     | IC503    | F-12     |
| D350     | G-3      | IC504    | G-12     |
| D400     | D-14     | IC801    | I-11     |
| D401     | E-14     | IC802    | J-9      |
| D402     | F-9      | IC803    | I-8      |
| D403     | C-9      | IC901    | D-34     |
| D404     | E-9      | IC902    | E-34     |
| D410     | B-4      | IC903    | C-34     |
| D651     | H-21     | IC910    | B-16     |
| D654     | H-22     | IC911    | C-16     |
| D801     | J-17     | IC912    | C-16     |
| D802     | I-17     | IC920    | B-16     |
| D806     | H-6      |          |          |
| D811     | J-12     | Q201     | H-35     |
| D812     | J-12     | Q202     | H-35     |
| D813     | I-12     | Q203     | G-35     |
| D814     | I-12     | Q204     | G-35     |
| D815     | I-12     | Q205     | G-25     |
| D816     | I-12     | Q206     | G-35     |
| D905     | E-35     | Q209     | H-34     |
| D906     | E-35     | Q210     | H-34     |
| D907     | E-35     | Q301     | H-29     |
| D908     | D-35     | Q302     | H-28     |
| D911     | E-36     | Q303     | I-31     |
| D912     | E-36     | Q304     | I-31     |
| D941     | G-18     | Q305     | E-27     |
| D942     | G-17     | Q310     | F-29     |
| D943     | E-17     | Q312     | C-31     |
| D951     | F-18     | Q396     | E-26     |
| D952     | B-17     | Q397     | E-26     |
| D953     | D-17     | Q398     | E-27     |
| D960     | C-18     | Q399     | E-27     |
| D961     | C-19     | Q400     | D-13     |
| D962     | C-18     | Q401     | D-13     |
| D963     | B-18     | Q402     | D-13     |
| D997     | C-33     | Q410     | F-9      |
| D998     | C-33     | Q411     | E-9      |
|          |          | Q500     | E-13     |
| IC201    | H-33     | Q501     | E-13     |
| IC202    | G-34     | Q502     | E-13     |
| IC203    | I-34     | Q651     | H-22     |
| IC303    | H-29     | Q801     | J-9      |
| IC305    | F-28     | Q802     | J-10     |
| IC306    | G-28     | Q803     | J-10     |
| IC307    | E-31     | Q804     | J-10     |
| IC308    | F-32     | Q805     | J-10     |
| IC309    | D-31     | Q806     | J-10     |
|          |          | Q902     | D-36     |
|          |          | Q903     | D-36     |
|          |          | Q920     | F-17     |
| IC345    | C-30     | Q921     | F-17     |
| IC350    | G-2      | Q922     | G-17     |
| IC400    | C-14     | Q923     | E-17     |
| IC401    | C-13     | Q930     | C-17     |
| IC402    | D-12     | Q931     | C-17     |
| IC403    | C-12     | Q932     | C-17     |
| IC404    | B-12     | Q933     | D-17     |
| IC405    | G-16     | Q933     | D-17     |
| IC450    | E-15     | Q941     | B-18     |







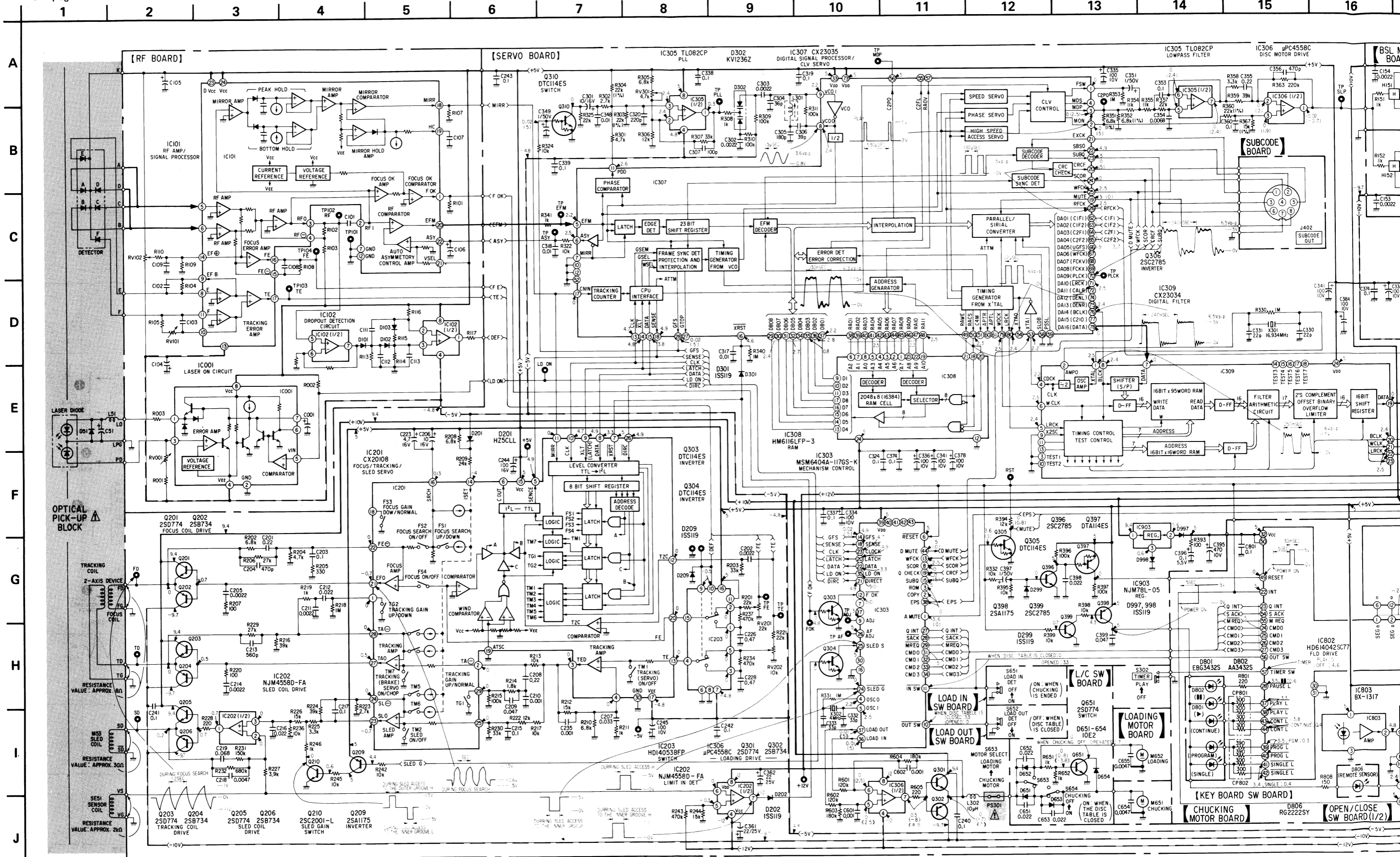
19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38

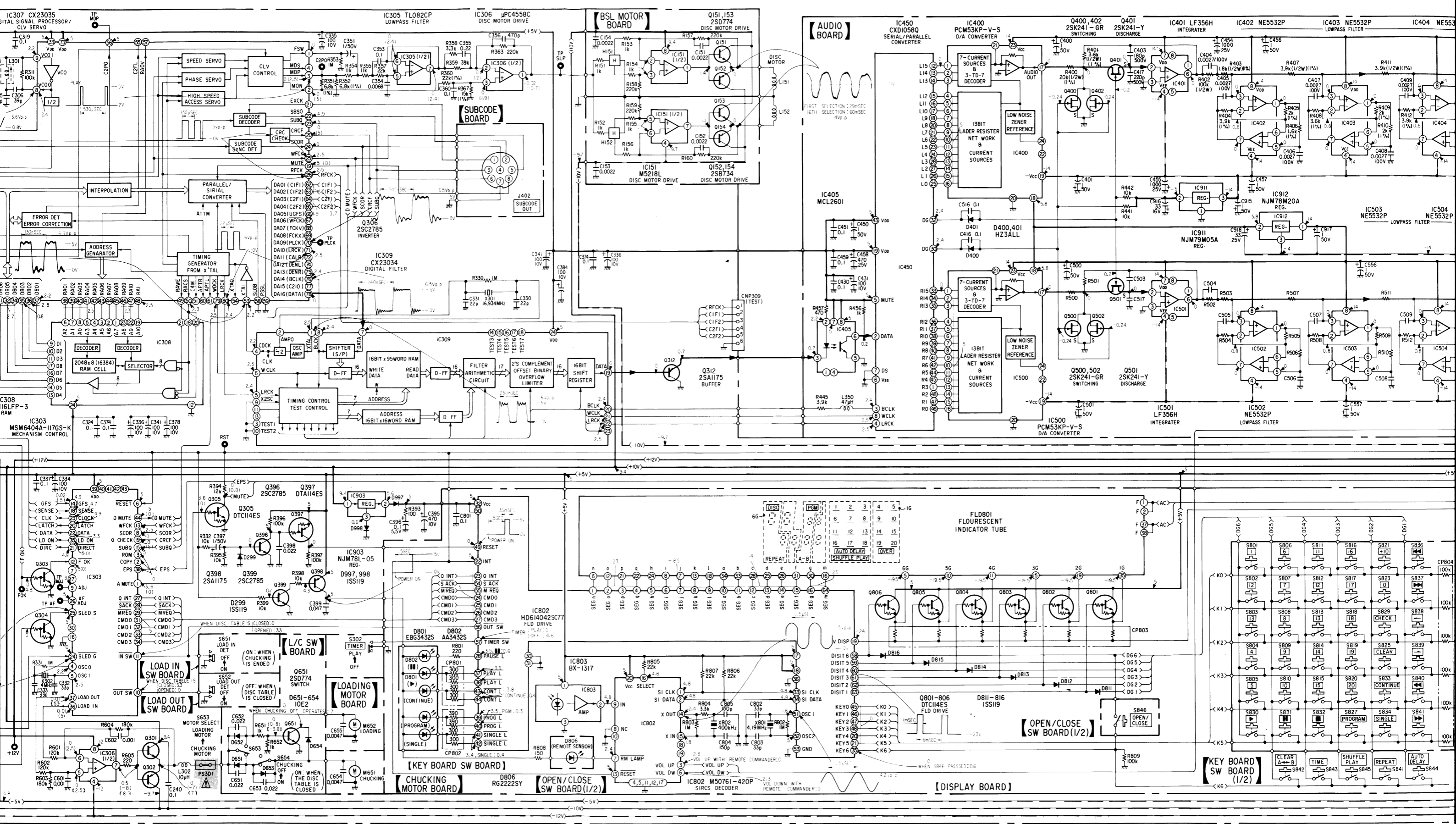


19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38

See page 50 for notes.

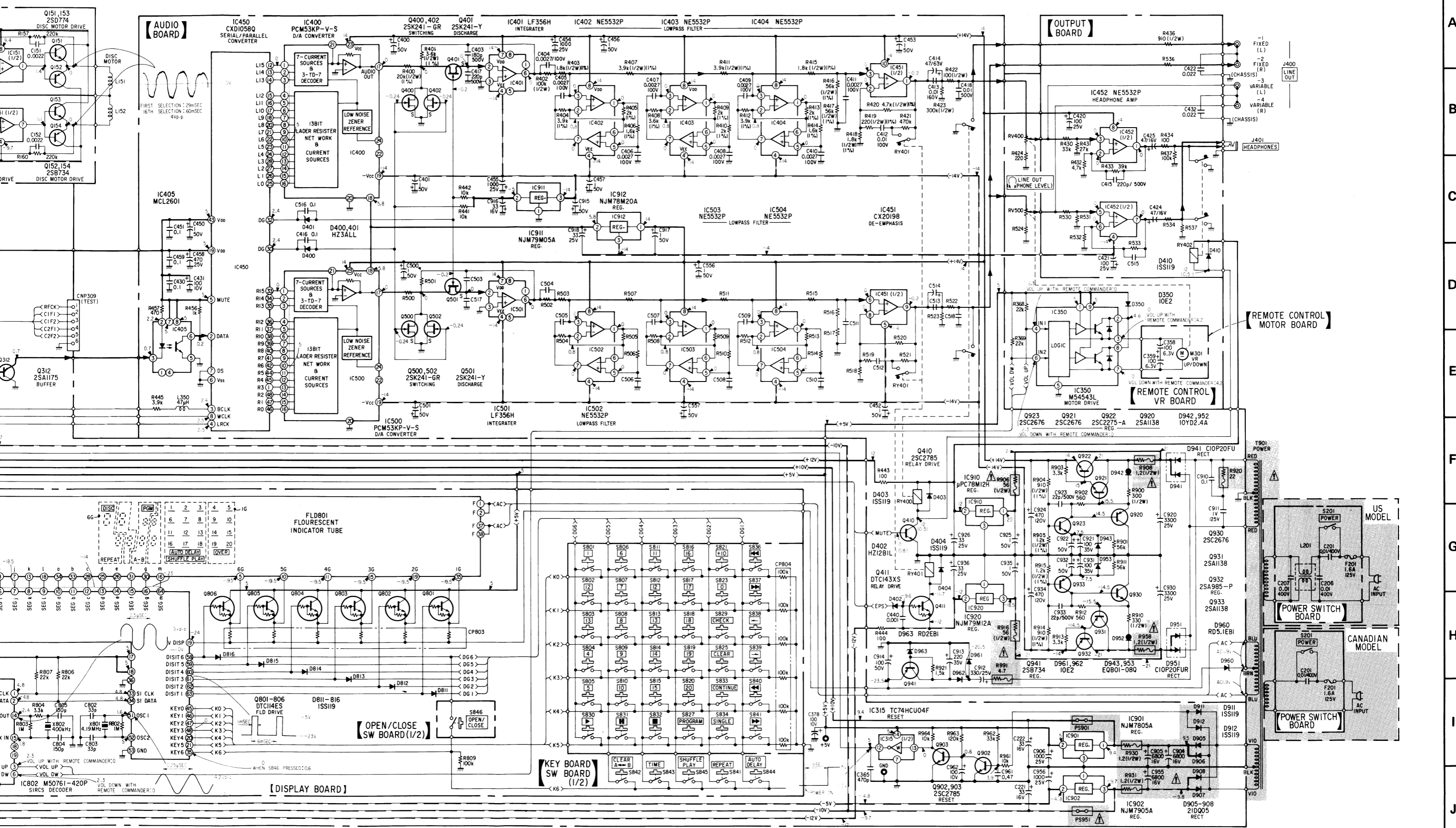
See page 48 for Power Supply section (AEP, UK, E Model).







18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33

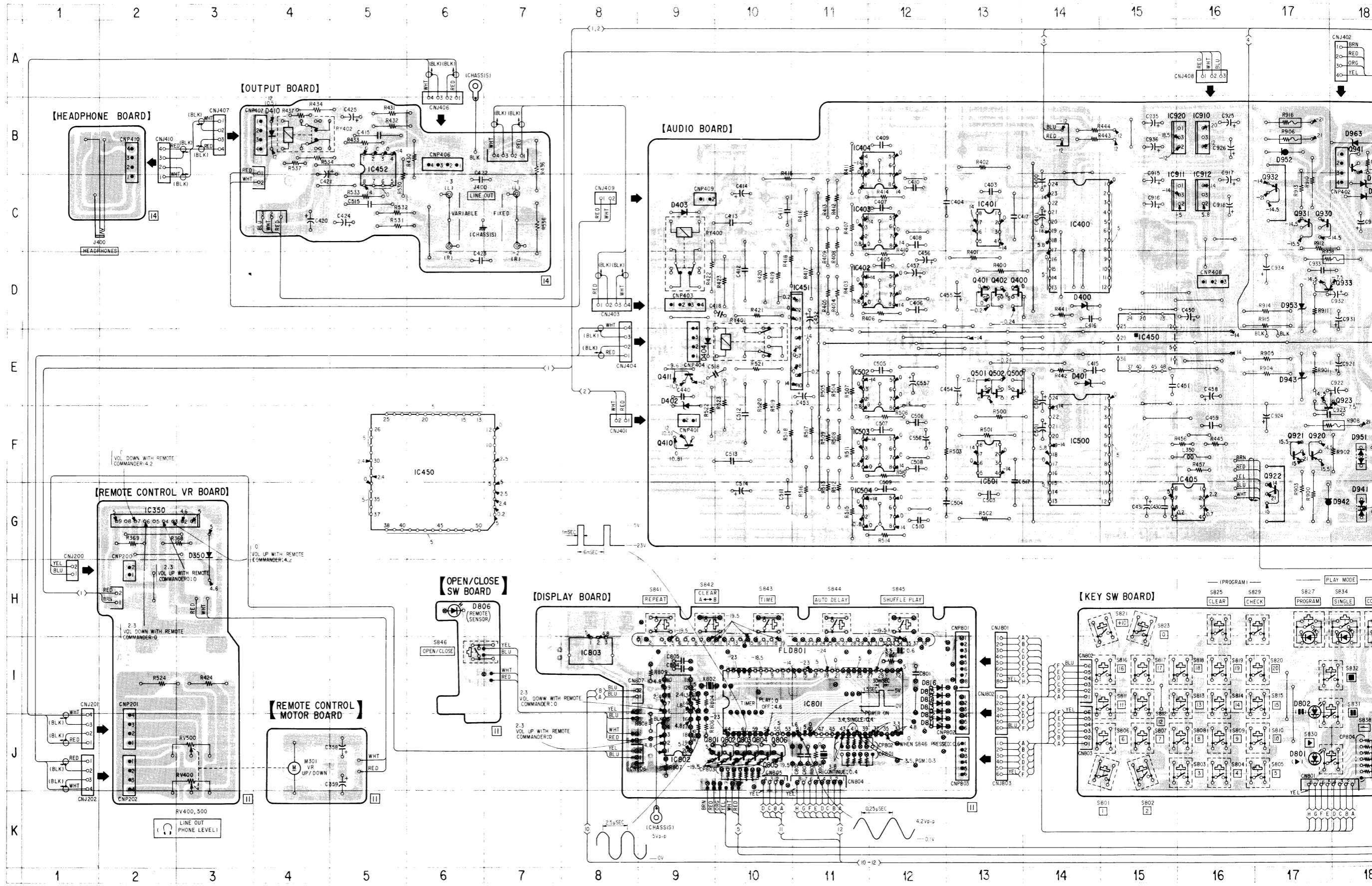


4.4. CDP-552ESDII/650ESDII MOUNTING DIAGRAM

- See page 51 for Semiconductor Lead Layouts.
- See page 48 for Power Supply section (AEP, UK, E Model).
- See page 25 for Circuit Board Location.
- See page 25 for BU-1C section.

• SEMICONDUCTOR LOCATION

| Ref. No. | Location | Ref. No. | Location |
|----------|----------|----------|----------|
| D201     | H-32     | IC451    | E-11     |
| D202     | I-32     | IC452    | B-5      |
| D209     | I-34     | IC500    | F-14     |
| D299     | E-26     | IC501    | F-13     |
| D301     | F-30     | IC502    | E-12     |
| D302     | E-28     | IC503    | F-12     |
| D350     | G-3      | IC504    | G-12     |
| D400     | D-14     | IC801    | I-11     |
| D401     | E-14     | IC802    | J-9      |
| D402     | F-9      | IC803    | I-8      |
| D403     | C-9      | IC901    | D-34     |
| D404     | E-9      | IC902    | E-34     |
| D410     | B-4      | IC903    | C-34     |
| D651     | H-21     | IC910    | B-16     |
| D652     | G-21     | IC911    | C-16     |
| D653     | G-22     | IC912    | C-16     |
| D654     | H-22     | IC920    | B-16     |
| D801     | J-17     | Q201     | H-35     |
| D802     | I-17     | Q202     | H-35     |
| D806     | H-6      | Q203     | G-35     |
| D811     | J-12     | Q204     | G-35     |
| D812     | J-12     | Q205     | G-25     |
| D813     | I-12     | Q206     | G-35     |
| D814     | I-12     | Q209     | H-34     |
| D815     | I-12     | Q210     | H-34     |
| D816     | I-12     | Q211     | H-34     |
| D905     | E-35     | Q301     | H-29     |
| D906     | E-35     | Q302     | H-28     |
| D907     | E-35     | Q303     | I-31     |
| D908     | D-35     | Q304     | I-31     |
| D911     | E-36     | Q305     | E-27     |
| D912     | E-36     | Q306     | C-29     |
| D941     | G-18     | Q310     | F-29     |
| D942     | G-17     | Q312     | C-31     |
| D943     | E-17     | Q396     | E-26     |
| D951     | F-18     | Q397     | E-26     |
| D952     | B-17     | Q398     | E-27     |
| D953     | D-17     | Q399     | E-27     |
| D960     | C-18     | Q400     | D-13     |
| D961     | C-19     | Q401     | D-13     |
| D962     | C-18     | Q402     | D-13     |
| D963     | B-18     | Q410     | F-9      |
| D997     | C-33     | Q411     | E-9      |
| D998     | C-33     | Q500     | E-13     |
| IC201    | H-33     | Q501     | E-13     |
| IC202    | G-34     | Q502     | E-13     |
| IC203    | I-34     | Q651     | H-22     |
| IC303    | H-29     | Q801     | J-9      |
| IC305    | F-28     | Q802     | J-10     |
| IC306    | G-28     | Q803     | J-10     |
| IC307    | E-31     | Q804     | J-10     |
| IC308    | E-31     | Q805     | J-10     |
| IC309    | D-32     | Q806     | J-10     |
| IC310    | F-31     | Q902     | D-36     |
| IC313    | D-28     | Q903     | D-36     |
| IC315    | C-30     | Q920     | F-17     |
| IC350    | G-2      | Q921     | F-17     |
| IC400    | C-14     | Q922     | G-17     |
| IC401    | C-13     | Q923     | E-17     |
| IC402    | D-12     | Q930     | C-17     |
| IC403    | C-12     | Q931     | C-17     |
| IC404    | B-12     | Q932     | C-17     |
| IC405    | G-16     | Q933     | D-17     |
| IC450    | E-15     | Q941     | B-18     |



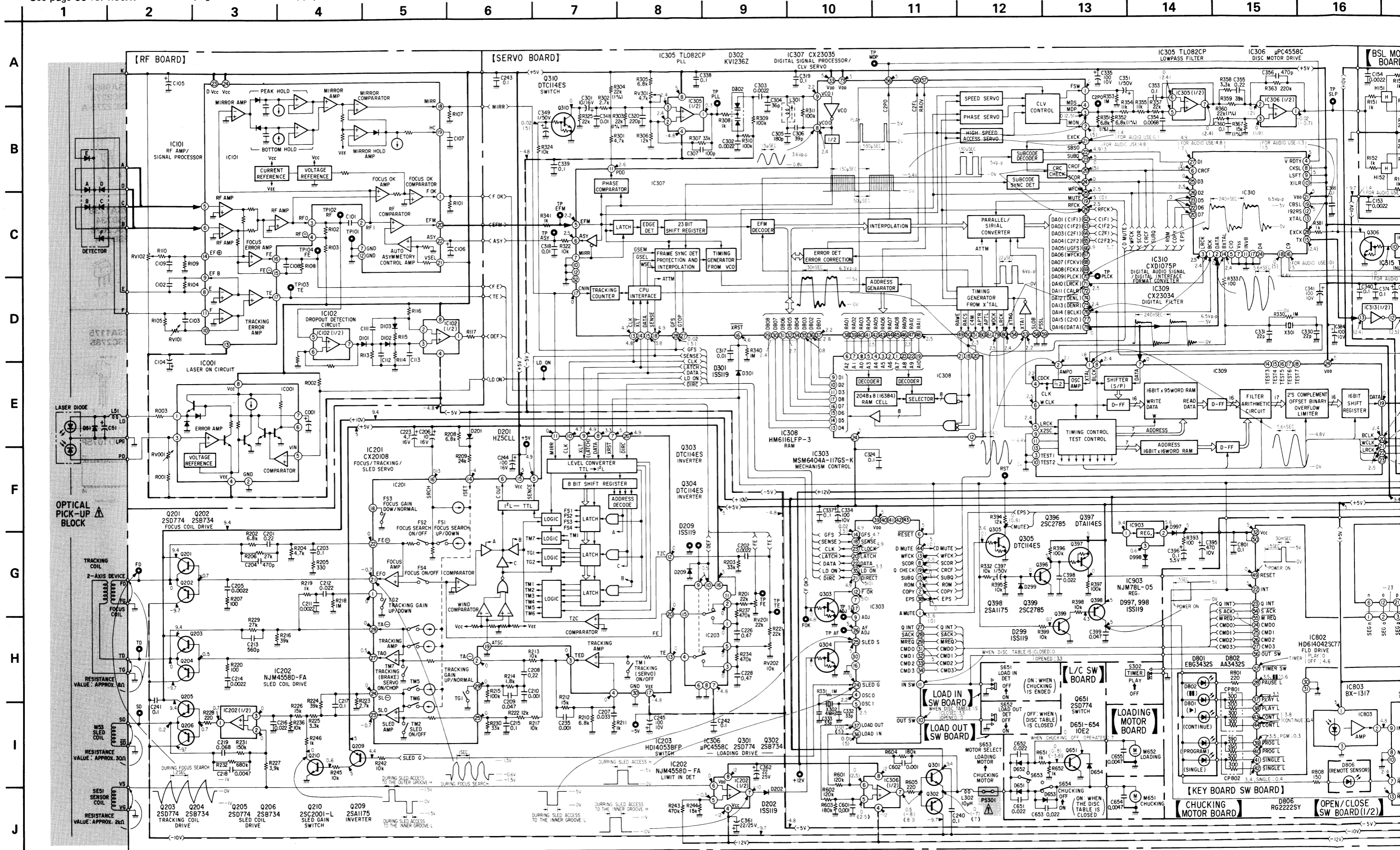


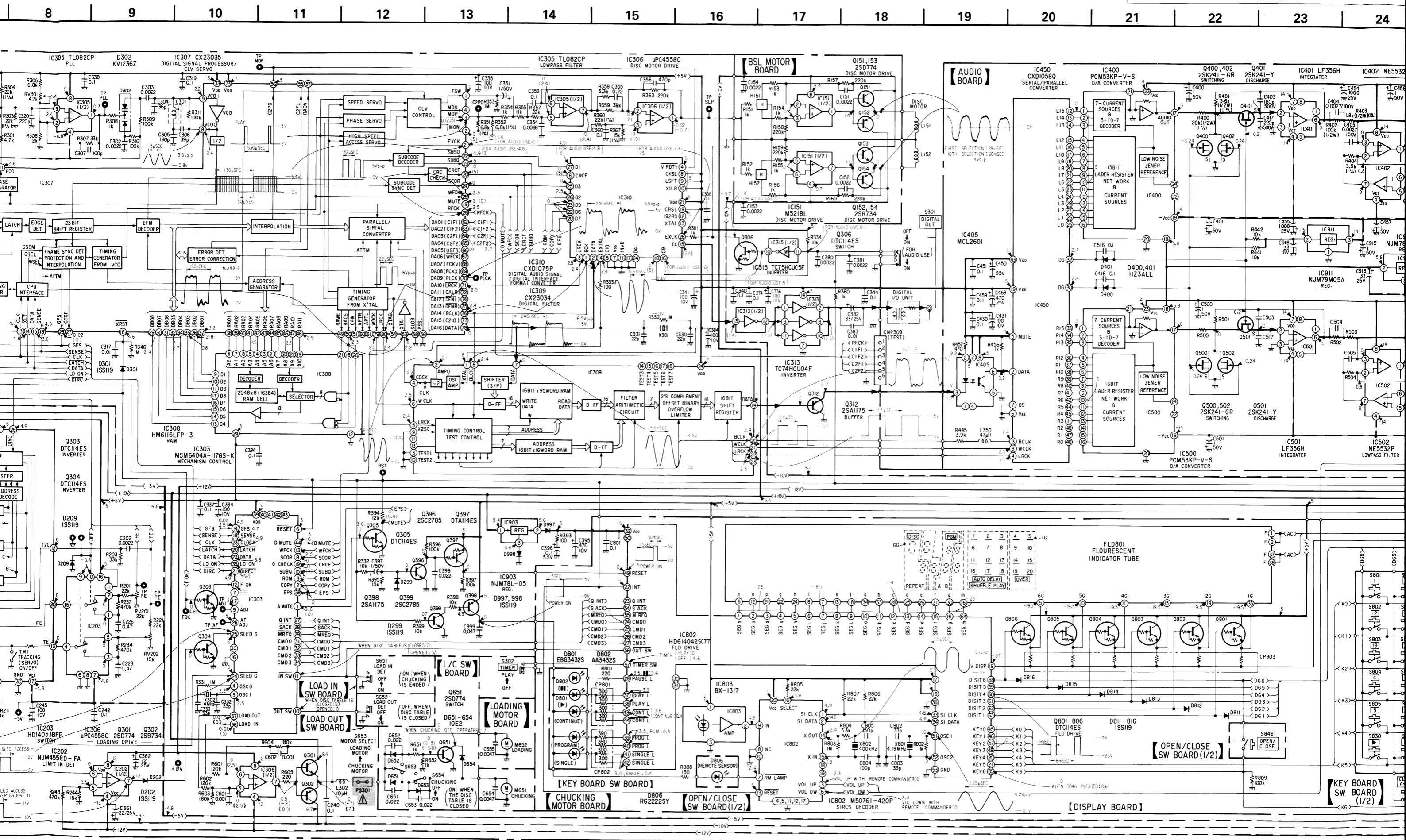




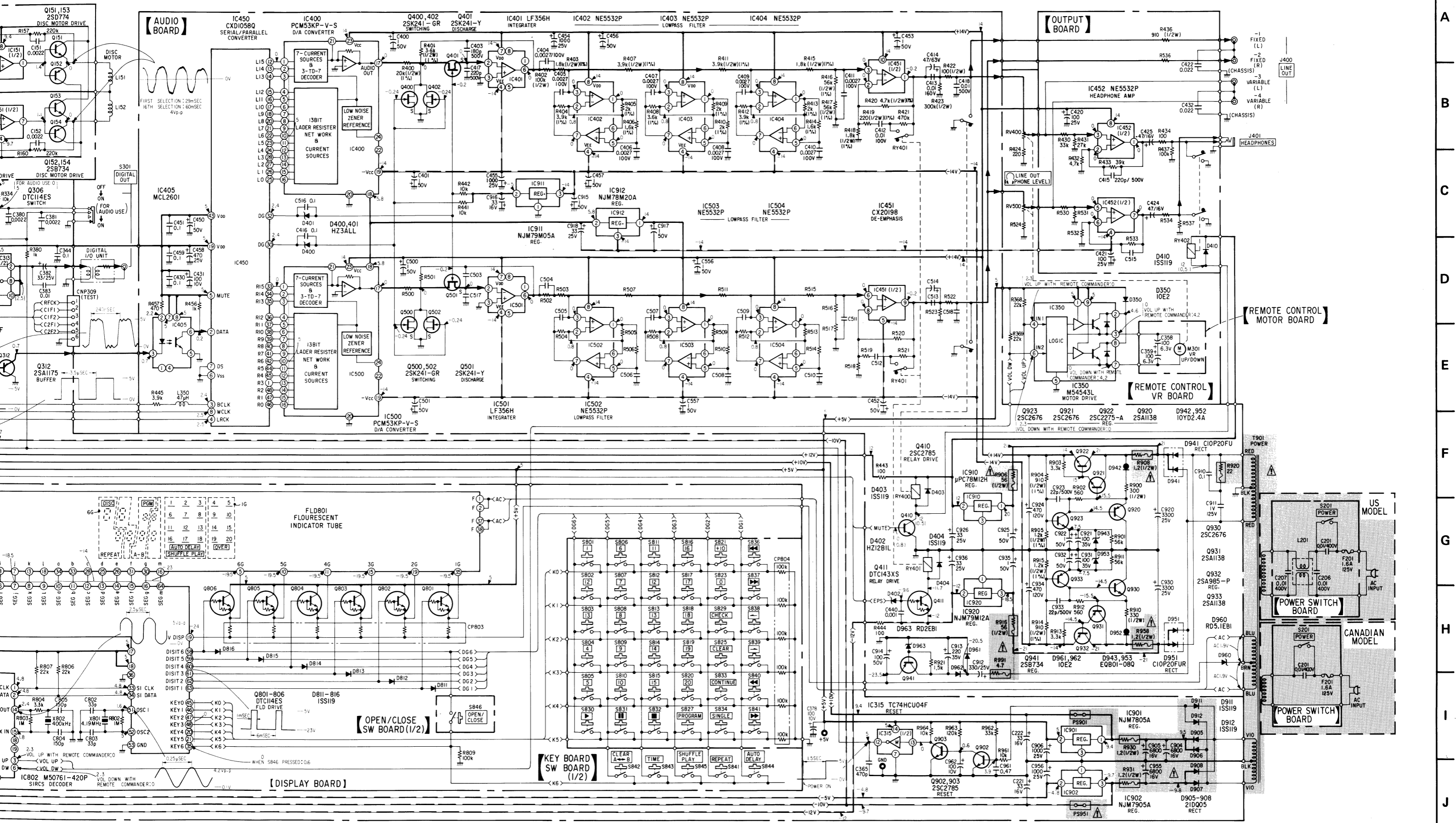


See page 50 for notes. See page 48 for Power Supply section (AEP, UK, E Model).





18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33

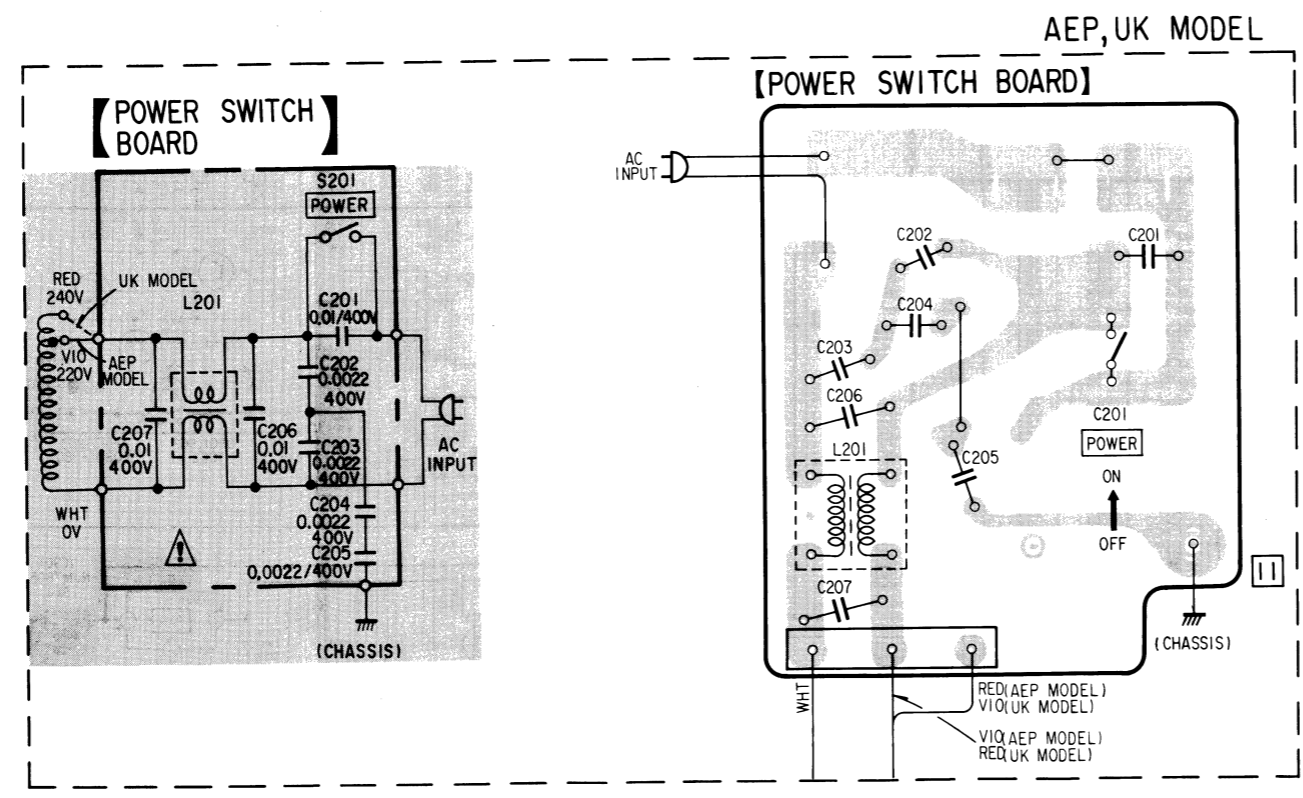
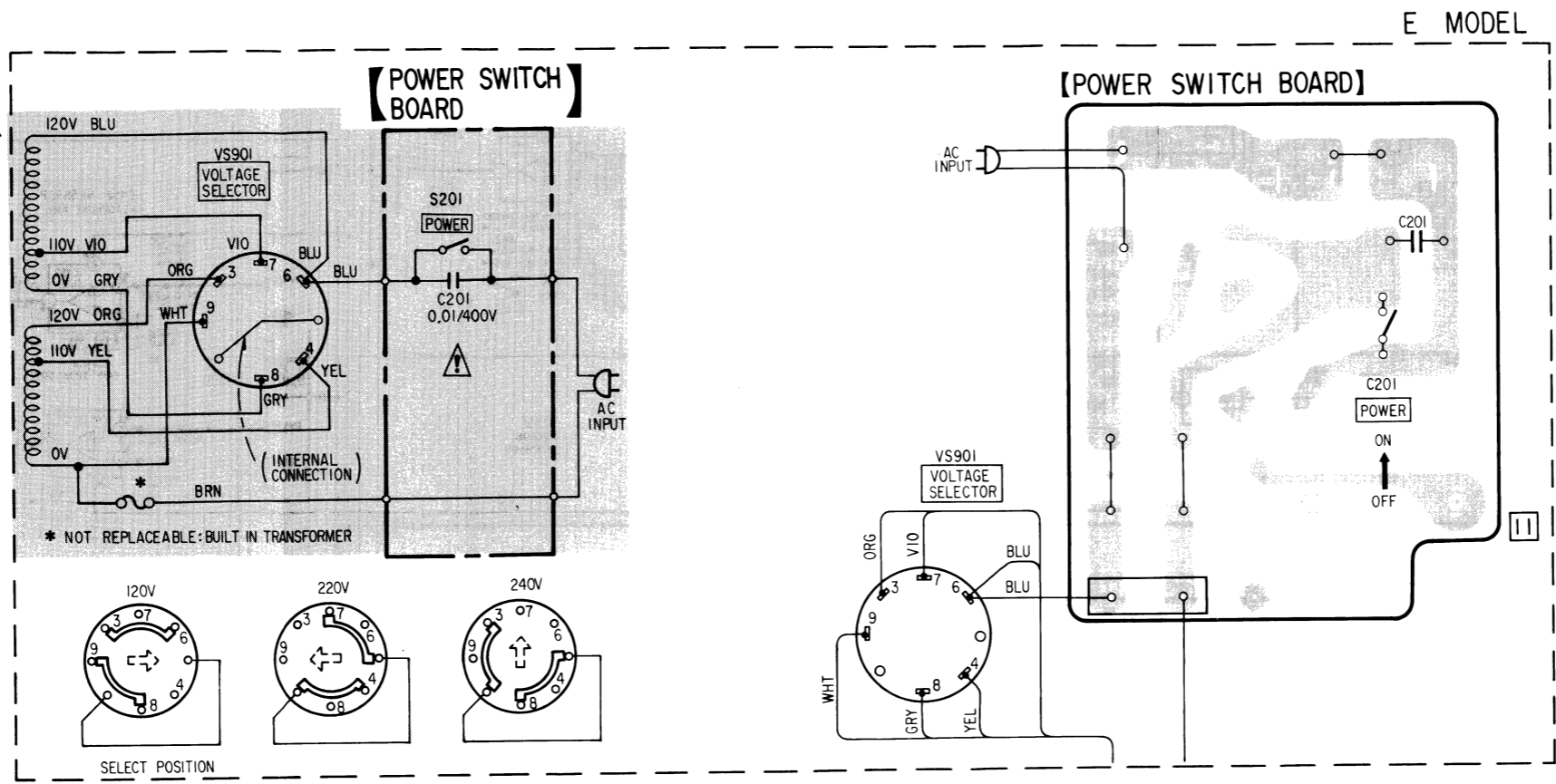


A  
B  
C  
D  
E  
F  
G  
H  
I  
J

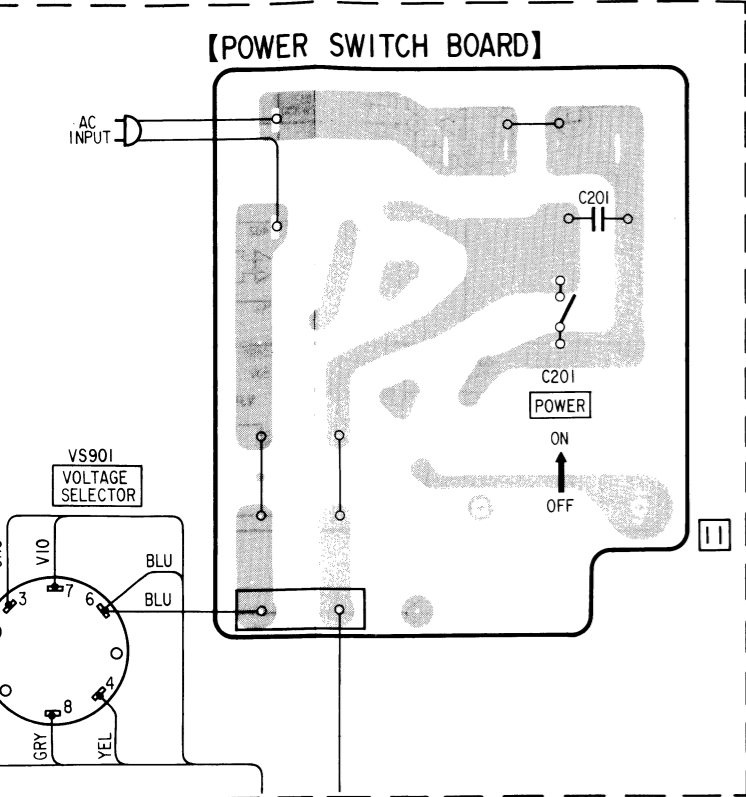


1 2 3 4 5 6 7 8 9 10 11 12 13 14

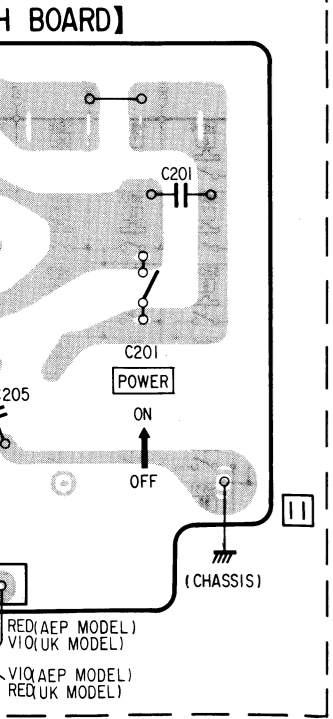
A  
B  
C  
D  
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J



E MODEL



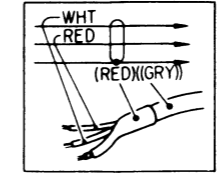
AEP, UK MODEL



RED(AEP MODEL)  
V10(UK MODEL)  
V10(AEP MODEL)  
REQ(UK MODEL)

**Note on Mounting Diagram:**

- Color code or sleeving over the end of the jacket.



- ○ : parts extracted from the component side.
- ● : parts extracted from the conductor side.
- ■ : part mounted on the conductor side.
- □ : indicates side identified with part number.
- □ : component-side pattern.

**Note on Schematic Diagram:**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}$  W or less unless otherwise specified.
- — : signal path.
- Components for right channel have same values as for left channel. Reference numbers are coded from 500.
- □ : fusible resistor.
- — : B+ bus.
- - - - : B- bus.
- □ : adjustment for repair.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal conditions with a VOM (50  $\text{k}\Omega/\text{V}$ ) when PLAY MODE switch set to CONTINUE.
  - no mark: STOP mode
  - ( ): PLAY mode
  - < >: When load in operates.
  - << >>: When load out operates.
  - { } : DIGITAL OUT switch ON.
- Waveforms are taken to ground in STOP mode by using oscilloscope. Voltage variations may be noted due to normal production tolerances.

**Note: The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.**

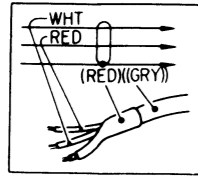
**Note: Les composants identifiés par un trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.**

• Switch

| Ref. No.                | Switch       | Position |
|-------------------------|--------------|----------|
| S201                    | POWER        | OFF      |
| S301                    | DIGITAL OUT  | OFF      |
| (CDP-552ESDII/650ESDII) |              |          |
| S302                    | TIMER        | OFF      |
| S651                    | LOAD IN DET  | ON       |
| S652                    | LOAD OUT DET | OFF      |
| S653                    | MOTOR SELECT | NEUTRA   |
| S654                    | CHUCKING     | OFF      |
| S801                    | 1            | OFF      |
| S802                    | 2            | OFF      |
| S803                    | 3            | OFF      |
| S804                    | 4            | OFF      |
| S805                    | 5            | OFF      |
| S806                    | 6            | OFF      |
| S807                    | 7            | OFF      |
| S808                    | 8            | OFF      |
| S809                    | 9            | OFF      |
| S810                    | 10           | OFF      |
| S811                    | 11           | OFF      |
| S812                    | 12           | OFF      |
| S813                    | 13           | OFF      |
| S814                    | 14           | OFF      |
| S815                    | 15           | OFF      |
| S816                    | 16           | OFF      |
| S817                    | 17           | OFF      |
| S818                    | 18           | OFF      |
| S819                    | 19           | OFF      |
| S820                    | 20           | OFF      |
| S821                    | +10          | OFF      |
| S823                    | 0            | OFF      |
| S825                    | CLEAR        | OFF      |
| S827                    | PROGRAM      | OFF      |
| S829                    | CHECK        | OFF      |
| S830                    | ▶            | OFF      |
| S831                    | ■            | OFF      |
| S832                    | ■            | OFF      |
| S833                    | CONTINUE     | OFF      |
| S834                    | SINGLE       | OFF      |
| S836                    | ◀◀           | OFF      |
| S837                    | ▶▶           | OFF      |
| S838                    | ↑            | OFF      |
| S839                    | ↓            | OFF      |
| S840                    | ◀▶           | OFF      |
| S841                    | ▶▶           | OFF      |
| (KEY SW BOARD)          |              |          |
| S841                    | REPEAT       | OFF      |
| (DISPLAY BOARD)         |              |          |
| S842                    | CLEAR A ↔ B  | OFF      |
| S843                    | TIME         | OFF      |
| S844                    | AUTO DELAY   | OFF      |
| S845                    | SHUFFLE PLAY | OFF      |
| S846                    | OPEN/CLOSE   | OFF      |

**Note on Mounting Diagram:**

- Color code or sleeving over the end of the jacket.



- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : part mounted on the conductor side.
- : indicates side identified with part number.
- ⋯ : component-side pattern.

**Note on Schematic Diagram:**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}W$  or less unless otherwise specified.
- : signal path.
- Components for right channel have same values as for left channel. Reference numbers are coded from 500.
- ⊗ : fusible resistor.
- : B+ bus.
- - - : B- bus.
- : adjustment for repair.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal conditions with a VOM (50 k $\Omega$ /V) when PLAY MODE switch set to CONTINUE.
- no mark : STOP mode
- ( ) : PLAY mode
- < > : When load in operates.
- << >> : When load out operates.
- { } : DIGITAL OUT switch ON.
- Waveforms are taken to ground in STOP mode by using oscilloscope.
- Voltage variations may be noted due to normal production tolerances.

**Note: The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.**

**Note: Les composants identifiés par un trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.**

• Switch

| Ref. No.                | Switch                      | Position |
|-------------------------|-----------------------------|----------|
| S201                    | POWER                       | OFF      |
| S301                    | DIGITAL OUT                 | OFF      |
| (CDP-552ESDII/650ESDII) |                             |          |
| S302                    | TIMER                       | OFF      |
| S651                    | LOAD IN DET                 | ON       |
| S652                    | LOAD OUT DET                | OFF      |
| S653                    | MOTOR SELECT                | NEUTRAL  |
| S654                    | CHUCKING                    | OFF      |
| S801                    | 1                           | OFF      |
| S802                    | 2                           | OFF      |
| S803                    | 3                           | OFF      |
| S804                    | 4                           | OFF      |
| S805                    | 5                           | OFF      |
| S806                    | 6                           | OFF      |
| S807                    | 7                           | OFF      |
| S808                    | 8                           | OFF      |
| S809                    | 9                           | OFF      |
| S810                    | 10                          | OFF      |
| S811                    | 11                          | OFF      |
| S812                    | 12                          | OFF      |
| S813                    | 13                          | OFF      |
| S814                    | 14                          | OFF      |
| S815                    | 15                          | OFF      |
| S816                    | 16                          | OFF      |
| S817                    | 17                          | OFF      |
| S818                    | 18                          | OFF      |
| S819                    | 19                          | OFF      |
| S820                    | 20                          | OFF      |
| S821                    | +10                         | OFF      |
| S823                    | 0                           | OFF      |
| S825                    | CLEAR                       | OFF      |
| S827                    | PROGRAM                     | OFF      |
| S829                    | CHECK                       | OFF      |
| S830                    | ▶                           | OFF      |
| S831                    | ■                           | OFF      |
| S832                    | ■                           | OFF      |
| S833                    | CONTINUE                    | OFF      |
| S834                    | SINGLE                      | OFF      |
| S836                    | ◀◀                          | OFF      |
| S837                    | ▶▶                          | OFF      |
| S838                    | ⏪                           | OFF      |
| S839                    | ⏩                           | OFF      |
| S840                    | ◀◀                          | OFF      |
| S841                    | ▶▶                          | OFF      |
| (KEY SW BOARD)          |                             |          |
| S841                    | REPEAT                      | OFF      |
| (DISPLAY BOARD)         |                             |          |
| S842                    | CLEAR A $\leftrightarrow$ B | OFF      |
| S843                    | TIME                        | OFF      |
| S844                    | AUTO DELAY                  | OFF      |
| S845                    | SHUFFLE PLAY                | OFF      |
| S846                    | OPEN/CLOSE                  | OFF      |

• Semiconductor Lead Layouts

|   |  |                                       |                                      |  |
|---|--|---------------------------------------|--------------------------------------|--|
| 1SS119<br>  | AA3432S<br>EBG3432S<br>  | MSM6404A-117GS-K<br>                  | M54543L<br>                          | 2SA985-P<br>2SC2275<br>2SC2275-A<br>       |
| EQB01-08Q<br>HZ3ALL<br>HZ5CLL<br>HZ12B1L<br>RD5.1E-B1<br>RD24E-B1<br>10E2<br>10YD2.4A<br>21DQ05<br> | PG2222SY<br>   | CX20198<br>                           | CX23035<br>                          | 2SA1138<br>2SB734<br>2SC2676<br>2SD774<br> |
| C10P20FUR<br>   | MCL2601<br>NE5532P<br>NUM4558D-FA<br>TL082CP<br>$\mu\text{PC4082C}$<br>$\mu\text{PC4558C}$<br> | LF356H<br>                            | CXD1058Q<br>                         | 2SA1175<br>2SC2785<br>                     |
| C10P20FU<br>  | M50761-420P<br>  | NJM78L05A<br>                         | CX20108<br>                          | CXD1075P<br>                               |
| KV1236Z<br>   | CX23034<br>PCM53KP-V-S<br>   | $\mu\text{PC78M12H}$<br>NJM79M12A<br> | 2SC2001L<br>                         |  |
| BX-1317<br>   | HD614042SC77<br>   | HD14053BFP<br>                        | DTA114ES<br>DTC114ES<br>DTC143XS<br> |  |
|   | NJM7805A<br>NJM7905A<br>NJM78M12A<br>NJM78M20A<br>   | TC74HCU04F<br>                        | 2SK241-GR<br>2SK241-Y<br>            |  |
|   |  | HM6116FP-3<br>                        |                                      |  |



SECTION 5

EXPLODED VIEWS AND PARTS LIST

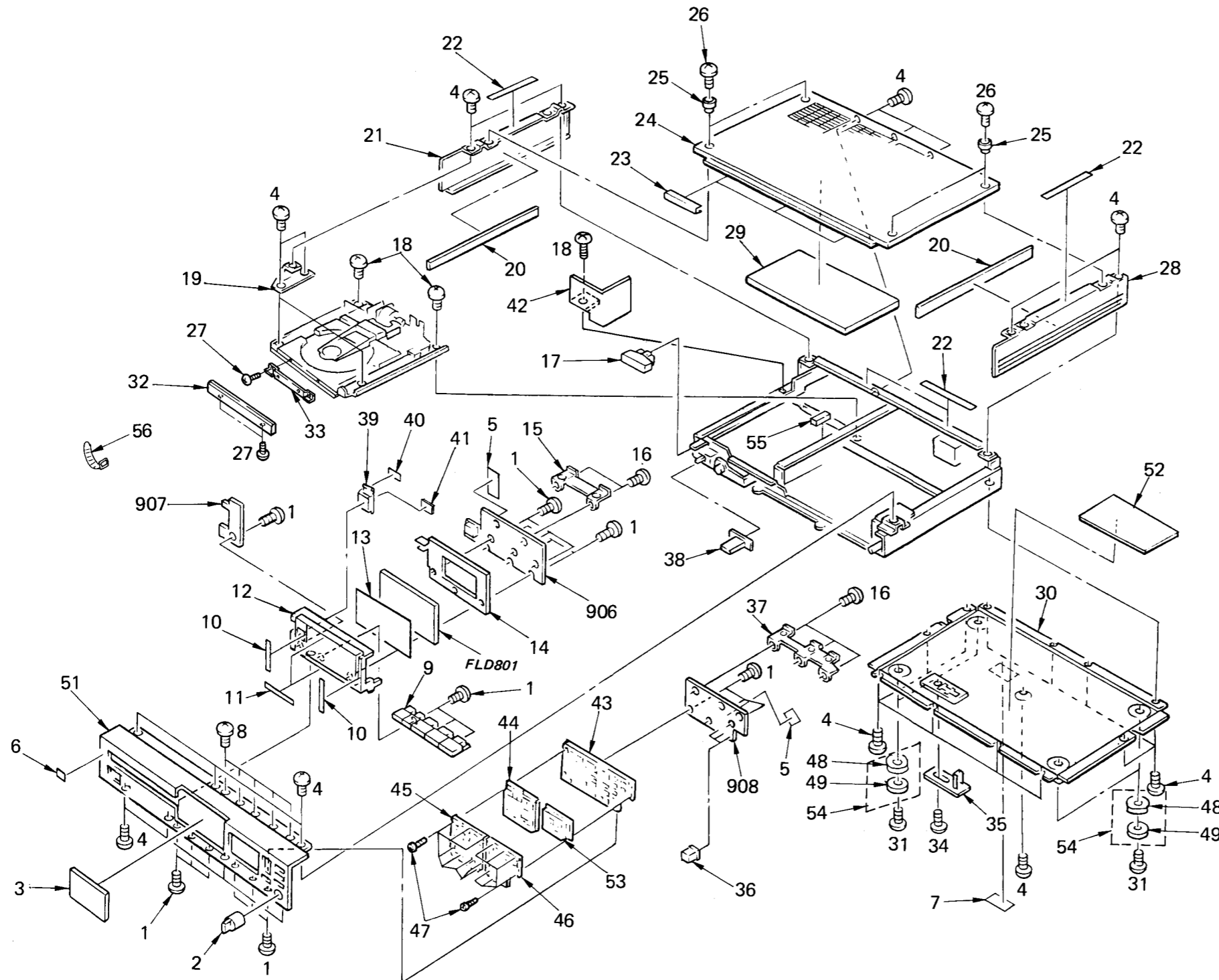
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

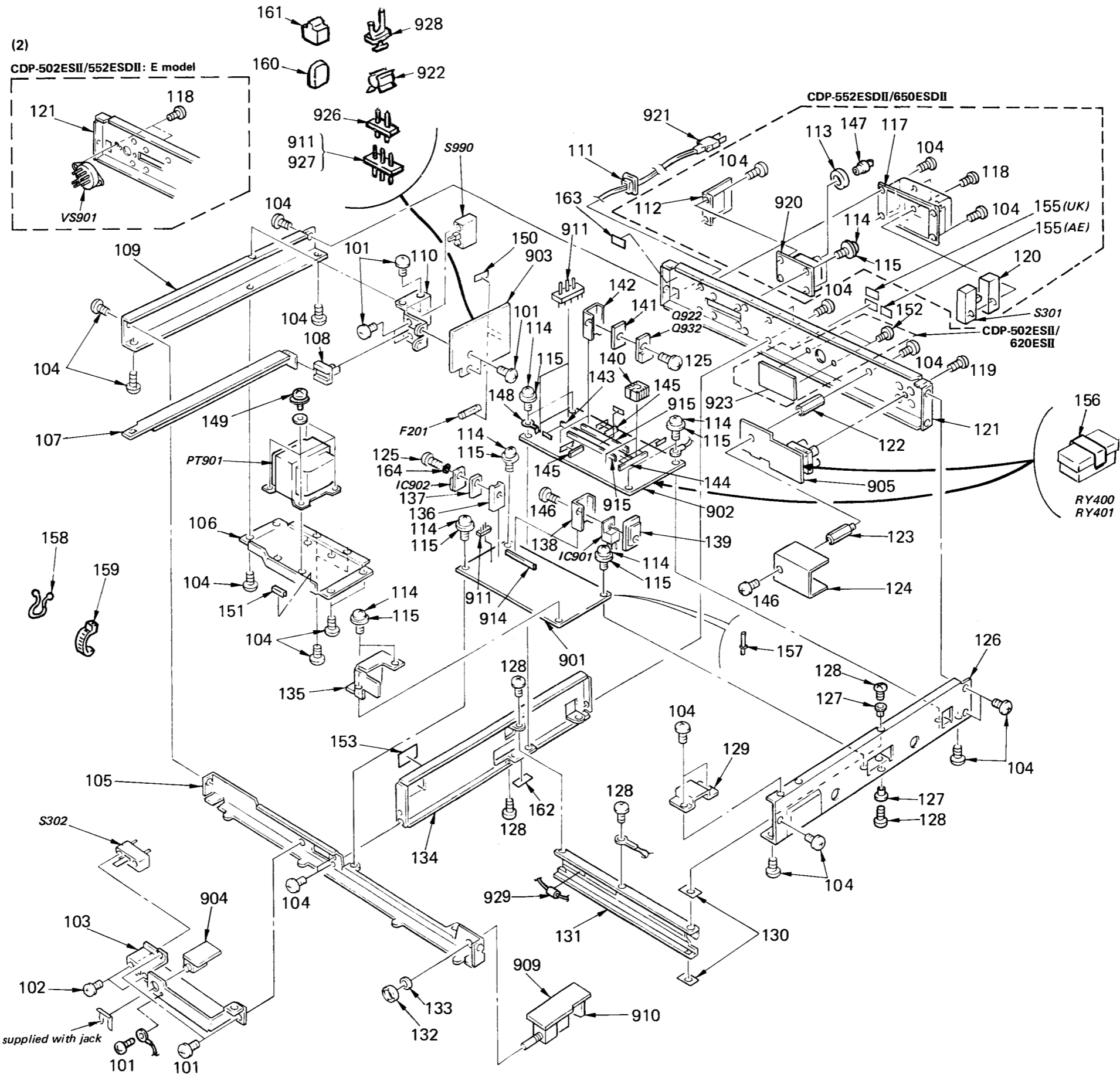
The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

(1)



| No.    | Part No.      | Description                          | Remarks |
|--------|---------------|--------------------------------------|---------|
| 1      | 7-685-133-19  | SCREW +P 2.6X6 TYPE2 NON-SLIT        |         |
| 2      | 4-908-908-01  | KNOB, CONTROL                        |         |
| 3      | 4-908-904-11  | PLATE, FROSTED                       |         |
| 4      | 3-703-685-31  | SCREW (+BV 3X8)                      |         |
| 5      | 3-831-441-XX  | CUSHION (B)                          |         |
| 6      | 3-703-710-41  | STICKER, SONY SYMBOL (12)            |         |
| 7      | 3-703-079-21  | LABEL, CAUTION (BACK)                |         |
| 8      | 3-703-108-21  | SCREW +BV 3X6, S TIGHT               |         |
| 9      | X-4908-902-2  | KNOB (C) ASSY                        |         |
| 10     | *4-908-985-01 | SHEET (A), ADHESIVE                  |         |
| 11     | *4-908-986-01 | SHEET (B), ADHESIVE                  |         |
| 12     | X-4908-905-3  | ESCUTCHEON ASSY, FROSTED PLATE       |         |
| 13     | 4-908-916-01  | FILTER                               |         |
| 14     | *4-908-937-01 | HOLDER, INDICATION TUBE              |         |
| 15     | *4-908-912-01 | RETAINER (A)                         |         |
| 16     | 7-685-134-14  | SCREW +BTB 2.6X8 TYPE2 N-S           |         |
| 17     | X-4887-104-0  | KNOB ASSY, POWER                     |         |
| 18     | 7-685-871-01  | SCREW +BVT 3X6 (S)                   |         |
| 19     | *4-908-995-01 | BRACKET (LEFT), PANEL                |         |
| 20     | *4-908-958-01 | DAMPER (A)                           |         |
| 21     | *4-886-538-41 | PLATE (LEFT), SIDE, ORNAMENTAL       |         |
| 22     | 3-831-441-11  | SPACER                               |         |
| 23     | 3-831-441-11  | SHEET, PROTECTION                    |         |
| 24     | 4-908-925-21  | PLATE, TOP                           |         |
| 25     | 3-576-298-11  | ESCUTCHEON                           |         |
| 26     | 4-908-987-01  | SCREW, FLAT WASHER (+B)(3X6)         |         |
| 27     | 7-621-775-10  | SCREW +B 2.6X4                       |         |
| 28     | *4-886-539-41 | PLATE (RIGHT), SIDE, ORNAMENTAL      |         |
| 29     | *4-908-959-01 | DAMPER (B)                           |         |
| 30     | *4-908-948-41 | PLATE, BOTTOM                        |         |
| 31     | 7-682-561-04  | SCREW (+ B4X8) (CU,BKBR)             |         |
| 32     | 4-908-478-01  | (502ES2/620ES2)...PANEL, LOADING     |         |
|        | 4-908-978-11  | (552ESD2/650ESD2)...PANEL, LOADING   |         |
| 33     | *4-912-545-01 | BRACKET (B), L PANEL                 |         |
| 34     | 3-323-470-01  | SCREW (B3X6), (+ -)                  |         |
| 35     | *4-908-600-01 | LEVER, LOCK, TRANSPORT               |         |
| 36     | 4-908-955-01  | BUTTON, MODE                         |         |
| 37     | *4-908-913-01 | RETAINER (B)                         |         |
| 38     | 4-887-131-00  | KNOB, SLIDE SWITCH                   |         |
| 39     | X-4908-908-5  | (552ESD2/650ESD2)...BUTTON ASSY, O/C |         |
|        | X-4908-908-6  | (502ES2/620ES2)...BUTTON ASSY, O/C   |         |
| 40     | 9-911-837-XX  | SPACER                               |         |
| 41     | 9-911-815-02  | CUSHION                              |         |
| 42     | *4-913-102-01 | SHEET (E), INSULATING                |         |
| 43     | *4-908-945-01 | RETAINER, KEY BOARD                  |         |
| 44     | 4-908-938-01  | (502ES2/620ES2)...KNOB (A)           |         |
|        | 4-908-938-11  | (552ESD2/650ESD2)...KNOB (A)         |         |
| 45     | 4-908-932-01  | ESCUTCHEON (A)                       |         |
| 46     | 4-908-933-01  | ESCUTCHEON (B)                       |         |
| 47     | 2-387-701-11  | TAPPING (B) (1.4X5)                  |         |
| 48     | 4-913-104-01  | (552ESD2/650ESD2)...BASE, FOOT       |         |
| 49     | 4-913-103-01  | (552ESD2/650ESD2)...FOOT             |         |
| 51     | X-4908-435-1  | (650ESD2)...PANEL ASSY, FRONT        |         |
|        | X-4908-436-1  | (620ES2)...PANEL ASSY, FRONT         |         |
|        | X-4908-920-1  | (552ESD2)...PANEL ASSY, FRONT        |         |
|        | X-4908-921-1  | (502ES2)...PANEL ASSY, FRONT         |         |
| 52     | 4-913-101-01  | SHEET, PS                            |         |
| 53     | 4-908-939-21  | KNOB (B)                             |         |
| 54     | *X-4908-434-1 | (502ES2/620ES2)...FOOT ASSY          |         |
| 55     | *2-235-929-01 | CUSHION                              |         |
| 56     | 3-655-653-21  | BAND (TAITON), BINDING               |         |
| 906    | *1-617-259-11 | PC BOARD, DISPLAY                    |         |
| 907    | *1-617-260-11 | PC BOARD, O/C                        |         |
| 908    | *1-617-261-11 | PC BOARD, KEY BOARD SW               |         |
| FLD801 | 1-519-333-11  | INDICATOR TUBE, FLUORESCENT          |         |



# CDP-502ESII/552ESDII/620ESII/650ESDII

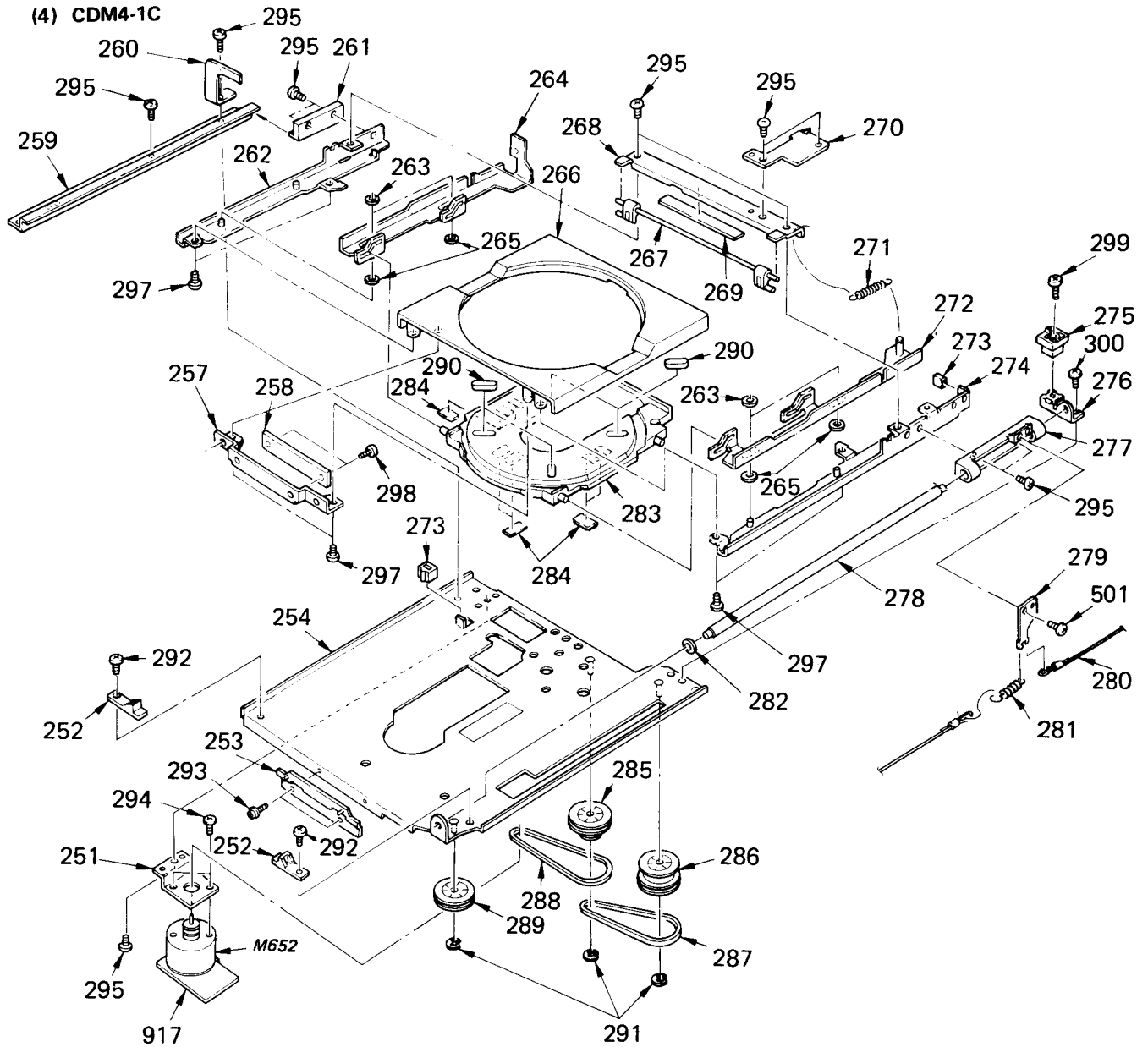
| No. | Part No.      | Description                                   | Remarks |
|-----|---------------|---|---------|
| 101 | 7-685-871-01  | SCREW +BVTT 3X6 (S)                           |         |
| 102 | 7-621-284-00  | SCREW +P 2.6X4                                |         |
| 103 | *4-908-935-01 | BRACKET, SWITCH                               |         |
| 104 | 3-703-685-31  | SCREW (+BV 3X8)                               |         |
| 105 | *4-908-947-11 | ANGLE (F)                                     |         |
| 106 | *4-908-934-01 | CHASSIS, TRANSFORMER                          |         |
| 107 | *4-908-924-01 | LEVER, POWER SWITCH                           |         |
| 108 | 4-866-342-00  | JOINT (B), KNOB                               |         |
| 109 | *4-908-941-11 | ANGLE (LEFT)                                  |         |
| 110 | *4-913-105-01 | BRACKET, POWER SWITCH                         |         |
| 111 | 3-703-244-00  | BUSHING (2104), CORD                          |         |
| 112 | *4-908-973-01 | (552ESD2/650ESD2)...PLATE, SHIELD, D/O        |         |
| 113 | 4-908-991-01  | ESCUTCHEON                                    |         |
| 114 | 7-685-873-01  | SCREW +BVTT 3X10 (S)                          |         |
| 115 | 4-908-961-01  | WASHER  |         |
| 116 | *4-908-475-01 | (650ESD2).....LABEL, MODEL NUMBER(U,C)        |         |
|     | *4-908-476-01 | (620ES2).....LABEL, MODEL NUMBER(U,C)         |         |
|     | *4-913-113-01 | (552ESD2:AEP)...LABEL, MODEL NUMBER(A)        |         |
|     | *4-913-114-01 | (552ESD2:UK)...LABEL, MODEL NUMBER(UK)        |         |
|     | *4-913-115-01 | (552ESD2:E).....LABEL, MODEL NUMBER(E1/2)     |         |
|     | *4-913-116-01 | (502ES2:AEP)...LABEL, MODEL NUMBER(A)         |         |
|     | *4-913-117-01 | (502ES2:UK).....LABEL, MODEL NUMBER(UK)       |         |
|     | *4-913-118-01 | (552ES2:E).....LABEL, MODEL NUMBER(E)         |         |
| 117 | 4-908-975-02  | (552ESD2/650ESD2)...CASE, DIGITAL OUT         |         |
| 118 | 7-621-284-20  | SCREW +P 2.6X6                                |         |
| 119 | 4-887-711-11  | SCREW, TERMINAL, CLAW, + BVTP                 |         |
| 120 | *4-913-107-01 | (552ESD2/650ESD2)...SPACER, SWITCH            |         |
| 121 | *4-913-119-01 | (552ESD2:AEP,UK/650ESD2)...PLATE, JACK        |         |
|     | *4-913-119-11 | (552ESD2:E).....PLATE, JACK                   |         |
|     | *4-913-119-21 | (502ES2:AEP,UK/620ES2)....PLATE, JACK         |         |
|     | *4-913-119-31 | (502ES2:E).....PLATE, JACK                    |         |
| 122 | *2-280-622-41 | SUPPORT (M3), HEXAGON                         |         |
| 123 | *4-870-266-00 | SUPPORT, BLOCK                                |         |
| 124 | *4-908-952-01 | PLATE, SHIELD                                 |         |
| 125 | 2-259-121-11  | SCREW, TR                                     |         |
| 126 | *4-908-942-01 | ANGLE (RIGHT)                                 |         |
| 127 | 2-371-561-00  | BUSHING (P), INSULATING                       |         |
| 128 | 7-685-646-79  | SCREW +BVTP 3X8 TYPE2 N-S                     |         |
| 129 | *4-908-914-01 | BRACKET (RIGHT), PANEL                        |         |
| 130 | *4-908-962-01 | SHEET (C), INSULATING                         |         |
| 131 | *4-908-936-01 | HEAT SINK                                     |         |
| 132 | 4-908-963-01  | NUT, SPECIAL                                  |         |
| 133 | 3-701-446-11  | WASHER, 8                                     |         |
| 134 | *4-908-943-01 | ANGLE (C)                                     |         |
| 135 | *4-908-953-01 | PLATE (A), SHIELD                             |         |
| 136 | *4-902-345-01 | HEAT SINK                                     |         |
| 137 | *4-879-920-00 | SPACER, HEAT SINK                             |         |
| 138 | *4-908-954-01 | HEAT SINK, TR                                 |         |
| 139 | 4-887-707-00  | RETAINER, TRANSFORMER                         |         |
| 140 | 2-269-798-01  | HEAT SINK, TO-39                              |         |
| 141 | 4-870-272-00  | HEAT SINK                                     |         |
| 142 | *4-886-555-00 | HEAT SINK                                     |         |
| 143 | *4-908-950-01 | REINFORCEMENT (A), PWB                        |         |
| 144 | *4-908-951-01 | REINFORCEMENT (B), PWB                        |         |
| 145 | *4-913-106-01 | REINFORCEMENT (C), PWB                        |         |
| 146 | 2-259-121-00  | SCREW, TR                                     |         |
| 147 | 4-854-741-00  | (552ESD2/650ESD2)...CAP, DUST PROTECTION, P.J |         |
| 148 | 4-870-539-00  | PLATE, GROUND                                 |         |
| 149 | 4-820-330-21  | BW SCREW                                      |         |
| 150 | *3-701-946-22 | (620ES2/650ESD2)...LABEL, FUSE                |         |

| No.   | Part No.              | Description   | Remarks |
|-------|-----------------------|---|---------|
| 151   | *4-913-112-01         | EDGEING   |         |
| 152   | 7-685-134-19          | SCREW +BTP 2.6X8                                    |         |
| 153   | 4-885-843-02          | LABEL, CAUTION, LASER                               |         |
| 154   | 9-911-844-XX          | CUSHION   |         |
| 155   | *4-885-838-00         | (502ES2/552ESD2)...LABEL, CLASS A                   |         |
| 156   | 3-831-441-XX          | CUSHION, SPEAKER                                    |         |
| 157   | 3-657-235-00          | POINT, TEST   |         |
| 158   | 2-056-666-00          | PURSE LOCK (8 DIA.)                                 |         |
| 159   | 3-655-653-21          | BAND (TAITON), BINDING                              |         |
| 160   | *4-374-846-01         | (AEP,UK)...COVER, CAPACTOR, CAP TYPE                |         |
| 161   | 4-886-828-01          | (AEP,UK)...COVER, LFT                               |         |
| 162   | 3-831-441-XX          | CUSHION (B), CABINET                                |         |
| 163   | 3-703-044-26          | (US,Canadian)...LABEL, CAUTION                      |         |
| 164   | 3-675-712-01          | WASHER, COPPER                                      |         |
| 901   | *A-4619-291-A         | (552ESD2/650ESD2)...MOUNTED PCB, SERVO              |         |
|       | *A-4619-292-A         | (502ES2/620ES2)....MOUNTED PCB, SERVO               |         |
| 902   | *A-4651-091-A         | MOUNTED PCB, AUDIO                                  |         |
| 903   | *1-614-474-11         | (Canadian,E)...PC BOARD, POWER SWITCH               |         |
|       | *1-615-817-11         | (US,AEP,UK)....PC BOARD, POWER SWITCH               |         |
| 904   | *1-617-243-11         | PC BOARD, HEADPHONE JACK                            |         |
| 905   | *1-617-244-11         | PC BOARD, OUTPUT                                    |         |
| 909   | *1-620-091-11         | PC BOARD, REMOTE CONTROL VR                         |         |
| 910   | *1-620-092-11         | PC BOARD, REMOTE CONTROL MOTOR                      |         |
| 911   | *1-535-116-00         | BASE POST 3P  |         |
| 914   | *1-560-242-01         | BUS BAR 4P  |         |
| 915   | *1-560-242-71         | BUS BAR 6P  |         |
| 920   | 1-464-454-11          | (552ESD2/650ESD)...DIGITAL (I/O) UNIT               |         |
| 921   | <b>Δ</b> 1-555-386-00 | (E).....CORD, POWER                                 |         |
|       | <b>Δ</b> 1-555-795-00 | (AEP).....CORD, POWER                               |         |
|       | <b>Δ</b> 1-556-035-00 | (UK).....CORD, POWER                                |         |
|       | <b>Δ</b> 1-557-577-11 | (US,Canadian)...CORD, POWER                         |         |
| 922   | 1-533-183-11          | (US,Canadian)...HOLDER, FUSE                        |         |
| 923   | *1-620-093-11         | (502ES2/620ES2)...PC BOARD, SUB CORD                |         |
| 926   | *1-535-135-11         | BASE POST 2P  |         |
| 927   | *1-535-136-11         | (AEP,UK)...BASE POST 3P                             |         |
| 928   | 1-535-476-11          | TERMINAL, PIN                                       |         |
| 929   | 1-543-392-11          | (552ESD2/650ESD2)...CORE, FERRITE                   |         |
| F201  | <b>Δ</b> 1-532-699-11 | (US,Canadian)...FUSE 1.6A                           | 125V    |
| IC901 | 8-759-700-51          | IC NJM7805A   |         |
| IC902 | 8-759-700-28          | IC NJM7905A   |         |
| PT901 | <b>Δ</b> 1-448-021-11 | (AEP,UK).....TRANSFORMER, POWER                     |         |
| PT901 | <b>Δ</b> 1-448-023-21 | (E).....TRANSFORMER, POWER                          |         |
| PT901 | <b>Δ</b> 1-448-254-21 | (US,Canadian)...TRANSFORMER, POWER                  |         |
| Q922  | 8-729-107-53          | TRANSISTOR 2SC2275-A                                |         |
| Q932  | 8-729-118-53          | TRANSISTOR 2SA985-P                                 |         |
| RY400 | 1-515-547-11          | RELAY   |         |
| RY401 | 1-515-547-11          | RELAY   |         |
| S301  | 1-570-100-11          | (552ESD2/650ESD2)<br>...SWITCH, SLIDE (DIGITAL OUT) |         |
| S302  | 1-554-421-00          | SWITCH, SLIDE (TIMER)                               |         |
| S990  | <b>Δ</b> 1-553-318-00 | SWITCH, PUSH (POWER)                                |         |
| VS901 | <b>Δ</b> 1-552-963-00 | (E)....SWITCH, POWER VOLTAGE SELECT                 |         |

|  |  |
|--|--|
| The components identified by shading and mark <b>Δ</b> are critical for safety. Replace only with part number specified. | Les composants identifiés par une trame et une marque <b>Δ</b> sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié. |
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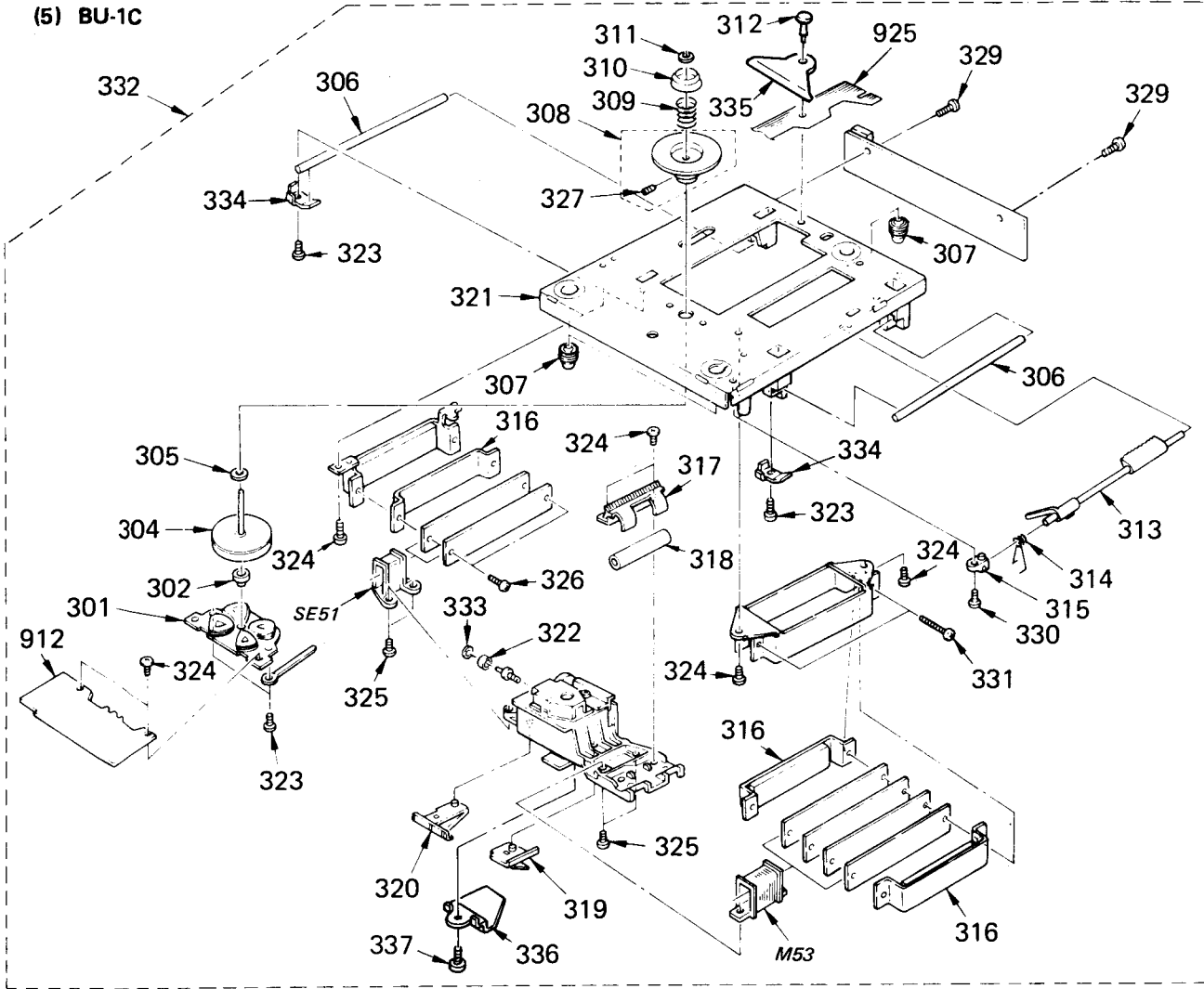


# CDP-502ESII/552ESDII/62OESII/65OESDII



| No. | Part No.      | Description                   | Remarks | No.  | Part No.      | Description                | Remarks |
|-----|---------------|-------------------------------|---------|------|---------------|----------------------------|---------|
| 251 | *4-908-523-01 | BRACKET, MOTOR                |         | 278  | 4-912-521-01  | SHAFT (RIGHT), GUIDE       |         |
| 252 | 4-908-540-01  | GUIDE, ASSIST                 |         | 279  | *4-912-520-01 | BRACKET, ROPE              |         |
| 253 | *X-4912-508-1 | BRACKET ASSY, TABLE           |         | 280  | 4-912-517-01  | ROPE                       |         |
| 254 | *X-4912-507-1 | CHASSIS ASSY, MECHANICAL      |         | 281  | 4-908-553-01  | SPRING, COMPRESSION (ROPE) |         |
| 257 | *4-912-540-01 | BRACKET (A), L PANEL          |         | 282  | 4-912-512-01  | CUSHION (A)                |         |
| 258 | *4-912-544-01 | PLATE, FIXED                  |         | 283  | X-4908-506-1  | PLATE ASSY, DISK           |         |
| 259 | *4-912-529-01 | GUIDE, LOADING                |         | 284  | *4-908-964-01 | SHEET, PS, DT              |         |
| 260 | *4-912-527-01 | RETAINER, TABLE               |         | 285  | 4-908-519-01  | PULLEY (A)                 |         |
| 261 | *4-912-534-01 | GUIDE, SUB                    |         | 286  | 4-908-525-01  | PULLEY (C)                 |         |
| 262 | *X-4912-504-1 | BRACKET (LEFT) ASSY, TABLE    |         | 287  | 3-671-077-00  | BELT, FF                   |         |
| 263 | 3-558-708-21  | WASHER, STOPPER               |         | 288  | 4-908-591-01  | BELT, DRIVING              |         |
| 264 | *4-912-531-01 | PLATE (LEFT), CAM, DISK       |         | 289  | 4-908-524-01  | PULLEY (B)                 |         |
| 265 | 3-701-439-11  | WASHER                        |         | 290  | 4-908-543-01  | RETAINER, DISK             |         |
| 266 | 4-908-584-01  | TABLE, DISK                   |         | 291  | 7-624-106-04  | STOP RING 3.0, TYPE -E     |         |
| 267 | 4-908-534-01  | LEVER, FUNCTION               |         | 292  | 7-621-775-00  | SCREW +B 2.6X3             |         |
| 268 | *4-912-532-01 | REINFORCEMENT, TABLE          |         | 293  | 7-621-759-60  | +PSW, 2.6X8                |         |
| 269 | *4-912-526-01 | SHEET                         |         | 294  | 7-621-775-00  | SCREW +B 2.6X3             |         |
| 270 | *4-912-522-01 | PLATE, SW                     |         | 295  | 7-682-546-04  | SCREW +BVTT 3X5 (S)        |         |
| 271 | 4-912-516-01  | SPRING (DISK CAM), TENSION    |         | 297  | 7-685-646-71  | SCREW +BVTP 3X8 TYPE2 SLIT |         |
| 272 | *X-4912-506-1 | PLATE (RIGHT) ASSY, CAM, DISK |         | 298  | 7-685-791-04  | SCREW +BVTT 2.6X5 (S)      |         |
| 273 | 4-887-175-00  | RUBBER, STOPPER               |         | 299  | 7-685-876-01  | SCREW +BVTT 3X16 (S)       |         |
| 274 | *X-4912-505-1 | BRACKET (RIGHT) ASSY, TABLE   |         | 300  | 7-682-646-01  | SCREW +PS 3X5              |         |
| 275 | *4-912-513-01 | STOPPER, TABLE                |         | 501  | 7-685-132-19  | SCREW +BTP 2.6X5 TYPE2 N-S |         |
| 276 | *4-912-519-01 | RETAINER (RIGHT), SHAFT       |         | 917  | *1-617-230-11 | PC BOARD, LOADING MOTOR    |         |
| 277 | 4-912-538-01  | BEARING (RIGHT), GUIDE        |         | M652 | A-4608-303-A  | MOTOR ASSY, LOADING        |         |

# CDP-502ESII/552ESDII/620ESII/650ESDII



| No. | Part No.      | Description         | Remarks | No.  | Part No.            | Description                | Remarks |
|-----|---------------|---------------------|---------|------|---------------------|----------------------------|---------|
| 301 | A-4675-068-A  | BRACKET ASSY, MOTOR |         | 321  | *A-4675-112-A       | BASE ASSY                  |         |
| 302 | 2-622-105-01  | RETAINER, THRUST    |         | 322  | 4-908-208-01        | BEARING (NO-FLANGE), BALL  |         |
| 304 | A-4675-069-A  | ROTOR ASSY          |         | 323  | 7-685-134-19        | SCREW +P 2.6X8 TYPE2 SLIT  |         |
| 305 | 3-701-439-21  | WASHER              |         | 324  | 7-621-775-10        | SCREW +B 2.6X4             |         |
| 306 | 4-908-201-01  | SHAFT, SLIDE        |         | 325  | 7-621-775-20        | SCREW +B 2.6X5             |         |
| 307 | 4-908-593-01  | INSULATOR           |         | 326  | 7-685-793-04        | SCREW +BVTT 2.6X8 (S)      |         |
| 308 | X-4908-202-1  | PULLEY ASSY, DISK   | 327     | 327  | 7-621-734-09        | SET-SCT, HEX. 2.6X3        |         |
| 309 | 4-908-213-01  | SPRING, COMPRESSION |         | 329  | 7-685-864-01        | SCREW +BVTT 2.6X10 (S)     |         |
| 310 | 4-908-212-01  | CAP, CENTERING      |         | 330  | 7-621-775-20        | +B 2.6X5                   |         |
| 311 | 3-558-708-21  | WASHER, STOPPER     |         | 331  | 7-685-867-01        | SCREW +BVTT 2.6X16 (S)     |         |
| 312 | 3-531-576-01  | RIVET               |         | 332  | <b>X-4908-207-1</b> | <b>BU-1C</b>               | 301-334 |
| 313 | 4-908-227-01  | LEVER, LOCK         |         | 333  | 7-624-105-04        | STOP RING 2.3, TYPE -E     |         |
| 314 | 4-908-230-01  | SPRING              |         | 334  | 4-908-245-01        | RETAINER (C), SHAFT, SLIDE |         |
| 315 | 4-908-220-01  | HOLDER, ROD         |         | 335  | *4-908-254-01       | RETAINER, PC BOARD         |         |
| 316 | *A-4675-110-A | MAGNET ASSY, LINEAR |         | 336  | *4-908-255-01       | SUPPORT, PC BOARD          |         |
| 317 | 4-908-224-01  | HOLDER, BEARING     |         | 337  | 7-682-546-09        | SCREW, +B 3X5              |         |
| 318 | 4-908-221-01  | BEARING             |         | 912  | *A-4656-008-A       | MOUNTED PCB, MOTOR         |         |
| 319 | 4-908-225-01  | RETAINER (A), LEAD  |         | 925  | A-4646-215-A        | MOUNTED PCB, FLEXIBLE      |         |
| 320 | 4-908-219-01  | RETAINER (B), LEAD  |         | M53  | 1-422-197-14        | COIL (DRIVE)               |         |
|     |               |                     |         | SE51 | 1-422-198-11        | COIL (SENSOR)              |         |

The components identified by shading and mark **X** are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque **X** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

# CDP-502ESII/552ESDII/620ESII/650ESDII

## SECTION 6

### ELECTRICAL PARTS LIST

**NOTE:**

- 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 shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

| Ref.No. | Part No.              | Description   |
|---------|-----------------------|---|
| 901     | *A-4619-291-A         | (552ESD2/650ESD2)...MOUNTED PCB, SERVO              |
|         | *A-4619-292-A         | (502ES2/620ES2).....MOUNTED PCB, SERVO              |
| 902     | *A-4651-091-A         | MOUNTED PCB, AUDIO                                  |
| 903     | *1-614-474-11         | (Canadian,E)...PC BOARD, POWER SWITCH               |
|         | *1-615-817-11         | (US,AEP,UK)...PC BOARD, POWER SWITCH                |
| 904     | *1-617-243-11         | PC BOARD, HEADPHONE JACK                            |
| 905     | *1-617-244-11         | PC BOARD, OUTPUT                                    |
| 906     | *1-617-259-11         | PC BOARD, DISPLAY                                   |
| 907     | *1-617-260-11         | PC BOARD, O/C                                       |
| 908     | *1-617-261-11         | PC BOARD, KEY BOARD SW                              |
| 909     | *1-620-091-11         | PC BOARD, REMOTE CONTROL VR                         |
| 910     | *1-620-092-11         | PC BOARD, REMOTE CONTROL MOTOR                      |
| 911     | *1-535-116-00         | BASE POST 3P  |
| 912     | *A-4656-008-A         | MOUNTED PCB, MOTOR                                  |
| 913     | *1-617-229-11         | PC BOARD, LOAD OUT SW                               |
| 914     | *1-560-242-01         | BUS BAR 4P  |
| 915     | *1-560-242-71         | BUS BAR 6P  |
| 917     | *1-617-230-11         | PC BOARD, LOADING MOTOR                             |
| 918     | *1-617-231-11         | PC BOARD, CHACKING MOTOR                            |
| 919     | *1-617-232-11         | PC BOARD, L.C. SWITCH                               |
| 920     | 1-464-454-11          | (552ESD2/650ESD)...DIGITAL (I/O) UNIT               |
| 921     | $\Delta$ 1-555-386-00 | (E).....CORD, POWER                                 |
|         | $\Delta$ 1-555-795-00 | (AEP).....CORD, POWER                               |
|         | $\Delta$ 1-556-035-00 | (UK).....CORD, POWER                                |
|         | $\Delta$ 1-557-577-11 | (US,Canadian)...CORD, POWER                         |
| 922     | 1-533-183-11          | (US,Canadian)...HOLDER, FUSE                        |
| 923     | *1-620-093-11         | (502ES2/620ES2)...PC BOARD, SUB CORD                |
| 924     | *1-617-233-11         | PC BOARD, IN SWITCH                                 |
| 925     | A-4646-215-A          | MOUNTED PCB, FLEXIBLE                               |
| 926     | *1-535-135-11         | BASE POST 2P  |
| 927     | *1-535-136-11         | (AEP,UK)...BASE POST 3P                             |
| 928     | 1-535-476-11          | TERMINAL, PIN                                       |
| 929     | 1-543-392-11          | (552ESD2/650ESD2)...CORE, FERRITE                   |
| C51     | 1-135-008-00          | TANTAL. CHIP 2.2MF 20% 6.3V                         |
| C001    | 1-123-618-00          | ELECT 22MF 20% 6.3V                                 |
| C151    | 1-162-302-31          | CERAMIC 0.0022MF 20% 16V                            |
| C152    | 1-162-302-31          | CERAMIC 0.0022MF 20% 16V                            |
| C153    | 1-161-494-00          | CERAMIC 0.022MF 30% 25V                             |
| C154    | 1-161-494-00          | CERAMIC 0.022MF 30% 25V                             |
| C201    | 1-136-169-00          | (SERVO BOARD)...FILM 0.22MF 5% 50V                  |
| C201    | $\Delta$ 1-161-744-00 | (POWER SW BOARD)<br>...CERAMIC 0.01MF 5% 400V       |
| C202    | $\Delta$ 1-161-742-00 | (AEP,UK:POWER SW BOARD)<br>...CERAMIC 0.0022MF 400V |
| C202    | 1-162-302-31          | (SERVO BOARD)..CERAMIC 0.0022MF 30% 16V             |

ELECTRICAL PARTS

| Ref.No. | Part No.              | Description  |
|---------|-----------------------|--|
| C203    | 1-136-165-00          | (SERVO BOARD)...FILM 0.1MF 5% 50V                      |
| C203    | $\Delta$ 1-161-742-00 | (AEP,UK:POWER SW BOARD)<br>...CERAMIC 0.0022MF 5% 400V |
| C204    | $\Delta$ 1-161-742-00 | (AEP,UK:POWER SW BOARD)<br>...CERAMIC 0.0022MF 5% 400V |
| C204    | 1-162-290-31          | (SERVO BOARD)...CERAMIC 470PF 10% 50V                  |
| C205    | 1-130-475-00          | (SERVO BOARD)...MYLAR 0.0022MF 5% 50V                  |
| C205    | $\Delta$ 1-161-742-00 | (AEP,UK:POWER SW BOARD)<br>...CERAMIC 0.0022MF 400V    |
| C206    | 1-131-371-00          | (SERVO BOARD)...TANTALUM 10MF 10% 16V                  |
| C206    | $\Delta$ 1-161-744-00 | (US,AEP,UK:POWER SW BOARD)<br>...CERAMIC 0.01MF 400V   |
| C207    | 1-136-159-00          | (SERVO BOARD)...FILM 0.033MF 5% 50V                    |
| C207    | $\Delta$ 1-161-744-00 | (US,AEP,UK:POWER SW BOARD)<br>...CERAMIC 0.01MF 400V   |
| C208    | 1-136-169-00          | FILM 0.22MF 5% 50V                                     |
| C209    | 1-136-161-00          | FILM 0.047MF 5% 50V                                    |
| C210    | 1-130-471-00          | MYLAR 0.001MF 5% 50V                                   |
| C211    | 1-130-475-00          | MYLAR 0.0022MF 5% 50V                                  |
| C212    | 1-130-487-00          | MYLAR 0.022MF 5% 50V                                   |
| C213    | 1-162-291-31          | CERAMIC 560PF 10% 50V                                  |
| C214    | 1-130-475-00          | MYLAR 0.0022MF 5% 50V                                  |
| C215    | 1-136-165-00          | FILM 0.1MF 5% 50V                                      |
| C216    | 1-130-487-00          | MYLAR 0.022MF 5% 50V                                   |
| C217    | 1-136-165-00          | FILM 0.1MF 5% 50V                                      |
| C218    | 1-162-304-31          | CERAMIC 0.0047MF 30% 16V                               |
| C219    | 1-136-163-00          | FILM 0.068MF 5% 50V                                    |
| C221    | 1-123-318-00          | ELECT 33MF 20% 16V                                     |
| C222    | 1-123-318-00          | ELECT 33MF 20% 16V                                     |
| C223    | 1-131-369-00          | TANTALUM 4.7MF 10% 16V                                 |
| C226    | 1-136-173-00          | FILM 0.47MF 5% 50V                                     |
| C228    | 1-136-173-00          | FILM 0.47MF 5% 50V                                     |
| C235    | 1-162-294-31          | CERAMIC 0.001MF 10% 50V                                |
| C240    | 1-162-179-11          | CERAMIC 0.1MF 50V                                      |
| C241    | 1-162-179-11          | CERAMIC 0.1MF 50V                                      |
| C242    | 1-162-179-11          | CERAMIC 0.1MF 50V                                      |
| C243    | 1-162-179-11          | CERAMIC 0.1MF 50V                                      |
| C244    | 1-123-307-00          | ELECT 100MF 20% 10V                                    |
| C245    | 1-123-307-00          | ELECT 100MF 20% 10V                                    |
| C301    | 1-123-356-00          | ELECT 10MF 20% 16V                                     |
| C302    | 1-162-302-31          | CERAMIC 0.0022MF 30% 16V                               |
| C303    | 1-162-302-31          | CERAMIC 0.0022MF 30% 16V                               |
| C304    | 1-102-725-00          | CERAMIC 36PF 5% 50V                                    |
| C305    | 1-102-658-00          | CERAMIC 180PF 5% 50V                                   |
| C306    | 1-102-647-00          | CERAMIC 39PF 5% 50V                                    |

# CDP-502ESII/552ESDII/620ESII/650ESDII

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description                     |          |     |      |
|---------|--------------|---------------------------------|----------|-----|------|
| C307    | 1-162-282-31 | CERAMIC                         | 100PF    | 10% | 50V  |
| C317    | 1-162-306-31 | CERAMIC                         | 0.01MF   | 30% | 16V  |
| C318    | 1-136-153-00 | FILM                            | 0.01MF   | 5%  | 50V  |
| C319    | 1-162-179-11 | CERAMIC                         | 0.1MF    |     | 50V  |
| C320    | 1-162-286-31 | CERAMIC                         | 220PF    | 10% | 50V  |
| C324    | 1-162-179-11 | CERAMIC                         | 0.1MF    |     | 50V  |
| C330    | 1-162-207-31 | CERAMIC                         | 22PF     | 5%  | 50V  |
| C331    | 1-162-207-31 | CERAMIC                         | 22PF     | 5%  | 50V  |
| C332    | 1-162-211-31 | CERAMIC                         | 33PF     | 5%  | 50V  |
| C333    | 1-162-211-31 | CERAMIC                         | 33PF     | 5%  | 50V  |
| C334    | 1-123-307-00 | ELECT                           | 100MF    | 20% | 10V  |
| C335    | 1-123-307-00 | ELECT                           | 100MF    | 20% | 10V  |
| C336    | 1-123-307-00 | ELECT                           | 100MF    | 20% | 10V  |
| C337    | 1-162-179-11 | CERAMIC                         | 0.1MF    |     | 50V  |
| C338    | 1-162-179-11 | CERAMIC                         | 0.1MF    |     | 50V  |
| C339    | 1-162-179-11 | CERAMIC                         | 0.1MF    |     | 50V  |
| C340    | 1-162-179-11 | CERAMIC                         | 0.1MF    |     | 50V  |
| C341    | 1-123-307-00 | ELECT                           | 100MF    | 20% | 10V  |
| C344    | 1-162-179-11 | CERAMIC                         | 0.1MF    |     | 50V  |
| C345    | 1-123-325-00 | ELECT                           | 2200MF   | 20% | 10V  |
| C348    | 1-136-153-00 | FILM                            | 0.01MF   | 5%  | 50V  |
| C349    | 1-123-380-00 | ELECT                           | 1MF      | 20% | 50V  |
| C351    | 1-123-380-00 | ELECT                           | 1MF      | 20% | 50V  |
| C353    | 1-136-165-00 | FILM                            | 0.1MF    | 5%  | 50V  |
| C354    | 1-130-481-00 | MYLAR                           | 0.0068MF | 5%  | 50V  |
| C355    | 1-136-169-00 | FILM                            | 0.22MF   | 5%  | 50V  |
| C356    | 1-162-290-31 | CERAMIC                         | 470PF    | 10% | 50V  |
| C358    | 1-123-307-00 | ELECT                           | 100MF    | 20% | 6.3V |
| C359    | 1-123-307-00 | ELECT                           | 100MF    | 20% | 6.3V |
| C360    | 1-136-165-00 | FILM                            | 0.1MF    | 5%  | 50V  |
| C361    | 1-123-330-00 | ELECT                           | 22MF     | 20% | 25V  |
| C362    | 1-123-330-00 | ELECT                           | 22MF     | 20% | 25V  |
| C365    | 1-162-290-31 | CERAMIC                         | 470PF    | 10% | 50V  |
| C374    | 1-162-179-11 | CERAMIC                         | 0.1MF    |     | 50V  |
| C378    | 1-123-307-00 | ELECT                           | 100MF    | 20% | 10V  |
| C380    | 1-162-302-31 | CERAMIC                         | 0.0022MF | 30% | 16V  |
| C381    | 1-162-302-31 | (552ESD2/650ESD2)...<br>CERAMIC | 0.0022MF | 30% | 16V  |
| C382    | 1-123-343-00 | (552ESD2/650ESD2)...<br>ELECT   | 33MF     | 20% | 25V  |
| C383    | 1-110-193-11 | (552ESD2/650ESD2)...<br>MYLAR   | 0.01MF   | 10% | 160V |
| C384    | 1-123-307-00 | (552ESD2/650ESD2)...<br>ELECT   | 100MF    | 20% | 10V  |
| C388    | 1-162-179-11 | CERAMIC                         | 0.1MF    |     | 50V  |
| C395    | 1-123-310-00 | ELECT                           | 470MF    | 20% | 10V  |
| C396    | 1-125-367-11 | ELECT                           | 0.1MF    |     | 5.5V |
| C397    | 1-123-380-00 | ELECT                           | 1MF      | 20% | 50V  |
| C398    | 1-130-487-00 | MYLAR                           | 0.022MF  | 5%  | 50V  |
| C399    | 1-136-161-00 | FILM                            | 0.047MF  | 5%  | 50V  |
| C400    | 1-131-450-00 | TANTALUM                        | 1MF      | 20% | 50V  |
| C401    | 1-131-450-00 | TANTALUM                        | 1MF      | 20% | 50V  |
| C403    | 1-104-266-00 | POLYSTYRENE                     | 180PF    | 5%  | 500V |
| C404    | 1-136-327-11 | FILM                            | 0.0027MF | 2%  | 100V |
| C405    | 1-130-967-00 | FILM                            | 0.0027MF | 3%  | 100V |
| C406    | 1-130-967-00 | FILM                            | 0.0027MF | 3%  | 100V |

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description |          |     |      |
|---------|--------------|-------------|----------|-----|------|
| C407    | 1-130-967-00 | FILM        | 0.0027MF | 3%  | 100V |
| C408    | 1-130-967-00 | FILM        | 0.0027MF | 3%  | 100V |
| C409    | 1-130-967-00 | FILM        | 0.0027MF | 3%  | 100V |
| C410    | 1-130-967-00 | FILM        | 0.0027MF | 3%  | 100V |
| C411    | 1-136-327-11 | FILM        | 0.0027MF | 2%  | 100V |
| C412    | 1-130-960-00 | FILM        | 0.01MF   | 2%  | 100V |
| C413    | 1-110-193-11 | MYLAR       | 0.01MF   | 10% | 160V |
| C414    | 1-123-373-00 | ELECT       | 47MF     | 20% | 63V  |
| C415    | 1-107-310-00 | MICA        | 220PF    | 5%  | 500V |
| C416    | 1-162-179-11 | CERAMIC     | 0.1MF    |     | 50V  |
| C417    | 1-107-310-00 | MICA        | 220PF    | 5%  | 500V |
| C418    | 1-104-241-00 | POLYSTYRENE | 470PF    | 5%  | 500V |
| C420    | 1-123-333-00 | ELECT       | 100MF    | 20% | 25V  |
| C421    | 1-123-333-00 | ELECT       | 100MF    | 20% | 25V  |
| C422    | 1-101-005-00 | CERAMIC     | 0.022MF  |     | 50V  |
| C423    | 1-101-005-00 | CERAMIC     | 0.022MF  |     | 50V  |
| C424    | 1-123-332-00 | ELECT       | 47MF     | 20% | 16V  |
| C425    | 1-123-332-00 | ELECT       | 47MF     | 20% | 16V  |
| C430    | 1-162-179-11 | CERAMIC     | 0.1MF    |     | 50V  |
| C431    | 1-123-307-00 | ELECT       | 100MF    | 20% | 10V  |
| C440    | 1-162-294-31 | CERAMIC     | 0.001MF  | 10% | 50V  |
| C450    | 1-131-450-00 | TANTALUM    | 1MF      | 20% | 50V  |
| C451    | 1-162-179-11 | CERAMIC     | 0.1MF    |     | 50V  |
| C452    | 1-131-450-00 | TANTALUM    | 1MF      | 20% | 50V  |
| C453    | 1-131-450-00 | TANTALUM    | 1MF      | 20% | 50V  |
| C454    | 1-123-337-00 | ELECT       | 1000MF   | 20% | 25V  |
| C455    | 1-123-337-00 | ELECT       | 1000MF   | 20% | 25V  |
| C456    | 1-131-450-00 | TANTALUM    | 1MF      | 20% | 50V  |
| C457    | 1-131-450-00 | TANTALUM    | 1MF      | 20% | 50V  |
| C458    | 1-123-336-00 | ELECT       | 470MF    | 20% | 25V  |
| C459    | 1-162-179-11 | CERAMIC     | 0.1MF    |     | 50V  |
| C500    | 1-131-450-00 | TANTALUM    | 1MF      | 20% | 50V  |
| C501    | 1-131-450-00 | TANTALUM    | 1MF      | 20% | 50V  |
| C503    | 1-104-266-00 | POLYSTYRENE | 180PF    | 5%  | 500V |
| C504    | 1-136-327-11 | FILM        | 0.0027MF | 2%  | 100V |
| C505    | 1-130-967-00 | FILM        | 0.0027MF | 3%  | 100V |
| C506    | 1-130-967-00 | FILM        | 0.0027MF | 3%  | 100V |
| C507    | 1-130-967-00 | FILM        | 0.0027MF | 3%  | 100V |
| C508    | 1-130-967-00 | FILM        | 0.0027MF | 3%  | 100V |
| C509    | 1-130-967-00 | FILM        | 0.0027MF | 3%  | 100V |
| C510    | 1-130-967-00 | FILM        | 0.0027MF | 3%  | 100V |
| C511    | 1-136-327-11 | FILM        | 0.0027MF | 2%  | 100V |
| C512    | 1-130-960-00 | FILM        | 0.01MF   | 2%  | 100V |
| C513    | 1-110-193-11 | MYLAR       | 0.01MF   | 10% | 160V |
| C514    | 1-123-373-00 | ELECT       | 47MF     | 20% | 63V  |
| C515    | 1-107-310-00 | MICA        | 220PF    | 5%  | 500V |
| C516    | 1-162-179-11 | CERAMIC     | 0.1MF    |     | 50V  |
| C517    | 1-107-310-00 | MICA        | 220PF    | 5%  | 500V |
| C518    | 1-104-241-00 | POLYSTYRENE | 470PF    | 5%  | 500V |
| C556    | 1-131-450-00 | TANTALUM    | 1MF      | 20% | 50V  |
| C557    | 1-131-450-00 | TANTALUM    | 1MF      | 20% | 50V  |
| C601    | 1-162-294-31 | CERAMIC     | 0.001MF  | 10% | 50V  |
| C602    | 1-162-294-31 | CERAMIC     | 0.001MF  | 10% | 50V  |
| C651    | 1-136-157-00 | FILM        | 0.022MF  | 5%  | 50V  |
| C652    | 1-136-157-00 | FILM        | 0.022MF  | 5%  | 50V  |
| C653    | 1-136-157-00 | FILM        | 0.022MF  | 5%  | 50V  |
| C654    | 1-130-479-00 | MYLAR       | 0.0047MF | 5%  | 50V  |



# CDP-502ESII/552ESDII/620ESII/650ESDII

## ELECTRICAL PARTS

| Ref.No. | Part No.       | Description                            |          |     |      |
|---------|----------------|--|----------|-----|------|
| C655    | 1-130-479-00   | MYLAR                                  | 0.0047MF | 5%  | 50V  |
| C802    | 1-162-211-31   | CERAMIC                                | 33PF     | 5%  | 50V  |
| C803    | 1-162-211-31   | CERAMIC                                | 33PF     | 5%  | 50V  |
| C804    | 1-162-284-31   | CERAMIC                                | 150PF    | 10% | 50V  |
| C805    | 1-162-284-31   | CERAMIC                                | 150PF    | 10% | 50V  |
| C810    | 1-162-179-11   | CERAMIC                                | 0.1MF    |     | 50V  |
| C904    | Δ.1-124-939-11 | ELECT                                  | 6800MF   | 20% | 16V  |
| C905    | Δ.1-124-939-11 | ELECT                                  | 6800MF   | 20% | 16V  |
| C906    | 1-123-337-00   | ELECT                                  | 1000MF   | 20% | 25V  |
| C910    | 1-136-165-00   | FILM                                   | 0.1MF    | 5%  | 50V  |
| C911    | 1-130-691-00   | FILM                                   | 1MF      | 10% | 125V |
| C912    | 1-123-335-00   | ELECT                                  | 330MF    | 20% | 25V  |
| C913    | 1-123-346-00   | ELECT                                  | 220MF    | 20% | 35V  |
| C914    | 1-123-360-00   | ELECT                                  | 100MF    | 20% | 50V  |
| C915    | 1-123-380-00   | ELECT                                  | 1MF      | 20% | 50V  |
| C916    | 1-123-318-00   | ELECT                                  | 33MF     | 20% | 16V  |
| C917    | 1-123-380-00   | ELECT                                  | 1MF      | 20% | 50V  |
| C918    | 1-123-343-00   | ELECT                                  | 33MF     | 20% | 25V  |
| C920    | 1-123-842-00   | ELECT                                  | 3300MF   | 20% | 25V  |
| C921    | 1-123-345-00   | ELECT                                  | 100MF    | 20% | 35V  |
| C922    | 1-131-450-00   | TANTALUM                               | 1MF      | 20% | 50V  |
| C923    | 1-107-322-00   | MICA                                   | 22PF     | 5%  | 500V |
| C924    | 1-123-624-00   | ELECT                                  | 470MF    | 20% | 120V |
| C925    | 1-123-380-00   | ELECT                                  | 1MF      | 20% | 50V  |
| C926    | 1-123-343-00   | ELECT                                  | 33MF     | 20% | 25V  |
| C930    | 1-123-842-00   | ELECT                                  | 3300MF   | 20% | 25V  |
| C931    | 1-123-345-00   | ELECT                                  | 100MF    | 20% | 35V  |
| C932    | 1-131-450-00   | TANTALUM                               | 1MF      | 20% | 50V  |
| C933    | 1-107-322-00   | MICA                                   | 22PF     | 5%  | 500V |
| C934    | 1-123-624-00   | ELECT                                  | 470MF    | 20% | 120V |
| C935    | 1-123-380-00   | ELECT                                  | 1MF      | 20% | 50V  |
| C936    | 1-123-343-00   | ELECT                                  | 33MF     | 20% | 25V  |
| C955    | Δ.1-124-939-11 | ELECT                                  | 6800MF   | 20% | 16V  |
| C956    | 1-123-337-00   | ELECT                                  | 1000MF   | 20% | 25V  |
| C961    | 1-136-173-00   | FILM                                   | 0.47MF   | 5%  | 50V  |
| C962    | 1-123-307-00   | ELECT                                  | 100MF    | 20% | 10V  |
| CNJ151* | 1-564-073-00   | PIN, CONNECTOR                         |          |     |      |
| CNJ200* | 1-564-495-11   | PIN, CONNECTOR 2P                      |          |     |      |
| CNJ201* | 1-564-507-11   | PLUG, CONNECTOR 4P                     |          |     |      |
| CNJ202* | 1-564-507-21   | PLUG, CONNECTOR 4P                     |          |     |      |
| CNJ301* | 1-564-505-21   | PLUG, CONNECTOR 2P                     |          |     |      |
| CNJ302* | 1-564-507-21   | PLUG, CONNECTOR 4P                     |          |     |      |
| CNJ303* | 1-564-511-11   | PLUG, CONNECTOR 8P                     |          |     |      |
| CNJ304* | 1-564-507-11   | PLUG, CONNECTOR 4P                     |          |     |      |
| CNJ306* | 1-564-507-31   | (502ES2/620ES2)...PLUG, CONNECTOR 4P   |          |     |      |
| CNJ307* | 1-564-507-31   | (502ES2/620ES2)...PLUG, CONNECTOR 4P   |          |     |      |
| CNJ308* | 1-564-508-11   | PLUG, CONNECTOR 5P                     |          |     |      |
| CNJ310* | 1-564-505-21   | PLUG, CONNECTOR 2P                     |          |     |      |
| CNJ311* | 1-564-509-11   | PLUG, CONNECTOR 6P                     |          |     |      |
| CNJ312* | 1-564-506-11   | (552ESD2/650ESD2)...PLUG, CONNECTOR 3P |          |     |      |
| CNJ313* | 1-564-342-11   | PIN, CONNECTOR 8P                      |          |     |      |
| CNJ314* | 1-564-505-41   | (552ESD2/650ESD2)...PLUG, CONNECTOR 2P |          |     |      |
| CNJ315* | 1-564-505-31   | PLUG, CONNECTOR 2P                     |          |     |      |

## ELECTRICAL PARTS

| Ref.No. | Part No.       | Description                         |
|---------|----------------|-------------------------------------|
| CNJ316* | 1-564-505-31   | PLUG, CONNECTOR 2P                  |
| CNJ317* | 1-564-338-00   | PIN, CONNECTOR 4P                   |
| CNJ320* | 1-564-336-00   | PIN, CONNECTOR 2P                   |
| CNJ321* | 1-564-505-11   | PLUG, CONNECTOR 2P                  |
| CNJ401* | 1-564-505-21   | PLUG, CONNECTOR 2P                  |
| CNJ402* | 1-564-507-11   | PLUG, CONNECTOR 4P                  |
| CNJ403* | 1-564-507-11   | PLUG, CONNECTOR 4P                  |
| CNJ404* | 1-564-507-21   | PLUG, CONNECTOR 4P                  |
| CNJ406* | 1-564-519-11   | PLUG, CONNECTOR 4P                  |
| CNJ407* | 1-564-519-21   | PLUG, CONNECTOR 4P                  |
| CNJ408* | 1-564-506-11   | PLUG, CONNECTOR 3P                  |
| CNJ409* | 1-564-505-31   | PLUG, CONNECTOR 2P                  |
| CNJ410* | 1-564-507-11   | PLUG, CONNECTOR 4P                  |
| CNJ801* | 1-564-501-11   | PIN, CONNECTOR 8P                   |
| CNJ802* | 1-564-499-11   | PIN, CONNECTOR 6P                   |
| CNJ803* | 1-564-499-11   | PIN, CONNECTOR 6P                   |
| CNP309* | 1-560-064-11   | PIN, CONNECTOR 6P                   |
| CNP601* | 1-564-522-11   | PLUG, CONNECTOR 7P                  |
| CNP602* | 1-564-505-11   | PLUG, CONNECTOR 2P                  |
| CNP603* | 1-564-505-21   | PLUG, CONNECTOR 2P                  |
| CNP604* | 1-564-505-11   | PLUG, CONNECTOR 2P                  |
| CNP606* | 1-564-506-11   | PLUG, CONNECTOR 3P                  |
| CNP901* | 1-564-725-11   | (502ES2/620ES2)...PIN, CONNECTOR 9P |
| CP801   | 1-232-978-11   | COMPOSITION CIRCUIT BLOCK           |
| CP802   | 1-232-999-11   | COMPOSITION CIRCUIT BLOCK           |
| CP803   | 1-232-967-11   | COMPOSITION CIRCUIT BLOCK           |
| CP804   | 1-232-967-11   | COMPOSITION CIRCUIT BLOCK           |
| D51     | 8-719-901-33   | DIODE 1SS133                        |
| D201    | 8-719-951-13   | DIODE HZ5CLL                        |
| D202    | 8-719-911-19   | DIODE 1SS119                        |
| D209    | 8-719-911-19   | DIODE 1SS119                        |
| D299    | 8-719-911-19   | DIODE 1SS119                        |
| D301    | 8-719-911-19   | DIODE 1SS119                        |
| D302    | 8-719-902-79   | DIODE KV1236Z                       |
| D350    | 8-719-200-02   | DIODE 10E2                          |
| D400    | 8-719-942-31   | DIODE HZ3ALL                        |
| D401    | 8-719-942-31   | DIODE HZ3ALL                        |
| D402    | 8-719-910-24   | DIODE HZ12B1L                       |
| D403    | 8-719-911-19   | DIODE 1SS119                        |
| D404    | 8-719-911-19   | DIODE 1SS119                        |
| D410    | 8-719-911-19   | DIODE 1SS119                        |
| D651    | 8-719-200-02   | DIODE 10E-2                         |
| D652    | 8-719-200-02   | DIODE 10E-2                         |
| D653    | 8-719-200-02   | DIODE 10E-2                         |
| D654    | 8-719-200-02   | DIODE 10E-2                         |
| D801    | 8-719-900-28   | DIODE EBG3432S                      |
| D802    | 8-719-934-34   | DIODE AA3432S                       |
| D806    | 8-719-922-25   | DIODE PG2222SY                      |
| D811    | 8-719-911-19   | DIODE 1SS119                        |
| D812    | 8-719-911-19   | DIODE 1SS119                        |
| D813    | 8-719-911-19   | DIODE 1SS119                        |
| D814    | 8-719-911-19   | DIODE 1SS119                        |
| D815    | 8-719-911-19   | DIODE 1SS119                        |
| D816    | 8-719-911-19   | DIODE 1SS119                        |
| D905    | Δ.8-719-200-31 | DIODE 21DQ05                        |
| D906    | Δ.8-719-200-31 | DIODE 21DQ05                        |
| D907    | Δ.8-719-200-31 | DIODE 21DQ05                        |

|  |  |
|--|--|
| <p>The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.</p> | <p>Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p> |
|--|--|

# CDP-502ESII/552ESDII/620ESII/650ESDII

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description                       |
|---------|--------------|-----------------------------------|
| D908    | 8-719-200-31 | DIODE 210Q05                      |
| D911    | 8-719-911-19 | DIODE 1SS119                      |
| D912    | 8-719-911-19 | DIODE 1SS119                      |
| D941    | 8-719-200-68 | DIODE C10P20FU                    |
| D942    | 8-719-224-12 | DIODE 10YD2.4A                    |
| D943    | 8-719-902-87 | DIODE EQB01-08Q                   |
| D951    | 8-719-200-69 | DIODE C10P20FUR                   |
| D952    | 8-719-224-12 | DIODE 10YD2.4A                    |
| D953    | 8-719-902-87 | DIODE EQB01-08Q                   |
| D960    | 8-719-100-29 | DIODE RD5.1EB1                    |
| D961    | 8-719-200-02 | DIODE 10E2                        |
| D962    | 8-719-200-02 | DIODE 10E2                        |
| D963    | 8-719-100-89 | DIODE RD24EB1                     |
| D997    | 8-719-911-19 | DIODE 1SS119                      |
| D998    | 8-719-911-19 | DIODE 1SS119                      |
| F201    | 1-532-699-11 | (US,Canadian)...FUSE 1.6A 125V    |
| FLD801  | 1-519-333-11 | INDICATOR TUBE, FLUORESCENT       |
| H151    | 8-719-800-31 | DIODE THS103A-1                   |
| H152    | 8-719-800-31 | DIODE THS103A-1                   |
| IC201   | 8-752-010-80 | IC CX20108                        |
| IC202   | 8-759-700-58 | IC NJM4558D-FA                    |
| IC203   | 8-759-300-71 | IC HD14053BFP                     |
| IC303   | 8-759-925-63 | IC MSM6404A-117GS-K               |
| IC305   | 8-759-990-82 | IC TL082CP                        |
| IC306   | 8-759-145-58 | IC UPC4558C                       |
| IC307   | 8-759-912-52 | IC CX23035                        |
| IC308   | 8-759-302-72 | IC HM6116LFP-3                    |
| IC309   | 8-759-912-53 | IC CX23034                        |
| IC310   | 8-752-322-30 | (552ESD2/650ESD2)...IC CXD1075P   |
| IC313   | 8-759-204-97 | (552ESD2/650ESD2)...IC TC74HCU04F |
| IC315   | 8-759-204-97 | IC TC74HCU04F                     |
| IC350   | 8-759-600-24 | IC M54543L                        |
| IC400   | 8-759-923-89 | IC PCM53KP-V-S                    |
| IC401   | 8-759-903-56 | IC LF356H                         |
| IC402   | 8-759-900-72 | IC NE5532P                        |
| IC403   | 8-759-900-72 | IC NE5532P                        |
| IC404   | 8-759-900-72 | IC NE5532P                        |
| IC405   | 8-719-939-06 | IC MCL2601                        |
| IC450   | 8-759-923-94 | IC CXD1058Q                       |
| IC451   | 8-759-801-74 | IC CX20198                        |
| IC452   | 8-759-900-72 | IC NE5532P                        |
| IC500   | 8-759-923-89 | IC PCM53KP-V-S                    |
| IC501   | 8-759-903-56 | IC LF356H                         |
| IC502   | 8-759-900-72 | IC NE5532P                        |
| IC503   | 8-759-900-72 | IC NE5532P                        |
| IC504   | 8-759-900-72 | IC NE5532P                        |
| IC801   | 8-759-303-37 | IC HD614042SC77                   |
| IC802   | 8-759-602-87 | IC M50761-420P                    |
| IC803   | 8-741-131-70 | IC BX-1317                        |
| IC901   | 8-759-700-51 | IC NJM7805A                       |
| IC902   | 8-759-700-28 | IC NJM7905A                       |
| IC903   | 8-759-708-05 | IC NJM78L05A                      |
| IC910   | 8-759-170-12 | IC UPC78M12H                      |
| IC911   | 8-759-700-20 | IC NJM79M05A                      |
| IC912   | 8-759-700-18 | IC NJM78M20A                      |
| IC920   | 8-759-700-24 | IC NJM79M12A                      |

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description  |
|---------|--------------|--|
| J400    | 1-507-909-21 | JACK, PIN 4P                                       |
| J401    | 1-507-863-21 | JACK, LARGE TYPE (HEADPHONES)                      |
| J402    | 1-562-677-11 | (502ES2/620ES2)<br>...SOCKET, CONNECTOR (SUB CORD) |
| L51     | 1-408-563-00 | MICRO INDUCTOR 10UH                                |
| L201    | 1-421-340-00 | (AEP/UK)...LINE FILTER                             |
| L201    | 1-421-580-00 | (US).....LINE FILTER                               |
| L301    | 1-426-212-11 | COIL (RF)  |
| L302    | 1-408-117-00 | MICRO INDUCTOR 10UH                                |
| L350    | 1-408-072-00 | MICRO INDUCTOR 47UH                                |
| M53     | 1-422-197-14 | COIL (DRIVE)                                       |
| M651    | X-4902-019-1 | MOTOR ASSY, CHUCKING                               |
| M652    | A-4608-303-A | MOTOR ASSY, LOADING                                |
| PT901   | 1-448-021-11 | (AEP,UK).....TRANSFORMER, POWER                    |
| PT901   | 1-448-023-21 | (E).....TRANSFORMER, POWER                         |
| PT901   | 1-448-254-21 | (US,Canadian)...TRANSFORMER, POWER                 |
| PS301   | 1-532-685-00 | LINK, IC   |
| PS901   | 1-532-679-00 | LINK, IC   |
| PS951   | 1-532-679-00 | LINK, IC   |
| Q201    | 8-729-177-43 | TRANSISTOR 2SD774                                  |
| Q202    | 8-729-103-43 | TRANSISTOR 2SB734                                  |
| Q203    | 8-729-177-43 | TRANSISTOR 2SD774                                  |
| Q204    | 8-729-103-43 | TRANSISTOR 2SB734                                  |
| Q205    | 8-729-177-43 | TRANSISTOR 2SD774                                  |
| Q206    | 8-729-103-43 | TRANSISTOR 2SB734                                  |
| Q209    | 8-729-117-54 | TRANSISTOR 2SA1175                                 |
| Q210    | 8-729-100-12 | TRANSISTOR 2SC2001-L                               |
| Q301    | 8-729-177-43 | TRANSISTOR 2SD774                                  |
| Q302    | 8-729-103-43 | TRANSISTOR 2SB734                                  |
| Q303    | 8-729-900-80 | TRANSISTOR DTC114ES                                |
| Q304    | 8-729-900-80 | TRANSISTOR DTC114ES                                |
| Q305    | 8-729-900-80 | TRANSISTOR DTC114ES                                |
| Q306    | 8-729-900-80 | (552ESD2/650ESD2)...TRANSISTOR DTC114ES            |
| Q310    | 8-729-900-80 | TRANSISTOR DTC114ES                                |
| Q312    | 8-729-117-54 | TRANSISTOR 2SA1175                                 |
| Q396    | 8-729-178-54 | TRANSISTOR 2SC2785                                 |
| Q397    | 8-729-900-61 | TRANSISTOR DTA114ES                                |
| Q398    | 8-729-117-54 | TRANSISTOR 2SA1175                                 |
| Q399    | 8-729-178-54 | TRANSISTOR 2SC2785                                 |
| Q400    | 8-729-200-56 | TRANSISTOR 2SK241-GR                               |
| Q401    | 8-729-200-55 | TRANSISTOR 2SK241-Y                                |
| Q402    | 8-729-200-56 | TRANSISTOR 2SK241-GR                               |
| Q410    | 8-729-178-54 | TRANSISTOR 2SC2785                                 |
| Q411    | 8-729-901-57 | TRANSISTOR DTC143XS                                |
| Q500    | 8-729-200-56 | TRANSISTOR 2SK241-GR                               |
| Q501    | 8-729-200-55 | TRANSISTOR 2SK241-Y                                |
| Q502    | 8-729-200-56 | TRANSISTOR 2SK241-GR                               |
| Q651    | 8-729-177-43 | TRANSISTOR 2SD774                                  |
| Q801    | 8-729-900-80 | TRANSISTOR DTC114ES                                |
| Q802    | 8-729-900-80 | TRANSISTOR DTC114ES                                |
| Q803    | 8-729-900-80 | TRANSISTOR DTC114ES                                |
| Q804    | 8-729-900-80 | TRANSISTOR DTC114ES                                |
| Q805    | 8-729-900-80 | TRANSISTOR DTC114ES                                |
| Q806    | 8-729-900-80 | TRANSISTOR DTC114ES                                |
| Q902    | 8-729-178-54 | TRANSISTOR 2SC2785                                 |
| Q903    | 8-729-178-54 | TRANSISTOR 2SC2785                                 |
| Q920    | 8-729-113-82 | TRANSISTOR 2SA1138                                 |
| Q921    | 8-729-167-62 | TRANSISTOR 2SC2676                                 |
| Q922    | 8-729-107-53 | TRANSISTOR 2SC2275-A                               |

# CDP-502ESII/552ESDII/620ESII/650ESDII

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description |          |    |      |
|---------|--------------|-------------|----------|----|------|
| Q923    | 8-729-167-62 | TRANSISTOR  | 2SC2676  |    |      |
| Q930    | 8-729-167-62 | TRANSISTOR  | 2SC2676  |    |      |
| Q931    | 8-729-113-82 | TRANSISTOR  | 2SA1138  |    |      |
| Q932    | 8-729-118-53 | TRANSISTOR  | 2SA985-P |    |      |
| Q933    | 8-729-113-82 | TRANSISTOR  | 2SA1138  |    |      |
| Q941    | 8-729-103-43 | TRANSISTOR  | 2SB734   |    |      |
| R151    | 1-249-417-11 | CARBON      | 1K       | 5% | 1/6W |
| R152    | 1-249-417-11 | CARBON      | 1K       | 5% | 1/6W |
| R153    | 1-249-417-11 | CARBON      | 1K       | 5% | 1/6W |
| R154    | 1-249-417-11 | CARBON      | 1K       | 5% | 1/6W |
| R155    | 1-249-417-11 | CARBON      | 1K       | 5% | 1/6W |
| R156    | 1-249-417-11 | CARBON      | 1K       | 5% | 1/6W |
| R157    | 1-247-887-00 | CARBON      | 220K     | 5% | 1/6W |
| R158    | 1-247-887-00 | CARBON      | 220K     | 5% | 1/6W |
| R159    | 1-247-887-00 | CARBON      | 220K     | 5% | 1/6W |
| R160    | 1-247-887-00 | CARBON      | 220K     | 5% | 1/6W |
| R201    | 1-249-433-11 | CARBON      | 22K      | 5% | 1/6W |
| R202    | 1-247-851-00 | CARBON      | 6.8K     | 5% | 1/6W |
| R203    | 1-249-435-11 | CARBON      | 33K      | 5% | 1/6W |
| R204    | 1-249-425-11 | CARBON      | 4.7K     | 5% | 1/6W |
| R205    | 1-247-819-00 | CARBON      | 330      | 5% | 1/6W |
| R206    | 1-249-434-11 | CARBON      | 27K      | 5% | 1/6W |
| R207    | 1-249-405-11 | CARBON      | 100      | 5% | 1/6W |
| R208    | 1-247-851-00 | CARBON      | 6.8K     | 5% | 1/6W |
| R209    | 1-247-864-00 | CARBON      | 24K      | 5% | 1/6W |
| R210    | 1-247-851-00 | CARBON      | 6.8K     | 5% | 1/6W |
| R211    | 1-249-417-11 | CARBON      | 1K       | 5% | 1/6W |
| R212    | 1-247-859-00 | CARBON      | 15K      | 5% | 1/6W |
| R213    | 1-249-429-11 | CARBON      | 10K      | 5% | 1/6W |
| R214    | 1-249-420-11 | CARBON      | 1.8K     | 5% | 1/6W |
| R215    | 1-249-441-11 | CARBON      | 100K     | 5% | 1/6W |
| R216    | 1-247-869-00 | CARBON      | 39K      | 5% | 1/6W |
| R217    | 1-249-429-11 | CARBON      | 10K      | 5% | 1/6W |
| R218    | 1-247-903-00 | CARBON      | 1M       | 5% | 1/6W |
| R219    | 1-249-417-11 | CARBON      | 1K       | 5% | 1/6W |
| R220    | 1-249-405-11 | CARBON      | 100      | 5% | 1/6W |
| R221    | 1-249-433-11 | CARBON      | 22K      | 5% | 1/6W |
| R222    | 1-247-857-00 | CARBON      | 12K      | 5% | 1/6W |
| R223    | 1-249-422-11 | CARBON      | 2.7K     | 5% | 1/6W |
| R224    | 1-247-869-00 | CARBON      | 39K      | 5% | 1/6W |
| R225    | 1-249-423-11 | CARBON      | 3.3K     | 5% | 1/6W |
| R226    | 1-247-859-00 | CARBON      | 15K      | 5% | 1/6W |
| R227    | 1-247-845-00 | CARBON      | 3.9K     | 5% | 1/6W |
| R228    | 1-247-815-00 | CARBON      | 220      | 5% | 1/6W |
| R229    | 1-249-434-11 | CARBON      | 27K      | 5% | 1/6W |
| R230    | 1-249-435-11 | CARBON      | 33K      | 5% | 1/6W |
| R231    | 1-247-883-00 | CARBON      | 150K     | 5% | 1/6W |
| R232    | 1-247-899-00 | CARBON      | 680K     | 5% | 1/6W |
| R234    | 1-247-895-00 | CARBON      | 470K     | 5% | 1/6W |
| R236    | 1-249-429-11 | CARBON      | 10K      | 5% | 1/6W |
| R237    | 1-247-895-00 | CARBON      | 470K     | 5% | 1/6W |
| R242    | 1-249-429-11 | CARBON      | 10K      | 5% | 1/6W |
| R243    | 1-247-895-00 | CARBON      | 470K     | 5% | 1/6W |
| R244    | 1-247-859-00 | CARBON      | 15K      | 5% | 1/6W |
| R245    | 1-249-429-11 | CARBON      | 10K      | 5% | 1/6W |
| R246    | 1-249-417-11 | CARBON      | 1K       | 5% | 1/6W |
| R301    | 1-249-425-11 | CARBON      | 4.7K     | 5% | 1/6W |
| R302    | 1-249-422-11 | CARBON      | 2.7K     | 5% | 1/6W |
| R303    | 1-215-453-00 | METAL       | 22K      | 1% | 1/6W |

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description                |      |    |      |
|---------|--------------|----------------------------|------|----|------|
| R304    | 1-215-453-00 | METAL                      | 22K  | 1% | 1/6W |
| R305    | 1-247-851-00 | CARBON                     | 6.8K | 5% | 1/6W |
| R306    | 1-247-857-00 | CARBON                     | 12K  | 5% | 1/6W |
| R307    | 1-249-435-11 | CARBON                     | 33K  | 5% | 1/6W |
| R308    | 1-249-417-11 | CARBON                     | 1K   | 5% | 1/6W |
| R309    | 1-249-441-11 | CARBON                     | 100K | 5% | 1/6W |
| R310    | 1-249-441-11 | CARBON                     | 100K | 5% | 1/6W |
| R311    | 1-249-441-11 | CARBON                     | 100K | 5% | 1/6W |
| R322    | 1-249-429-11 | CARBON                     | 10K  | 5% | 1/6W |
| R324    | 1-249-429-11 | CARBON                     | 10K  | 5% | 1/6W |
| R325    | 1-249-433-11 | CARBON                     | 22K  | 5% | 1/6W |
| R330    | 1-247-903-00 | CARBON                     | 1M   | 5% | 1/6W |
| R331    | 1-247-903-00 | CARBON                     | 1M   | 5% | 1/6W |
| R332    | 1-249-429-11 | CARBON                     | 10K  | 5% | 1/6W |
| R333    | 1-247-700-11 | CARBON                     | 100  | 5% | 1/4W |
| R334    | 1-249-429-11 | CARBON                     | 10K  | 5% | 1/6W |
| R340    | 1-247-903-00 | CARBON                     | 1M   | 5% | 1/6W |
| R341    | 1-249-417-11 | CARBON                     | 1K   | 5% | 1/6W |
| R351    | 1-215-441-00 | METAL                      | 6.8K | 1% | 1/6W |
| R352    | 1-215-441-00 | METAL                      | 6.8K | 1% | 1/6W |
| R353    | 1-247-903-00 | CARBON                     | 1M   | 5% | 1/6W |
| R354    | 1-247-856-00 | CARBON                     | 11K  | 5% | 1/6W |
| R355    | 1-247-856-00 | CARBON                     | 11K  | 5% | 1/6W |
| R357    | 1-249-433-11 | CARBON                     | 22K  | 5% | 1/6W |
| R358    | 1-249-423-11 | CARBON                     | 3.3K | 5% | 1/6W |
| R359    | 1-247-869-00 | CARBON                     | 39K  | 5% | 1/6W |
| R360    | 1-215-453-00 | METAL                      | 22K  | 1% | 1/6W |
| R363    | 1-247-887-00 | CARBON                     | 220K | 5% | 1/6W |
| R367    | 1-215-449-00 | METAL                      | 15K  | 1% | 1/6W |
| R368    | 1-249-433-11 | CARBON                     | 22K  | 5% | 1/6W |
| R369    | 1-249-433-11 | CARBON                     | 22K  | 5% | 1/6W |
| R380    | 1-249-417-11 | (552ESD2/650ESD2)...CARBON | 1K   | 5% | 1/6W |
| R381    | 1-249-417-11 | (552ESD2/650ESD2)...CARBON | 1K   | 5% | 1/6W |
| R393    | 1-249-405-11 | CARBON                     | 100  | 5% | 1/6W |
| R394    | 1-247-857-00 | CARBON                     | 12K  | 5% | 1/6W |
| R395    | 1-249-429-11 | CARBON                     | 10K  | 5% | 1/6W |
| R396    | 1-249-441-11 | CARBON                     | 100K | 5% | 1/6W |
| R397    | 1-249-441-11 | CARBON                     | 100K | 5% | 1/6W |
| R398    | 1-249-429-11 | CARBON                     | 10K  | 5% | 1/6W |
| R399    | 1-249-429-11 | CARBON                     | 10K  | 5% | 1/6W |
| R400    | 1-249-833-11 | CARBON                     | 20K  | 1% | 1/2W |
| R401    | 1-249-815-11 | CARBON                     | 3.6K | 1% | 1/2W |
| R402    | 1-249-850-11 | CARBON                     | 100K | 1% | 1/2W |
| R403    | 1-249-808-11 | CARBON                     | 1.8K | 1% | 1/2W |
| R404    | 1-247-145-00 | CARBON                     | 3.9K | 1% | 1/4W |
| R405    | 1-249-930-11 | CARBON                     | 2K   | 1% | 1/4W |
| R406    | 1-249-928-11 | CARBON                     | 1.6K | 1% | 1/4W |
| R407    | 1-249-816-11 | CARBON                     | 3.9K | 1% | 1/2W |
| R408    | 1-247-144-00 | CARBON                     | 3.6K | 1% | 1/4W |
| R409    | 1-249-930-11 | CARBON                     | 2K   | 1% | 1/4W |
| R410    | 1-249-930-11 | CARBON                     | 2K   | 1% | 1/4W |
| R411    | 1-249-816-11 | CARBON                     | 3.9K | 1% | 1/2W |
| R412    | 1-247-145-00 | CARBON                     | 3.9K | 1% | 1/4W |
| R413    | 1-249-930-11 | CARBON                     | 2K   | 1% | 1/4W |
| R414    | 1-249-928-11 | CARBON                     | 1.6K | 1% | 1/4W |
| R415    | 1-249-808-11 | CARBON                     | 1.8K | 1% | 1/2W |
| R416    | 1-249-844-11 | CARBON                     | 56K  | 1% | 1/2W |
| R417    | 1-249-844-11 | CARBON                     | 56K  | 1% | 1/2W |

# CDP-502ESII/552ESDII/620ESII/650ESDII

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description |      |    |      |
|---------|--------------|-------------|------|----|------|
| R418    | 1-249-808-11 | CARBON      | 1.8K | 1% | 1/2W |
| R419    | 1-249-786-11 | CARBON      | 220  | 1% | 1/2W |
| R420    | 1-249-818-11 | CARBON      | 4.7K | 1% | 1/2W |
| R421    | 1-247-725-11 | CARBON      | 470K |    | 1/4W |
| R422    | 1-247-739-11 | CARBON      | 100  |    | 1/2W |
| R423    | 1-249-732-11 | CARBON      | 300K |    | 1/2W |
| R424    | 1-247-704-11 | CARBON      | 220  |    | 1/4W |
| R430    | 1-249-497-11 | CARBON      | 33K  |    | 1/4W |
| R431    | 1-249-586-11 | CARBON      | 27K  |    | 1/4W |
| R432    | 1-247-721-11 | CARBON      | 4.7K |    | 1/4W |
| R433    | 1-249-590-11 | CARBON      | 39K  |    | 1/4W |
| R434    | 1-247-700-11 | CARBON      | 100  |    | 1/4W |
| R436    | 1-259-024-11 | CARBON      | 910  | 1% | 1/2W |
| R437    | 1-249-441-11 | CARBON      | 100K | 5% | 1/6W |
| R441    | 1-249-429-11 | CARBON      | 10K  | 5% | 1/6W |
| R442    | 1-249-429-11 | CARBON      | 10K  | 5% | 1/6W |
| R443    | 1-247-700-11 | CARBON      | 100  |    | 1/4W |
| R444    | 1-247-700-11 | CARBON      | 100  |    | 1/4W |
| R445    | 1-247-845-00 | CARBON      | 3.9K | 5% | 1/6W |
| R456    | 1-249-417-11 | CARBON      | 1K   | 5% | 1/6W |
| R457    | 1-247-823-00 | CARBON      | 470  | 5% | 1/6W |
| R500    | 1-249-833-11 | CARBON      | 20K  | 1% | 1/2W |
| R501    | 1-249-815-11 | CARBON      | 3.6K | 1% | 1/2W |
| R502    | 1-249-850-11 | CARBON      | 100K | 1% | 1/2W |
| R503    | 1-249-808-11 | CARBON      | 1.8K | 1% | 1/2W |
| R504    | 1-247-145-00 | CARBON      | 3.9K | 1% | 1/4W |
| R505    | 1-249-930-11 | CARBON      | 2K   | 1% | 1/4W |
| R506    | 1-249-928-11 | CARBON      | 1.6K | 1% | 1/4W |
| R507    | 1-249-816-11 | CARBON      | 3.9K | 1% | 1/2W |
| R508    | 1-247-144-00 | CARBON      | 3.6K | 1% | 1/4W |
| R509    | 1-249-930-11 | CARBON      | 2K   | 1% | 1/4W |
| R510    | 1-249-930-11 | CARBON      | 2K   | 1% | 1/4W |
| R511    | 1-249-816-11 | CARBON      | 3.9K | 1% | 1/2W |
| R512    | 1-247-145-00 | CARBON      | 3.9K | 1% | 1/4W |
| R513    | 1-249-930-11 | CARBON      | 2K   | 1% | 1/4W |
| R514    | 1-249-928-11 | CARBON      | 1.6K | 1% | 1/4W |
| R515    | 1-249-808-11 | CARBON      | 1.8K | 1% | 1/2W |
| R516    | 1-249-844-11 | CARBON      | 56K  | 1% | 1/2W |
| R517    | 1-249-844-11 | CARBON      | 56K  | 1% | 1/2W |
| R518    | 1-249-808-11 | CARBON      | 1.8K | 1% | 1/2W |
| R519    | 1-249-786-11 | CARBON      | 220  | 1% | 1/2W |
| R520    | 1-249-818-11 | CARBON      | 4.7K | 1% | 1/2W |
| R521    | 1-247-725-11 | CARBON      | 470K |    | 1/4W |
| R522    | 1-247-739-11 | CARBON      | 100  |    | 1/2W |
| R523    | 1-249-732-11 | CARBON      | 300K |    | 1/2W |
| R524    | 1-247-704-11 | CARBON      | 220  |    | 1/4W |
| R530    | 1-249-497-11 | CARBON      | 33K  |    | 1/4W |
| R531    | 1-249-586-11 | CARBON      | 27K  |    | 1/4W |
| R532    | 1-247-721-11 | CARBON      | 4.7K |    | 1/4W |
| R533    | 1-249-590-11 | CARBON      | 39K  |    | 1/4W |
| R534    | 1-247-700-11 | CARBON      | 100  |    | 1/4W |
| R536    | 1-259-024-11 | CARBON      | 910  | 1% | 1/2W |
| R537    | 1-249-441-11 | CARBON      | 100K | 5% | 1/6W |
| R601    | 1-247-881-00 | CARBON      | 120K | 5% | 1/6W |
| R602    | 1-247-881-00 | CARBON      | 120K | 5% | 1/6W |
| R603    | 1-247-885-00 | CARBON      | 180K | 5% | 1/6W |
| R604    | 1-247-885-00 | CARBON      | 180K | 5% | 1/6W |
| R605    | 1-247-815-00 | CARBON      | 220  | 5% | 1/6W |

## ELECTRICAL PARTS

| Ref.No. | Part No.       | Description                    |         |    |            |
|---------|----------------|--------------------------------|---------|----|------------|
| R651    | 1-249-417-11   | CARBON                         | 1K      | 5% | 1/6W       |
| R652    | 1-249-417-11   | CARBON                         | 1K      | 5% | 1/6W       |
| R801    | 1-247-815-00   | CARBON                         | 220     | 5% | 1/6W       |
| R802    | 1-247-903-00   | CARBON                         | 1M      | 5% | 1/6W       |
| R803    | 1-247-903-00   | CARBON                         | 1M      | 5% | 1/6W       |
| R804    | 1-249-423-11   | CARBON                         | 3.3K    | 5% | 1/6W       |
| R805    | 1-249-433-11   | CARBON                         | 22K     | 5% | 1/6W       |
| R806    | 1-249-433-11   | CARBON                         | 22K     | 5% | 1/6W       |
| R807    | 1-249-433-11   | CARBON                         | 22K     | 5% | 1/6W       |
| R808    | 1-247-811-00   | CARBON                         | 150     | 5% | 1/6W       |
| R809    | 1-249-441-11   | CARBON                         | 100K    | 5% | 1/6W       |
| R900    | 1-249-661-11   | CARBON                         | 330     |    | 1/2W       |
| R901    | 1-247-173-00   | CARBON                         | 56K     |    | 1/4W       |
| R902    | 1-247-710-11   | CARBON                         | 560     |    | 1/4W       |
| R903    | 1-247-719-11   | CARBON                         | 3.3K    |    | 1/4W       |
| R904    | 1-259-024-11   | CARBON                         | 910     | 1% | 1/2W       |
| R905    | 1-259-023-11   | CARBON                         | 1.2K    | 1% | 1/2W       |
| R906    | △ 1-212-976-00 | FUSIBLE                        | 56      | 5% | 1/2W F     |
| R908    | △ 1-212-936-00 | FUSIBLE                        | 1.2     | 5% | 1/2W F     |
| R910    | 1-249-661-11   | CARBON                         | 330     |    | 1/2W       |
| R911    | 1-247-173-00   | CARBON                         | 56K     |    | 1/4W       |
| R912    | 1-247-710-11   | CARBON                         | 560     |    | 1/4W       |
| R913    | 1-247-719-11   | CARBON                         | 3.3K    |    | 1/4W       |
| R914    | 1-259-024-11   | CARBON                         | 910     | 1% | 1/2W       |
| R915    | 1-259-023-11   | CARBON                         | 1.2K    | 1% | 1/2W       |
| R916    | 1-249-643-11   | CARBON                         | 56      |    | 1/2W       |
| R920    | △ 1-212-966-00 | FUSIBLE                        | 22      | 5% | 1/2W F     |
| R921    | 1-249-419-11   | CARBON                         | 1.5K    | 5% | 1/6W       |
| R930    | △ 1-212-936-00 | FUSIBLE                        | 1.2     | 5% | 1/2W F     |
| R931    | △ 1-212-936-00 | FUSIBLE                        | 1.2     | 5% | 1/2W F     |
| R956    | △ 1-212-976-00 | FUSIBLE                        | 56      | 5% | 1/2W F     |
| R958    | △ 1-212-936-00 | FUSIBLE                        | 1.2     | 5% | 1/2W F     |
| R961    | 1-249-429-11   | CARBON                         | 10K     | 5% | 1/6W       |
| R962    | 1-249-435-11   | CARBON                         | 33K     | 5% | 1/6W       |
| R963    | 1-247-881-00   | CARBON                         | 120K    | 5% | 1/6W       |
| R964    | 1-249-429-11   | CARBON                         | 10K     | 5% | 1/6W       |
| R991    | △ 1-217-383-00 | FUSIBLE                        | 4.7     | 5% | 1/4W F     |
| RV201   | 1-230-524-11   | RES, ADJ, METAL GLAZE          | 22K     |    |            |
| RV202   | 1-230-523-11   | RES, ADJ, METAL GLAZE          | 10K     |    |            |
| RV301   | 1-230-522-11   | RES, ADJ, METAL GLAZE          | 4.7K    |    |            |
| RV400   | 1-237-081-11   | RES, VAR, CARBON               | 10K/10K |    | (LINE OUT) |
| RV500   | 1-237-081-11   | RES, VAR, CARBON               | 10K/10K |    | (LINE OUT) |
| RY400   | 1-515-547-11   | RELAY                          |         |    |            |
| RY401   | 1-515-547-11   | RELAY                          |         |    |            |
| RY402   | 1-515-519-00   | RELAY                          |         |    |            |
| S301    | 1-570-100-11   | (552ESD2/650ESD2)              |         |    |            |
|         |                | ...SWITCH, SLIDE (DIGITAL OUT) |         |    |            |
| S302    | 1-554-421-00   | SWITCH, SLIDE (TIMER)          |         |    |            |
| S651    | 1-554-205-00   | SWITCH, PUSH (LOAD IN DET)     |         |    |            |
| S652    | 1-554-205-00   | SWITCH, PUSH (LOAD OUT DET)    |         |    |            |
| S653    | 1-553-636-00   | SWITCH, MICRO (MOTOR SELECT)   |         |    |            |
| S654    | 1-570-447-11   | SWITCH, MICRO (CHUCKING)       |         |    |            |
| S801    | 1-554-303-21   | SWITCH, KEY BOARD (1)          |         |    |            |
| S802    | 1-554-303-21   | SWITCH, KEY BOARD (2)          |         |    |            |
| S803    | 1-554-303-21   | SWITCH, KEY BOARD (3)          |         |    |            |
| S804    | 1-554-303-21   | SWITCH, KEY BOARD (4)          |         |    |            |
| S805    | 1-554-303-21   | SWITCH, KEY BOARD (5)          |         |    |            |

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

# CDP-502ESII/552ESDII/620ESII/650ESDII

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description                                       |
|---------|--------------|---|
| S806    | 1-554-303-21 | SWITCH, KEY BOARD (6)                             |
| S807    | 1-554-303-21 | SWITCH, KEY BOARD (7)                             |
| S808    | 1-554-303-21 | SWITCH, KEY BOARD (8)                             |
| S809    | 1-554-303-21 | SWITCH, KEY BOARD (9)                             |
| S810    | 1-554-303-21 | SWITCH, KEY BOARD (10)                            |
| S811    | 1-554-303-21 | SWITCH, KEY BOARD (11)                            |
| S812    | 1-554-303-21 | SWITCH, KEY BOARD (12)                            |
| S813    | 1-554-303-21 | SWITCH, KEY BOARD (13)                            |
| S814    | 1-554-303-21 | SWITCH, KEY BOARD (14)                            |
| S815    | 1-554-303-21 | SWITCH, KEY BOARD (15)                            |
| S816    | 1-554-303-21 | SWITCH, KEY BOARD (16)                            |
| S817    | 1-554-303-21 | SWITCH, KEY BOARD (17)                            |
| S818    | 1-554-303-21 | SWITCH, KEY BOARD (18)                            |
| S819    | 1-554-303-21 | SWITCH, KEY BOARD (19)                            |
| S820    | 1-554-303-21 | SWITCH, KEY BOARD (20)                            |
| S821    | 1-554-303-21 | SWITCH, KEY BOARD (+10)                           |
| S823    | 1-554-303-21 | SWITCH, KEY BOARD (0)                             |
| S825    | 1-554-303-21 | SWITCH, KEY BOARD (CLEAR)                         |
| S827    | 1-570-101-61 | SWITCH, KEY BOARD (PROGRAM)(WITH LED)             |
| S829    | 1-554-303-21 | SWITCH, KEY BOARD (CHECK)                         |
| S830    | 1-554-303-21 | SWITCH, KEY BOARD (▶)                             |
| S831    | 1-554-303-21 | SWITCH, KEY BOARD (■)                             |
| S832    | 1-554-303-21 | SWITCH, KEY BOARD (■)                             |
| S833    | 1-570-101-71 | SWITCH, KEY BOARD (CONTINUE)(WITH LED)            |
| S834    | 1-570-101-21 | SWITCH, KEY BOARD (SINGLE)(WITH LED)              |
| S836    | 1-554-303-21 | SWITCH, KEY BOARD (◀◀)                            |
| S837    | 1-554-303-21 | SWITCH, KEY BOARD (▶▶)                            |
| S838    | 1-554-303-21 | SWITCH, KEY BOARD (←)                             |
| S839    | 1-554-303-21 | SWITCH, KEY BOARD (→)                             |
| S840    | 1-554-303-21 | SWITCH, KEY BOARD (◀◀)                            |
| S841    | 1-554-303-21 | (KEY BOARD SW BOARD)<br>...SWITCH, KEY BOARD (▶▶) |
| S841    | 1-554-303-21 | (DISPLAY BOARD)<br>...SWITCH, KEY BOARD (REPEAT)  |
| S842    | 1-554-303-21 | SWITCH, KEY BOARD (CLEAR A<->B)                   |
| S843    | 1-554-303-21 | SWITCH, KEY BOARD (TIME)                          |
| S844    | 1-554-303-21 | SWITCH, KEY BOARD (AUTO DELAY)                    |
| S845    | 1-554-303-21 | SWITCH, KEY BOARD (SHUFFLE PLAY)                  |
| S846    | 1-554-303-21 | SWITCH, KEY BOARD (OPEN/CLOSE)                    |
| S990 A  | 1-553-318-00 | SWITCH, PUSH (POWER)                              |
| SE51    | 1-422-198-11 | COIL (SENSOR)                                     |
| X301    | 1-567-539-11 | VIBRATOR, CRYSTAL, 16.9344MHZ                     |
| X302    | 1-567-170-00 | OSCILLATOR, CERAMIC, 4.194MHZ                     |
| X801    | 1-567-192-11 | OSCILLATOR, CERAMIC, 4MHZ                         |
| X802    | 1-527-532-31 | OSCILLATOR, CERAMIC, 400KHZ                       |
| VS901 A | 1-552-963-00 | (E)...SWITCH, POWER VOLATGE SELECT                |

## ACCESSORY & PACKING MATERIAL

| Part No.      | Description                              |
|---------------|--|
| 1-463-681-11  | REMOTE COMMANDER (RM-D502)               |
| 1-526-565-00  | (E)...AC PLUG ADAPTOR                    |
| 1-558-271-11  | CORD, CONNECTION                         |
| 3-536-825-00  | (E)...BAG, PROTECTING                    |
| 3-701-630-00  | BAG, POLYETHYLENE                        |
| 3-703-390-01  | (US)...INSTRUCTION                       |
| *3-795-629-11 | (AEP)...INSTRUCTION                      |
| 3-760-857-11  | (552ESD2)...MANUAL, INSTRUCTION          |
| 3-760-857-21  | (650ESD2)...MANUAL, INSTRUCTION          |
| 3-760-857-31  | (650ESD2:Canadian)...MANUAL, INSTRUCTION |
| 3-760-857-41  | (552ESD2:AEP).....MANUAL, INSTRUCTION    |
| 3-765-122-11  | (502ES2)...MANUAL, INSTRUCTION           |
| 3-765-122-21  | (620ES2)...MANUAL, INSTRUCTION           |
| 3-765-122-31  | (620ES2:Canadian)...MANUAL, INSTRUCTION  |
| 3-765-122-41  | (502ES2:AEP).....MANUAL, INSTRUCTION     |
| 4-908-441-01  | CUSHION (RIGHT), UPPER                   |
| 4-908-442-01  | CUSHION (LEFT), UPPER                    |
| 4-908-443-01  | CUSHION, LOWER                           |
| 4-908-602-01  | HOLDER, COMMANDER                        |
| 4-908-970-01  | SPACER                                   |
| 4-908-994-31  | (552ESD2).....INDIVIDUAL CARTON          |
| 4-908-994-41  | (650ESD2:US).....INDIVIDUAL CARTON       |
| 4-908-994-51  | (650ESD2:Canadian)...INDIVIDUAL CARTON   |
| 4-908-994-61  | (502ES2).....INDIVIDUAL CARTON           |
| 4-908-994-71  | (620ES2:US).....INDIVIDUAL CARTON        |
| 4-908-994-81  | (620ES2:Canadian)...INDIVIDUAL CARTON    |

The components identified by shading and mark A are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque A sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

## TROUBLE CHECKS

The following checks will assist in the correction of most problems which you may encounter with your unit. Should any problem persist after you have made these checks, consult your nearest Sony service facility. Before going through the check list below, first refer back to the connection and operating procedures.

### **Play does not begin**

- The **||** PAUSE button is engaged.
- Moisture condensation (see page 5).
- The disc is inserted with the labeled surface downwards.
- The disc is incorrectly inserted.

### **No audio from one or both channels.**

- Incorrect connections.

### **Play begins as soon as the POWER switch is turned on.**

- The TIMER switch is set at PLAY.

### **The sound volume is too low.**

- The VARIABLE LINE OUT jack is used.