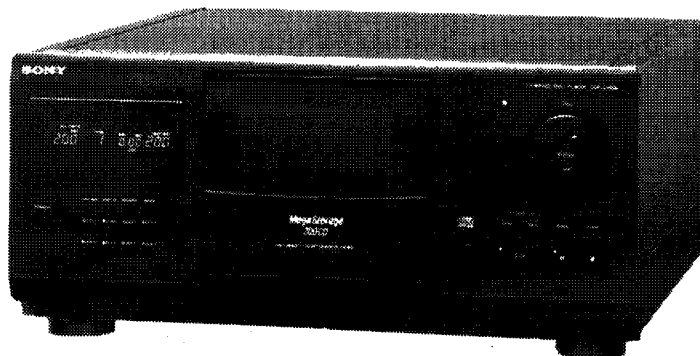


CDP-CX200

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
PX Model



| | |
|------------------------------------|----------------|
| Model Name Using Similar Mechanism | NEW |
| CD Mechanism Type | CDM-40 |
| Base Unit Type | KSM-213BKN/M-N |
| Optical Pick-up Type | KSS-213B/S-N |

SPECIFICATIONS

Compact disc player

| | |
|-----------------------|--|
| Laser | Semiconductor laser ($\lambda = 780 \text{ nm}$) Emission duration: continuous |
| Laser output | Max 44.6 μW^* * This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up block with 7 mm aperture. |
| Frequency response | 20 Hz to 20 kHz $\pm 0.5 \text{ dB}$ |
| Signal-to-noise ratio | More than 100 dB |
| Dynamic range | More than 98 dB |
| Harmonic distortion | Less than 0.0045% |
| Channel separation | More than 95 dB |

Outputs

| | Jack type | Maximum output level | Load impedance |
|----------|-------------|----------------------|-----------------|
| LINE OUT | Phono jacks | 2 V (at 50 kilohms) | Over 10 kilohms |

General

Power requirements

| Where purchased | Power requirements |
|----------------------|---|
| USA, Canada | 120V AC, 60Hz |
| Europe and Singapore | 220V - 230V AC, 50Hz |
| E, PX | 110 - 120 V or 220 - 240 V AC, adjustable, 50/60 Hz |
| Australia | 240V AC, 50Hz |

Power consumption 13 W

Dimensions (approx.) (w/h/d)
When the front cover is closed
430 x 200 x 480 mm (17 x 7 7/8 x 19 in.) incl. projecting parts
When the front cover is open
430 x 200 x 600 mm (17 x 7 7/8 x 23 5/8 in.) incl. projecting parts

Mass (approx.) 9.0 kg (19 lbs 14 oz)

Supplied accessories

Audio cord (2 phono plugs - 2 phono plugs) (1)
CONTROL A1 cord (1) (supplied for Canadian models only)
Remote commander (remote) (1)
Sony SUM-3 (NS) batteries (2)
CD booklet holders (2)
Label (1)

Design and specifications are subject to change without notice.



COMPACT DISC PLAYER
SONY®

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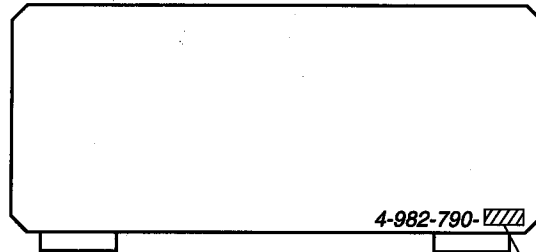
Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

MODEL IDENTIFICATION — BACK PANEL —



| | |
|-------------------|------------------------------|
| US Model | : 0 <input type="checkbox"/> |
| Canadian Model | : 1 <input type="checkbox"/> |
| AEP, German Model | : 2 <input type="checkbox"/> |
| UK Model | : 3 <input type="checkbox"/> |
| E, PX Model | : 4 <input type="checkbox"/> |
| Singapore Model | : 5 <input type="checkbox"/> |
| Austrarian Model | : 6 <input type="checkbox"/> |

CAUTION

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

The laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

| | |
|-----------------|---|
| CAUTION | : INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM. |
| ADVARSEL | : USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING. |
| VARO! | : AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTIINA LASERÄTTELYLLE. |
| VARNING | : LASERSTRÅLING NÅR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URÖPPPLAD. |
| ADVARSEL | : USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNER UNNGÅ EKSPONERING FOR STRÅLEN. |

This caution label is located inside the unit.

For the customers in Canada

CAUTION

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

SECTION 1 SERVICING NOTE

SAFETY CHECK-OUT (US model only)

After correcting the original service problem, perform the following safety checks 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

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)

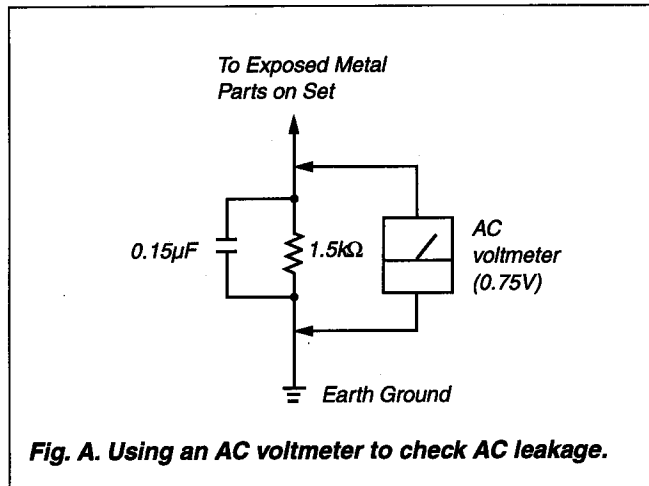


Fig. A. Using an AC voltmeter to check AC leakage.

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

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

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

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the "S curve check" in "CD section adjustment" and check that the S curve waveform is output repeatedly.

SAFETY-RELATED COMPONENT WARNING !!

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

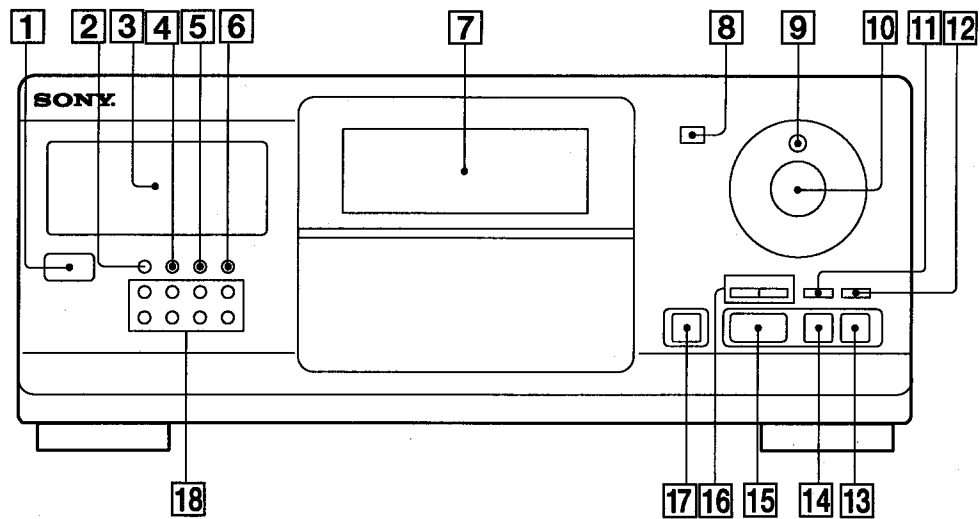
ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE Δ 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.

SECTION 2 GENERAL

LOCATION OF PARTS AND CONTROLS

Front Panel



- 1** POWER button
- 2** CONTINUE button
- 3** Display window
- 4** SHUFFLE button
- 5** PROGRAM button
- 6** REPEAT button
- 7** Front cover
- 8** Remote sensor
- 9** JOG dial
- 10** ENTER button

- 11** CHECK button
- 12** CLEAR button
- 13** ■ (stop) button
- 14** || (pause) button
- 15** ▷ (play) button
- 16** |◀◀ AMS* ▶▶| button
- 17** OPEN button
- 18** BLOCK 1-8 buttons

* AMS is the abbreviation for Automatic Music Sensor.

When to use the COMMAND MODE selector
 The COMMAND MODE selector is set to CD1 at the factory for normal use. You can control this player by connecting to a Sony CD Player with the player control function, via the CONTROL A1 jacks. When making this connection, set the COMMAND MODE selector of each player to the appropriate position according to the connected line input jacks. For details, refer to the instructions supplied with the connected player.



When using another Sony CD player together with this player
 You can make the supplied remote effective only for this player.

- When using the player equipped with the COMMAND MODE selector:

- Set the COMMAND MODE selector of this player to CD1 and that of another player to CD2 or CD3. Then set the CDI/2/3 switch on the remote supplied for each player accordingly.
 - When using the player not equipped with the COMMAND MODE selector:
- The command mode of the player without the COMMAND MODE selector is set to CD1. Set the COMMAND MODE selector of this player to CD2, and set the CDI/2/3 switch on the remote to CD2.

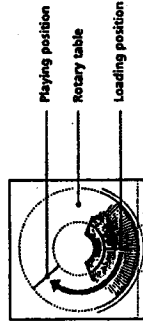
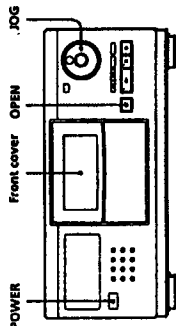
Setting the VOLTAGE SELECTOR (for E, PX models)

Check that the VOLTAGE SELECTOR on the rear panel of the player is set to the local power line voltage. If not, set the selector to the correct position using a screwdriver before connecting the AC power cord to a wall outlet.



Inserting CDs

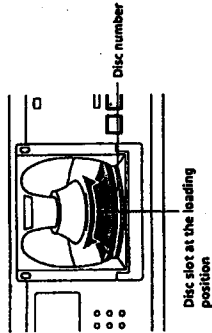
You can insert up to 200 discs into this player.



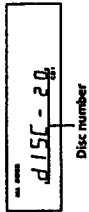
- 1 Press POWER to turn on the player.
- 2 Press OPEN.



- 3 Turn the JOG dial until you find the disc slot where you want to insert a disc, while checking the disc number (written beside every five slots and also indicated in the display).



The disc number at the loading position appears in the display.* As you turn the JOG dial, the disc number changes.



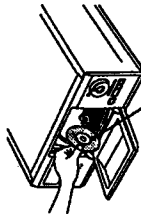
You can arrange your discs into groups and play them within a certain group using the Block Play function. When using this function, you have to insert discs into the slots assigned to one of the eight groups. For details, see "Playing Discs in a Group" on page 15.

- If you have already inserted discs, the disc number at the playing position appears. When you turn the JOG dial, the displayed disc number changes to the one at the loading position.

- 4 Insert a disc with the label side facing right.

Notes

- Make sure you have inserted the disc into each slot at a right angle to the rotary table. If the disc is not put in straight, it may damage the player or the disc.
- Make sure the rotary table comes to a complete stop before inserting or removing discs.

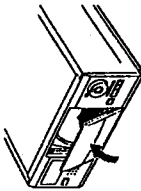


With the label side facing right

- 5 Repeat Steps 3 and 4 to insert more discs.

This section is extracted from instruction manual.

- 6 Close the front cover by pressing the right edge of the cover until it clicks.



The rotary table turns and the disc slot at the loading position is set to the playing position. Always close the front cover except when you insert or remove discs.

- The supplied CD booklet holders help you locate a disc.

You can store up to 200 CD booklets. Insert booklets and stick the number labeled on the film of a pocket and the booklet so that you can locate the disc easily.

Notes

- When you insert an 8 cm (3-inch) CD, be sure to attach a Sony CSA-8 adaptor (not supplied) to the disc. Do not insert an empty 8 cm (3-inch) CD adaptor (CSA-8). It may damage the player.
- Do not attach anything such as seals or sleeves to CDs. It may damage the player or the disc.
- If you drop a disc into the player and the CD won't go into the slot correctly, consult your nearest Sony dealer.
- When transporting the player, remove all discs from the player.

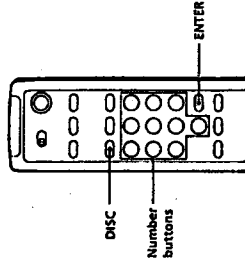
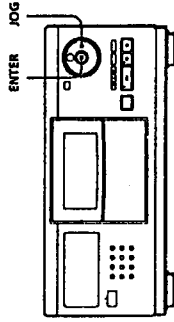
Removing CDs

After following Steps 1 to 3 of "Inserting CDs" on page 6, remove the discs. Then close the front cover.

Note

The disc being played does not come to the loading position if you open the front cover during playback. (The disc number flashes in the display.)
If you want to remove the disc being played, press ENTER in the center of the JOG dial after opening the front cover. The disc comes to the loading position. Remove the disc after the rotary table comes to a complete stop.

Locating a Specific Disc



Selecting a disc on the player

Turn the JOG dial until the disc number you want appears in the display. Press ENTER to start play.

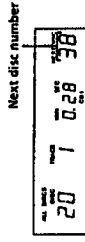
Selecting a disc directly using the remote

- 1 Press DISC.
- 2 Press the number button of the disc.
Example: To enter number 35
Press 3, then 5.
To enter number 100
Press 1, then 0 twice.
- 3 Press ENTER to start play.

Specifying the Next Disc to Play

You can specify the next disc to play while playing a disc in Continuous or 1 DISC Shuffle Play mode.

While playing a disc, turn the JOG dial until the disc number you want appears in the display.

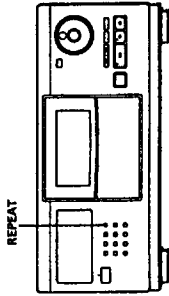


After the current disc is played, the next disc you have specified starts playing.
If you want to skip to the next disc right away, press ENTER while playing the current disc.

To cancel the disc you have specified Press CONTINUE twice.

Playing Repeatedly

You can play discs/tracks repeatedly in any play mode.



Press REPEAT while playing a disc. "REPEAT" appears in the display. The player repeats the disc/tracks as follows:

| When the disc is played in | The player repeats |
|------------------------------------|--|
| ALL DISCS Continuous Play (page 8) | All tracks on all discs |
| 1 DISC Continuous Play (page 8) | All tracks on the current disc |
| ALL DISCS Shuffle Play (page 12) | The player does not repeat discs/tracks but keeps shuffling until you stop play whether or not you press REPEAT. |
| 1 DISC Shuffle Play (page 12) | All tracks on the current disc in random order |
| Program Play (page 13) | The same program |

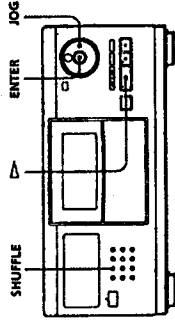
To cancel Repeat Play
Press REPEAT repeatedly until "REPEAT" disappears from the display.

Repeating the current track

You can repeat only the current track.
While the track you want is being played, press REPEAT repeatedly until "REPEAT 1" appears in the display.

Playing in Random Order (Shuffle Play)

You can have the player "shuffle" the tracks and play in random order. The player shuffles all the tracks on all discs or on the disc you specified.



1 Press SHUFFLE to select ALL DISCS or 1 DISC Shuffle Play mode. Each time you press SHUFFLE, "ALL DISCS" or "1 DISC" appears in the display.

| When you select | The player plays |
|-----------------|--|
| ALL DISCS | All tracks on all discs in random order. The player keeps shuffling tracks until you stop play.* |
| 1 DISC | All tracks on the specific disc in random order |

* The player may play the same track more than once.

2 When you want to specify the disc for 1 DISC Shuffle Play, turn the JOG dial until the disc number you want appears in the display.

3 Press ENTER or ▷. ALL DISCS or 1 DISC Shuffle Play starts. "CJ" appears in the display while the player is "shuffling" the discs or the tracks.

To cancel Shuffle Play
Press CONTINUE.

You can start Shuffle Play while playing
Press SHUFFLE, and Shuffle Play starts from the current track.

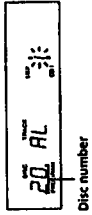
You can directly select a disc for 1 DISC Shuffle Play
See "Selecting a disc directly using the remote" on page 10.

You can go to the next disc during 1 DISC Shuffle Play
Press DISC SKIP ←.

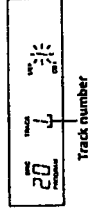
You can specify the next disc to play during 1 DISC Shuffle Play
Turn the JOG dial to specify the next disc. After all the tracks on the current disc are played in random order, the next disc starts playing. If you want to skip to the next disc right away, press ENTER while playing the current disc.

Note
You cannot specify the next disc to play during ALL DISCS Shuffle Play.

2 Turn the JOG dial until the disc number you want appears in the display.

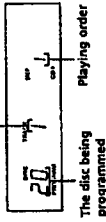


3 To program a whole disc, skip this step. Press ←/→ until the track number you want appears in the display.



4 Press ENTER or PROGRAM.

The track being programmed



The disc being programmed

5 To program other discs/tracks, do the following:

| To program | Repeat Steps |
|-------------------------------|--------------|
| Other discs | 2 and 4 |
| Other tracks on the same disc | 3 and 4 |
| Other tracks on other discs | 2 to 4 |

6 Press ▷ to start Program Play.

To cancel Program Play
Press CONTINUE.

The program remains even after Program Play ends
When you press ▷, you can play the same program again.

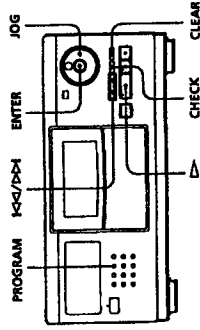
When you press PROGRAM during Continuous or Shuffle Play
The program will be played after the current track.

The program remains until you erase them
If you replace discs, the programmed disc and track numbers remain. So, the player plays only the existing disc and track numbers. However, the disc and track numbers that are not found in the player or on the disc are deleted from the program, and the rest of the program is played in the programmed order.

Creating Your Own Program (Program Play)

You can arrange the order of the tracks and/or discs to create your own program and the program is stored automatically. A program can contain up to 32 "steps" — one "step" may contain a track or a whole disc. You can make a program using the controls on the remote as well as ones on the player. However, the programming procedures are different.

Creating a program on the player



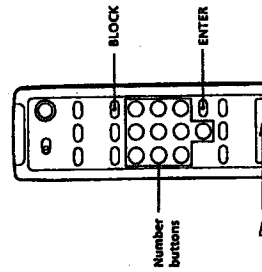
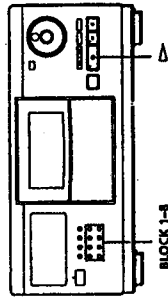
1 Press PROGRAM.
If a program is already stored, the last step of the program appears in the display. When you want to erase the whole program, hold down CLEAR until "All Cl" appears in the display (see page 14).

Playing Discs in a Group (Block Play)

You can classify discs in advance by artist, category, etc. when inserting discs into the slots, and play them only within the group (called "block") you specified. The player has eight blocks, and each slot is assigned to one of the blocks as shown below.

| Block number | Disc slot |
|--------------|-----------|
| 1 | 1-25 |
| 2 | 26-50 |
| 3 | 51-75 |
| 4 | 76-100 |
| 5 | 101-125 |
| 6 | 126-150 |
| 7 | 151-175 |
| 8 | 176-200 |

You can enjoy Continuous, Shuffle or Repeat Play within a certain block.



1 Insert discs into the slot of the block you want, referring to the table above. (See also "Inserting Discs" on Page 6.)

2 Press one of the BLOCK 1-8 buttons to select the block. When using the remote, press BLOCK, the number button of the block you want, then ENTER. The block number appears in the display.

3 Press \blacktriangle . Block Play starts from the disc which is the most upward number within a block and located closest to the playing position.

You can start Block Play from the disc you want
When you want to start Block Play from the disc you want, turn the JOC dial to select the disc, then press ENTER.

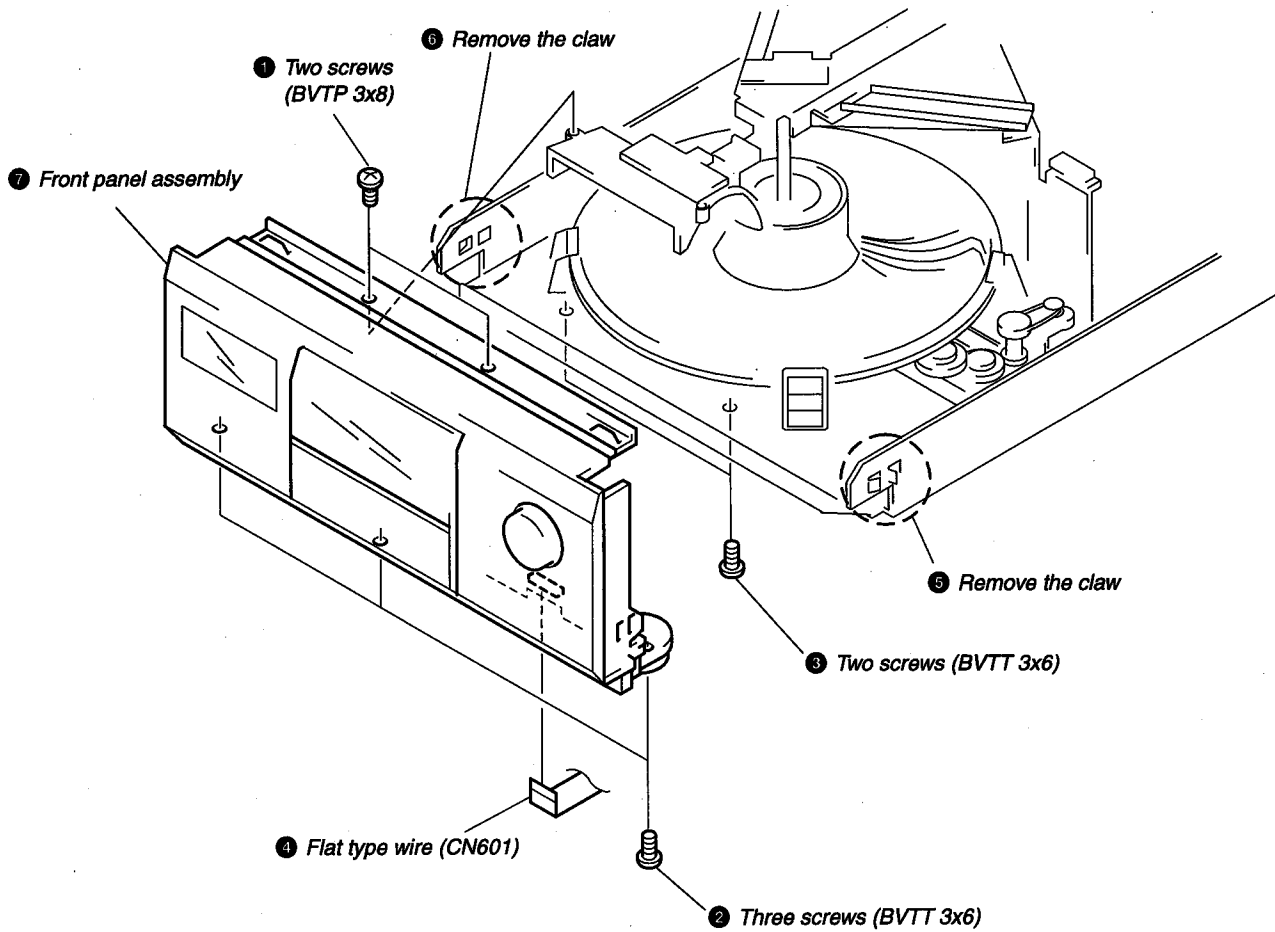
To cancel Block Play
Press the corresponding BLOCK 1-8 button.

Note
The block number does not appear if no disc is put into the block you specified.

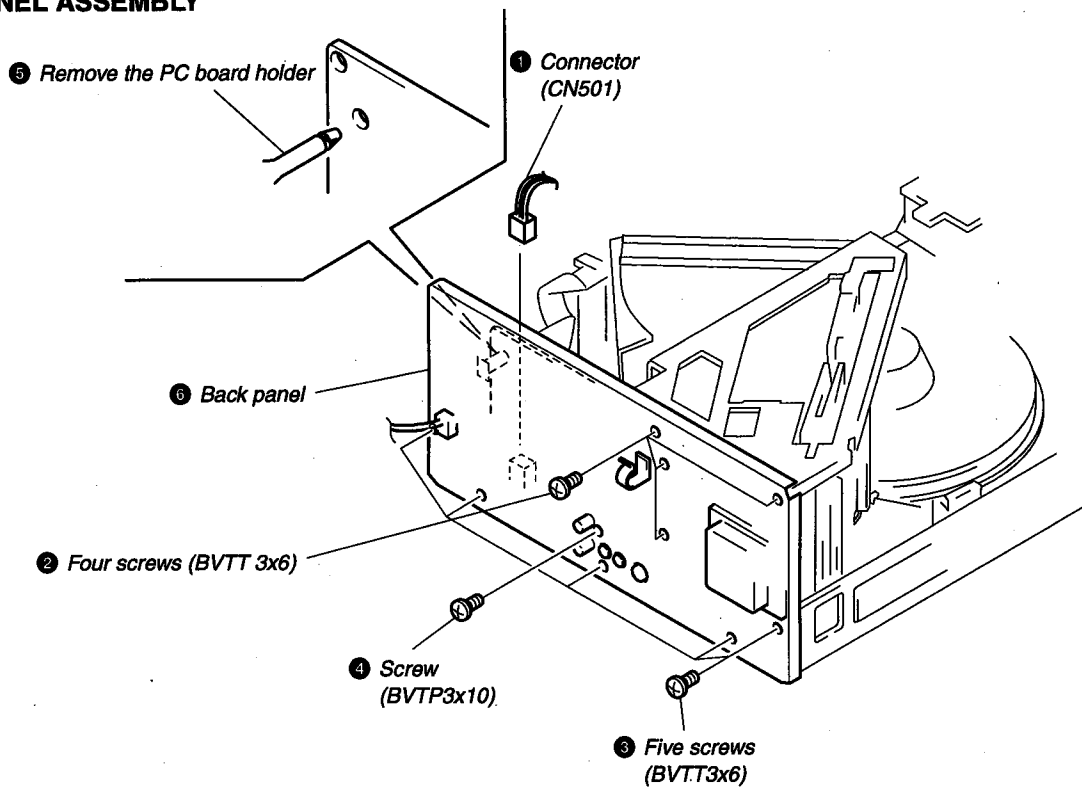
SECTION 3 DISASSEMBLY

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

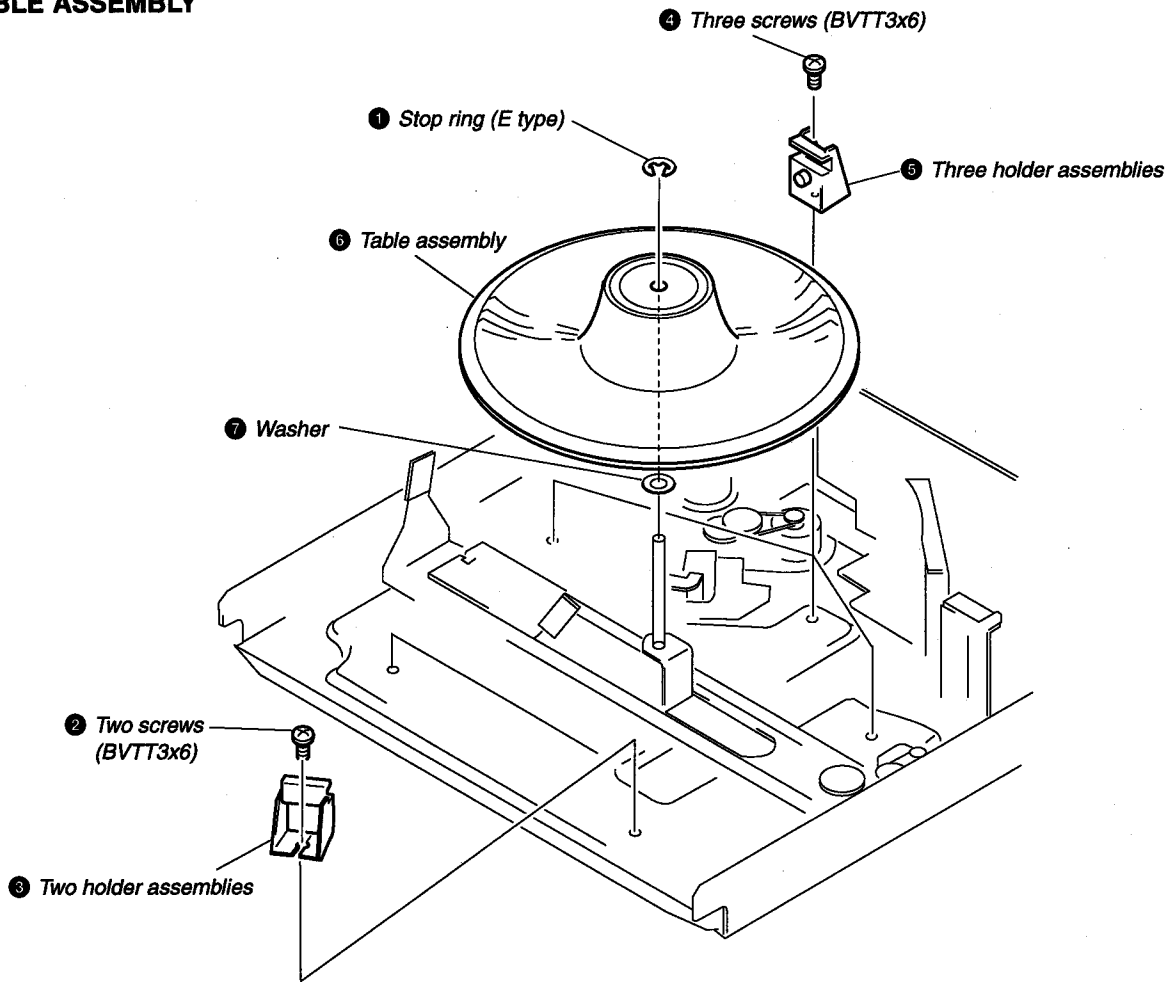
3-1. FRONT PANEL ASSEMBLY



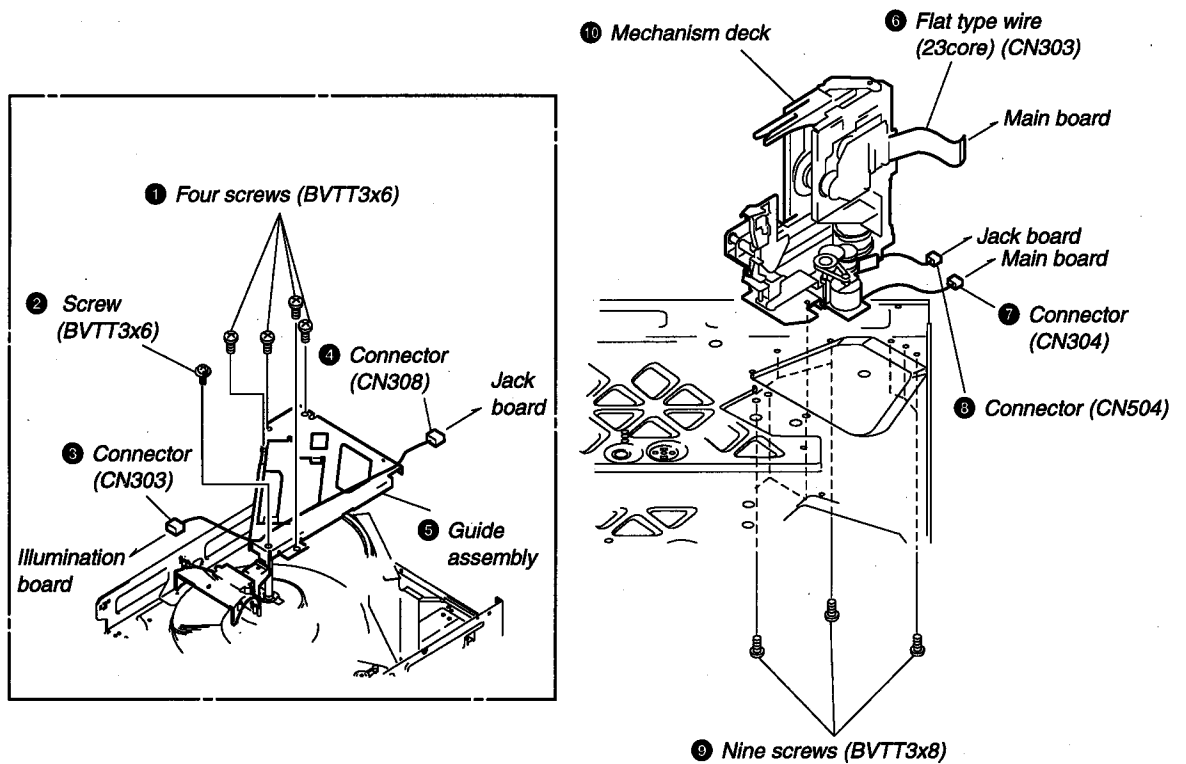
3-2. BACK PANEL ASSEMBLY



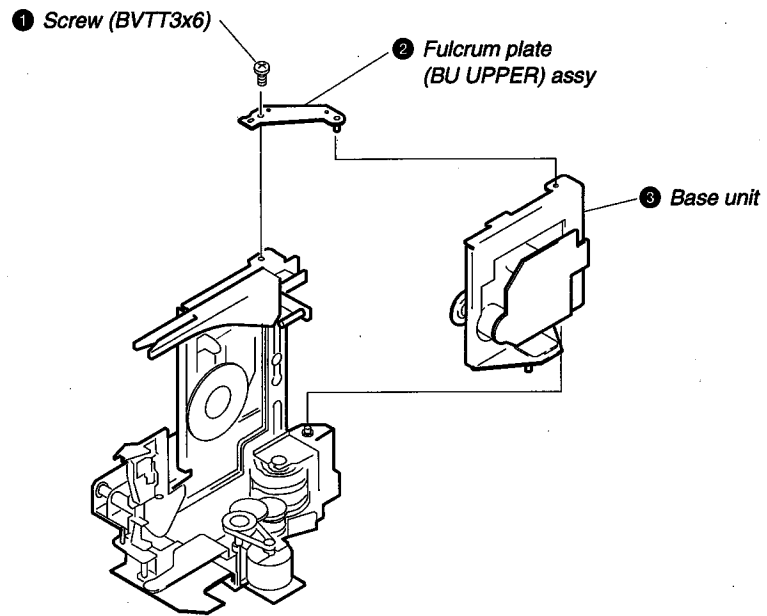
3-3. TABLE ASSEMBLY



3-4. MECHANISM DECK ASSEMBLY



3-5. BASE UNIT ASSEMBLY



SECTION 4 TEST MODE

4-1. Display Check Mode

With the power turned off (standby state), press the POWER button while pressing the ■ (pause) button.

All FL segments and grids light up together with the ▷ (play), ■ (pause), and standby LEDs.

At the same time, the GROUP LEDs are scanned one by one.

Note: To exit this mode, press the POWER button.

4-2. ADJ Mode

1. Turn ON the power of the unit, set disc to disc table, and perform chucking.
2. Disconnect the power supply plug from the outlet.
3. To set ADJ mode, connect the test point (TP301:ADJ) of the MAIN board to Ground, and turn on the power supply plug to the outlet.

The power will turn on automatically, and the first track will be played. In this mode, table rotation and loading operations are not performed because it is taken that the disc has already been chucked.

Note: The same operations are also performed in the following when the test point (TP301:ADJ) is connected to Ground after turning on the power.

- Direct search (movement of sledding motor) is not performed during accessing
- Ignored even when GFS becomes L
- Ignored even when the Q data cannot be read
- Focus gain does not decrease
- Spindle gain does not decrease
- Servo related settings can be set manually and checked (Refer to ADJ Mode Special Functions Table)

ADJ Mode Special Functions Table

(The buttons shown with () function by using the supplied remote commander only)

| Button | Function |
|-------------|--|
| CONTINUE | Servo average display Displays VC, FE, RF, TE and traverse in hexadecimal numbers |
| SHUFFLE | Focus bias display Each time this is pressed, the focus bias is switched between 1 and 2 (1) Bias actually set Optimum bias Minimum jitter (2) U:Upper aliasing bias L:Lower aliasing bias |
| PROGRAM | Auto gain display Displays focus, tracking, sledding in hexadecimal numbers |
| BLOCK 1 (1) | Increases the focus bias in 8 steps. |
| BLOCK 2 (2) | Sets the focus bias in the middle of aliasing. |
| BLOCK 3 (3) | Turns off the tracking and sledding servo |
| BLOCK 4 (4) | Returns the auto gain to the initial value (30) |
| BLOCK 5 (5) | Turns off the focus servo |
| BLOCK 6 (6) | Decreases the focus bias in 8 steps. |
| BLOCK 7 (7) | Re-adjusts the focus bias |
| BLOCK 8 (8) | Turns on the tracking and sledding servo |
| (9) | Switches the focus servo gain between normal and down 08: normal, 0C: down |
| (10/0) | Sets the focus bias to 0 (no bias) Next, displays the jitter measured at the focus bias set |
| CHECK | S-curve observation mode |
| CLEAR | Automatic eccentric measurement The results of measurement is displayed in μm directly. |

4-3. Key and Display Check Mode

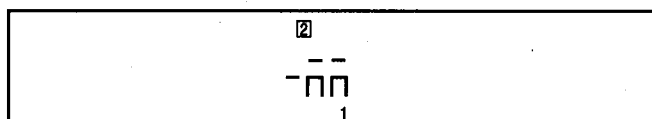
To set this mode, connect the test point (TP302:AFADJ) on the MAIN board to Ground, and turn on the power supply plug to the outlet.

- All FL segments and grids will light up. (All lit check)
When a button is pressed, the types of buttons pressed until then will be displayed on the left side and the number of the buttons will be displayed on the right side. However, these will not be displayed for the following special buttons.

- (stop) button: FL segment check
(Refer to FL Tube Check Patterns)
- (pause) button: FL grid check (Refer to FL Tube Check Patterns)
The pause LED also lights up simultaneously.
- ▷(play) button: All FL segment and grid will light up
The play LED also lights up simultaneously.

FL Tube Check Patterns

Segment check



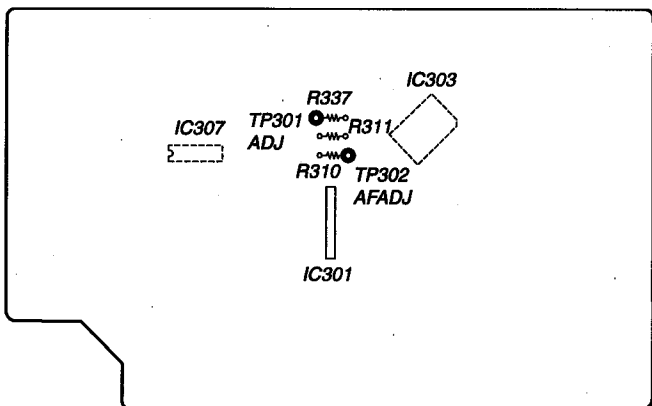
Grid check



- When the jog dial is rotated to the right, the Block indicators of FL light up in the order of 1→2..8→1.
- When the jog dial is rotated to the left, the Block indicators of FL light up in the order of 8→7..1→8.
- The standby LED lights up when the door switch is shut.

- Abbreviation
FL: Fluorescent Indicator Tube

[MAIN BOARD] — Component Side —

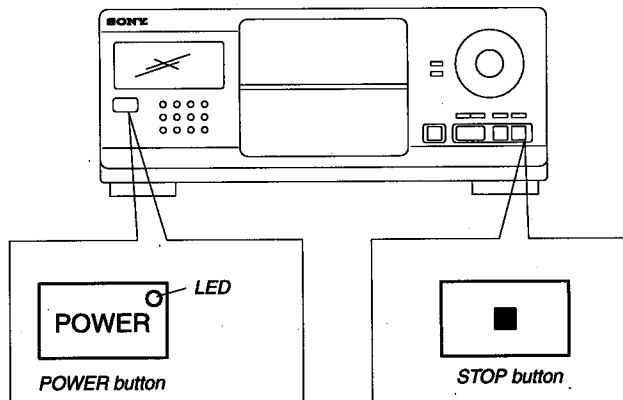


SECTION 5 ADJUSTMENTS

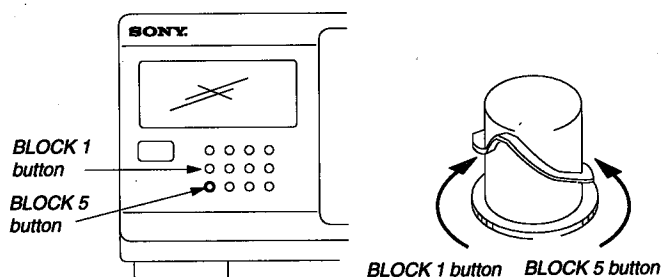
5-1. MECHANICAL ADJUSTMENT

Perform the following steps before carrying out adjustments.

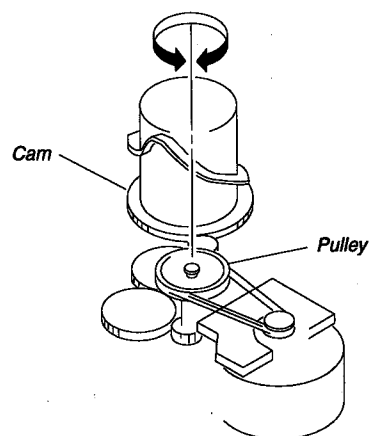
1. Turn ON the power of the unit, set disc to disc table No. 92, and perform chucking.
2. Turn OFF the power.
3. Remove the case.
4. While pressing the STOP button, turn ON the POWER button. The test mode is set.
5. The POWER button LED starts blinking. (Test mode)



NOTE 1: The cam will start rotating when the BLOCK 1 or BLOCK 5 button is pressed continuously in the test mode.

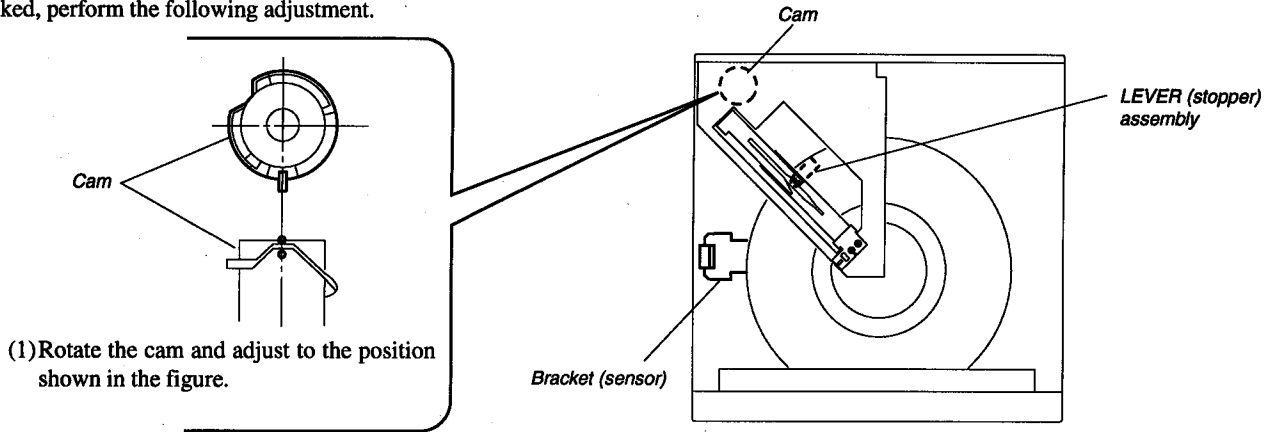


NOTE 2: If the power cannot be supplied, the cam can be rotated by rotating the pulley with your finger.

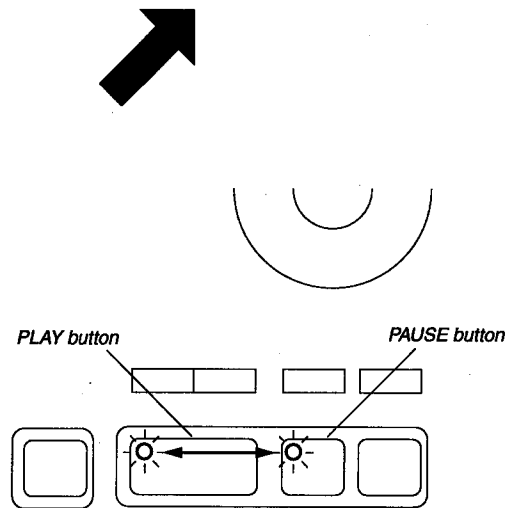
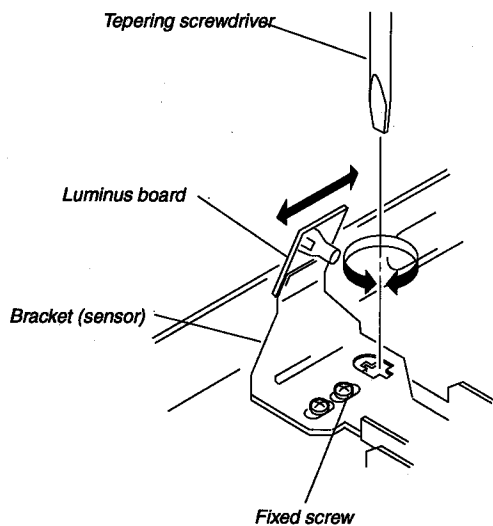
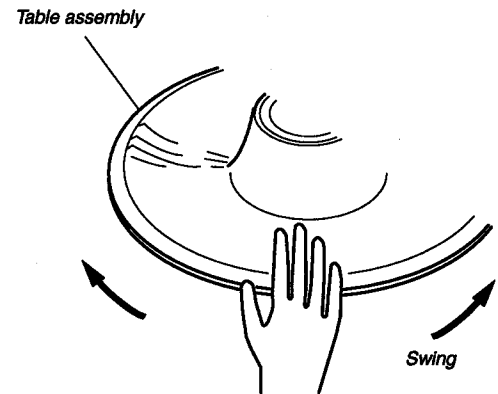
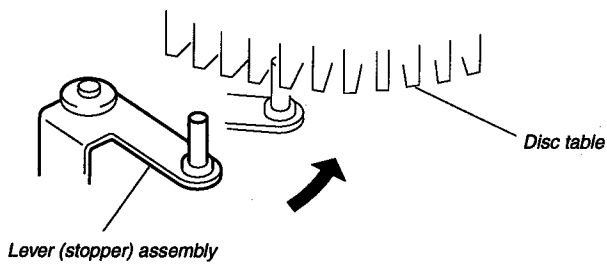


SENSOR ALIGNMENT

If the disc table swings to the left and right just before the disc is chucked, perform the following adjustment.



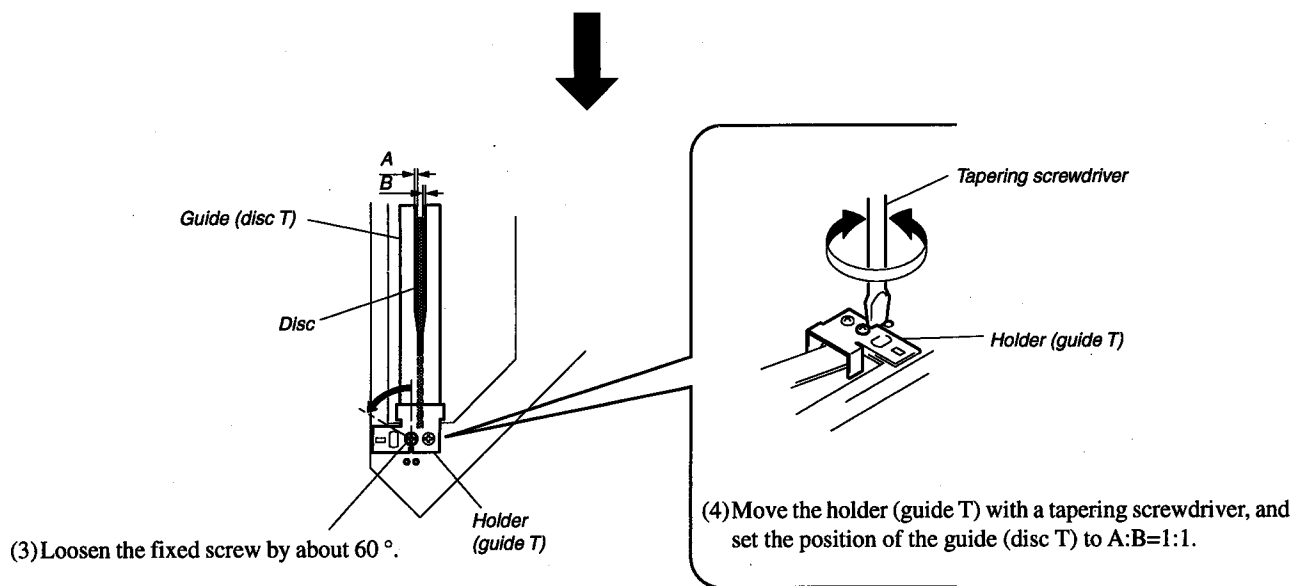
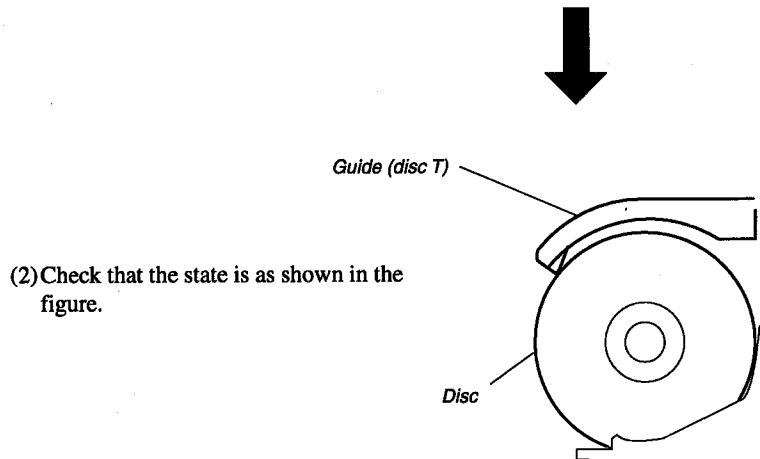
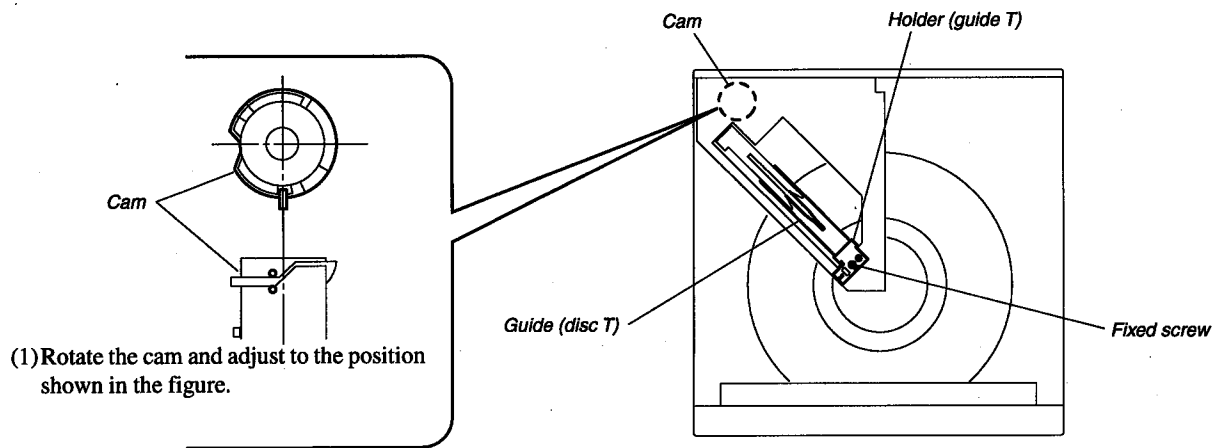
(2) Check that the lever (stopper) assembly secures the disc table as shown in the figure.



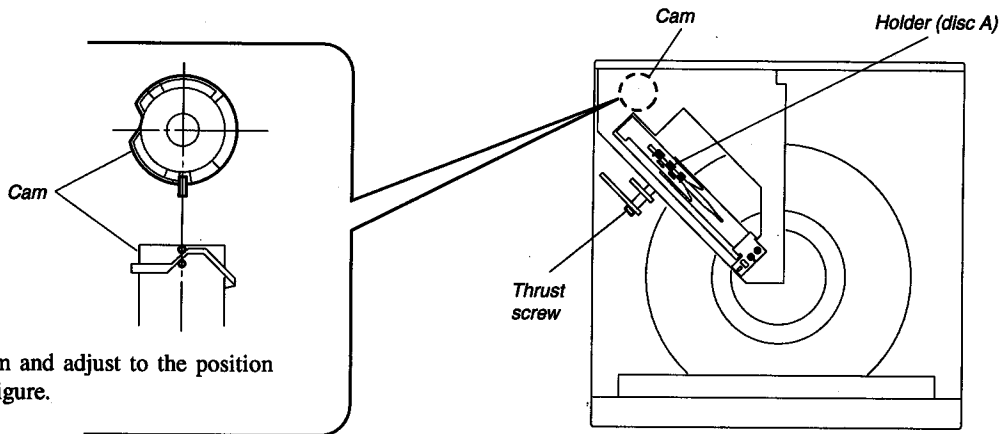
(3) Loosen the fixed screw by 60° to 90°, and use a tapering screwdriver to adjust the screw as shown in the figure.

Move the bracket (sensor) with the tapering screwdriver little by little, and fix the fixed at where the paly button's LED (green) is switched to the pause button's LED (orange) (or its reverse).

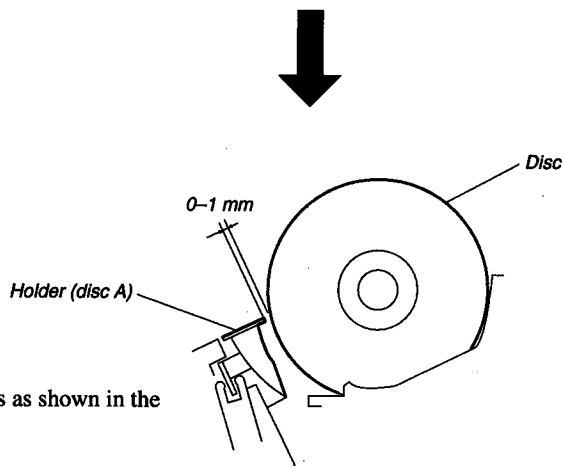
GUIDE (DISC T) ALIGNMENT



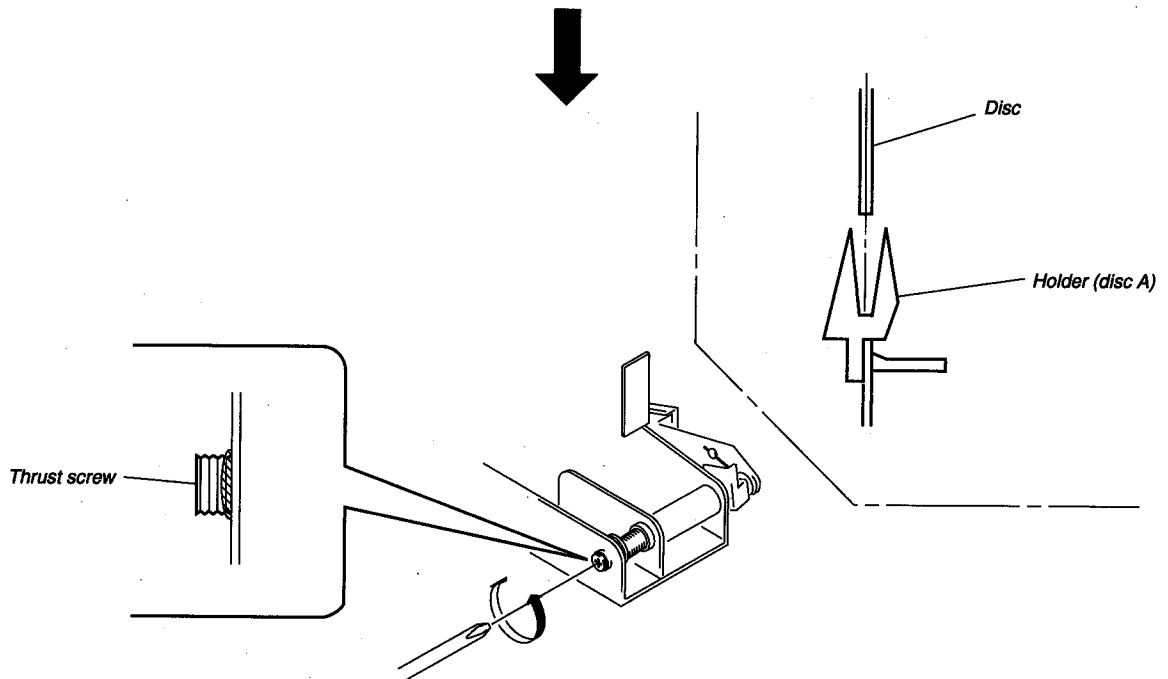
HOLDER (DISC A) ALIGNMENT




(1) Rotate the cam and adjust to the position shown in the figure.

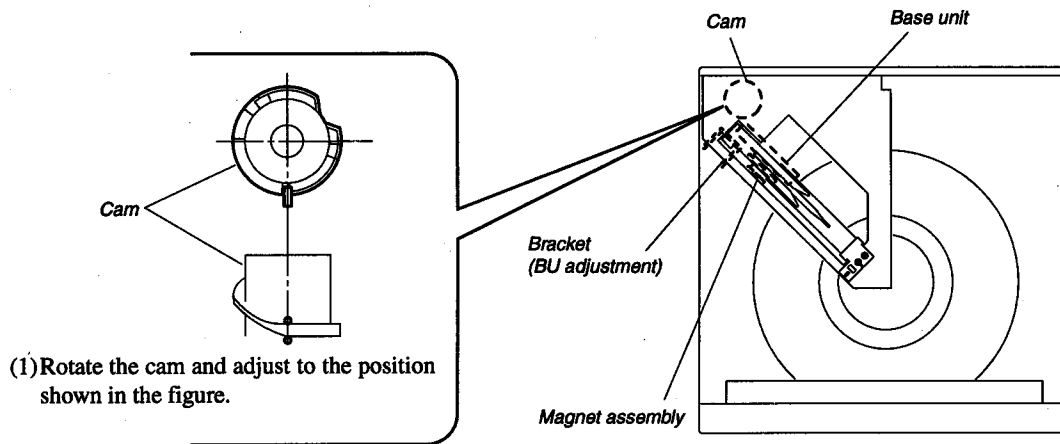


(2) Check that the state is as shown in the figure.

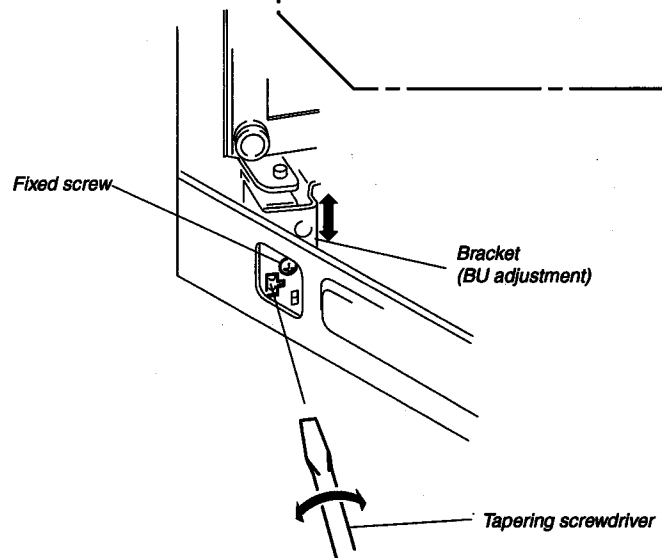
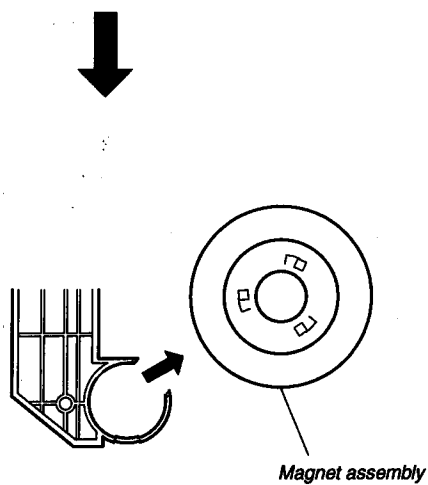
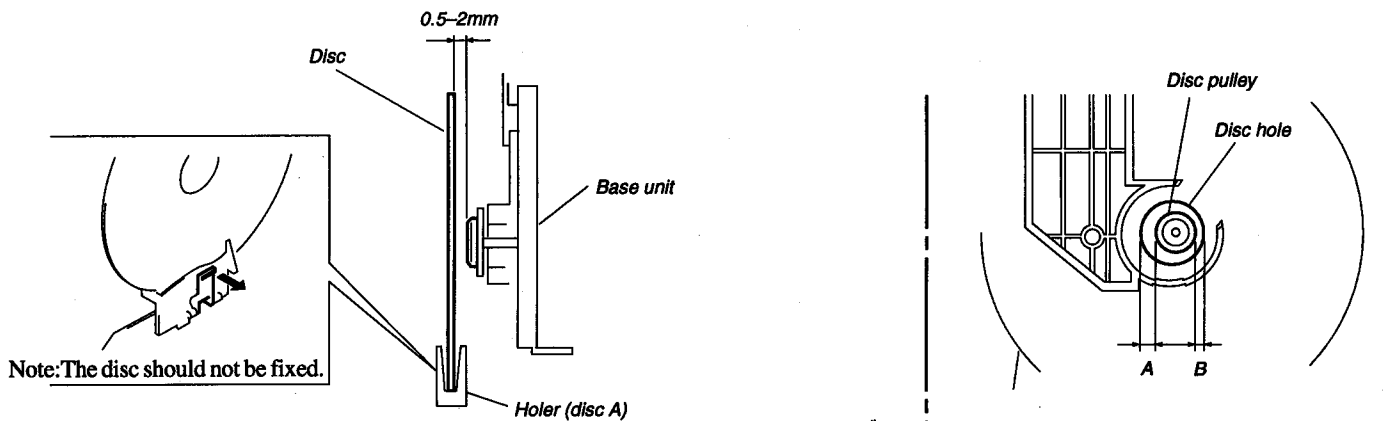


(3) After applying screw-lock to the  part, rotate the thrust screw until the holder (Disc A) comes to the center of the disc.

PULLEY AND DISC CENTER HOLE ALIGNMENT

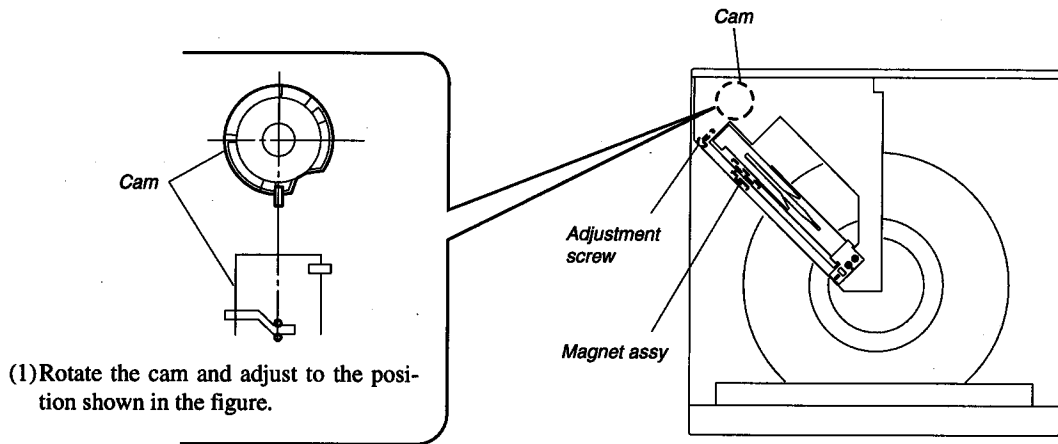


(2) Check that the state is as shown in the figure.

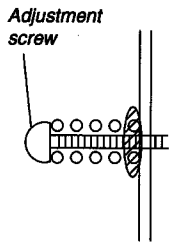
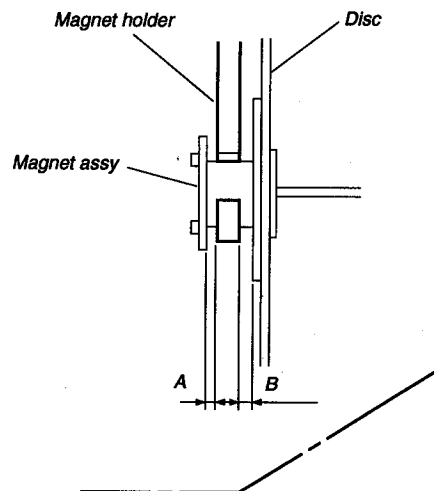



Loosen the fixed screw by 60° to 90°, and move and adjust the bracket (BU adjustment) up and down using a tapering screwdriver so that the positions of the disc hole and disc pulley become A=B or between A:B=2:1 and 1:2.

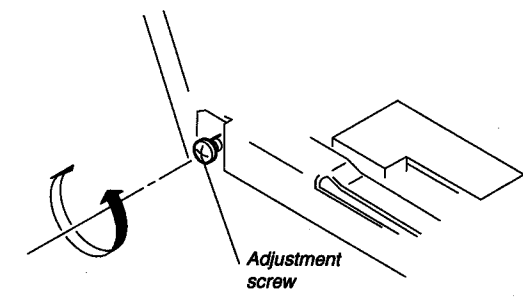
MAGNET ASSY ALIGNMENT



(1) Rotate the cam and adjust to the position shown in the figure.



(3) Apply screw-lock to the  part after adjusting.



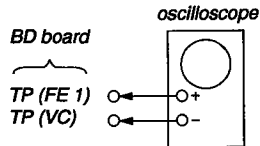
(2) Rotate the adjustment screw until $A=B$ or between $A:B=2:1$ and $1:2$

5-2. ELECTRICAL BLOCK CHECKING

Note:

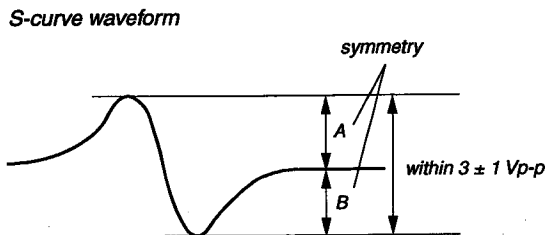
1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S-Curve Check



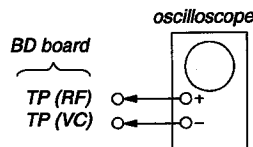
Procedure :

1. Connect oscilloscope to test point TP (FE 1) on BD board.
2. Connect test point TP301 (ADJ) on MAIN board to ground with lead wire.
3. Turn Power switch on to set the ADJ mode.
4. Put disc (YEDS-18) in and playback. Press the CHECK button.
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3 ± 1 Vp-p.



6. After check, remove the lead wire connected in step 2.
- Note :**
- Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
 - Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check

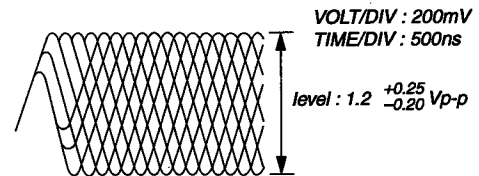


Procedure :

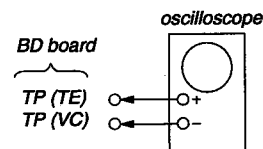
1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in to play the number five track.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note: A clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.

RF signal waveform



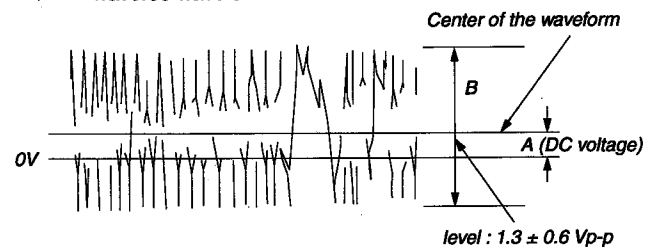
E-F Balance Check



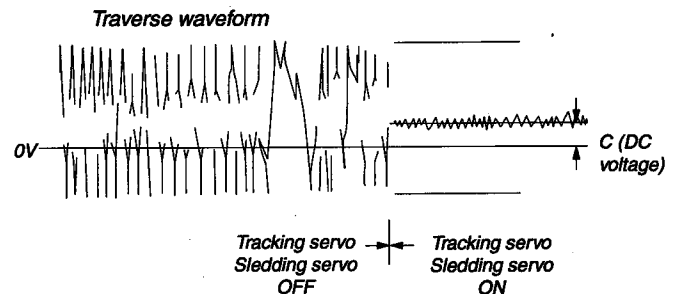
Procedure :

1. Connect oscilloscope to test point TP (TE) on BD board.
2. Connect the test point TP301 (ADJ) on MAIN board to the ground with a lead wire.
3. Turn the Power switch on to set the ADJ mode.
4. Put disc (YEDS-18) in to play the number five track.
5. Press the "BLOCK3" button. (The tracking servo and the sledging servo are turned OFF.)
6. Check the level B of the oscilloscope's waveform and the A (DC voltage) of the center of the Traverse waveform. Confirm the following : $A/B \times 100 = \text{less than } \pm 22\%$

Traverse waveform



7. Press the "BLOCK 8" button. (The tracking servo and sledging servo are turned ON.) Confirm the C (DC voltage) is almost equal to the A (DC voltage) is step 6.

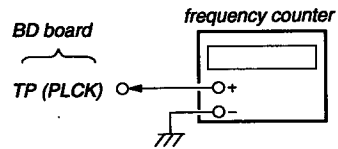


8. Disconnect the lead wire of TP301 (ADJ) connected in step 1.

RF PLL Free-run Frequency Check

Procedure :

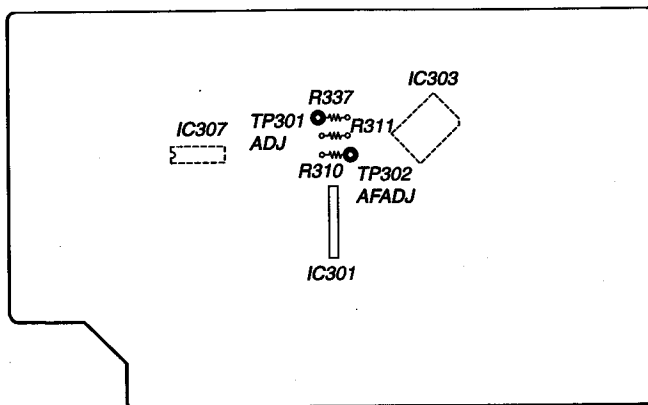
1. Connect frequency counter to test point TP (PLCK) with lead wire.



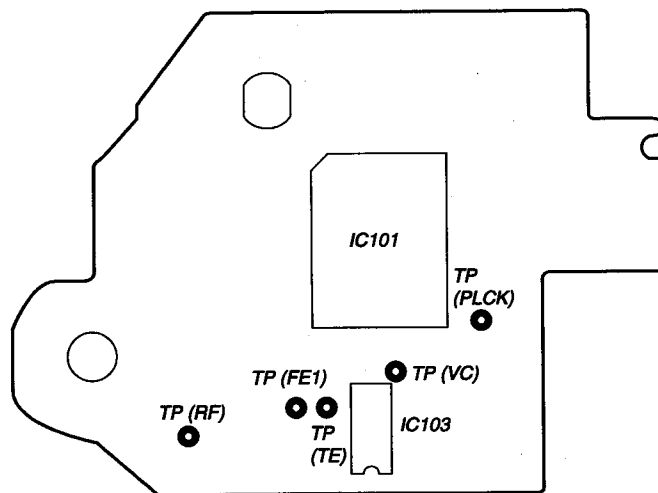
2. Turn Power switch on.
3. Put the disc (YEDS-18) in to play the number five track.
Confirm that reading on frequency counter is 4.3218MHz.

Adjustment Location :

[MAIN BOARD] — Component Side —

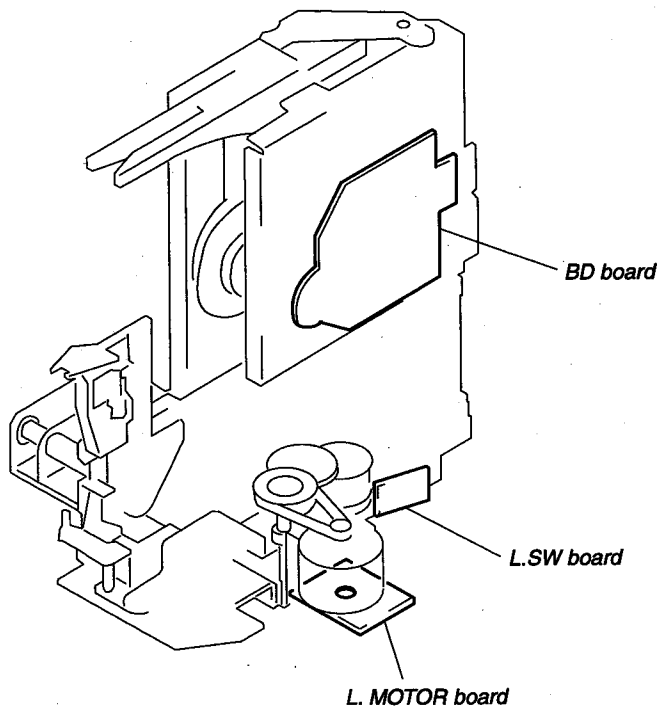
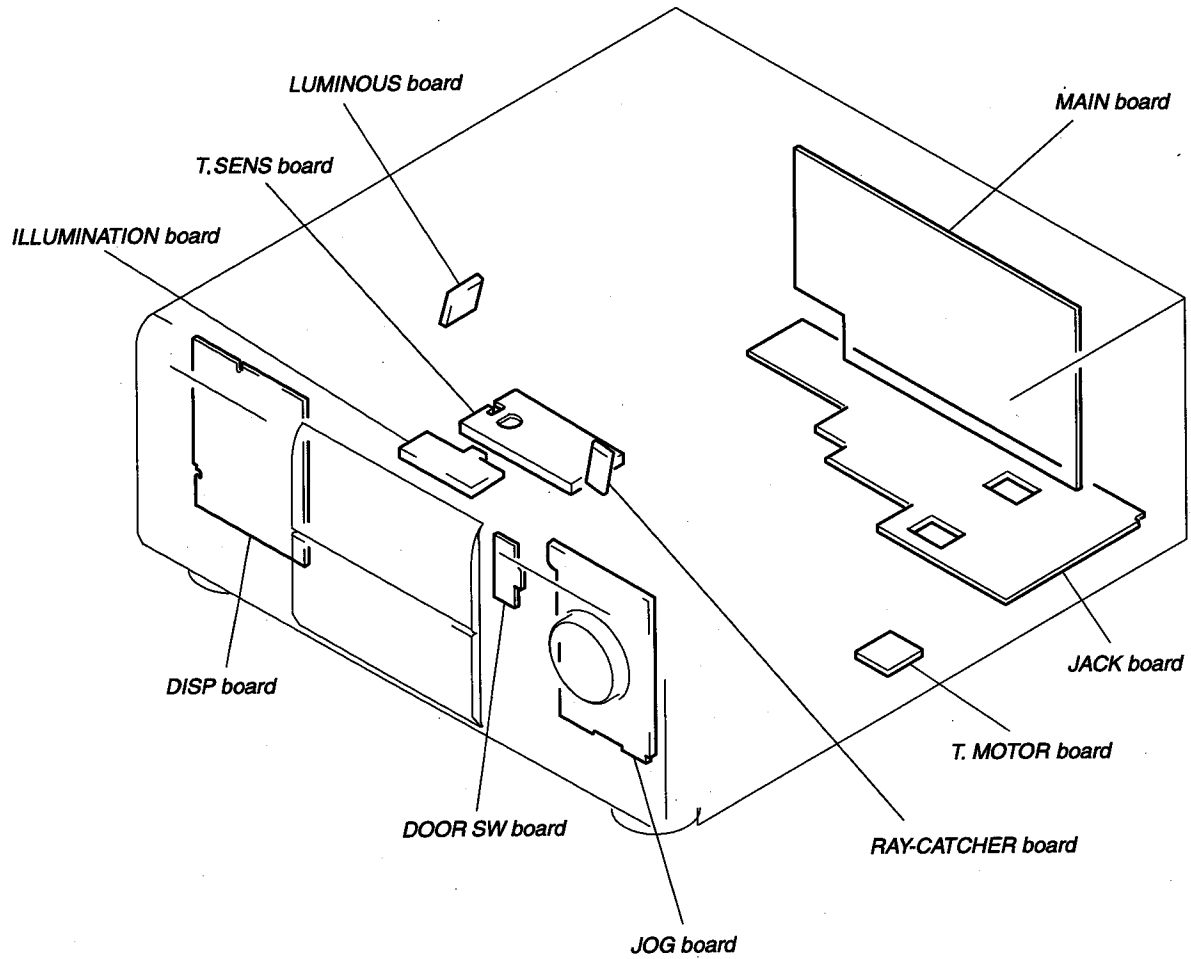


[BD BOARD] — Side B —



SECTION 6 DIAGRAMS

6-1. CIRCUIT BOARDS LOCATION



6-2. IC PIN FUNCTIONS

• IC101 DIGITAL SERVO, DIGITAL SIGNAL PROCESSOR (CXD2545Q)

| Pin No. | Pin Name | I/O | Function |
|---------|----------|-----|--|
| 1 | SRON | O | Sled drive output (Open) |
| 2 | SRDR | O | Sled drive output |
| 3 | SFON | O | Sled drive output (Open) |
| 4 | TFDR | O | Tracking drive output |
| 5 | TRON | O | Tracking drive output (Open) |
| 6 | TRDR | O | Tracking drive output |
| 7 | TFON | O | Tracking drive output (Open) |
| 8 | FFDR | O | Focus drive output |
| 9 | FRON | O | Focus drive output (Open) |
| 10 | FRDR | O | Focus drive output |
| 11 | FFON | O | Focus drive output (Open) |
| 12 | VCOO | O | VCO output for analog EFM PLL (Open) |
| 13 | VCOI | I | VCO input from for analog EFM PLL (Connected to Ground) |
| 14 | TEST | I | TEST pin connected normally to Ground (Connected to Ground) |
| 15 | DVss | - | Digital Ground |
| 16 | TES2 | I | TEST pin connected normally to Ground |
| 17 | TES3 | I | TEST pin connected normally to Ground |
| 18 | PDO | O | Charge-pump output for analog EFM PLL (Open) |
| 19 | VPCO | O | Charge-pump output for variable pitch PLL (Open) |
| 20 | VCKI | I | Clock input from variable pitch external VCO (Connected to Ground) |
| 21 | AVD2 | - | Analog power supply |
| 22 | IGEN | I | Power supply pin for operational amplifiers |
| 23 | AVS2 | - | Analog Ground |
| 24 | ADIO | I | (Open) |
| 25 | RFC | O | (Open) |
| 26 | RFDC | I | RF signal input |
| 27 | TE | I | Tracking error signal input |
| 28 | SE | I | Sled error signal input |
| 29 | FE | I | Focus error signal input |
| 30 | VC | I | Center voltage input pin |
| 31 | FILO | O | Filter output for master PLL |
| 32 | FILI | I | Filter input for master PLL |
| 33 | PCO | O | Charge-pump output for master PLL |
| 34 | CLTV | I | Control voltage input for master VCO |
| 35 | AVS1 | - | Analog Ground |
| 36 | RFAC | I | EFM signal input |
| 37 | BIAS | I | Asymmetry circuit constant current input |
| 38 | ASYI | I | Asymmetry compare voltage input |
| 39 | ASYO | O | EFM full swing output |
| 40 | AVD1 | - | Analog power supply |

• Abbreviation

EFM: Eight to Fourteen Modulation

PLL: Phase Locked Loop

| Pin No. | Pin Name | I/O | Function |
|---------|----------|-----|--|
| 41 | DVDD | – | Digital power supply |
| 42 | ASYE | I | Asymmetry circuit ON/OFF (Connected to +5V) |
| 43 | PSSL | I | Audio data output mode selection input (Connected to Ground) |
| 44 | WDCK | O | 48-bit slot D/A interface. Word clock. (Open) |
| 45 | LRCK | O | 48-bit slot D/A interface. LR clock. |
| 46 | DATA | O | DA 16 output when PSSL=1.48-bit slot serial data when PSSL=0 |
| 47 | BCLK | O | DA 15 output when PSSL=1.48-bit slot data when PSSL=0 |
| 48 | 64DATA | O | DA 14 output when PSSL=1.64-bit slot data when PSSL=0 (Open) |
| 49 | 64BCLK | O | DA 13 output when PSSL=1.64-bit slot data when PSSL=0 (Open) |
| 50 | 64LRCK | O | DA 12 output when PSSL=1.64-bit slot data when PSSL=0 (Open) |
| 51 | GTOP | O | DA 11 output when PSSL=1.GTOP output when PSSL=0 (Open) |
| 52 | XUGF | O | DA 10 output when PSSL=1.XUGF output when PSSL=0 (Open) |
| 53 | XPLCK | O | DA 09 output when PSSL=1.XPLCK output when PSSL=0 (Open) |
| 54 | GFS | O | DA 08 output when PSSL=1.GFS output when PSSL=0 (Open) |
| 55 | PFCK | O | DA 07 output when PSSL=1.RFCK output when PSSL=0 (Open) |
| 56 | C2PO | O | DA 06 output when PSSL=1.C2PO output when PSSL=0 (Open) |
| 57 | XRA0F | O | DA 05 output when PSSL=1.XRA0F output when PSSL=0 (Open) |
| 58 | MNT3 | O | DA 04 output when PSSL=1.MNT3 output when PSSL=0 (Open) |
| 59 | MNT2 | O | DA 03 output when PSSL=1.MNT2 output when PSSL=0 (Open) |
| 60 | MNT1 | O | DA 02 output when PSSL=1.MNT1 output when PSSL=0 (Open) |
| 61 | MNT0 | O | DA 01 output when PSSL=1.MNT0 output when PSSL=0 (Open) |
| 62 | XTAI | I | X'tal oscillator circuit input |
| 63 | XTAO | O | X'tal oscillator circuit output (Open) |
| 64 | XTSL | I | X'tal selection input pin (Connected to Ground) |
| 65 | DVss | – | Digital Ground |
| 66 | FSTI | I | Clock input for digital servo block |
| 67 | FSTO | O | 2/3 divider output of pins 62, 63 |
| 68 | FSOF | O | 1/4 divider output of pins 62, 63 (Open) |
| 69 | C16M | O | 16.9344 MHz output (Open) |
| 70 | MD2 | I | Digital-out ON/OFF control pin (Connected to +5V) |
| 71 | DOUT | O | Digital-out output pin (Open) |
| 72 | EMPH | O | Playback disc output in emphasis mode (Open) |
| 73 | WFCK | O | WFCK output (Open) |
| 74 | SCOR | O | Sub-code sync output |
| 75 | SBSO | O | Sub-P through Sub-W serial output (Open) |
| 76 | EXCK | I | Clock input for SBSO read-out (Connected to Ground via a 10 k Ω) |
| 77 | SUBQ | O | Sub-Q 80-bit output |
| 78 | SQCK | I | Clock input for SQSO read-out |
| 79 | MUTE | I | Muting selection pin |
| 80 | SENS | O | SENS output |

- Abbreviation
WFCK: Wirte Frame Clock

| Pin No. | Pin Name | I/O | Function |
|---------|----------|-----|---|
| 81 | XRST | I | System reset |
| 82 | DIRC | I | Used in 1-track jump mode (Connected to +5v) |
| 83 | SCLK | I | SENS serial data read-out clock |
| 84 | DFSW | I | Defect selection pin (Connected to Ground) |
| 85 | ATSK | I | Input pin for anti-shock (Connected to Ground) |
| 86 | DATA | I | Serial data input, supplied from CPU |
| 87 | XLAT | I | Latch input, supplied from CPU |
| 88 | CLOCK | I | Serial data transfer clock input, supplied from CPU |
| 89 | COUT | O | Numbers of track counted signal output (Open) |
| 90 | DVDD | - | Digital power supply |
| 91 | MIRR | O | Mirror signal output (Open) |
| 92 | DFCT | O | Defect signal output (Open) |
| 93 | FOK | O | Focus OK output (Open) |
| 94 | FSW | O | Output to select spindle motor output filter (Open) |
| 95 | MON | O | Output to control ON/OFF of spindle motor (Open) |
| 96 | MDP | O | Output to control spindle motor servo |
| 97 | MDS | O | Output to control spindle motor servo (Open) |
| 98 | LOCK | O | GFS is sampled by 460 Hz. H when GFS is H (Open) |
| 99 | SSTP | I | Input signal to detect disc inner most track |
| 100 | SFDR | O | Sled drive output |

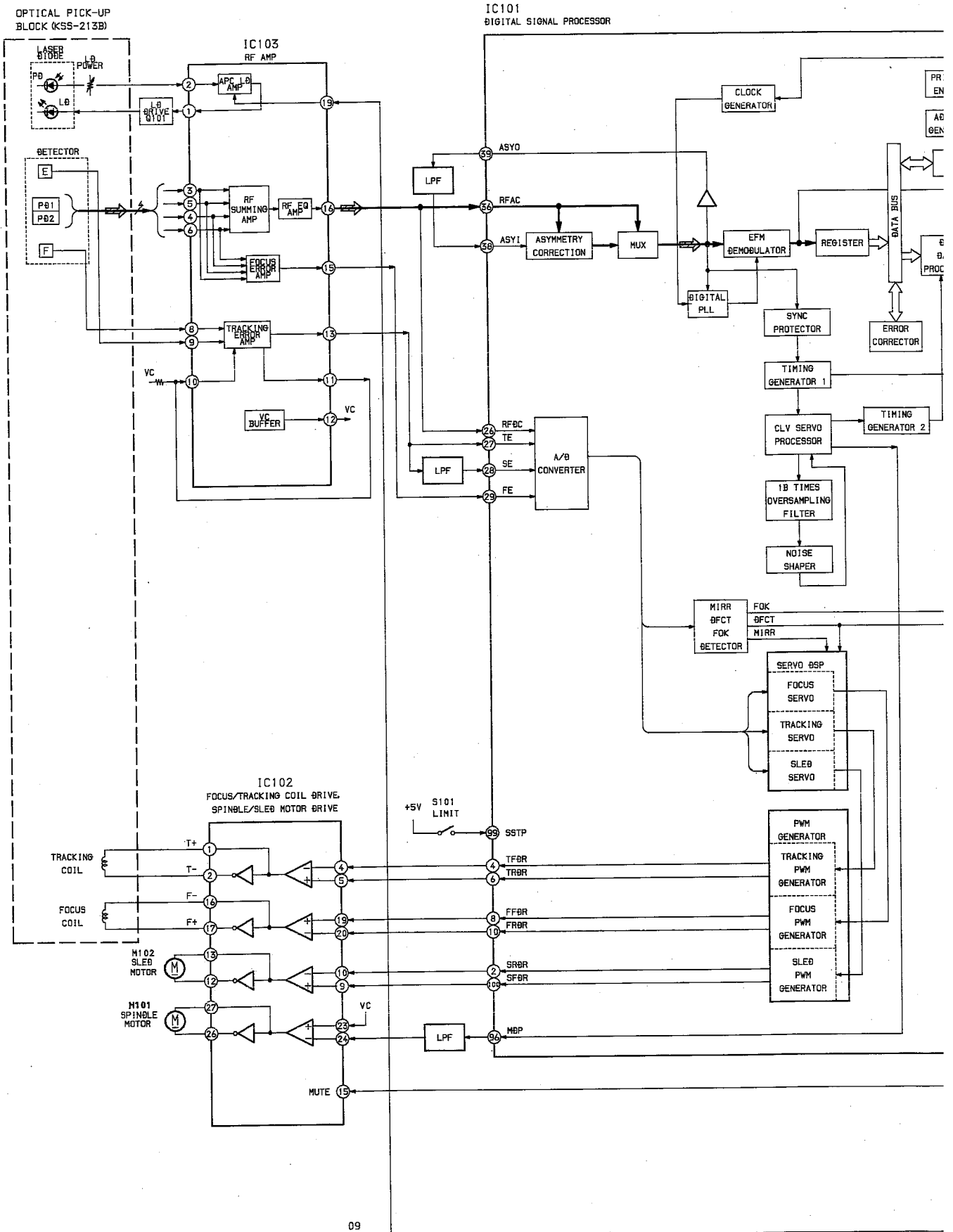
- Abbreviation
GFS: Guard Frame Sync

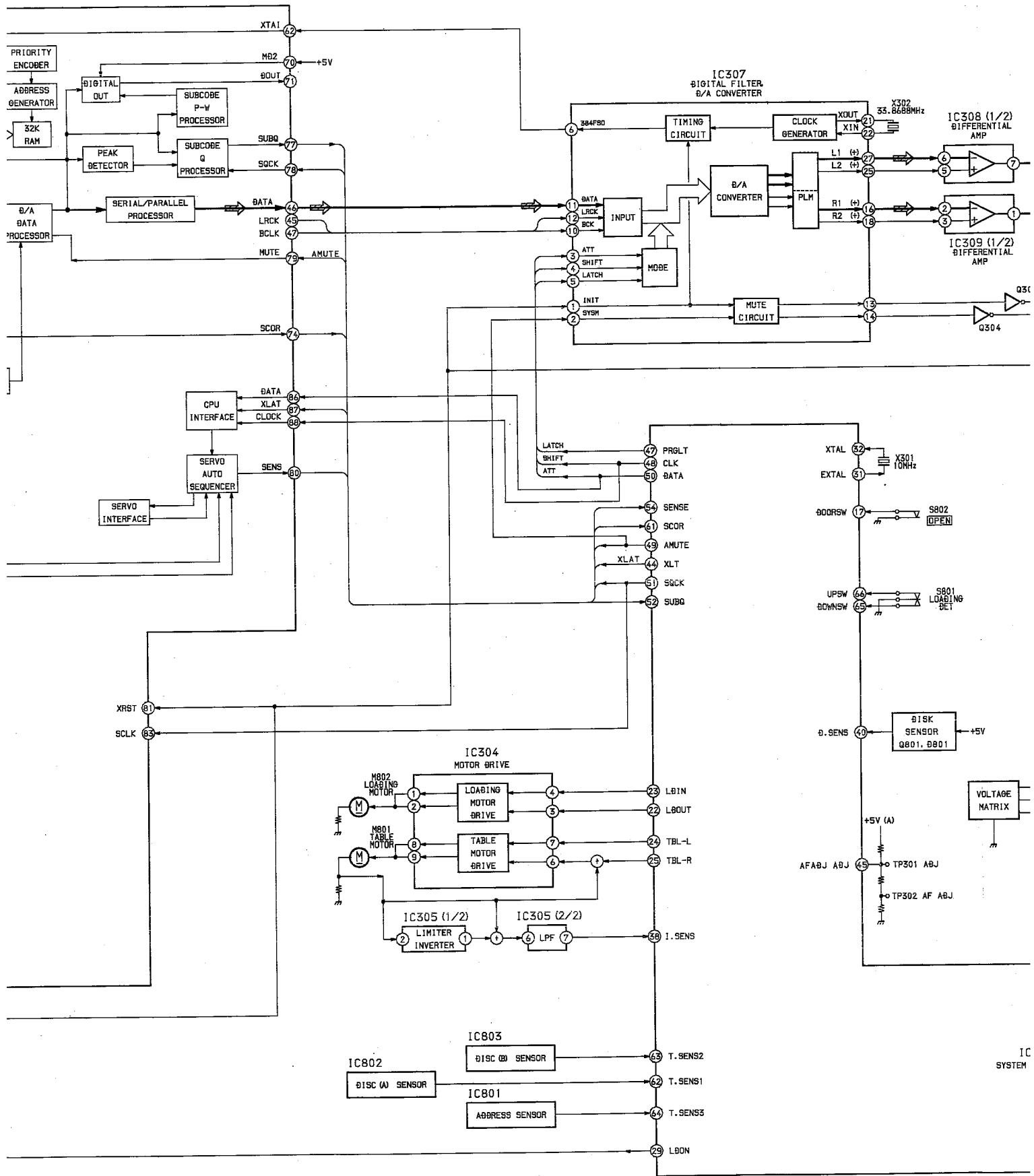
• IC303 SYSTEM CONTROL (CXD84332-028Q)

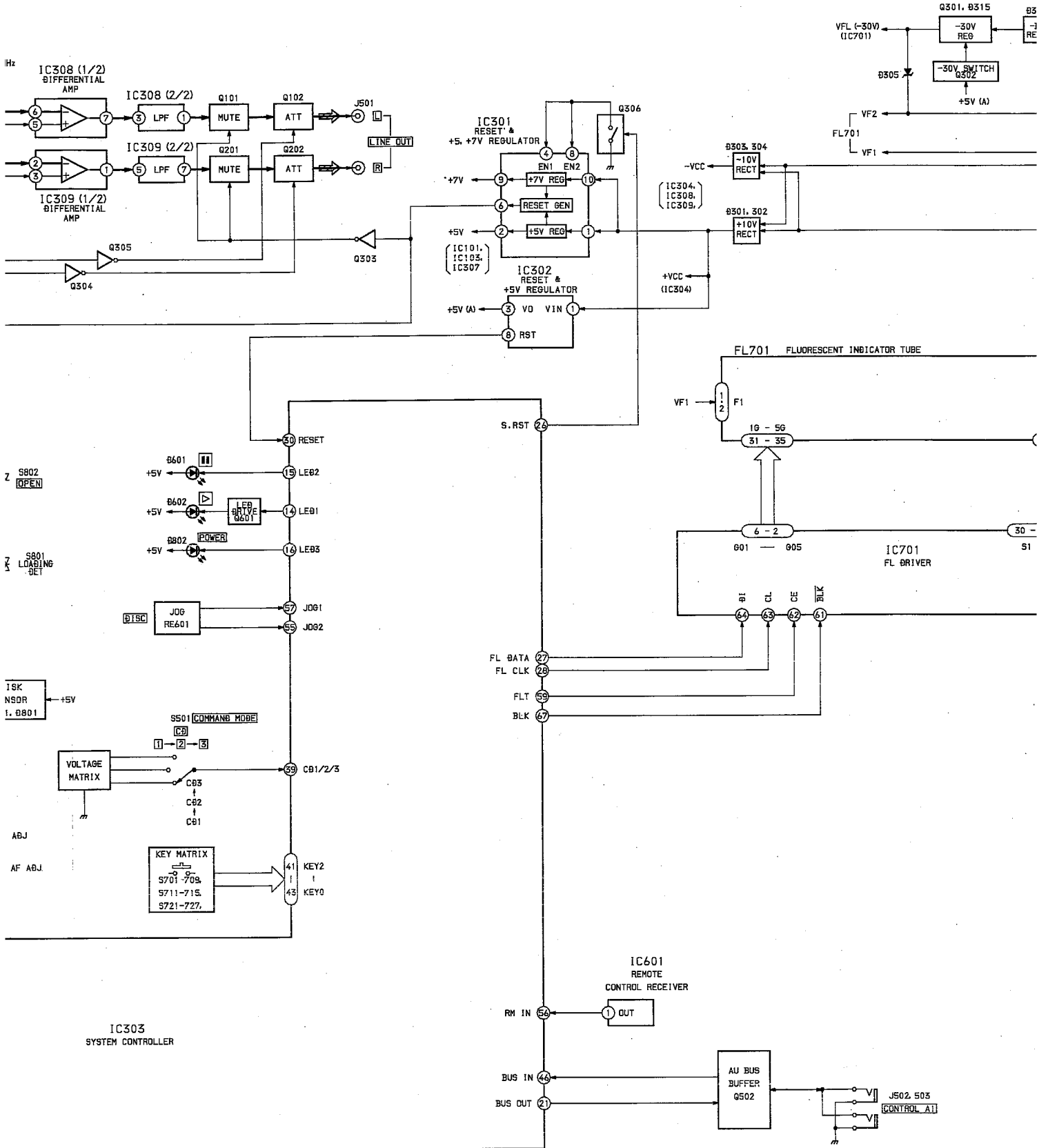
| Pin No. | Pin Name | I/O | Function |
|---------|----------|-----|---|
| 1 | A3 | O | Open |
| 2 | A4 | O | Open |
| 3 | A5 | O | Open |
| 4 | A6 | O | Open |
| 5 | A7 | O | Open |
| 6 | A12 | O | Open |
| 7 | A14 | O | Open |
| 8 | A11 | O | Open |
| 9 | A10 | O | Open |
| 10 | A9 | O | Open |
| 11 | A8 | O | Open |
| 12 | A13 | O | Open |
| 13 | WE | O | Open |
| 14 | LED1 | O | PLAY LED control H: Lighting up |
| 15 | LED2 | O | PAUSE LED control L: Lighting up |
| 16 | LED 3 | O | POWER standby LED control L: Lighting up |
| 17 | DOOR SW | I | Front door switch H: Open |
| 18 | SCLK | O | Open |
| 19 | SRDT | I | Open |
| 20 | MODE | O | Pull-up for +5V |
| 21 | BUSOUT | O | CONTROL-A1 out |
| 22 | LDOUT | O | Loading motor PWM output for outside direction |
| 23 | LDIN | O | Loading motor PWM output for inside direction |
| 24 | TBL.L | O | Table motor PWM output for left turn |
| 25 | TBL.R | O | Table motor PWM output for right turn |
| 26 | S.RST | O | Power control H: Power ON |
| 27 | FL.DATA | O | Data for fluorescent indicator and LED control |
| 28 | FL.CLK | O | Clock for fluorescent indicator and LED control |
| 29 | LDON | O | Laaser diode control H: ON |
| 30 | RESET | I | Reset input L: Reset |
| 31 | EXTAL | O | X'tal Oscillation (10MHz) |
| 32 | XTAL | I | X'tal Oscillation (10MHz) |
| 33 | Vss | - | Connect to ground |
| 34 | TX | - | Open |
| 35 | TEX | - | Connect to ground |
| 36 | AVss | - | Connect to ground |
| 37 | AVREF | - | Connect to +5V |
| 38 | I.SENS | I | Table motor current detect More than 3V: Avnormal condition |
| 39 | CD 1/2/3 | I | Command mode switch |
| 40 | D.SENS | I | Disc sensor input Less than 3V: Existing disc |

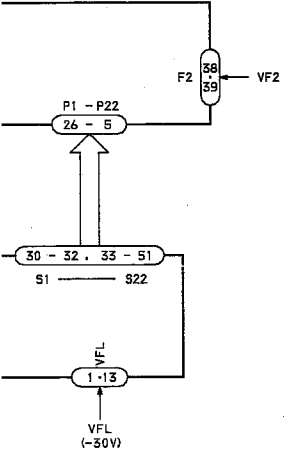
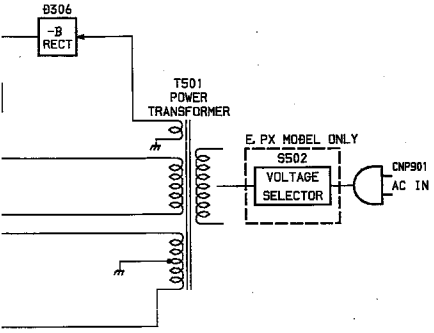
| Pin No. | Pin Name | I/O | Function |
|---------|-----------|-----|--|
| 41 | KEY2 | I | Key input |
| 42 | KEY1 | I | Key input |
| 43 | KEY0 | I | Key input |
| 44 | XLT | O | Latch for servo IC |
| 45 | AFADJ ADJ | I | Test mode input. |
| 46 | BUSIN | I | CONTROL-A1 input L: Active |
| 47 | PRGLT | O | Latch for digital filter IC |
| 48 | CLK | O | Clock for servo IC and digital filter IC |
| 49 | AMUTE | O | Audio mute H: Mute ON |
| 50 | DATA | O | Data for servo IC and digital filter IC |
| 51 | SQCK | O | Clock for sub code Q |
| 52 | SUBQ | I | Sub code Q data input |
| 53 | NC | - | Open |
| 54 | SENSE | I | Servo sensor signal |
| 55 | JOG2 | I | Jog input |
| 56 | RMIN | I | Remote control signal |
| 57 | JOG1 | I | Jog input |
| 58 | LEDLT | O | Open |
| 59 | FLT | O | Latch for fluorescent indicator driver IC |
| 60 | DQSY | O | Open |
| 61 | SCOR | O | Sub code Q synchronous signal Start at rising edge |
| 62 | T.SENS1 | I | Table position sensor 1 input |
| 63 | T.SENS2 | I | Table position sensor 2 input |
| 64 | T.SENS3 | I | Table position sensor 3 input |
| 65 | DOWN SW | I | Loading out switch input L: Out |
| 66 | UPSW | I | Loading in switch input L: In |
| 67 | BLK | O | Reset for fluorescent indicator driver IC |
| 68 | D3 | I/O | Open |
| 69 | D4 | I/O | Open |
| 70 | D5 | I/O | Open |
| 71 | D6 | I/O | Open |
| 72 | VDD | - | Connect to +5V |
| 73 | NC (VDD) | - | Connect to +5V |
| 74 | D7 | I/O | Open |
| 75 | D0 | I/O | Open |
| 76 | D1 | I/O | Open |
| 77 | D2 | I/O | Open |
| 78 | A0 | O | Open |
| 79 | A1 | O | Open |
| 80 | A2 | O | Open |


6-3. BLOCK DIAGRAM





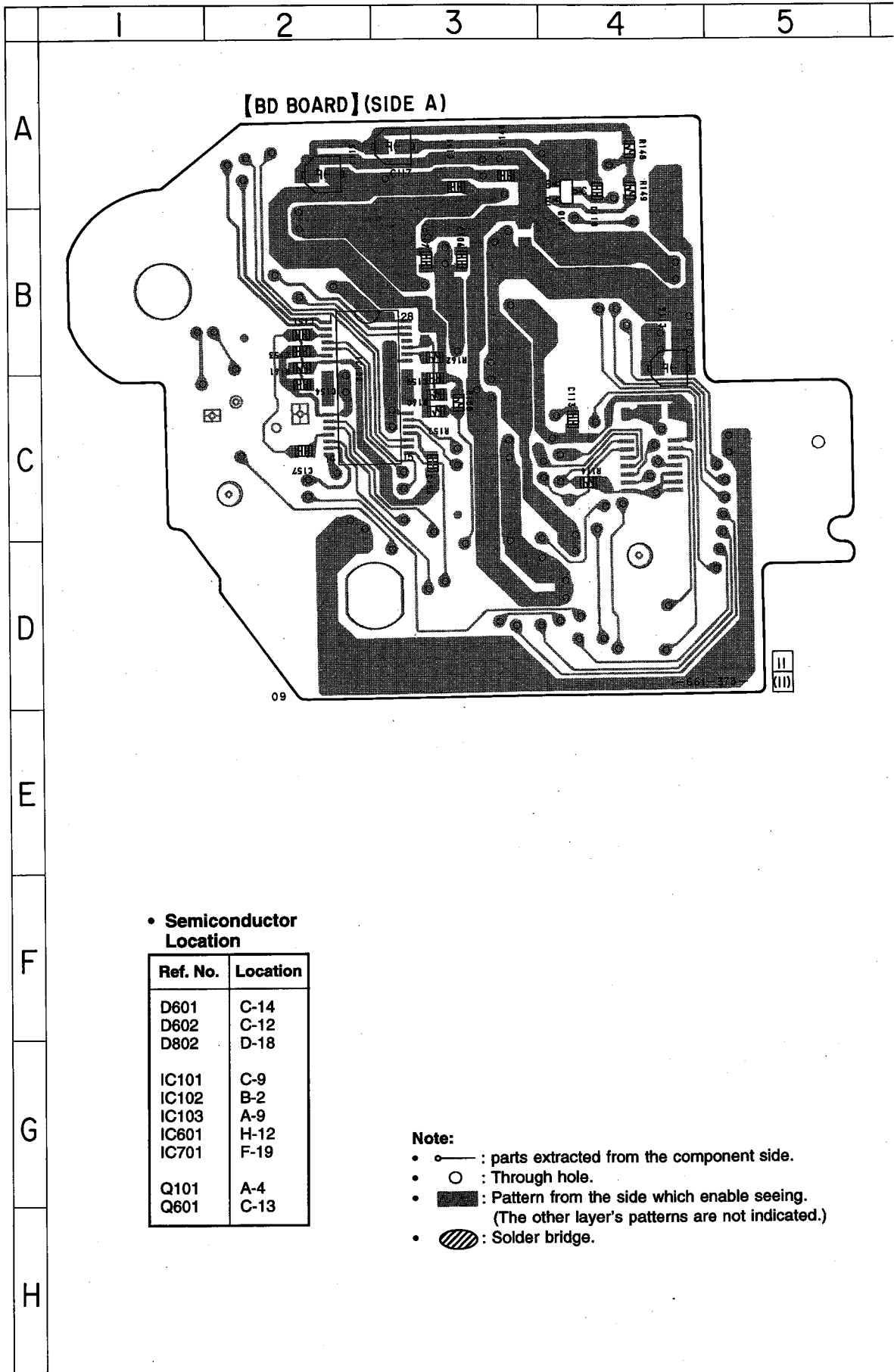




• Signal path.
 :CD

6-4. PRINTED WIRING BOARD — BD, DISP SECTION —

• See page 21 for Circuit Boards Location.



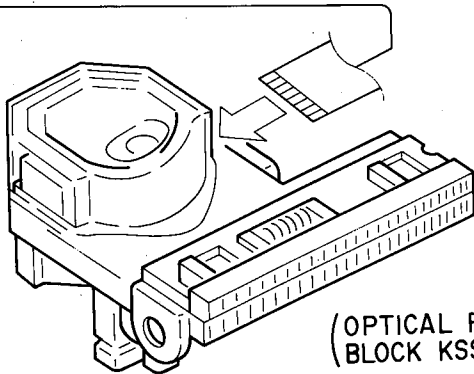
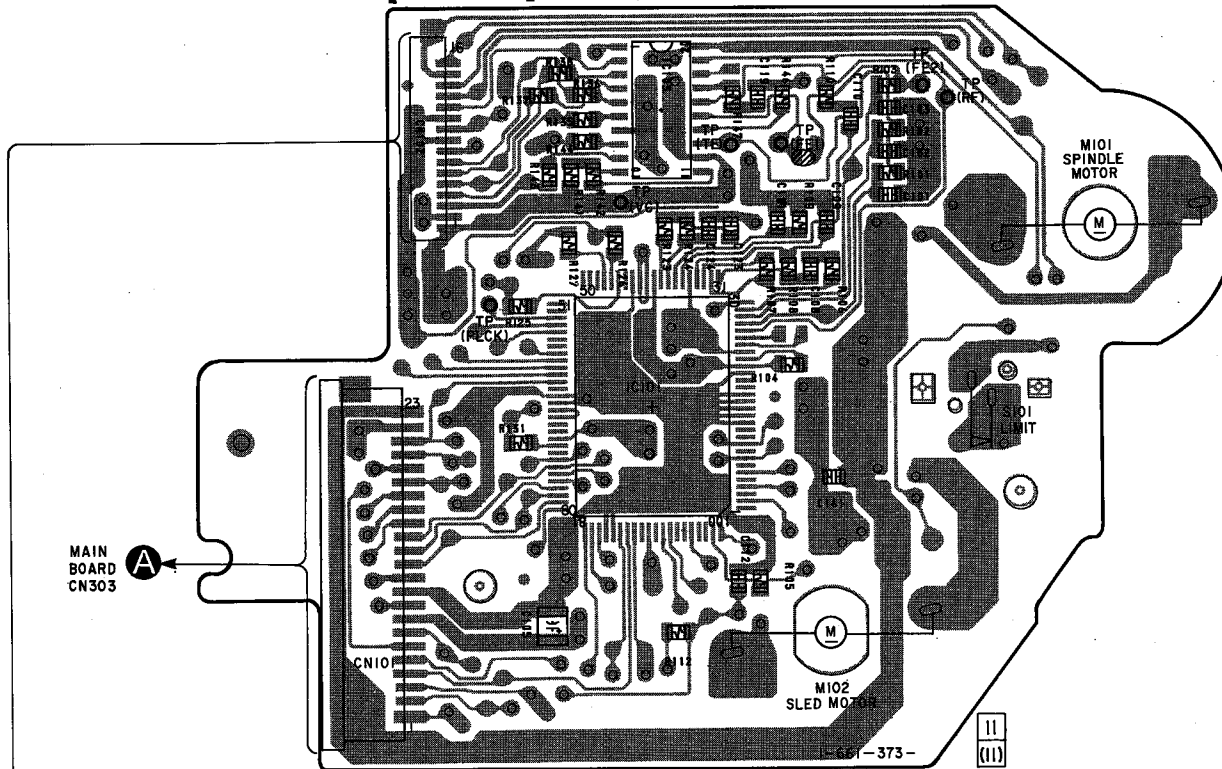
• **Semiconductor Location**

| Ref. No. | Location |
|----------|----------|
| D601 | C-14 |
| D602 | C-12 |
| D802 | D-18 |
| IC101 | C-9 |
| IC102 | B-2 |
| IC103 | A-9 |
| IC601 | H-12 |
| IC701 | F-19 |
| Q101 | A-4 |
| Q601 | C-13 |

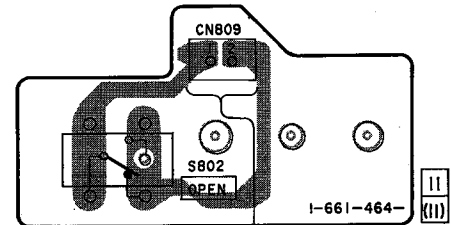
Note:

- : parts extracted from the component side.
- : Through hole.
- : Pattern from the side which enable seeing.
(The other layer's patterns are not indicated.)
- : Solder bridge.

[BD BOARD] (SIDE B)

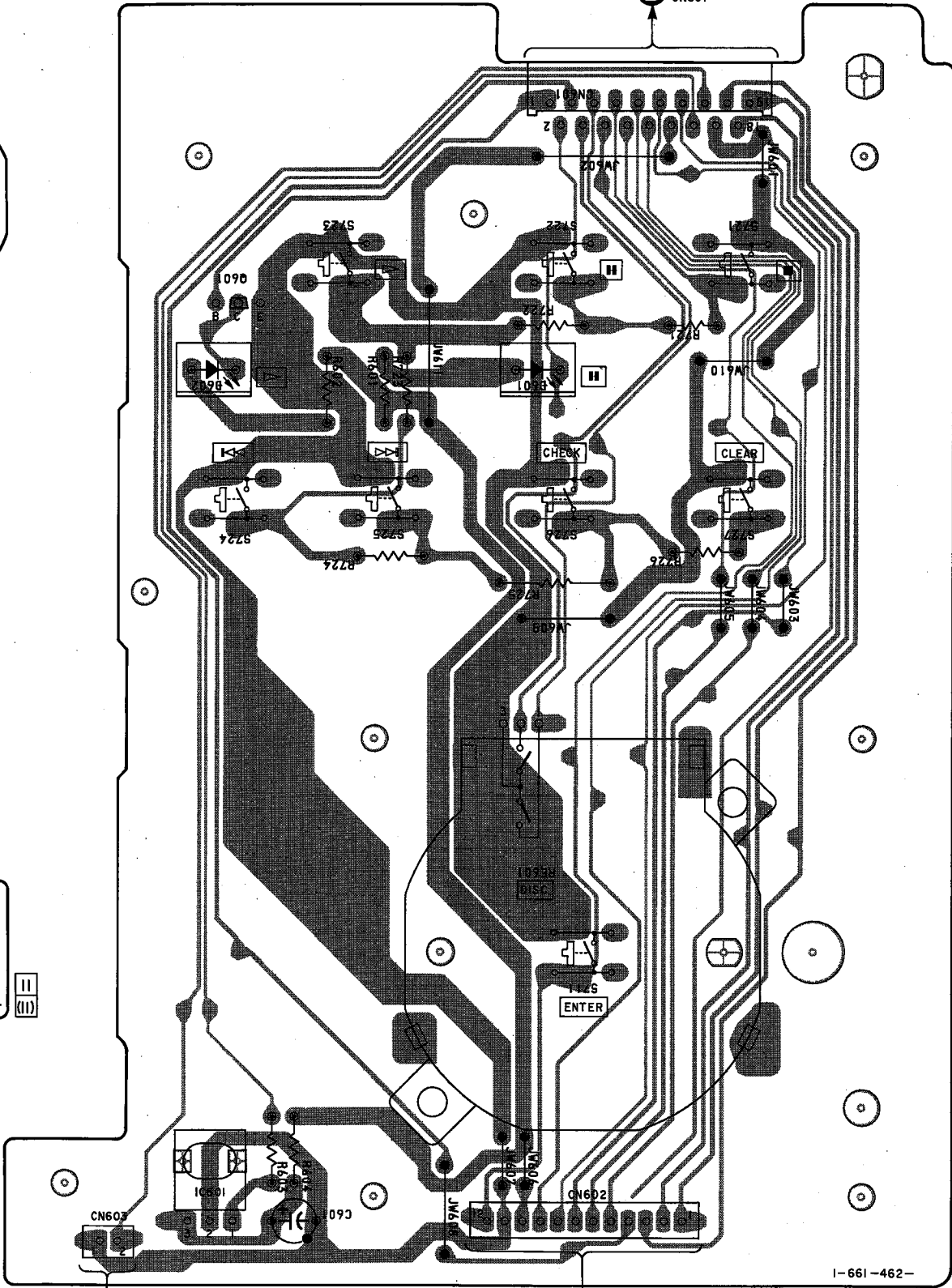


[DOOR SW BOARD]



[JOG BOARD]

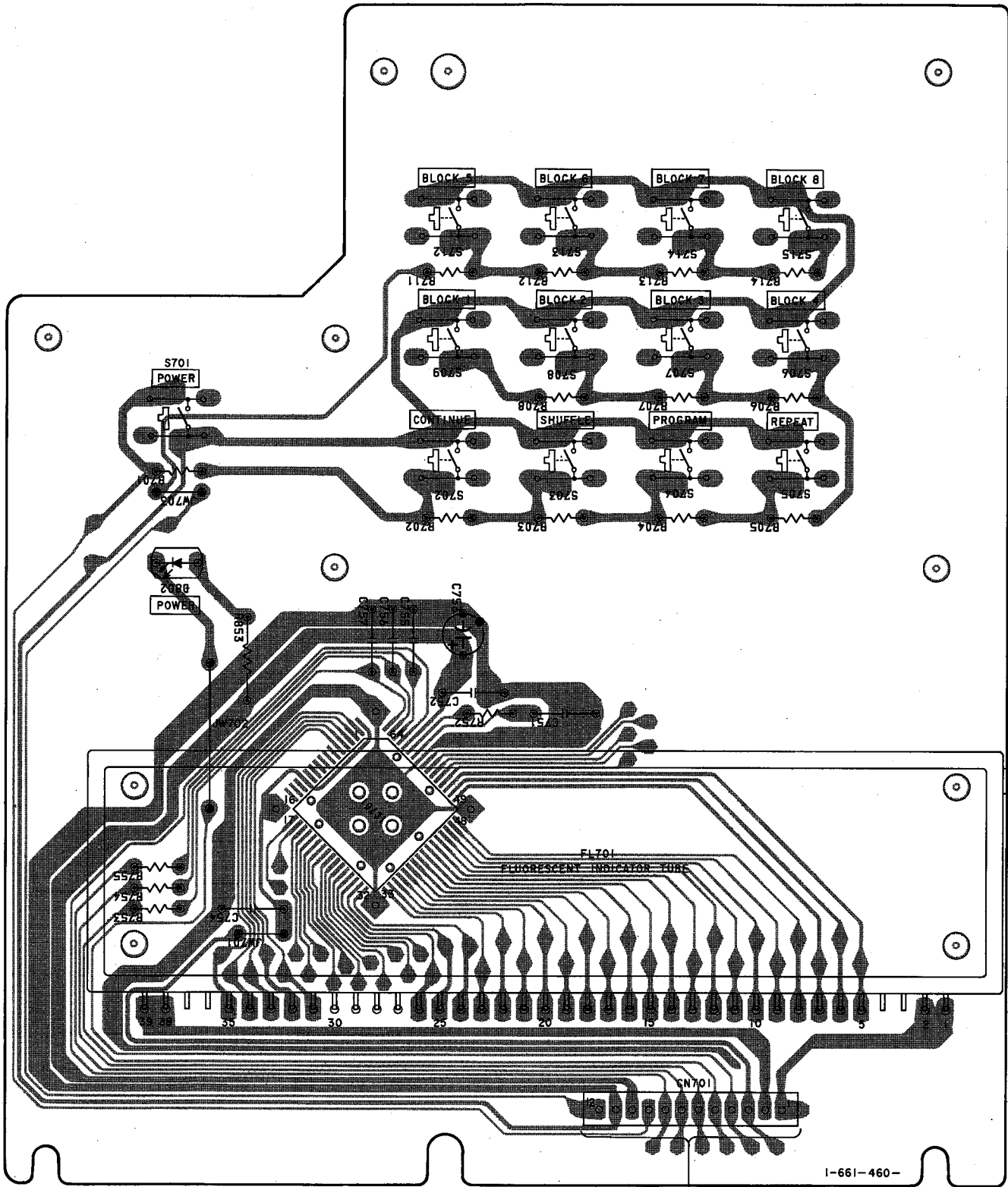
B MAIN BOARD
CN307



1-661-464-
11
11

1-661-462-
11
11

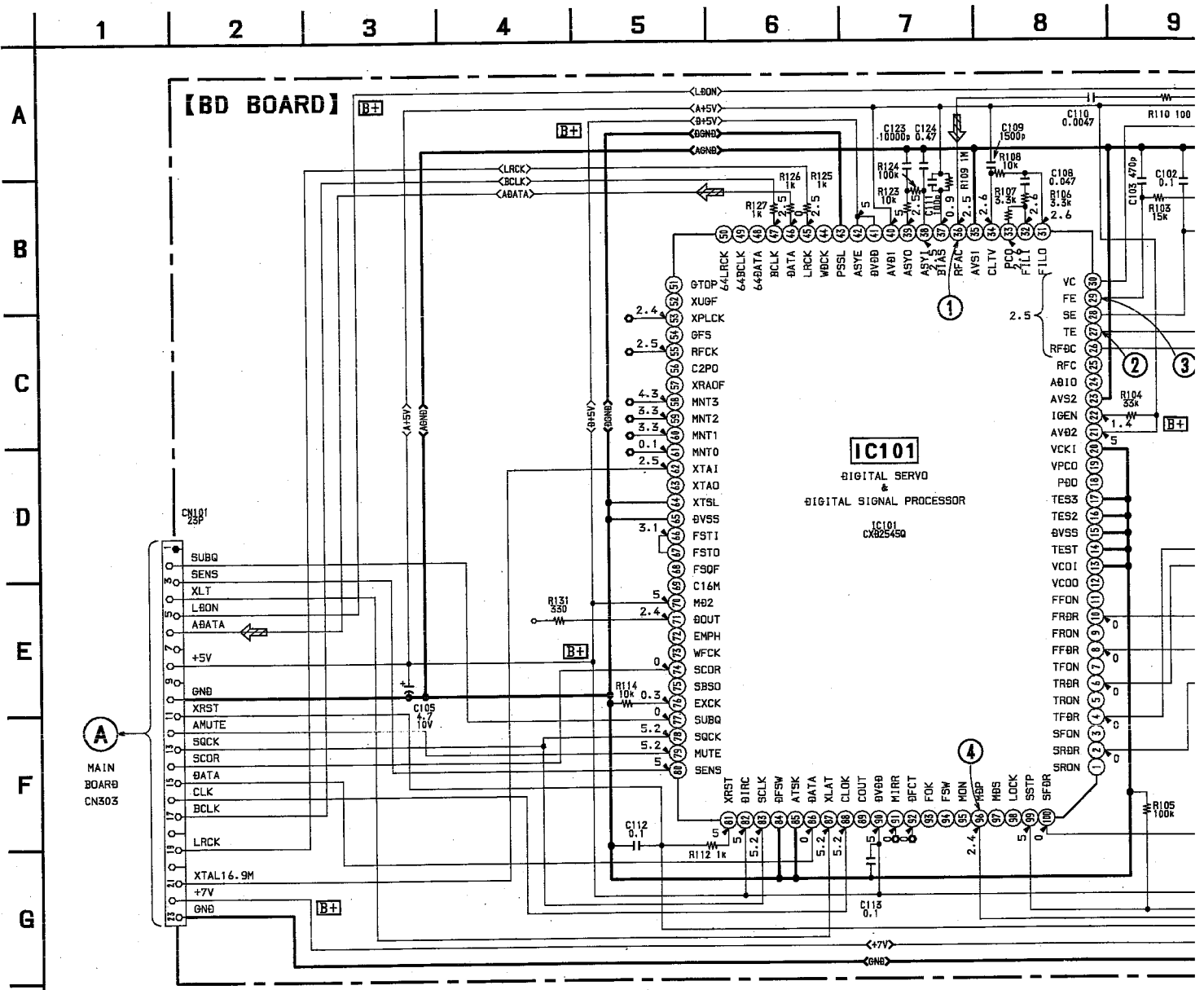
[DISP BOARD]



11
110

6-5. SCHEMATIC DIAGRAM — BD, DISP SECTION —

- See page 47 for IC Block Diagrams.
- See page 22 for IC Pin Functions. (IC101)

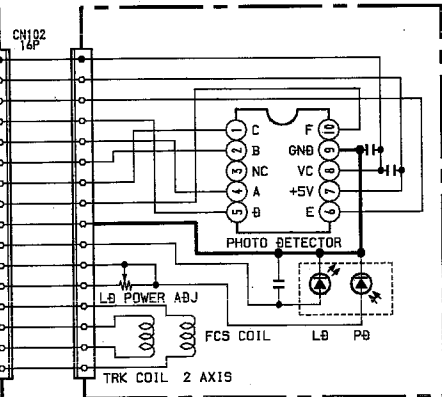
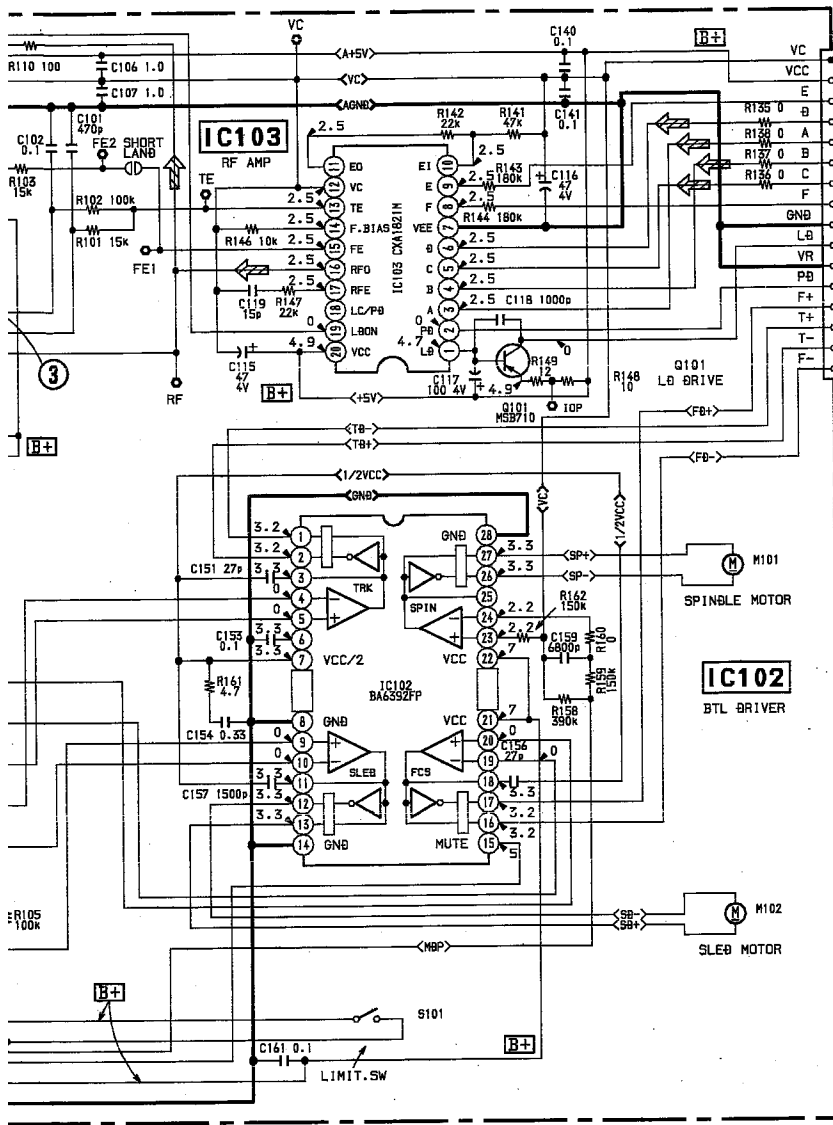


NOTE

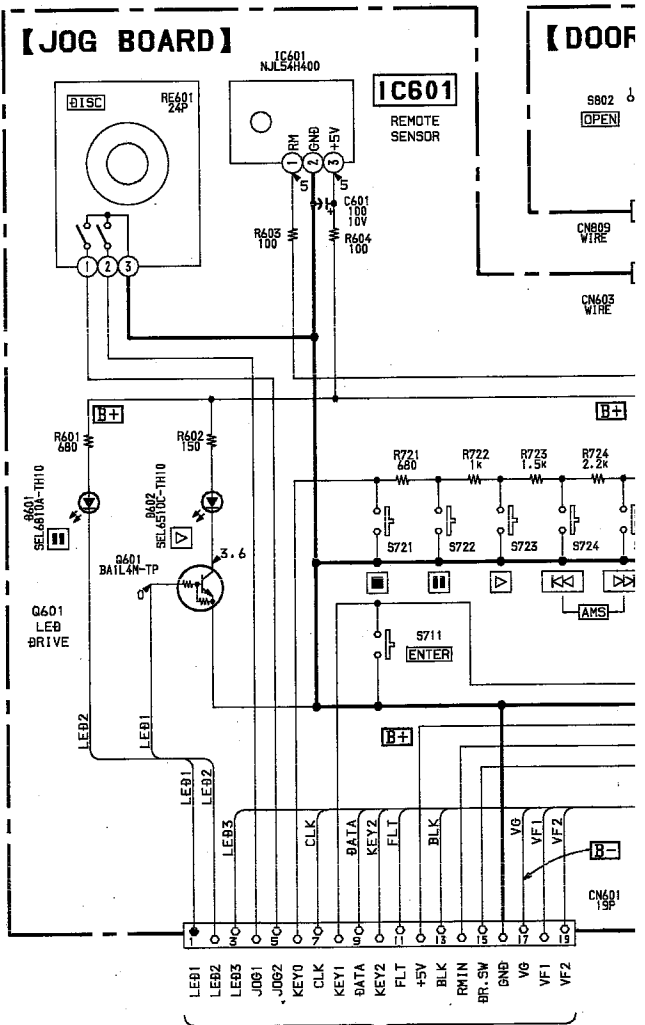
- All capacitors are in μF unless otherwise noted, pF: $\mu\mu\text{F}$. 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- :panel designation.

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

- B+ :B+ Line.
- B- :B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions, no mark:STOP
- Voltages are taken with a VOM (Input impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- \Rightarrow :CO

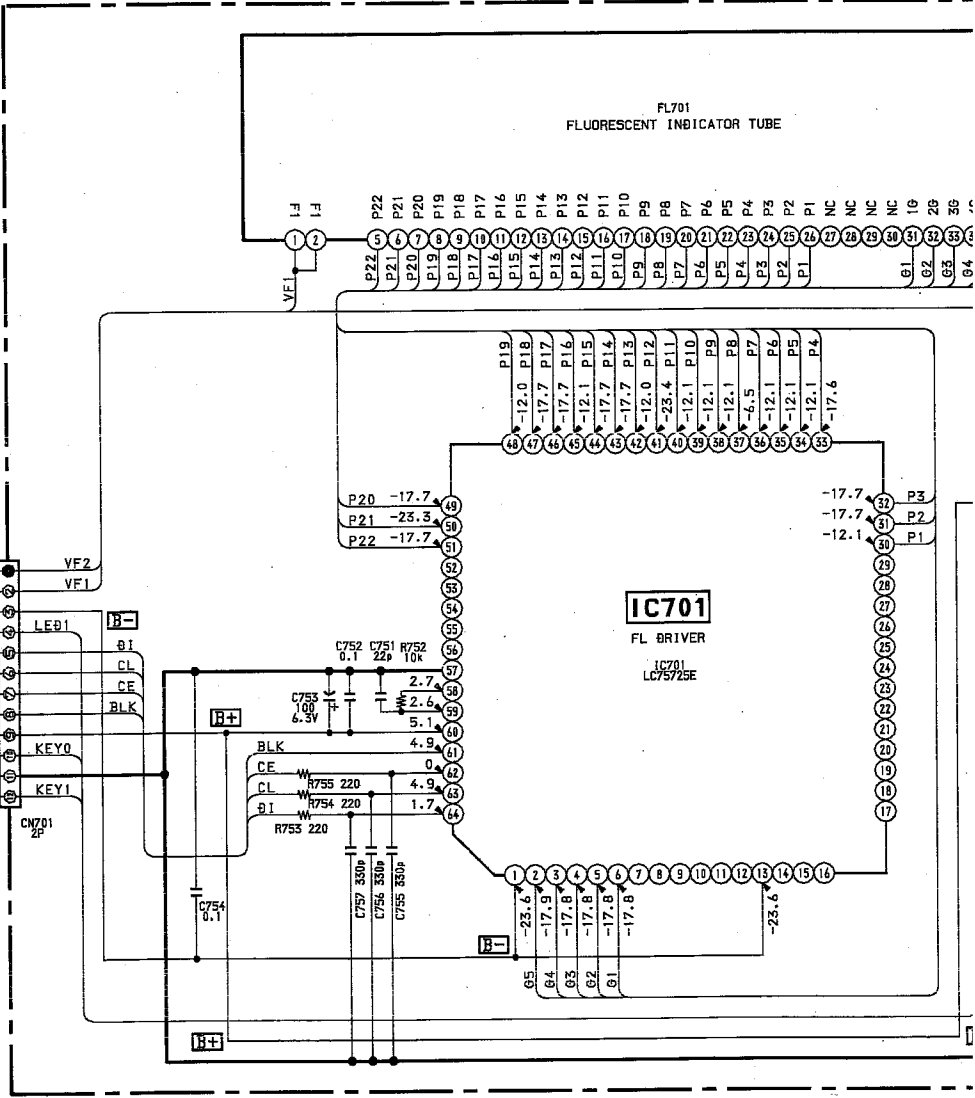
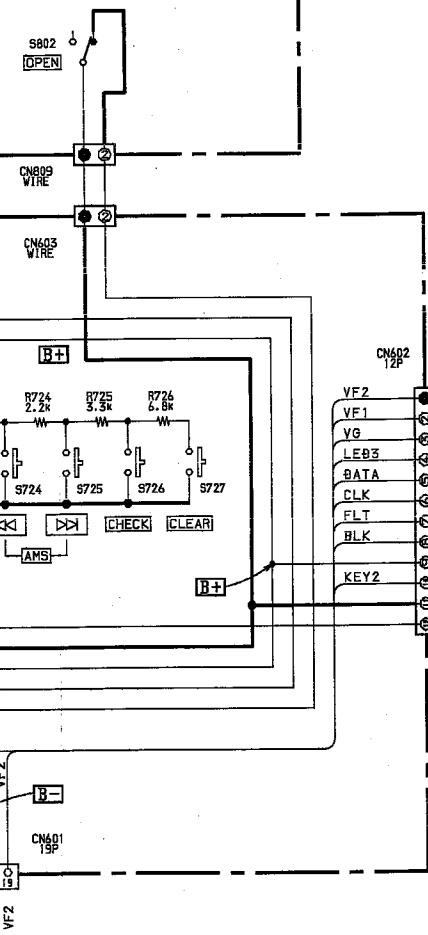


OPTICAL PICK-UP (KSS-213B/S-N)



MAIN BOARD CN307

DOOR SW BOARD



27

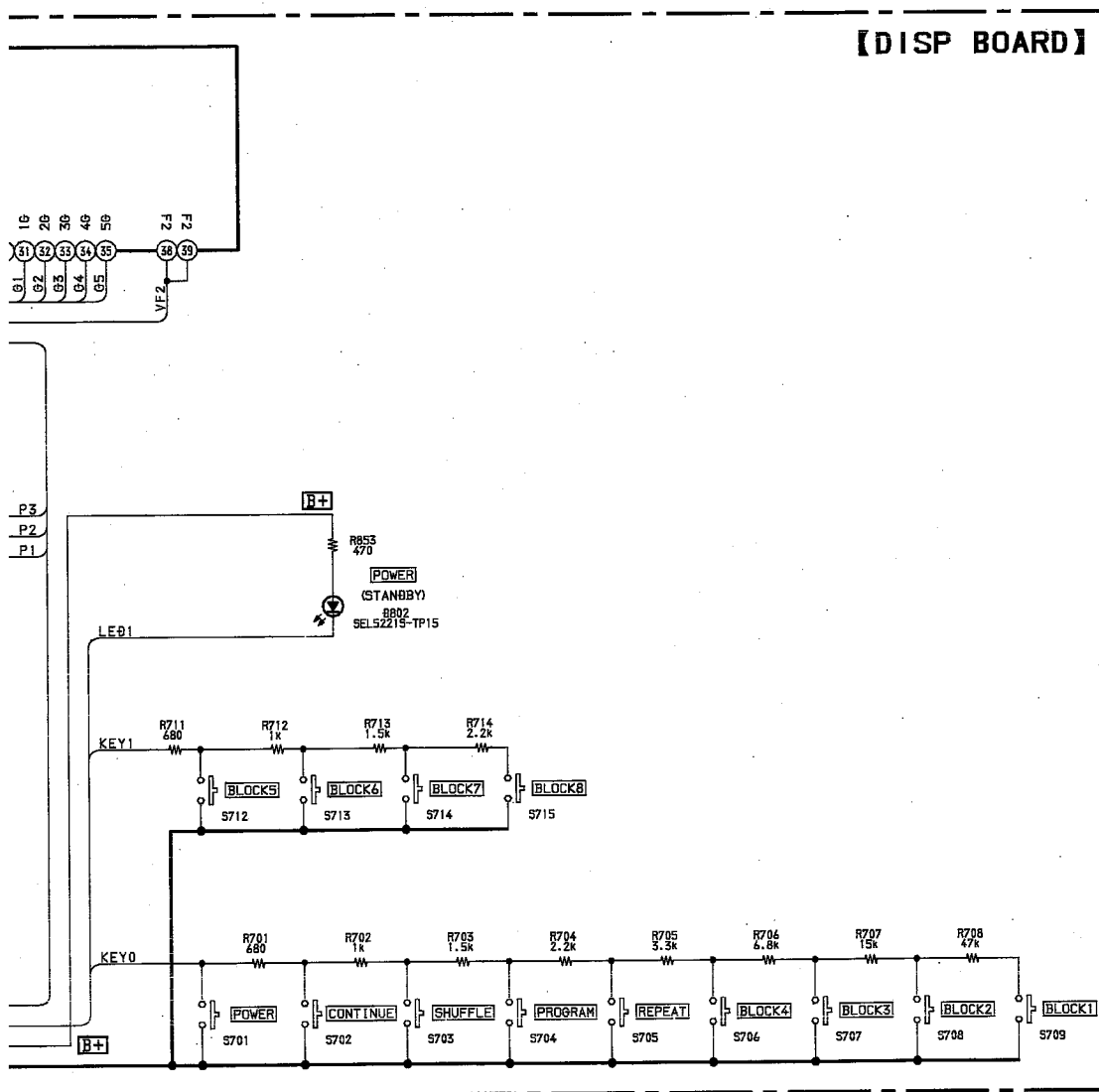
28

29

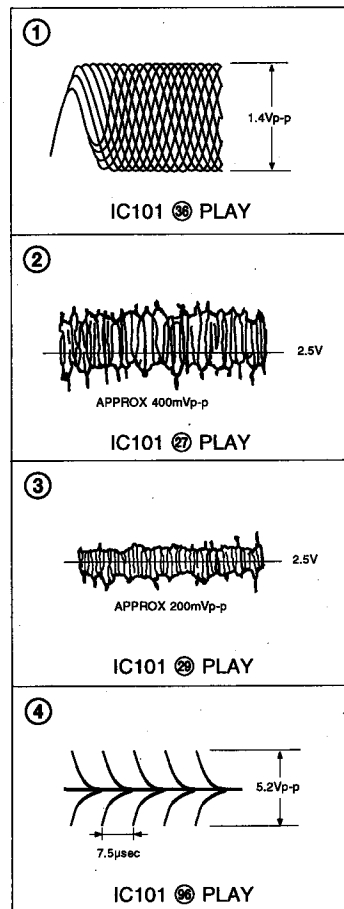
30

31

32



• Waveforms

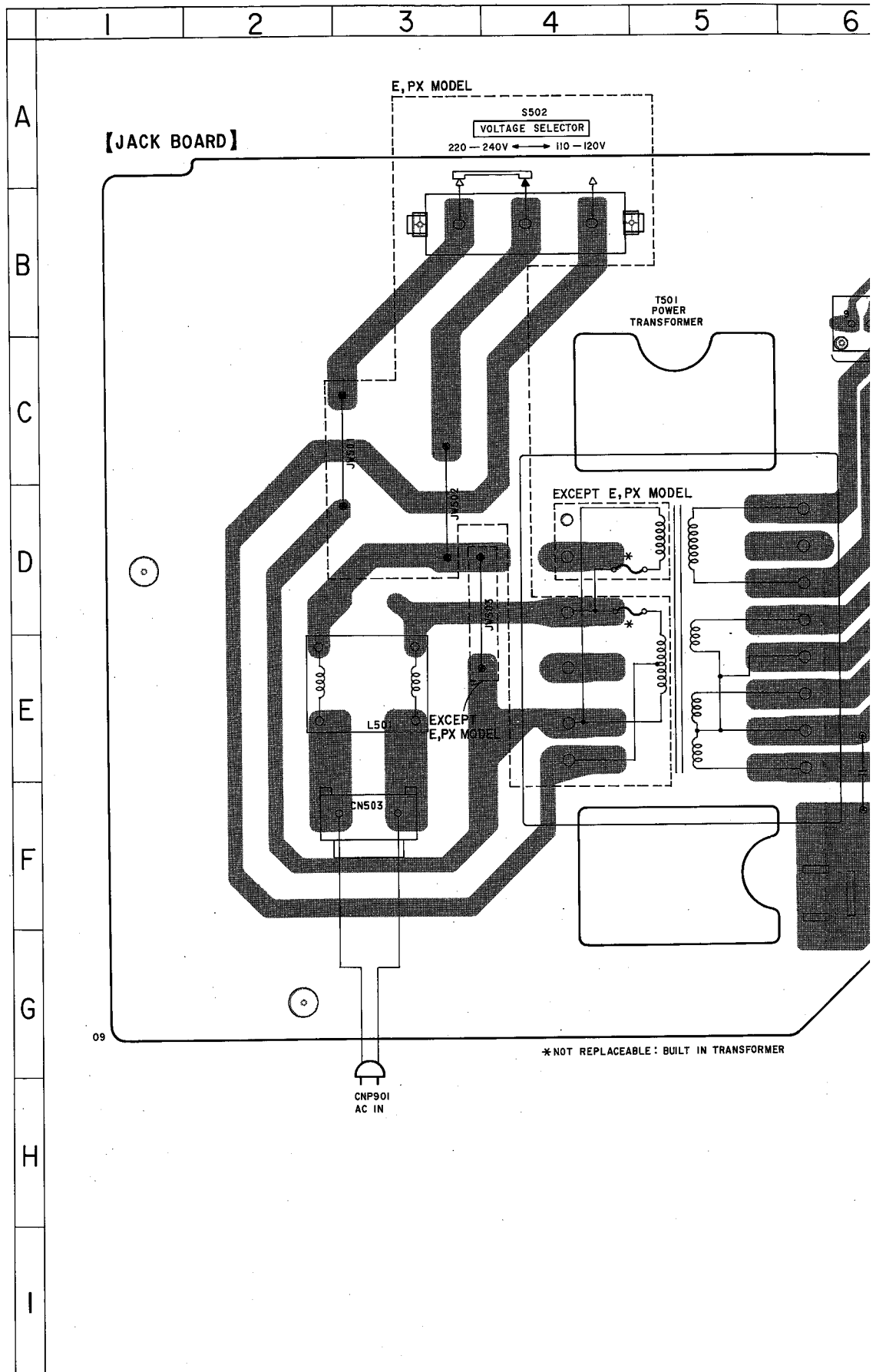


6-6. PRINTED WIRING BOARD — MAIN SECTION —

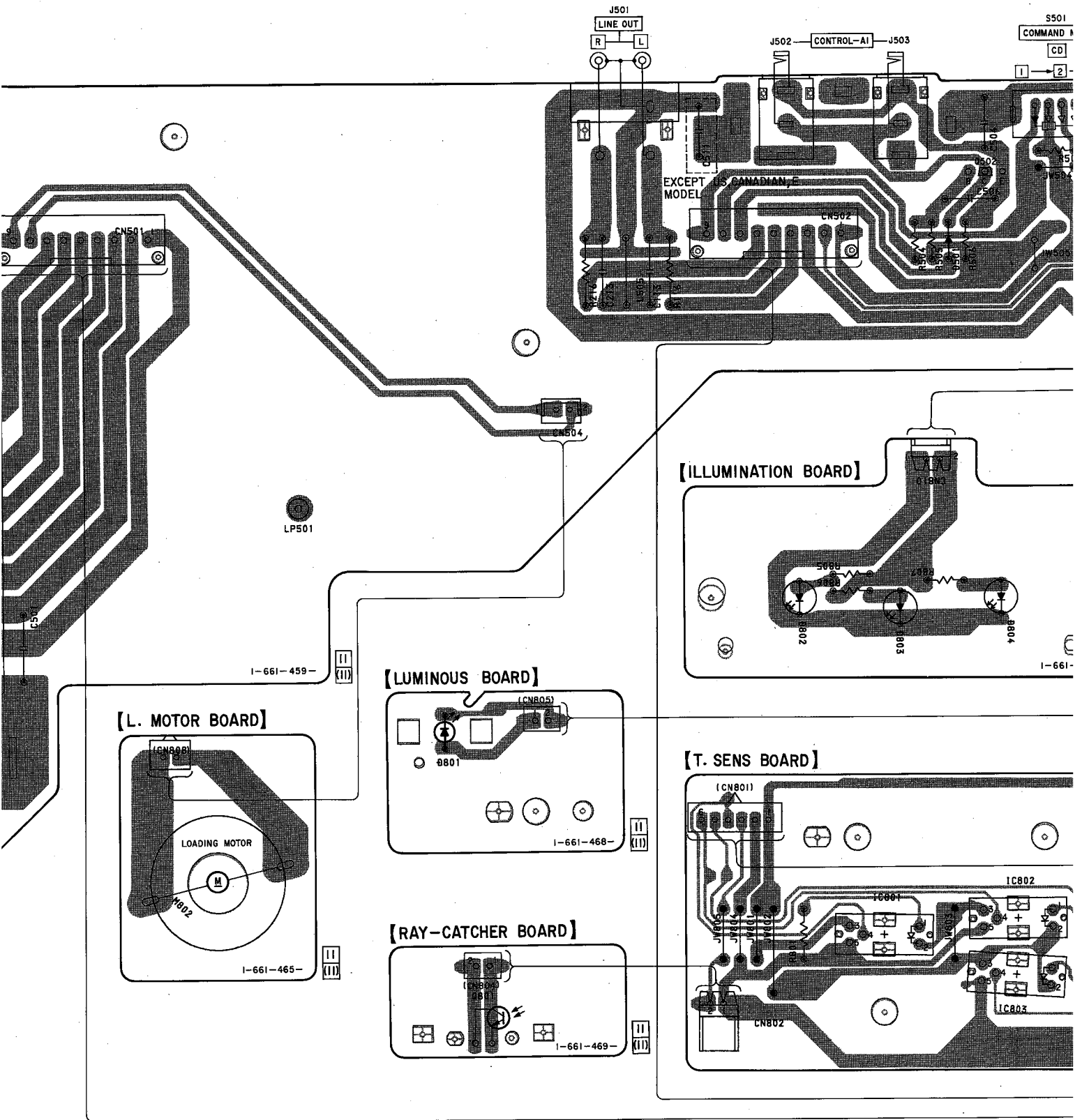
• See page 21 for Circuit Boards Location.

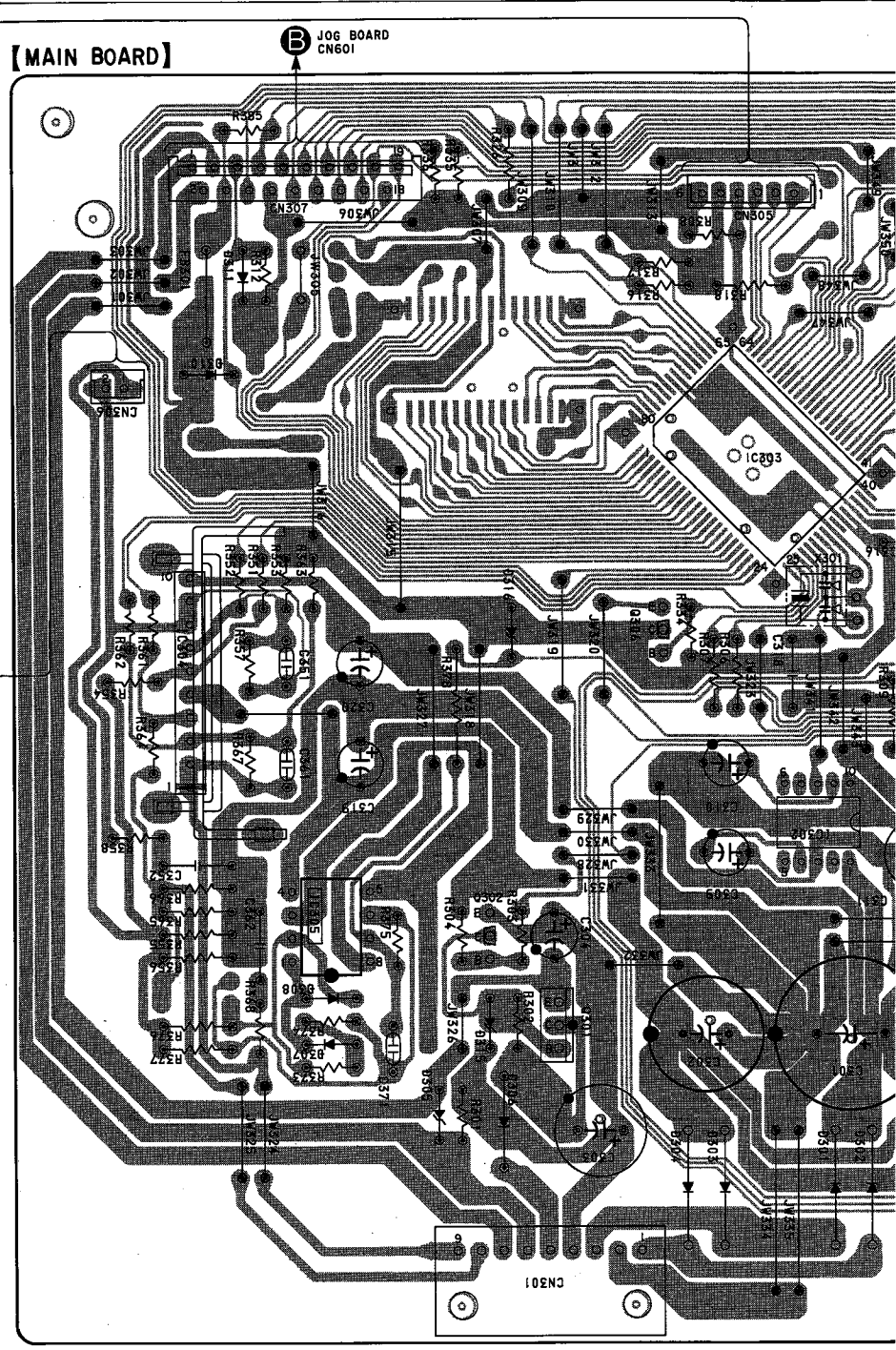
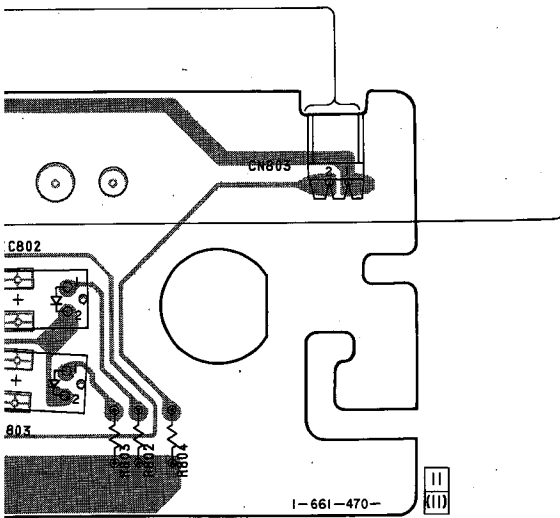
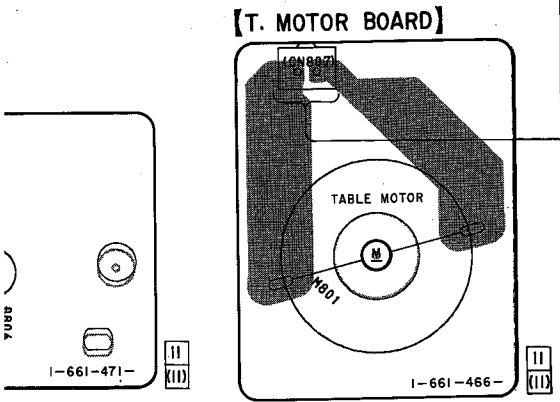
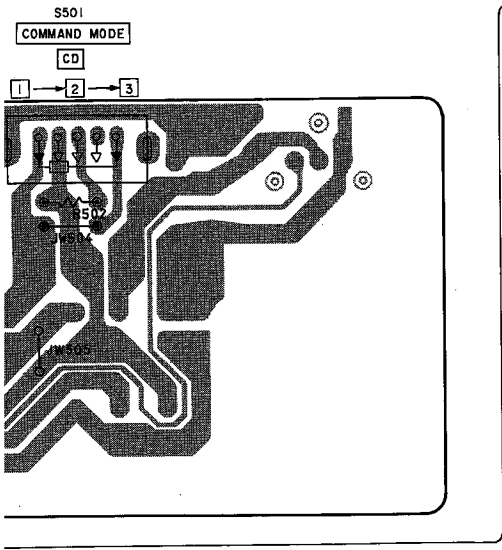
• Semiconductor Location

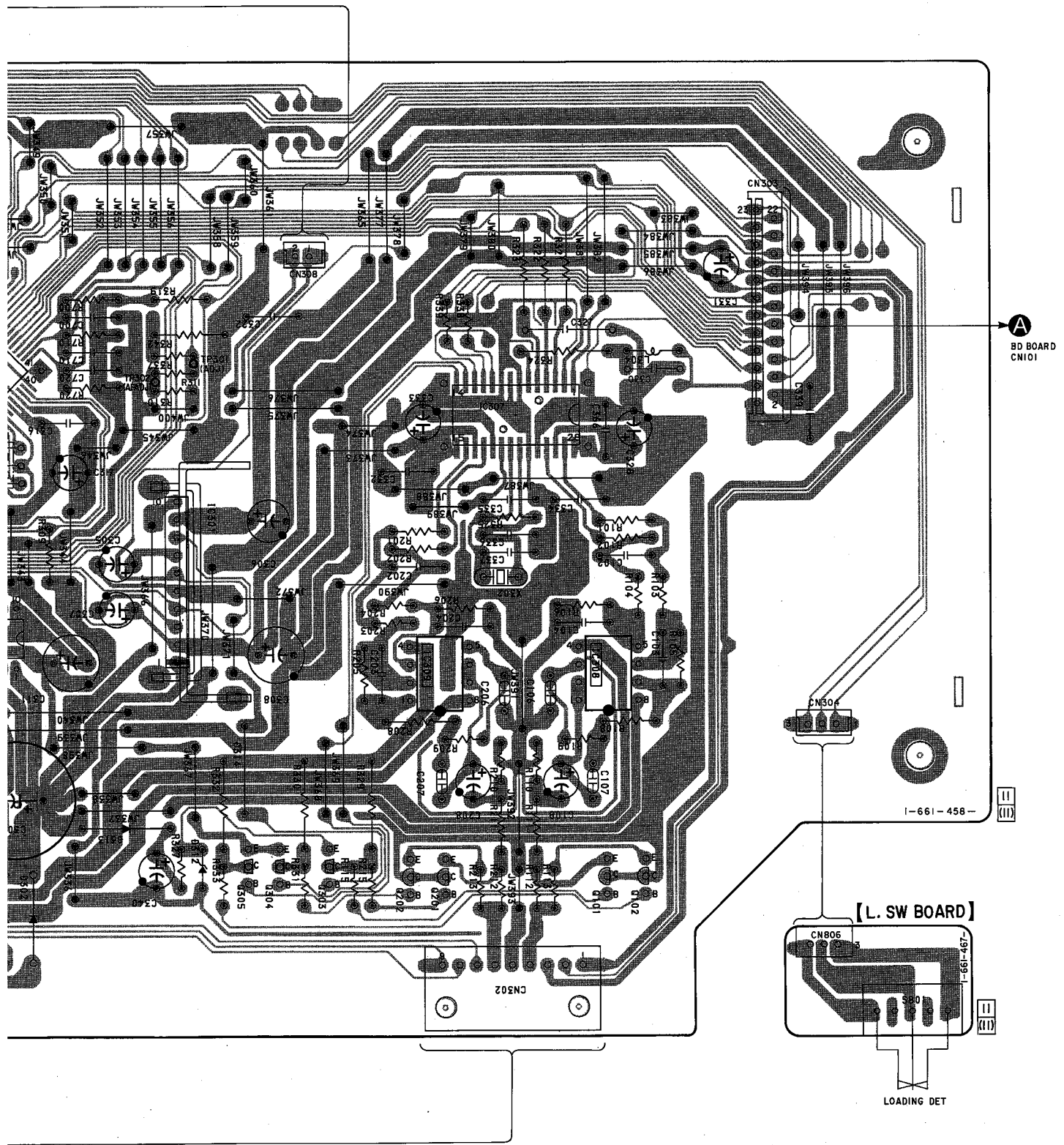
| Ref. No. | Location |
|----------|----------|
| D301 | G-21 |
| D302 | G-21 |
| D303 | G-20 |
| D304 | G-20 |
| D305 | G-19 |
| D306 | G-19 |
| D307 | G-18 |
| D308 | F-18 |
| D310 | C-17 |
| D311 | B-17 |
| D312 | G-22 |
| D313 | G-21 |
| D315 | G-19 |
| D316 | D-19 |
| D501 | C-13 |
| D801 | F-9 |
| D802 | E-12 |
| D803 | E-12 |
| D804 | E-13 |
| IC301 | E-22 |
| IC302 | E-21 |
| IC303 | C-20 |
| IC304 | D-17 |
| IC305 | F-18 |
| IC307 | D-24 |
| IC308 | F-25 |
| IC309 | F-24 |
| IC801 | G-12 |
| IC802 | G-13 |
| IC803 | H-13 |
| Q101 | G-25 |
| Q102 | G-25 |
| Q201 | G-24 |
| Q202 | G-24 |
| Q301 | F-19 |
| Q302 | F-19 |
| Q303 | G-23 |
| Q304 | G-23 |
| Q305 | G-22 |
| Q306 | D-20 |
| Q502 | B-13 |
| Q801 | H-9 |



* NOT REPLACEABLE: BUILT IN TRANSFORMER





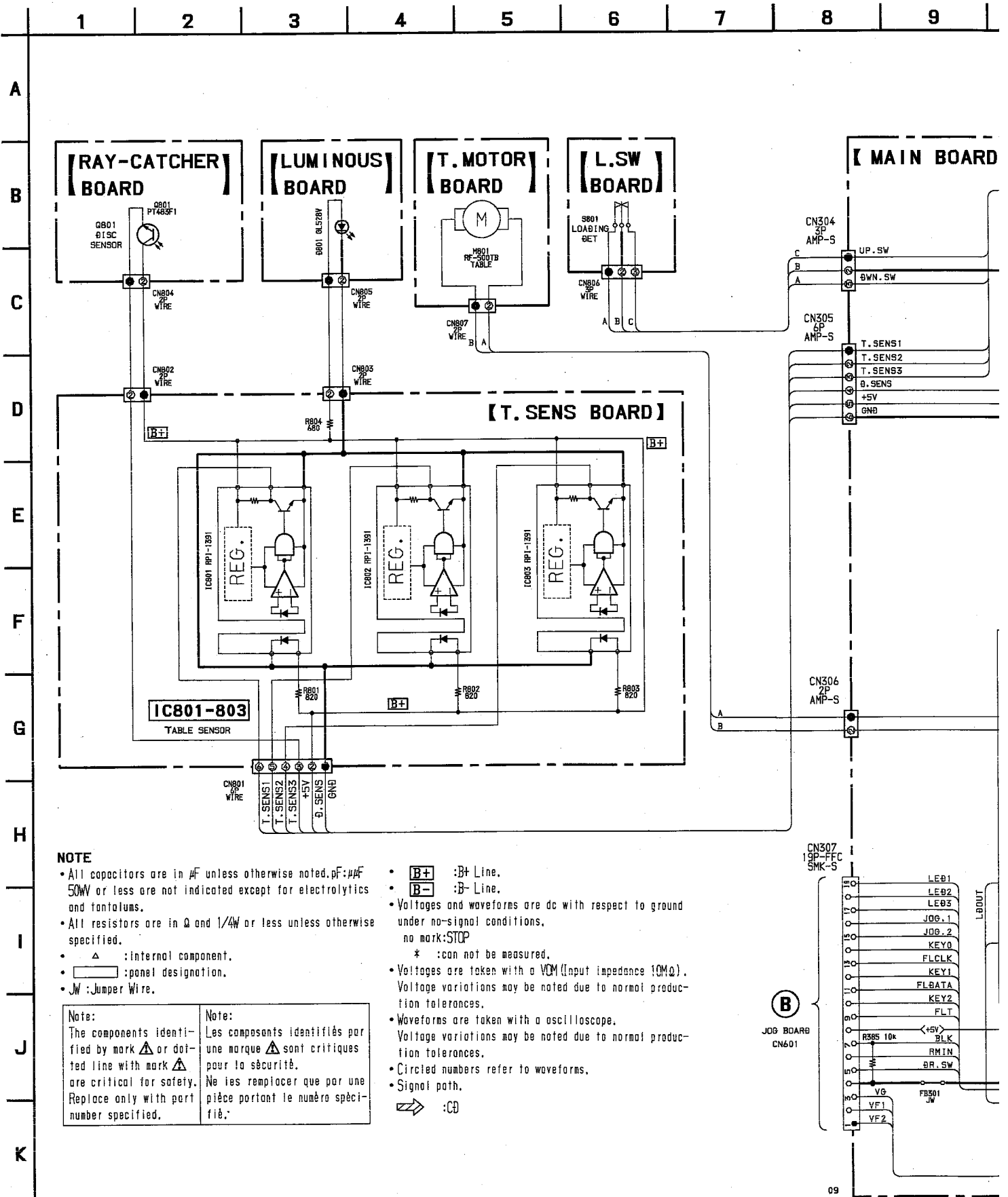


Note:

- ○ — : parts extracted from the component side.
- △ : internal component.
- ■ : Pattern from the side which enable seeing.

6-7. SCHEMATIC DIAGRAM — MAIN SECTION—

- See page 48 for IC Block Diagrams.
- See page 25 for IC Pin Functions. (IC303)



NOTE

- All capacitors are in μF unless otherwise noted, pF: μF 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- Δ : internal component.
- \square : panel designation.
- JW : Jumper Wire.

- \square B+ : B+ Line.
- \square B- : B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions, no mark: STOP
- * : can not be measured.
- Voltages are taken with a VOM (input impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- \Rightarrow : CD

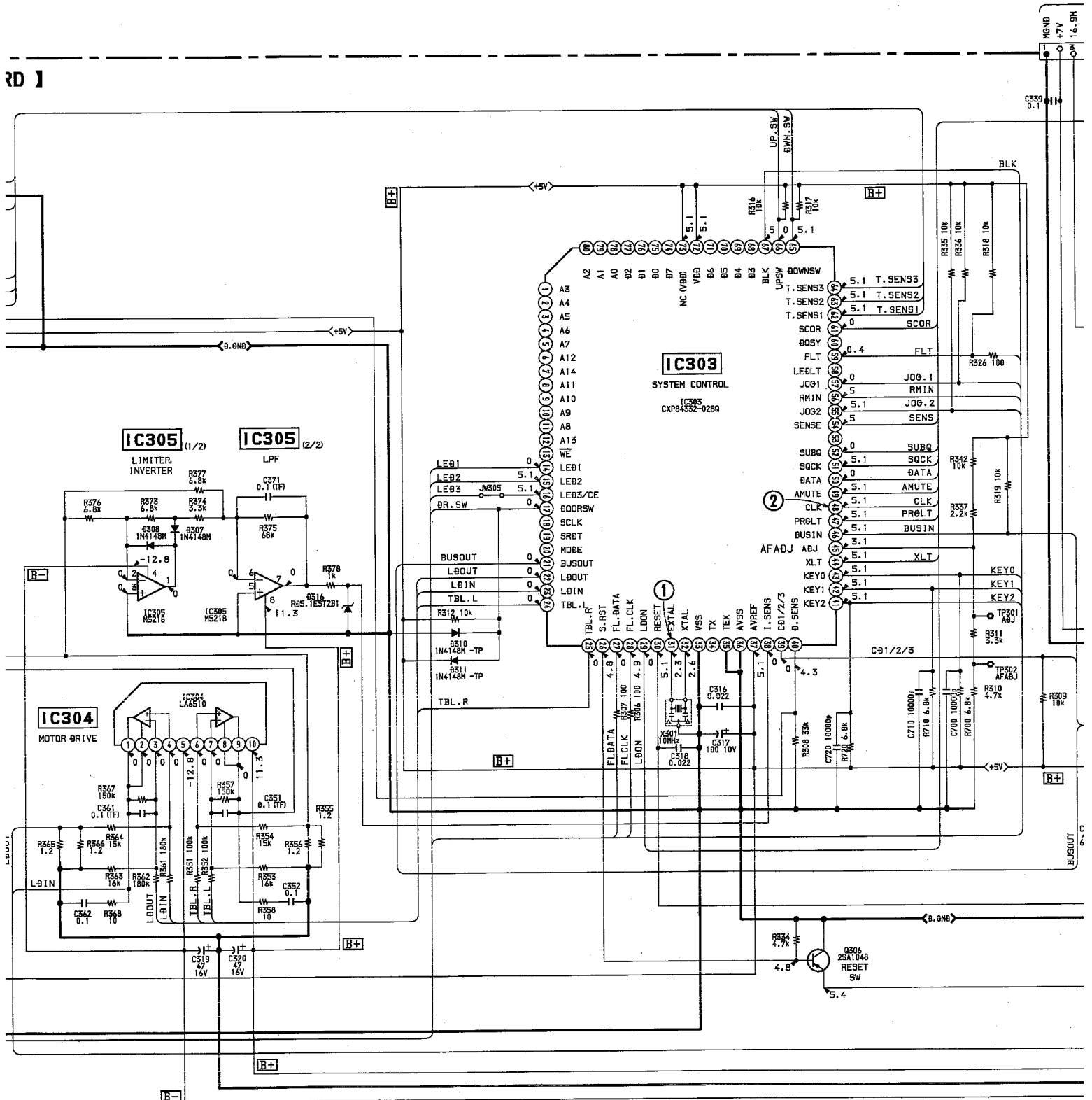
Note:

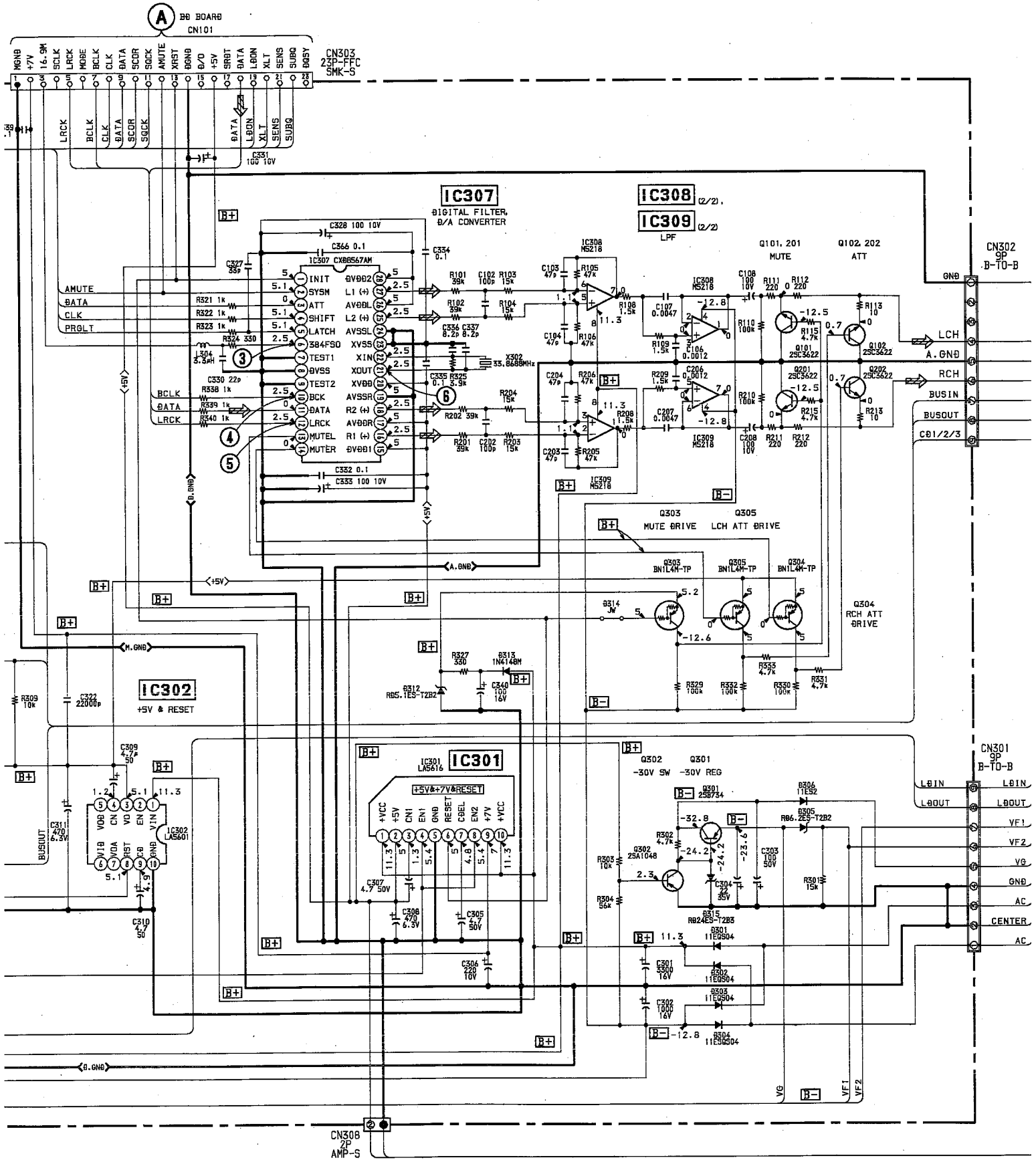
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Note:

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

RD]





29

30

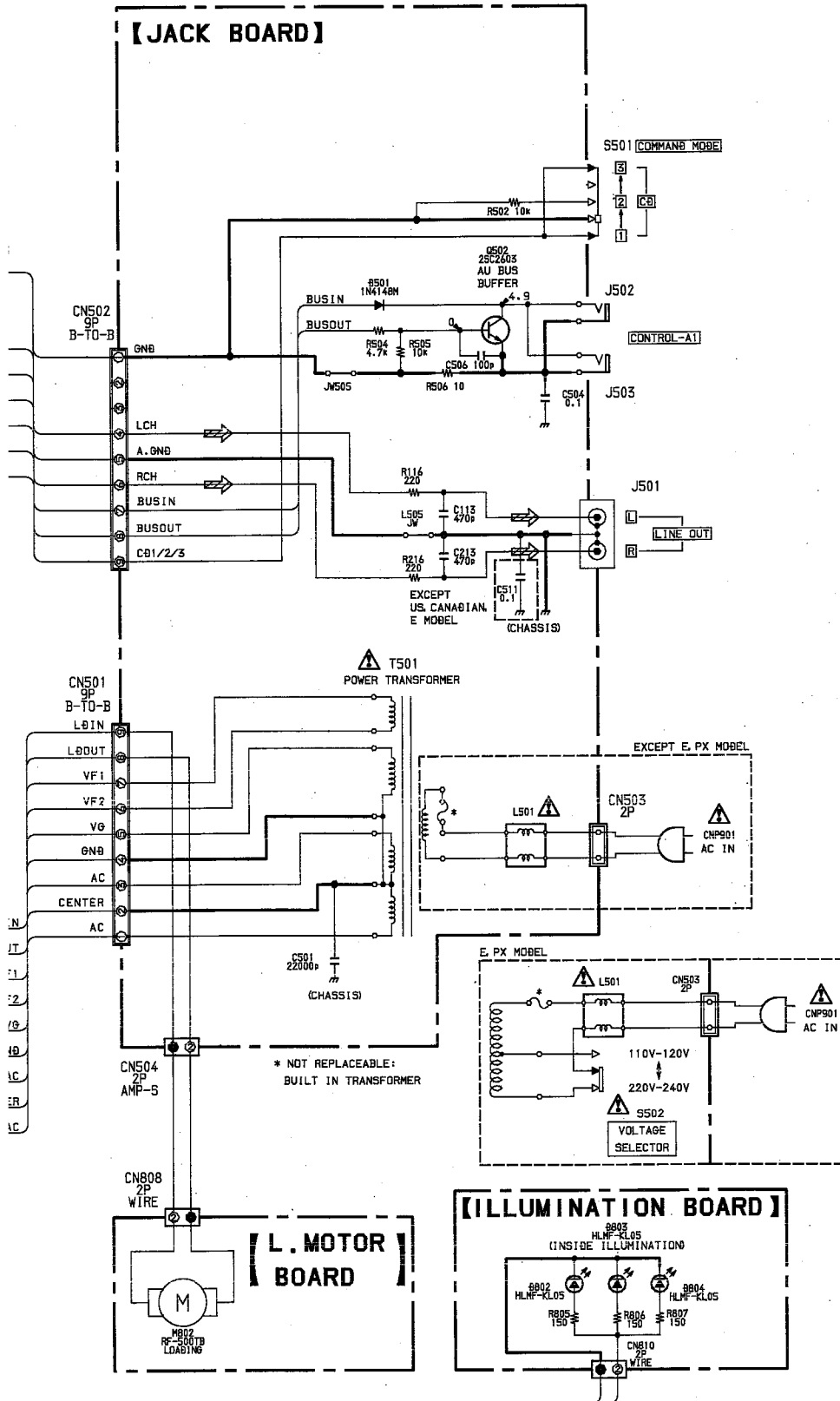
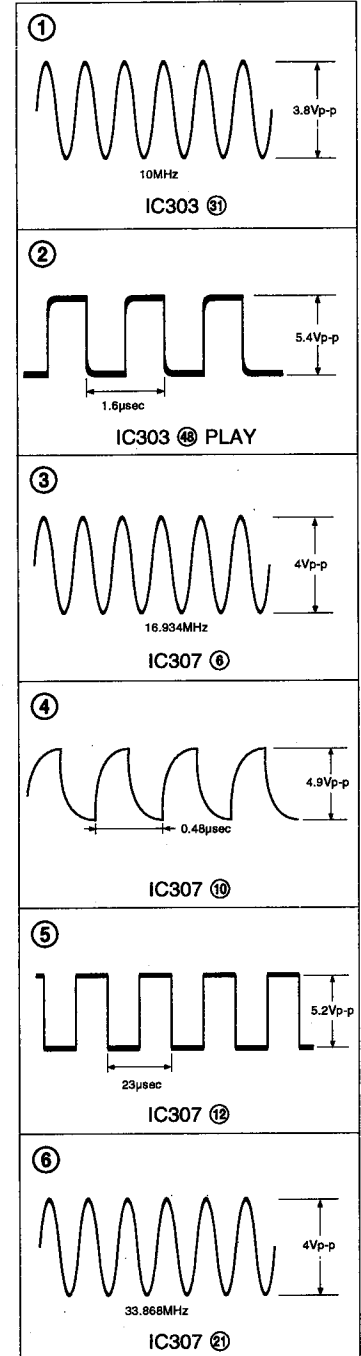
31

32

33

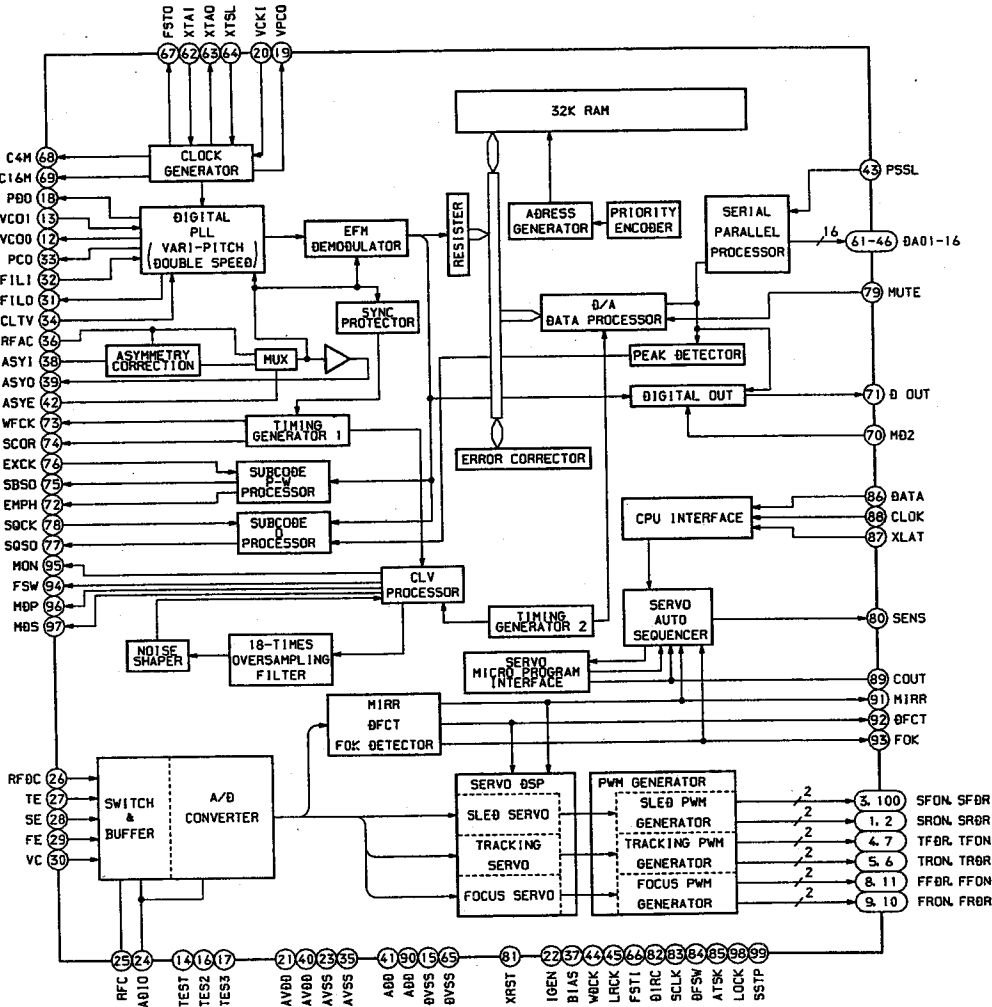
34

• Waveforms

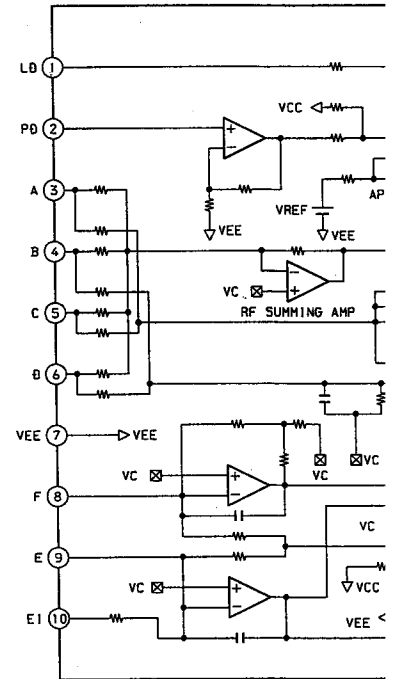


6-8. IC BLOCK DIAGRAMS
• BD, DISP Section

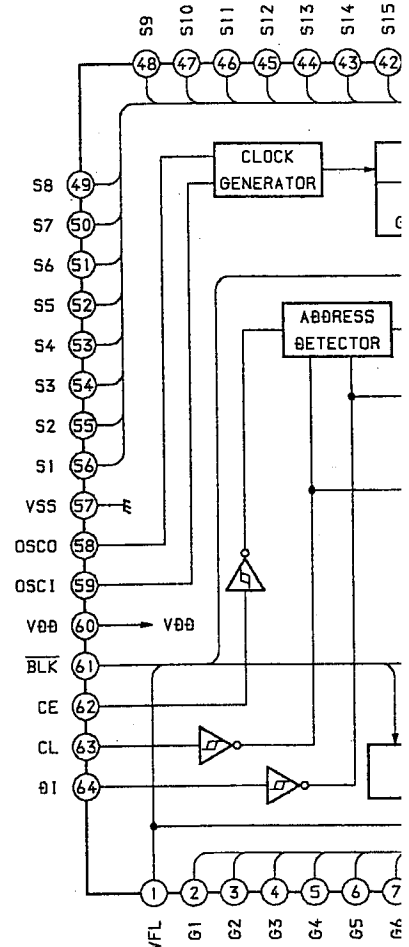
IC101 CXD2545Q



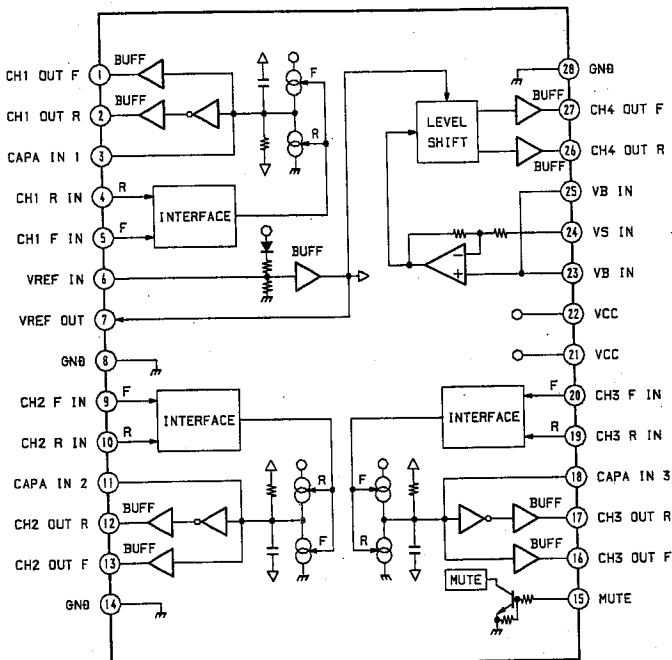
IC103 CXA1821M



IC701 LC75725E

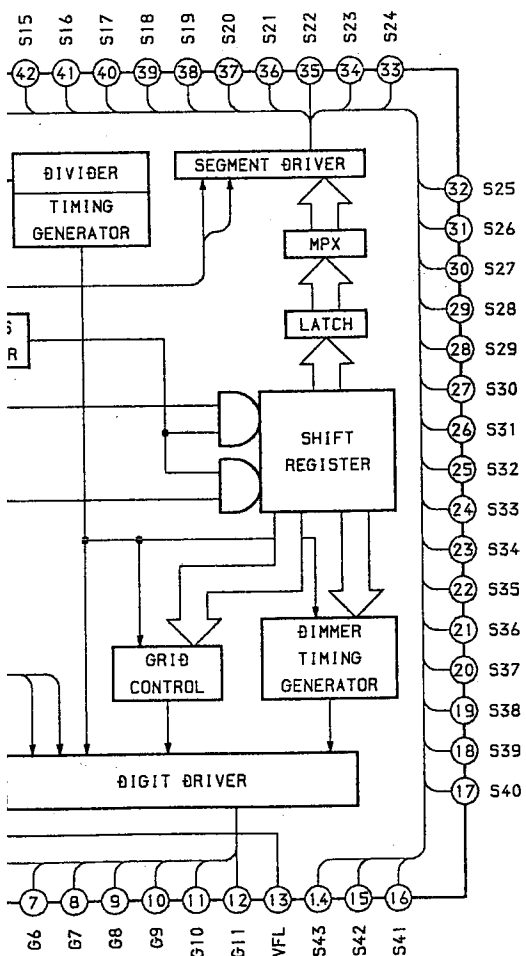
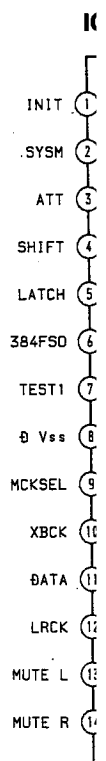
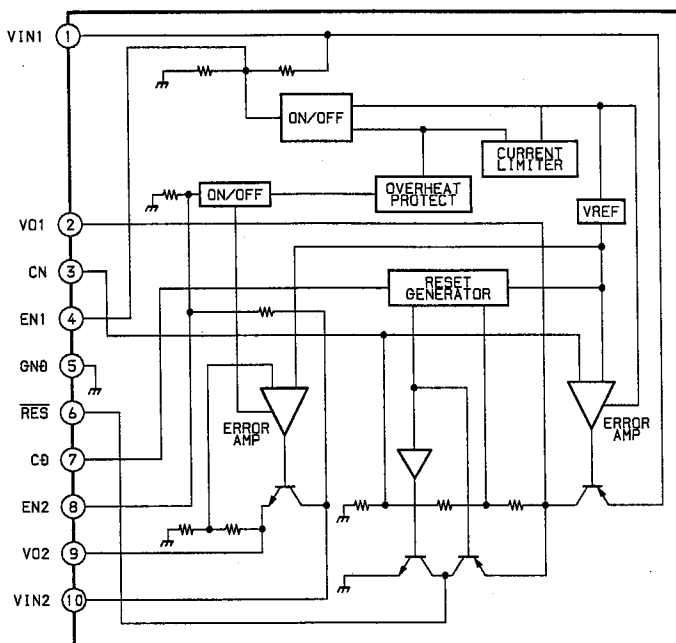
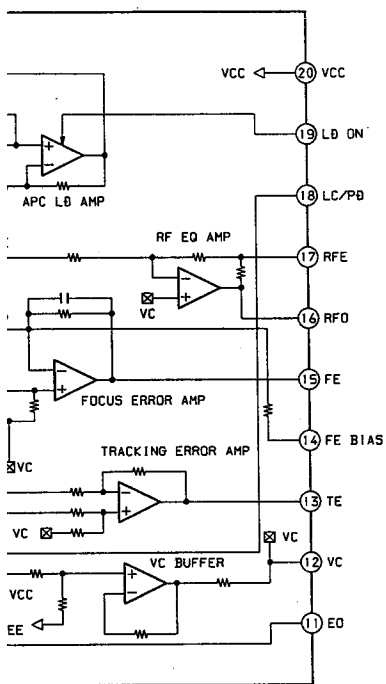


IC102 BA6392FP

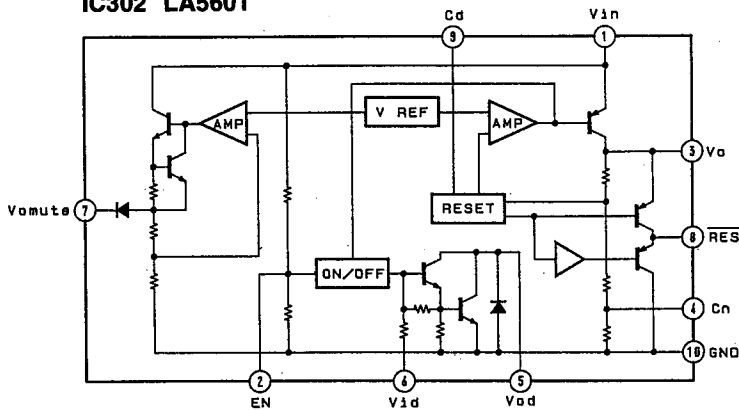


• MAIN Section

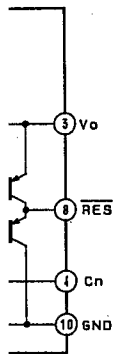
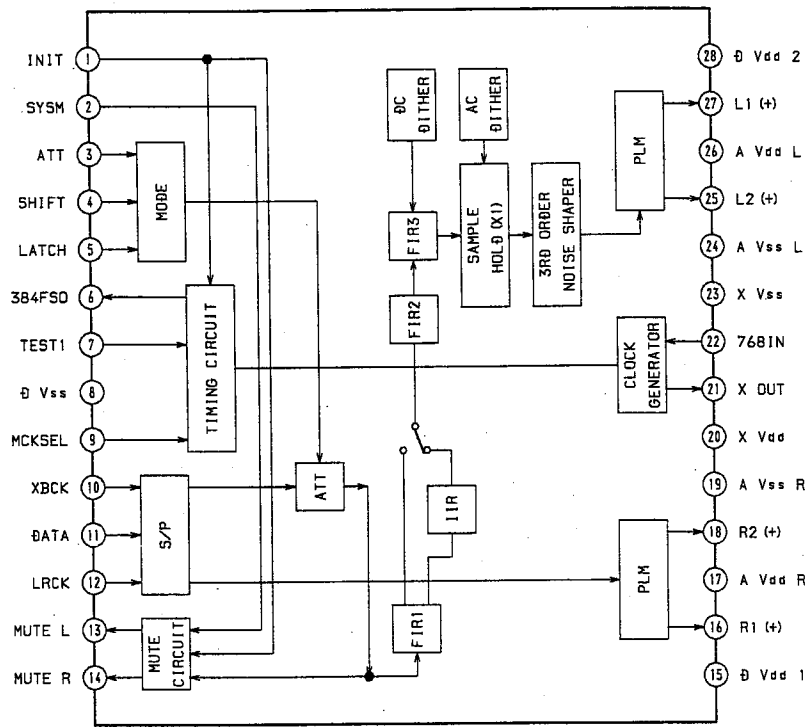
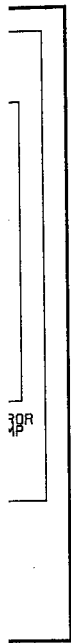
IC301 LA5616



IC302 LA5601



IC307 CXD8567AM



SECTION 7 EXPLODED VIEWS

NOTE:

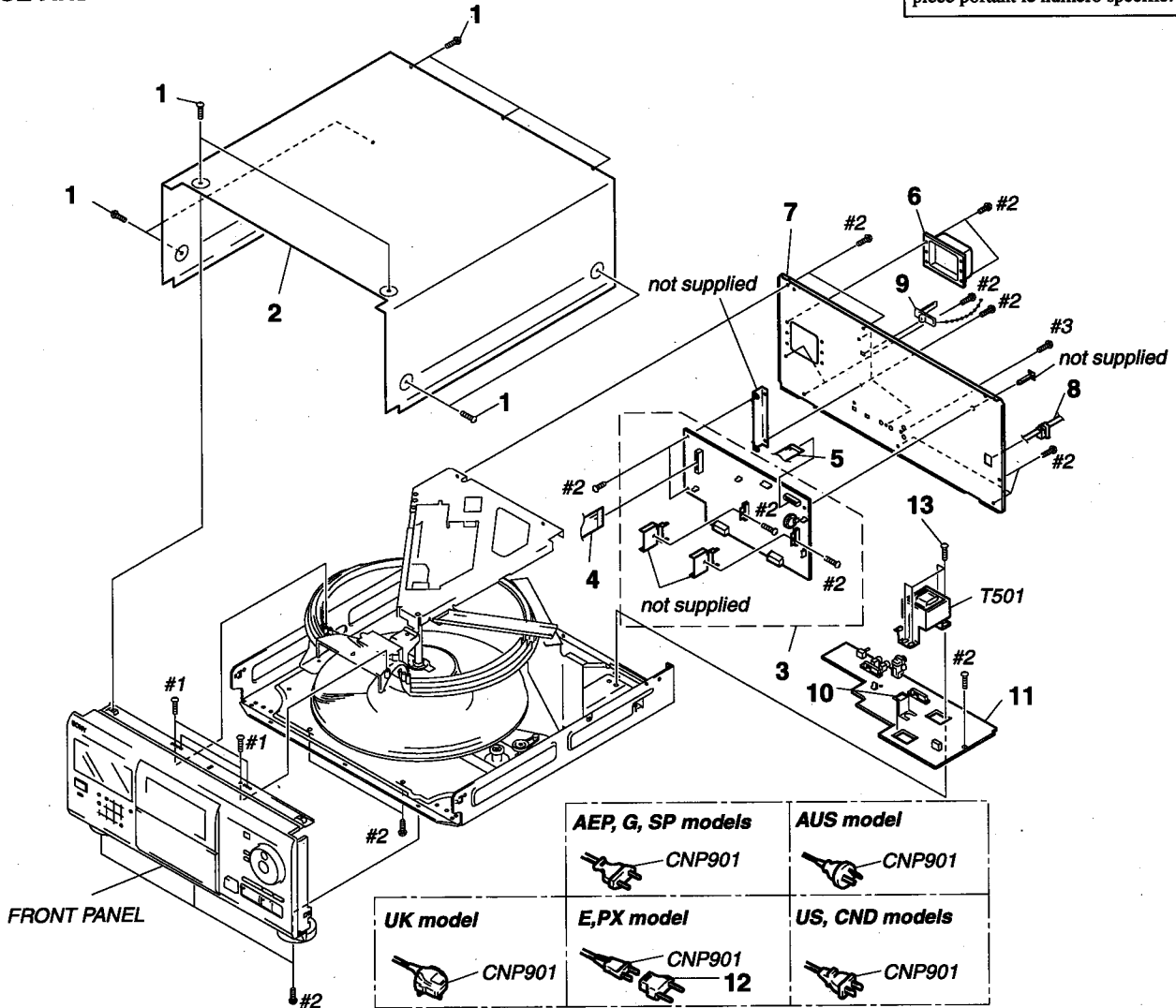
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

- Abbreviation
 CND : Canadian model
 G : German model
 SP : Singapore model
 AUS : Australian model

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

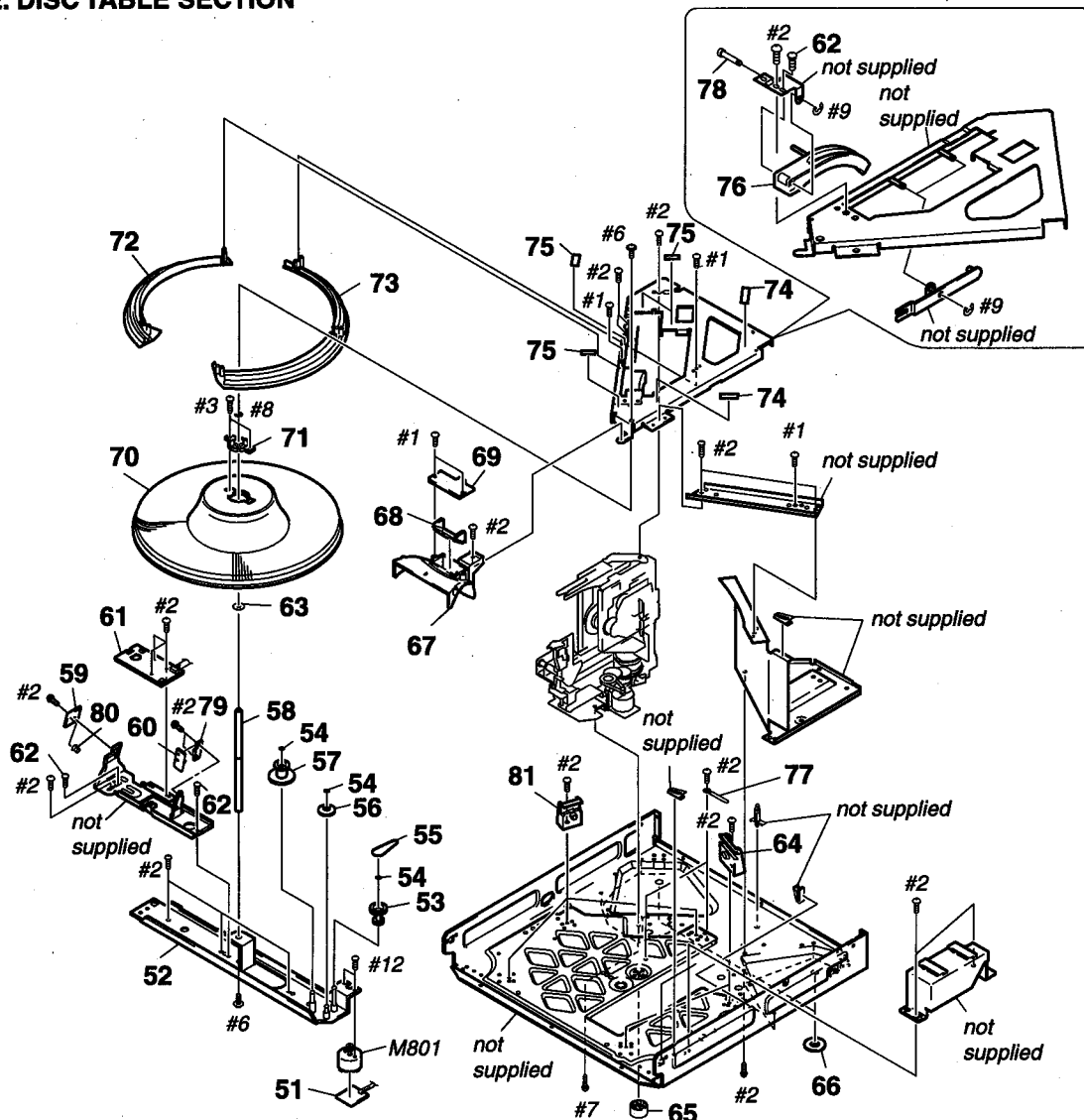
Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-1. CASE AND BACK PANEL SECTION



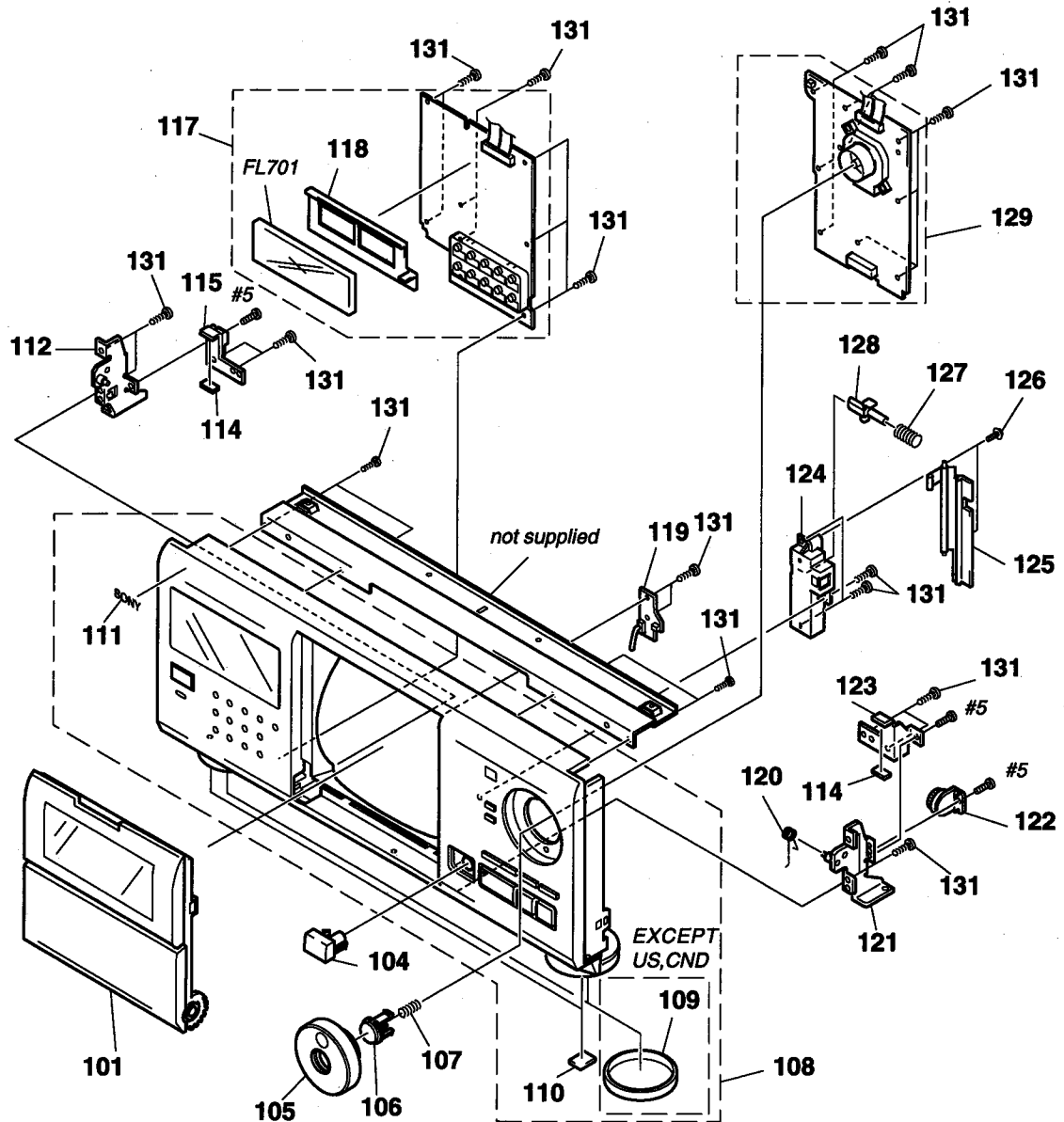
| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|--------------------------------------|--------|-----------------|--------------|--------------------------------------|--------|
| 1 | 3-363-099-01 | SCREW (CASE 3 TP2) | | 8 | 3-703-571-11 | BUSHING (S) (4516), CORD (E,PX) | |
| * 2 | 4-982-946-11 | CASE | | 9 | 4-956-370-12 | BAND, PLUG FIXED (UK,AUS) | |
| * 3 | A-4699-023-A | MAIN BOARD, COMPLETE (US,CND) | | * 10 | 4-962-200-01 | PLATE (TR), GROUND | |
| * 3 | A-4699-024-A | MAIN BOARD, COMPLETE (EXCEPT US,CND) | | * 11 | 1-661-459-11 | JACK BOARD | |
| 4 | 1-773-183-11 | WIRE (FLAT TYPE) (23 CORE) | | 12 | 1-569-007-11 | ADAPTOR, CONVERSION 2P (E,PX) | |
| 5 | 1-777-345-11 | WIRE (FLAT TYPE) (19 CORE) | | 13 | 4-886-821-11 | SCREW, M3 CASE | |
| * 6 | 4-982-807-01 | COVER (FFC) | | Δ CNP901 | 1-575-042-21 | CORD, POWER (US,CND) | |
| * 7 | 4-982-790-01 | PANEL, BACK (US) | | Δ CNP901 | 1-575-651-21 | CORD, POWER (AEP,G,SP) | |
| * 7 | 4-982-790-11 | PANEL, BACK (CND) | | Δ CNP901 | 1-696-027-11 | CORD, POWER (E,PX) | |
| * 7 | 4-982-790-21 | PANEL, BACK (AEP,G) | | Δ CNP901 | 1-696-845-11 | CORD, POWER (AUS) | |
| * 7 | 4-982-790-31 | PANEL, BACK (UK) | | Δ CNP901 | 1-751-529-11 | CORD, POWER (UK) | |
| * 7 | 4-982-790-41 | PANEL, BACK (E,PX) | | Δ T501 | 1-429-670-11 | TRANSFORMER, POWER (US,CND) | |
| * 7 | 4-982-790-51 | PANEL, BACK (SP) | | Δ T501 | 1-429-671-11 | TRANSFORMER, POWER (AEP,G,UK,AUS,SP) | |
| * 7 | 4-982-790-61 | PANEL, BACK (AUS) | | Δ T501 | 1-429-672-11 | TRANSFORMER, POWER (E,PX) | |
| * 8 | 3-703-244-00 | BUSHING (2104), CORD (EXCEPT E,PX) | | | | | |

7-2. DISC TABLE SECTION



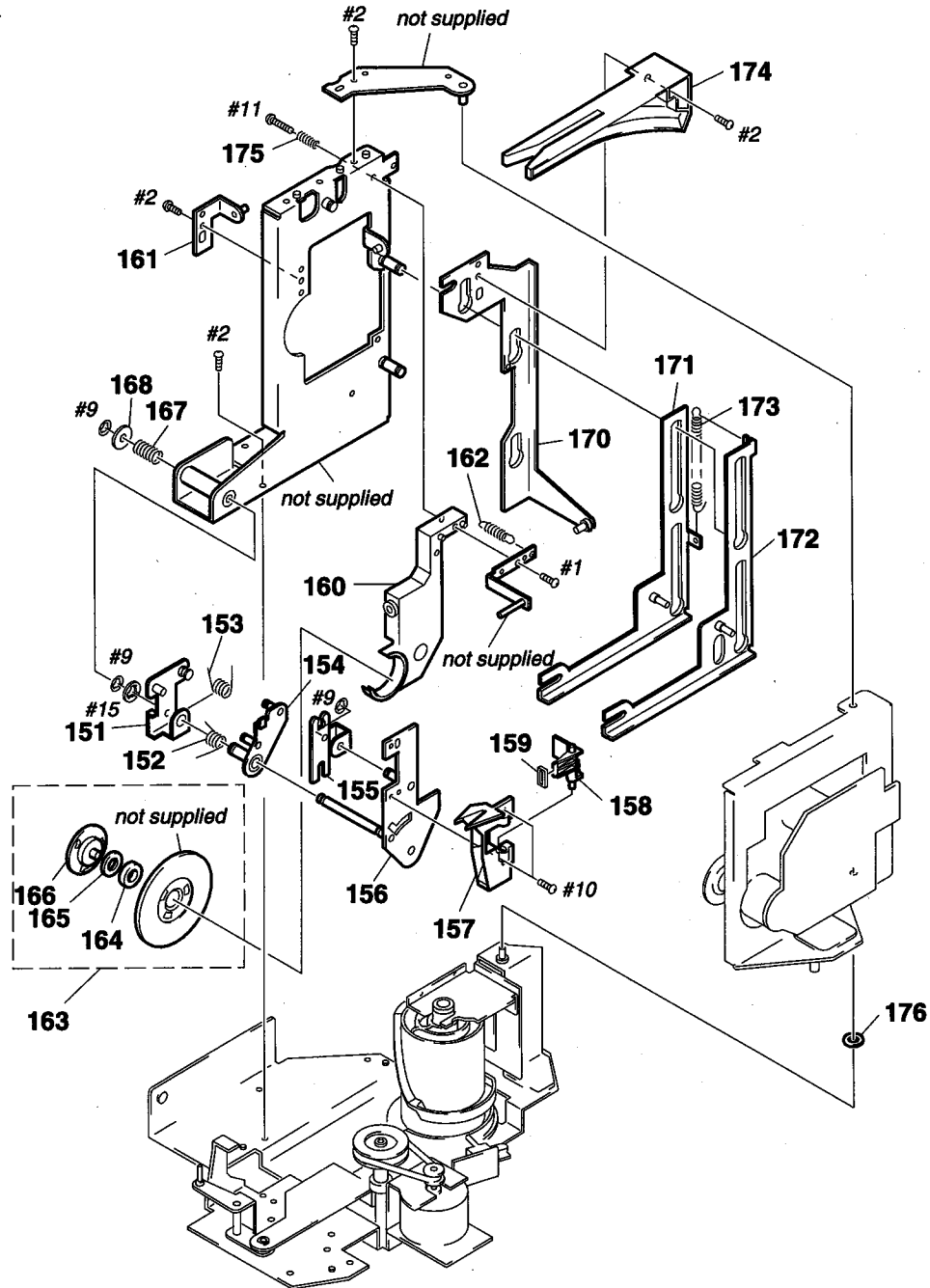
| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|----------------------|--------|----------|--------------|-----------------------------|--------|
| * 51 | 1-661-466-11 | T. MOTOR BOARD | | 66 | 4-983-279-01 | CUSHION (RF) | |
| 52 | X-4947-230-1 | BRACKET (TABLE) ASSY | | * 67 | 4-982-804-01 | COVER (DISC) | |
| 53 | X-4947-607-1 | GEAR (PULLEY) ASSY | | 68 | 4-982-805-01 | INDICATOR (INTERNAL) | |
| 54 | 3-325-697-21 | WASHER | | * 69 | 1-661-471-11 | ILLUMINATION BOARD | |
| 55 | 4-982-867-01 | BELT (TIMING) | | 70 | X-4947-231-1 | TABLE (200) ASSY | |
| 56 | 4-982-893-01 | GEAR (CENTER 2) | | 71 | 4-976-471-01 | BEARING (TABLE) | |
| 57 | 4-982-891-01 | GEAR (TABLE) | | * 72 | 4-982-803-01 | RING (B) | |
| 58 | 4-982-892-01 | SHAFT (CENTER) | | * 73 | 4-982-802-01 | RING (A) | |
| * 59 | 1-661-468-11 | LUMINOUS BOARD | | * 74 | 3-378-433-01 | CUSHION, SARANET | |
| * 60 | 1-661-469-11 | RAY-CATCHER BOARD | | 75 | 4-985-553-01 | CUSHION | |
| * 61 | 1-661-470-11 | T.SENS BOARD | | 76 | 4-982-862-01 | GUIDE (DISC T) | |
| 62 | 3-356-601-11 | SCREW, STEP | | 77 | 3-703-397-01 | STOPPER, WIRING | |
| 63 | 3-701-446-21 | WASHER, 8 | | 78 | 4-982-870-01 | SHAFT (GUIDE FULCRUM) | |
| 64 | X-4947-229-1 | HOLDER (ROLLER) ASSY | | * 79 | 4-985-300-01 | HOLDER (P-T) | |
| 65 | 4-931-169-01 | FOOT | | * 80 | 4-976-473-01 | HOLDER (LED-S) | |
| | | | | 81 | X-4947-606-1 | HOLDER (ROLLER 2) ASSY | |
| | | | | M801 | A-4604-847-A | MOTOR ASSY, LOADING (TABLE) | |

7-3. FRONT PANEL SECTION



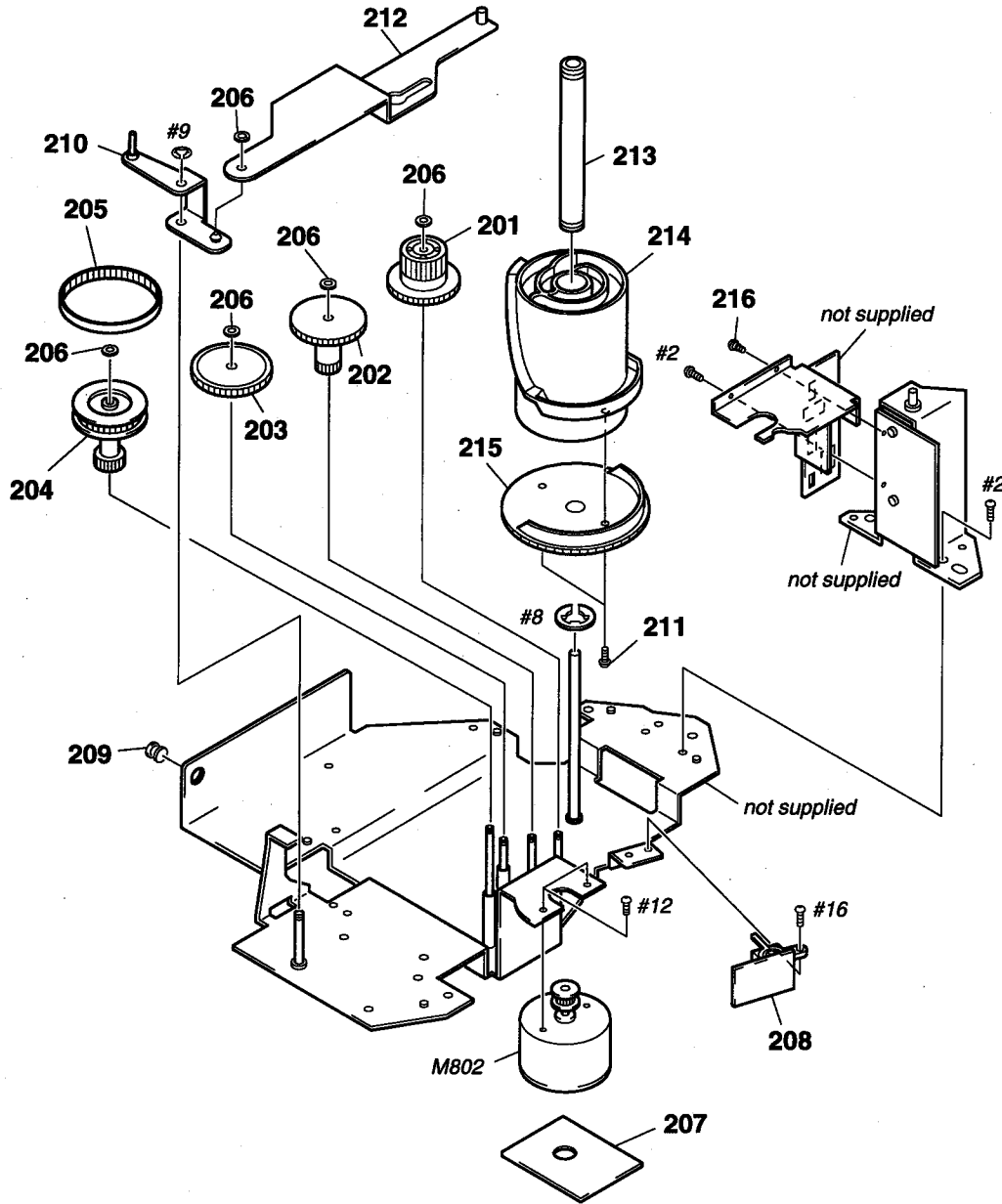
| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|--|--------|----------|--------------|----------------------------|--------|
| 101 | X-4947-588-1 | LID(200) ASSY | | * 119 | 1-661-464-11 | DOOR SW BOARD | |
| 104 | 4-982-781-01 | BUTTON (OPEN) | | 120 | 4-982-798-11 | SPRING (B), TORSION | |
| 105 | 4-982-787-01 | KNOB (JOG) | | 121 | X-4947-220-1 | PLATE (B) ASSY, FULCRUM | |
| 106 | 4-982-788-01 | BUTTON (ENTER) | | 122 | 3-354-963-01 | DAMPER | |
| 107 | 4-984-085-01 | SPRING (ENTER), COIL | | * 123 | 4-982-794-01 | STOPPER (B) | |
| 108 | X-4947-216-1 | PANEL ASSY, FRONT (US,CND) | | * 124 | 4-982-782-01 | HOLDER (OPEN) | |
| 108 | X-4947-359-1 | PANEL ASSY, FRONT (EXCEPT US,CND) | | * 125 | 4-982-783-01 | LEVER (WINDMILL) | |
| 109 | 4-977-593-11 | RING (DIA. 50), ORNAMENTAL (EXCEPT US,CND) | | 126 | 4-933-134-01 | SCREW (+PTPWH M2.6X6) | |
| 110 | 4-977-358-11 | CUSHION (8X12.5) | | 127 | 4-982-785-01 | SPRING (OPEN), COMPRESSION | |
| 111 | 4-963-404-21 | EMBLEM (5-A), SONY | | 128 | 4-982-784-01 | LEVER (LOCK) | |
| 112 | X-4947-219-1 | PLATE (A) ASSY, FULCRUM | | * 129 | A-4699-036-A | JOG BOARD, COMPLETE | |
| 114 | 4-982-799-01 | CUSHION (STOPPER) | | 131 | 4-951-620-01 | SCREW (2.6X8), +BVTP | |
| * 115 | 4-982-793-01 | STOPPER (A) | | | | | |
| * 117 | A-4699-037-A | DISP BOARD, COMPLETE | | | | | |
| * 118 | 4-982-786-01 | HOLDER (FL) | | | | | |

7-4. MECHANISM SECTION-1 (CDM-40)



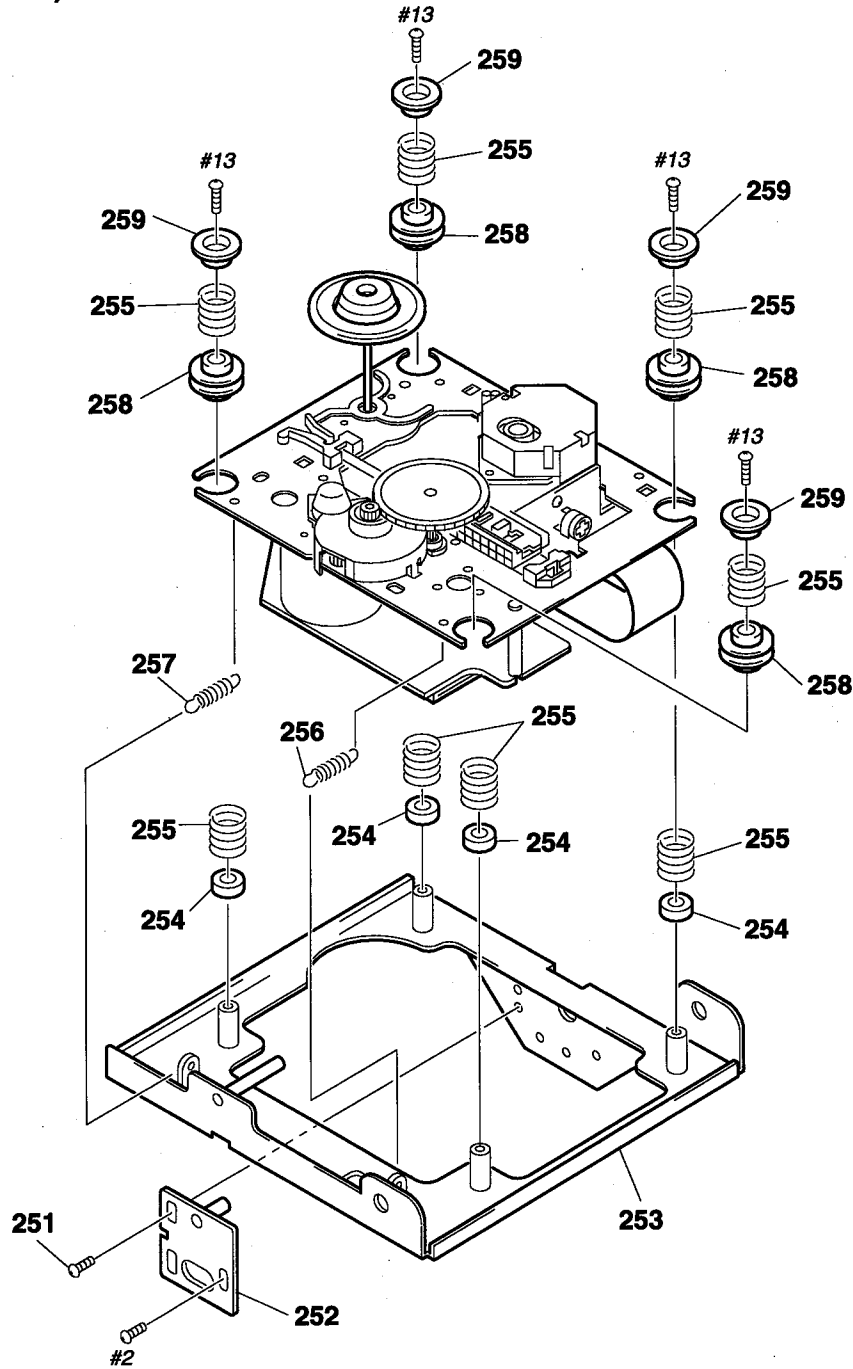
| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|-----------------------------|--------|----------|--------------|------------------------------|--------|
| FL701 | 1-517-517-11 | INDICATOR TUBE, FLUORESCENT | | 163 | A-4672-092-A | MAGNET ASSY | |
| 151 | X-4947-241-1 | LEVER (C) ASSY | | 164 | 3-366-559-02 | MAGNET (CHUCK) | |
| 152 | 4-982-882-01 | SPRING (LIMITER), TORSION | | 165 | 4-960-633-01 | YOKE (MAGNET) | |
| 153 | 4-982-881-01 | SPRING (HOLDER), TORSION | | 166 | 4-960-632-11 | PULLEY (B) | |
| 154 | X-4947-239-1 | LIMITTER (A) ASSY | | 167 | 4-983-319-01 | SPRING (THRUST), COMPRESSION | |
| 155 | 4-982-853-01 | LEVER (B) | | * 168 | 4-976-456-01 | WASHER (STOPPER) | |
| 156 | X-4947-240-1 | LEVER (A) ASSY | | 170 | X-4947-242-1 | SLIDER (C) ASSY | |
| 157 | 4-982-854-01 | HOLDER (DISC A) | | 171 | X-4947-238-1 | SLIDER (B) ASSY | |
| 158 | 4-982-855-01 | HOLDER (DISC B) | | 172 | X-4947-237-1 | SLIDER (A) ASSY | |
| 159 | 4-982-856-01 | PAD | | 173 | 4-982-880-01 | SPRING (SLIDER A), TENSION | |
| 160 | 4-976-458-01 | HOLDER (MAGNET) | | * 174 | 4-982-863-01 | GUIDE (DISC P) | |
| 161 | X-4946-326-1 | HOLDER (CLAMP) ASSY | | 175 | 3-938-588-01 | SPRING, COMPRESSION | |
| 162 | 4-983-777-01 | SPRING (MG), TENSION | | 176 | 3-701-441-21 | ø4 POLY WASHER | |

7-5. MECHANISM SECTION-2 (CDM-40)



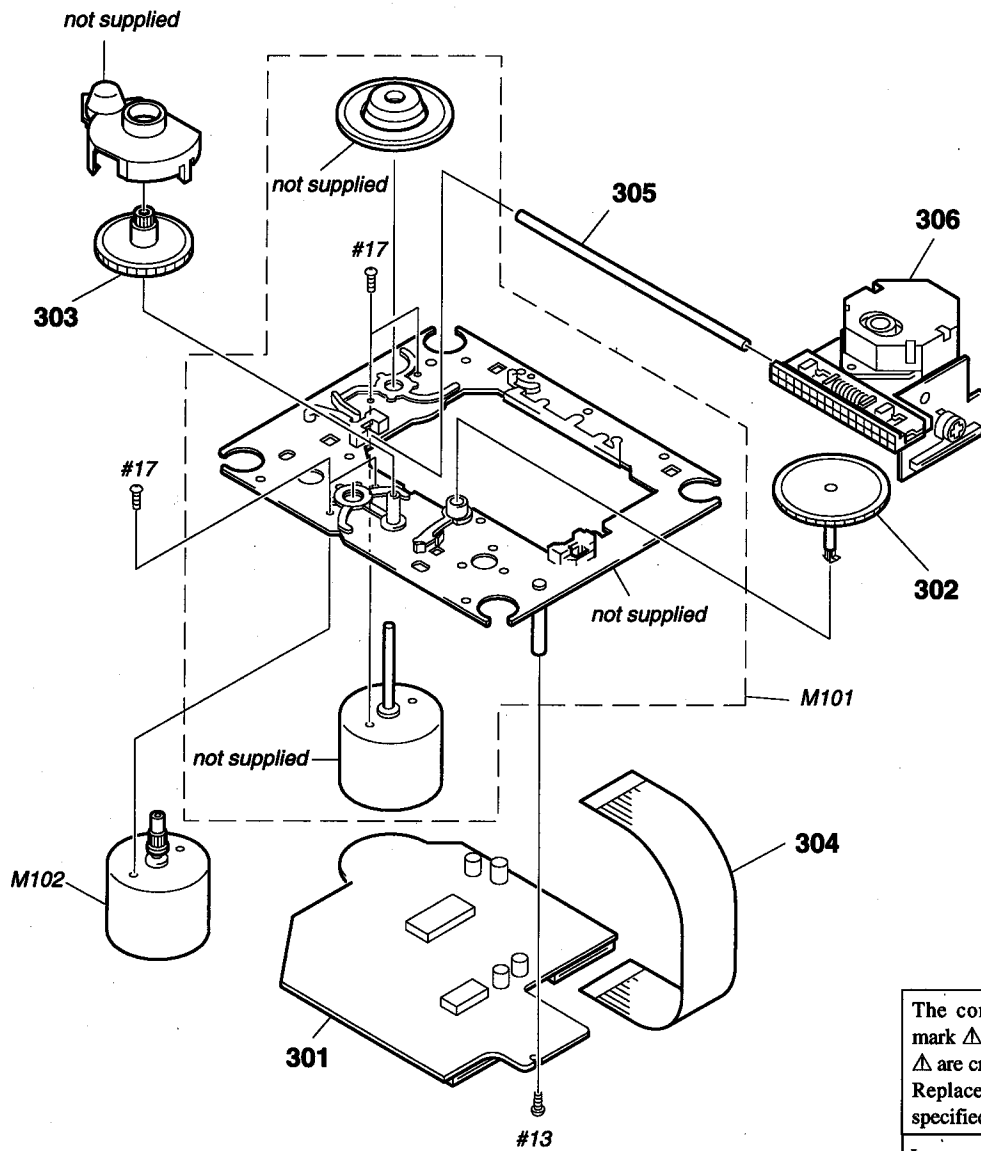
| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|----------------------|--------|----------|--------------|-------------------------------|--------|
| 201 | 4-976-465-01 | GEAR (LOADING 1) | | 211 | 4-951-291-01 | SCREW | |
| 202 | 4-976-466-01 | GEAR (LOADING 2) | | 212 | X-4947-234-1 | SLIDER (LOCK) ASSY | |
| 203 | 4-982-893-01 | GEAR (CENTER 2) | | 213 | 4-982-857-01 | BEARING (CAM) | |
| 204 | X-4947-607-1 | GEAR (PULLEY) ASSY | | 214 | 4-982-860-01 | CAM (A) | |
| 205 | 4-982-867-01 | BELT (TIMING) | | 215 | 4-982-861-01 | CAM (B) | |
| 206 | 3-325-697-21 | WASHER | | 216 | 3-356-601-11 | SCREW, STEP | |
| * 207 | 1-661-465-11 | L.MOTOR BOARD | | M802 | A-4604-847-A | MOTOR ASSY, LOADING (LOADING) | |
| * 208 | 1-661-467-11 | L.SW BOARD | | | | | |
| 209 | 3-489-073-00 | SCREW, THRUST | | | | | |
| 210 | X-4947-227-1 | LEVER (STOPPER) ASSY | | | | | |

**7-6. BASE UNIT SECTION-1
(KSM-213BKN/M-N)**



| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|-----------------------------|--------|----------|--------------|-----------------------|--------|
| 251 | 3-356-601-11 | SCREW, STEP | | 256 | 4-982-872-01 | SPRING (F-2), TENSION | |
| 252 | X-4947-244-1 | SLIDER (BU ADJUSTMENT) ASSY | | 257 | 4-982-871-01 | SPRING (F-1), TENSION | |
| 253 | X-4947-243-1 | HOLDER (BU) ASSY | | 258 | 4-982-858-01 | DAMPER | |
| 254 | 4-982-859-01 | HOLDER (DAMPER) | | 259 | 4-960-617-01 | CAP (F) | |
| 255 | 4-982-878-01 | SPRING (F), COMPRESSION | | | | | |

**7-7. BASE UNIT SECTION-2
(KSM-213 BKN/M-N)**



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

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

| Ref. No. | Part No. | Description | Remark |
|----------|--------------|----------------------------|--------|
| * 301 | A-4699-038-A | BD BOARD, COMPLETE | |
| 302 | 2-626-907-01 | GEAR (A)(S) | |
| 303 | 2-627-003-01 | GEAR (B)(RP) | |
| 304 | 1-769-069-11 | WIRE (FLAT TYPE) (16 CORE) | |
| 305 | 2-626-908-01 | SHAFT, SLED | |

| Ref. No. | Part No. | Description | Remark |
|--------------|--------------|------------------------------------|--------|
| Δ 306 | 8-848-376-01 | OPTICAL PICK-UP BLOCK KSS-213B/S-N | |
| M101 | X-2626-234-1 | T.T CHASSIS ASSY (MG)(K)(SPINDLE) | |
| M102 | X-2625-769-1 | MOTOR GEAR ASSY (MB)(RP)(SLED) | |

SECTION 8 ELECTRICAL PARTS LIST

BD

Note:

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

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

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F : nonflammable
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA..., uPB...: μ PB...,
uPC...: μ PC..., uPD...: μ PD...
- CAPACITORS
uF : μ F
- COILS
uH : μ H
- Abbreviation
CND : Canadian model
G : German model
SP : Singapore model
AUS : Australian model

| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|-----------------------------|---------|----------|--------------|-----------------------------------|----------|
| * | A-4699-038-A | BD BOARD, COMPLETE ***** | | | | < MOTOR > | |
| | | < CAPACITOR > | | M101 | X-2626-234-1 | T.T CHASSIS ASSY (MG)(K)(SPINDLE) | |
| | | | | M102 | X-2625-769-1 | MOTOR GEAR ASSY (MB)(RP)(SLED) | |
| | | | | | | < TRANSISTOR > | |
| C101 | 1-163-005-11 | CERAMIC CHIP 470PF | 10% 50V | Q101 | 8-729-010-08 | TRANSISTOR MSB710-R | |
| C102 | 1-163-038-91 | CERAMIC CHIP 0.1uF | 25V | | | < RESISTOR > | |
| C103 | 1-163-005-11 | CERAMIC CHIP 470PF | 10% 50V | R101 | 1-216-077-00 | METAL CHIP 15K | 5% 1/10W |
| C105 | 1-135-155-21 | TANTALUM CHIP 4.7uF | 10% 16V | R102 | 1-216-097-91 | METAL GLAZE 100K | 5% 1/10W |
| C106 | 1-164-346-11 | CERAMIC CHIP 1uF | 16V | R103 | 1-216-077-00 | METAL CHIP 15K | 5% 1/10W |
| | | | | R104 | 1-216-085-00 | METAL CHIP 33K | 5% 1/10W |
| C107 | 1-164-346-11 | CERAMIC CHIP 1uF | 16V | R105 | 1-216-097-91 | METAL GLAZE 100K | 5% 1/10W |
| C108 | 1-163-035-00 | CERAMIC CHIP 0.047uF | 50V | R106 | 1-216-061-00 | METAL CHIP 3.3K | 5% 1/10W |
| C109 | 1-163-145-00 | CERAMIC CHIP 0.0015uF | 5% 50V | R107 | 1-216-061-00 | METAL CHIP 3.3K | 5% 1/10W |
| C110 | 1-163-017-00 | CERAMIC CHIP 0.0047uF | 5% 50V | R108 | 1-216-073-00 | METAL CHIP 10K | 5% 1/10W |
| C111 | 1-163-251-11 | CERAMIC CHIP 100PF | 5% 50V | R109 | 1-216-121-91 | METAL GLAZE 1M | 5% 1/10W |
| | | | | R110 | 1-216-025-91 | METAL GLAZE 100 | 5% 1/10W |
| C112 | 1-163-038-91 | CERAMIC CHIP 0.1uF | 25V | R112 | 1-216-049-91 | METAL GLAZE 1K | 5% 1/10W |
| C113 | 1-163-038-91 | CERAMIC CHIP 0.1uF | 25V | R114 | 1-216-073-00 | METAL CHIP 10K | 5% 1/10W |
| C115 | 1-126-607-11 | ELECT CHIP 47uF | 20% 4V | R123 | 1-216-073-00 | METAL CHIP 10K | 5% 1/10W |
| C116 | 1-126-607-11 | ELECT CHIP 47uF | 20% 4V | R124 | 1-216-097-91 | METAL GLAZE 100K | 5% 1/10W |
| C117 | 1-126-209-11 | ELECT 100uF | 20% 4V | R125 | 1-216-049-91 | METAL GLAZE 1K | 5% 1/10W |
| | | | | R126 | 1-216-049-91 | METAL GLAZE 1K | 5% 1/10W |
| C118 | 1-163-275-11 | CERAMIC CHIP 0.001uF | 5% 50V | R127 | 1-216-049-91 | METAL GLAZE 1K | 5% 1/10W |
| C119 | 1-163-231-11 | CERAMIC CHIP 15PF | 5% 50V | R131 | 1-216-037-00 | METAL CHIP 330 | 5% 1/10W |
| C123 | 1-164-232-11 | CERAMIC CHIP 0.01uF | 50V | R135 | 1-216-295-91 | CONDUCTOR, CHIP(2012) | |
| C124 | 1-164-005-11 | CERAMIC CHIP 0.47uF | 25V | R136 | 1-216-295-91 | CONDUCTOR, CHIP(2012) | |
| C140 | 1-163-038-91 | CERAMIC CHIP 0.1uF | 25V | R137 | 1-216-295-91 | CONDUCTOR, CHIP(2012) | |
| | | | | R138 | 1-216-295-91 | CONDUCTOR, CHIP(2012) | |
| C141 | 1-163-038-91 | CERAMIC CHIP 0.1uF | 25V | R141 | 1-216-089-91 | METAL GLAZE 47K | 5% 1/10W |
| C151 | 1-163-237-11 | CERAMIC CHIP 27PF | 5% 50V | R142 | 1-216-081-00 | METAL CHIP 22K | 5% 1/10W |
| C153 | 1-163-038-91 | CERAMIC CHIP 0.1uF | 25V | R143 | 1-216-103-00 | METAL CHIP 180K | 5% 1/10W |
| C154 | 1-164-336-11 | CERAMIC CHIP 0.33uF | 25V | | | | |
| C156 | 1-163-237-11 | CERAMIC CHIP 27PF | 5% 50V | R144 | 1-216-103-00 | METAL CHIP 180K | 5% 1/10W |
| | | | | R146 | 1-216-073-00 | METAL CHIP 10K | 5% 1/10W |
| C157 | 1-163-145-00 | CERAMIC CHIP 0.0015uF | 5% 50V | R147 | 1-216-081-00 | METAL CHIP 22K | 5% 1/10W |
| C159 | 1-163-019-00 | CERAMIC CHIP 0.0068uF | 10% 50V | R148 | 1-216-001-00 | METAL CHIP 10 | 5% 1/10W |
| C161 | 1-163-038-91 | CERAMIC CHIP 0.1uF | 25V | R149 | 1-216-003-11 | METAL GLAZE 12 | 5% 1/10W |
| | | | | | | | |
| | | < CONNECTOR > | | R158 | 1-216-111-91 | METAL GLAZE 390K | 5% 1/10W |
| CN101 | 1-770-072-11 | CONNECTOR, FFC 23P | | R159 | 1-216-101-00 | METAL CHIP 150K | 5% 1/10W |
| CN102 | 1-770-014-11 | CONNECTOR, FFC/FPC 16P | | R160 | 1-216-295-91 | CONDUCTOR, CHIP(2012) | |
| | | | | R161 | 1-216-308-00 | METAL CHIP 4.7 | 5% 1/10W |
| | | < IC > | | | | | |
| IC101 | 8-752-369-78 | IC CXD2545Q | | | | | |
| IC102 | 8-759-176-09 | IC BA6392FP | | | | | |
| IC103 | 8-752-072-45 | IC CXA1821M-T6 | | | | | |

| | | | | |
|-----------|-------------|----------------|---------------------|-------------|
| BD | DISP | DOOR SW | ILLUMINATION | JACK |
|-----------|-------------|----------------|---------------------|-------------|

| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|-----------------------------|----------------|-------------------|--------------|---------------------------------------|---------------|
| R162 | 1-216-101-00 | METAL CHIP | 150K 5% 1/10W | S702 | 1-572-184-11 | SWITCH, TACTILE (CONTINUE) | |
| | | < SWITCH > | | S703 | 1-572-184-11 | SWITCH, TACTILE (SHUFFLE) | |
| S101 | 1-572-085-11 | SWITCH, LEAF (LIMIT) | | S704 | 1-572-184-11 | SWITCH, TACTILE (PROGRAM) | |
| | | | | S705 | 1-572-184-11 | SWITCH, TACTILE (REPEAT) | |
| ***** | | | | S706 | 1-572-184-11 | SWITCH, TACTILE (BLOCK 4) | |
| * | A-4699-037-A | DISP BOARD, COMPLETE | | S707 | 1-572-184-11 | SWITCH, TACTILE (BLOCK 3) | |
| | | ***** | | S708 | 1-572-184-11 | SWITCH, TACTILE (BLOCK 2) | |
| * | 4-982-786-01 | HOLDER (FL) | | S709 | 1-572-184-11 | SWITCH, TACTILE (BLOCK 1) | |
| | | < CAPACITOR > | | S712 | 1-572-184-11 | SWITCH, TACTILE (BLOCK 5) | |
| C751 | 1-162-207-31 | CERAMIC | 22PF 5% 50V | S713 | 1-572-184-11 | SWITCH, TACTILE (BLOCK 6) | |
| C752 | 1-164-159-11 | CERAMIC | 0.1uF 50V | S714 | 1-572-184-11 | SWITCH, TACTILE (BLOCK 7) | |
| C753 | 1-124-584-00 | ELECT | 100uF 20% 10V | S715 | 1-572-184-11 | SWITCH, TACTILE (BLOCK 8) | |
| C754 | 1-164-159-11 | CERAMIC | 0.1uF 50V | ***** | | | |
| C755 | 1-162-288-31 | CERAMIC | 330PF 10% 50V | * | 1-661-464-11 | DOOR SW BOARD | |
| | | | | | | ***** | |
| C756 | 1-162-288-31 | CERAMIC | 330PF 10% 50V | | | < SWITCH > | |
| C757 | 1-162-288-31 | CERAMIC | 330PF 10% 50V | S802 | 1-762-386-11 | SWITCH, PUSH (OPEN) | |
| | | < DIODE > | | ***** | | | |
| D802 | 8-719-046-44 | DIODE SEL5221S (POWER) | | * | 1-661-471-11 | ILLUMINATION BOARD | |
| | | < FLUORESCENT INDICATOR > | | | | ***** | |
| FL701 | 1-517-517-11 | INDICATOR TUBE, FLUORESCENT | | | | < CONNECTOR > | |
| | | | | CN810 | 1-506-481-11 | PIN, CONNECTOR 2P | |
| | | < IC > | | | | < DIODE > | |
| IC701 | 8-759-399-58 | IC LC75725E | | D802 | 8-719-059-65 | DIODE HLMF-KL05 (INSIDE ILLUMINATION) | |
| | | < RESISTOR > | | D803 | 8-719-059-65 | DIODE HLMF-KL05 (INSIDE ILLUMINATION) | |
| R701 | 1-249-415-11 | CARBON | 680 5% 1/4W F | D804 | 8-719-059-65 | DIODE HLMF-KL05 (INSIDE ILLUMINATION) | |
| R702 | 1-249-417-11 | CARBON | 1K 5% 1/4W F | | | < RESISTOR > | |
| R703 | 1-249-419-11 | CARBON | 1.5K 5% 1/4W F | R805 | 1-249-407-11 | CARBON | 150 5% 1/4W F |
| R704 | 1-249-421-11 | CARBON | 2.2K 5% 1/4W F | R806 | 1-249-407-11 | CARBON | 150 5% 1/4W F |
| R705 | 1-247-843-11 | CARBON | 3.3K 5% 1/4W | R807 | 1-249-407-11 | CARBON | 150 5% 1/4W F |
| R706 | 1-249-427-11 | CARBON | 6.8K 5% 1/4W F | ***** | | | |
| R707 | 1-249-431-11 | CARBON | 15K 5% 1/4W | * | 1-661-459-11 | JACK BOARD | |
| R708 | 1-249-437-11 | CARBON | 47K 5% 1/4W | | | ***** | |
| R711 | 1-249-415-11 | CARBON | 680 5% 1/4W F | * | 4-962-200-01 | PLATE (TR), GROUND | |
| R712 | 1-249-417-11 | CARBON | 1K 5% 1/4W F | | | < CAPACITOR > | |
| R713 | 1-249-419-11 | CARBON | 1.5K 5% 1/4W F | C113 | 1-162-290-31 | CERAMIC | 470PF 10% 50V |
| R714 | 1-249-421-11 | CARBON | 2.2K 5% 1/4W F | C213 | 1-162-290-31 | CERAMIC | 470PF 10% 50V |
| R752 | 1-249-429-11 | CARBON | 10K 5% 1/4W | C501 | 1-161-494-00 | CERAMIC | 0.022uF 25V |
| R753 | 1-249-409-11 | CARBON | 220 5% 1/4W F | C504 | 1-164-159-11 | CERAMIC | 0.1uF 50V |
| R754 | 1-249-409-11 | CARBON | 220 5% 1/4W F | C506 | 1-162-282-31 | CERAMIC | 100PF 10% 50V |
| R755 | 1-249-409-11 | CARBON | 220 5% 1/4W F | C511 | 1-164-159-11 | CERAMIC | 0.1uF 50V |
| R853 | 1-249-413-11 | CARBON | 470 5% 1/4W F | (EXCEPT US,CND,E) | | | |
| | | < SWITCH > | | | | | |
| S701 | 1-572-184-11 | SWITCH, TACTILE (POWER) | | | | | |

JACK**JOG****L.MOTOR****L.SW**

| Ref. No. | Part No. | Description | Remark |
|----------------|---------------------|---|--------|
| | | < CONNECTOR > | |
| CN501 | 1-770-724-11 | CONNECTOR, BOARD TO BOARD 9P | |
| CN502 | 1-770-724-11 | CONNECTOR, BOARD TO BOARD 9P | |
| CN503 | 1-580-230-11 | PIN, CONNECTOR (PC BOARD) 2P | |
| * CN504 | 1-568-951-11 | PIN, CONNECTOR 2P | |
| | | < DIODE > | |
| D501 | 8-719-987-63 | DIODE 1N4148M | |
| | | < JACK > | |
| J501 | 1-770-719-11 | JACK, PIN 2P (LINE OUT) | |
| * J502 | 1-764-188-11 | JACK (SMALL TYPE)(DIA. 3.5)(CONTROL A1) | |
| * J503 | 1-764-188-11 | JACK (SMALL TYPE)(DIA. 3.5)(CONTROL A1) | |
| | | < COIL > | |
| △L501 | 1-421-915-11 | COIL, LINE FILTER | |
| | | < TRANSISTOR > | |
| Q502 | 8-729-620-05 | TRANSISTOR 2SC2603-EF | |
| | | < RESISTOR > | |
| R116 | 1-249-409-11 | CARBON 220 5% 1/4W F | |
| R216 | 1-249-409-11 | CARBON 220 5% 1/4W F | |
| R502 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R504 | 1-249-425-11 | CARBON 4.7K 5% 1/4W F | |
| R505 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R506 | 1-249-393-11 | CARBON 10 5% 1/4W F | |
| | | < SWITCH > | |
| S501 | 1-762-151-11 | SWITCH, SLIDE (COMMAND MODE) | |
| △S502 | 1-572-675-11 | SWITCH, POWER VOLTAGE CHANGE (VOLTAGE SELECTOR)(E,PX) | |
| | | < TRANSFORMER > | |
| △T501 | 1-429-670-11 | TRANSFORMER, POWER (US,CND) | |
| △T501 | 1-429-671-11 | TRANSFORMER, POWER (AEP,G,UK,AUS,SP) | |
| △T501 | 1-429-672-11 | TRANSFORMER, POWER (E,PX) | |
| ***** | | | |
| * A-4699-036-A | JOG BOARD, COMPLETE | | |
| | ***** | | |
| | | < CAPACITOR > | |
| C601 | 1-124-584-00 | ELECT 100uF 20% 10V | |
| | | < CONNECTOR > | |
| * CN601 | 1-568-862-11 | SOCKET, CONNECTOR 19P | |

| Ref. No. | Part No. | Description | Remark |
|----------------|----------------|-------------------------------|--------|
| | | < DIODE > | |
| D601 | 8-719-301-49 | DIODE SEL2810A-CD (■) | |
| D602 | 8-719-303-02 | DIODE SEL2510C-D (▷) | |
| | | < IC > | |
| IC601 | 8-759-373-49 | IC NJL54H400 | |
| | | < TRANSISTOR > | |
| Q601 | 8-729-900-89 | TRANSISTOR DTC144ES | |
| | | < RESISTOR > | |
| R601 | 1-249-415-11 | CARBON 680 5% 1/4W F | |
| R602 | 1-249-407-11 | CARBON 150 5% 1/4W F | |
| R603 | 1-247-807-31 | CARBON 100 5% 1/4W | |
| R604 | 1-247-807-31 | CARBON 100 5% 1/4W | |
| R721 | 1-249-415-11 | CARBON 680 5% 1/4W F | |
| R722 | 1-249-417-11 | CARBON 1K 5% 1/4W F | |
| R723 | 1-249-419-11 | CARBON 1.5K 5% 1/4W F | |
| R724 | 1-249-421-11 | CARBON 2.2K 5% 1/4W F | |
| R725 | 1-247-843-11 | CARBON 3.3K 5% 1/4W | |
| R726 | 1-249-427-11 | CARBON 6.8K 5% 1/4W F | |
| | | < JOG SWITCH > | |
| RE601 | 1-762-717-11 | SWITCH, JOG (DISC) | |
| | | < SWITCH > | |
| S711 | 1-572-184-11 | SWITCH, TACTILE (ENTER) | |
| S721 | 1-572-184-11 | SWITCH, TACTILE (■) | |
| S722 | 1-572-184-11 | SWITCH, TACTILE (■) | |
| S723 | 1-572-184-11 | SWITCH, TACTILE (▷) | |
| S724 | 1-572-184-11 | SWITCH, TACTILE (◀◀) | |
| S725 | 1-572-184-11 | SWITCH, TACTILE (▷▷) | |
| S726 | 1-572-184-11 | SWITCH, TACTILE (CHECK) | |
| S727 | 1-572-184-11 | SWITCH, TACTILE (CLEAR) | |
| ***** | | | |
| * 1-661-465-11 | L. MOTOR BOARD | | |
| | ***** | | |
| | | < MOTOR > | |
| M802 | A-4604-847-A | MOTOR ASSY (LOADING) | |
| ***** | | | |
| * 1-661-467-11 | L.SW BOARD | | |
| | ***** | | |
| | | < SWITCH > | |
| S801 | 1-571-300-21 | SWITCH, ROTARY (LOADING DET.) | |
| ***** | | | |

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

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

LUMINOUS

MAIN

| Ref. No. | Part No. | Description | Remark |
|----------|--------------|---|--------|
| * | 1-661-468-11 | LUMINOUS BOARD ***** | |
| * | 4-976-473-01 | HOLDER (LED-S) < DIODE > | |
| D801 | 8-719-055-84 | DIODE GL-528VS1 | |
| ***** | | | |
| * | A-4699-023-A | MAIN BOARD, COMPLETE (US,CND) ***** | |
| * | A-4699-024-A | MAIN BOARD, COMPLETE ***** (AEP,G,UK,E,AUS,PX,SP) | |
| | 7-685-871-01 | SCREW +BVTT 3X6 (S) < CAPACITOR > | |
| C102 | 1-162-282-31 | CERAMIC 100PF 10% 50V | |
| C103 | 1-162-215-31 | CERAMIC 47PF 5% 50V | |
| C104 | 1-162-215-31 | CERAMIC 47PF 5% 50V | |
| C106 | 1-130-472-00 | MYLAR 0.0012uF 5% 50V | |
| C107 | 1-106-359-00 | MYLAR 4700PF 5% 200V | |
| C108 | 1-126-052-11 | ELECT 100uF 20% 10V | |
| C202 | 1-162-282-31 | CERAMIC 100PF 10% 50V | |
| C203 | 1-162-215-31 | CERAMIC 47PF 5% 50V | |
| C204 | 1-162-215-31 | CERAMIC 47PF 5% 50V | |
| C206 | 1-130-472-00 | MYLAR 0.0012uF 5% 50V | |
| C207 | 1-106-359-00 | MYLAR 4700PF 5% 200V | |
| C208 | 1-126-052-11 | ELECT 100uF 20% 10V | |
| C301 | 1-128-489-11 | ELECT 3300uF 20% 16V | |
| C302 | 1-124-360-00 | ELECT 1000uF 20% 16V | |
| C303 | 1-124-122-11 | ELECT 100uF 20% 50V | |
| C304 | 1-126-851-11 | ELECT 22uF 20% 35V | |
| C305 | 1-126-163-11 | ELECT 4.7uF 20% 50V | |
| C306 | 1-126-101-11 | ELECT 100uF 20% 16V | |
| C307 | 1-126-163-11 | ELECT 4.7uF 20% 50V | |
| C308 | 1-124-472-11 | ELECT 470uF 20% 10V | |
| C309 | 1-126-163-11 | ELECT 4.7uF 20% 50V | |
| C310 | 1-126-163-11 | ELECT 4.7uF 20% 50V | |
| C311 | 1-124-472-11 | ELECT 470uF 20% 10V | |
| C316 | 1-161-494-00 | CERAMIC 0.022uF 25V | |
| C317 | 1-126-052-11 | ELECT 100uF 20% 10V | |
| C318 | 1-161-494-00 | CERAMIC 0.022uF 30% 25V | |
| C319 | 1-126-022-11 | ELECT 47uF 20% 16V | |
| C320 | 1-126-022-11 | ELECT 47uF 20% 16V | |
| C322 | 1-161-494-00 | CERAMIC 0.022uF 30% 25V | |
| C327 | 1-162-211-31 | CERAMIC 33PF 5% 50V | |
| C328 | 1-126-052-11 | ELECT 100uF 20% 10V | |
| C330 | 1-162-207-31 | CERAMIC 22PF 5% 50V | |
| C331 | 1-126-052-11 | ELECT 100uF 20% 10V | |
| C332 | 1-164-159-11 | CERAMIC 0.1uF 50V | |

| Ref. No. | Part No. | Description | Remark |
|---------------|--------------|------------------------------|--------|
| C333 | 1-126-052-11 | ELECT 100uF 20% 10V | |
| C334 | 1-164-159-11 | CERAMIC 0.1uF 50V | |
| C335 | 1-164-159-11 | CERAMIC 0.1uF 50V | |
| C336 | 1-162-198-31 | CERAMIC 8.2PF 10% 50V | |
| C337 | 1-162-198-31 | CERAMIC 8.2PF 10% 50V | |
| C339 | 1-164-159-11 | CERAMIC 0.1uF 50V | |
| C340 | 1-126-052-11 | ELECT 100uF 20% 16V | |
| C351 | 1-136-165-00 | FILM 0.1uF 5% 50V | |
| C352 | 1-164-159-11 | CERAMIC 0.1uF 50V | |
| C361 | 1-136-165-00 | FILM 0.1uF 5% 50V | |
| C362 | 1-164-159-11 | CERAMIC 0.1uF 50V | |
| C366 | 1-164-159-11 | CERAMIC 0.1uF 50V | |
| C371 | 1-136-165-00 | FILM 0.1uF 5% 50V | |
| C700 | 1-162-306-11 | CERAMIC 0.01uF 30% 16V | |
| C710 | 1-162-306-11 | CERAMIC 0.01uF 30% 16V | |
| C720 | 1-162-306-11 | CERAMIC 0.01uF 30% 16V | |
| < CONNECTOR > | | | |
| CN301 | 1-770-728-11 | CONNECTOR, BOARD TO BOARD 9P | |
| CN302 | 1-770-728-11 | CONNECTOR, BOARD TO BOARD 9P | |
| * CN303 | 1-568-839-11 | SOCKET, CONNECTOR 23P | |
| CN304 | 1-506-468-11 | PIN, CONNECTOR 3P | |
| * CN305 | 1-568-955-11 | PIN, CONNECTOR 6P | |
| * CN306 | 1-568-951-11 | PIN, CONNECTOR 2P | |
| CN307 | 1-568-802-11 | SOCKET, CONNECTOR 19P | |
| * CN308 | 1-568-951-11 | PIN, CONNECTOR 2P | |
| < DIODE > | | | |
| D301 | 8-719-210-21 | DIODE 11EQS04 | |
| D302 | 8-719-210-21 | DIODE 11EQS04 | |
| D303 | 8-719-210-21 | DIODE 11EQS04 | |
| D304 | 8-719-210-21 | DIODE 11EQS04 | |
| D305 | 8-719-109-93 | DIODE RD6.2ESB2 | |
| D306 | 8-719-024-99 | DIODE 11ES2-NTA2B | |
| D307 | 8-719-987-63 | DIODE 1N4148M | |
| D308 | 8-719-987-63 | DIODE 1N4148M | |
| D310 | 8-719-987-63 | DIODE 1N4148M | |
| D311 | 8-719-987-63 | DIODE 1N4148M | |
| D312 | 8-719-109-85 | DIODE RD5.1ES-B2 | |
| D313 | 8-719-987-63 | DIODE 1N4148M | |
| D315 | 8-719-110-60 | DIODE RD24ES-B | |
| D316 | 8-719-109-84 | DIODE RD5.1ES-B1 | |
| < IC > | | | |
| IC301 | 8-759-330-29 | IC LA5616 | |
| IC302 | 8-759-821-93 | IC LA5601 | |
| IC303 | 8-752-872-59 | IC CXP84332-028Q | |
| IC304 | 8-759-822-38 | IC LA6510 | |
| IC305 | 8-759-634-51 | IC M5218AP | |
| IC307 | 8-759-362-47 | IC CXD8567AM | |
| IC308 | 8-759-634-51 | IC M5218AP | |
| IC309 | 8-759-634-51 | IC M5218AP | |

| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|------------------------|--------|----------|--------------|----------------|--------|
| | | < COIL > | | | | | |
| L304 | 1-412-297-11 | INDUCTOR 3.3uH | | R311 | 1-247-843-11 | CARBON 3.3K 5% | 1/4W |
| | | < TRANSISTOR > | | R312 | 1-249-429-11 | CARBON 10K 5% | 1/4W |
| Q101 | 8-729-141-26 | TRANSISTOR 2SC3622A-LK | | R316 | 1-249-429-11 | CARBON 10K 5% | 1/4W |
| Q102 | 8-729-141-26 | TRANSISTOR 2SC3622A-LK | | R317 | 1-249-429-11 | CARBON 10K 5% | 1/4W |
| Q201 | 8-729-141-26 | TRANSISTOR 2SC3622A-LK | | R318 | 1-249-429-11 | CARBON 10K 5% | 1/4W |
| Q202 | 8-729-141-26 | TRANSISTOR 2SC3622A-LK | | | | | |
| Q301 | 8-729-140-97 | TRANSISTOR 2SB734-34 | | R319 | 1-249-429-11 | CARBON 10K 5% | 1/4W |
| Q302 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | | R321 | 1-249-417-11 | CARBON 1K 5% | 1/4W F |
| Q303 | 8-729-900-65 | TRANSISTOR DTA144ES | | R322 | 1-249-417-11 | CARBON 1K 5% | 1/4W F |
| Q304 | 8-729-900-65 | TRANSISTOR DTA144ES | | R323 | 1-249-417-11 | CARBON 1K 5% | 1/4W F |
| Q305 | 8-729-900-65 | TRANSISTOR DTA144ES | | R324 | 1-249-411-11 | CARBON 330 5% | 1/4W |
| Q306 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | | R325 | 1-249-424-11 | CARBON 3.9K 5% | 1/4W F |
| | | < RESISTOR > | | R326 | 1-247-807-31 | CARBON 100 5% | 1/4W |
| R101 | 1-249-436-11 | CARBON 39K 5% | 1/4W | R327 | 1-249-411-11 | CARBON 330 5% | 1/4W |
| R102 | 1-249-436-11 | CARBON 39K 5% | 1/4W | R329 | 1-249-441-11 | CARBON 100K 5% | 1/4W |
| R103 | 1-249-431-11 | CARBON 15K 5% | 1/4W | R330 | 1-249-441-11 | CARBON 100K 5% | 1/4W |
| R104 | 1-249-431-11 | CARBON 15K 5% | 1/4W | | | | |
| R105 | 1-249-437-11 | CARBON 47K 5% | 1/4W | R331 | 1-249-425-11 | CARBON 4.7K 5% | 1/4W F |
| R106 | 1-249-437-11 | CARBON 47K 5% | 1/4W | R332 | 1-249-441-11 | CARBON 100K 5% | 1/4W |
| R108 | 1-249-419-11 | CARBON 1.5K 5% | 1/4W F | R333 | 1-249-425-11 | CARBON 4.7K 5% | 1/4W F |
| R109 | 1-249-419-11 | CARBON 1.5K 5% | 1/4W F | R334 | 1-249-425-11 | CARBON 4.7K 5% | 1/4W F |
| R110 | 1-249-441-11 | CARBON 100K 5% | 1/4W | R335 | 1-249-429-11 | CARBON 10K 5% | 1/4W |
| R111 | 1-249-409-11 | CARBON 220 5% | 1/4W F | R336 | 1-249-429-11 | CARBON 10K 5% | 1/4W |
| R112 | 1-249-409-11 | CARBON 220 5% | 1/4W F | R337 | 1-249-421-11 | CARBON 2.2K 5% | 1/4W F |
| R113 | 1-249-393-11 | CARBON 10 5% | 1/4W F | R338 | 1-249-417-11 | CARBON 1K 5% | 1/4W F |
| R115 | 1-249-425-11 | CARBON 4.7K 5% | 1/4W F | R339 | 1-249-417-11 | CARBON 1K 5% | 1/4W F |
| R201 | 1-249-436-11 | CARBON 39K 5% | 1/4W | R340 | 1-249-417-11 | CARBON 1K 5% | 1/4W F |
| R202 | 1-249-436-11 | CARBON 39K 5% | 1/4W | | | | |
| R203 | 1-249-431-11 | CARBON 15K 5% | 1/4W | R342 | 1-249-429-11 | CARBON 10K 5% | 1/4W |
| R204 | 1-249-431-11 | CARBON 15K 5% | 1/4W | R351 | 1-249-441-11 | CARBON 100K 5% | 1/4W |
| R205 | 1-249-437-11 | CARBON 47K 5% | 1/4W | R352 | 1-249-441-11 | CARBON 100K 5% | 1/4W |
| R206 | 1-249-437-11 | CARBON 47K 5% | 1/4W | R353 | 1-247-860-11 | CARBON 16K 5% | 1/4W |
| R208 | 1-249-419-11 | CARBON 1.5K 5% | 1/4W F | R354 | 1-249-431-11 | CARBON 15K 5% | 1/4W |
| R209 | 1-249-419-11 | CARBON 1.5K 5% | 1/4W F | R355 | 1-249-382-11 | CARBON 1.2 5% | 1/6W F |
| R210 | 1-249-441-11 | CARBON 100K 5% | 1/4W | R356 | 1-249-382-11 | CARBON 1.2 5% | 1/6W F |
| R211 | 1-249-409-11 | CARBON 220 5% | 1/4W F | R357 | 1-247-883-00 | CARBON 150K 5% | 1/4W |
| R212 | 1-249-409-11 | CARBON 220 5% | 1/4W F | R358 | 1-249-393-11 | CARBON 10 5% | 1/4W F |
| R213 | 1-249-393-11 | CARBON 10 5% | 1/4W F | R361 | 1-247-885-00 | CARBON 180K 5% | 1/4W |
| R215 | 1-249-425-11 | CARBON 4.7K 5% | 1/4W F | R362 | 1-247-885-00 | CARBON 180K 5% | 1/4W |
| R301 | 1-249-431-11 | CARBON 15K 5% | 1/4W | R363 | 1-247-860-11 | CARBON 16K 5% | 1/4W |
| R302 | 1-249-425-11 | CARBON 4.7K 5% | 1/4W F | R364 | 1-249-431-11 | CARBON 15K 5% | 1/4W |
| R303 | 1-249-429-11 | CARBON 10K 5% | 1/4W | R365 | 1-249-382-11 | CARBON 1.2 5% | 1/6W F |
| R304 | 1-249-438-11 | CARBON 56K 5% | 1/4W | R366 | 1-249-382-11 | CARBON 1.2 5% | 1/6W F |
| R306 | 1-247-807-31 | CARBON 100 5% | 1/4W | R367 | 1-247-883-00 | CARBON 150K 5% | 1/4W |
| R307 | 1-247-807-31 | CARBON 100 5% | 1/4W | R368 | 1-249-393-11 | CARBON 10 5% | 1/4W F |
| R308 | 1-249-435-11 | CARBON 33K 5% | 1/4W | R373 | 1-249-427-11 | CARBON 6.8K 5% | 1/4W F |
| R309 | 1-249-429-11 | CARBON 10K 5% | 1/4W | R374 | 1-247-843-11 | CARBON 3.3K 5% | 1/4W |
| R310 | 1-249-425-11 | CARBON 4.7K 5% | 1/4W F | R375 | 1-249-439-11 | CARBON 68K 5% | 1/4W |
| | | | | R376 | 1-249-427-11 | CARBON 6.8K 5% | 1/4W F |
| | | | | R377 | 1-249-427-11 | CARBON 6.8K 5% | 1/4W F |
| | | | | R378 | 1-249-417-11 | CARBON 1K 5% | 1/4W F |
| | | | | R385 | 1-249-429-11 | CARBON 10K 5% | 1/4W |
| | | | | R700 | 1-249-427-11 | CARBON 6.8K 5% | 1/4W F |
| | | | | R710 | 1-249-427-11 | CARBON 6.8K 5% | 1/4W F |
| | | | | R720 | 1-249-427-11 | CARBON 6.8K 5% | 1/4W F |

MAIN**RAY-CATCHER****T.MOTOR****T.SENS**

| Ref. No. | Part No. | Description | Remark |
|------------------------|--------------|------------------------------------|--------|
| | | < VIBRATOR > | |
| X301 | 1-579-175-11 | VIBRATOR, CERAMIC (10MHz) | |
| X302 | 1-767-155-11 | VIBRATOR, CRYSTAL (33.8688MHz) | |
| ***** | | | |
| * | 1-661-469-11 | RAY-CATCHER BOARD ***** | |
| * | 4-985-300-01 | HOLDER (P-T) | |
| | | < TRANSISTOR > | |
| Q801 | 8-729-926-31 | PHOTO TRANSISTOR PT483F1S | |
| ***** | | | |
| * | 1-661-466-11 | T.MOTOR BOARD ***** | |
| | | < MOTOR > | |
| M801 | A-4604-847-A | MOTOR ASSY (TABLE) | |
| ***** | | | |
| * | 1-661-470-11 | T.SENS BOARD ***** | |
| | | < CONNECTOR > | |
| CN802 | 1-506-481-11 | PIN, CONNECTOR 2P | |
| CN803 | 1-506-481-11 | PIN, CONNECTOR 2P | |
| | | < IC > | |
| IC801 | 8-749-924-18 | IC PHOTO INTERRUPTER RPI-1391 | |
| IC802 | 8-749-924-18 | IC PHOTO INTERRUPTER RPI-1391 | |
| IC803 | 8-749-924-18 | IC PHOTO INTERRUPTER RPI-1391 | |
| | | < RESISTOR > | |
| R801 | 1-249-416-11 | CARBON 820 5% 1/4W F | |
| R802 | 1-249-416-11 | CARBON 820 5% 1/4W F | |
| R803 | 1-249-416-11 | CARBON 820 5% 1/4W F | |
| R804 | 1-249-415-11 | CARBON 680 5% 1/4W F | |
| ***** | | | |
| MISCELLANEOUS ***** | | | |
| 4 | 1-773-183-11 | WIRE (FLAT TYPE) (23 CORE) | |
| 5 | 1-777-345-11 | WIRE (FLAT TYPE) (19 CORE) | |
| △12 | 1-569-007-11 | ADAPTOR, CONVERSION 2P (E,PX) | |
| 304 | 1-769-069-11 | WIRE (FLAT TYPE) (16 CORE) | |
| △306 | 8-848-376-01 | OPTICAL PICK-UP BLOCK KSS-213B/S-N | |
| △CNP901 | 1-575-042-21 | CORD, POWER (US,CND) | |
| △CNP901 | 1-575-651-21 | CORD, POWER (AEP,G,SP) | |
| △CNP901 | 1-696-027-11 | CORD, POWER (E,PX) | |

| Ref. No. | Part No. | Description | Remark |
|--|--------------|--|--------|
| △CNP901 | 1-696-845-11 | CORD, POWER (AUS) | |
| △CNP901 | 1-751-529-11 | CORD, POWER (UK) | |
| FL701 | 1-517-517-11 | INDICATOR TUBE, FLUORESCENT | |
| M101 | X-2626-234-1 | T.T CHASSIS ASSY (MG)(K)(SPINDLE) | |
| M102 | X-2625-769-1 | MOTOR GEAR ASSY (MB)(RP)(SLED) | |
| M801 | A-4604-847-A | MOTOR ASSY, LOADING (TABLE) | |
| M802 | A-4604-847-A | MOTOR ASSY, LOADING (LOADING) | |
| △T501 | 1-429-670-11 | TRANSFORMER, POWER (US,CND) | |
| △T501 | 1-429-671-11 | TRANSFORMER, POWER (AEP,G,UK,AUS,SP) | |
| △T501 | 1-429-672-11 | TRANSFORMER, POWER (E,PX) | |
| ***** | | | |
| ACCESSORIES & PACKING MATERIALS ***** | | | |
| | 1-473-800-11 | REMOTE COMMANDER (RM-DX200) | |
| | 1-558-271-11 | CORD, CONNECTION (AUDIO 108cm) | |
| | 1-777-172-11 | CORD, CONNECTION (CONTROL-A1)(CND) | |
| | 3-707-584-21 | COVER, BATTERY (FOR RM-DX200) | |
| | 3-810-765-11 | MANUAL,COMMONNESS INSTRUCTION (FOR CONTROL-A1) (ENGLISH)(US,AUS) | |
| | 3-810-765-21 | MANUAL,COMMONNESS INSTRUCTION (FOR CONTROL-A1) (ENGLISH,FRENCH,GERMAN,SPANISH,DUTCH, SWEDISH,ITALIAN,PORTUGUESE,CHINESE) (EXCEPT US,AUS) | |
| | 3-856-765-11 | MANUAL, INSTRUCTION (ENGLISH,FRENCH,SPANISH,SWEDISH) (EXCEPT US,AUS) | |
| | 3-856-765-21 | MANUAL, INSTRUCTION (ENGLISH)(US,AUS) | |
| | 3-856-765-31 | MANUAL, INSTRUCTION (CHINESE)(SP) | |
| | 3-856-765-41 | MANUAL, INSTRUCTION (GERMAN,DUTCH,ITALIAN,PORTUGUESE) (AEP,G) | |
| | 4-984-086-01 | BOOKLET (100) | |
| * | 4-983-337-01 | INDIVIDUAL, CARTON (SP) | |
| * | 4-983-803-01 | CUSHION | |
| * | 4-983-804-01 | INDIVIDUAL, CARTON (US,CND) | |
| * | 4-983-805-01 | INDIVIDUAL, CARTON (AEP,G) | |
| * | 4-983-806-01 | INDIVIDUAL, CARTON (UK) | |
| * | 4-985-680-01 | INDIVIDUAL, CARTON (AUS) | |
| * | 4-986-415-01 | INDIVIDUAL, CARTON (E,PX) | |

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

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

| <u>Ref. No.</u> | <u>Part No.</u> | <u>Description</u> | <u>Remark</u> |
|-----------------|-----------------|---------------------------------|---------------|
| | | ***** HARDWARE LIST ***** | |
| #1 | 7-685-646-79 | SCREW +BVTP 3X8 TYPE2 N-S | |
| #2 | 7-685-871-01 | SCREW +BVTT 3X6 (S) | |
| #3 | 7-685-647-79 | SCREW +BVTP 3X10 TYPE2 N-S | |
| #4 | 7-685-534-19 | SCREW +BTP 2.6X8 TYPE2 N-S | |
| #5 | 7-685-871-09 | SCREW +BVTT 3X6 (S) | |
| #6 | 7-682-947-01 | SCREW +PSW 3X6 | |
| #7 | 7-682-548-04 | SCREW +BVTT 3X8 (S) | |
| #8 | 7-624-111-04 | STOP RING 7.0, TYPE -E | |
| #9 | 7-624-106-04 | STOP RING 3.0, TYPE -E | |
| #10 | 7-621-772-20 | SCREW +B 2X5 | |
| #11 | 7-682-552-09 | SCREW +B 3X16 | |
| #12 | 7-621-775-00 | SCREW +B 2.6X3 | |
| #13 | 7-621-772-30 | SCREW +B 2X6 | |
| #15 | 7-624-109-04 | STOP RING 5.0, TYPE -E | |
| #16 | 7-621-775-20 | SCREW +B 2.6X5 | |
| #17 | 7-682-255-15 | SCREW +P 2X3 | |

