

Service Manual

Compact Disc Changer

COMPACT
disc
DIGITAL AUDIO

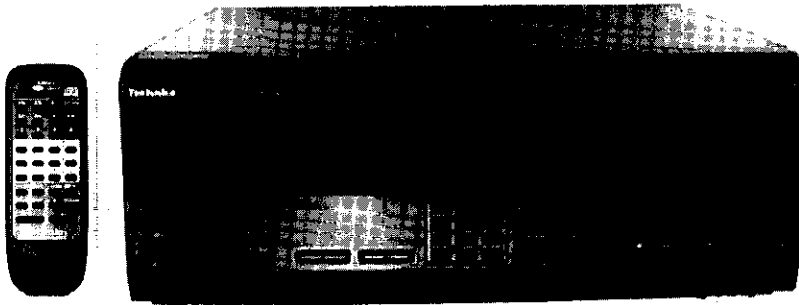
COMPACT
disc
DIGITAL AUDIO
TEXT

MASH
multi-stage noise shaping

SL-MC7

Colour

(K) ... Black Type



Area

| Suffix for Model No. | Area | Colour |
|----------------------|-------------------|--------|
| (E) | Europe | (K) |
| (EB) | Great Britain | |
| (EG) | Germany and Italy | |

TRAVERSE DECK : RAE0152Z-M Mechanism Series

■ Specifications

■ AUDIO

| | |
|---------------------|----------------------------|
| No. of channels | 2 (left and right, stereo) |
| Frequency response | 2 - 20,000 Hz, ± 1 dB |
| Output voltage | 2 V (at 0 dB) |
| Dynamic range | 92 dB |
| S/N | 100 dB |
| Harmonic distortion | 0.007% (1 kHz, 0 dB) |
| Wow and flutter | Below measurable limit |
| DA converter | MASH (1 bit) |
| Output impedance | Approx. 1 k Ω |
| Load impedance | More than 10 k Ω |

■ PICKUP

Wavelength 780 nm

■ General

| | |
|------------------------|-----------------------|
| Power supply | AC 230 - 240 V, 50 Hz |
| Power consumption | 14 W |
| Dimensions (W x H x D) | 430 x 171 x 392 mm |
| Weight | 7.2 kg |

Notes :

Specifications are subject to changes without notice.
Weight and dimensions are approximate.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

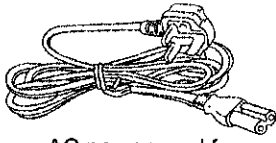
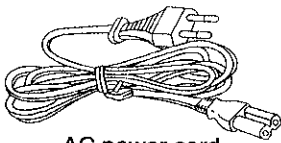
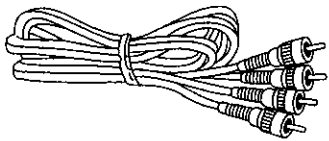
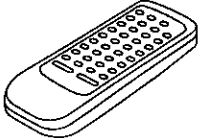
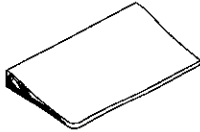
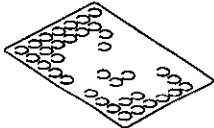
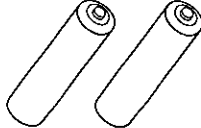
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Accessories

| | | | |
|---|--|---|---|
|  AC power cord for United Kingdom only |  AC power cord for others |  Stereo connection cable |  Remote control |
|  Notebook-like binder |  Numbered stickers |  Batteries | |

Handling Precautions for Traverse Deck

The laser diode in the traverse deck (optical pickup) may break down due to potential difference caused by static electricity of clothes or human body. So, be careful of electrostatic breakdown during repair of the traverse deck (optical pickup).

Handling of traverse deck (optical pickup)

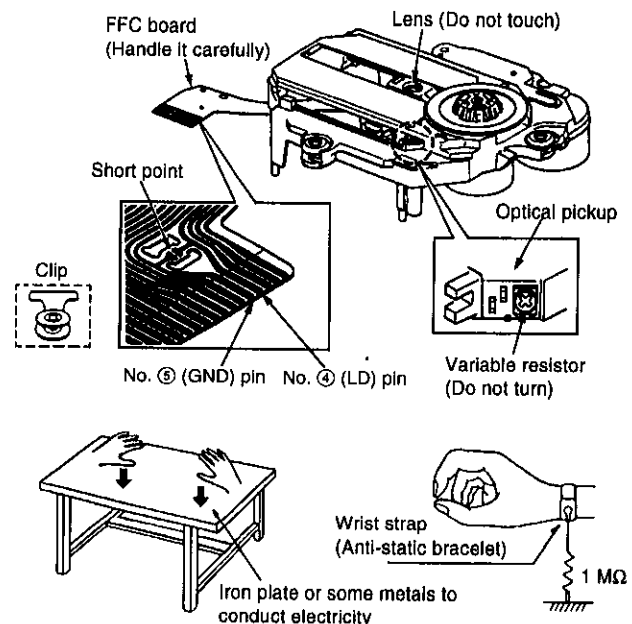
- Do not subject the traverse deck (optical pickup) to static electricity as it is extremely sensitive to electrical shock.
- The short land between the No.4 (LD) and No.5 (GND) pins on the flexible boards (FFC) is shorted with a solder build-up to prevent damage to the laser diode.
To connect to the PC board, be sure to open by removing the solder build-up, and finish the work quickly.
- Take care not to apply excessive stress to the flexible board (FFC board).
- Do not turn the variable resistor (laser power adjustment). It has already been adjusted.

Grounding for electrostatic breakdown prevention

- Human body grounding**
Use the anti-static wrist strap to discharge the static electricity from your body.
- Work table grounding**
Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is placed, and ground the sheet.

Caution:

The static electricity of your clothes will not be grounded through the wrist strap. So, take care not to let your clothes touch the traverse deck (optical pickup).



■ Precaution of Laser Diode

CAUTION : This product utilizes a laser diode with the unit turned "ON", invisible laser radiation is emitted from the pick up lens.

Wavelength: 780 nm

Maximum output radiation power from pick up: 100 μ W/VDE

Laser radiation from pick up unit is safety level, but be sure the followings:

1. Do not disassemble the optical pick up unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pick up unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pick up lens for a long time.

ACHTUNG : Dieses Produkt enthält eine Laserdiode. Im eingeschalteten Zustand wird unsichtbare Laserstrahlung von der Lasereinheit abgestrahlt.

Wellenlänge : 780nm

Maximale Strahlungsleistung der Lasereinheit : 100 μ W/VDE

Die Strahlung an der Lasereinheit ist ungefährlich, wenn folgende Punkte beachtet werden:

1. Die Lasereinheit nicht zerlegen, da die Strahlung an der freigelegten Laserdiode gefährlich ist.
2. Den werkseitig justierten Einstellregler der Lasereinheit nicht verstellen.
3. Nicht mit optischen Instrumenten in die Fokussierlinse blicken.
4. Nicht über längere Zeit in die Fokussierlinse blicken.

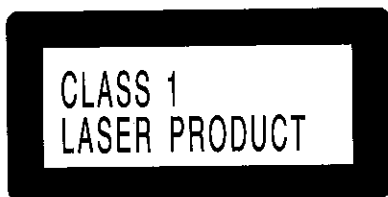
ADVASEL : I dette a apparat anvendes laser.

CAUTION !

THIS PRODUCT UTILIZES A LASER.

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

■ Use of Caution Labels



**LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT**

(Back of product)



| | | |
|----------|--|---------------------------|
| DANGER | INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM. | (Inside of product) |
| ADVASEL | USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSÅFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING. | (Indersiden af apparatet) |
| VARO! | AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTIINA NÄKYMÄTÖNTÄ LASERSÄTELYLLE. ÄLÄ KATSO SÄTEESEEN. | (Tuotten sisällä) |
| VARNING | OSYNLIG LASERSTRÅLNING NÅR DENNA DEL ÄR ÖPPNAD OCH SPÅRREN ÄR URKOPPLAD. BETRÄKTA EJ STRÅLEN. | (Apparatens insida) |
| ADVASEL | USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNDGÅ EKSPONERING FOR STRÅLEN. | (Produktets innsida) |
| VORSICHT | UNSICHTBARE LASERSTRÄHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN. | (Im Inneren des Gerätes) |

■ Caution for AC Mains Lead



(For "EB" area code model only.)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.

A 5-ampere fuse is fitted in this plug.

Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark  or the BSI mark  on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.

If you lose the fuse cover, the plug must not be used until a replacement cover is obtained.

A replacement fuse cover can be purchased from your local dealer.

CAUTION !

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OFF SAFELY.

THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted, please observe the wiring code as shown below.

If in any doubt please consult a qualified electrician.

IMPORTANT


The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral
Brown: Live

As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.

The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL  OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use

Remove the connector cover.

How to replace the fuse

The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.

Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

Figure A

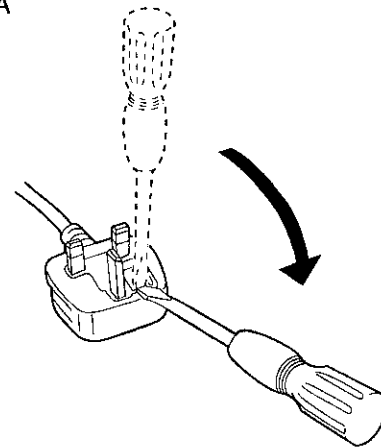
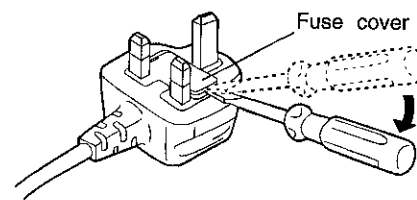


Figure B



2. Replace the fuse and close or attach the fuse cover.

Figure A

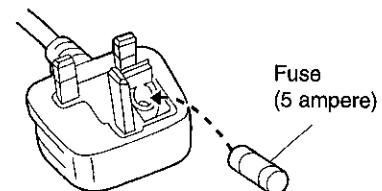
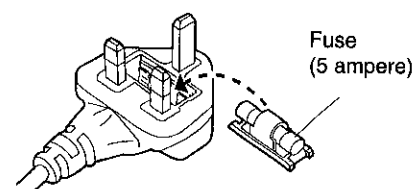
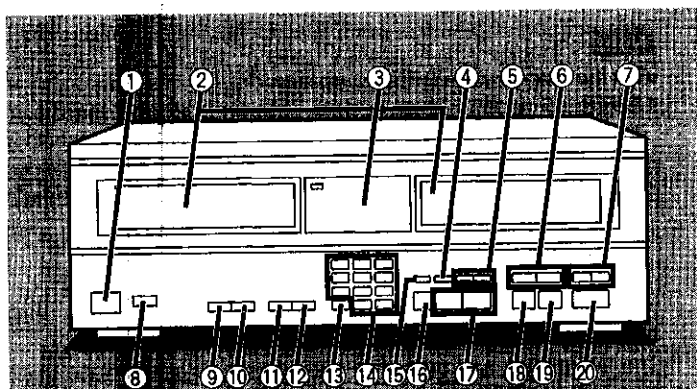


Figure B



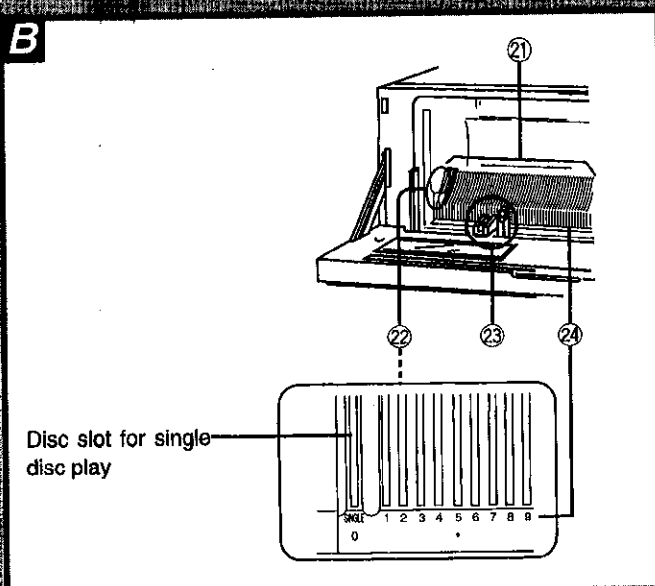
Controls

Main unit **A**



- ① **Standby/on switch** (⏻/⏻, POWER)
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
- ② **Windows**
- ③ **Display**
- ④ **Text mode button** (TEXT MODE)
- ⑤ **Text search buttons** (V, ^, TEXT SEARCH)
- ⑥ **Search/Text character select buttons** (◀, ▶, SEARCH/CHARACTER)
- ⑦ **Track skip/Text cursor buttons** (◀◀, ▶▶, SKIP/CURSOR)
- ⑧ **Remote control signal sensor**
- ⑨ **Single disc play button** (SINGLE ▶)
- ⑩ **ID scan button** (ID SCAN)
- ⑪ **Random mode button** (RANDOM MODE)
- ⑫ **Programming button** (PROGRAM)
- ⑬ **Disc/Caps button** (DISC, CAPS)
- ⑭ **Numeric buttons**
- ⑮ **Text edit button** (TEXT EDIT)
- ⑯ **Disc enter button** (DISC ENTER)
- ⑰ **Disc skip buttons** (DISC SKIP, -, +)
- ⑱ **Stop button** (■)
- ⑲ **Pause button** (||)
- ⑳ **Play button** (▶)

B



Disc slot section **B**

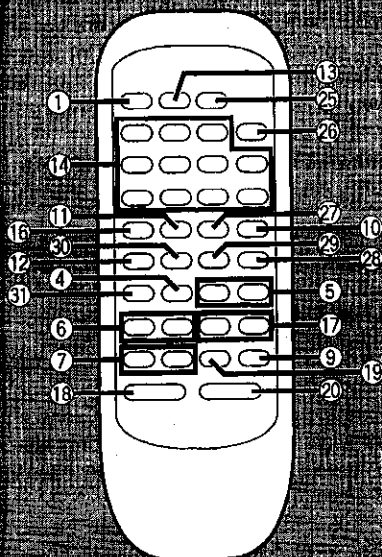
For an explanation on how to open the front panel, see "How to set discs".

- ① **Disc slots**
- ② **Disc slot for single disc play** (SINGLE)
- ③ **Loader carriage**
- ④ **Slot numbers**

Remote control **C**

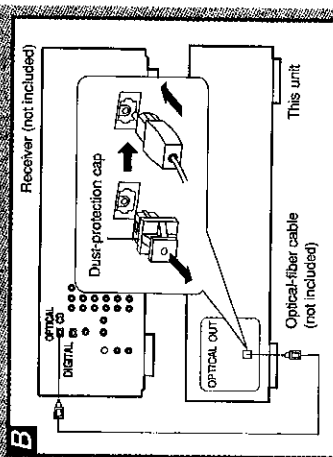
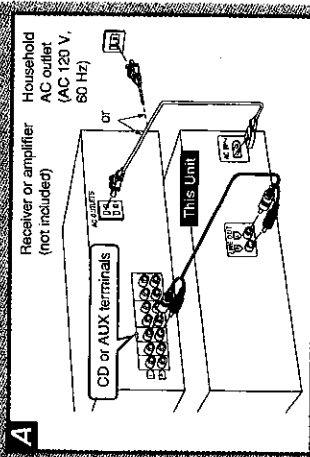
Buttons ①, ④, ⑤, ⑨ to ⑫, and ⑰ to ⑳ have the same functions as the corresponding buttons on the main unit.

C



- ⑥ **Search button** (◀◀ SEARCH ▶▶)
- ⑦ **Track skip buttons** (◀◀ SKIP ▶▶)
- ⑬ **Disc selector button** (DISC)
- ⑭ **Numeric/group select buttons**
- ⑮ **Group button** (GROUP)
- ⑯ **Group enter button** (GROUP ENTER)
- ⑰ **Repeat button** (REPEAT)
- ⑱ **Direct programming button** (DIRECT PROGRAM)
- ⑲ **Recall button** (RECALL)
- ⑳ **Clear button** (CLEAR)
- ㉑ **Time mode button** (TIME MODE)

■ Connections



Note

- Set the changer on a flat, level surface.
- Before connecting the changer to your audio system, make sure that the power of the changer and all other system components is turned off.



Memory retention

The information and presetting you enter is retained in the unit's memory even if the unit is disconnected from the AC power source. The period of retention for each type of information is as follows:

- program play and disc grouping play: approximately one week
- text editing: unlimited.

Digital connection

Remove the dust cap and connect this unit to other digital equipment with an optical fiber terminal, such as a receiver or digital surround processor.

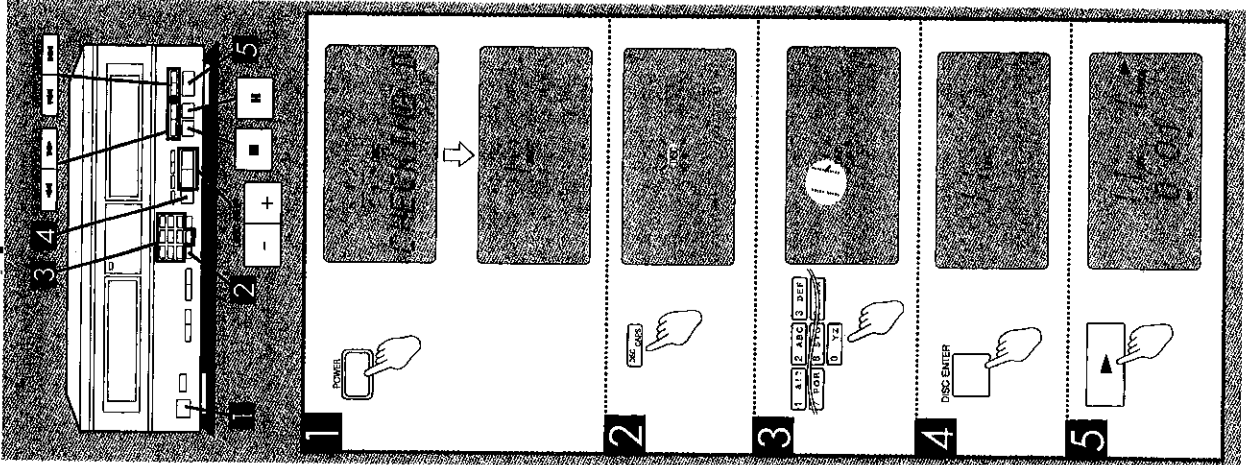
- Leave the cap attached when this terminal is not being used.

For your reference
If you have DTS format CDs, you can enjoy six channel playback by connecting this unit to a receiver or digital surround processor that has a DTS decoder.

Note Use only the optical fiber terminal when playing back DTS format discs. DTS signals can only be correctly output through the digital terminal. Connection through the stereo LINE OUT terminals will result in noise and could possibly damage your speakers.

DTS is a trademark of Digital Theater Systems, L.P.

■ Basic Operations



Sequential play

The changer plays all the tracks on all the discs in order and stops automatically when the last track on the last disc finishes playing. Before starting, load your discs. Perform steps 2 to 4 within 7 seconds of each other.

1 Press [POWER].

The unit will switch on. First, the message "CHECKING DISCS" will be displayed and then the number of the disc previously played. If it was a CD-TEXT disc then the name of the album will also be displayed. Steps 2 and 3 are not necessary if you want to begin play from this disc.

2 Press [DISC/CAPS].

3 Press the numeric button(s) to select the disc.

To select a disc numbered over 10:
For example: "11"
[1] → [1]

For your reference

You can also select a disc with [DISC SKIP] (- or +) instead of doing steps 2 and 3.

4 Press [DISC ENTER].

5 Press [].

The changer plays all the loaded discs, from the selected disc, all the way through to the disc before it. Text information will be displayed in place of the time if it is a CD-TEXT disc.

To stop play
Press [].

The display showing the number of tracks and the total playing time is cleared if the front panel is opened.

To temporarily stop play
Press [II].

To search for a position

Press and hold either [◀] (backward) or [▶] (forward) during play. In program or random play modes, searching can only be done on the current track.

To skip tracks

Press either [◀] (backward) or [▶] (forward) during play. In program play, skipping goes in the programmed order.

Note

You cannot skip backwards in random mode.

To skip discs

Press either [-] (backward) or [+] (forward) either while a disc is playing or stopped.

Note

This does not work during full disc random play mode or program play.

Program play

Program play lets you playback your favorite tracks in the sequence you want to hear them. The program can hold up to 32 items. Perform steps 2 to 4 within 7 seconds of each other.

- 1 Press [PROGRAM].
- 2 Press [DISC/CAPS].
- 3 Press the numeric button(s) to select the disc(s).
- 4 Press [DISC ENTER].
The "AL" indication shows that all the tracks on the disc are selected.
To program disc numbers only, repeat steps 2-4. Slot No. 0 can also be programmed.
- 5 Press the numeric button(s) to select the track.
Repeat this step if you want to enter tracks from the same disc.

Repeat steps 2-5 until you have completed all entries.

- NOTE**
- PGM FULL is displayed if you try to enter a 33rd item.
 - Empty slots and track numbers that don't exist on the discs can be programmed but clear when play starts.

- 6 Press [▶].
The changer plays the tracks in the programmed order, and then steps automatically.

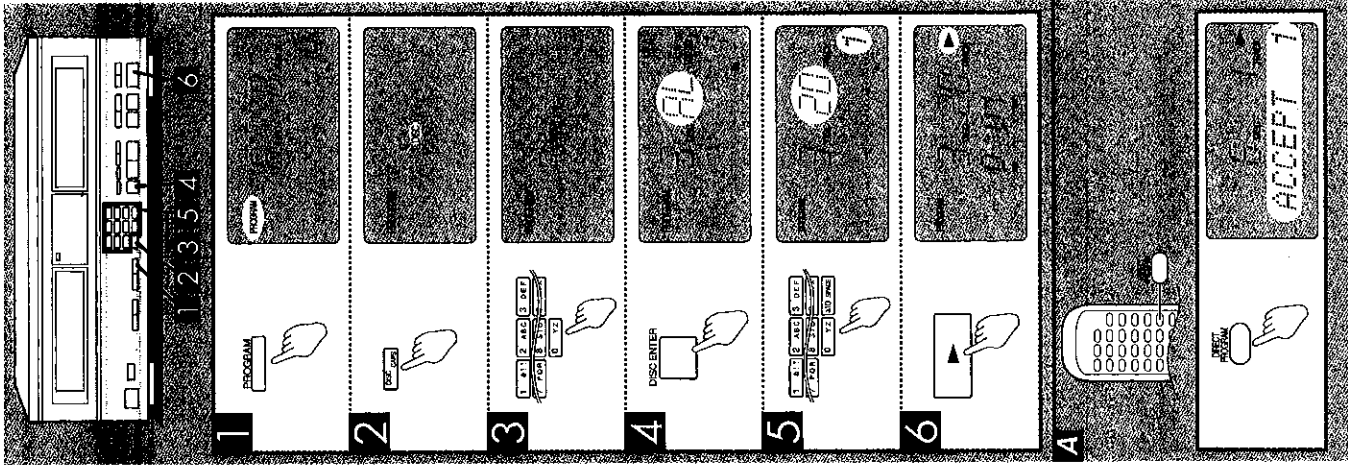
To enter additional selections during play, repeat steps 2-5.

Direct programming

(Only available from the remote control.)
This function allows you to add a track to your program while listening to it.

(While the track you want to program is playing)
Press [DIRECT PROGRAM].
When you make a program as explained under "Program play" above, and then perform this procedure without clearing the program first, the selected track is added to the end of the program. To listen to programmed tracks, press [PROGRAM] and check "PROGRAM" appears on the display, then press [▶].

- Note**
- If you press [DIRECT PROGRAM] and there are already 32 items in the program, "PGM FULL" is displayed and the track cannot be added.
 - During program play, [DIRECT PROGRAM] does not respond to touch.



Direct play **A**

You can start play from the disc and track of your choice. Perform steps 1 to 3 within 7 seconds of each other.

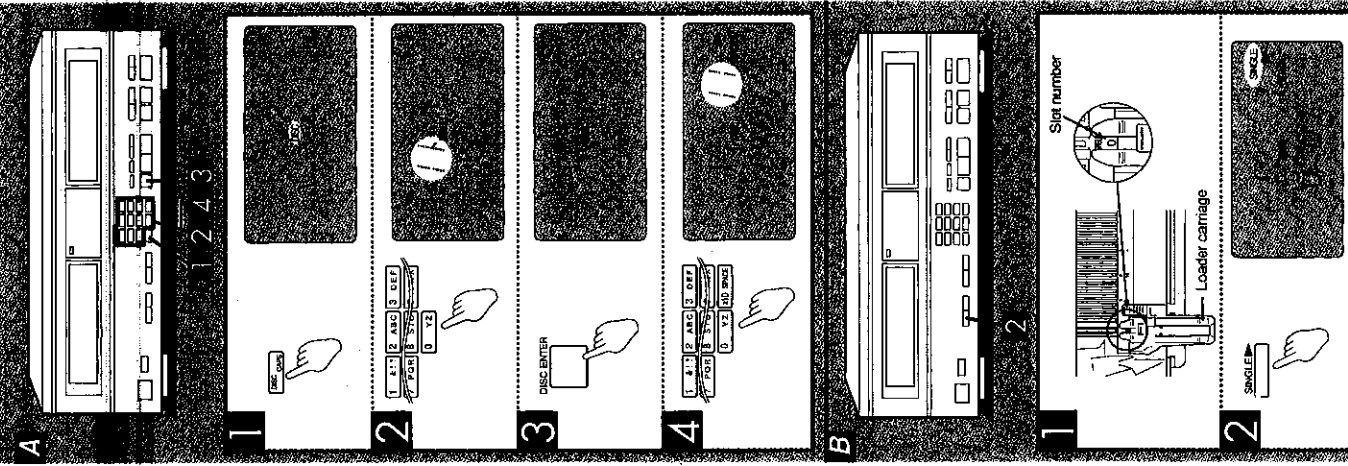
- 1 Press [DISC/CAPS].
- 2 Press the numeric button(s) to select the disc.
- 3 Press [DISC ENTER].
- 4 Press the numeric button(s) to select the track.
Play starts at the selected track and continues through to the end of that CD.
To select a track numbered higher than 10:
For example: "11"
[X] [0] → [1] → [1]

Single disc play **B**

Single disc play is a convenient way of playingback a specific disc, one you just bought, for example, without having to go through the usual selection procedure.

- 1 Set a disc in slot No. 0.
- 2 Press [SINGLE ▶].
The changer plays all the tracks on the disc in slot 0 and then stops automatically.

Note
Single disc play is canceled if you skip discs.



To check programmed contents **A**

(Only available from the remote control.)

Press [RECALL].

The programmed tracks are displayed in order each time it is pressed.

To clear programmed contents

(Only available from the remote control.)
[In the stop mode]

To clear a specific item from the program

Press recall until the item is displayed, then press [CLEAR].

To clear the last item on the program

Press [CLEAR].

To clear the entire contents of the program

Press [RECALL].

To cancel the program mode

[In the stop mode]

Press [PROGRAM].

The [PROGRAM] indicator goes out.

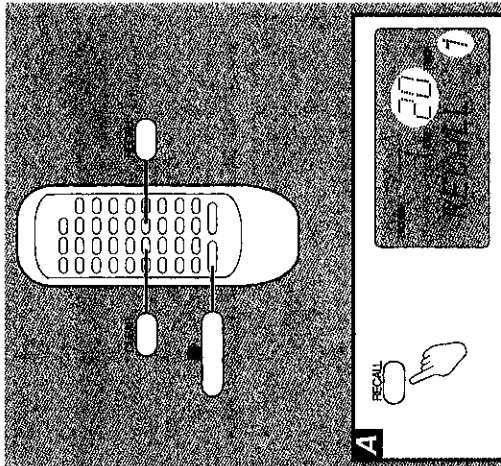
The contents of the program are stored in the memory.

To replay your program

1. Press [PROGRAM].
2. Press [▶].

Special note on recording programs

The changer needs time to change the discs and find the tracks. Consequently, it will take the changer slightly longer than the total track time to record everything. Exactly how much longer depends on the contents of the program.



Random play

The tracks will be played in random order. There are two types of random play as described below.

One disc random play **A**

The changer will play all tracks on the current disc in random order. Then, it will choose a new disc randomly, excluding the discs already played, and play all tracks on that disc in random order.

[In the stop or play mode]

Press [RANDOM MODE] to select "1 DISC RANDOM".

Each time the button is pressed
1 DISC RANDOM → FULL RANDOM → (Off)

For your reference

In the single disc play mode

Only tracks from the disc in slot No. 0 are played in random order.

In the disc grouping play mode.

The discs in the chosen group are played as in one disc random play above.

Full random play **B**

Tracks are played in random order from amongst all the tracks on all the loaded discs. In this mode, it is possible that a track will be played twice, or not played at all. (A maximum of 250 tracks are played.)

[In the stop or play mode]

Press [RANDOM MODE] to select "FULL RANDOM".

Each time the button is pressed
1 DISC RANDOM → FULL RANDOM → (Off)

Note

The disc in slot No. 0 will not be played.

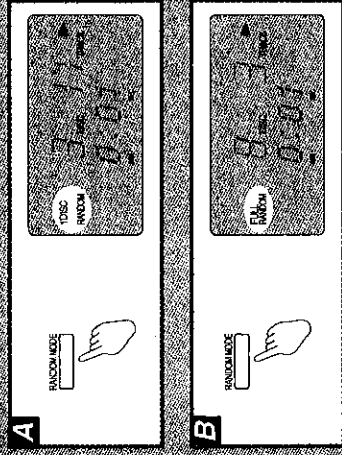
In the disc grouping play mode.

The discs in the chosen group are played as in full random play above.

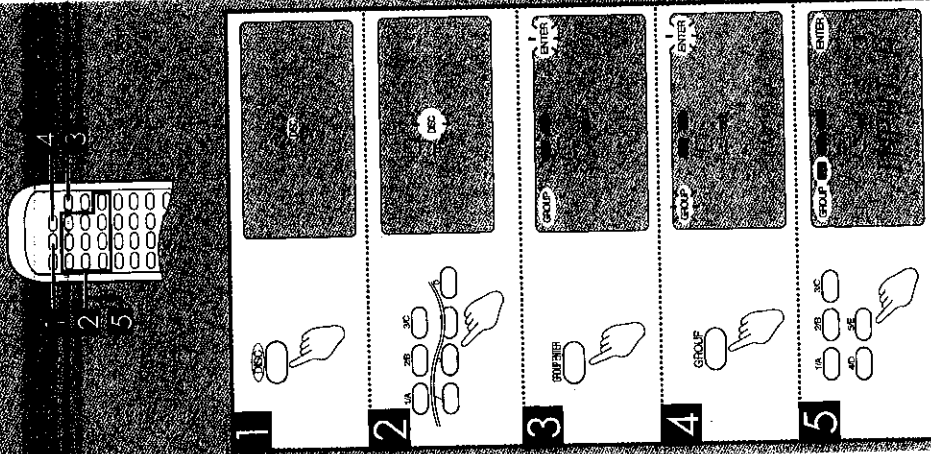
To cancel random play mode

Press [RECALL].

The "1 DISC (or FULL) RANDOM" indicator will go out.



Disc grouping play



Only available from the remote control.
 You can put discs into 5 groups (A-E). You can then play the discs in those groups.
 • Each disc can belong to more than one group.
 • [SL-MC7] Each group can include up to 110 discs.
 • Each group can be named.

To make groups

Perform steps 1 to 5 within 7 seconds of each other.
 You cannot select slot No. 0.
 [During sequential play or while it is on stopped]

- 1 Press [DISC].**
- 2 Press the numeric button(s) to select the disc.**
 To select a disc numbered over 10
 For example: "19"
 [1] → [9]
- 3 Press [GROUP ENTER].**
 If the disc is already registered in a group, the group's letter lights up.
- 4 Press [GROUP].**
- 5 Press the numeric button corresponding to the group (A, B, C, D or E).**
 The disc chosen in step 2 is registered into the selected group.

Repeat steps 1-5 to register other groups.

To check what discs are in what groups

- [While stopped]
1. Press [GROUP].
 2. Press the numeric button corresponding to the group.
 3. Press [ENTER].
 4. Press [DISC SKIP] (- or +).
 The numbers of the discs in the group will be displayed each time the buttons are pressed.

Repeat function **[REPEAT]**
 (Only available from the remote control)
 This repeats play in the chosen mode.
 [Before or during play]
Press [REPEAT].

To cancel repeat mode
 Press [REPEAT].

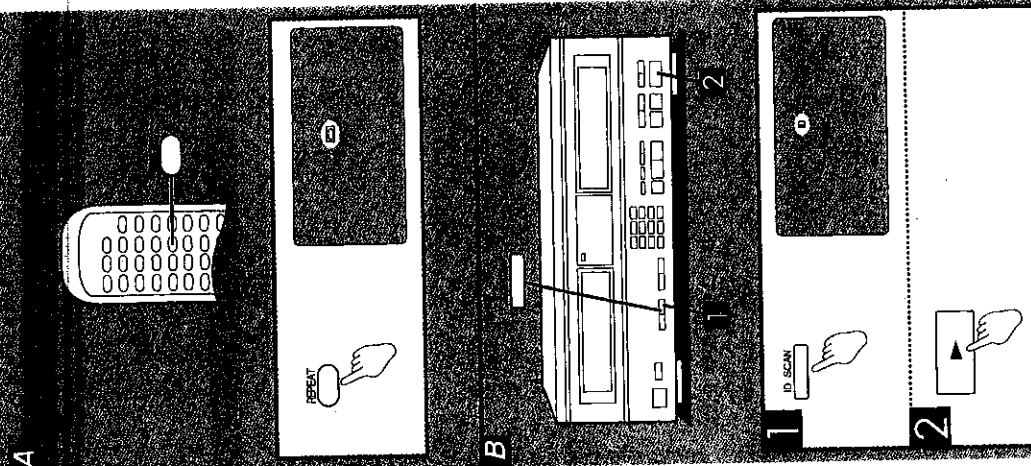
To repeat a track or set of tracks
 1. Program the track or tracks.
 2. Press [REPEAT] so [REPEAT] is displayed.
 3. Press [▶].

For your reference
 In random mode, the order is different each time the process is repeated.

ID scan function **[ID SCAN]**
 This function helps you find a particular track. It searches through the tracks and then plays a 10 second piece of each track around the loudest part of the track.

- 1 Press [ID SCAN].**
 ID scan will start.
- 2 Press [▶].**
 The changer will play the track from the beginning.

To cancel ID scan
Press [ID SCAN].
 The "ID" indicator will go out.
 The changer will continue to play from the track being played.



To cancel discs from groups

1. Press [DISC].
2. Select the disc you want to clear with the numeric buttons.
3. Press [GROUP ENTER].
4. Press [GROUP].
5. Press the numeric button corresponding to the group. The selected group indication on the display will go out.

For your reference

If the disc is registered in more than one group, you can cancel it from all groups in a single operation by pressing [] in step 4 (in the stop mode).

Playing back discs in a group

[While stopped or during sequential play]
First, follow the steps on the previous page to register the groups.

1. Press [GROUP].
2. Press the numeric button corresponding to the group.

To cancel disc grouping play mode

[While the changer is stopped.]
Press [GROUP] and then the numeric button corresponding to the group shown on the display.

Note

- The name of the group is shown if it has been named.
- If you press the group button of a group which has no discs registered in it, the message "NO INPUT" will appear on the display.

To name groups

You can name your groups. The changer has several preset names to choose from.

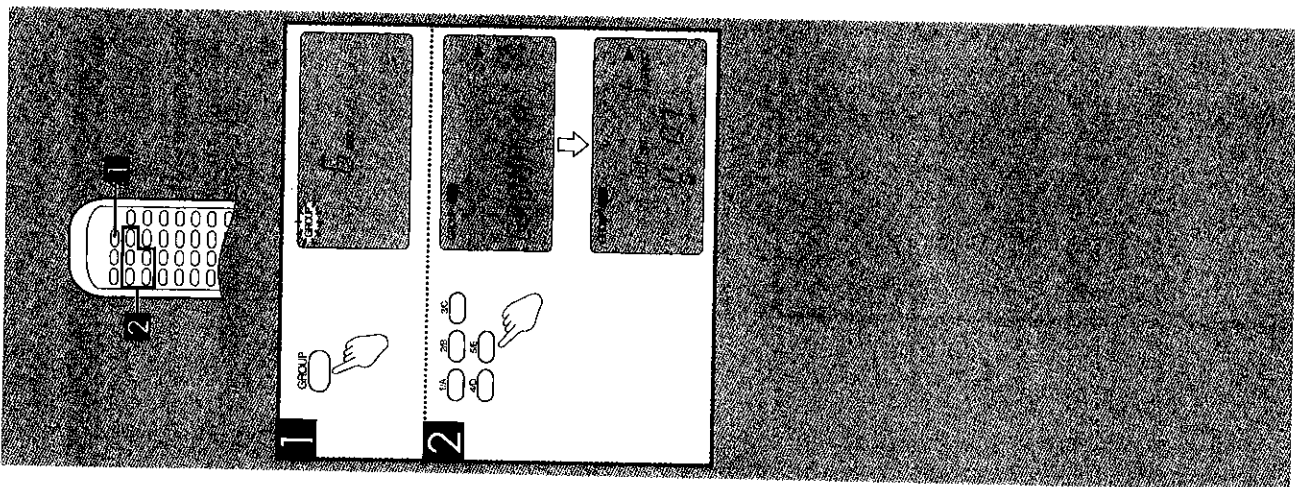
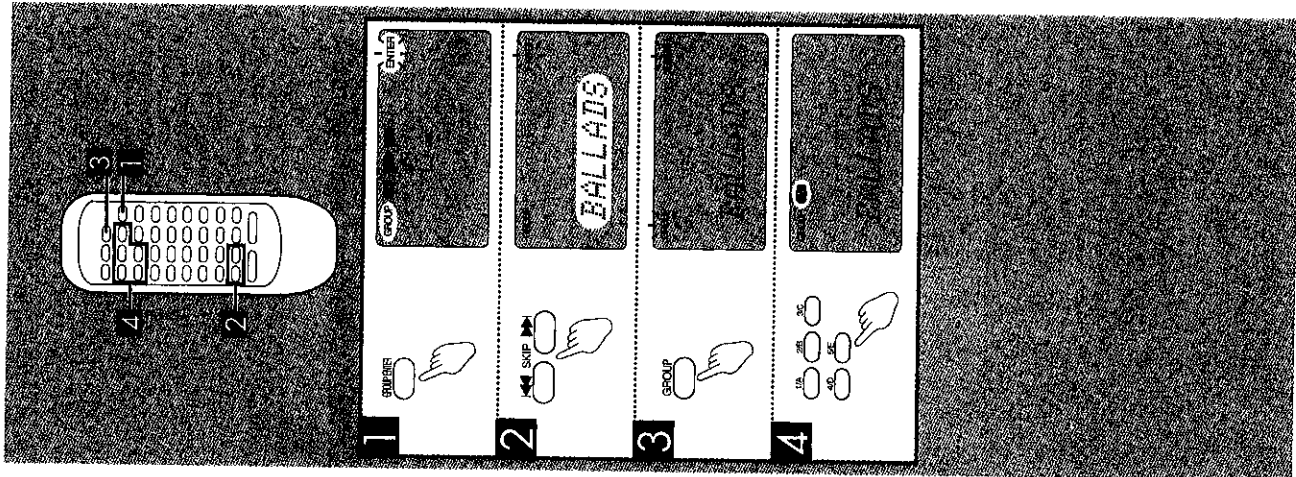
[During sequential play or while stopped]

1. Press [GROUP ENTER].
2. Press [SKIP] (← or →) to select the name. The pre-entered names will appear in the following order when the buttons are pushed.
BALLADS ↔ BLUES ↔ CLASSIC ↔ COUNTRY ↔ DANCE
↓
[RESET]
↓
ROMANTIC
↓
ROCK ↔ POP ↔ PARTY ↔ OLDIES ↔ NEW AGE ↔ JAZZ
3. Press [GROUP].
4. Press the numeric button corresponding to the group you want to name.

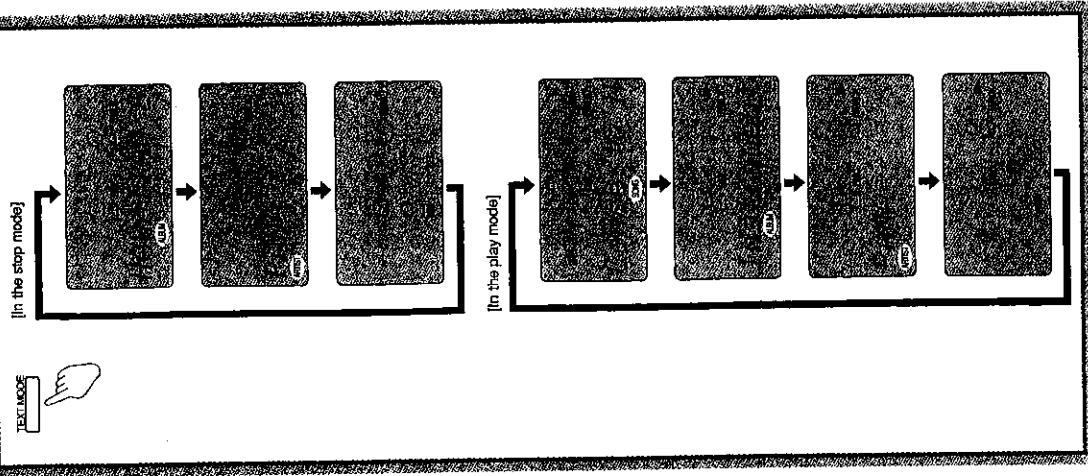
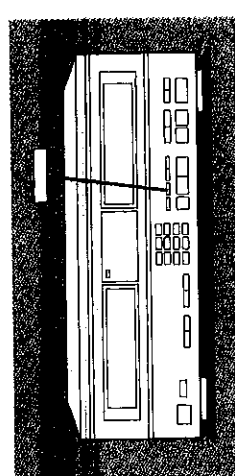
Repeat steps 1-4 to name the other groups.

To cancel names

1. Press [GROUP ENTER].
2. Select "RESET" in step 2.
3. Press [GROUP].
4. Select the group name you want to clear. It will now be shown as "GROUP A...E".



CD - TEXT function



This function shows the title of the CD, the name of the artist, or the song title. There are discs with this information already stored on them, called CD-TEXT discs, but this function also works with ordinary discs.

- Note**
- The information on CD-TEXT discs is automatically read when they begin playing. The title of the CD and the artist name must be entered manually for ordinary discs. Enter this information before doing the following.
 - Song titles cannot be displayed with ordinary discs.

Displaying a CD's information Press [TEXT MODE].

The display is changed in the following order:

In the stop mode
 ALBUM (Album title) → ARTIST (Artist name) → Total playing time

In the play mode
 SONG (Song title) → ALBUM (Album title) → ARTIST (Artist name) → time display

Song titles are displayed whenever a track is changed, even if the time display is chosen.

- Note**
- Up to 32 characters of text information can be displayed while the changer is stopped. The entire text is displayed during playback, even if it is longer than 32 characters.
 - Song titles are not displayed after a certain number of tracks if there are many tracks on the disc or if titles are exceptionally long.
 - Text information is attached to the slot. Any information entered into memory will be displayed for that slot until another CD-TEXT disc is played in that slot or the information is entered manually.
 - Some CD-TEXT discs do not have information about the artist or track. Nothing is displayed if this is the case.
 - Only one artist name per disc is displayed. It will be the name of the main artist on the disc and does not change with each track.

To search discs or tracks using text information [TEXT SEARCH]

There are 3 search modes: album title, artist name or song title.

Note

You cannot text search in program play/random play/ID scan mode.

To find a specific CD [Album search/Artist search] [A]

- 1 Press [TEXT MODE] to select "ALBUM" or "ARTIST".
- 2 Press [TEXT SEARCH] (V or ^) to select the disc.
 V: Changes in reverse alphabetical order.
 ^: Changes in alphabetical order.
- 3 Press [▶].
 The changer will start playing the selected disc.

For your reference

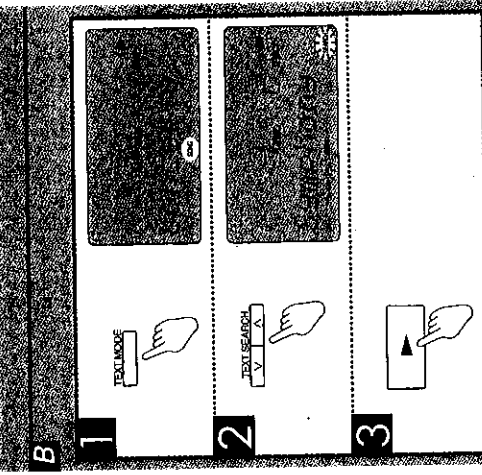
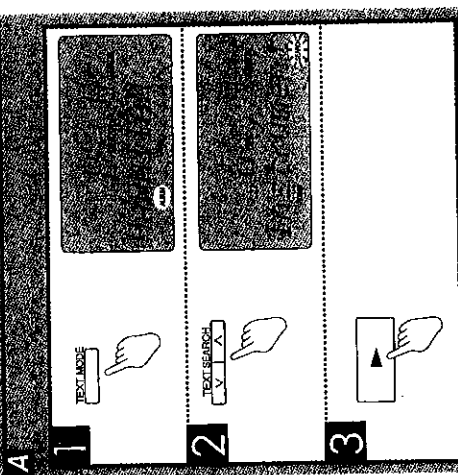
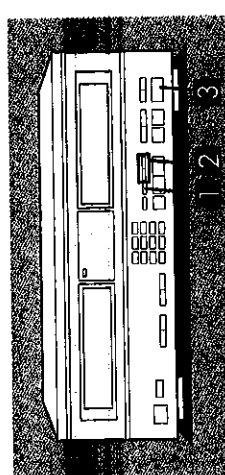
- In the disc grouping play mode, the search is limited to the selected group.
- A text search can be performed while a disc is playing. In this case, the display will not show the information about the disc currently playing.

To find a specific song [Song search] [B]

This function only works with CD-TEXT discs that have song information on them.

[During play]

- 1 Press [TEXT MODE] to select "SONG".
- 2 Press [TEXT SEARCH] (V or ^) to select the track.
- 3 Press [▶].
 Play begins at the selected track and then continues through to the last track on the disc before.



Entering CD information manually (TEXT EDIT)

32 characters worth of text information can be entered each for the album name and artist name. This can be done for each disc loaded in the changer.

Note

- The information entered for the CD is attached to the slot. If the CD is moved to another slot, the information will not be displayed.
 - The information on CD-TEXT discs takes precedence over manually entered information, so any information entered will be cleared once a CD-TEXT disc is played in a slot.
- Perform steps 1 to 3 within 7 seconds of each other.

[while stopped]

- 1 Press [DISC CAPS].
- 2 Select a disc with the numeric buttons.
- 3 Press [DISC ENTER].
- 4 Press [TEXT MODE] to select "ALBUM" or "ARTIST".

- 5 Press [TEXT EDIT].

The display is now ready for text to be entered.

- 6 Press [DISC/CAPS] to select the input mode.

The display changes as follows every time the button is pressed.

A (CAPITALS) → a (lower case) → 1 (numerals)

- 7 Press the numeric buttons to enter the text.

To continue entering characters with the same numeric button, press [SKIP/CURSOR] (▶▶). The character is entered if a different numeric button or [SKIP/CURSOR] (▶▶) is pressed, and the cursor moves to the next position.

Repeat steps 6 and 7 to enter more characters.

| numeric button | Characters, symbols, and functions |
|----------------|---|
| 1 | 1 2 3 4 5 6 7 8 9 0 & % & . () * + - / : ; < > ? @ [\] ^ _ ` { } ~ = |
| 2 | A B C D E F G H I J K L M N O P Q R S T U V W X Y Z SPACE |
| 3 | a b c d e f g h i j k l m n o p q r s t u v w x y z |
| 4 | 1 2 3 4 5 6 7 8 9 0 |
| 5 | 1 2 3 4 5 6 7 8 9 0 |
| 6 | 1 2 3 4 5 6 7 8 9 0 |
| 7 | 1 2 3 4 5 6 7 8 9 0 |

In the numeral mode, the numeral corresponding to the numeric button is entered. In the other modes, the character displayed changes in the order shown in the chart each time the numeric button is pressed.

8 Press [TEXT EDIT]. The text you entered is confirmed and displayed.

Canceling the text editing mode

The information entered can be cleared at any time before step 8. Press [■].

Note

Letters and symbols appearing on the display may vary slightly from the printed listing.

Changing information you have entered

1. Display the information you want to change.
2. Press [TEXT EDIT].
3. Move the cursor to the character you want to change with [SKIP/CURSOR] (◀◀ or ▶▶).
4. Enter the new character with the numeric buttons.
5. Press [TEXT EDIT].

Clearing information you have entered

1. Display the information you want to change.
2. Press [TEXT EDIT].
3. Press [CLEAR] on the remote control.
4. Press [TEXT EDIT].

Time mode selection

(Only available from the remote control.) You can see various information about the time on the disc you are playing.

[In the play or pause mode]

Press [TIME MODE].

The display changes in the order shown in the diagram.

In all play modes

When track number 21 or greater is playing, display ③ shows "1:17". ① is displayed if play is stopped and then started again.

In the program/random play mode

The displayed information will alternate between displays ① and ③ each time the button is pressed.

Time information remains displayed in the text information display area as long as the unit is in time mode.

- 1 Press [DISC CAPS].
- 2 Select a disc with the numeric buttons.
- 3 Press [DISC ENTER].
- 4 Press [TEXT MODE] to select "ALBUM" or "ARTIST".
- 5 Press [TEXT EDIT].
- 6 Press [DISC/CAPS] to select the input mode.
- 7 Press the numeric buttons to enter the text.

■ Self - Diagnostic function

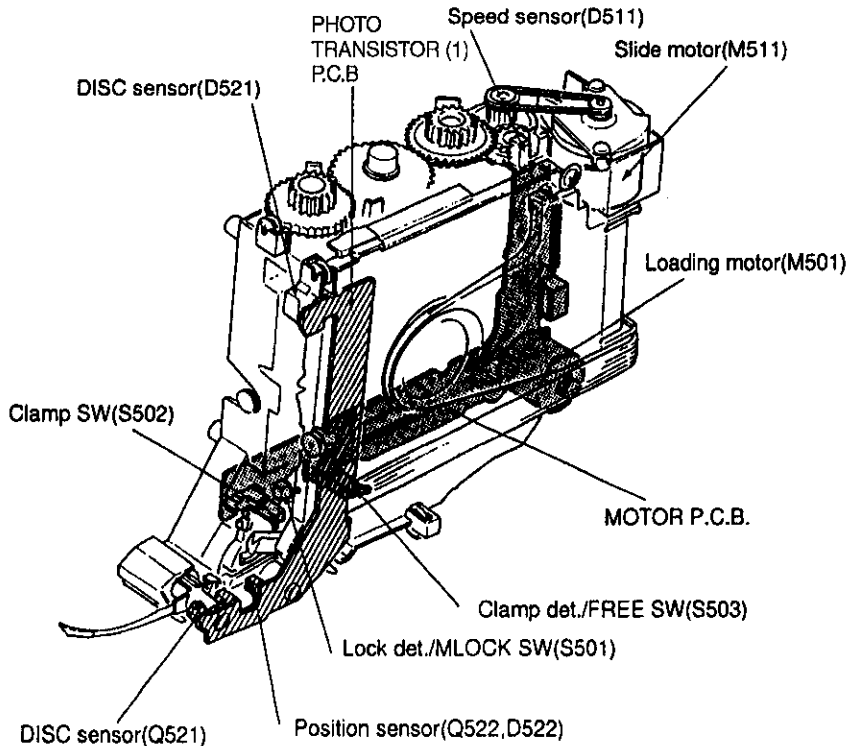
| Mode | Procedure | Content | Use |
|-----------------------|--|--|--|
| FL display mode | <p>Turn ON power button with no disc loaded.</p> <p>Press the following 3 buttons simultaneously: PLAY(▶), STOP(■), TRACK SKIP(◀▶)</p> <p>FL all unlit</p> <p>Press DISC button</p> <p>Press specified button</p> <p>FL all lit</p> | FL all unlit / all lit | Enables checking of whether FL and each SW are okay or not, before set disassembly. |
| Mechanical mode | <p>Turn ON power button with no disc loaded.</p> <p>Hold down the STOP (■) button for at least 2 seconds.</p> <p>Simultaneously press the TRACK SKIP (▶▶) button for at least 2 seconds, while holding down the STOP (■) button.</p> <p>C (Appears on display)</p> | <p>Displays defective points while performing a series of mechanism operations.</p> <p>C F-15: PU rest SW etc. C F-27: Slide drive system C F-28/ C F-29: Loading system</p> <hr/> <p>F26: Main IC defect (Automatically displayed when power is turned ON, regardless of mode setting.)</p> | Enables fault to be diagnosed, before set disassembly. |
| Test mode | <p>Turn OFF power button once, with no disc loaded.</p> <p>Turn ON power while simultaneously holding down the following button: PLAY(▶), STOP(■)</p> <p>TEST MODE (Appears on display)</p> | <p>1 button: Results in independent operation of traverse deck.</p> | Use to check correct operation after disassembly. |
| | <p>Press 1 button</p> <p>Press 2 button</p> | <p>2 button: Repeats loading / unloading operation.</p> | Use to check correct operation after repair. |
| | <p>Mount disc in single (slot 0) position.</p> <p>Press 3 button</p> | <p>3 button: Automatically repeats loading / unloading / slide operation.</p> | |
| Servo adjustment mode | <p>After mounting disc in slot, turn OFF power button once.</p> <p>Turn ON power while simultaneously pressing the following three buttons: PLAY(▶), PAUSE(■), STOP(■)</p> <p>Press the PLAY(▶) button.</p> | <p>Displays servo circuit status on FL.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>F T C</p> </div> | <p>Enables checking of servo status.</p> <p>* F = Focus servo * T = Tracking servo * C = CLV servo</p> |

Display and Handling

| Display | Cause | Handling |
|-----------------------------|--|---|
| F-15 | The symptom is slow start-up of the CD when power is turned ON. The cause is defective contact of the OPU rest switch. | Abnormal rest detection switch (S701). |
| F-26 (Automatic display) | Sympton is that the unit does not operate when the play button is pressed, or the CD is skipping etc. The probable cause is defective system control IC. Lock det./MLOCK SW (S501) does not go ON/OFF in initial operation. | * Check system control (IC401) and servo IC (IC702). * Check each IC and the servo circuit. * Check Lock det./MLOCK SW (S501). |
| F-27 | Sensor abnormal. Load on slide drive system is too great. Loading unit does not move to the right and left. Slide motor malfunction. | * Check slide motor (M511). * Check position sensor (Q522, D522) and speed sensor (D511). * Check gears of slide drive system. (Jammed by foreign matter or great teeth missing.) |
| F-28 | Clamp det./FREE SW does not go OFF, and Clamp det.SW (S502) does not go ON within 5 seconds during loading. | * Check Clamp det./FREE SW (S503) and Clamp SW (S502). * Check loading motor (M501). * Check loading drive system. |
| F-29 | Clamp det./FREE SW (S503) and clamp SW do not go ON within 5 seconds during unloading. | (Riding-up, shifting or foreign matter jamming of levers, missing gear teeth etc.) |

<Method for returning from error display to normal display>

- * C F-26: When repair is complete, the error display disappears automatically.
- * C F-15/ 27/ 28/ 29: Power SW ON/ OFF.
















| Ref. No. | Part name (Part number) |
|----------|----------------------------------|
| IC401 | Micro computer IC (UPD78043F045) |
| IC702 | Digital LSI IC (MN662741RPA) |
| S501 | Lock det./MLOCK SW (RSP1A017-A) |
| S502 | Clamp det. SW (RSH1A005) |
| S503 | Clamp det./FREE SW (RSH1A005) |
| S701 | Rest detection SW (RSH1A043-U) |
| Q521 | Disc sensor (PT4810F) |
| Q522 | Position sensor (PT480F) |
| D511 | Speed sensor (RSQGP1S53V) |
| D521 | Disc sensor (LN66S) |
| D522 | Position sensor (GL480V) |
| M501 | Loading motor (RFKPLMC50PAK) |
| M511 | Slide motor (RFKPLMC50PBK) |

Error code explanations

※ The unit is satisfactory if the error code is **E - 0** or **E - 2**.

※ Before testing, check that the test disc is free of scratches and optical pickup is clean.

| FL error code display | Symptom | Probable cause | Signal to check | | Normal voltage and waveform values | | | |
|---|---|---|----------------------------------|--|--|----------------------------|---|----------------------------|
| | | | Signal name | Location | PLAY | STOP | | |
| E - 1 | Focus and tracking offset adjustments not completed in the specified time period. | 1. Clocks X1 and X2, power supply V_{DD} and reset/RST, all on IC702. 2. MDATA, MCLK, MLD and SENSE signal to/from mechanism controller. | MDATA | IC702 ⑧ pin |  | 0V | | |
| | | | MCLK | IC702 ⑦ pin |  | 4.9V | | |
| | | | MLD | IC702 ⑨ pin | | 4.9V | | |
| | | | SENSE | IC702 ⑩ pin | — | — | | |
| | | | /RST | IC702 ⑫ pin | 4.8V | 4.8V | | |
| | | | X1 | IC702 ⑤⑧ pin |  | 0.35Vp-p F = 33.8688MHz |  | 0.35Vp-p F = 33.8688MHz |
| | | | X2 | IC702 ⑤⑨ pin |  | 0.58Vp-p F = 33.8688MHz |  | 0.58Vp-p F = 33.8688MHz |
| E - 3 E - 5 E - 7 E - 9 E - B E - D E - F | Disc play unstable. | 1. Scratches or contaminants on disc surface. 2. Focus and tracking servo circuits (check waveforms, voltages, and part values.) 3. Spindle driver circuit. 4. Optical pickup. | FE | IC702 ③② pin |  | 2.4V | | |
| | | | TE | IC702 ③③ pin |  | 2.4V | | |
| | | | FOD | IC702 ②⑨ pin | 2.4V | 2.4V | | |
| | | | TRD | IC702 ②⑦ pin | 2.4V | 2.4V | | |
| | | | KICK | IC702 ②⑧ pin | 2.4V | 2.4V | | |
| | | | /FLOCK | IC702 ①① pin | — | — | | |
| | | | /RF DET | IC702 ③① pin | 0V | 4.8V | | |
| | | | RF | TJ701 |  | 2.4V | | |
| | | | STAT | IC702 ①⑦ pin | 4.8V | 0V | | |
| | | | E - 4 E - 6 E - C E - E | Best "Eye" (PD Balance) adjustment not completed in the specified time period. | 1. Scratches or contaminants on disc surface. 2. Focus and Tracking servo circuit (check waveforms, voltages, and part values.) 3. Optical pickup. | FBAL | IC702 ③⑩ pin | 2.4V |
| RF | TJ701 |  | | | | 2.4V | | |
| FE | IC702 ③② pin |  | | | | 2.4V | | |
| /TLOCK | IC702 ①② pin | — | | | | — | | |
| OFT | IC702 ③⑥ pin | 0V | | | | 0V | | |
| E - 8 E - A | Focus or Tracking gain adjustment not completed in the specified time period. | 1. Scratches or contaminants on disc surface. 2. Focus and Tracking servo circuit (check waveforms, voltages, and part values.) 3. Optical pickup. | FE | IC702 ③② pin |  | 2.4V | | |
| | | | TE | IC702 ③③ pin |  | 2.4V | | |
| | | | /TLOCK | IC702 ①② pin | — | — | | |
| | | | OFT | IC702 ③⑥ pin | 0V | 0V | | |

■ Operation Checks

"ATTENTION SERVICER" Some chassis components may have sharp edges. Be careful when disassembling and servicing.

1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.

2. For reassembly after operation checks or replacement, reverse the respective procedures.
Special reassembly procedures are described only when required.

3. Select items from the following index when checks or replacement are required.

4. For details disassembly, please refer to SL-MC410 series.

• Contents

• Checking Procedure For Each Major P.C.B.

| | |
|---|---------|
| | page |
| 1. Checking Procedure For Front Panel P.C.B. | 16 ~ 17 |
| 2. Checking Procedure For Main P.C.B. and Power P.C.B. | 18 |
| 3. Checking Procedure For Servo P.C.B. | 19 ~ 22 |

Warning : This product uses a laser diode. Refer to caution statement on page 3.

ACHTUNG : • Die Lasereinheit nicht zerlegen.
• Die Lasereinheit darf nur gegen eine vom Hersteller spezifizierte Einheit ausgetauscht werden.

1. Checking Procedure For Front Panel P.C.B.

Step 1
a x 4

Step 2
b x 2

Step 3
Remove the top cabinet in the direction of arrow.

Step 4
Pull down the front panel.

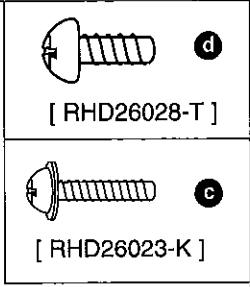
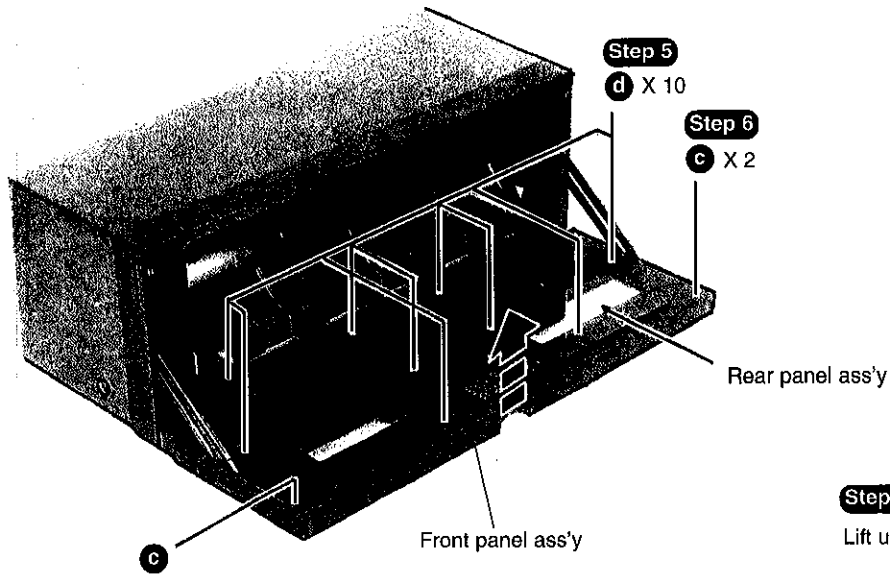
Cabinet

Frame

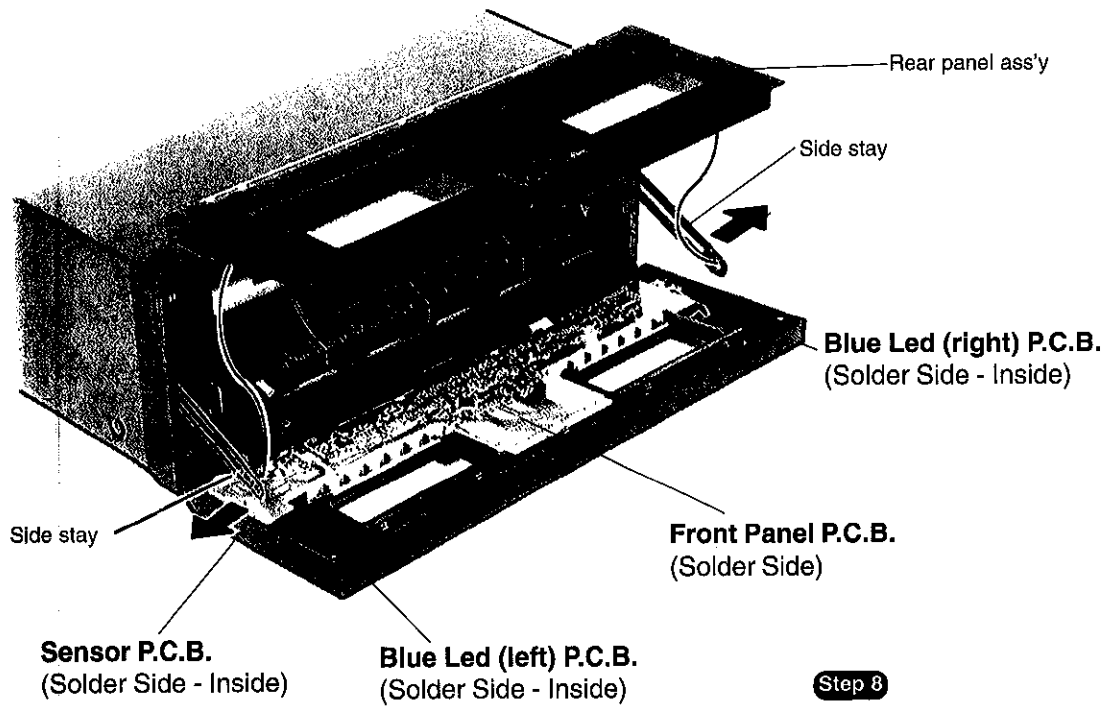
Servo P.C.B. (Solder Side)

[SNE2129-3] (Black) a

[XTBS3+8JFZ1] (Black) b
[XTB3+8JFZ] (Black)

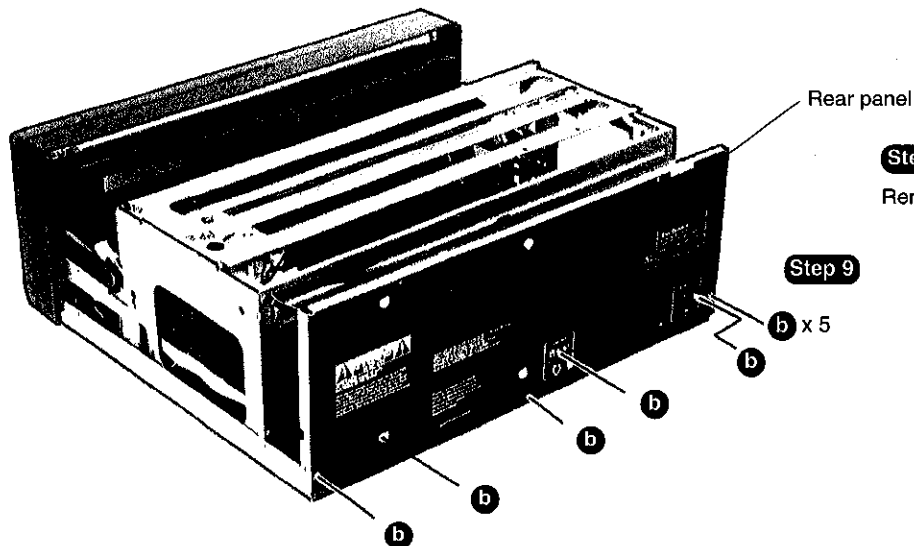
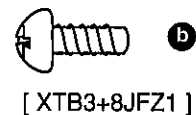


Step 7
Lift up the rear panel ass'y.



Step 8
Remove the rear panel ass'y by releasing both the side stays, check the Front panel PCB and Led PCBs.

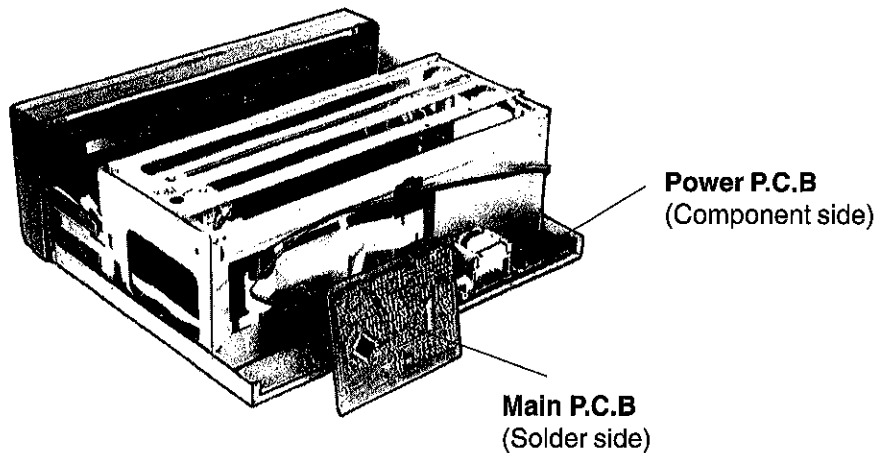
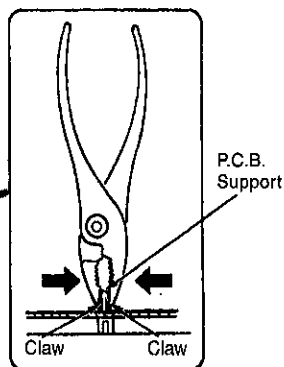
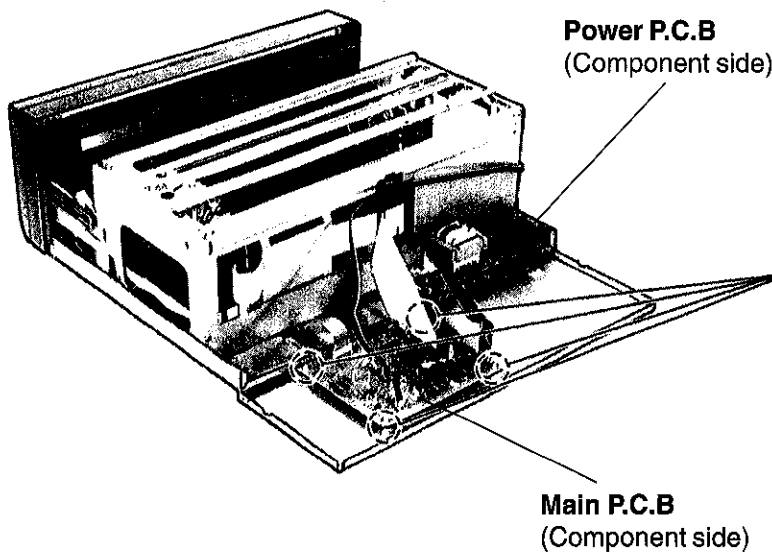
2. Checking Procedure For Main P.C.B. and Power P.C.B.



Step 10
Remove the rear panel.

Step 9

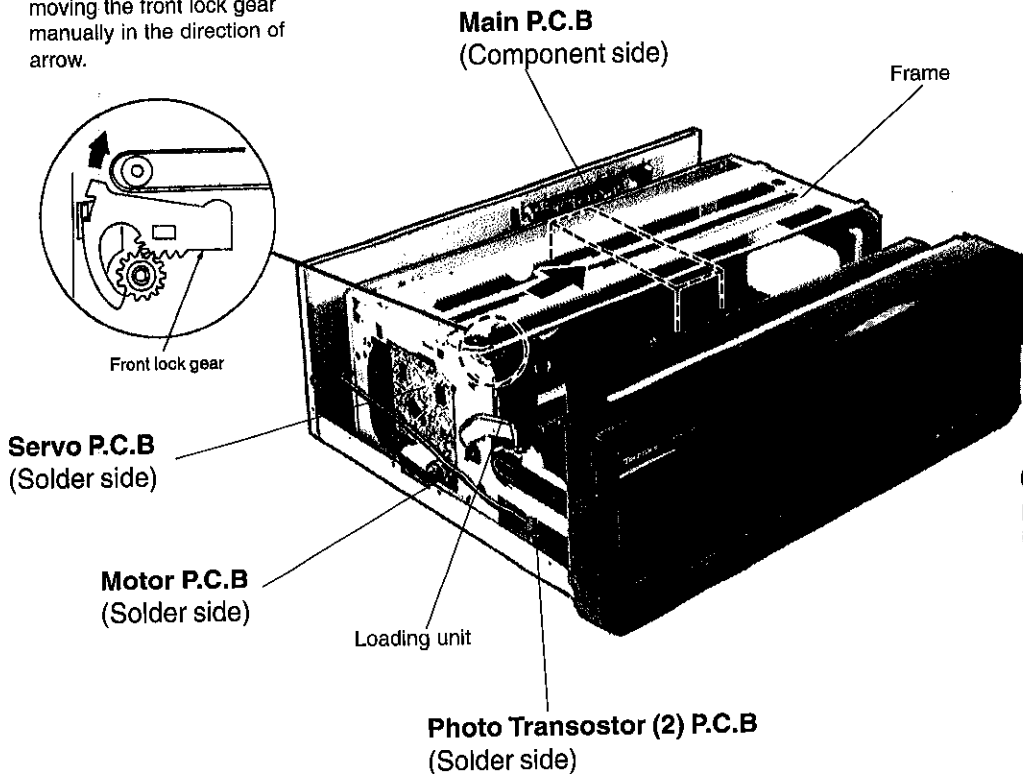
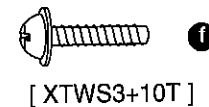
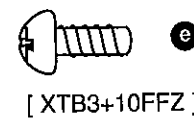
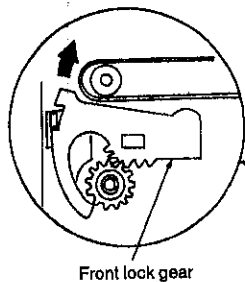
Step 11
Release the P.C.B supports from the Main P.C.B.
(Pinch the claws of P.C.B. supports with plier as shown below.)



3. Checking Procedure For Servo P.C.B.

Step 12

Unlock the loading unit by moving the front lock gear manually in the direction of arrow.

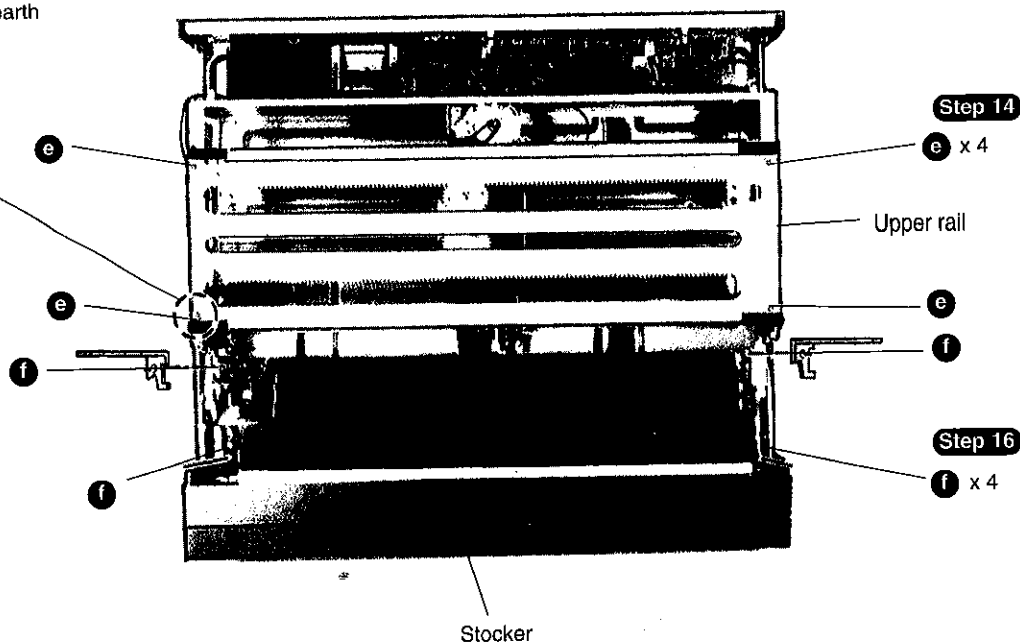


Step 13

Move the loading unit manually in the right direction. (Move the loading unit to the right direction beyond the center of the frame.)

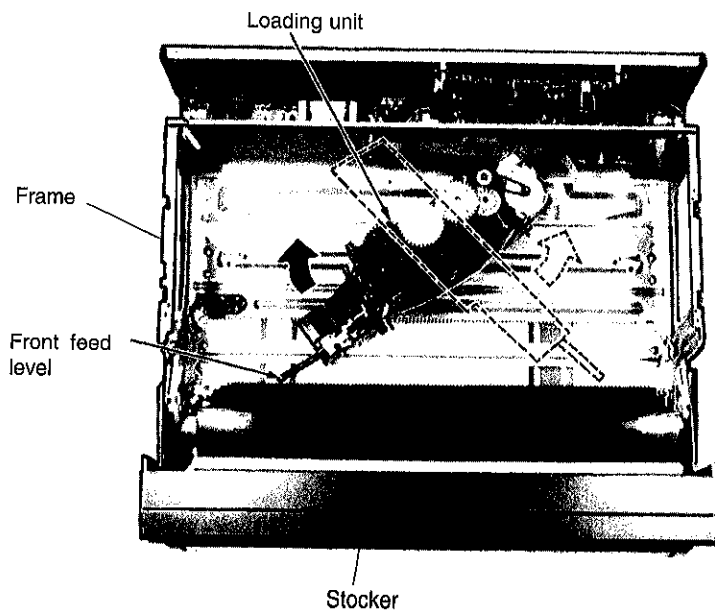
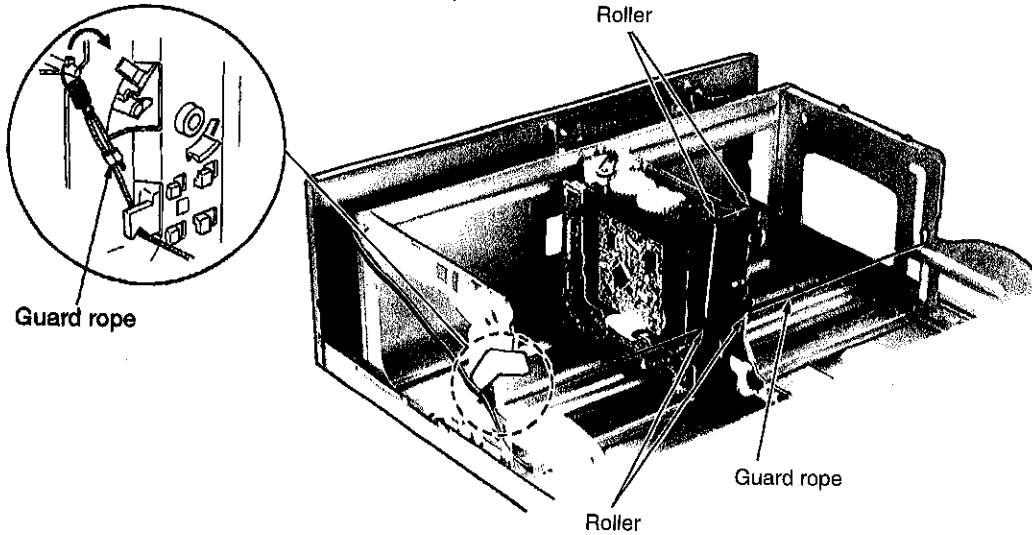
Step 15

Remove upper rail and earth plate.



Step 17

Remove the guard rope.

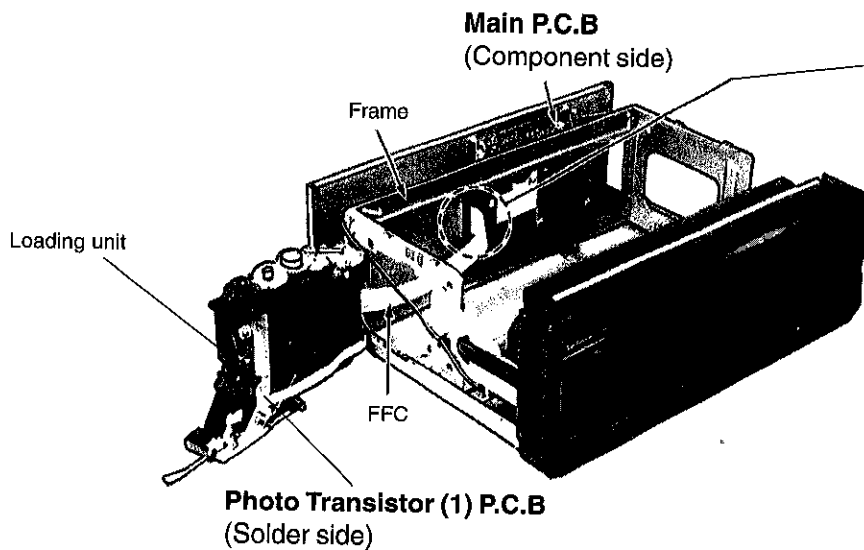


Step 18

Rotate the loading unit to clockwise or counterclockwise with lifting the stocker and then, slide the front feed lever under the stocker. Remove the loading unit from frame.

Note :

(When reassembling the loading unit, make sure to avoid the front feed lever from the stocker and then, install the loading unit because the front feed lever is positioned under stocker.)



Step 19

Remove the mech FFC holder. Remove the FFC from loading unit. Then, reconnect the FFC to the loading unit through the opening of frame.



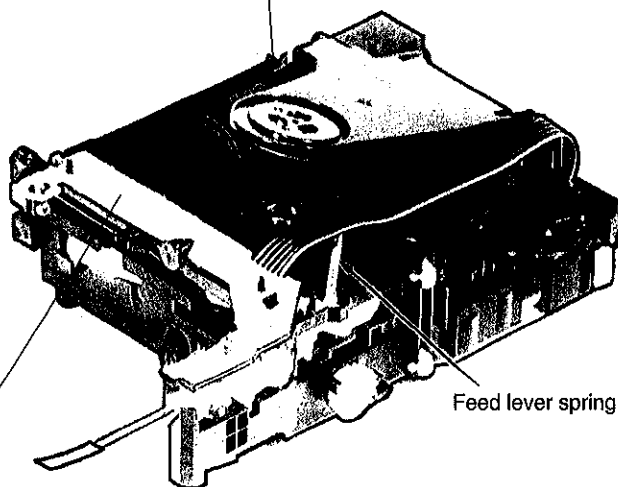
[XTB26+12J]



[XTWS3+10T]

Step 20

Remove **g** screw



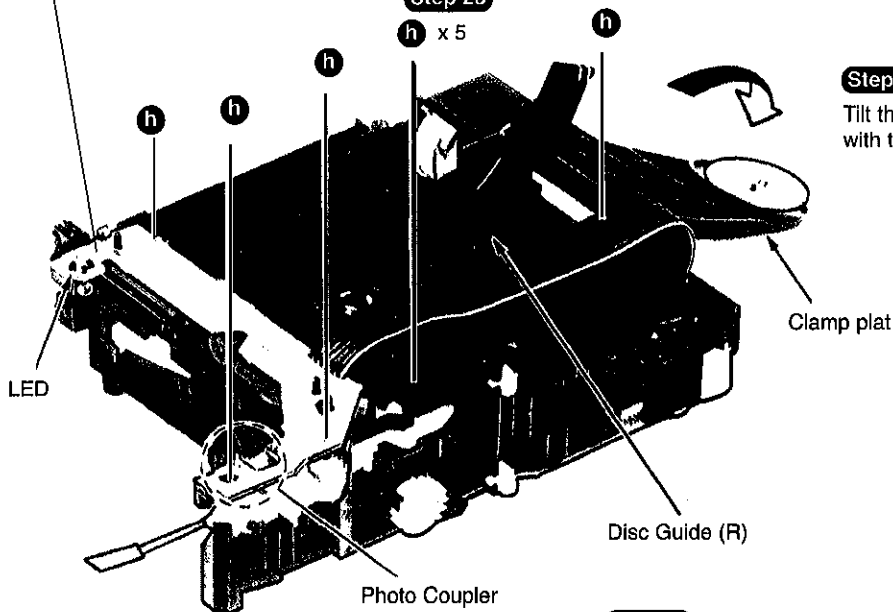
Step 21

Remove the feed lever spring.

Photo Transistor (1) P.C.B
(Solder side)

Step 23

h x 5



Step 22

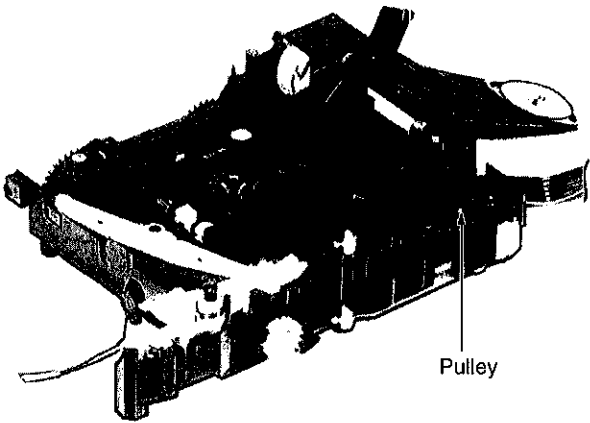
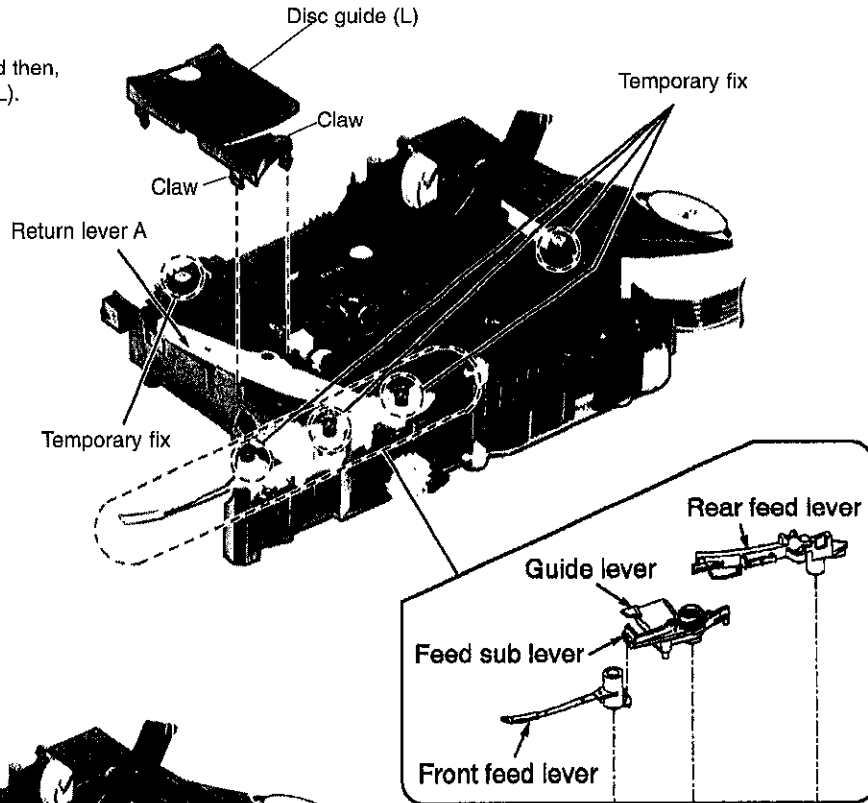
Tilt the clamp plate backward with the direction of arrow.

Step 24

Remove the disc guide (R).

Step 24

Release the 2 claws and then, remove the disc guide (L).

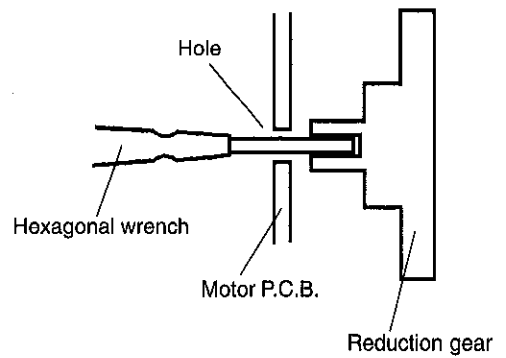
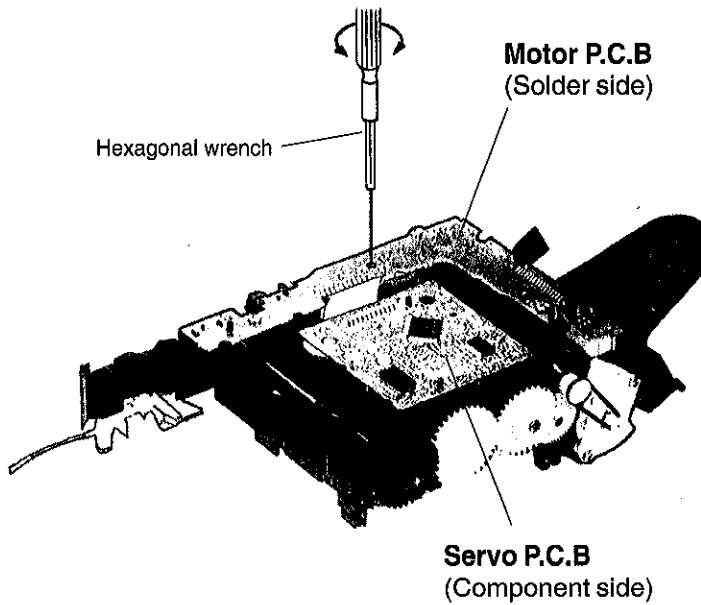


Step 25

In case of confirmation manually, rotate the pulley as shown left.

Rotate clockwise : Loading operation.
Rotate counterclockwise : Unloading operation

Or rotate with 2 mm hexagonal wrench.
Rotate clockwise : Unloading operation.
Rotate counterclockwise : Loading operation



■ Type Illustration of ICs, Transistors and Diodes

| | | | | |
|---|--------------------------------------|---|---|--------------------------------------|
| <p>BA4558FDXE2 AT24C64</p> | <p>BA6247N</p> | <p>UPD78043F045 (100Pin) MN662741RPA (80Pin) UPD780T6G036 (80Pin)</p> | <p>BA05T</p> | <p>DTC114YKA146 2SA1037AKSTX</p> |
| <p>AN8837SBE1 AN8780NSBE2</p> | <p>RCDGP1U28XD</p> | <p>2SB1238QRTV2 2SB1320AQRTA 2SD1862QTV2</p> | <p>RVTDTTC114YST RVTDTA114TST RVTDTA114YST RVTDTTC124EST RVTDTA124EST 2SC3311AIQST 2SD1450STA 2SC2785FETA</p> | <p>2SD2136PQRTA</p> |
| <p>RVD1SS133TA 1SS291TA MA165TA</p> | <p>RL1N4003N02</p> | <p>MTZJ9R1BTA MTZJ6R2CTA MTZJ5R1BTA MTZJ7R5CTA MTZJ3R0BTA MTZJ36ATA</p> | <p>BR3433S LNG995PFB0A1</p> | <p>LN66S</p> |
| <p>RSQGP1S53V</p> | <p>GL480V PT480F PT4810F</p> | | | |

■ Terminal Function Of IC's

• IC703 (AN8780NSBE2) : Focus Coil / Tracking Coil / Traverse Motor / Spindle Motor Drive

| Pin No. | Mark | I/O | Function |
|---------|-------|-----|--|
| 1 | /RST | - | Not used, open |
| 2 | NC | - | Not used |
| 3 | IN2 | I | Motor driver (2) input |
| 4 | PC2 | I | Turntable motor drive signal ("L": ON) |
| 5 | NC | - | Not used |
| 6 | IN1 | I | Motor driver (1) input |
| 7 | PVcc1 | I | Driver power supply terminal (1) |
| 8 | PGND1 | - | Driver GND terminal (1) |
| 9 | NC | - | Not used, connected to GND |
| 10 | D1- | O | Motor driver (1) output terminal (-) |
| 11 | D1+ | O | Motor driver (1) output terminal (+) |
| 12 | D2- | O | Motor driver (2) output terminal (-) |
| 13 | D2+ | O | Motor driver (2) output terminal (+) |
| 14 | D3- | O | Motor driver (3) output terminal (-) |

| Pin No. | Mark | I/O | Function |
|---------|-------|-----|---|
| 15 | D3+ | O | Motor driver (3) output terminal (+) |
| 16 | D4- | O | Motor driver (4) output terminal (-) |
| 17 | D4+ | O | Motor driver (4) output terminal (+) |
| 18 | NC | - | Not used, open |
| 19 | PGND2 | - | Driver GND terminal (2) |
| 20 | PVcc2 | I | Driver power supply (2) |
| 21 | VCC | I | Power supply terminal |
| 22 | VREF | I | Reference voltage input terminal |
| 23 | IN4 | I | Motor driver (4) input |
| 24 | IN3 | I | Motor driver (3) input |
| 25 | RSTIN | I | Reset terminal (Not used, connected to GND) |
| 26 | NC | - | Not used, connected to GND |

• IC701 (AN8837SBE1): Servo Amp.

| Pin No. | Mark | I/O | Function |
|---------|-------|-----|---|
| 1 | PDE | I | Tracking signal input terminal 1 (E ch) |
| 2 | PDF | I | Tracking signal input terminal 2 (E ch) |
| 3 | VCC | I | Power supply terminal |
| 4 | PDA | I | Focus signal input terminal 1 (A ch) |
| 5 | PDB | I | Focus signal input terminal 2 (B ch) |
| 6 | LPD | I | Laser PD signal |
| 7 | LD | O | Laser power auto control output |
| 8 | RF | O | RF amp terminal |
| 9 | RFIN | I | AGC input terminal |
| 10 | CSBRT | I | OFTR capacitor connection terminal |
| 11 | CEA | I | HPF-AMP capacitor connection terminal |
| 12 | BDO | O | Dropout detection control |
| 13 | LDON | I | LD APC ON/OFF ("H": ON, "L": OFF) |
| 14 | GND | - | GND terminal |

| Pin No. | Mark | I/O | Function |
|---------|--------|-----|--|
| 15 | /RFDET | O | RF det. signal output terminal ("L": det.) |
| 16 | CROSS | O | Tracking error zero cross output |
| 17 | OFTR | O | Off track detection ("H": det.) |
| 18 | VDET | O | Oscillation det. signal ("H": det.) |
| 19 | ENV | O | Envelope signal output terminal |
| 20 | ENVOFF | I | Not used, connected to power supply |
| 21 | TEBPF | O | Oscillation detect input terminal |
| 22 | TEN | I | Tracking error signal |
| 23 | TEOUT | O | Tracking error signal |
| 24 | FEOUT | O | Focus error signal |
| 25 | FEN | I | Focusing error signal |
| 26 | VREF | O | Reference voltage output terminal |
| 27 | TBAL | I | Tracking balance adj. input |
| 28 | FBAL | I | Focus balance adj. input |

• IC702 (MN662741RPA): Servo Processor / Digital Signal Processor / Digital Filter / D/A Converter

| Pin No. | Mark | I/O | Function |
|---------|--------|-----|---|
| 1 | BCLK | O | Serial bit clock output |
| 2 | LRCK | O | L/R discriminating signal output |
| 3 | SRDATA | O | Serial data |
| 4 | DVDD1 | I | Power supply (digital circuit) terminal |
| 5 | DVSS1 | - | GND (digital circuit) terminal |
| 6 | TX | O | Digital audio interface signal |
| 7 | MCLK | I | Command clock signal |
| 8 | MDATA | I | Command data signal |
| 9 | MLD | I | Command load signal ("L": LOAD) |
| 10 | SENSE | O | Sense signal output (OFT, FESL, NACEND, NAJEND, POSAD, SFG) (Not used, open) |
| 11 | /FLOCK | O | Optical servo condition (focus) ("L": Lead-in) (Not used, open) |
| 12 | /TLOCK | O | Optical servo condition (tracking) ("L": Lead-in) (Not used, open) |
| 13 | BLKCK | O | Sub-code block clock (f=75Hz) |
| 14 | SQCK | I | Sub-code Q register clock |
| 15 | SUBQ | O | Sub-code Q data |
| 16 | DMUTE | - | Muting input ("H": Mute) (Not used, connected to GND) |
| 17 | STAT | O | Status signal (CRC, CUE, CLVS, TTSTOPFCLV, SQCK) |
| 18 | /RST | I | Reset signal ("L": reset) |
| 19 | SMCK | - | System clock (f=4.2336 MHz) (Not used, open) |
| 20 | PMCK | - | Frequency division clock signal (f=1/192 Crystal OSC (16.9344 MHz) = 88.2 KHz) (Not used, open) |
| 21 | TRV | O | Traverse servo control |
| 22 | TVD | O | Traverse drive signal |
| 23 | PC | O | Turntable motor drive signal ("L": ON) |
| 24 | ECM | O | Turntable motor drive signal (Forced mode) |
| 25 | ECS | O | Turntable motor drive signal (Servo error signal) |

| Pin No. | Mark | I/O | Function |
|---------|--------|-----|---|
| 26 | KICK | O | Kick pulse output |
| 27 | TRD | O | Tracking drive signal output |
| 28 | FOD | O | Focus drive signal output |
| 29 | VREF | I | D/A drive output (TVD, ECS, TRD, FOD, FBAL, TBAL) normal voltage input terminal |
| 30 | FBAL | O | Focus balance adjustment output |
| 31 | TBAL | O | Tracking balance adjustment output |
| 32 | FE | I | Focus error signal (analog input) |
| 33 | TE | I | Tracking error signal (analog input) |
| 34 | RFENV | I | RF envelope signal |
| 35 | VDET | I | Oscillation detection signal ("H": detection) |
| 36 | OFT | I | Off track signal ("H": off track) |
| 37 | TRCRS | I | Track cross signal input |
| 38 | /RFDET | I | RF detection signal ("L": detection) |
| 39 | BDO | I | Dropout detection signal input ("H": dropout) |
| 40 | LDON | O | Laser power control ("H": ON) |
| 41 | TES | O | Tracking error shunt output ("H": dropout) |
| 42 | PLAY | O | Play signal ("H": play) (Not used, open) |
| 43 | WVEL | O | Double velocity status signal ("H": Double) (Not used, open) |
| 44 | ARF | I | RF signal input |
| 45 | IREF | I | Reference current input |
| 46 | DRF | I | DSL bias terminal (Not used, open) |
| 47 | DSLFL | I/O | DSL loop filter terminal |
| 48 | PLLFL | I/O | PLL loop filter terminal |
| 49 | VCOFL | I/O | VCO loop filter terminal |
| 50 | AVDD2 | I | Power supply (analog circuit) terminal 2 |
| 51 | AVSS2 | - | GND (analog circuit) terminal |
| 52 | EFM | O | EFM signal (Not used, open) |
| 53 | PCK | O | PLL extract clock (f=4.3218MHz) (Not used, open) |
| 54 | PDO | O | Phase compared signal of EFM and PCK (Not used, open) |

| Pin No. | Mark | I/O | Function |
|---------|--------|-----|--|
| 55 | SUBC | O | Sub-code serial output clock |
| 56 | SBCK | I | Sub-code serial input data |
| 57 | Vss | - | GND terminal |
| 58 | X1 | I | Crystal oscillator terminal (f=16.9344MHz) |
| 59 | X2 | O | Crystal oscillator terminal (f=16.9344MHz) |
| 60 | Vdd | I | Power supply terminal |
| 61 | BYTCK | O | Byte clock signal (Not used, open) |
| 62 | /CLDCK | O | Subcode frame clock signal (f=CLDCK=7.35KHz: Normal) |
| 63 | FCLK | O | Crystal frame clock (Not used, open) |
| 64 | IPFLAG | O | Interpolation flag terminal |
| 65 | FLAG | O | Flag terminal (Not used, open) |
| 66 | CLVS | O | Turntable servo phase synchro signal ("H": CLV, "L": Rough servo) (Not used, open) |
| 67 | CRC | O | Sub-code CRC check terminal ("H": OK, "L": NG) (Not used, open) |
| 68 | DEMPH | O | De-emphasis ON signal ("H": ON) (Not used, open) |
| 69 | RESY | O | Re-synchronizing signal of frame sync. (Not used, open) |

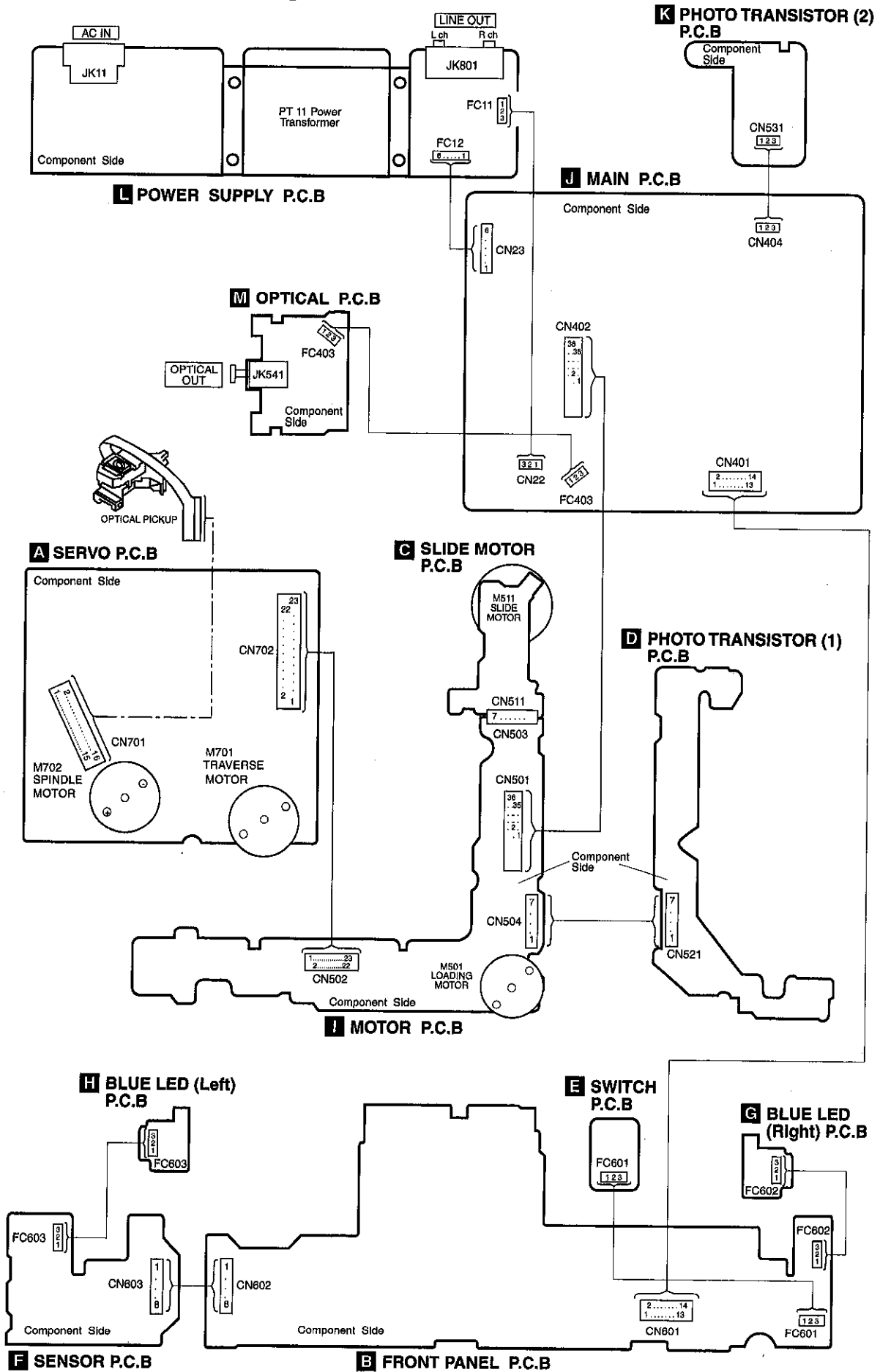
| Pin No. | Mark | I/O | Function |
|---------|--------|-----|---|
| 70 | /RST2 | I | Reset terminal after "MASH" circuit (Not used, connected to GND) |
| 71 | /TEST | I | Test terminal (Normal : "H") (Not used, connected to power supply) |
| 72 | AVdd1 | I | Power supply (analog circuit) terminal (1) |
| 73 | OUTL | O | Lch audio signal |
| 74 | AVss1 | I | GND (analog circuit) terminal (1) |
| 75 | OUTR | O | Rch audio signal |
| 76 | RSEL | I | Polarity direction, control terminal of RF signal (Not used, connected to power supply) |
| 77 | CSEL | I | Frequency control terminal of crystal oscillator (Not used, connected to GND) |
| 78 | SRDATA | I | Serial data input |
| 79 | LRCK | I | "L" ch/ R ch clock signal input |
| 80 | BCLK | I | Audio bit clock input |

• IC401 (UPD78043F045) Micro Computer

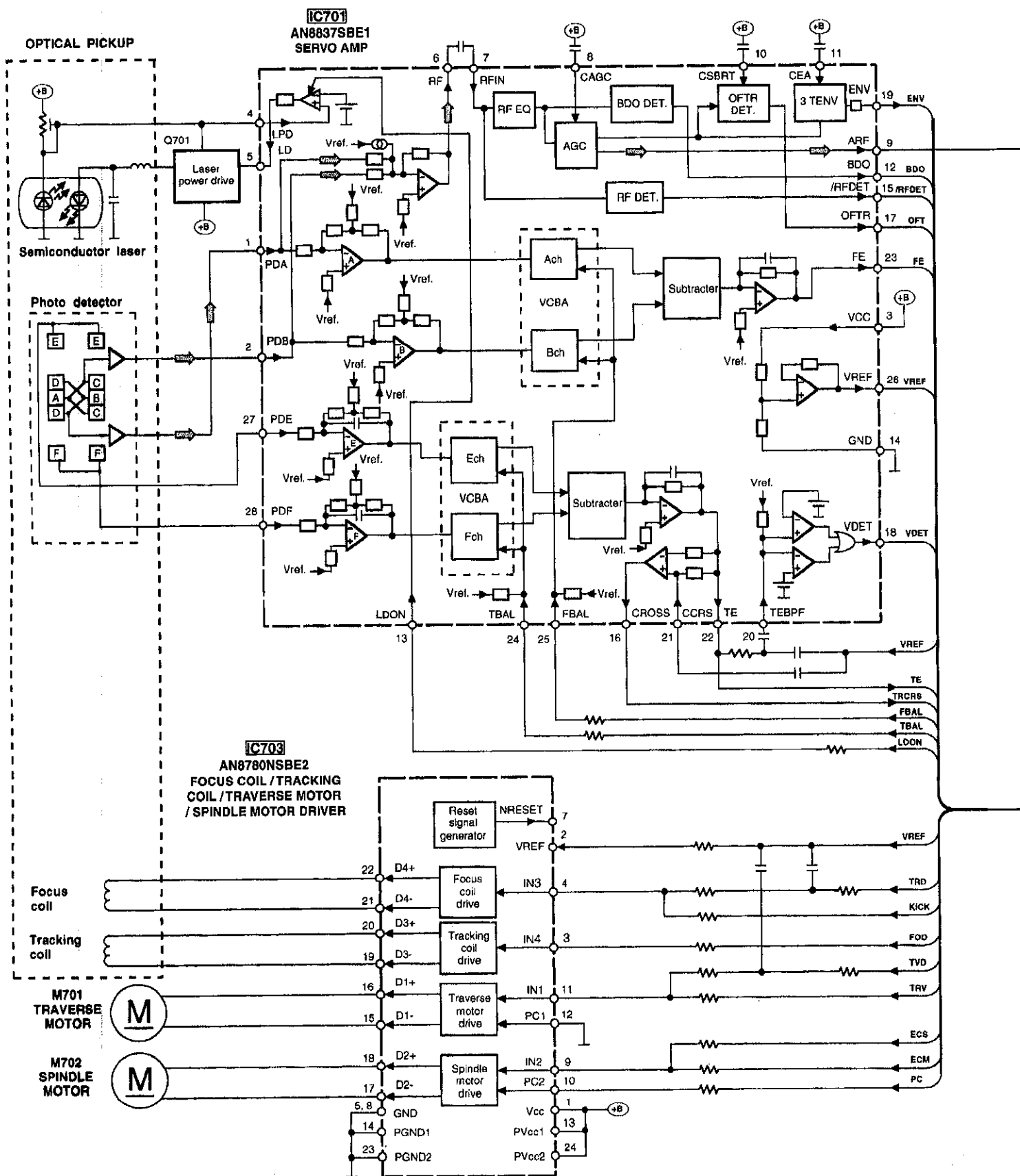
| Pin No. | Mark | I/O | Function |
|---------|--------|-----|--|
| 1~7 | VSS | - | Connected to GND |
| 8 | VDD | I | Power supply terminal |
| 9 | SBCK | I | Sub-code serial input data |
| 10 | NC | - | Not connected |
| 11 | SUBC | I | Sub-code serial input clock |
| 12 | OPCS | O | Chip select terminal |
| 13 | DMUTE | O | Muting control signal |
| 14 | SQCK | O | Sub-code Q register clock |
| 15 | NC | - | Not connected |
| 16 | SUBQ | I | Sub-code Q data |
| 17 | /RESET | O | Reset signal output |
| 18 | OPREQ2 | O | Request signal 2 output |
| 19 | OPDTIO | I/O | Data signal input/output |
| 20 | AVSS | - | GND terminal |
| 21 | OPCLK | O | Clock signal output |
| 22 | OPREQ1 | O | Request signal 1 output |
| 23 | DIR | O | Motor control signal |
| 24 | SLIDE | O | Motor control signal |
| 25 | LOAD | O | Motor control signal |
| 26 | RSTSV | O | Reset signal output |
| 27 | MODEL | I | Connect to GND |
| 28 | VSS | I | Connect to GND |
| 29 | AVDD | I | Power supply terminal |
| 30 | AVREF | I | Power supply terminal (Not used, connected to GND) |
| 31 | XT1 | - | Not used, connected to GND |
| 32 | XT2 | - | Not used, open |
| 33 | VSS | - | GND terminal |
| 34 | X1 | I | Crystal Osc terminal (F=4.2336MHz) |
| 35 | X2 | O | Crystal Osc terminal (F=4.2336 MHz) |
| 36 | MCLK | O | Command clock signal |

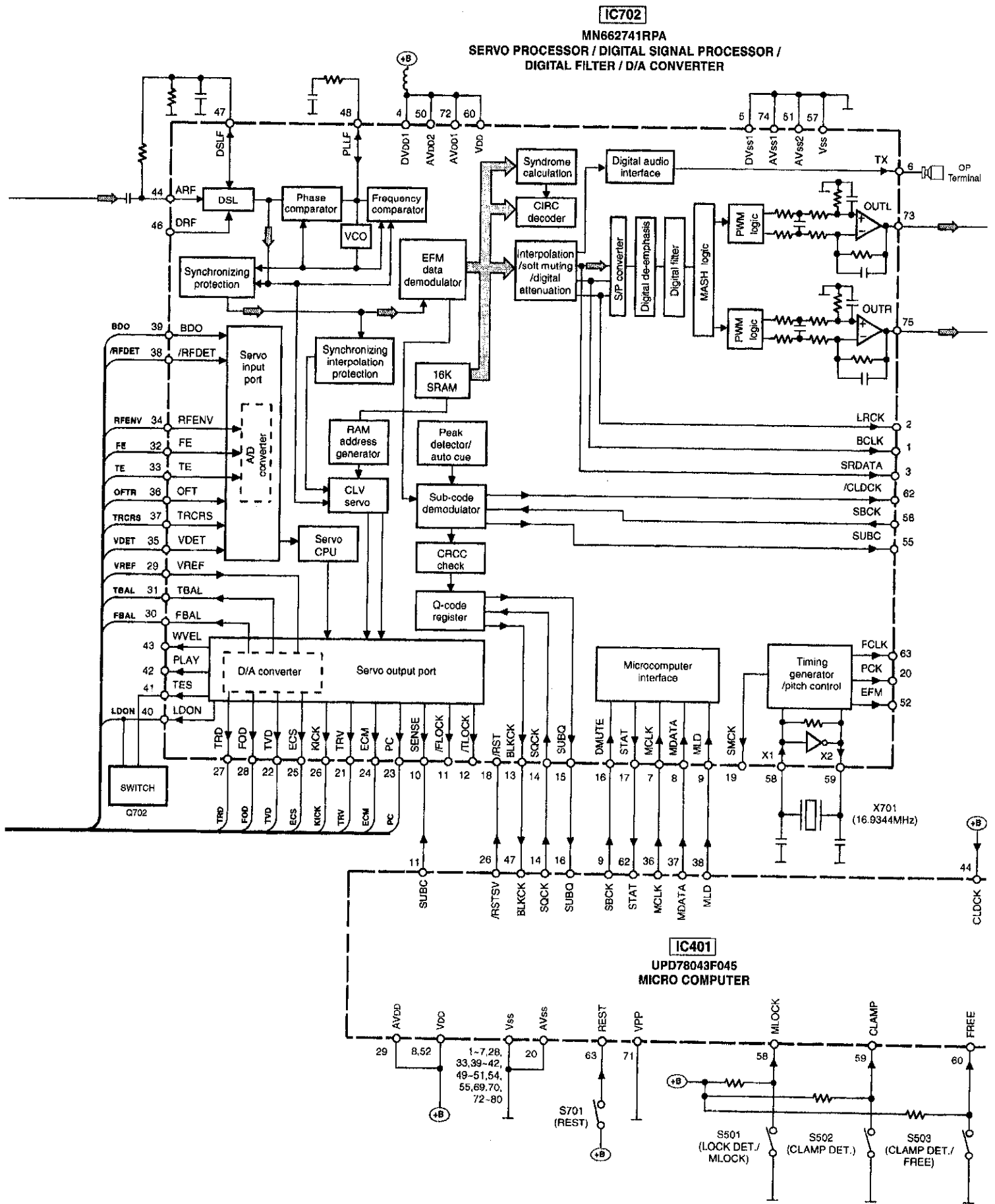
| Pin No. | Mark | I/O | Function |
|---------|----------|-----|--|
| 37 | MDATA | O | Command data signal |
| 38 | MLD | O | Command load signal ("L" LOAD) |
| 39~42 | VSS | - | connected to GND |
| 43 | PWN | O | Motor control signal |
| 44 | CLDCK | I | LD power det. terminal |
| 45 | POSITION | I | Rotary tray position det. terminal |
| 46 | SPEED | I | Loading motor speed sensor signal |
| 47 | BLKCK | I | sub-code block clock |
| 48 | IC | - | Not used, connected to GND |
| 49~51 | VSS | - | Connected to GND |
| 52 | VDD | I | Power supply terminal |
| 53 | POWER | O | Power ON/OFF output terminal |
| 54~55 | VSS | - | Connected to GND |
| 56 | SINGLE | I | Disc slot det. terminal for single play |
| 57 | DISC | I | Disc control signal |
| 58 | MLOCK | I | Mechanism det. terminal (S501) |
| 59 | CLAMP | I | Mechanism det. terminal (S502) |
| 60 | FREE | I | Mechanism det. terminal (S503) |
| 61 | PHSEL1 | - | Connected to GND |
| 62 | STAT | I | Status signal (CRC, CUE, CLVS, TTSTOP, FCLV, QCK) |
| 63 | REST | I | Rest position det. |
| 64 | PHSEL2 | - | Connected to GND |
| 65 | TEST1 | - | Not used, connected to GND |
| 66 | TEST2 | - | Not used, connected to GND |
| 67 | MOSEL | - | Connected to GND |
| 68 | LED3 | O | Disc det. signal |
| 69~70 | VSS | I | Connected to GND |
| 71 | VPP | I | Power supply terminal (Not used, connected to GND) |
| 72~80 | VSS | I | Connected to GND |

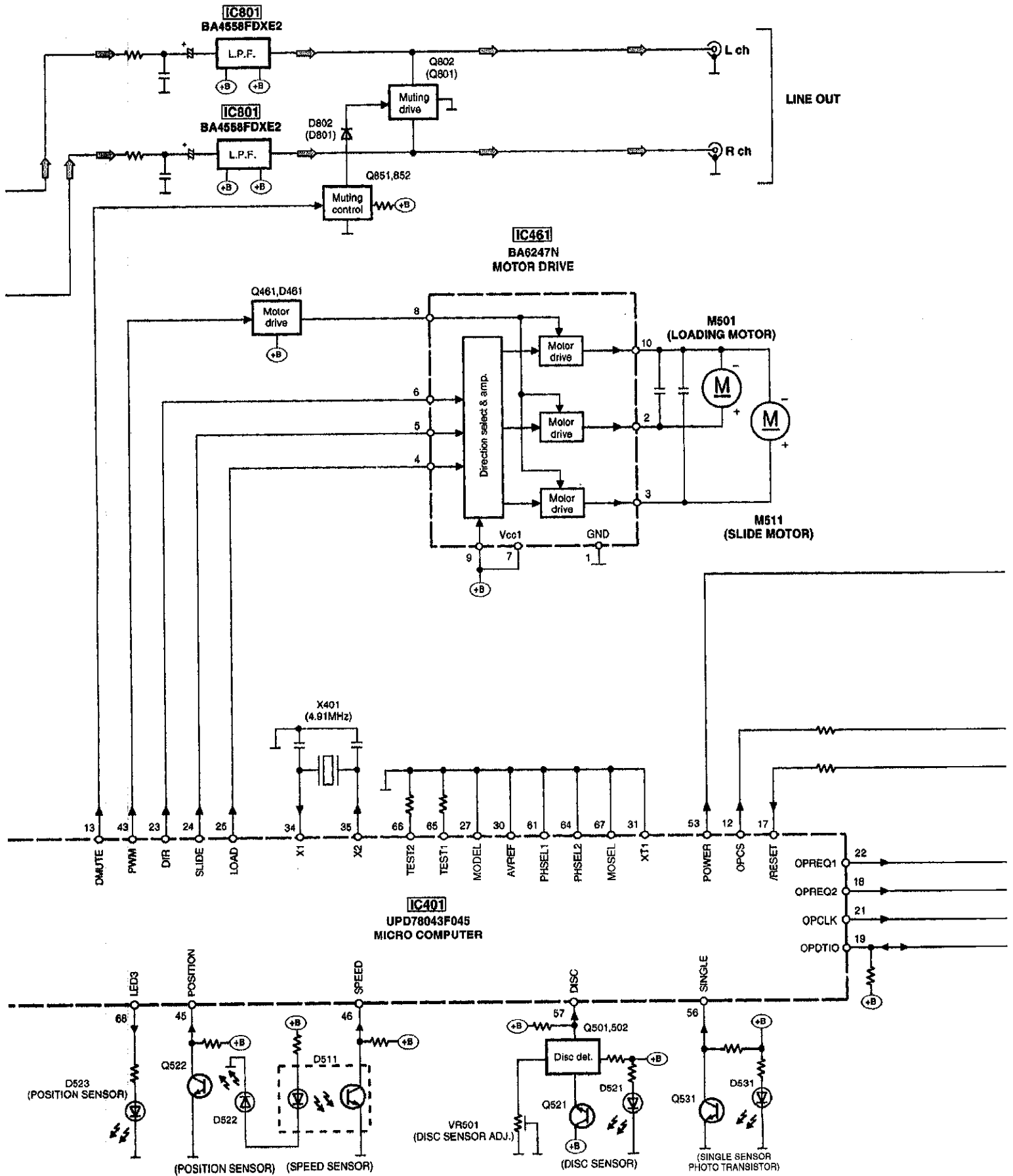
Wiring Connection Diagram



Block Diagram







Schematic Diagram

| | Page | | Page |
|--|---------|--|---------|
| A CD SERVO CIRCUIT | 38 ~ 39 | H BLUE LED (Left) CIRCUIT | 37 |
| B FRONT PANEL CIRCUIT | 36 ~ 37 | I MOTOR CIRCUIT | 33 |
| C SLIDE MOTOR CIRCUIT | 33 | J MAIN CIRCUIT | 34 ~ 35 |
| D PHOTO TRANSISTOR(1) CIRCUIT | 33 | K PHOTO TRANSISTOR(2) CIRCUIT | 35 |
| E SWITCH CIRCUIT | 37 | L POWER SUPPLY CIRCUIT | 33 |
| F SENSOR CIRCUIT | 37 | M OPTICAL CIRCUIT | 33 |
| G BLUE LED (Right) CIRCUIT | 37 | | |

(All schematic diagrams may be modified at any time with the development of new technology)

Note :

- S501 : Lock det. switch (MLOCK)
- S502 : Clamp det. switch (CLAMP)
- S503 : Clamp det. switch (FREE)
- S601 : Single play (SINGLE ▶) switch
- S602 : ID scan switch
- S603 : Random Mode switch
- S604 : Programing (PROGRAM) switch
- S605 : Numeric / Character select switch 1
- S606 : Numeric / Character select switch 2
- S607 : Numeric / Character select switch 3
- S608 : Numeric / Character select switch 4
- S609 : Numeric / Character select switch 5
- S610 : Numeric / Character select switch 6
- S611 : Numeric / Character select switch 7
- S612 : Numeric / Character select switch 8
- S613 : Numeric / Character select switch 9
- S614 : DISC / CAPS select switch
- S615 : Numeric / Character select switch 0
- S616 : Numeric / Character select switch >=10
- S617 : Text edit (TEXT EDIT) switch
- S618 : Text mode (TEST MODE) switch
- S619 : Text/Character Search down switch
- S620 : Text/Character Search up switch
- S621 : Disc enter (DISC ENTER) switch
- S622 : Disc skip (-)
- S623 : Disc skip (+)
- S624 : Search character <<
- S625 : Search character >>
- S626 : Stop (■) switch
- S627 : Pause (||) switch
- S628 : Skip/Cursor |<<
- S629 : Skip/Cursor >>|
- S630 : Play switch
- S631 : Power switch
- S632 : CD open/close switch
- S701 : Rest detection switch

• Signal line

 : +B Line
  : - B Line
  : CD Signal Line

- The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis.
Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

No Mark : CD stop

• Importance safety notice:

Components identified by Δ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

Caution !

IC, LSI and VLSI are sensitive to static electricity.

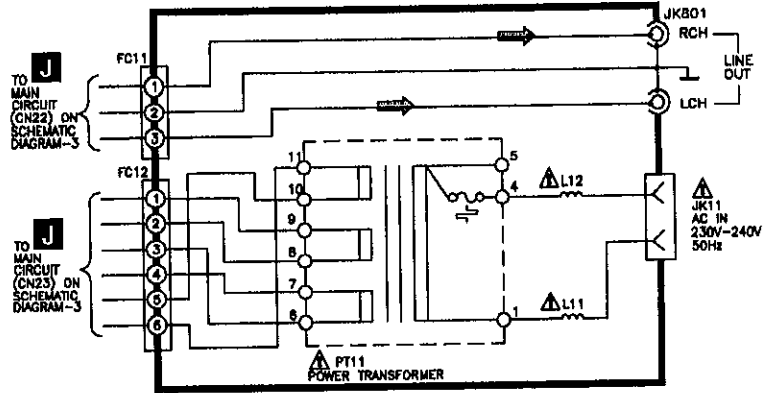
Secondary trouble can be prevented by taking care during repair.

- Cover the parts boxes made of plastics with aluminium foil.
- Ground the soldering iron.
- Do not touch the pins of IC, LSI or VLSI with fingers directly.
- Put a conductive mat on the work table.

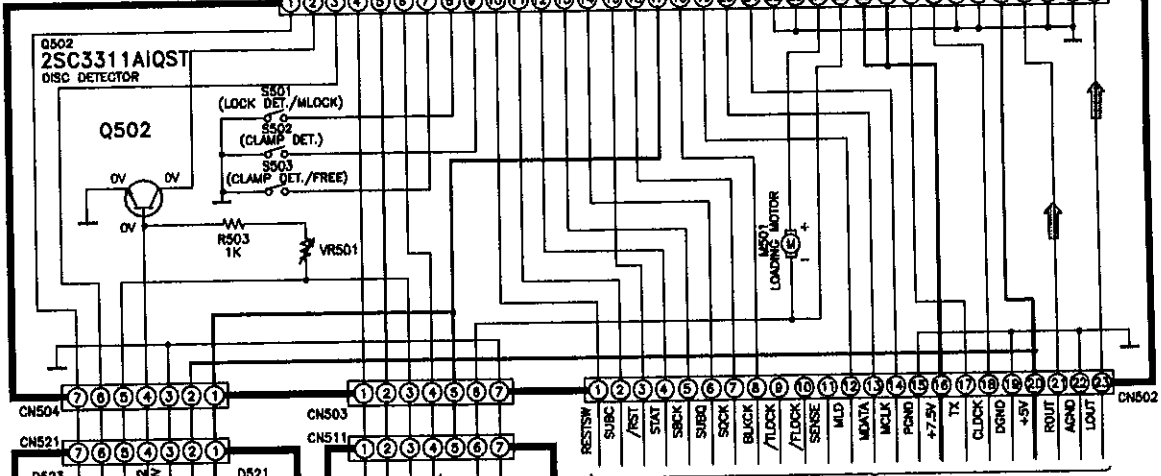
SCHEMATIC DIAGRAM-1

————— : +B LINE ————> : CD SIGNAL LINE

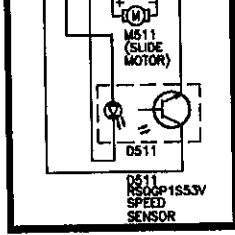
L POWER SUPPLY CIRCUIT
(P.C.Board on page 41)



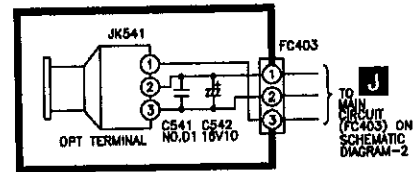
MOTOR CIRCUIT
(P.C.Board on page 46)



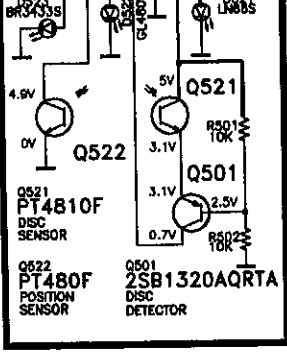
C SLIDE MOTOR CIRCUIT
(P.C.Board on page 46)



M OPTICAL CIRCUIT
(P.C.Board on page 45)



D PHOTO TR.(1) CIRCUIT
(P.C.Board on page 46)



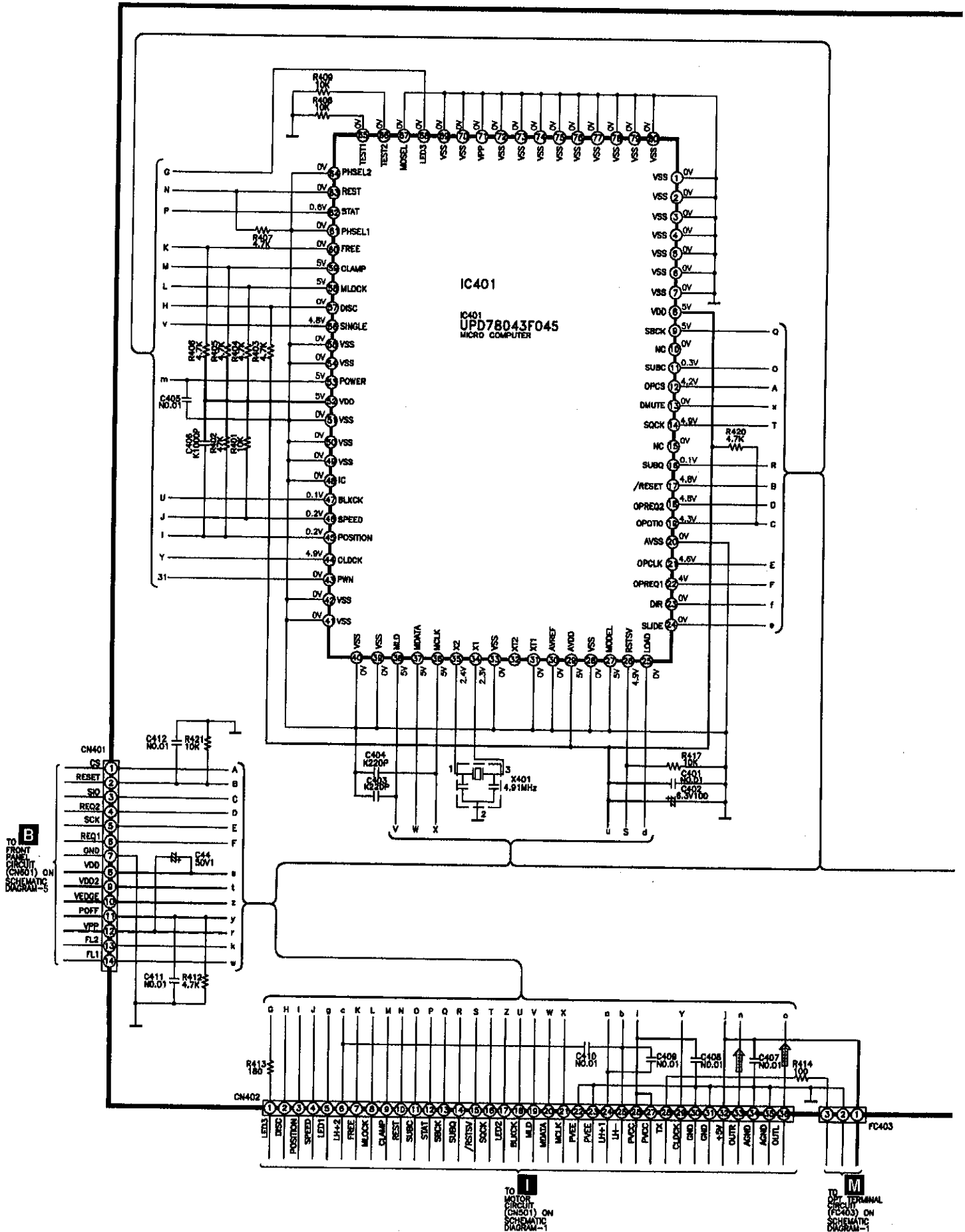
SCHEMATIC DIAGRAM-2

— : +B LINE

- - - : -B LINE

⇨ : CD SIGNAL LINE

J MAIN CIRCUIT (P.C.Board on page 40)



B TO FRONT PANEL CIRCUIT (CN401) ON SCHEMATIC DIAGRAM-5

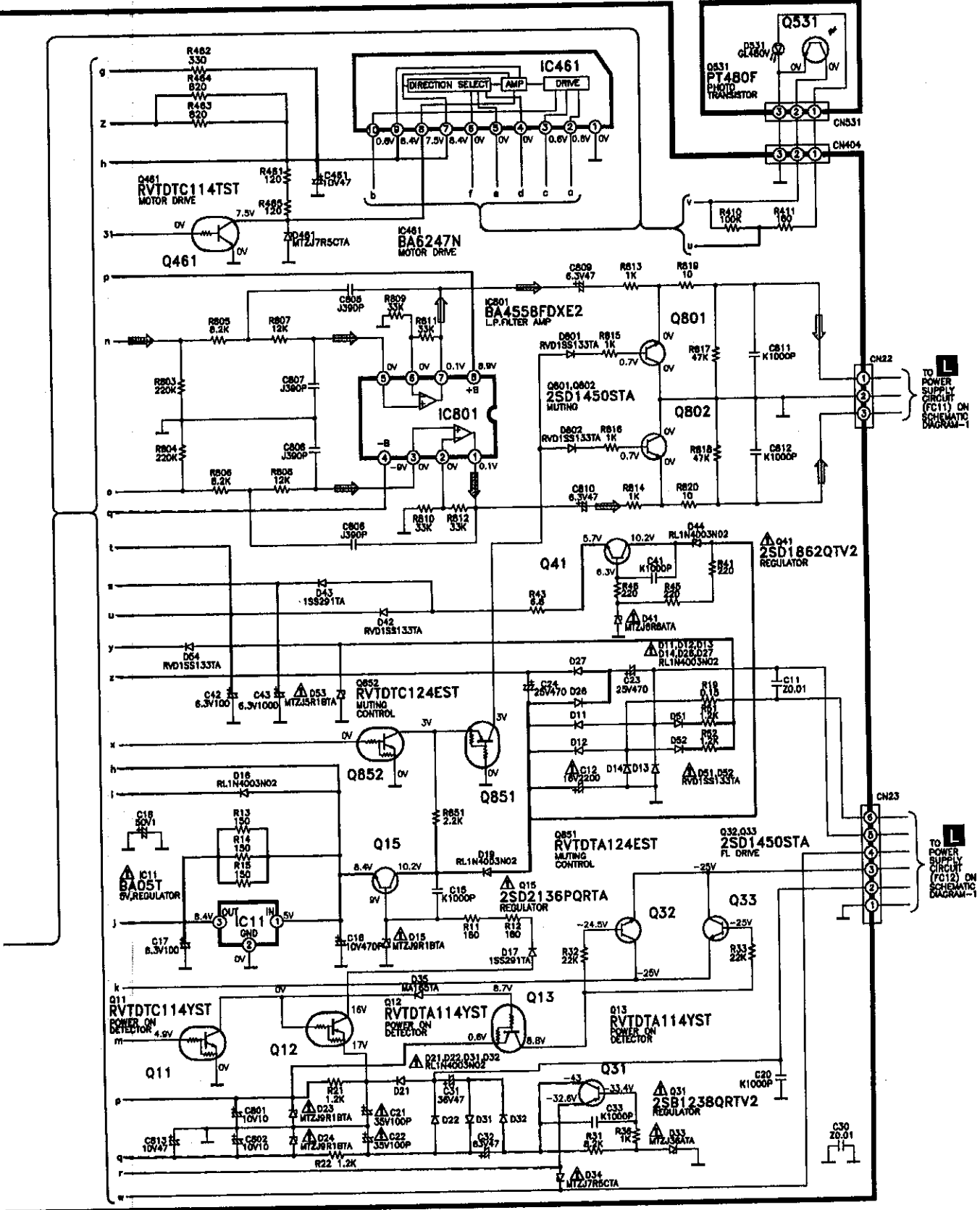
L TO MAIN CIRCUIT (CN501) ON SCHEMATIC DIAGRAM-1

M TO CPU TERMINAL CIRCUIT (FC403) ON SCHEMATIC DIAGRAM-1

SCHEMATIC DIAGRAM-3

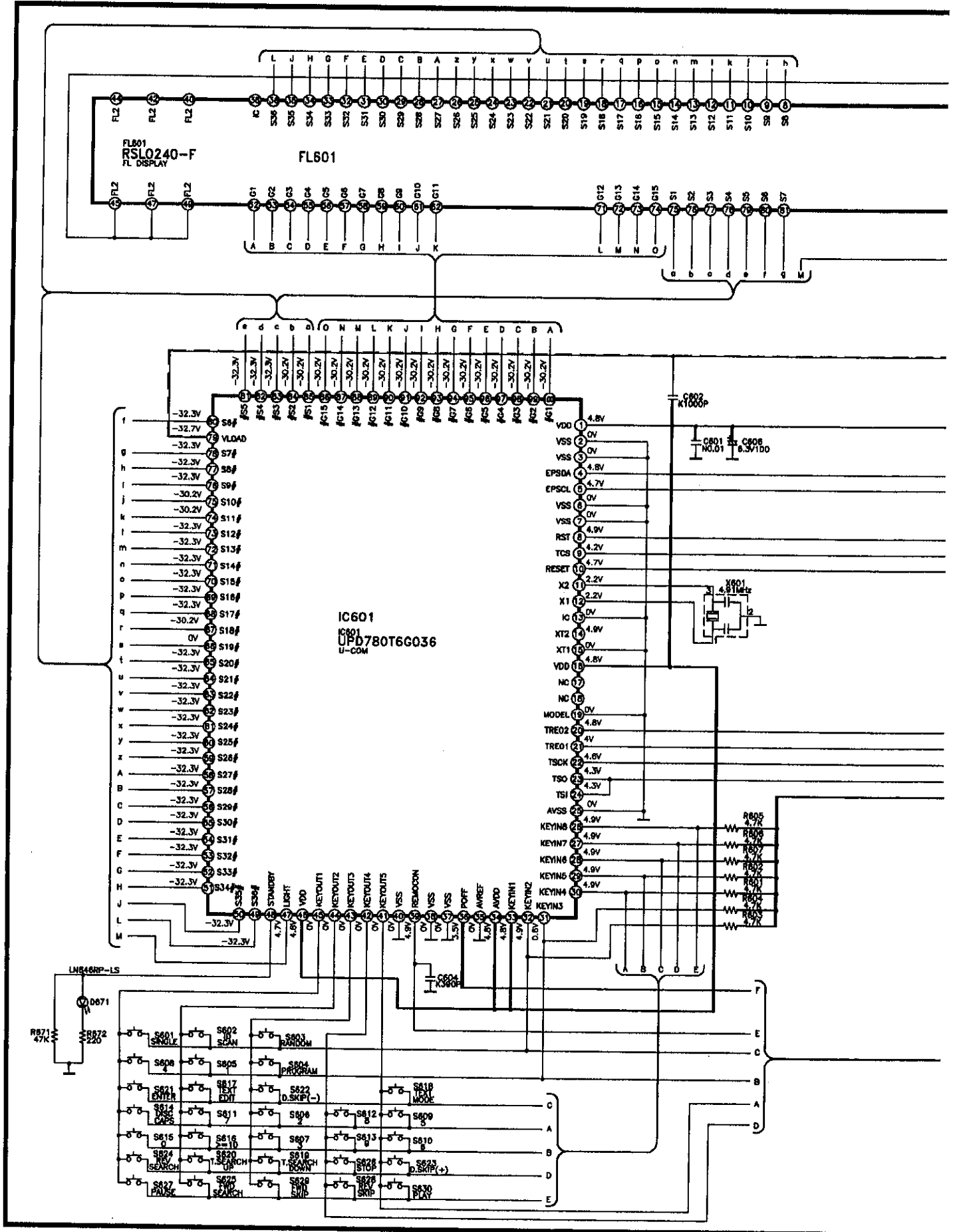
— : +B LINE - - - : -B LINE [] : CD SIGNAL LINE

PHOTO TR.(2)
CIRCUIT
(P.C.Board on page 45)



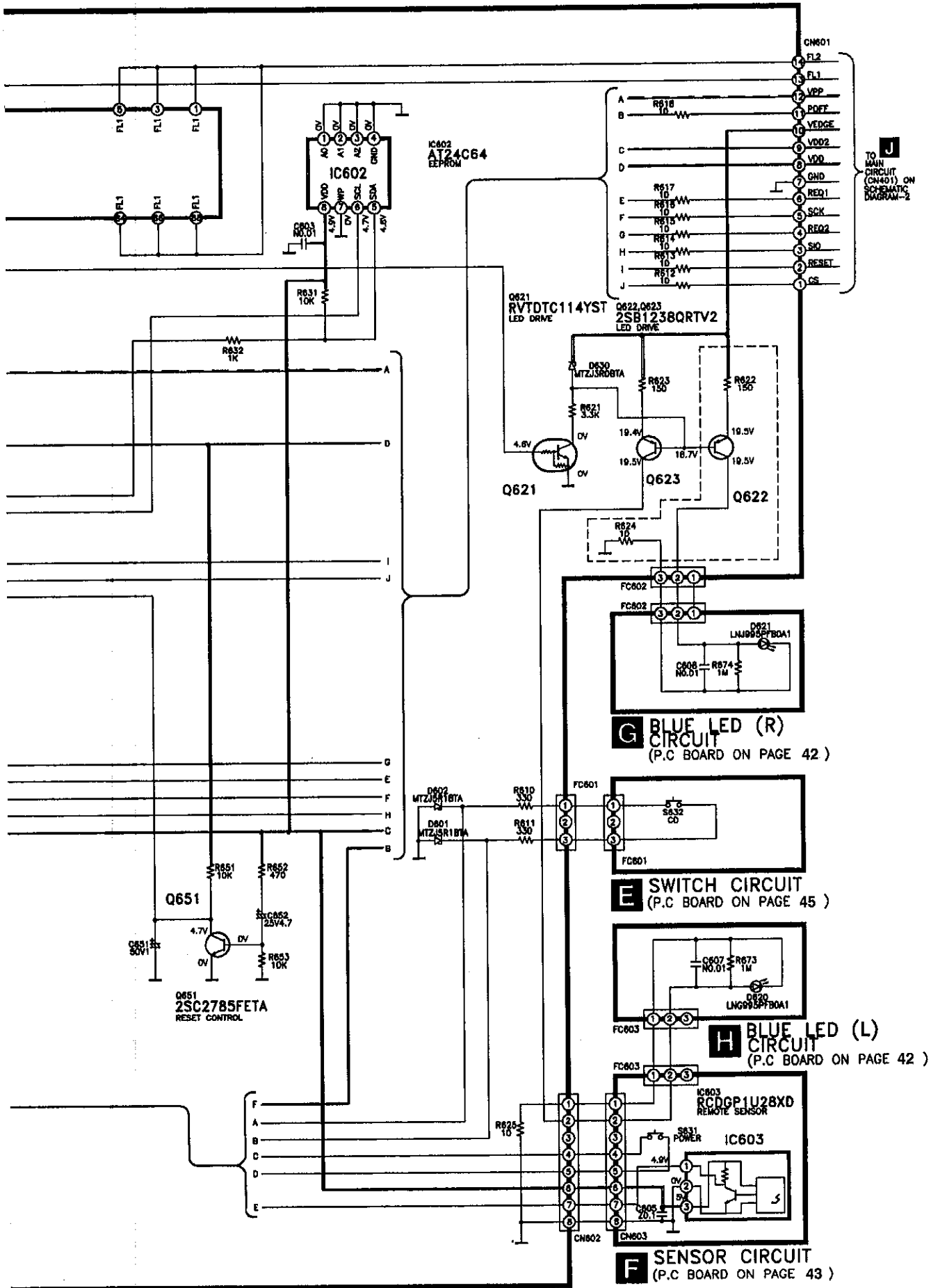
SCHEMATIC DIAGRAM-4

B FRONT PANEL CIRCUIT (P.C BOARD ON PAGE 42, 43)



SCHEMATIC DIAGRAM-5

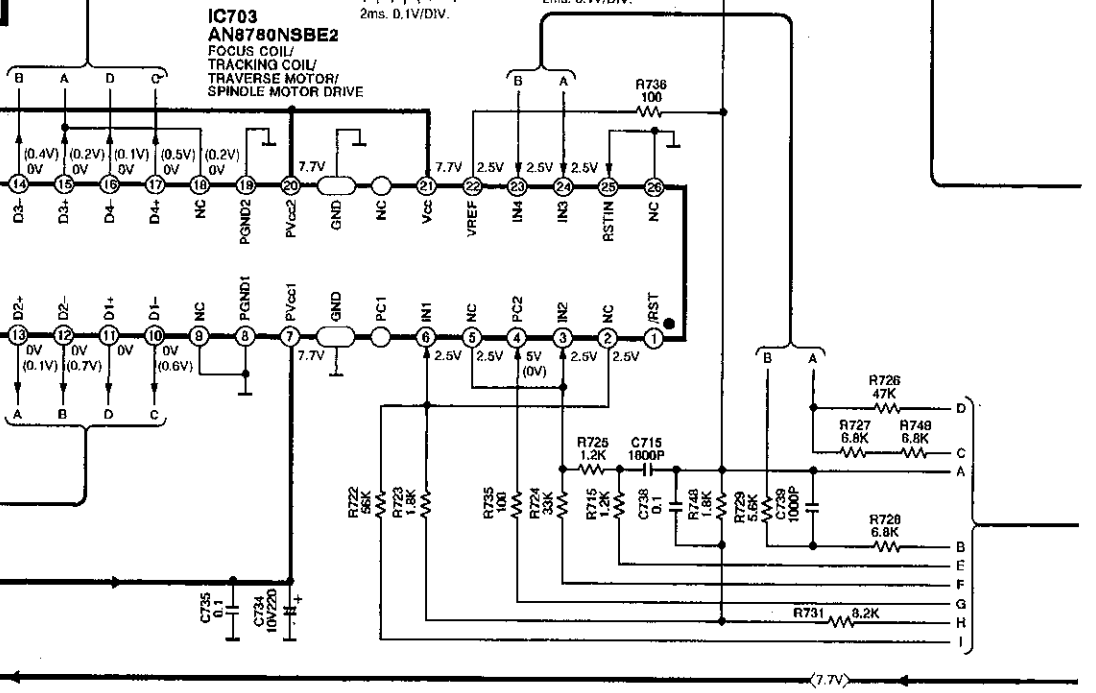
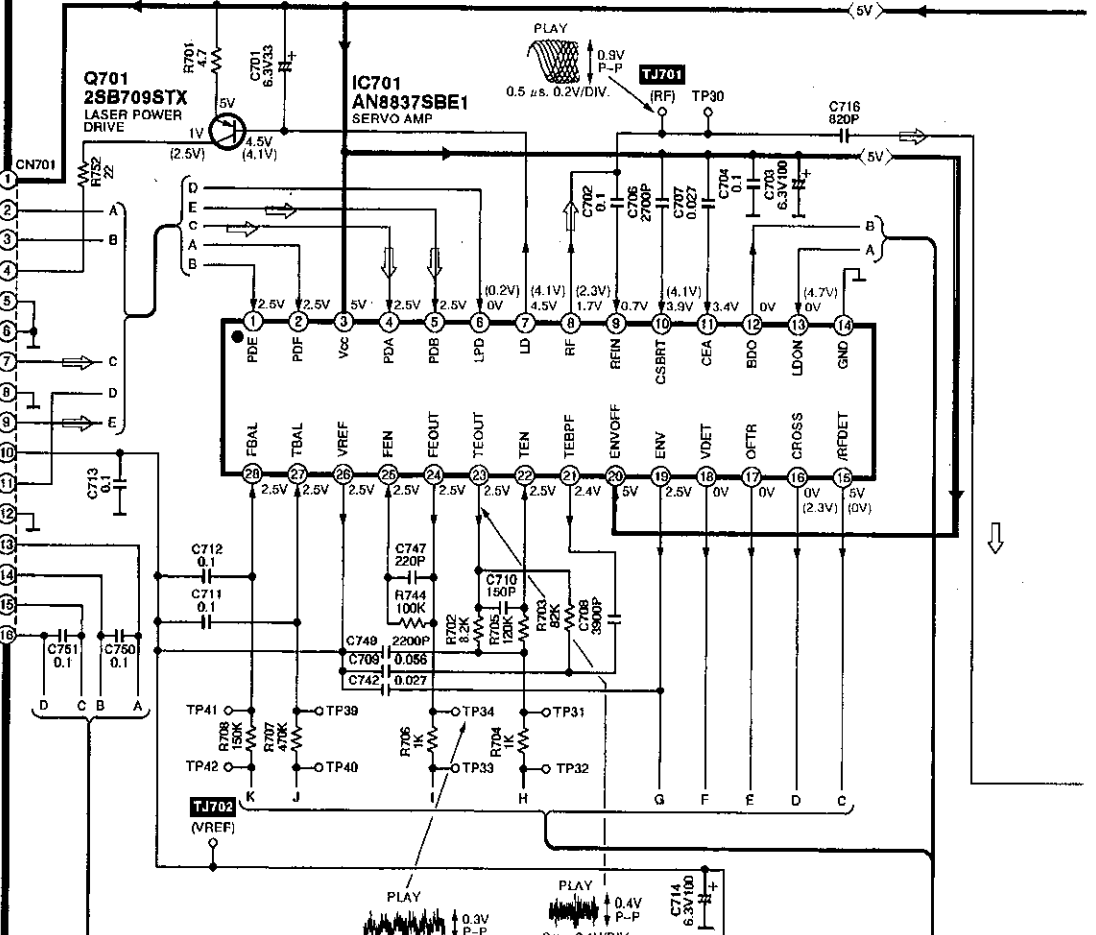
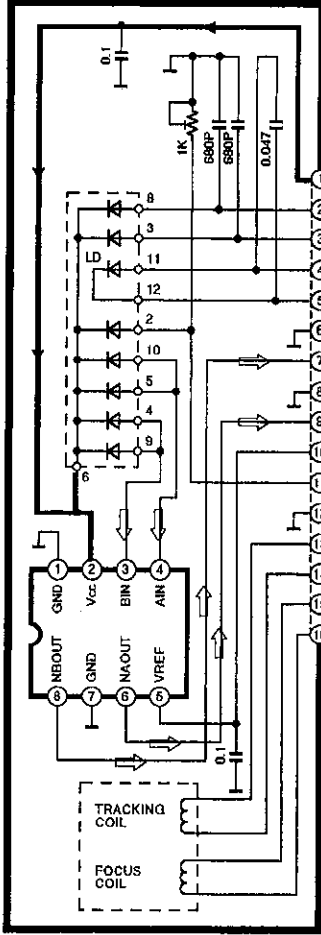
-----: +B LINE
 -----: -B LINE



— : +B LINE

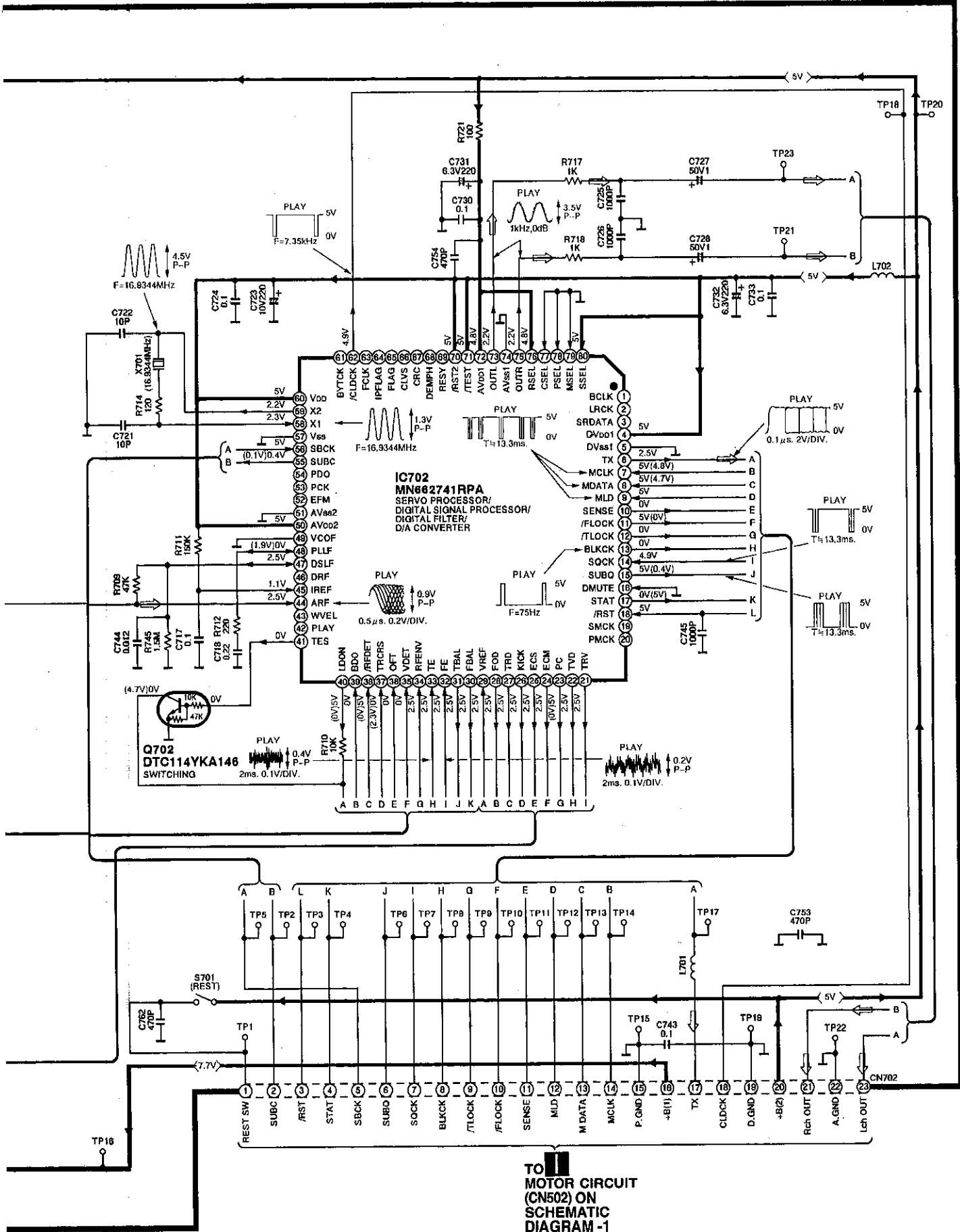
A CD SERVO CIRCUIT (P.C.Board on page 44)

Δ OPTICAL PICKUP CIRCUIT



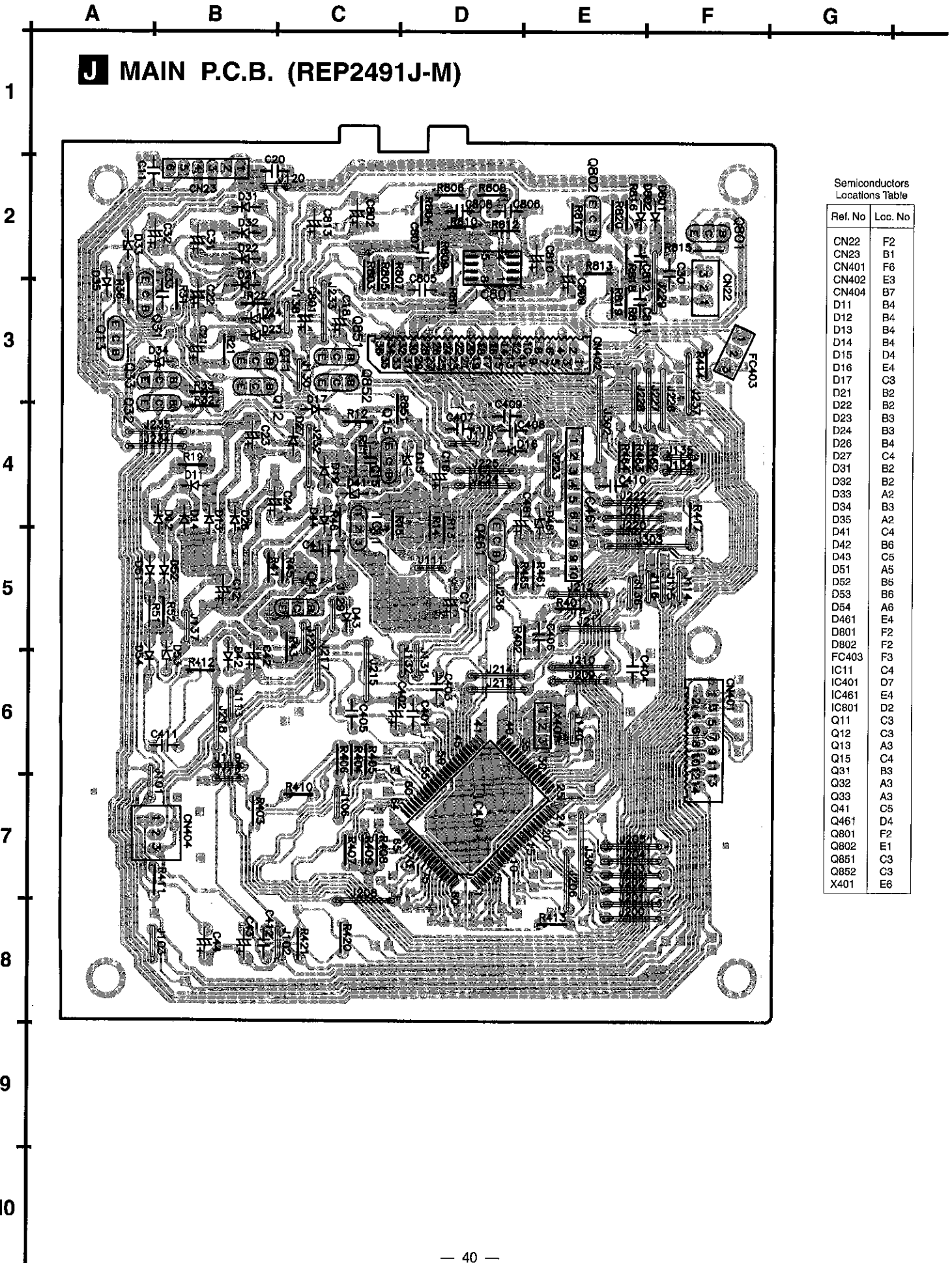
SCHEMATIC DIAGRAM-7

— : +B LINE



Printed Circuit Board (This printed circuit board diagram may be modified at any time with the development of new technology.)

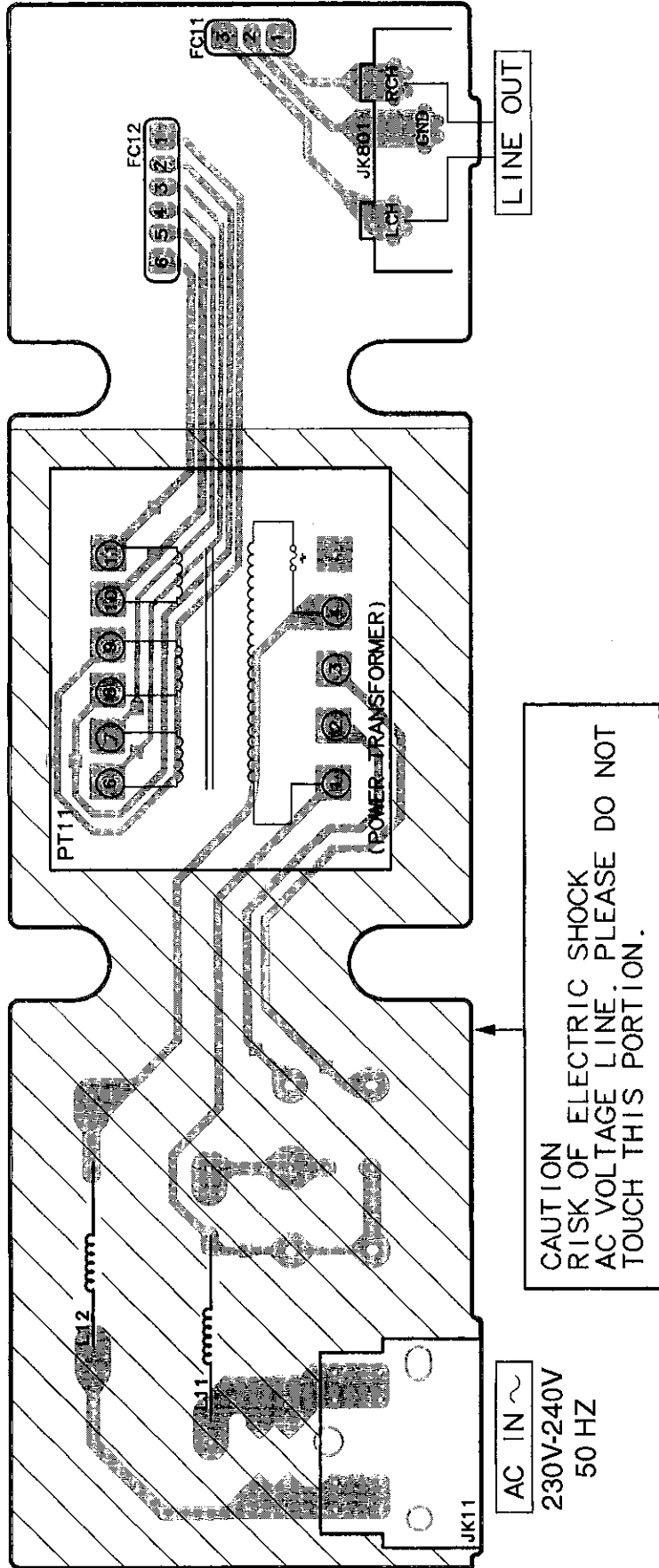
J MAIN P.C.B. (REP2491J-M)



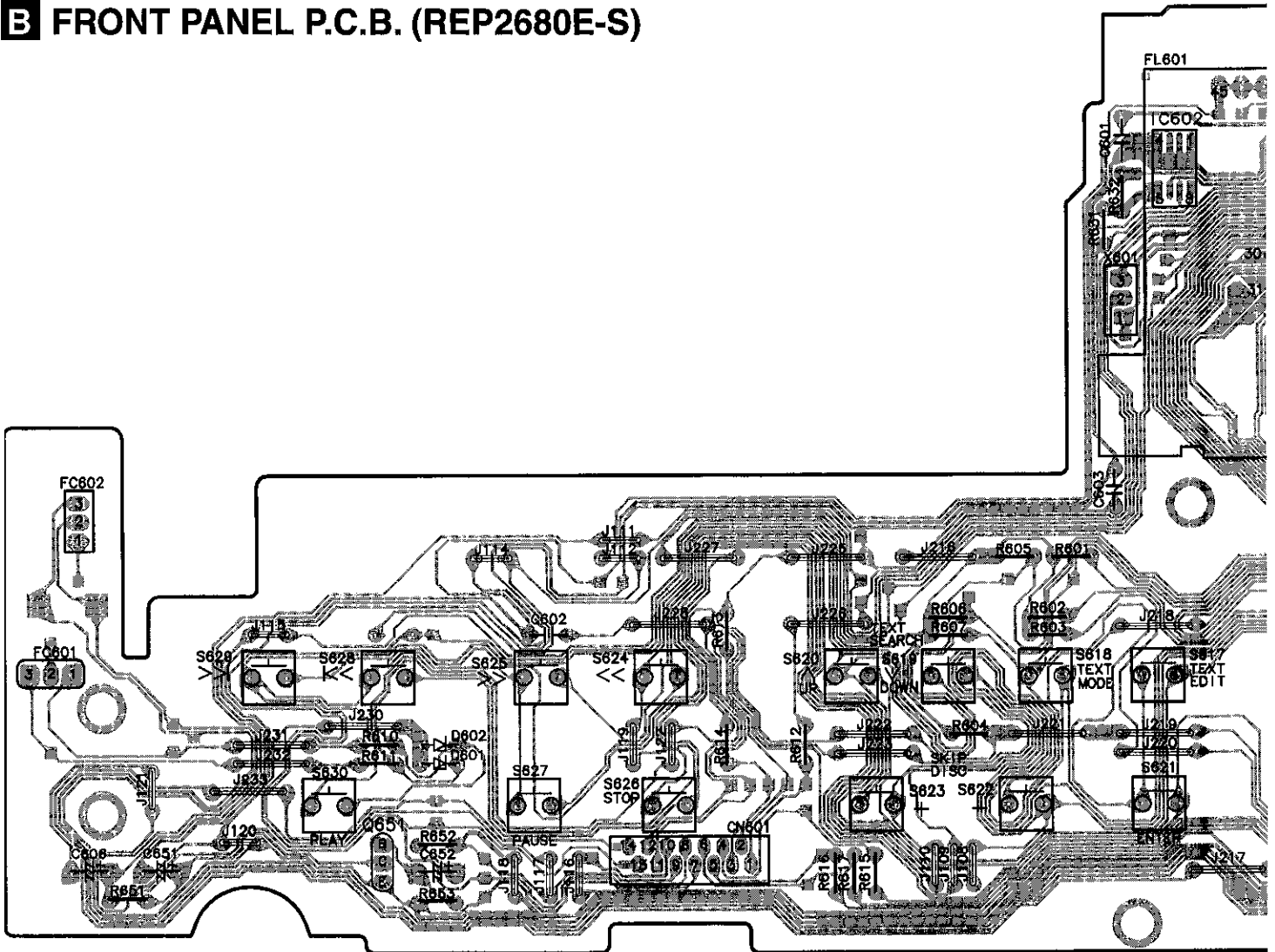
Semiconductors Locations Table

| Ref. No | Loc. No |
|---------|---------|
| CN22 | F2 |
| CN23 | B1 |
| CN401 | F6 |
| CN402 | E3 |
| CN404 | B7 |
| D11 | B4 |
| D12 | B4 |
| D13 | B4 |
| D14 | B4 |
| D15 | D4 |
| D16 | E4 |
| D17 | C3 |
| D21 | B2 |
| D22 | B2 |
| D23 | B3 |
| D24 | B3 |
| D26 | B4 |
| D27 | C4 |
| Q31 | B2 |
| Q32 | B2 |
| Q33 | A2 |
| Q34 | B3 |
| Q35 | A2 |
| D41 | C4 |
| D42 | B6 |
| D43 | C5 |
| D51 | A5 |
| D52 | B5 |
| D53 | B6 |
| D54 | A6 |
| D461 | E4 |
| D801 | F2 |
| D802 | F2 |
| FC403 | F3 |
| IC11 | C4 |
| IC401 | D7 |
| IC461 | E4 |
| IC801 | D2 |
| Q11 | C3 |
| Q12 | C3 |
| Q13 | A3 |
| Q15 | C4 |
| Q31 | B3 |
| Q32 | A3 |
| Q33 | A3 |
| Q41 | C5 |
| Q461 | D4 |
| Q801 | F2 |
| Q802 | E1 |
| Q851 | C3 |
| Q852 | C3 |
| X401 | E6 |

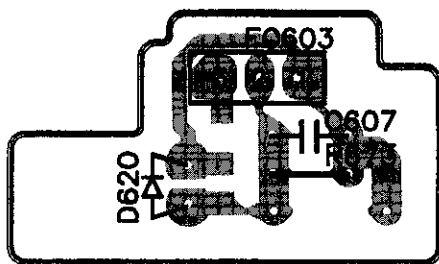
L POWER SUPPLY P.C.B. (REP2218F-P)



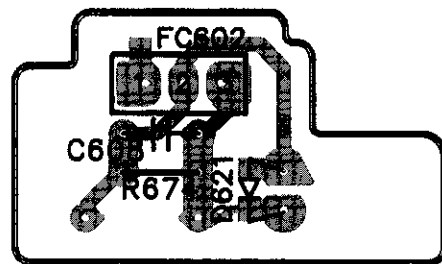
B FRONT PANEL P.C.B. (REP2680E-S)

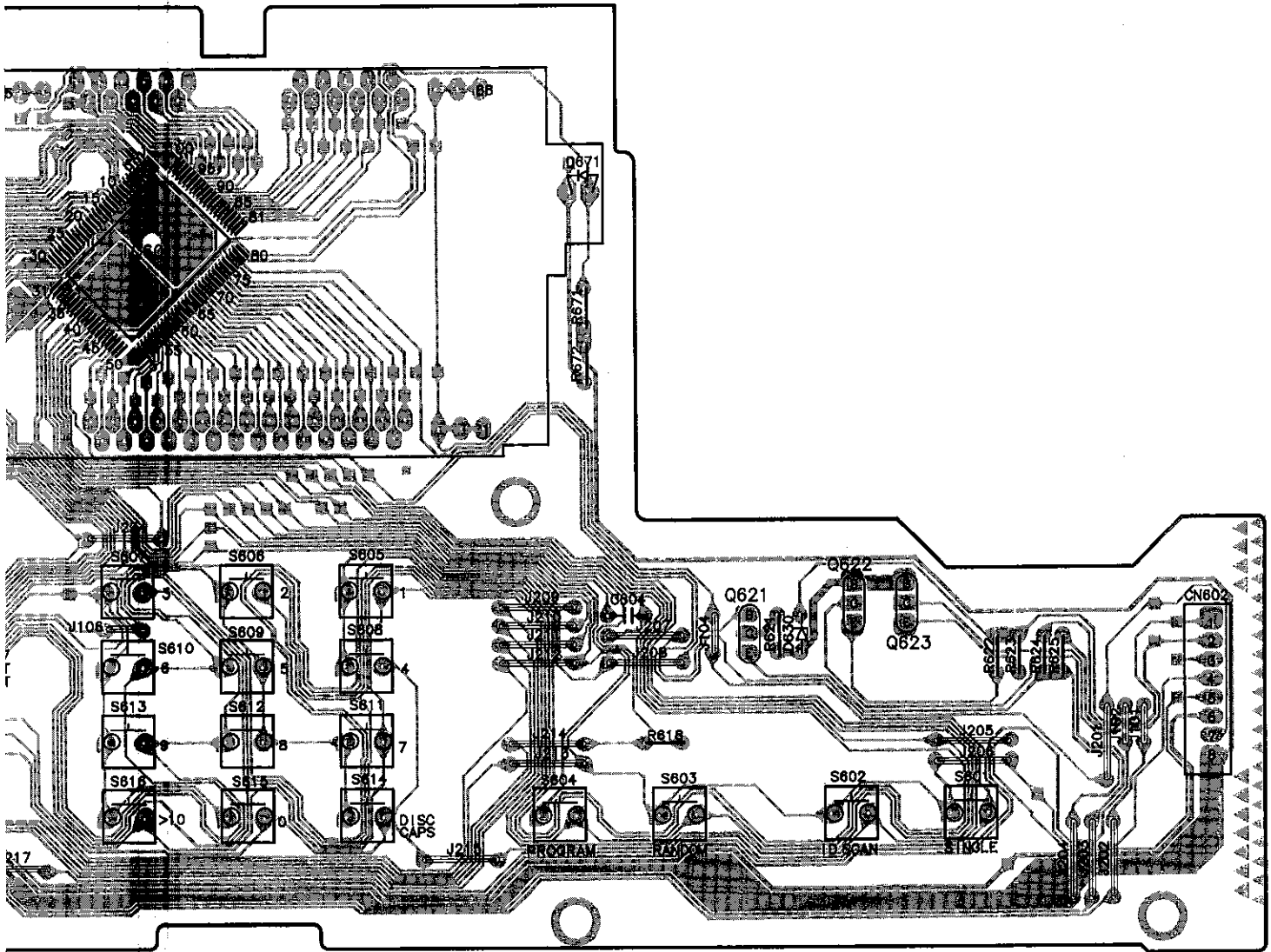


H BLUE LED (Left) P.C.B. (REP2680E-S)

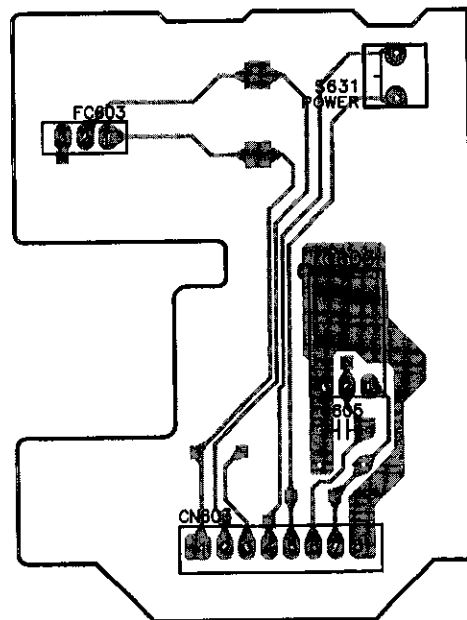


G BLUE LED (Right) P.C.B. (REP2680E-S)

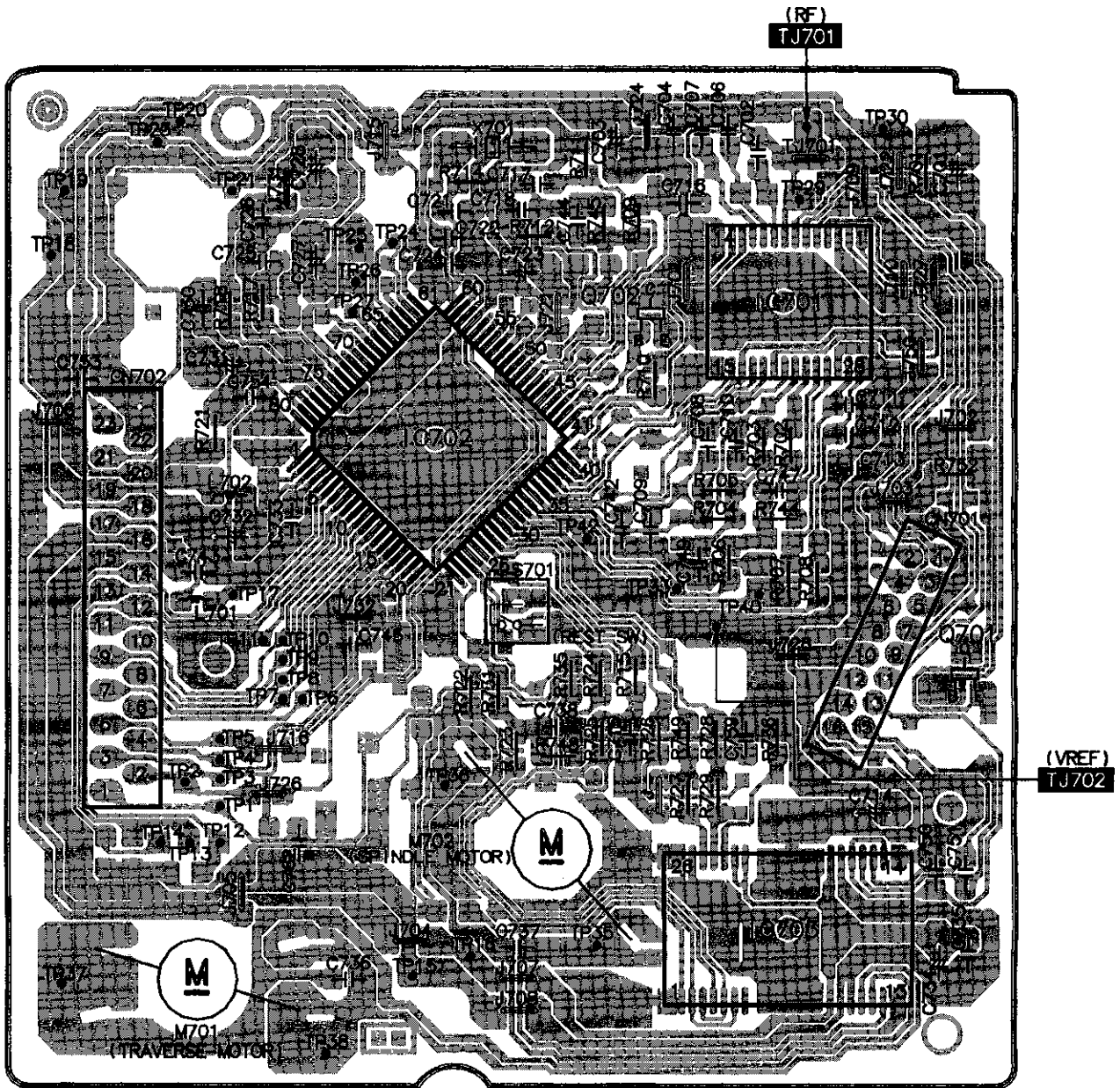




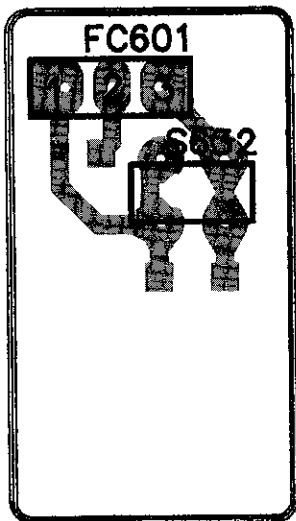
F SENSOR P.C.B. (REP2680E-S)



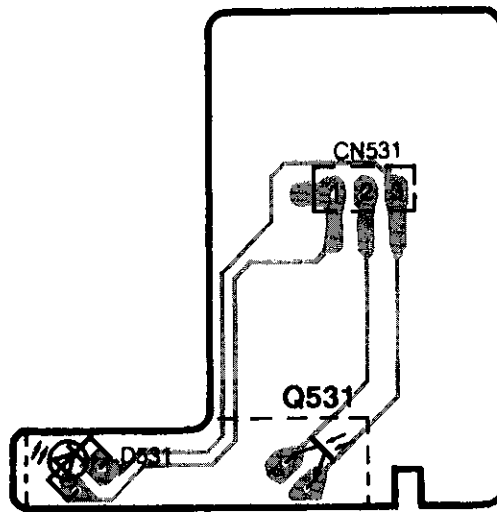
A CD SERVO P.C.B. (REPX0144A)



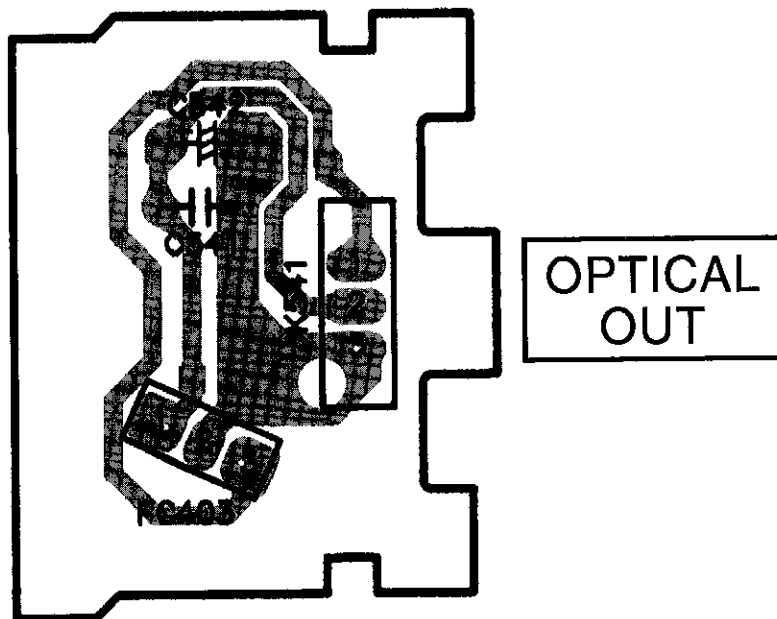
E SWITCH P.C.B. (REP2680E-S)



**K PHOTO TRANSISTOR (2)
P.C.B. (REP2348A-N)**

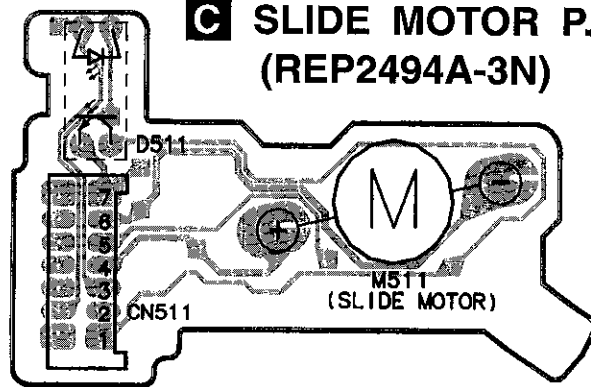


M OPTICAL P.C.B. (REP2491J-M)

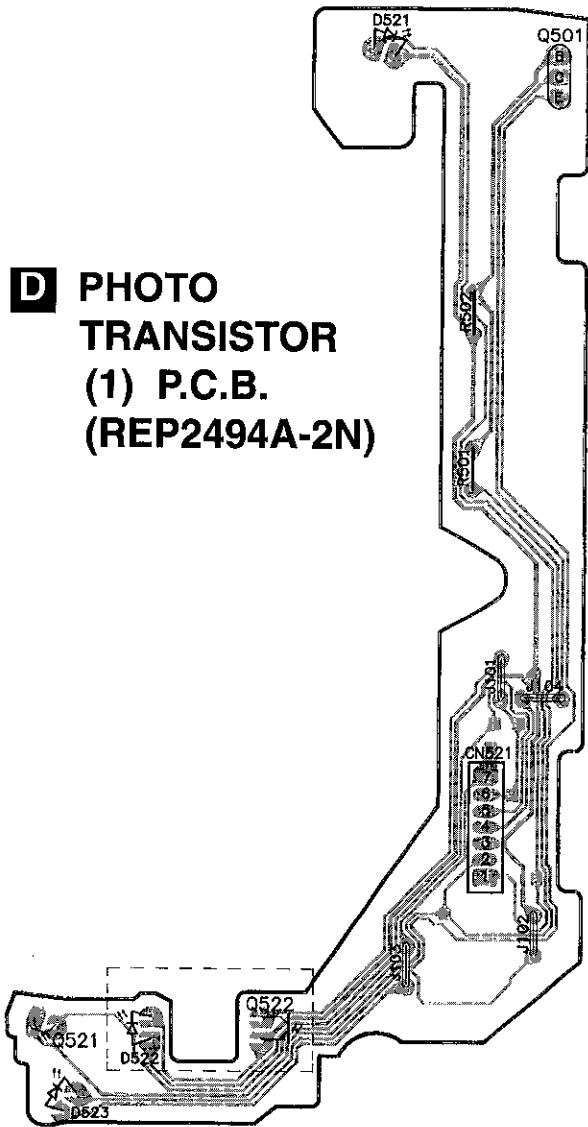


The 3 P.C.B.'s shown below (REP2494-1N , REP2494-2N , REP2494-3N) are sold as assembly part no. **RFKBMC410PK - P.C.B. ass'y reference no. 379** (refer page 51 - Replacement Parts List).

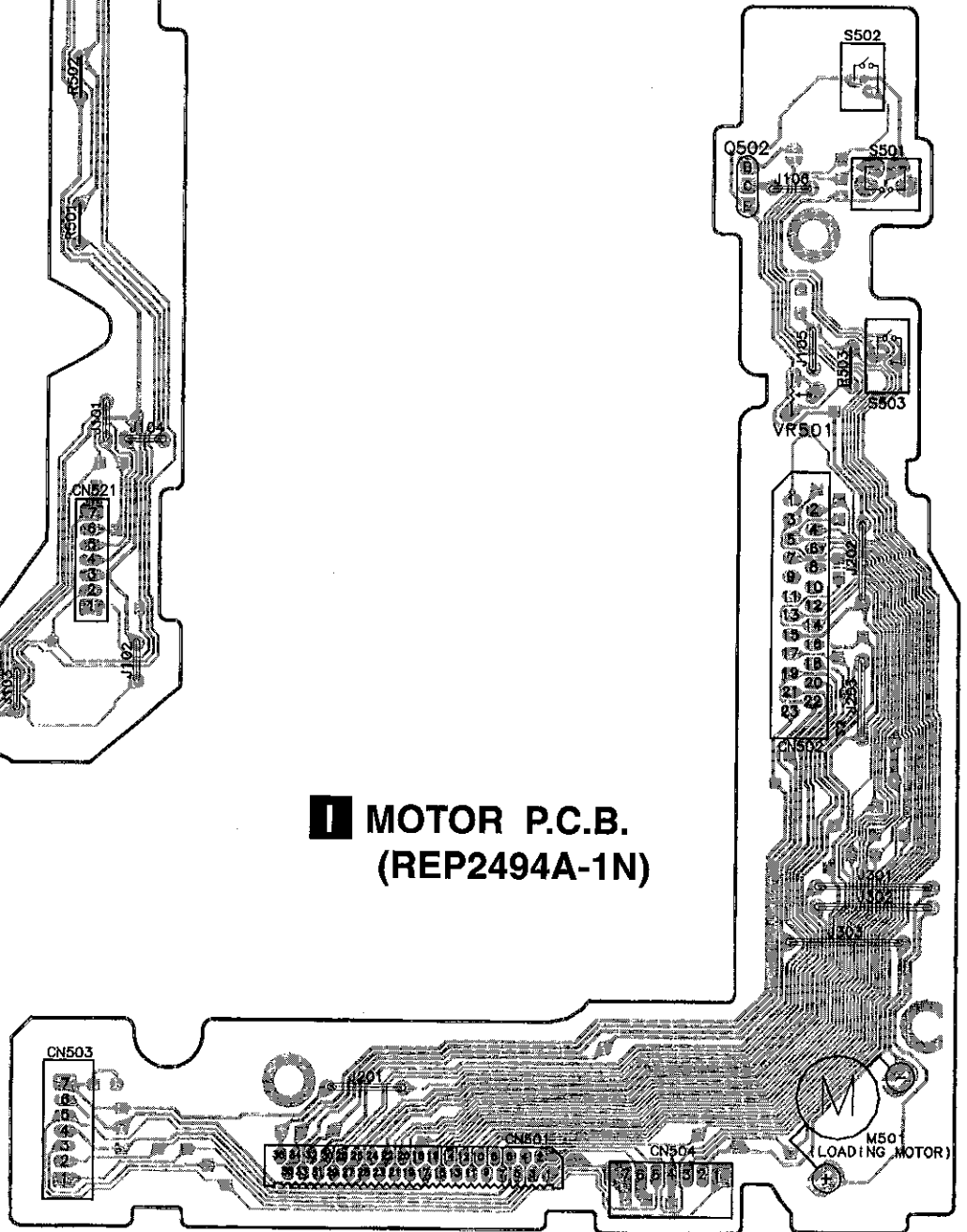
C SLIDE MOTOR P.C.B.
(REP2494A-3N)



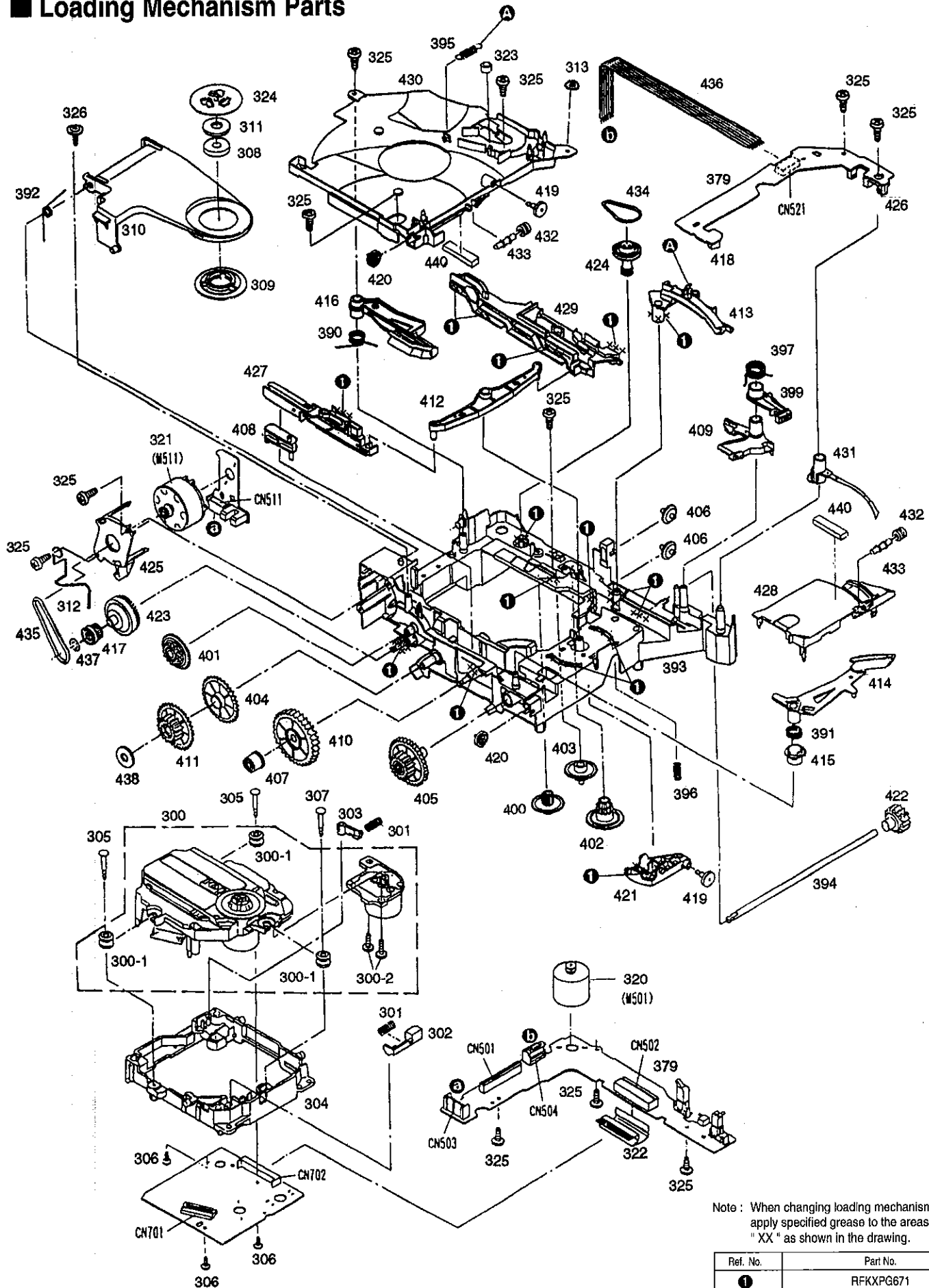
D PHOTO TRANSISTOR (1) P.C.B.
(REP2494A-2N)



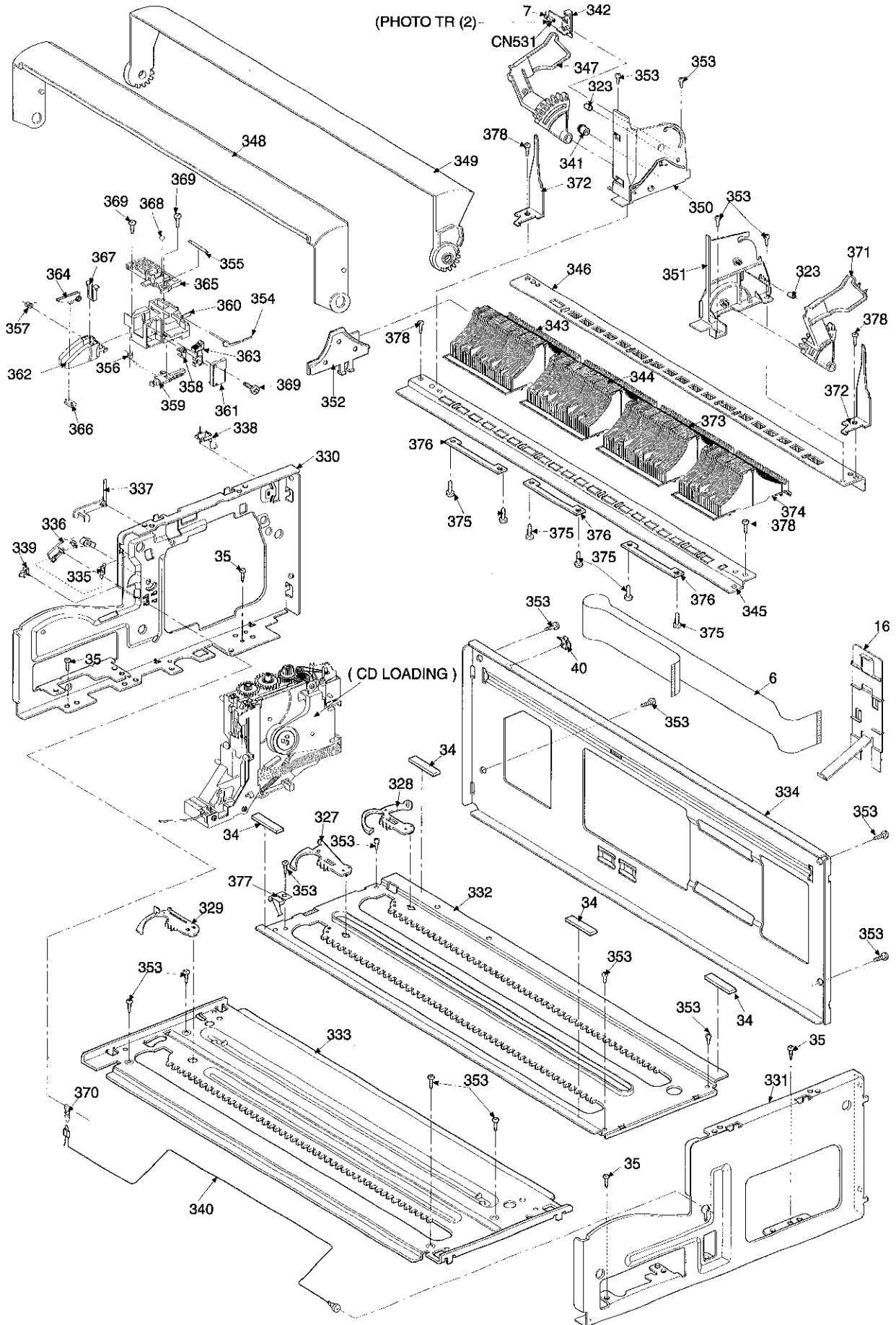
I MOTOR P.C.B.
(REP2494A-1N)



■ Loading Mechanism Parts



■ Cabinet Parts Location



■ Replacement Parts List

Notes: * Important safety notice :

 Components identified by \triangle mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

 * The parenthesized in the Remarks columns specify the areas. (Refer to the cover page for area.)
 Parts without these indication can be used for all areas.

* [M] in Remarks column indicates parts that are supplied by MESA.

 * **Warning** : This product uses a laser diode. Refer to caution on page 2.

| Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks |
|---------|--------------|----------------------------|-----------|---------|--------------|-------------------------|---------|---------|--------------|-------------------------|---------|
| | | CABINET AND CHASSIS | | 36 | XTB3+20JFZ | SCREW | [M] | 335 | RMB0469 | LOCK ARM SPRING | [M] |
| | | | | 37 | XTBS3+8JFZ1 | SCREW | [M] | 336 | RML0421 | STAY LOCK ARM | [M] |
| 1 | RKM0336-K | CABINET ACCESSORY | [M] | 39 | RFKBLMC6P-K | BLUE LED PCB ASS'Y | [M] | 337 | RML0436 | FRONT LOCK PLATE | [M] |
| 2 | SNE2129-3 | SCREW | [M] | 40 | SHRD163 | CORD HOLDER | [M] | 338 | RML0437 | REAR LOCK PLATE | [M] |
| 3 | RMN0443 | FL HOLDER | [M] | 41 | XTBS26+8J | SCREW | [M] | 339 | RMR0959-K | ROPE GUIDE | [M] |
| 5 | REE0867 | 14P FFC | [M] | 42 | RMN0203 | PCB HOLDER | [M] | 340 | RMW0010 | GUARD ROPE (51) | [M] |
| 6 | REZ0988 | 36P FFC | [M] | | | | | 341 | RDG0183-L | DAMPER GEAR | [M] |
| 7 | REZ0905-2 | 3P FFC | [M] | | | TRAVERSE DECK | | 342 | RMN0388 | SENSOR HOLDER | [M] |
| 8 | RGR0247C-CA | BACK PANEL | [M]E | 300 | RAE0152Z-M | TRAVERSE | [M] | 343 | RFKNLMC50PCK | DISC STOCKER (A) | [M] |
| 8 | RGR0247C-DA | BACK PANEL | [M]E]B EG | 300-1 | SHGD113-1 | FLOATING CUSHION | [M] | 344 | RFKNLMC50PDK | DISC STOCKER (B) | [M] |
| 9 | RFKJLMC70P-K | BOTTOM CHASSIS ASS'Y | [M] | 300-2 | SNSD36 | TRV MOTOR ASS'Y SCREW | [M] | 345 | RMA0912 | FRONT STICKER BASE | [M] |
| 9-1 | RKA0079-A | FOOT | [M] | 301 | RMB0455 | FRONT/BACK ARM SPRING | [M] | 346 | RMA0913 | BACK STICKER BASE | [M] |
| 10 | RKJ0016 | SIDE STAY | [M] | 302 | RML0423 | FRONT ARM | [M] | 347 | RML0419 | SHUTTER LEVER LEFT | [M] |
| 11 | RKQ0089-J | PCB HOLDER | [M] | 303 | RML0424-1 | BACK ARM | [M] | 348 | RMR0935-K | INSIDE SHUTTER (51) | [M] |
| 12 | RKQ0193-K | SIDE GRIL (L) | [M] | 304 | RMR0937-K | TRV CHASSIS | [M] | 349 | RMR0936-K | OUTSIDE SHUTTER (51) | [M] |
| 13 | RKQ0194-K | SIDE GRIL (R) | [M] | 305 | RMS0123-1 | FIXED PIN B | [M] | 350 | RMR0932-K | SHUTTER SUPPORT | [M] |
| 14 | RME0209 | STAY SPRING | [M] | 306 | XTN2+6G | PCB SCREW | [M] | 351 | RMR0947-K | SHUTTER SUPPORT RIGHT | [M] |
| 15 | RMN0341 | FL HOLDER | [M] | 307 | RMS0350 | FIXED PIN A | [M] | 352 | RMR0948-H | STOCKER SEPARATOR PLATE | [M] |
| 16 | RMR0950-K | FFC HOLDER | [M] | 308 | RMQ0653 | MAGNET | [M] | 353 | XTB3+6F | SCREW | [M] |
| 17 | RMR0961-Q | FFC COVER | [M] | 309 | RMR0824-W2 | CLAMPER | [M] | 354 | RFKNLMC50PEK | E. PUSH LEVER ASS'Y | [M] |
| 18 | RMX0115 | MECHA SPACER A | [M] | 310 | RMR0926-K1 | CLAMP PLATE | [M] | 355 | RMC0291 | E. CLICK SPRING | [M] |
| 19 | RMX0116 | MECHA SPACER B | [M] | 311 | RMA1003 | BACK YOKE | [M] | 356 | RME0203 | E. SLIDE SPRING G | [M] |
| 20 | RFKGLMC7EB-K | FRONT PANEL ASS'Y | [M] | 312 | RME0225 | SPRING | [M] | 357 | RME0204 | E LEVER SPRING | [M] |
| 20-1 | RGK1040B-Q | FL FILTER | [M] | 313 | RHW52002 | WASHER | [M] | 358 | RML0438 | E RELAY LEVER | [M] |
| 21 | RGL0414-Q | PRISM (L) | [M] | 320 | RFKPLMC50PAK | LOADING MOTOR ASS'Y | [M] | 359 | RML0439 | E SLIDE PLATE | [M] |
| 22 | RGL0415-Q | PRISM (R) | [M] | 321 | RFKPLMC50PBK | SLIDE MOTOR ASS'Y | [M] | 360 | RMR0938-K | EJECT BASE | [M] |
| 23 | RFKHLMC6P-K | BACK PANEL ASS'Y | [M] | 322 | REZ0916 | 23P FFC | [M] | 361 | RMR0939-K | E COVER | [M] |
| 23-1 | RGK1041-Q | REAR WINDOW | [M] | 323 | RMG0200 | RUBBER TUBE | [M] | 362 | RMR0940-K | E LEVER | [M] |
| 24 | RHD26023-K | SCREW | [M] | 324 | RMR0334 | FIXED PLATE | [M] | 363 | RMR0941-H | E BUTTON | [M] |
| 25 | RHD26028-T | FRONT PANEL SCREWS | [M] | 325 | XTBS26+10J | SCREW | [M] | 364 | RMR0943-H | E SUPPORT LEVER | [M] |
| 26 | RKG0009 | MAGNET CATCH | [M] | 326 | XTWS3+10Q | SCREW | [M] | 365 | RMR0958-K | E GUIDE | [M] |
| 27 | RKW0543-Q | WINDOW | [M] | 327 | RDG0333 | FRONT LOCK GEAR | [M] | 366 | RMR0964-K | E. SUPPORT A | [M] |
| 28 | RMA0998 | MECHA ANGLE | [M] | 328 | RDG0334 | BACK LOCK GEAR | [M] | 367 | RMR0965-K | E SUPPORT B | [M] |
| 29 | RGP0670-K | GRILL | [M] | 329 | RDG0374 | BOTTOM LOCK GEAR | [M] | 368 | SFYB5-32 | E CLICK BALL | [M] |
| 30 | RGU1649-K | POWER BUTTON | [M] | 330 | RMA0904 | SIDE PLATE L | [M] | 369 | XTN2+6JFZ | EJECTOR BK SCREW | [M] |
| 31 | RGU1650-K | MAIN BUTTON | [M] | 331 | RMA0905 | SIDE PLATE | [M] | 370 | RMB0454 | GUARD ROPE SPRING | [M] |
| 32 | RGU1651-K | PROGRAM BUTTON | [M] | 332 | RMA0914 | TOP RAIL | [M] | 371 | RML0420 | SHUTTER LEVER (R) | [M] |
| 33 | RGU1653-K | 12 KEY BUTTON | [M] | 333 | RMA0915 | BOTTOM RAIL | [M] | 372 | RMA1006 | SHUTTER LEVER PLATE | [M] |
| 34 | RMG0429-K | CUSHION RUBBER | [M] | 334 | RMA0916 | BACK SUPPORT PLATE | [M] | 373 | RFKNLMC400PA | DISC STOCKER C | [M] |
| 35 | XTB3+10FFZ | SCREW | [M] | | | | | 374 | RFKNLMC400PB | DISC STOCKER D | [M] |

| Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks |
|---------|--------------|-------------------------|---------|---------|--------------|----------------------------|---------|---------|--------------|---------------------------|---------|
| 375 | RHD20047-K | M2 SCREW | [M] | 434 | RDV0041 | BELT (LOADING) | [M] | | | DIODES | |
| 376 | RMA0995 | STOPPER | [M] | 435 | RDV0046 | BELT (SHIFT) | [M] | | | | |
| 377 | RMC0316 | BALANCE SPRING | [M] | 436 | REZ0832 | 7P FLAT CABLE | [M] | D11 | RL1N4003N02 | DIODE | [M] △ |
| 378 | XTB3+7F | SCREW | [M] | 437 | RHW21009 | WASHER | [M] | D12 | RL1N4003N02 | DIODE | [M] △ |
| 379 | RFK8MC410PK | P.C.BASS'Y | [M] | 438 | RHW42002 | STOPPER WASHER | [M] | D13 | RL1N4003N02 | DIODE | [M] △ |
| 390 | RME0195 | 8 CD SPRING | [M] | 440 | RMF0237-1 | FELT | [M] | D14 | RL1N4003N02 | DIODE | [M] △ |
| 391 | RME0196 | REVERSE LEVER SPRING | [M] | | | | | D15 | MTZJ9R1BTA | DIODE | [M] △ |
| 392 | RME0197 | CLAMP SPRING | [M] | | | INTEGRATED CIRCUITS | | D16 | RL1N4003N02 | DIODE | [M] |
| 393 | RFKNLMC50PBK | MECHANISM BASE ASSY | [M] | | | | | D17 | 1SS291TA | DIODE | [M] |
| 394 | RMS0519 | JOINT SHAFT | [M] | IC11 | BA05T | IC, 5V REGULATOR | [M] △ | D19 | RL1N4003N02 | DIODE | [M] |
| 395 | RMB0453 | FORWARD LEVER SPRING | [M] | IC401 | UPD78043F045 | IC, MICRO COMPUTER | [M] | D21 | RL1N4003N02 | DIODE | [M] △ |
| 396 | RMB0483 | RELEASE LOCK SPRING | [M] | IC461 | BA6247N | IC | [M] | D22 | RL1N4003N02 | DIODE | [M] △ |
| 397 | RME0194 | SUB LEVER SPRING | [M] | IC601 | UPD78076G036 | IC, U-COM | [M] | D23 | MTZJ9R1BTA | DIODE | [M] △ |
| 399 | RML0413 | FEED SUPPORT LEVER | [M] | IC602 | AT24C64 | IC, EEPROM | [M] | D24 | MTZJ9R1BTA | DIODE | [M] △ |
| 400 | RDG0337 | SPEED DOWN GEAR A | [M] | IC603 | RCDGP1U28XD | IC, REMOTE SENSOR | [M] | D26 | RL1N4003N02 | DIODE | [M] △ |
| 401 | RDG0342 | SHIFT SPEED DOWN GEAR | [M] | IC701 | AN8837SBE1 | IC, HEAD AMP | [M] | D27 | RL1N4003N02 | DIODE | [M] △ |
| 402 | RDG0339 | DRIVE GEAR | [M] | IC702 | MN662741RPA | IC, DIGITAL LSI | [M] | D31 | RL1N4003N02 | DIODE | [M] △ |
| 403 | RDG0338 | SPEED DOWN GEAR B | [M] | IC703 | AN8780NSBE2 | IC | [M] | D32 | RL1N4003N02 | DIODE | [M] △ |
| 404 | RDG0344 | MIDDLE SHIFT GEAR | [M] | IC801 | BA4558FDXE2 | IC | [M] | D33 | MTZJ36ATA | DIODE | [M] △ |
| 405 | RDG0346 | FORWARD SHIFT GEAR | [M] | | | | | D34 | MTZJ7R5CTA | DIODE | [M] △ |
| 406 | RDP0081 | BOTTOM SHIFT GEAR | [M] | | | TRANSISTORS | | D35 | MA165TA | DIODE | [M] |
| 407 | RDP0080 | TOP SHIFT GEAR | [M] | | | | | D41 | MTZJ6R8ATA | DIODE | [M] △ |
| 408 | RMR0923 | SLIDE SUPORT PLATE | [M] | Q11 | RVTDC114YST | TRANSISTOR | [M] | D42 | RVD1SS133TA | DIODE | [M] |
| 409 | RML0414 | GUIDE LEVER | [M] | Q12 | RVTDTA114YST | TRANSISTOR | [M] | D43 | 1SS291TA | DIODE | [M] |
| 410 | RDG0345 | MIDDLE SHIFT GEAR B | [M] | Q13 | RVTDTA114YST | TRANSISTOR | [M] | D44 | RL1N4003N02 | DIODE | [M] |
| 411 | RDG0343 | REAR SHIFT GEAR | [M] | Q15 | 2SD2136PQRTA | TRANSISTOR | [M] △ | D51 | RVD1SS133TA | DIODE | [M] △ |
| 412 | RML0411 | JOINT LEVER | [M] | Q31 | 2SB1238QRTV2 | TRANSISTOR | [M] △ | D52 | RVD1SS133TA | DIODE | [M] △ |
| 413 | RML0415 | REVERSE FOOD LEVER | [M] | Q32 | 2SD1450STA | TRANSISTOR | [M] | D53 | MTZJ5R1BTA | DIODE | [M] △ |
| 414 | RML0417 | RETURN LEVER A | [M] | Q33 | 2SD1450STA | TRANSISTOR | [M] | D54 | RVD1SS133TA | DIODE | [M] |
| 415 | RML0418 | RETURN LEVER B | [M] | Q41 | 2SD1862QTV2 | TRANSISTOR | [M] △ | D461 | MTZJ7R5CTA | DIODE | [M] |
| 416 | RML0416 | 8 CD LEVER | [M] | Q461 | RVTDC114TST | TRANSISTOR | [M] | D511 | RSQGP1S53V | DIODE | [M] |
| 417 | RDG0340 | SHIFT PULLEY GEAR | [M] | Q501 | 2SB1320AQRTA | TRANSISTOR | [M] | D521 | LN86S | DIODE | [M] |
| 418 | RMN0358 | LED HOLDER | [M] | Q502 | 2SC3311AQST | TRANSISTOR | [M] | D522 | GL480V | DIODE | [M] |
| 419 | RDP0082 | ROPE ROLLER A | [M] | Q521 | PT4810F | TRANSISTOR | [M] | D523 | BR3433S | LED | [M] |
| 420 | RDP0083 | ROPE ROLLER B | [M] | Q522 | PT480F | TRANSISTOR | [M] | D531 | GL480V | LED | [M] |
| 421 | RMR0927 | ROLLER BASE | [M] | Q531 | PT480F | PHOTO TRANSISTOR | [M] | D601 | MTZJ5R1BTA | DIODE | [M] |
| 422 | RDG0347 | BOTTOM SHIFT ROLLER | [M] | Q821 | RVTDC114YST | TRANSISTOR | [M] | D602 | MTZJ5R1BTA | DIODE | [M] |
| 423 | RDG0341 | COUNT RING | [M] | Q822 | 2SB1238QRTV2 | TRANSISTOR | [M] | D620 | LNG995PFB0A1 | DIODE | [M] |
| 424 | RDG0336 | PULLEY GEAR | [M] | Q823 | 2SB1238QRTV2 | TRANSISTOR | [M] | D621 | LNG995PFB0A1 | DIODE | [M] |
| 425 | RMN0356 | MOTOR HOLDER | [M] | Q851 | 2SC2785FETA | TRANSISTOR | [M] | D630 | MTZJ3R0BTA | DIODE | [M] |
| 426 | RMN0399 | SENSOR HOLDER | [M] | Q701 | 2SA1037AKSTX | TRANSISTOR | [M] | D671 | LN846RP-LS | DIODE | [M] |
| 427 | RMR0922 | TOP SLIDE PLATE | [M] | Q702 | DTC114YKA146 | TRANSISTOR | [M] | D801 | RVD1SS133TA | DIODE | [M] |
| 428 | RMR0924-K1 | DISC GUIDE L | [M] | Q801 | 2SD1450STA | TRANSISTOR | [M] | D802 | RVD1SS133TA | DIODE | [M] |
| 429 | RMR0921 | BOTTOM SLIDE PLATE | [M] | Q802 | 2SD1450STA | TRANSISTOR | [M] | | | | |
| 430 | RMR0925-K | DISC GUIDE R | [M] | Q851 | RVTDTA124EST | TRANSISTOR | [M] | | | VARIABLE RESISTORS | |
| 431 | RML0412 | FORWARD LEVER | [M] | Q852 | RVTDC124EST | TRANSISTOR | [M] | | | | |
| 432 | RDP0091-2 | DISC ROLLER | [M] | | | | | VR501 | EVMLGGA00B14 | V.R | [M] |
| 433 | RDP0092-1 | ROLLER GUIDE | [M] | | | | | | | | |

| Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks |
|---------|-------------|-------------------------|---------|---------|--------------|---------------------------------|---------|---------|----------|-------------------------|---------|
| | | SWITCHES | | CN503 | RJT057W007-1 | 7P CONNECTOR | [M] | | | | |
| | | | | CN504 | RJS7T4ZA | 7P CONNECTOR | [M] | | | | |
| S501 | RSP1A017-A | SW | [M] | CN511 | RJU057W007 | 7P SOCKET | [M] | | | | |
| S502 | RSH1A005 | SW | [M] | CN521 | RJS7T7ZA | 7P CONNECTOR | [M] | | | | |
| S503 | RSH1A005 | SW | [M] | CN531 | RJS3T6ZA | 3P CONNECTOR | [M] | | | | |
| S601 | EVQ21405R | SW, SINGLE | [M] | CN601 | RJS1A9314 | 14P CONNECTOR | [M] | | | | |
| S602 | EVQ21405R | SW, ID SCAN | [M] | CN602 | SJS50882JQH | CONNECTOR | [M] | | | | |
| S603 | EVQ21405R | SW, RANDOM | [M] | CN603 | SJT30845JQ | CONNECTOR | [M] | | | | |
| S604 | EVQ21405R | SW, PROGRAM | [M] | CN701 | RJS2A6016 | 16P FFC CONNECTOR | [M] | | | | |
| S605 | EVQ21405R | SW, 1 | [M] | CN702 | RJS1A6723-1Q | 23P FFC CONNNECTOR | [M] | | | | |
| S606 | EVQ21405R | SW, 2 | [M] | | | | | | | | |
| S607 | EVQ21405R | SW, 3 | [M] | | | COILS & TRANSFORMERS | | | | | |
| S608 | EVQ21405R | SW, 4 | [M] | | | | | | | | |
| S609 | EVQ21405R | SW, 5 | [M] | L11 | SLQX400-1D | RADIO FREQ COIL | [M] ⚠ | | | | |
| S610 | EVQ21405R | SW, 6 | [M] | L12 | SLQX400-1D | RADIO FREQ COIL | [M] ⚠ | | | | |
| S611 | EVQ21405R | SW, 7 | [M] | L701 | RLBN102V-Y | CHIP INDUCTOR | [M] | | | | |
| S612 | EVQ21405R | SW, 8 | [M] | L702 | RLBN102V-Y | CHIP INDUCTOR | [M] | | | | |
| S613 | EVQ21405R | SW, 9 | [M] | PT11 | RTP1K4B027-X | POWER TRANSFORMER | [M] ⚠ | | | | |
| S614 | EVQ21405R | SW, DISC CAPS | [M] | | | | | | | | |
| S615 | EVQ21405R | SW, 0 | [M] | | | OSCILLATORS | | | | | |
| S616 | EVQ21405R | SW, >=10 | [M] | | | | | | | | |
| S617 | EVQ21405R | SW, TEXT EDIT | [M] | X401 | RSXY4M91M01T | CERAMIC OSCILLATOR | [M] | | | | |
| S618 | EVQ21405R | SW, TEXT MODE | [M] | X601 | RSXY4M91M01T | CERAMIC OSCILLATOR | [M] | | | | |
| S619 | EVQ21405R | SW, DOWN | [M] | X701 | RSXB16M9J02T | CRYSTAL OSCILLATOR | [M] | | | | |
| S620 | EVQ21405R | SW, UP | [M] | | | | | | | | |
| S621 | EVQ21405R | SW, ENTER | [M] | | | DISPLAY TUBE | | | | | |
| S622 | EVQ21405R | SW, DISC SKIP (-) | [M] | | | | | | | | |
| S623 | EVQ21405R | SW, DISC SKIP (+) | [M] | FL601 | RSL0240-F | FL | [M] | | | | |
| S624 | EVQ21405R | SW, SEARCH CHAPTR<< | [M] | | | | | | | | |
| S625 | EVQ21405R | SW, SEARCH CHAPTR>> | [M] | | | WIRE HOLDERS | | | | | |
| S626 | EVQ21405R | SW, STOP | [M] | | | | | | | | |
| S627 | EVQ21405R | SW, PAUSE | [M] | FC11 | REZ0899 | 3P WIRE KIT | [M] | | | | |
| S628 | EVQ21405R | SW, SKIP/CUROSRL<< | [M] | FC12 | REZ0898 | 6P WIRE KIT | [M] | | | | |
| S629 | EVQ21405R | SW, SKIP/CUROSRL>> | [M] | FC403 | RWJ1803175KK | 3P WIRE | [M] | | | | |
| S630 | EVQ21405R | SW, PLAY | [M] | FC601 | REZ1115 | 3P WIRE | [M] | | | | |
| S631 | EVQ21405R | SW, POWER | [M] | FC602 | REZ1117 | 3P WIRE | [M] | | | | |
| S632 | RSH1A91ZA-A | SW, CD | [M] | FC603 | REZ1117 | 3P WIRE | [M] | | | | |
| S701 | RSH1A043-U | SW, REST | [M] | | | | | | | | |
| | | | | | | JACKS | | | | | |
| | | CONNECTORS | | | | | | | | | |
| | | | | JK11 | SJS9236-J | IC, AC INLET | [M] ⚠ | | | | |
| CN22 | RJS1A6603T1 | 3P CONNECTOR | [M] | JK541 | GP1F32T | IC, OPT TERMINAL | [M] | | | | |
| CN23 | RJS1A6606T1 | TAPING CONNECTOR | [M] | JK801 | RJH3201N | IC, RCA | [M] | | | | |
| CN401 | RJS1A9414 | FF CONNECTOR | [M] | | | | | | | | |
| CN402 | RJS2A3336M | 36P FFC CONNECTER | [M] | | | | | | | | |
| CN404 | RJS1A6603T1 | 3P CONNECTOR | [M] | | | | | | | | |
| CN501 | RJS2A3332 | 36P CONNECTOR | [M] | | | | | | | | |
| CN502 | RJS1A6223-1 | 23P CONNECTOR | [M] | | | | | | | | |

Resistors & Capacitors

Notes : • Important safety notice:

Components identified by Δ mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

- The parenthesized in the Remarks columns specify the areas. (Refer to the cover page for area.)
- Parts without these indication can be used for all areas.
- [M] in Remarks column indicates parts that are supplied by MESA.
- Capacitor values are in microfarad (μ F) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
- Resistors values are in ohms, unless specified otherwise, 1k=1,000(OHM), 1M=1,000k(OHM)

| Ref No. | Part No. | Values & Remarks | Ref No. | Part No. | Values & Remarks | Ref No. | Part No. | Values & Remarks | Ref No. | Part No. | Values & Remarks |
|---------|------------------|------------------|---------|--------------|------------------|---------|--------------|------------------|---------|----------------------|------------------|
| | RESISTORS | | R464 | ERDS2TJ821T | 820 1/4W [M] | R706 | ERJ6GEYJ102A | 1K 1/10W [M] | R815 | ERDS2TJ102T | 1K 1/4W [M] |
| | | | R465 | ERDS2TJ121T | 120 1/4W [M] | R707 | ERJ6GEYJ474A | 470K 1/10W [M] | R816 | ERDS2TJ102T | 1K 1/4W [M] |
| R11 | ERDS2TJ181T | 180 1/4W [M] | R501 | ERDS2FJ103 | 10K 1/4W [M] | R708 | ERJ6GEYJ154A | 150K 1/10W [M] | R817 | ERDS2TJ473T | 47K 1/4W [M] |
| R12 | ERDS2TJ181T | 180 1/4W [M] | R502 | ERDS2FJ103 | 10K 1/4W [M] | R709 | ERJ6GEYJ473A | 47K 1/10W [M] | R818 | ERDS2TJ473T | 47K 1/4W [M] |
| R13 | ERDS2TJ151T | 150 1/4W [M] | R503 | ERDS2FJ102 | 1K 1/4W [M] | R710 | ERJ6GEYJ103A | 10K 1/10W [M] | R819 | ERDS2TJ100T | 10 1/4W [M] |
| R14 | ERDS2TJ151T | 150 1/4W [M] | R601 | ERDS2TJ472T | 4.7K 1/4W [M] | R711 | ERJ6GEYJ154A | 150K 1/10W [M] | R820 | ERDS2TJ100T | 10 1/4W [M] |
| R15 | ERDS2TJ151T | 150 1/4W [M] | R602 | ERDS2TJ472T | 4.7K 1/4W [M] | R712 | ERJ6GEYJ221A | 220 1/10W [M] | R851 | ERDS2TJ222T | 2.2K 1/4W [M] |
| R19 | ERQ16NKWR15E | 0.15 1/8W [M] | R603 | ERDS2TJ472T | 4.7K 1/4W [M] | R714 | ERJ6GEYJ121A | 120 1/10W [M] | | | |
| R21 | ERDS2TJ122T | 1.2K 1/4W [M] | R604 | ERDS2TJ472T | 4.7K 1/4W [M] | R715 | ERJ6GEYJ122A | 1.2K 1/10W [M] | | CAPACITORS | |
| R22 | ERDS2TJ122T | 1.2K 1/4W [M] | R605 | ERDS2TJ472T | 4.7K 1/4W [M] | R717 | ERJ6GEYJ102A | 1K 1/10W [M] | | | |
| R31 | ERDS2TJ822T | 8.2K 1/4W [M] | R606 | ERDS2TJ472T | 4.7K 1/4W [M] | R718 | ERJ6GEYJ102A | 1K 1/10W [M] | C11 | ECBT1E103ZF5 | 0.01 25V [M] |
| R32 | ERDS2TJ223T | 22K 1/4W [M] | R607 | ERDS2TJ472T | 4.7K 1/4W [M] | R721 | ERJ6GEYJ101A | 100 1/10W [M] | C12 | RCA1CM222ET Δ | 2200 16V [M] |
| R33 | ERDS2TJ223T | 22K 1/4W [M] | R610 | ERDS2TJ331T | 330 1/4W [M] | R722 | ERJ6GEYJ563A | 56K 1/10W [M] | C15 | ECBT1H102KB5 | 1000P 50V [M] |
| R36 | ERDS2TJ102T | 1K 1/4W [M] | R611 | ERDS2TJ331T | 330 1/4W [M] | R723 | ERJ6GEYJ182A | 1.8K 1/10W [M] | C16 | RCA1AM471BT | 470P 10V [M] |
| R41 | ERDS2TJ221T | 220 1/4W [M] | R612 | ERDS2TJ100T | 10 1/4W [M] | R724 | ERJ6GEYJ333A | 33K 1/10W [M] | C17 | ECEA0JKA101B | 100 6.3V [M] |
| R43 | ERD2FCVJ6R8T | 6.8 1/4W [M] | R613 | ERDS2TJ100T | 10 1/4W [M] | R725 | ERJ6GEYJ122A | 1.2K 1/10W [M] | C18 | ECEA1HKA010B | 1 50V [M] |
| R45 | ERDS2TJ221T | 220 1/4W [M] | R614 | ERDS2TJ100T | 10 1/4W [M] | R726 | ERJ6GEYJ473A | 47K 1/10W [M] | C20 | ECBT1H102KB5 | 1000P 50V [M] |
| R46 | ERDS2TJ221T | 220 1/4W [M] | R615 | ERDS2TJ100T | 10 1/4W [M] | R727 | ERJ6GEYJ682A | 6.8K 1/10W [M] | C21 | RCA1VM101BT Δ | 100P 35V [M] |
| R51 | ERDS2TJ122T | 1.2K 1/4W [M] | R616 | ERDS2TJ100T | 10 1/4W [M] | R728 | ERJ6GEYJ682A | 6.8K 1/10W [M] | C22 | RCA1VM101BT Δ | 100P 35V [M] |
| R52 | ERDS2TJ122T | 1.2K 1/4W [M] | R617 | ERDS2TJ100T | 10 1/4W [M] | R729 | ERJ6GEYJ562A | 5.6K 1/10W [M] | C23 | ECEA1EM471B | 470 25V [M] |
| R401 | ERDS2TJ103T | 10K 1/4W [M] | R618 | ERDS2TJ100T | 10 1/4W [M] | R731 | ERJ6GEYJ822A | 8.2K 1/10W [M] | C24 | ECEA1EM471B | 470 25V [M] |
| R402 | ERDS2TJ473T | 47K 1/4W [M] | R621 | ERDS2TJ332T | 3.3K 1/4W [M] | R735 | ERJ6GEYJ101A | 100 1/10W [M] | C30 | ECBT1E103ZF5 | 0.01 25V [M] |
| R403 | ERDS2TJ472T | 4.7K 1/4W [M] | R622 | ERDS2TJ151T | 150 1/4W [M] | R736 | ERJ6GEYJ101A | 100 1/10W [M] | C31 | ECEA1JM470B | 47 63V [M] |
| R404 | ERDS2TJ472T | 4.7K 1/4W [M] | R623 | ERDS2TJ151T | 150 1/4W [M] | R744 | ERJ6GEYJ104A | 100K 1/10W [M] | C32 | ECEA1JM470B | 47 63V [M] |
| R405 | ERDS2TJ472T | 4.7K 1/4W [M] | R624 | ERDS2TJ100T | 10 1/4W [M] | R745 | ERJ6GEYJ155A | 1.5M 1/10W [M] | C33 | ECBT1H102KB5 | 1000P 50V [M] |
| R406 | ERDS2TJ472T | 4.7K 1/4W [M] | R625 | ERDS2TJ100T | 10 1/4W [M] | R748 | ERJ6GEYJ182A | 1.8K 1/10W [M] | C41 | ECBT1H102KB5 | 1000P 50V [M] |
| R407 | ERDS2TJ472T | 4.7K 1/4W [M] | R631 | ERDS2TJ103T | 10K 1/4W [M] | R749 | ERJ6GEYJ682A | 6.8K 1/10W [M] | C42 | ECEA0JKA101B | 100 6.3V [M] |
| R408 | ERDS2TJ103T | 10K 1/4W [M] | R632 | ERDS2TJ102T | 1K 1/4W [M] | R752 | ERJ6GEYJ220A | 22 1/8W [M] | C43 | RCA0JM102BT | 1000 6.3V [M] |
| R409 | ERDS2TJ103T | 10K 1/4W [M] | R651 | ERDS2TJ103T | 10K 1/4W [M] | R803 | ERDS2TJ224T | 220K 1/4W [M] | C44 | ECEA1HKA010B | 1 50V [M] |
| R410 | ERDS2TJ104T | 100K 1/4W [M] | R652 | ERDS2TJ471T | 470 1/4W [M] | R804 | ERDS2TJ224T | 220K 1/4W [M] | C401 | ECBT1C103NS5 | 0.01 16V [M] |
| R411 | ERDS2TJ181T | 180 1/4W [M] | R653 | ERDS2TJ103T | 10K 1/4W [M] | R805 | ERDS2TJ822T | 8.2K 1/4W [M] | C402 | ECEA0JKA101B | 100 6.3V [M] |
| R412 | ERDS2TJ472T | 4.7K 1/4W [M] | R671 | ERDS2TJ473T | 47K 1/4W [M] | R806 | ERDS2TJ822T | 8.2K 1/4W [M] | C403 | ECBT1H221KB5 | 220P 50V [M] |
| R413 | ERDS2TJ181T | 180 1/4W [M] | R672 | ERDS2TJ221T | 220 1/4W [M] | R807 | ERDS2TJ123T | 12K 1/4W [M] | C404 | ECBT1H221KB5 | 220P 50V [M] |
| R414 | ERDS2TJ101T | 100 1/4W [M] | R673 | ERDS2TJ105T | 1M 1/4W [M] | R808 | ERDS2TJ123T | 12K 1/4W [M] | C405 | ECBT1C103NS5 | 0.01 16V [M] |
| R417 | ERDS2TJ103T | 10K 1/4W [M] | R674 | ERDS2TJ105T | 1M 1/4W [M] | R809 | ERDS2TJ333T | 33K 1/4W [M] | C406 | ECBT1H102KB5 | 1000P 50V [M] |
| R420 | ERDS2TJ472T | 4.7K 1/4W [M] | R701 | ERJ6GEYJ4R7A | 4.7 1/10W [M] | R810 | ERDS2TJ333T | 33K 1/4W [M] | C407 | ECBT1C103NS5 | 0.01 16V [M] |
| R421 | ERDS2TJ103T | 10K 1/4W [M] | R702 | ERJ6GEYJ822A | 8.2K 1/10W [M] | R811 | ERDS2TJ333T | 33K 1/4W [M] | C408 | ECBT1C103NS5 | 0.01 16V [M] |
| R461 | ERDS2TJ121T | 120 1/4W [M] | R703 | ERJ6GEYJ823A | 82K 1/10W [M] | R812 | ERDS2TJ333T | 33K 1/4W [M] | C409 | ECBT1C103NS5 | 0.01 16V [M] |
| R462 | ERDS2TJ331T | 330 1/4W [M] | R704 | ERJ6GEYJ102A | 1K 1/10W [M] | R813 | ERDS2TJ102T | 1K 1/4W [M] | C410 | ECBT1C103NS5 | 0.01 16V [M] |
| R463 | ERDS2TJ821T | 820 1/4W [M] | R705 | ERJ6GEYJ124A | 120K 1/10W [M] | R814 | ERDS2TJ102T | 1K 1/4W [M] | C411 | ECBT1C103NS5 | 0.01 16V [M] |

| Ref No. | Part No. | Values & Remarks | Ref No. | Part No. | Values & Remarks | Ref No. | Part No. | Values & Remarks | Ref No. | Part No. | Values & Remarks |
|---------|--------------|------------------|---------|--------------|------------------|---------|----------|------------------|---------|----------|------------------|
| C412 | ECBT1C103NS5 | 0.01 16V [M] | C739 | ECUZ1H102KBN | 1000P 50V [M] | | | | | | |
| C461 | ECEA1AKA470B | 47 10V [M] | C742 | ECUZ1E273KBN | 0.027 25V [M] | | | TEST JUMPER | | | |
| C541 | ECBT1C103NS5 | 0.01 16V [M] | C743 | ECUZ1E104ZFN | 0.1 25V [M] | TJ701 | EYF8CU | TEST JUMPER [M] | | | |
| C542 | ECEA1CKA100B | 10 16V [M] | C744 | ECUZ1E123KBN | 0.012 25V [M] | | | | | | |
| C601 | ECBT1C103NS5 | 0.01 16V [M] | C745 | ECUZ1H102KBN | 1000P 50V [M] | | | | | | |
| C602 | ECBT1H102KB5 | 1000P 50V [M] | C747 | ECUV1H221KBN | 220P 50V [M] | | | | | | |
| C603 | ECBT1C103NS5 | 0.01 16V [M] | C749 | ECUZ1H222KBN | 2200P 50V [M] | | | | | | |
| C604 | ECBT1H391KB5 | 390P 50V [M] | C750 | ECUZ1E104MBN | 0.1 25V [M] | | | | | | |
| C605 | ECFR1E104ZF5 | 0.1 25V [M] | C751 | ECUZ1E104MBN | 0.1 25V [M] | | | | | | |
| C606 | ECEA0JKA101B | 100 6.3V [M] | C753 | ECUZ1H471KBM | 470P 50V [M] | | | | | | |
| C607 | ECBT1C103NS5 | 0.01 16V [M] | C754 | ECUZ1H471KBN | 470P 50V [M] | | | | | | |
| C608 | ECBT1C103NS5 | 0.01 16V [M] | C762 | ECUZ1H471KBN | 470P 50V [M] | | | | | | |
| C651 | ECEA1HKA010B | 1 50V [M] | C801 | ECEA1AKA101B | 100 10V [M] | | | | | | |
| C652 | ECEA1EKA4R7B | 4.7 25V [M] | C802 | ECEA1AKA101B | 100 10V [M] | | | | | | |
| C701 | ECEA0JKA330I | 33 6.3V [M] | C805 | ECCR1H391J5 | 390P 50V [M] | | | | | | |
| C702 | ECUZ1E104MBN | 0.1 25V [M] | C806 | ECCR1H391J5 | 390P 50V [M] | | | | | | |
| C703 | ECEA0JKA101I | 100 6.3V [M] | C807 | ECCR1H391J5 | 390P 50V [M] | | | | | | |
| C704 | ECUZ1E104MBN | 0.1 25V [M] | C808 | ECCR1H391J5 | 390P 50V [M] | | | | | | |
| C706 | ECUZ1H272KBN | 2700P 50V [M] | C809 | ECEA0JKA470B | 47 6.3V [M] | | | | | | |
| C707 | ECUZ1E273KBN | 0.027 25V [M] | C810 | ECEA0JKA470B | 47 6.3V [M] | | | | | | |
| C708 | ECUZ1H392KBN | 3900P 50V [M] | C811 | ECBT1H102KB5 | 1000P 50V [M] | | | | | | |
| C709 | ECUZ1E563KBN | 0.056 25V [M] | C812 | ECBT1H102KB5 | 1000P 50V [M] | | | | | | |
| C710 | ECUV1H151KCN | 150P 50V [M] | C813 | ECEA1AKA470B | 47 10V [M] | | | | | | |
| C711 | ECUZ1E104ZFN | 0.1 25V [M] | | | | | | | | | |
| C712 | ECUZ1E104ZFN | 0.1 25V [M] | | CHIP JUMPER | | | | | | | |
| C713 | ECUZ1E104MBN | 0.1 25V [M] | | | | | | | | | |
| C714 | ECEA0JKA101I | 100 6.3V [M] | RJ701 | ERJ6GEY0R00A | 0 1/10W [M] | | | | | | |
| C715 | ECUZ1H182KBN | 1800P 50V [M] | RJ702 | ERJ8GEY0R00A | 0 1/8W [M] | | | | | | |
| C716 | ECUZ1H821KBN | 820P 50V [M] | RJ703 | ERJ8GEY0R00A | 0 1/8W [M] | | | | | | |
| C717 | ECUZ1E104ZFN | 0.1 25V [M] | RJ704 | ERJ8GEY0R00A | 0 1/8W [M] | | | | | | |
| C718 | ECUZ1C224KBN | 0.22 16V [M] | RJ705 | ERJ8GEY0R00A | 0 1/8W [M] | | | | | | |
| C721 | ECUZ1H100DCN | 10P 50V [M] | RJ706 | ERJ8GEY0R00A | 0 1/8W [M] | | | | | | |
| C722 | ECUZ1H100DCN | 10P 50V [M] | RJ707 | ERJ8GEY0R00A | 0 1/8W [M] | | | | | | |
| C723 | ECEA1AKA221I | 220 10V [M] | RJ708 | ERJ8GEY0R00A | 0 1/8W [M] | | | | | | |
| C724 | ECUZ1E104MBN | 0.1 25V [M] | RJ709 | ERJ8GEY0R00A | 0 1/8W [M] | | | | | | |
| C725 | ECUZ1H102KBN | 1000P 50V [M] | RJ710 | ERJ8GEY0R00A | 0 1/8W [M] | | | | | | |
| C726 | ECUZ1H102KBN | 1000P 50V [M] | RJ715 | ERJ8GEY0R00A | 0 1/8W [M] | | | | | | |
| C727 | ECA1HAK010XI | 1 50V [M] | RJ716 | ERJ8GEY0R00A | 0 1/8W [M] | | | | | | |
| C728 | ECA1HAK010XI | 1 50V [M] | RJ721 | ERJ6GEY0R00A | 0 1/10W [M] | | | | | | |
| C730 | ECUZ1E104ZFN | 0.1 25V [M] | RJ722 | ERJ6GEY0R00A | 0 1/10W [M] | | | | | | |
| C731 | ECEA0JKA221I | 220 6.3V [M] | RJ724 | ERJ6GEY0R00A | 0 1/10W [M] | | | | | | |
| C732 | ECEA0JKA221I | 220 6.3V [M] | RJ726 | ERJ6GEY0R00A | 0 1/10W [M] | | | | | | |
| C733 | ECUZ1E104MBN | 0.1 25V [M] | RJ727 | ERJ6GEY0R00A | 0 1/10W [M] | | | | | | |
| C734 | ECEA1AKA221I | 220 10V [M] | RJ728 | ERJ6GEY0R00A | 0 1/10W [M] | | | | | | |
| C735 | ECUZ1E104ZFN | 0.1 25V [M] | RJ731 | ERJ6GEY0R00A | 0 1/10W [M] | | | | | | |
| C736 | ECUZ1E104ZFN | 0.1 25V [M] | RJ732 | ERJ6GEY0R00A | 0 1/10W [M] | | | | | | |
| C737 | ECUZ1E104ZFN | 0.1 25V [M] | RJ750 | ERJ6GEY0R00A | 0 1/10W [M] | | | | | | |
| C738 | ECUZ1E104MBN | 0.1 25V [M] | | | | | | | | | |

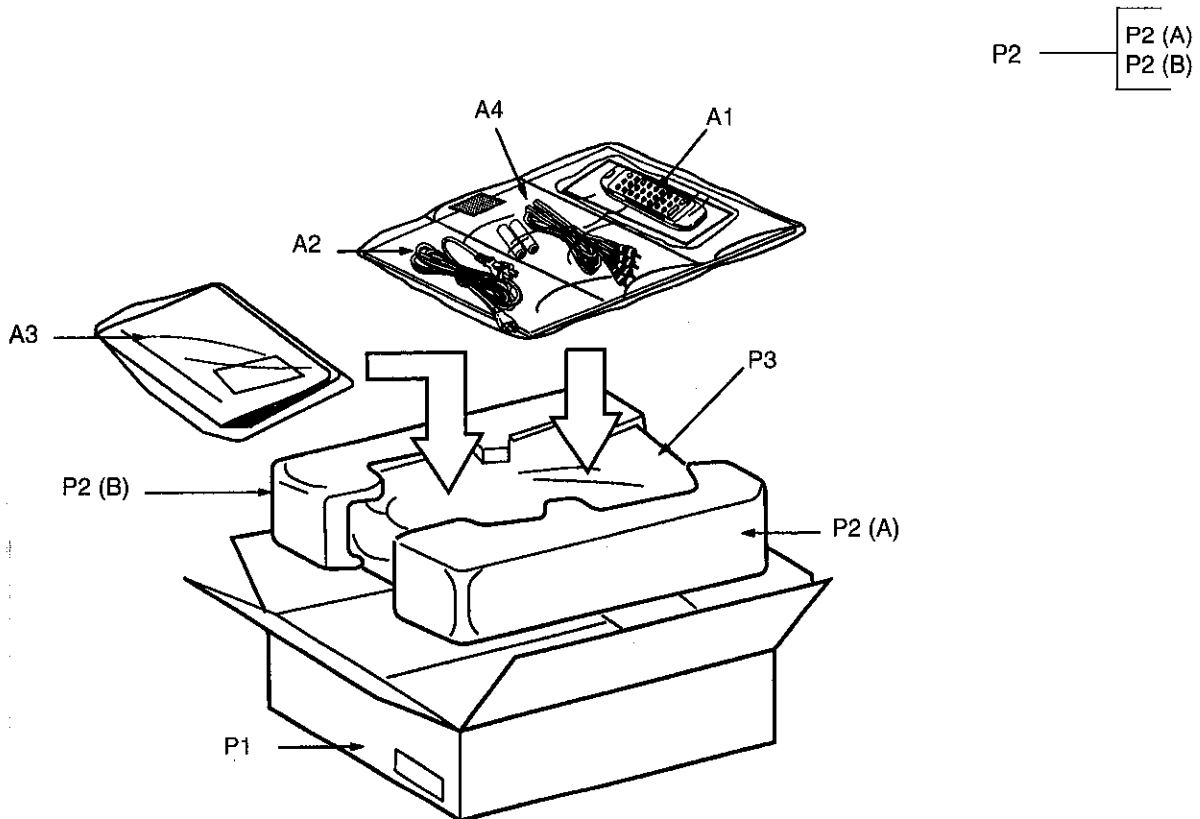
■ Packing Materials & Accessories

- Notes :**
- * Important safety notice : Components identified by \triangle mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
 - * The parenthesized in the Remarks columns specify the areas. (Refer to the cover page for area.)
 - * Parts without these indication can be used for all areas.
 - * The mark " (SF) " denotes standard part.
 - * [M] in Remarks column indicates parts supplied by MESA.
 - * Remote Control Unit : Supply period for three years from termination of production.
 - * Reference for O/I book languages are as follows :

| | | | | | |
|-------------|----------------------|--------------------|--------------------|--------------|-------------|
| Ar : Arabic | Cf : Canadian French | Co : Chinese (old) | Cn : Chinese (new) | Cz : Czech | Da : Danish |
| Du : Dutch | En : English | Fr : French | Ge : German | It : Italian | Ko : Korean |
| Po : Polish | Ru : Russian | Sp : Spanish | Sw : Swedish | | |

| Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks |
|---------|----------|--------------------------|---------|---------|-------------|--------------------------|---------|---------|--------------|-------------------------|---------|
| | | PACKING MATERIALS | | | | ACCESSORIES | | A3 | RQT4946-H | O/I BOOK (Du/Da) | [M]EG |
| | | | | | | | | A3 | RQT4947-B | O/I BOOK (En) | [M]EB |
| P1 | RPG4383 | PACKING CASE | [M] | A1 | EUR645270 | REMOCONTRANSMITTER | [M] | A4 | RJL2P004B08A | STEREO CONNECTOR | [M] |
| P2 | RPN1009 | POLYFOAM | [M] | A1-1 | UR64EC1987B | R/C BATTERY COVER | [M] | | | | |
| P3 | RPFX0012 | MIRAMAT BAG | [M] | A2 | RJA0019-2K | AC CORD (SF) \triangle | [M]EG E | | | | |
| | | | | A2 | VJA0733 | AC CORD (SF) \triangle | [M]EB | | | | |
| | | | | A3 | RQT4943-E | O/I BOOK (En/Sp/Sw) | [M]E | | | | |
| | | | | A3 | RQT4944-R | O/I BOOK (Ru/Cz/Pol) | [M]E | | | | |
| | | | | A3 | RQT4945-D | O/I BOOK (Ge/It/Fr) | [M]EG | | | | |

■ Packaging





Door No.
3

Drop No.
0

Customer: TECHNICA42

Load: SPOWE1

Model: MD8805076CZ

Qty: 1

Assemble at: 60

05/07/00



5