

CDX-3900R/4000R/4000RX

SERVICE MANUAL

AEP Model
UK Model



Photo: CDX-4000RX

- The tuner and CD sections have no adjustments.

Model Name Using Similar Mechanism	NEW
CD Drive Mechanism Type	MG-383Z-121//Q
Optical Pick-up Name	KSS-720A

SPECIFICATIONS

CD player section

Signal-to-noise ratio	90 dB
Frequency response	10 – 20,000 Hz
Wow and flutter	Below measurable limit

Tuner section

FM

Tuning range	87.5 – 108.0 MHz
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	8 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	66 dB (stereo), 72 dB (mono)
Harmonic distortion at 1 kHz	0.6% (stereo), 0.3% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

MW/LW

Tuning range	MW: 531 – 1,602 kHz LW: 153 – 279 kHz
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	MW: 30 μ V LW: 40 μ V

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	50 W $\times$ 4 (at 4 ohms)

General

Outputs	Audio outputs Power aerial relay control lead Power amplifier control lead Telephone ATT control lead (CDX-4000R/4000RX only)
Tone controls	Bass $\pm$ 9 dB at 100 Hz Treble $\pm$ 9 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 $\times$ 50 $\times$ 183 mm (w/h/d)
Mounting dimension	Approx. 182 $\times$ 53 $\times$ 162 mm (w/h/d)
Mass	Approx. 1.2 kg
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1)

Design and specifications are subject to change without notice.

FM/MW/LW COMPACT DISC PLAYER



SONY®

SERVICE NOTE

CAUTION

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

Notes on Chip Component Replacement

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

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

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body. During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.

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

NOTES ON LASER DIODE EMISSION CHECK

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

SAFETY-RELATED COMPONENT WARNING!!

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

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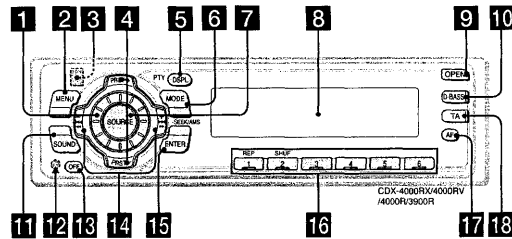
5. ELECTRICAL PARTS LIST

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SECTION 1 GENERAL

This section is extracted from instruction manual.

Location of controls



Refer to the pages listed for details.

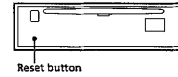
- 1 Volume control dial 15
- 2 MENU button 7, 9, 10, 11, 12, 14, 15, 17, 20
- 3 ▲ (eject) button (located on the front side of the unit behind the front panel) 8
- 4 PRST +/- (cursor up/down) buttons 7, 9, 10, 11, 12, 14, 15, 17, 20
During radio reception:
Preset stations select 11, 16
- 5 DSPL/PTY (display mode change/programme type) button 8, 9, 13, 16
- 6 MODE button 15
During radio reception:
BAND select 10, 11
- 7 SOURCE (TUNER/CD) button 7, 8, 9, 10, 11
- 8 Display window
- 9 OPEN button 6, 8, 22
- 10 D-BASS button 21
- 11 SOUND button 19
- 12 Reset button (located on the front side of the unit behind the front panel) 6
- 13 OFF button* 6, 7, 8
- 14 SEEK/AMS +/- (cursor left/right) buttons 7, 9, 11, 12, 14, 15, 17, 19, 20
Automatic Music Sensor 9
Manual Search 9
Seek 11, 13
- 15 ENTER button 7, 9, 10, 11, 12, 14, 15, 16, 17, 20
- 16 Number buttons
During radio reception:
Preset number select 11, 14, 15
During CD playback:
① REP 10
② SHUF 10
- 17 AF button 13, 15
- 18 TA button 14, 15

* Warning when installing in a car without ACC (accessory) position on the ignition key switch
Be sure to press (OFF) on the unit for two seconds to turn off the clock display after turning off the engine.
When you press (OFF) only momentarily, the clock display does not turn off and this causes battery wear.

Getting Started

Resetting the unit

Before operating the unit for the first time or after replacing the car battery, you must reset the unit.
Remove the front panel and press the reset button with a pointed object, such as a ball-point pen.

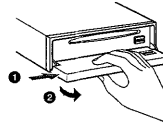


Note
Pressing the reset button will erase the clock setting and some memorised functions.

Detaching the front panel

You can detach the front panel of this unit to protect the unit from being stolen.

- 1 Press (OFF).
- 2 Press (OPEN), then slide the front panel to the right side, and pull out the left side of the front panel.

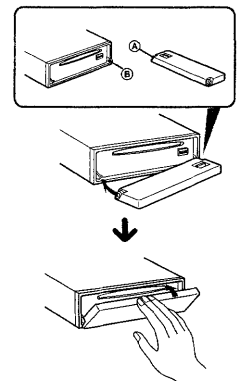


Notes

- Do not put anything on the inner surface of the front panel.
- Be sure not to drop the panel when detaching it from the unit.
- If you detach the panel while the unit is still turned on, the power will turn off automatically to prevent the speakers from being damaged.
- When carrying the front panel with you, use the supplied front panel case.

Attaching the front panel

Place the hole ④ in the front panel onto the spindle ③ on the unit as illustrated, then push the left side in.



Notes

- Be careful not to attach the front panel upside down.
- Do not press the front panel too hard against the unit when attaching it.
- Do not press too hard or put excessive pressure on the display window of the front panel.
- Do not expose the front panel to direct sunlight or heat sources such as hot air ducts, and do not leave it in a humid place. Never leave it on the dashboard of a car parked in direct sunlight or where there may be a considerable rise in temperature.

Caution alarm

If you turn the ignition key switch to the OFF position without removing the front panel, the caution alarm will beep for a few seconds. If you connect an optional power amplifier and do not use the built-in amplifier, the beep sound will be deactivated.

Turning the unit on/off

Turning on the unit

Press (SOURCE) or insert a CD in the unit. For details on operation, refer to page 8 (CD) and page 10 (radio).

Turning off the unit

Press (OFF) to stop CD playback or radio reception (the key illumination and display remain on).
Press (OFF) for two seconds to completely turn the unit off.

Note
If your car has no ACC position on the ignition key switch, be sure to turn the unit off by pressing (OFF) for two seconds to avoid car battery wear.

How to use the menu

This unit is operated by selecting items from a menu.

To select, first enter the menu mode and choose up/down ((+)/(-) of (PRST)), or choose left/right ((-)/(+) of (SEEK/AMS)).

(PRST)



(+): to select upwards

(-): to select downwards

(SEEK/AMS)



(-): to select leftwards

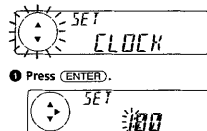
(+): to select rightwards

Setting the clock

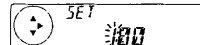
The clock uses a 24-hour digital indication.

Example: To set the clock to 10:08

- 1 Press (MENU), then press either side of (PRST) repeatedly until "CLOCK" appears.

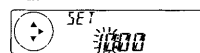


- 1 Press (ENTER).



The hour indication flashes.

- 2 Press either side of (PRST) to set the hour.

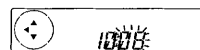


- 3 Press the (+) side of (SEEK/AMS).

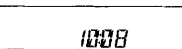


The minute indication flashes.

- 4 Press either side of (PRST) to set the minute.



- 2 Press (ENTER).



The clock starts.

After the clock setting is completed, the display returns to normal play mode.

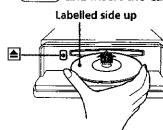
Tip
You can set the clock automatically with the RDS feature (see page 12).

Note
In the initial setting, the clock indication appears while the unit is turned off.
When the D.INFO mode is set to ON, the time is always displayed (page 20).

CD Player

Listening to a CD (with this unit only)

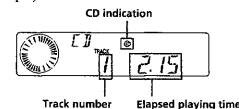
- 1 Press (OPEN) and insert the CD.



- 2 Close the front panel.

Playback starts automatically.

If a CD is already inserted, press (SOURCE) repeatedly until "CD" appears to start playback.



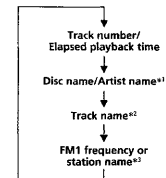
When the last track on the CD is over

The track number indication returns to "1," and playback restarts from the first track of the CD.

To	Press
Stop playback	(OFF)
Eject the CD	(OPEN) then ▲

Changing the display item

Each time you press (DSPL/PTY) during CD TEXT disc playback, the item changes as follows:



*1 If you play a CD TEXT disc, the artist name appears in the display after the disc name. (Only for CD TEXT discs with the artist name.)

*2 If the track name of a CD TEXT disc is not prerecorded, "TRACK" and "NO NAME" appear in the display.

*3 While the A.F.T.A function is activated.

After you select the desired item, the display will automatically change to the Motion Display mode after a few seconds. In the Motion Display mode, all the items are scrolled in the display one by one in order.

Tip
The Motion Display mode can be turned off. (See "Changing the sound and display settings" on page 20).

Automatically scrolling a disc name — Auto Scroll

If the disc name, artist name, or track name on a CD TEXT disc exceeds 8 characters and the Auto Scroll function is on, information automatically scrolls across the display as follows:

- The disc name appears when the disc has changed (if the disc name is selected as the display item).
- The track name appears when the track has changed (if the track name is selected as the display item).
- The disc or track name appears depending on the setting when you press (SOURCE) to select a CD TEXT disc.

If you press (DISP/PTY) to change the display item, the disc or track name of the CD TEXT disc is scrolled automatically whether you set the function on or off.

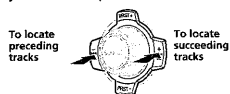
- 1 During playback, press (MENU).
- 2 Press either side of (PRST) repeatedly until "A.SCRL-OFF" appears.
- 3 Press the (+) side of (SEEK/AMS) to select "A.SCRL-ON."
- 4 Press (ENTER).

To cancel Auto Scroll, select "A.SCRL-OFF" in step 3.

Note
For some CD TEXT discs with very many characters, the following cases may happen:
— Some of the characters are not displayed.
— Auto Scroll does not work.

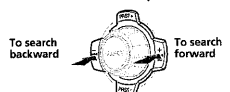
Locating a specific track — Automatic Music Sensor (AMS)

During playback, press either side of (SEEK/AMS) momentarily for each track you want to skip.



Locating a specific point in a track — Manual Search

During playback, press and hold either side of (SEEK/AMS). Release when you have found the desired point.



Note
If "LL LL" or "RR RR" appears in the display, you have reached the beginning or the end of the disc and you cannot go any further.

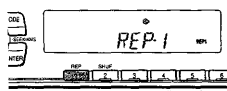
Playing a CD in various modes

You can play CDs in various modes:

- REP (Repeat Play) repeats the current track.
- SHUF (Shuffle Play) plays all the tracks in random order.

Playing tracks repeatedly — Repeat Play

During playback, press (REP).



Repeat Play starts.

To return to normal play mode, select "REP-OFF."

Playing tracks in random order — Shuffle Play

During playback, press (SHUF).



Shuffle Play starts.

To return to normal play mode, select "SHUF-OFF."

Radio

Memorising stations automatically

— Best Tuning Memory (BTM)

The unit selects the stations with the strongest signals and memorises them in the order of their frequencies. You can store up to 6 stations on each band (FM1, FM2, FM3, MW, and LW).

Caution

When tuning in stations while driving, use Best Tuning Memory to prevent accidents.

- 1 Press (SOURCE) repeatedly to select the tuner. Each time you press (SOURCE), the source changes as follows:
Tuner ↔ CD
- 2 Press (MODE) repeatedly to select the band. Each time you press (MODE), the band changes as follows:
FM1 → FM2 → FM3
LW ← MW ←
- 3 Press (MENU), then press either side of (PRST) repeatedly until "BTM" appears.
- 4 Press (ENTER). The unit stores stations in the order of their frequencies on the number buttons. A beep sounds when the setting is stored.

9

10

Notes

- The unit does not store stations with weak signals. If only a few stations can be received, some number buttons will retain their former setting.
- When a number is indicated in the display, the unit starts storing stations from the one currently displayed.
- If a CD is not in the unit, only the tuner band appears even if you press (SOURCE).

Memorising only the desired stations

You can preset up to 18 FM stations (6 each for FM1, FM2, and FM3), up to 6 MW stations, and up to 6 LW stations in the order of your choice.

- 1 Press (SOURCE) repeatedly to select the tuner.
- 2 Press (MODE) repeatedly to select the band.
- 3 Press either side of (SEEK/AMS) to tune in the station that you want to store on the number button.
- 4 Press the desired number button (1 to 6) for two seconds until "MEM" appears. The number button indication appears in the display.

Note
If you try to store another station on the same number button, the previously stored station will be erased.

Receiving the memorised stations

- 1 Press (SOURCE) repeatedly to select the tuner.
- 2 Press (MODE) repeatedly to select the band.
- 3 Press the number button (1 to 6) on which the desired station is stored.

Tip
Press either side of (PRST) to receive the stations in the order they are stored in the memory (Preset Search Function).

If you cannot tune in a preset station

Press either side of (SEEK/AMS) to search for the station (automatic tuning). Scanning stops when the unit receives a station. Press either side of (SEEK/AMS) repeatedly until the desired station is received.

Note
If the automatic tuning stops too frequently, press (RESL), then press either side of (PRST) repeatedly until "LOCAL" (local seek mode) is displayed. Then press the (+) side of (SEEK/AMS) to select "LOCAL-ON." Press (ENTER). Only the stations with relatively strong signals will be tuned in.

- Tips**
- When you select the "LOCAL-ON" setting, "LSEEK" appears while the unit is searching for a station.
 - If you know the frequency of the station you want to listen to, press and hold either side of (SEEK/AMS) until the desired frequency appears (manual tuning).

If FM stereo reception is poor — Monaural Mode

- 1 During radio reception, press (MENU), then press either side of (PRST) repeatedly until "MONO-OFF" appears.
- 2 Press the (+) side of (SEEK/AMS) until "MONO-ON" appears. The sound improves, but becomes monaural ("ST" disappears).
- 3 Press (ENTER).

To return to normal mode, select "MONO-OFF" in step 2.

RDS

Overview of the RDS function

Radio Data System (RDS) is a broadcasting service that allows FM stations to send additional digital information along with the regular radio programme signal. Your car stereo offers you a variety of services. Here are just a few: retuning the same programme automatically, listening to traffic announcements, and locating a station by programme type.

Notes

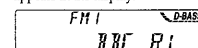
- Depending on the country or region, not all of the RDS functions are available.
- RDS may not work properly if the signal strength is weak or if the station you are tuned to is not transmitting RDS data.

Displaying the station name

The name of the current station lights up in the display.

Select an FM station (page 11).

When you tune in an FM station that transmits RDS data, the station name appears in the display.



Note
The "FM" indication means that an RDS station is being received.

11

12

Changing the displayed item

Each time you press **(DSP/PTY)**, the item changes as follows:

Station Name (Frequency) ↔ **PTY** data

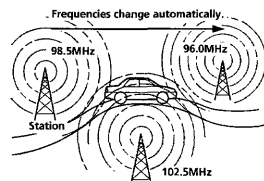
After you select the desired item, the display will automatically change to the Motion Display mode after a few seconds. In the Motion Display mode, all the items are scrolled in the display one by one in order.

Tip
The Motion Display mode can be turned off. (See "Changing the sound and display settings" on page 20.)

Note
"NO NAME" appears if the received station does not transmit RDS data.

Retuning the same programme automatically — Alternative Frequencies (AF)

The Alternative Frequencies (AF) function automatically selects and retunes the station with the strongest signal in a network. By using this function, you can continuously listen to the same programme during a long-distance drive without having to retune the station manually.



- 1 Select an FM station (page 11).
- 2 Press **(AF)** repeatedly until "AF-ON" appears.
The unit starts searching for an alternative station with a stronger signal in the same network.

Notes

- When there is no alternative station in the area and you do not need to search for an alternative station, turn the AF function off by pressing **(AF)** repeatedly until "AF-OFF" appears.
- When "NO AF" and the station name flash alternately, it means that the unit cannot find an alternative station in the network.
- If the station name starts flashing after selecting a station with the AF function on, this indicates that no alternative frequency is available. Press either side of **(SEEK/AMS)** while the station name is flashing (within eight seconds). The unit starts searching for another frequency with the same PI (Programme Identification) data ("PI SEEK" appears and no sound is heard). If the unit cannot find another frequency, "NO PI" appears, and the unit returns to the previously selected frequency.

Listening to a regional programme

The "REG-ON" (regional on) function lets you stay tuned to a regional programme without being switched to another regional station. (Note that you must turn the AF function on.) The unit is factory preset to "REG-ON," but if you want to turn off the function, do the following.

- 1 During radio reception, press **(MENU)**, then press either side of **(PRST)** repeatedly until "REG" appears.
- 2 Press the **(+)** side of **(SEEK/AMS)** until "REG-OFF" appears.
- 3 Press **(ENTER)**.
Note that selecting "REG-OFF" might cause the unit to switch to another regional station within the same network.

To return to regional on, select "REG-ON" in step 2.

Note
This function does not work in the United Kingdom and in some other areas.

Local link function (United Kingdom only)

The Local Link function lets you select other local stations in the area, even if they are not stored on your number buttons.

- 1 Press a number button that has a local station stored on it.
- 2 Within five seconds, press the number button of the local station again.
- 3 Repeat this procedure until the desired local station is received.

Listening to traffic announcements

The Traffic Announcement (TA) and Traffic Programme (TP) data lets you automatically tune in an FM station that is broadcasting traffic announcements even if you are listening to other programme sources.

Press **(TA)** repeatedly until "TA-ON" appears.

The unit starts searching for traffic information stations. "TP" appears in the display when the unit finds a station broadcasting traffic announcements. When the traffic announcement starts, "TA" flashes. The flashing stops when the traffic announcement is over.

Tip
If the traffic announcement starts while you are listening to another programme source, the unit automatically switches to the announcement and goes back to the original source when the announcement is over.

Notes

- "NO TP" flashes for five seconds if the received station does not broadcast traffic announcements. Then, the unit starts searching for a station that broadcasts it.
- When "EON" appears with "TP" in the display, the current station makes use of broadcast traffic announcement of other stations in the same network.

To cancel the current traffic announcement

Press **(TA)**, **(SOURCE)** or **(MODE)**.
To cancel all traffic announcements, turn off the function by pressing **(TA)** until "TA-OFF" appears.

Presetting the volume of traffic announcements

You can preset the volume level of the traffic announcements beforehand so you won't miss the announcement. When a traffic announcement starts, the volume will be automatically adjusted to the preset level.

- 1 Turn the volume control dial to adjust the desired volume level.
- 2 Press **(TA)** for two seconds.
"TA" appears and the setting is stored.

Receiving emergency announcements

If an emergency announcement comes in while you are listening to the radio, the programme will be automatically switched to it. If you are listening to a source other than the radio, the emergency announcements will be heard if you set AF or TA to ON. The unit will then automatically switch to these announcements no matter which source you are listening to at the time.

Presetting the RDS stations with the AF and TA data

When you preset RDS stations, the unit stores each station's data as well as its frequency, so you don't have to turn on the AF or TA function every time you tune in the preset station. You can select a different setting (AF, TA, or both) for individual preset stations, or the same setting for all preset stations.

Presetting the same setting for all preset stations

- 1 Select an FM band (page 10).
- 2 Press **(AF)** and/or **(TA)** to select "AF-ON" and/or "TA-ON."
Note that selecting "AF-OFF" or "TA-OFF" stores not only RDS stations, but also non-RDS stations.
- 3 Press **(MENU)**, then press either side of **(PRST)** repeatedly until "BTM" appears.

- 4 Press the **(+)** side of **(SEEK/AMS)** until "BTM" flashes.

- 5 Press **(ENTER)**.

Presetting different settings for each preset station

- 1 Select an FM band, and tune in the desired station (page 10).
- 2 Press **(AF)** and/or **(TA)** to select "AF-ON" and/or "TA-ON."
- 3 Press the desired number button until "MEM" appears.
Repeat from step 1 to preset other stations.

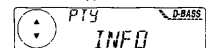
Locating a station by programme type

You can locate the station you want by selecting one of the programme types shown below.

Programme types	Display
News	NEWS
Current Affairs	AFFAIRS
Information	INFO
Sports	SPORT
Education	EDUCATE
Drama	DRAMA
Culture	CULTURE
Science	SCIENCE
Varied	VARIED
Popular Music	POP M
Rock Music	ROCK M
Easy Listening	EASY M
Light Classical	LIGHT M
Classical	CLASSICS
Other Music Type	OTHER M
Weather	WEATHER
Finance	FINANCE
Children's Programmes	CHILDREN
Social Affairs	SOCIAL A
Religion	RELIGION
Phone In	PHONE IN
Travel	TRAVEL
Leisure	LEISURE
Jazz Music	JAZZ
Country Music	COUNTRY
National Music	NATION M
Oldies Music	OLDIES
Folk Music	FOLK M
Documentary	DOCUMENT
Not specified	NONE

Note
You cannot use this function in some countries where no PTY (Programme Type selection) data is available.

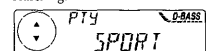
- 1 Press **(DSP/PTY)** during FM reception until "PTY" appears.



The current programme type name appears if the station is transmitting the PTY data. "..." appears if the received station is not an RDS station, or if the RDS data has not been received.

- 2 Press **(PRST)** repeatedly until the desired programme type appears.

The programme types appear in the order shown in the above table. Note that you cannot select "NONE" (Not specified) for searching.

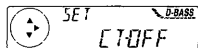


- 3 Press **(ENTER)**.
The unit starts searching for a station broadcasting the selected programme type.

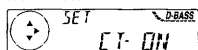
Setting the clock automatically

The CT (Clock Time) data from the RDS transmission sets the clock automatically.

- 1 During radio reception, press (MENU), then press either side of (PRST) repeatedly until "CT" appears.



- 2 Press the (+) side of (SEEK/AMS) repeatedly until "CT-ON" appears. The clock is set.



- 3 Press (ENTER) to return to the normal display.

To cancel the CT function

Select "CT-OFF" in step 2.

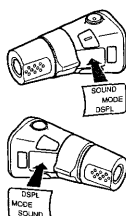
- Notes**
- The CT function may not work even though an RDS station is being received.
 - There might be a difference between the time set by the CT function and the actual time.

Other Functions

You can also control the unit with a rotary commander.

Labelling the rotary commander

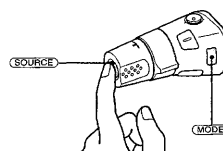
Depending on how you mount the rotary commander, attach the appropriate label as shown in the illustration below.



Using the rotary commander

The rotary commander works by pressing buttons and/or rotating controls.

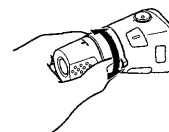
By pressing buttons (the SOURCE and MODE buttons)



Each time you press (SOURCE), the source changes as follows:
Tuner → CD

Pressing (MODE) changes the operation in the following ways:
• Tuner: FM1 → FM2 → FM3 → MW → LW

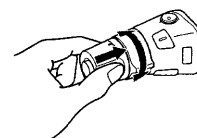
By rotating the control (the SEEK/AMS control)



Rotate the control momentarily and release it to:

- Locate a specific track on a disc. Rotate and hold the control until you locate the specific point in a track, then release it to start playback.
- Tune in stations automatically. Rotate and hold the control to find a specific station.

By pushing in and rotating the control (the PRESET/DISC control)



Push in and rotate the control to:

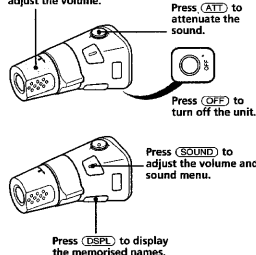
- Receive the stations memorised on the number buttons.
- Change the disc.

17

18

Other operations

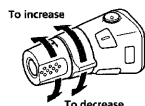
Rotate the VOL control to adjust the volume.



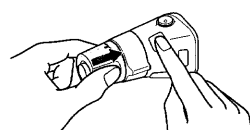
Tip
If your car has no ACC (accessory) position on the ignition key switch, be sure to press (OFF) for two seconds to turn off the clock indication after turning off the engine.

Changing the operative direction

The operative direction of controls is factory-set as shown below.



If you need to mount the rotary commander on the right hand side of the steering column, you can reverse the operative direction.



Press (SOUND) for two seconds while pushing the VOL control.

Tip
You can also change the operative direction of these controls with the unit (see "Changing the sound and display settings" on page 20).

Adjusting the sound characteristics

You can adjust the bass, treble, balance, and fader. You can store the bass and treble levels independently for each source.

- 1 Select the item you want to adjust by pressing (SOUND) repeatedly. Each time you press (SOUND), the item changes as follows:
BAS (bass) → TRE (treble) → BAL (left-right) → FAD (front-rear)
- 2 Adjust the selected item by pressing either side of (SEEK/AMS). When adjusting with the rotary commander, press (SOUND) and rotate the VOL control.

Note
Adjust within three seconds after selecting the item.

Attenuating the sound

Press (ATT) on the rotary commander. "ATT-ON" flashes momentarily.

To restore the previous volume level, press (ATT) again.

Tip
When the interface cable of a car telephone is connected to the ATT lead, the unit decreases the volume automatically when a telephone call comes in (Telephone ATT function). (CDX-4000RX/4000RV only)

Changing the sound and display settings

The following items can be set:

SET (setting)

- CLOCK (page 7)
- CT (Clock Time) (page 17)
- BEEP → to turn the beeps on or off.
- RM (Rotary Commander) → to change the operative direction of the controls of the rotary commander.
— Select "NORM" to use the rotary commander as the factory-set position.
— Select "REV" when you mount the rotary commander on the right side of the steering column.

DIS (display)

- AMBER/GREEN → to change the illumination colour to amber or green. (CDX-4000R/3900R only)
- D.INFO (Dual Information) → to display the clock and the play mode at the same time (ON).
- DIMMER → to dim the display (ON) or not (OFF). (CDX-4000RV only)
- M.DSPL (Motion Display) → to turn the motion display on or off.
- A.SCRL (Auto Scroll) (page 9)

Note
If you connect an optional power amplifier and do not use the built-in amplifier, the beep sound will be disabled.

- 1 Press (MENU).

- 2 Press either side of (PRST) repeatedly until the desired item appears. Each time you press the (-) side of (PRST), the item changes as follows:

CLOCK → CT → BEEP → RM → AMBER/GREEN*1 → D.INFO → DIMMER*2 → M.DSPL → A.SCRL*3

*1 CDX-4000R/3900R only

*2 CDX-4000RV only

*3 When no CD TEXT disc is playing, this item will not appear.

Note
The displayed item will differ depending on the source.

Tip
You can easily switch among categories ("SET", "DIS", "PIM" (play mode), and "EDT" (edit mode)) by pressing either side of (PRST) for two seconds.

- 3 Press the (+) side of (SEEK/AMS) to select the desired setting (Example: ON or OFF).
- 4 Press (ENTER). After the mode setting is completed, the display returns to normal play mode.

19

20

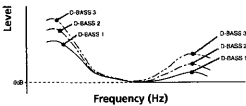
Boosting the bass sound

— D-bass

You can enjoy a clear and powerful bass sound.

The D-bass function boosts the low and high frequency signal with a sharper curve than conventional bass boost.

You can hear the bass line more clearly even while the vocal volume remains the same. You can emphasize and adjust the bass sound easily with the D-BASS button.



Adjusting the bass curve

Press **(D-BASS)** repeatedly until the desired bass level (1, 2, or 3) appears in the display.

To cancel, select "D.BASS-OFF."

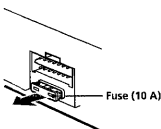
Note
If the bass sound becomes distorted, select a less effective setting of "D.BASS" or adjust the volume.

Additional Information

Maintenance

Fuse replacement

When replacing the fuse, be sure to use one matching the amperage rating stated on the original fuse. If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In such a case, consult your nearest Sony dealer.

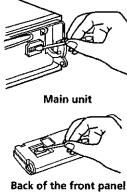


Warning

Never use a fuse with an amperage rating exceeding the one supplied with the unit as this could damage the unit.

Cleaning the connectors

The unit may not function properly if the connectors between the unit and the front panel are not clean. In order to prevent this, open the front panel by pressing **(OPEN)**, then detach it and clean the connectors with a cotton swab dipped in alcohol. Do not apply too much force. Otherwise, the connectors may be damaged.



Notes

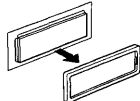
- For safety, turn off the engine before cleaning the connectors, and remove the key from the ignition switch.
- Never touch the connectors directly with your fingers or with any metal device.

Dismounting the unit

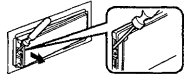
1 Press the clip inside the front cover with a thin screwdriver, and gently pry the front cover free.



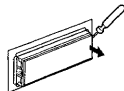
2 Repeat step 1 on the left side. The front cover is removed.



3 Use a thin screwdriver to push in the clip on the left side of the unit, then pull out the left side of the unit until the catch clears the mounting.



4 Repeat step 3 on the right side.



5 Slide the unit out of the mounting.



Connections

Cautions

- This unit is designed for negative ground 12 V DC operation only.
- Be careful not to pinch any wires between the screw and the body of the car, or this unit, or between any moving parts such as the seat railing, etc.
- Connect the power connecting cord ⑩ to the unit and speakers before connecting it to the auxiliary power connector.
- Run all ground wires to a common ground point.
- Connect the yellow cord to a free car circuit rated higher than the unit's fuse rating. If you connect this unit in combination with other stereo components, the car circuit they are connected to must be rated higher than the sum of the individual components' fuse rating. If there are no car circuits rated as high as the unit's fuse rating, connect the unit directly to the battery. If no car circuits are available for connecting this unit, connect the unit to a car circuit rated higher than the unit's fuse rating in such a way that if the unit blows its fuse, no other circuits will be cut off.

Notes of connection example

Notes on the control leads

- The power aerial control lead (blue) supplies +12 V DC when you turn on the tuner or when you activate the AF (Alternative Frequency), TA (Traffic Announcement) function.
- A power aerial without a relay box cannot be used with this unit.
- When your car has built-in FM/MW/LW aerial in the rear/side glass, it is necessary to connect the power aerial control lead (blue) or the accessory power input lead (red) to the power terminal of the existing aerial booster. For details, consult your dealer.

Warning

If you have a power aerial without a relay box, connecting this unit with the supplied power connecting cord ⑩ may damage the aerial.

Memory hold connection

When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection

- Before connecting the speakers, turn the unit off.
- Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.
- Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.
- Do not attempt to connect the speakers in parallel.
- Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers.
- Therefore, be sure to connect passive speakers to these terminals.

Warning when installing in a car without ACC (accessory) position on the ignition key switch

Be sure to press **OFF** on the unit for two seconds to turn off the clock display after turning off the engine.

When you press **OFF** only momentarily, the clock display does not turn off and this causes battery wear.

Connection diagram

- Notes**
- Be sure to connect the ground cord before connecting the amplifier.
 - If you connect an optional power amplifier and do not use the built-in amplifier, the beep sound will be deactivated.

- Notas**
- Asegúrese de conectar primero el cable de puesta a masa antes de realizar la conexión al amplificador.
 - Si conecta un amplificador de potencia opcional y no utiliza el incorporado, los pitidos se desactivarán.

- Observe**
- Var noga med att först ansluta jorden, innan du ansluter förstärkaren.
 - Om du väljer att använda en annan förstärkare i stället för den inbyggda, kommer ljudsignalen att avaktiveras.

- Notas**
- Antes de fazer a ligação ao amplificador tem de ligar primeiro o cabo de ligação à massa.
 - Se ligar um amplificador de potência opcional e não utilizar o amplificador integrado, desactiva o sinal sonoro.

Conexiones

Precauciones

- Esta unidad ha sido diseñada para alimentarse con 12 V CC, negativo a masa, solamente.
- Tenga cuidado de no atrapar ningún cable entre algún tornillo y la carrocería del automóvil o esta unidad o entre las partes móviles, como por ejemplo los rieles del asiento, etc.
- Conecte el cable de conexión de alimentación ⑩ a la unidad y los altavoces antes de conectarlo al conector de alimentación auxiliar.
- Conecte todos los conductores de puesta a masa a un punto común.
- Conecte el cable amarillo a un circuito libre del automóvil de potencia nominal superior a la del fusible de la unidad. Si conecta esta unidad en combinación con otros componentes estéreo, la potencia nominal del circuito del automóvil a los que dichos componentes estén conectados debe ser superior a la suma de la potencia nominal del fusible de los componentes. Si no existen circuitos de automóvil de potencia nominal tan alta como la del fusible de la unidad, conecte ésta directamente a la batería. Si no hay circuitos de automóvil disponibles para conectar esta unidad, conecte la misma a un circuito de automóvil de potencia nominal superior a la del fusible de la unidad de forma que no se desactiven otros circuitos si el fusible de dicha unidad se funde.

Notas de ejemplo de conexiones

Notas sobre conductores de control

- El conductor (azul) de control de la antena motorizada suministra +12 V CC al encender el sintonizador o al activar la función AF (Frecuencias alternativas) o TA (Anuncios de tráfico).
- Con esta unidad no podrá utilizarse una antena motorizada sin caja de relés.
- Si el automóvil dispone de una antena de FM/MW/LW incorporada en el cristal trasero/lateral, será necesario conectar el cable de control de antena motorizada (azul) o el cable de entrada de alimentación auxiliar (rojo) al terminal de alimentación del amplificador de antena existente. Para obtener información detallada, consulte a su proveedor.

Advertencia

Si dispone de una antena motorizada sin dispositivo de relé, la conexión de esta unidad con el cable de conexión de alimentación ⑩ suministrado puede dañar la antena.

Conexión para protección de la memoria

Si conecta el conductor de entrada amarillo, el circuito de la memoria recibirá siempre alimentación, incluso aunque ponga la llave de encendido en la posición de apagado.

Notas sobre la conexión de los altavoces

- Antes de conectar los altavoces, desconecte la alimentación de la unidad.
- Utilice altavoces con una impedancia de 4 a 8 ohmios, y con la potencia máxima admisible adecuada, ya que de lo contrario podría dañarlos.
- No conecte los terminales del sistema de altavoces al chasis del automóvil, ni los del altavoz izquierdo a los del derecho.
- No intente conectar los altavoces en paralelo.
- No conecte altavoces activos (con amplificadores incorporados) a los terminales de altavoces de la unidad. Si lo hiciera, podría dañar tales altavoces. Por lo tanto, cerciórese de conectar altavoces pasivos a estos terminales.

Advertencia sobre la instalación en un automóvil que no disponga de posición ACC (accesorios) en el interruptor de la llave de encendido

Asegúrese de pulsar **OFF** en la unidad durante dos segundos para desactivar la indicación del reloj después de apagar el motor. Si pulsa **OFF** sólo momentáneamente, la indicación del reloj no se desactivará y esto causará el desgaste de la batería.

Diagrama de conexiones

Anslutning

Säkerhetsföreskrifter

- Denna bilsterö är endast avsedd för anslutning till ett negativt jordat, 12 V bilbatteri.
- Var noga med att inga kablar kläms mellan någon skruv eller att de blir klämda mellan rörliga delar som t.ex. bilsätet.
- Anslut strömkabeln ⑩ till enheten och högtalarna innan du ansluter den till den yttre strömanslutning.
- Dra samtliga jordledningar till en och samma jordningspunkt.
- Anslut den gula kabeln till en ledig bilkrets med en högre ampere än enhetens. Om du seriekopplar enheten till andra stereokomponenter måste den bilkrets de kopplas till ha en högre ampere än summan av de enskilda delarnas amperestyrka. Om det inte finns några bilkretsar med en så hög amperestyrka som enhetens ska du ansluta enheten direkt till batteriet. Om inga bilkretsar finns för anslutning till enheten ska du ansluta enheten till en bilkrets med en högre ampere än enhetens styrka så att inga andra säkringar går om enhetens säkring smälter.

Att observera angående anslutningsexempen

Att observera angående de olika styrkablarna

- Motorantennens strykabel (blå) leder +12 V DC när du slår på radion och när du aktiverar någon av funktionerna AF (alternativ frekvens) eller TA (trafikmeddelanden).
- En motorantenn utan styrreläbox kan inte anslutas till denna bilsterö.
- Om bilen har en FM/MW/LW-antenn inbyggd i bak- eller sidorutan måste du ansluta motorantennens strykabel (blå) eller strömkabeln för tillbehör (röd) till strömterminalen på den befintliga antennförstärkaren. Din återförsäljare kan ge dig mer information om detta.

Varning

Om du har en motorantenn utan reläbox kan antennen skadas om du ansluter enheten med den medföljande strömkabeln ⑩.

Anslutning för minnesstöd

När du ansluter den gula, ingående strömkabeln försörjs minneskretsen med ström hela tiden, även när tändlåset slås ifrån.

Att observera angående högtalarnas anslutning

- Slå av bilsteroen innan du ansluter högtalarna.
- Anslut endast högtalare, vars impedans varierar från 4 till 8 ohm och som har tillräcklig effekthanteringskapacitet för att skydda högtalarna mot skador.
- Anslut inte något av högtalaruttagen till bilens chassi. Anslut inte heller uttagen på höger högtalare till uttagen på vänster högtalare.
- Anslut inte högtalarna parallellt.
- Anslut inte aktiva högtalare (med inbyggda slutsteg) till bilsteroen högtalaruttag, eftersom de kan skada de aktiva högtalarna. Var noga med att bara ansluta passiva högtalare till dessa uttag.

Var försiktig när du gör installationen i en bil där tändningslåset saknar tillbehörslåge (ACC)

Glöm inte att stänga av klockvisningen när du har stängt av motorn. Du stänger av den genom att trycka på **OFF** på enheten under två sekunder. Om du bara trycker på **OFF** ett kort ögonblick slöcknar inte klockans teckenfönster, vilket leder till att batteriet laddas ur.

Kopplingsschema

Ligações

Advertência

- Este aparelho foi concebido para funcionar somente com corrente contínua de 12 V com negativo à massa.
- Tenha cuidado para que os fios não fiquem entalados entre os parafusos e a carroçaria do automóvel ou a caixa do aparelho nem entre as peças móveis, por exemplo, as calhas dos bancos, etc.
- Ligue o cabo de alimentação de corrente ⑩ ao aparelho e aos alifalantes antes de o ligar ao conector de corrente auxiliar.
- Ligue todos os fios de terra num ponto de massa comum.
- Ligue o cabo amarelo a um circuito eléctrico livre do automóvel, cuja tensão seja superior à dos fusíveis do aparelho. Se ligar este aparelho em série com outros componentes estéreo, a tensão do circuito eléctrico do automóvel onde os ligar tem de ser superior à soma das tensões dos fusíveis de todos os componentes individuais. Se não houver nenhum circuito eléctrico do automóvel com uma tensão tão elevada como a dos fusíveis do aparelho, ligue-o directamente à bateria. Se não estiver disponível nenhum circuito eléctrico do automóvel para ligação deste aparelho, ligue-o a um circuito eléctrico do automóvel com uma potência nominal superior à dos fusíveis do aparelho, de tal modo que, se o aparelho reberar os fusíveis respectivos, nenhum outro circuito seja cortado.

Notas sobre o exemplo de ligação

Notas sobre os fios de controlo

- O fio de controlo da antena eléctrica (azul) fornece +12 V DC quando ligar o sintonizador ou quando activar a função AF (Frequência alternativa), TA (Informações sobre o trânsito).
- Com este aparelho, não pode utilizar uma antena eléctrica sem relé.
- Se o automóvel tiver uma antena FM/MW/LW integrada no vidro traseiro/lateral, é necessário ligar o fio de controlo da antena eléctrica (azul) ou o cabo de alimentação para acessórios (vermelho) ao terminal eléctrico do amplificador de sinal de antena existente.

Atenção

Se a antena eléctrica não tiver uma caixa de relé, o facto de ligar este aparelho com o cabo de alimentação ⑩ fornecido, pode provocar danos na antena.

Ligação para alimentação continua da memória

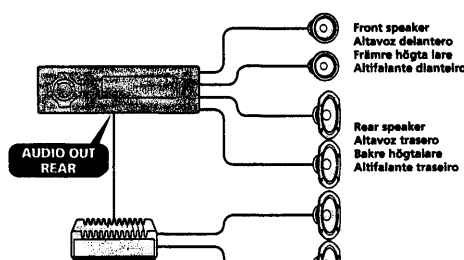
Quando o fio amarelo de entrada de alimentação for ligado, os circuitos de memória ficarão com alimentação continua, mesmo se a chave de ignição estiver desligada.

Notas sobre a ligação dos alifalantes

- Antes de ligar os alifalantes, desligue o aparelho.
- Utilize alifalantes com impedância de 4 a 8 ohm, e com capacidade admnível de potência adequada. Caso contrário, os alifalantes poderão sofrer avarias.
- Não ligue os terminais do sistema de alifalantes ao chassi do automóvel, e não ligue os terminais do alifalante direito aos terminais do alifalante esquerdo.
- Não tente ligar os alifalantes em paralelo.
- Não ligue nenhum sistema de alifalantes activos (com amplificadores incorporados) aos terminais dos alifalantes do aparelho. Se o fizer, pode avariar o sistema de alifalantes activos. Portanto, não se esqueça de ligar alifalantes passivos a estes terminais.

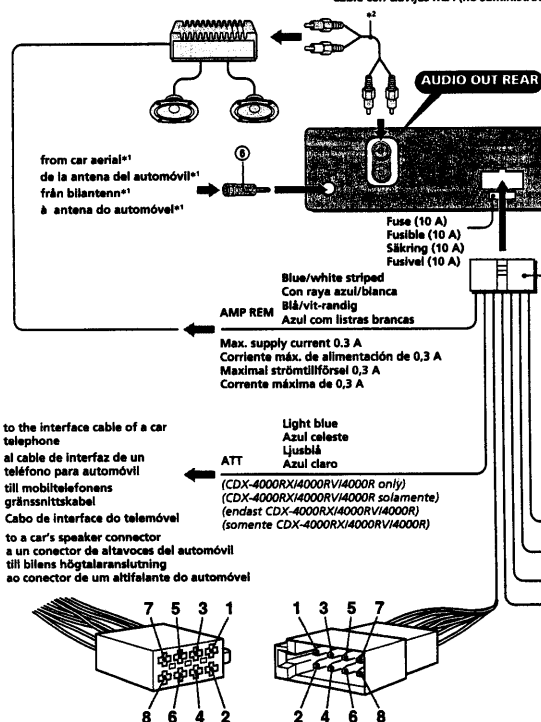
Aviso sobre a instalação num automóvel sem posição ACC (acessórios) na chave de ignição
Carregue em **OFF** no aparelho durante dois segundos para desligar o relógio, depois de desligar o motor. Se carregar em **OFF** menos de dois segundos, o visor do relógio não se apaga o que provoca o desgaste da bateria.

Diagrama de ligações



Connection example

- *1 Note for the aerial connecting
If your car aerial is an ISO (International Organization for Standardization) type, use the supplied adaptor ① to connect it.
First connect the car aerial to the supplied adaptor, then connect it to the aerial jack of the master unit.
*2 RCA pin cord (not supplied)



Ejemplo de conexiones

- *1 Nota sobre la conexión de la antena
Si la antena del automóvil es del tipo ISO (International Organization for Standardization), emplee el adaptador suministrado ① para conectarla.
En primer lugar, conecte la antena del automóvil al adaptador suministrado y, a continuación, a la toma de antena de la unidad principal.
*2 Cable con clavijas RCA (no suministrado)

Anslutningarna enligt exemplet

- *1 Angående antennanslutning
Om motorantennen är av ISO-typ (International Organization for Standardization), använd den medföljande adapter ① för att ansluta den.
Anslut först motorantennen till medföljande adapter och därefter till antennuttaket på huvudenheten.
*2 Kabel med RCA-kontakter (medföljer inte)

Exemplo de ligações

- *1 Nota referente à ligação da antena
Se a antena do automóvel for uma antena de tipo ISO (International Organization for Standardization), utilize o adaptador fornecido ① para fazer a ligação respectiva.
Ligue primeiro a antena do automóvel ao adaptador fornecido e depois à ficha tipo jack de antena do sistema principal.
*2 Cabo de terminais RCA (não fornecido)

WARNING

Auxiliary power connectors may vary depending on the car. Be sure to check the power connection diagram. Improper connections may damage your car. If the supplied power connecting cord can not be used with your car, consult your nearest Sony dealer.

WARNING

Typen av yttre strömanslutning varierar från bil till bil. Kontrollera strömanslutningsschemat som medföljer enheten så att du ansluter på rätt sätt. Felaktig anslutning kan skada bilen. Kontakta närmaste Sony-återförsäljare om den medföljande strömkabeln inte passar till din bil.

ADVERTENCIA

Los conectores de alimentación auxiliar pueden variar en función del automóvil. Asegúrese de consultar el diagrama de conexión de alimentación. Las conexiones incorrectas pueden dañar el automóvil. Si no es posible utilizar con el automóvil el cable de conexión de alimentación suministrado, póngase en contacto con el proveedor Sony más próximo.

Advertência

Os conectores de corrente auxiliares podem variar de carro para carro. Não se esqueça de verificar o diagrama de ligação de corrente fornecido com o aparelho. As ligações mal executadas podem danificar o seu carro. Se não puder utilizar o cabo de alimentação fornecido no seu carro, contacte o agente Sony da sua zona.

1	Purple Púrpura Violeta	+	Speaker, Rear, Right Altavoz, parte posterior, derecho Högtalare, bakre, höger Altifalante, Parte de trás, Direito	5	White Blanco Vite	+	Speaker, Front, Left Altavoz, parte frontal, izquierdo Högtalare, främre, vänster Altifalante, Parte da frente, Esquerdo
2		-	Speaker, Rear, Right Altavoz, parte posterior, derecho Högtalare, bakre, höger Altifalante, Parte de trás, Direito	6		-	Speaker, Front, Left Altavoz, parte frontal, izquierdo Högtalare, främre, vänster Altifalante, Parte da frente, Esquerdo
3	Grey Gris Cinabto	+	Speaker, Front, Right Altavoz, parte frontal, derecho Högtalare, bakre, höger Altifalante, Parte da frente, Direito	7	Green Verde Grön	+	Speaker, Rear, Left Altavoz, parte posterior, izquierdo Högtalare, bakre, vänster Altifalante, Parte de trás, Esquerdo
4		-	Speaker, Front, Right Altavoz, parte frontal, derecho Högtalare, bakre, höger Altifalante, Parte da frente, Direito	8		-	Speaker, Rear, Left Altavoz, parte posterior, izquierdo Högtalare, bakre, vänster Altifalante, Parte de trás, Esquerdo

Negative polarity positions 2, 4, 6, and 8 have striped cords.
Las posiciones de polaridad negativa 2, 4, 6 y 8 tienen cables con raya.
De negativitetspositionerna 2, 4, 6 och 8 har randiga kablar.
As posições 2, 4, 6 e 8 (polaridade negativa) têm cabos às riscas.

4	Yellow Amarillo Gul Amarelo	continuous power supply suministro de alimentación continua kontinuerlig strömförsörjning alimentação de corrente continua	7	Red Rojo Röd Vermelho	switched power supply suministro conmutado de alimentación switchad strömförsörjning alimentação de corrente comutada
5	Blue Azul Bla Azul	power aerial control control de antena motorizada styrning av motorantenn antena eléctrica	8	Black Negro Svart Preto	ground toma de tierra jord Terra
6	Orange/White Naranja/blanco Orange/vit Cor de laranja/branco	switched illumination power supply fuente de alimentación de iluminación conmutada Switchad strömförsörjning till belysning fonte de alimentação comutada para iluminação	Positions 1, 2 and 3 do not have pins. Las posiciones 1, 2 y 3 no disponen de pines. Positionerna 1, 2 och 3 saknar stift. As posições 1, 2 e 3 não têm pins.		

Power connection diagram

Auxiliary power connector may vary depending on the car. Check your car's auxiliary power connector diagram to make sure the connections match correctly. There are three basic types (illustrated below). You may need to switch the positions of the red and yellow leads in the car stereo's power connecting cord.
After matching the connections and switched power supply lead correctly, connect the unit to the car's power supply. If you have any questions and problems connecting your unit that are not covered in this manual, please consult the car dealer.

Diagrama de conexión de alimentación

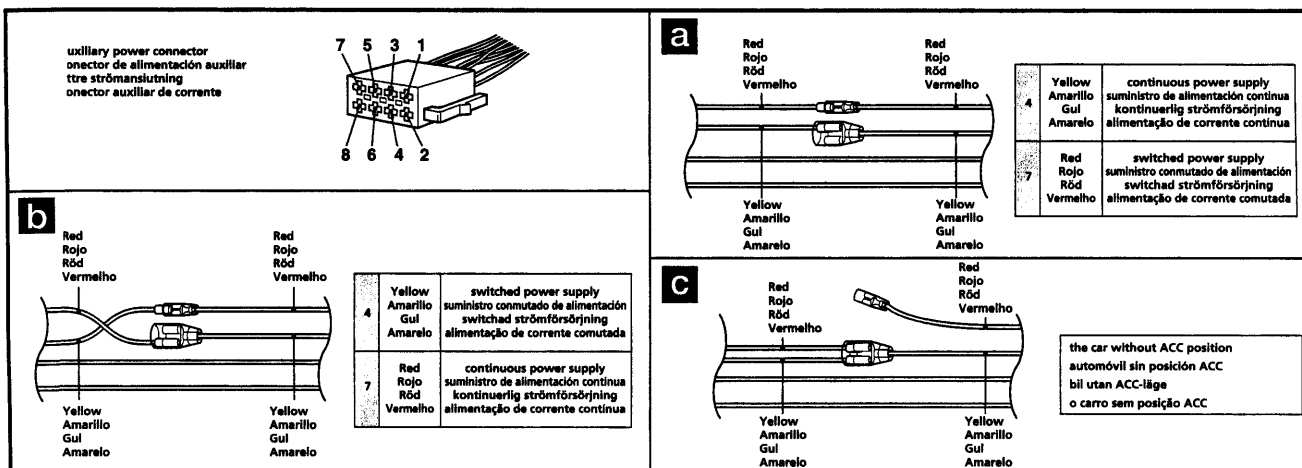
El conector de alimentación auxiliar puede variar en función del automóvil. Compruebe el diagrama del conector de alimentación auxiliar del automóvil para asegurarse de que las conexiones coinciden correctamente. Existen tres tipos básicos, ilustrados a continuación. Es posible que sea necesario cambiar las posiciones de los cables rojo y amarillo del cable de conexión de alimentación del sistema estereo del automóvil.
Después de hacer coincidir correctamente las conexiones y los cables de alimentación conmutada, conecte la unidad al suministro de alimentación del automóvil. Si desea realizar alguna consulta o solucionar algún problema referente a la conexión de la unidad que no aparezcan en este manual, consulte con el concesionario automovilístico.

Strömanslutningsschema

Kontakten för anslutning av tillbehör varierar från bil till bil. Kontrollera hur bilens anslutningskontakt är konstruerad så att du ansluter på rätt sätt. Det finns tre grundläggande typer (visas nedan). Du kan eventuellt behöva växla plats mellan de röda och gula ledningarna i bilens strömkabel. Passa ihop ledningarna korrekt och anslut sedan enheten till bilens strömanslutning. Om du får problem eller har frågor som inte besvaras i den här bruksanvisningen kan du kontakta bil återförsäljaren.

Diagrama de ligação de corrente

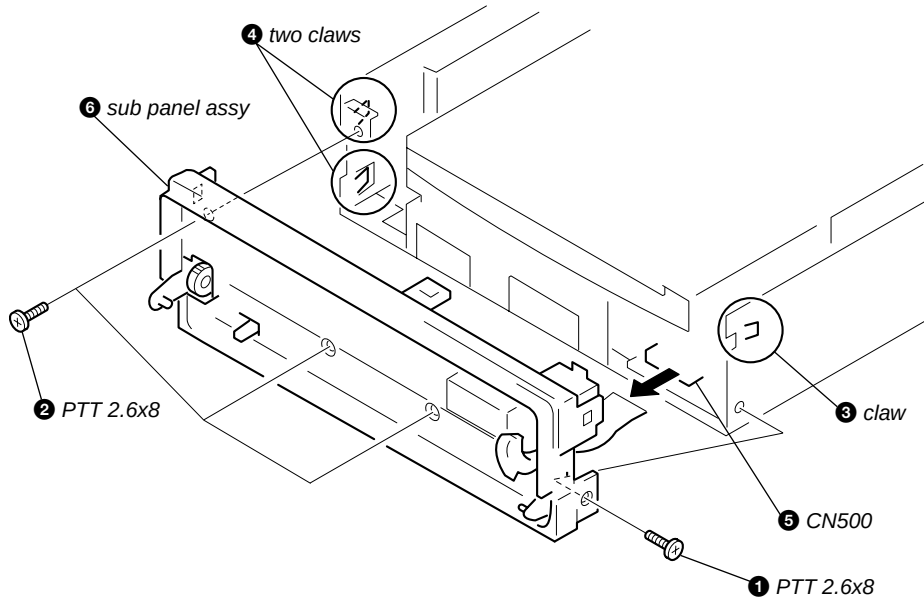
O conector auxiliar de corrente pode variar de carro para carro. Verifique o diagrama do conector auxiliar de corrente para se certificar de que as ligações estão bem feitas. Existem três tipos de conectores (ilustrados abaixo). É possível que tenha de trocar as posições dos fios vermelho e amarelo do cabo de alimentação do autorádio. Depois de fazer a correspondência correcta entre as ligações e os cabos de alimentação conmutada, ligue o aparelho à fonte de alimentação do carro. Se tiver alguma dúvida ou problema relacionado com o aparelho que não esteja incluído neste manual, consulte o concessionário.



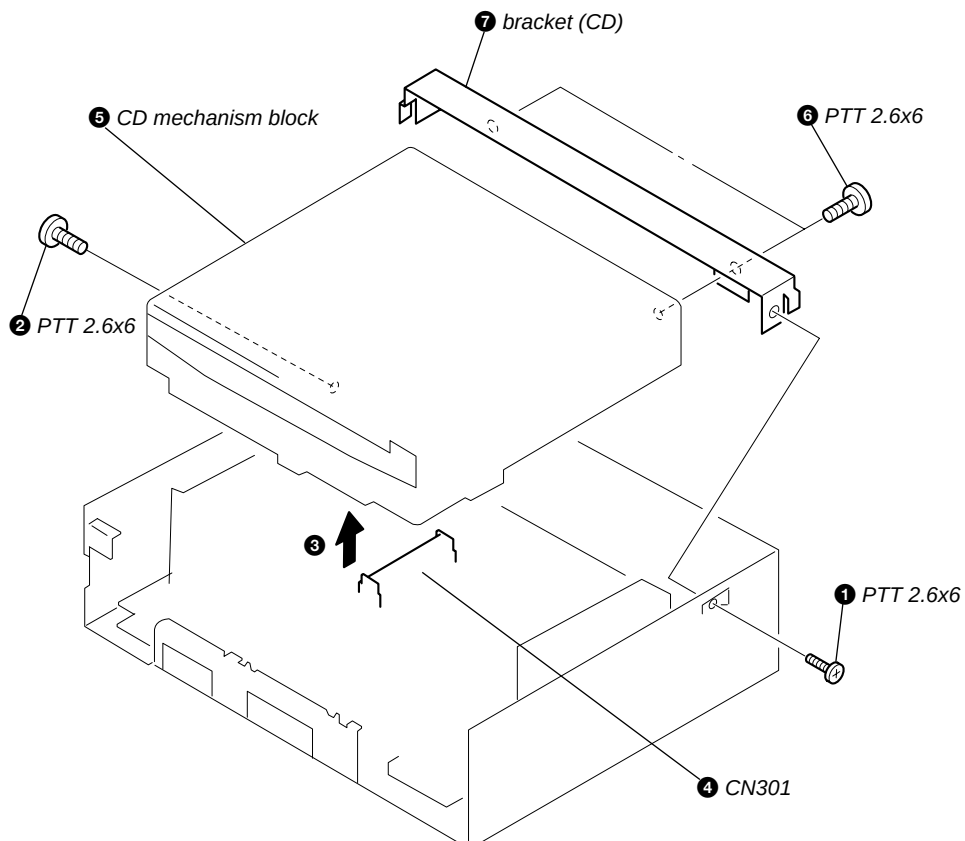
SECTION 2 DISASSEMBLY

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

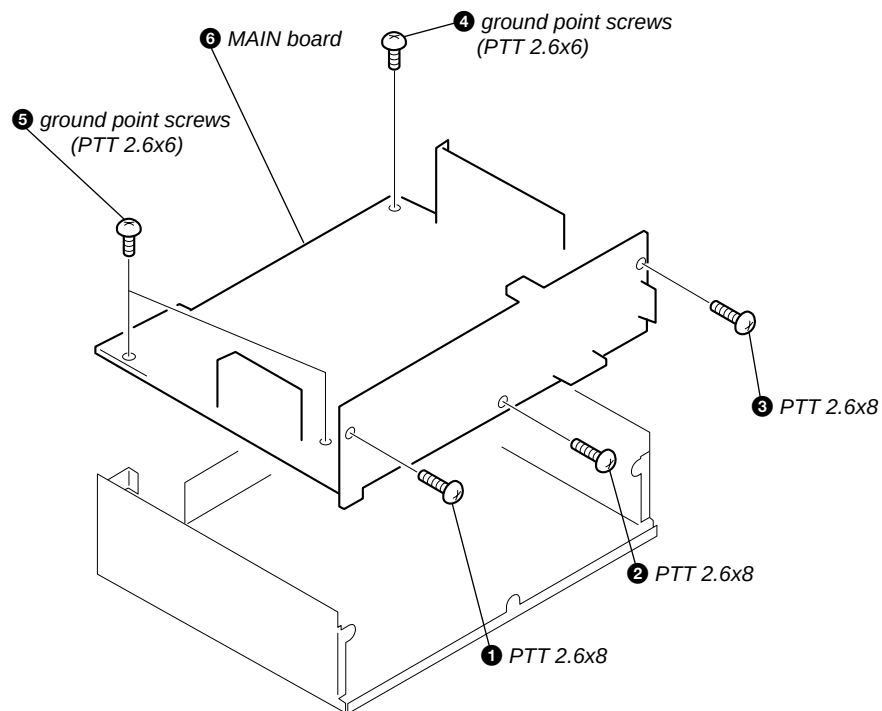
2-1. SUB PANEL ASSY



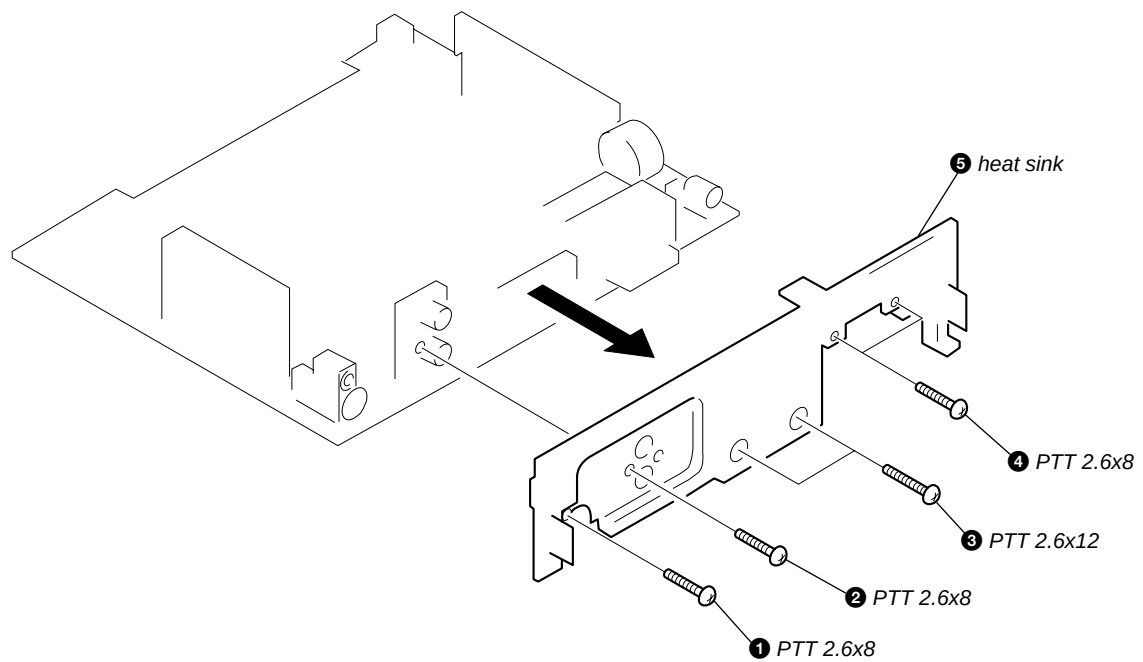
2-2. CD MECHANISM BLOCK



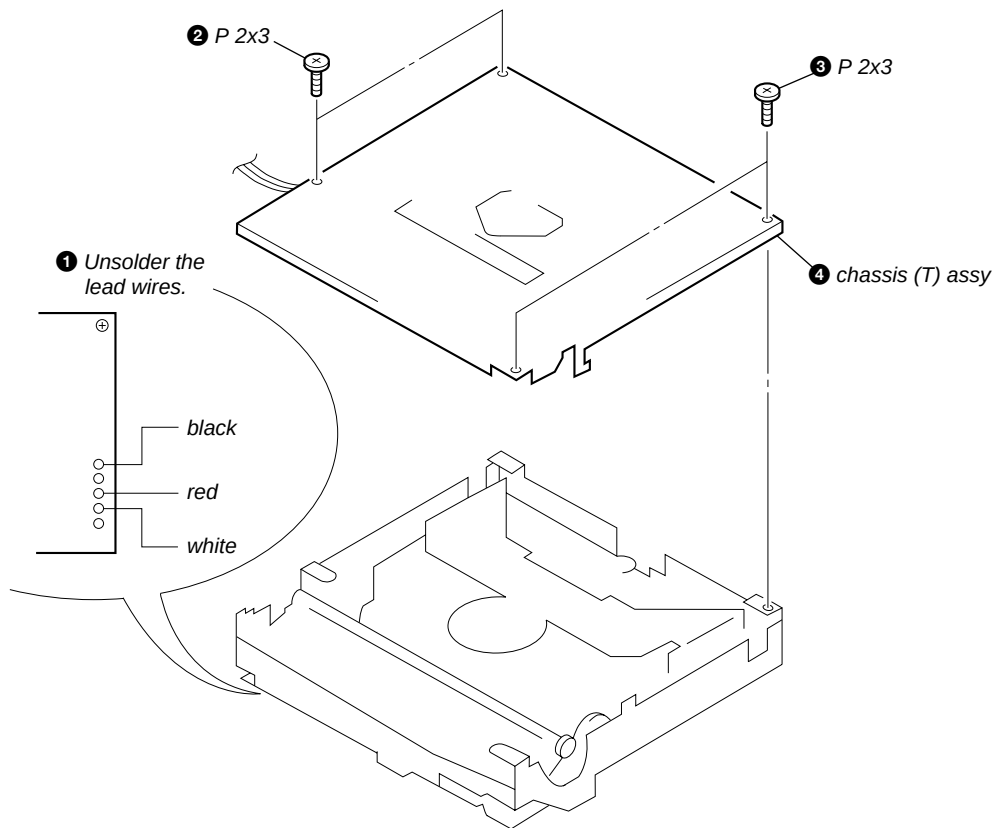
2-3. MAIN BOARD



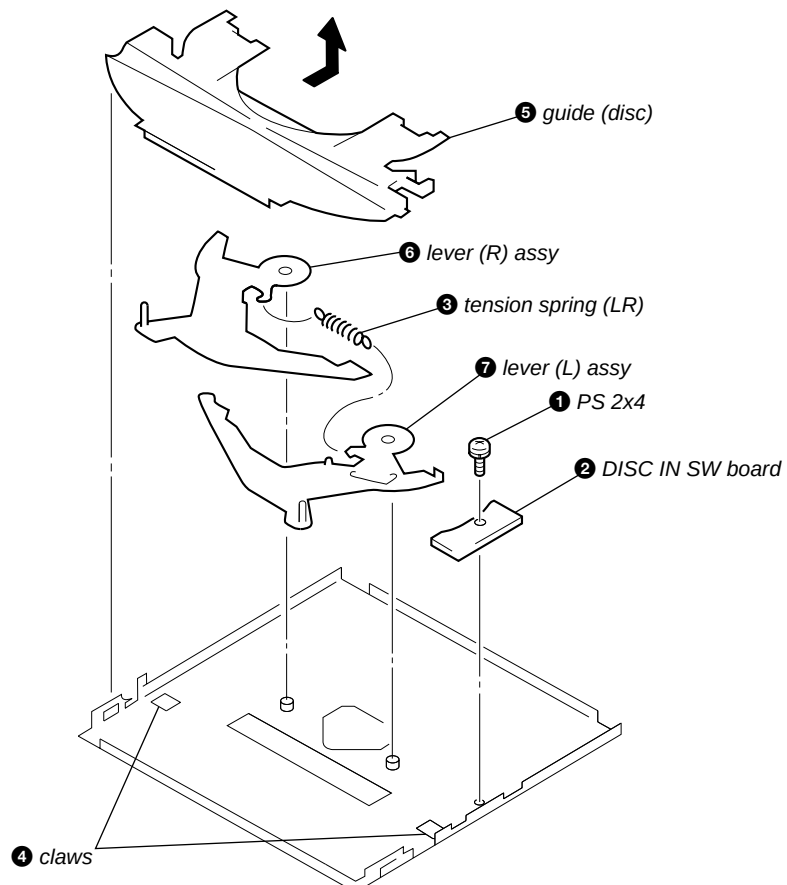
2-4. HEAT SINK



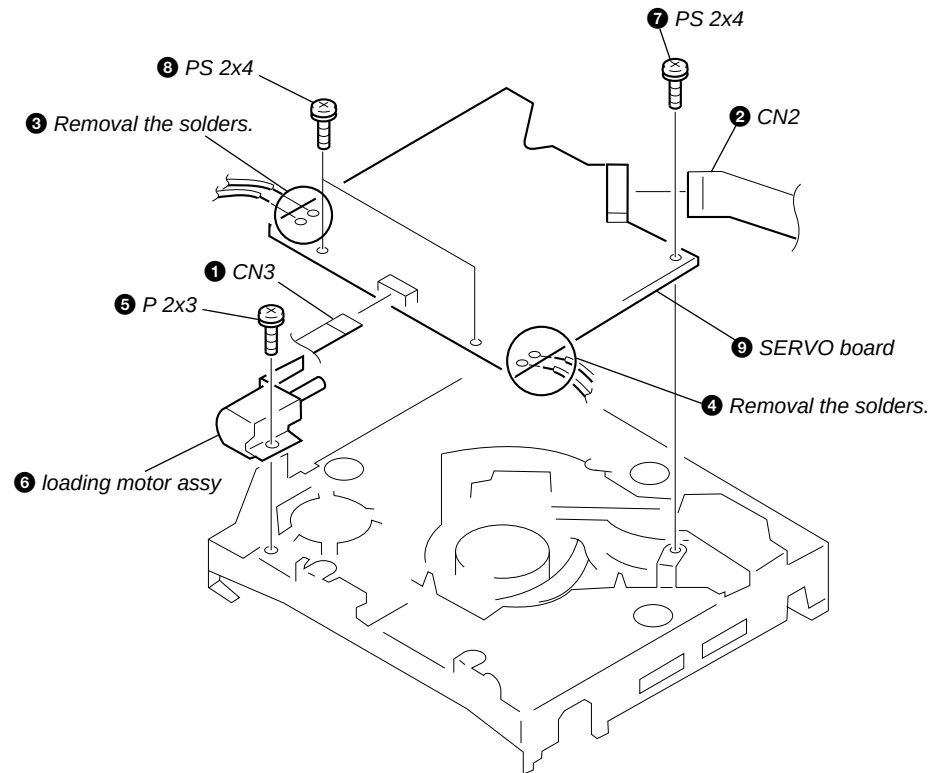
2-5. CHASSIS (T) ASSY



2-6. LEVER ASSY

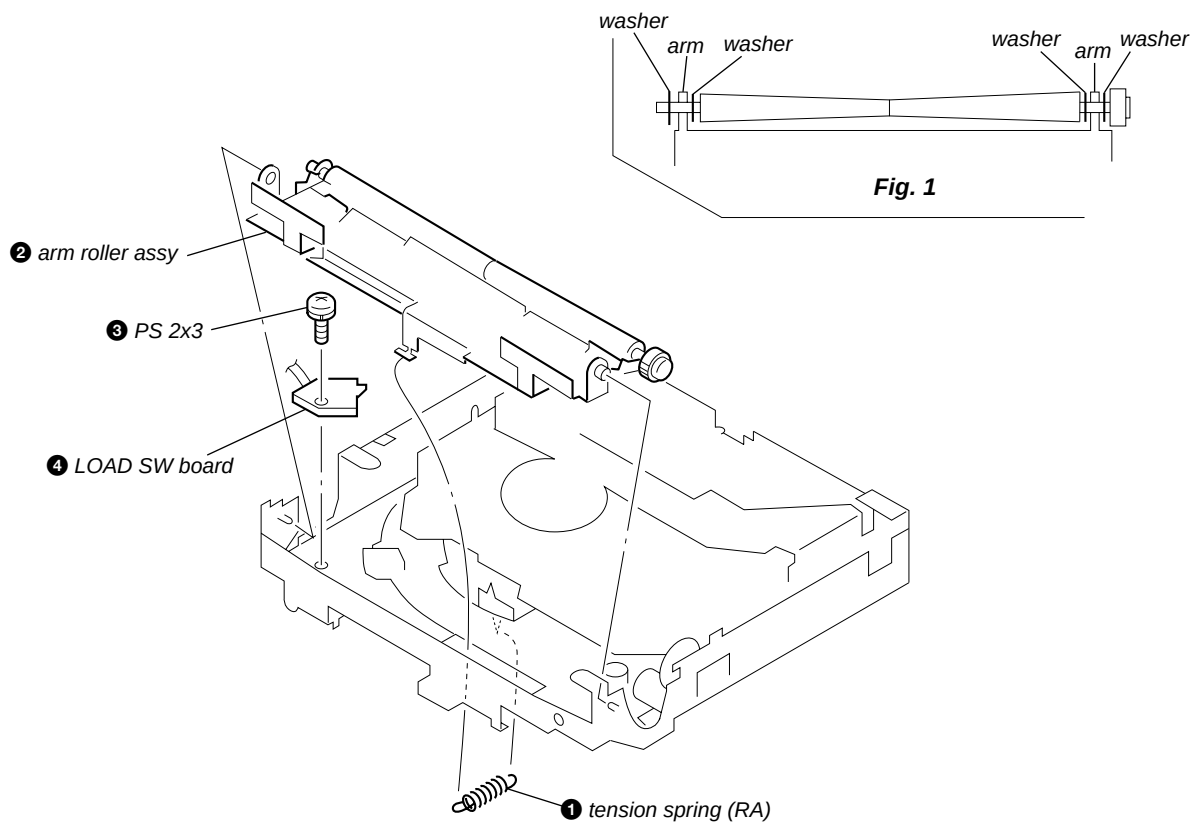


2-7. SERVO BOARD

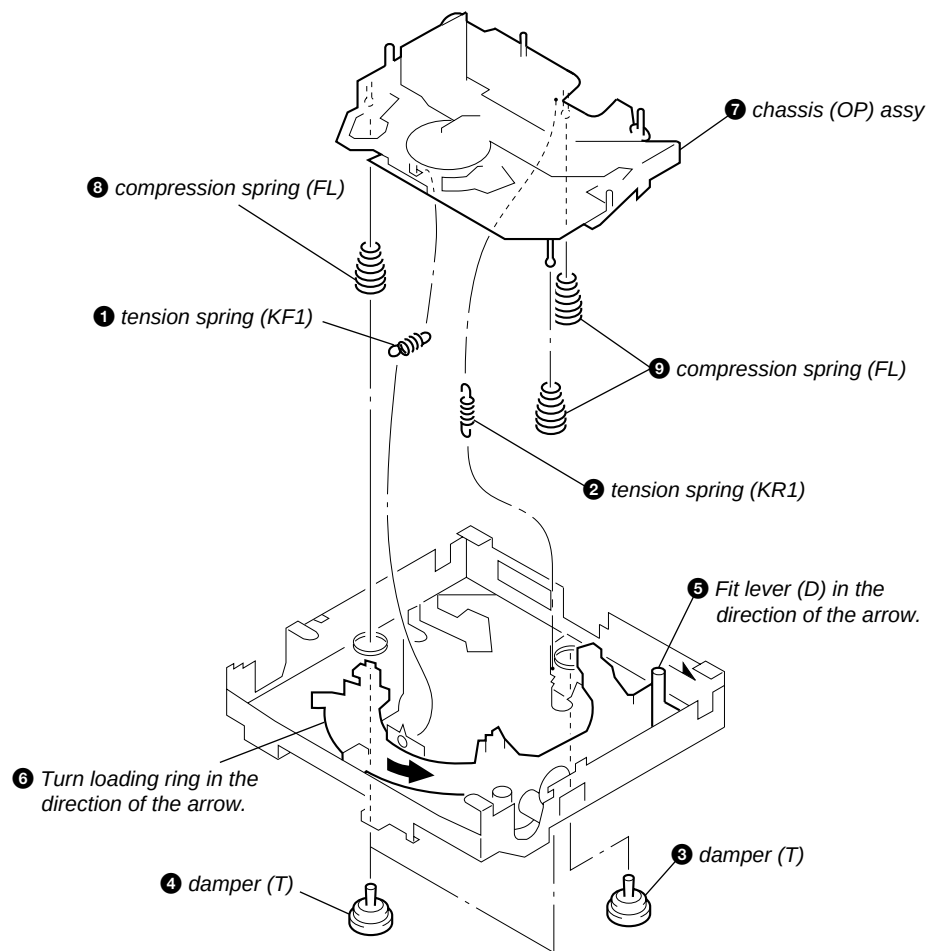


2-8. ARM ROLLER ASSY

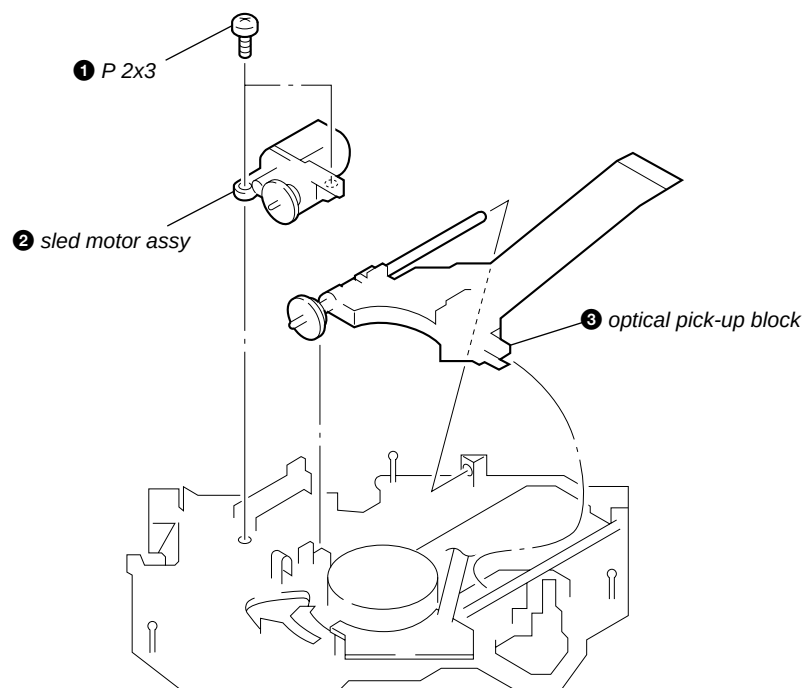
- When installing, take note of the positions arm (roller) and washers. (Fig. 1)



2-9. CHASSIS (OP) ASSY



2-10. OPTICAL PICK-UP BLOCK



SECTION 3 DIAGRAMS

3-1. IC PIN DESCRIPTIONS

• IC501 CXD2598Q (DIGITAL SERVO, DIGITAL SIGNAL PROCESSOR) (SERVO BOARD)

Pin No.	Pin Name	I/O	Pin Description
1	DVDD	—	Digital power supply pin
2	DVSS	—	Digital ground
3	SOUT	O	Servo brock serial data output (Not used.)
4	SOCK	O	Servo brock serial data read clock output (Not used.)
5	XOLT	O	Servo brock serial data latch output (Not used.)
6	SQSO	O	Sub Q 80 bit, PCM peak and level data output. CD TEXT data output
7	SQCK	I	Clock input from SQSO read output.
8	SCSY	I	Fixed at “L”.
9	SBSO	O	Serial output of sub-P to W. (Not used.)
10	EXCK	I	Clock input from SBSO read output. (Fixed at “L”)
11	XRST	I	System reset (“L”: Reset)
12	STSM	I	System mute input (Fixed at “L”)
13	DATA	I	Serial data input from CPU.
14	XLAT	I	Latch input from CPU. Latch serial data at the falling edge.
15	CLOK	I	Serial data transfer clock input from CPU.
16	SENS	O	SENS output for CPU.
17	SCLK	I	Clock input from SENS serial data read.
18	ATSK	I/O	Input/output for anti-shock.
19	WFCK	O	WFCK (Write Flame Clock) output (Not used.)
20	XUGF	O	XUGF output (Not used.)
21	XPCK	O	XPCK output (Not used.)
22	GFS	O	GFS output
23	C2PO	O	C2PO output (Not used.)
24	SCOR	O	“H” output at either detection, sub code sync S0 or S1.
25	C4M	O	4.2336 MHz output (Not used.)
26	WDCK	O	Word clock input $f=2F_s$ (Not used.)
27	COUT	I/O	Track number count signal input/output (Not used.)
28	MIRR	I/O	Mirror signal input/output (Not used.)
29	DVSS	—	Digital ground
30	DVDD	—	Digital power supply pin
31	DFCT	I/O	Diffect signal input/output (Not used.)
32	FOK	I/O	Focus OK signal output
33	PWM1	I	External control input of spindle motor.
34	LOCK	I/O	Lock signal input/output
35	MDP	O	Servo control output of spindle motor.
36	SSTP	I	Disc most inner track detection signal input
37	FSTIO	I/O	2/3 frequency division output of pins ⑧⑥ and ⑧⑦. (Not used.)
38	SFDR	O	Sled drive output
39	SRDR	O	Sled drive output
40	TFDR	O	Tracking drive output
41	TRDR	O	Tracking drive output
42	FFDR	O	Focus drive output
43	FRDR	O	Focus drive output
44	DVDD	—	Digital power supply pin
45	DVSS	—	Digital ground
46	TEST	I	Test pin (Fixed at “L”)
47	TES1	I	Test pin (Fixed at “L”)
48	XTSL	I	X’tal select input (“L”: 16.9344 MHz, “H”: 33.8688 MHz)
49	VC	I	Center voltage input
50	FE	I	Focus error signal input
51	SE	I	Sled error signal input

Pin No.	Pin Name	I/O	Pin Description
52	TE	I	Tracking error signal input
53	CE	I	Center servo analog input
54	RFDC	I	RF signal input
55	ADIO	O	Test pin (Not used.)
56	AVSSO	—	Analog ground
57	IGEN	I	Constant current input from OP amplifier.
58	AVDDO	—	Analog ground
59	ASYO	O	EFM full-swing output (“L”: VSS, “H”: VDD)
60	ASYI	I	Asymmetry compare voltage input
61	RFAC	I	EFM signal input
62	AVSS3	—	Analog ground
63	CLTV	I	VCO control voltage input from master.
64	FILO	O	Filter output for master PLL (slave=digital PLL)
65	FILI	I	Filter input from master PLL.
66	PCO	O	Charge pump output for master PLL.
67	AVDD3	—	Analog power supply pin
68	BIAS	I	Asymmetry circuit constant current input
69	VCTL	I	VCO2 control input from wideband EFM PLL. (Not used.)
70	V16M	O	VCO2 oscillator output for wideband EFM PLL. (Not used.)
71	VPCO	O	Charge pump output for wideband EFM PLL. (Not used.)
72	DVSS	—	Digital ground
73	MD2	I	Digital out ON/OFF control input (“L”: OFF, “H”: ON)
74	DOUT	O	Digital out output
75	ASYE	I	Asymmetry circuit ON/OFF input (“L”: OFF, “H”: ON)
76	DVDD	—	Digital power supply pin
77	LRCK	O	D/A interface LR clock output (f=Fs)
78	LRCKI	I	D/A interface LR clock input
79	PCMD	O	D/A interface serial data output (2’s COMP, MSB fast)
80	PCMD	I	D/A interface serial data input (2’s COMP, MSB fast)
81	BCK	O	D/A interface bit clock output
82	BCKI	I	D/A interface bit clock input
83	EMPH	O	Emphasis ON/OFF signal output
84	EMPHI	I	Emphasis ON/OFF signal input (“H”: ON, “L”: OFF)
85	XVDD	—	Power supply for master clock.
86	XTAI	I	X’tal oscillator input from master clock (16.9344 MHz).
87	XTAO	O	X’tal oscillator output for master clock (16.9344 MHz).
88	XVSS	—	Ground pin for master clock.
89	AVDD1	—	Analog power supply pin
90	AOUT1	O	Lch analog output
91	AIN1	I	Lch OPAMP input
92	LOUT1	O	Lch LINE output
93	AVSS1	—	Analog ground
94	AVSS2	—	Analog ground
95	LOUT2	O	Rch LINE output
96	AIN2	I	Rch OPAMP input
97	AOUT2	O	Rch analog output
98	AVDD2	—	Analog power supply pin
99	RMUT	O	Rch “0” detect Flug (Not used.)
100	LMUT	O	Lch “0” detect Flug (Not used.)

• IC5 CXP84640-063Q (CD SYSTEM CONTROL) (SERVO BOARD)

Pin No.	Pin Name	I/O	Pin Description
1	ITRPT	—	Not used in this set.
2, 3	—	—	Not used in this set.
4, 5	NCO	—	Not used in this set.
6	OPEN	I	Front panel open detection input
7	CLOSE	O	Front panel close control output
8	LINKOFF	I	Bus interface link input
9	NCO	—	Not used in this set.
10	$\overline{\text{D SW}}$	I	Down switch input (SW4)
11	SSTP	I	Limit switch input (SW3)
12, 13	NCO	—	Not used in this set.
14, 15	—	—	Not used in this set.
16	EMPH O	O	De-emphasis ON/OFF control output
17	CDMON	O	CD mechanism deck power control output
18	CD ON	O	CD power control output
19	A MUT	O	System attenuate control output
20	$\overline{\text{LD ON}}$	O	Laser power ON/OFF control output
21	$\overline{\text{CD RST}}$	O	CD system reset output
22	HOLD	O	Hold switch output
23	AGC CONT	O	AGC control output
24	—	—	Not used in this set.
25	PH3	I	Not used in this set.
26	$\overline{\text{TSTIN0}}$	I	Not used in this set.
27	$\overline{\text{TSTIN1}}$	I	Not used in this set.
28	$\overline{\text{TST.CLV}}$	I	Not used in this set.
29	NCO	—	Not used in this set.
30	$\overline{\text{RESET}}$	I	System reset input (“L”=Reset)
31	X IN	I	X’tal oscillator input from system clock. (10 MHz)
32	$\overline{\text{X OUT}}$	O	X’tal oscillator output for system clock. (10 MHz)
33	GND	—	Analog ground
34	$\overline{\text{XT OUT}}$	O	Not used in this set.
35	XT IN	I	Not used in this set.
36	AVSS	—	A/D converter ground
37	AVREF	I	A/D converter reference voltage input
38	TEP L	I	Not used in this set.
39	TEP H	I	Not used in this set.
40	SLED—	I	Sled drive input
41	PH2	I	Not used in this set.
42	SEK/SMET	I	Fixed at “H” in this set.
43	GFS/MNT2 SEL	I	Fixed at “H” in this set.
44	SC-JIG ON/OFF	I	Fixed at “H” in this set.
45	SCLK	O	CD-TEXT data read clock output
46	LOCK	I/O	Lock signal input/output
47	—	—	Not used in this set.
48	SCK2	O	Sub Q read clock output
49	SI2	I	Sub Q 80 bit, PCM peak and level data 16 bit input.
50	—	—	Not used in this set.
51	BUS CLK	I/O	Bus system serial clock input/output
52	BUS SI	I	Bus system serial interface input
53	BUS SO	O	Bus system serial interface output
54	F OK	I	Focus OK signal input
55	GFS	I	GFS signal detection input
56	TEST MODE	I	Fixed at “H” in this set.

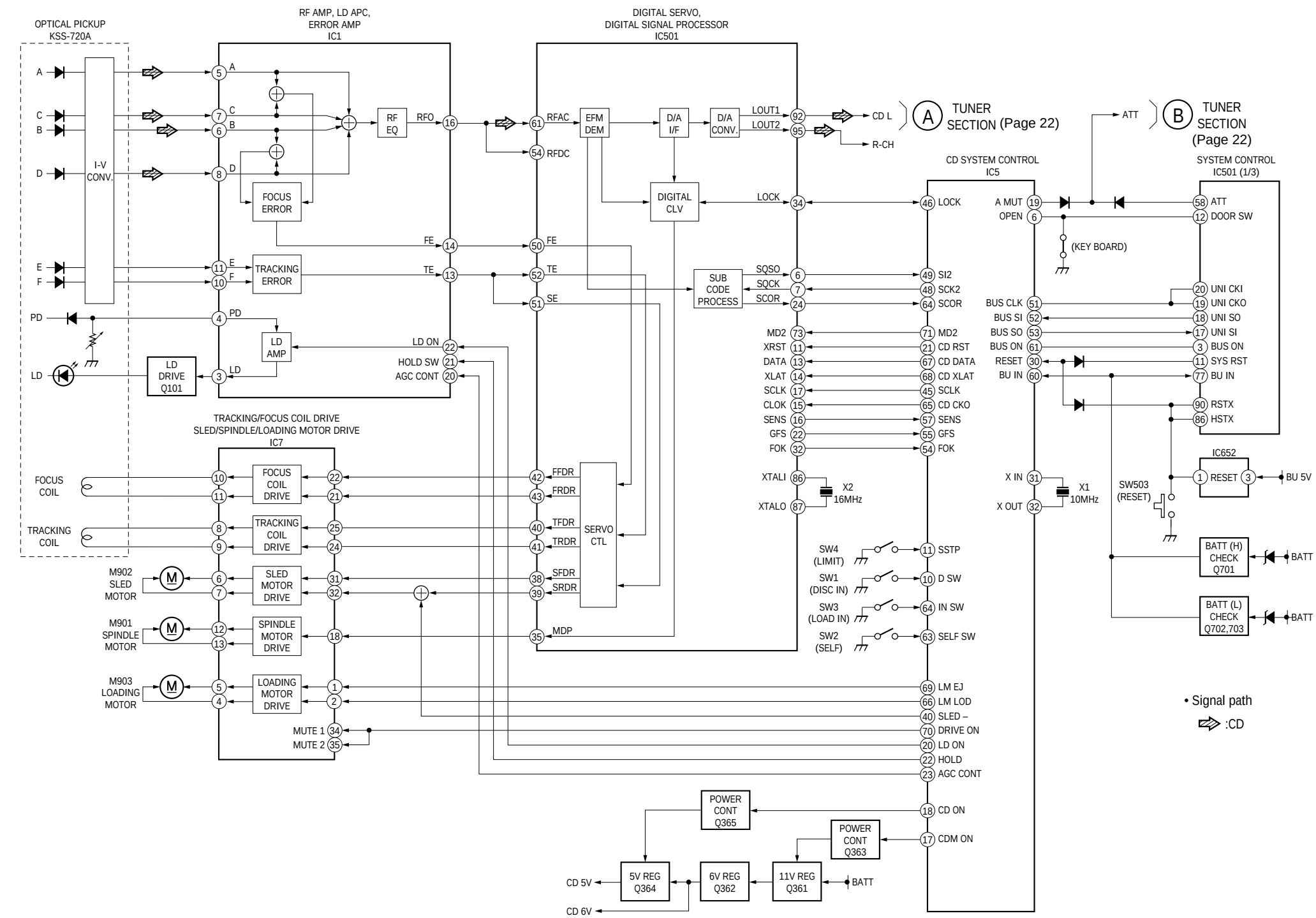
Pin No.	Pin Name	I/O	Pin Description
57	SENS	I	SENS signal input
58	—	—	Not used in this set.
59	—	—	Not used in this set.
60	BU.IN	I	Back-up power detection input
61	$\overline{\text{BUSON}}$	I	Bus on control input
62	$\overline{\text{IN SW}}$	I	Disc in switch input (SW1)
63	$\overline{\text{SELF SW}}$	I	Self switch input (SW2)
64	SCOR	O	Sub-code sync output
65	CD-CKO	O	CD signal process serial clock input
66	LM LOD	O	Loading motor control output
67	CD DATA	O	CD signal process serial data output
68	CD-XLAT	O	CD signal process serial data latch output
69	LM-EJ	O	Loading motor control output
70	DRV-OE	O	Focus/tracking coil/sled motor control output
71	MD2	O	Digital out ON/OFF control output (“L”: OFF, “H”: ON)
72	VDD	—	Power supply pin
73	NIH	I	Fixed at “H” in this set.
74	V/Z	I	Fixed at “H” in this set.
75	PH1	I	Not used in this set.
76	—	—	Not used in this set.
77	DOUT-SEL	I	Fixed at “H” in this set.
78 – 80	—	—	Not used in this set.

• IC501 MB90574PMT-G-266-BND (SYSTEM CONTROL) (MAIN BOARD)

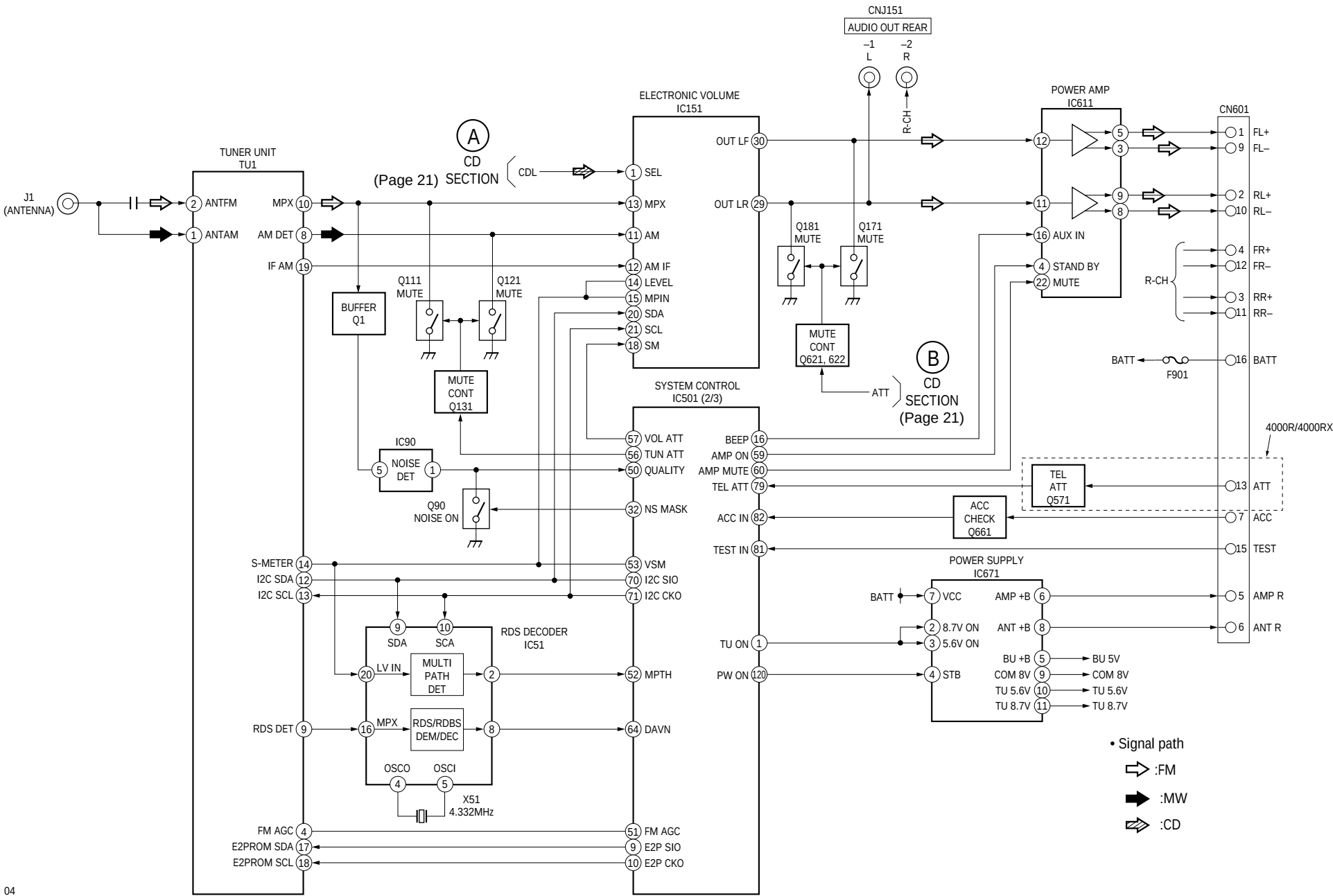
Pin No.	Pin Name	I/O	Pin Description
1	TUNON	O	Tuner power control output (+5 V)
2	—	—	Not used. (Open)
3	BUSON	O	SONY-BUS ON control output
4 – 6	—	—	Not used. (Open)
7	ILLON	O	Illumination power control output
8	VCC	—	Power supply pin (+5 V)
9	E2P SIO	I/O	E ² P SONY-BUS serial data input/output
10	E2P CKO	I/O	E ² P SONY-BUS serial clock input/output
11	SYSRST	O	SONY-BUS system reset output
12	DOORSW (WRITE OUT)	I	DOOR OPEN/CLOSE detection input (“L”: CLOSE, “H”: OPEN)
13	LCDSO (WRITE IN)	O	LCD serial data output
14	LCDCKO	O	LCD serial clock output
15	LCDCE	O	LCD chip enable output
16	BEEP	O	BEEP output
17	UNISI	I	SONY-BUS serial data input
18	UNISO	O	SONY-BUS serial data output
19	UNICKO	O	SONY-BUS serial clock output
20	UNICKI	I	SONY-BUS serial clock input
21	CD MD	I	CD/MD select input (“L”: CD, “H”: MD) (Fixed at “L” in this set)
22	FLASHW	I	Flash memory write mode detection input
23	—	—	Not used. (Open)
24	SIRCS	I	Remote commander (infrared ray reception) input
25 – 28	—	—	Not used. (Open)
29	DOORIND	O	DOOR indicator output
30	IFWIDTH	O	Not used in this set.
31	—	—	Not used. (Open)
32	NS MASK	O	Noise mask output
33	VSS	—	Ground
34	C	—	Condenser connection pin of power stabilization.
35	AD ON	O	Power control output for A/D converter.
36, 37	REIN0, 1	I	Rotary encoder 0, 1 input
38	DVCC	—	D/A converter Vref pin (+5 V)
39	DVSS	—	D/A converter ground pin
40, 41	—	—	Not used. (Open)
42	AVCC	—	Analog power supply pin (+5 V)
43	AVRH	—	A/D converter Vref+ pin (+5 V)
44	AVRL	—	A/D converter Vref– pin
45	AVSS	—	Analog ground
46, 47	KEYIN0, 1	I	Key 0, 1 input
48	RCIN0	I	Rotary commander key input
49	DSTSEL	I	Destination setting input (Fixed at “L” in this set)
50	QUALITY	I	Noise detection input
51	FMAGC	I	FM AGC detection input
52	MPTH	I	Multi path detection input
53	VSM	I	Signal meter detection input
54	VCC	—	Power supply pin (+5 V)
55	RAMBU	I	RAM reset detection input
56	TUNATT	O	TUNER mute control output
57	VOLATT	O	Electric volume mute output
58	ATT	O	LINE mute output
59	AMPON	O	Power amplifier standby control output
60	AMPATT	O	Power amplifier mute control output

Pin No.	Pin Name	I/O	Pin Description
61	COLSW	I	Illumination color switch input (“L”: 2 colors, “H”: 1 color) (Fixed at “L” in CDX-3900R/4000R, “H” in CDX-4000RX)
62	COLSEL	I	Illumination color select input (“L”: AMBER, “H”: GREEN) (Fixed at “L” in this set)
63	VSS	—	Ground
64	DAVN	I	Block synchronization detection input of RDS data.
65	FILE	I	Custom file setting input
66	TEXT	I	CD text setting input
67	NOSESW	I	Front panel attachment detection input
68, 69	—	—	Not used. (Open)
70	I2C SIO	I/O	I ² C BUS serial data input/output
71	I2C CKO	I/O	I ² C BUS serial clock input/output
72	—	—	Not used. (Open)
73	X1A	—	Low speed oscillation connecting pin (32.768 kHz)
74	X0A	—	Low speed oscillation connecting pin (32.768 kHz)
75	—	—	Not used. (Open)
76	KEYACK	I	Key acknowledge input
77	BUIN	I	Backup voltage detection input
78	ILLIN	I	Illumination (ILLIN) detection input (Fixed at “L” in this set)
79	TELATT	I	Telephone (TEL) detection input (Fixed at “L” in CDX-3900R)
80	—	—	Not used. (Open)
81	TEST IN	I	Test mode setting input
82	ACC IN	I	Accessory power supply (ACC) detection input
83	—	—	Not used. (Open)
84	LOCKIN	I	MD LOCK detection input
85	RCIN1	I	Rotary commander SHIFT input
86	HSTX	I	Hardware standby setting input
87	MD2	I	Connect to VSS in this set.
88, 89	MD1, 0	I	Connect to VCC in this set.
90	RSTX	I	Reset input
91	VSS	—	Ground
92	X0	—	High speed oscillation connecting pin (3.68 MHz)
93	X1	—	High speed oscillation connecting pin (3.68 MHz)
94	VCC	—	Power supply pin (+5 V)
95 – 97	—	—	Not used. (Open)
98	DIM SEL	I	Dimmer select input (“L”: With dimmer select, “H”: Without dimmer select) (Fixed at “L” in this set)
99	TAP CD	I	TAPE/CD select input (“L”: CD, “H”: TAPE) (Fixed at “L” in this set)
100 – 118	—	—	Not used. (Open)
119	VSS	—	Ground
120	PW ON	O	System power control output

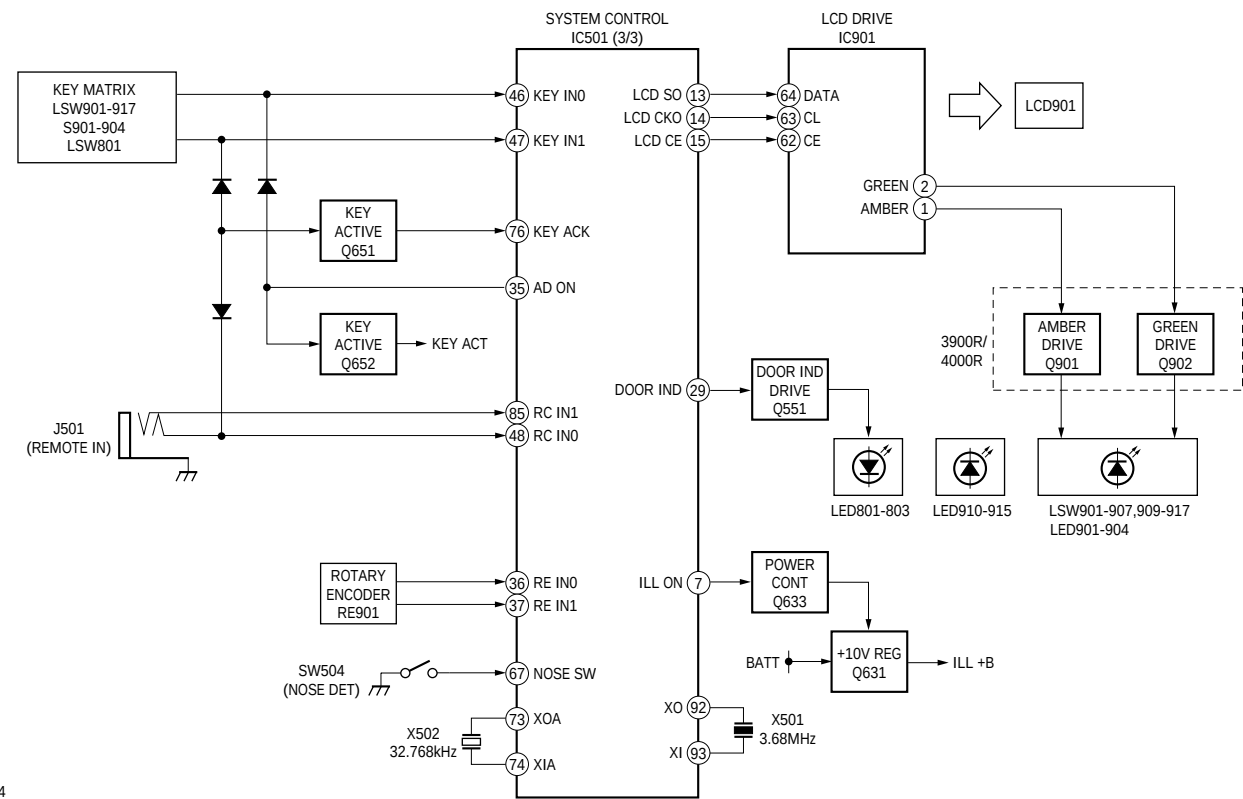
3-2. BLOCK DIAGRAM — CD SECTION —



3-3. BLOCK DIAGRAM — TUNER SECTION —

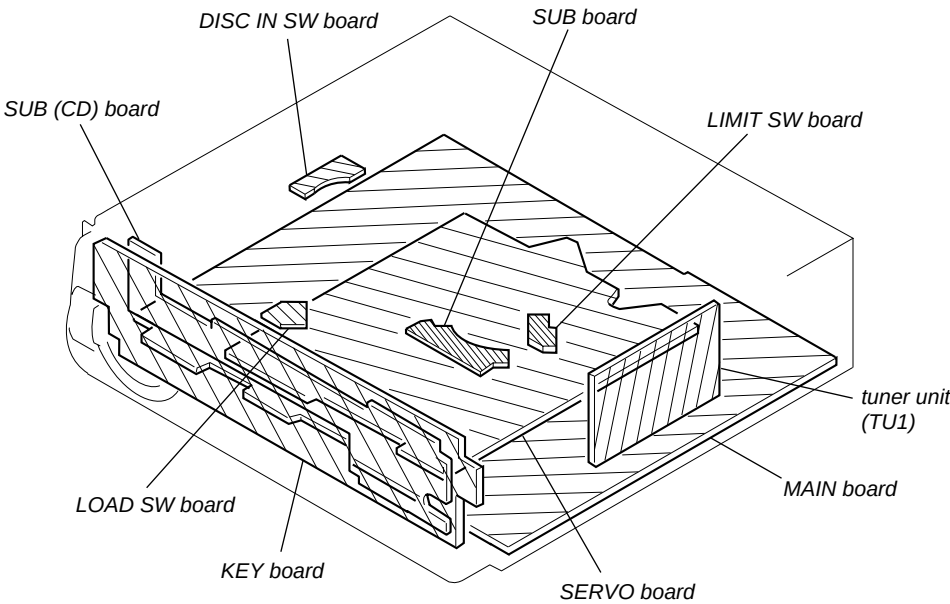


3-4. BLOCK DIAGRAM — DISPLAY SECTION —



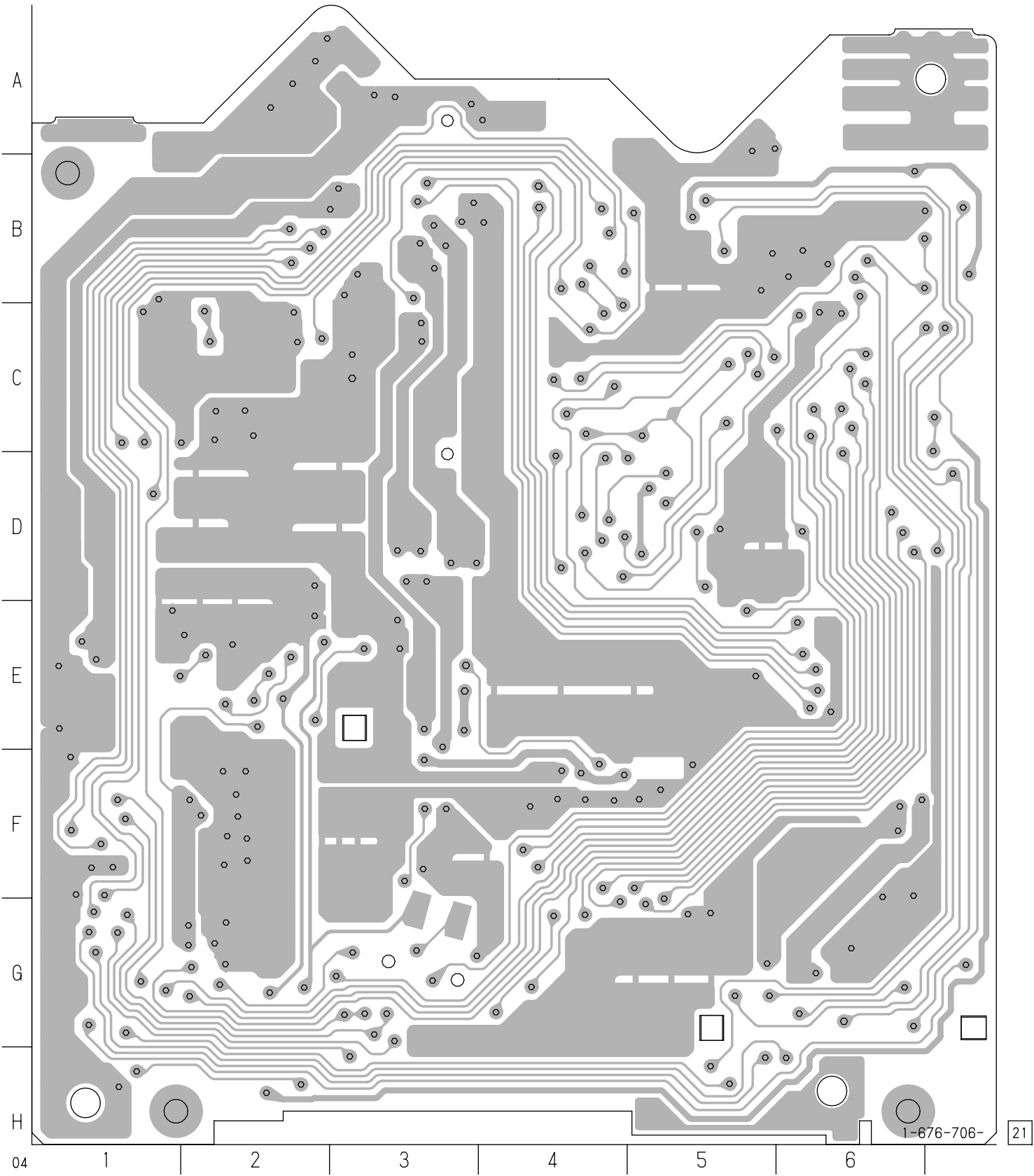
04

3-5. CIRCUIT BOARDS LOCATION



3-6. PRINTED WIRING BOARDS — CD MECHANISM SECTION —

【SERVO BOARD】(SIDE B)



THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

- for schematic diagram:**
- All capacitors are in μF unless otherwise noted. pF: μpF
50 WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
 - % : indicates tolerance.
 - Δ : internal component.
 - : panel designation.

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

- B+ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages are taken with a VOM (Input impedance 10 M Ω).
Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 - $\Rightarrow$: FM
 - $\Rightarrow$: MW
 - $\Rightarrow$: CD

- for printed wiring boards:**
- $\circ$: parts extracted from the component side.
 - --- : parts extracted from the conductor side.
 - $\blacksquare$: parts mounted on the conductor side.
 - $\circ$: Through hole.
 - --- : Pattern from the side which enables seeing.
(The other layer's patterns are not indicated.)

Caution:
Pattern face side: Parts on the pattern face side seen from the (Side B) pattern face are indicated.
Parts face side: Parts on the parts face side seen from the (Side A) parts face are indicated.

【PICK-UP FLEXIBLE BOARD】

1-676-707-

21

OPTICAL
PICK-UP
KSS-720A

• Semiconductor
Location

Ref. No.	Location
IC1	C-1
IC5	C-6
IC7	F-2
IC501	F-5
Q101	B-2

【SERVO BOARD】 (SIDE A)

【DISC IN SW BOARD】

【LIMIT SW BOARD】

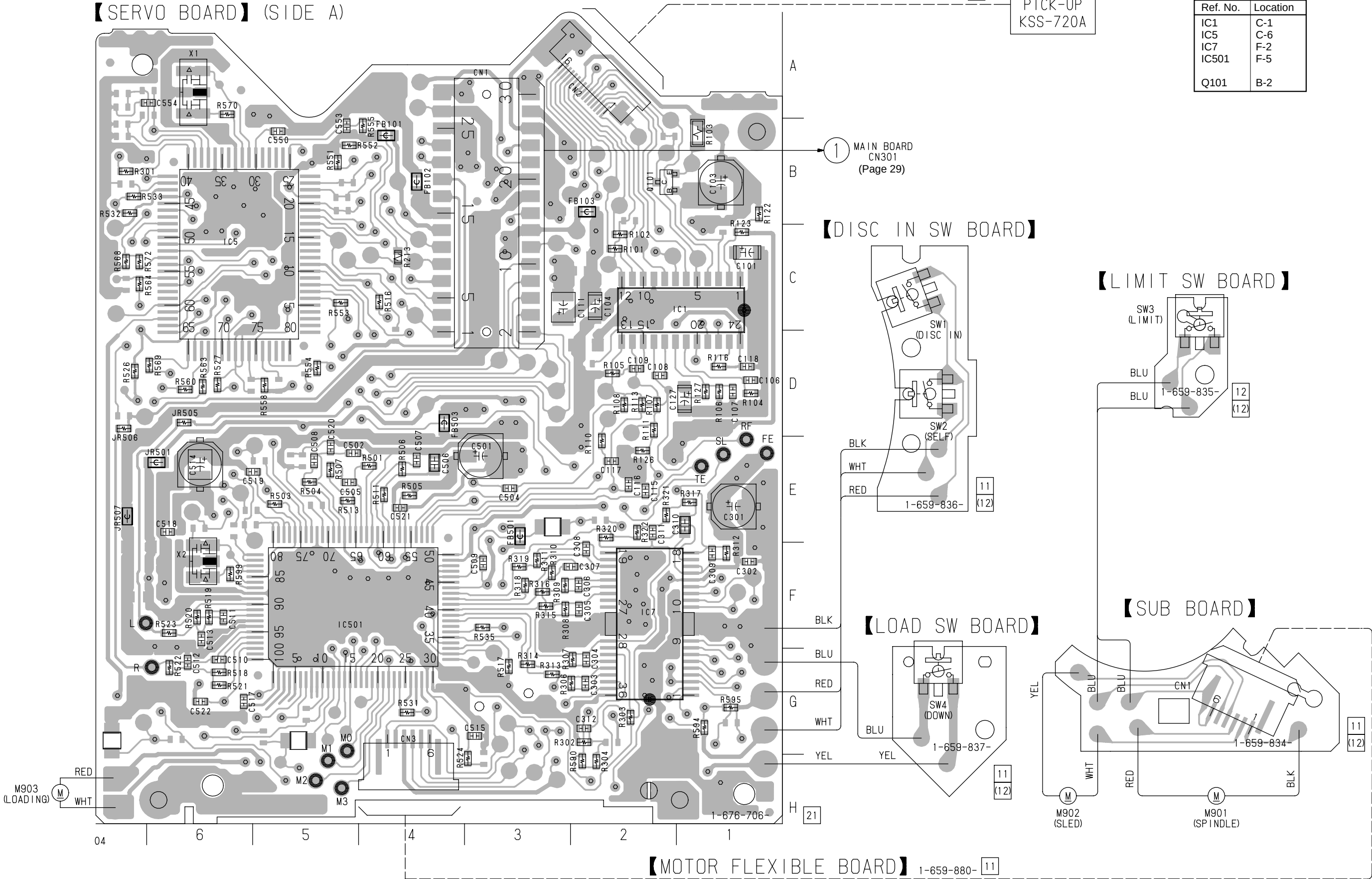
【LOAD SW BOARD】

【SUB BOARD】

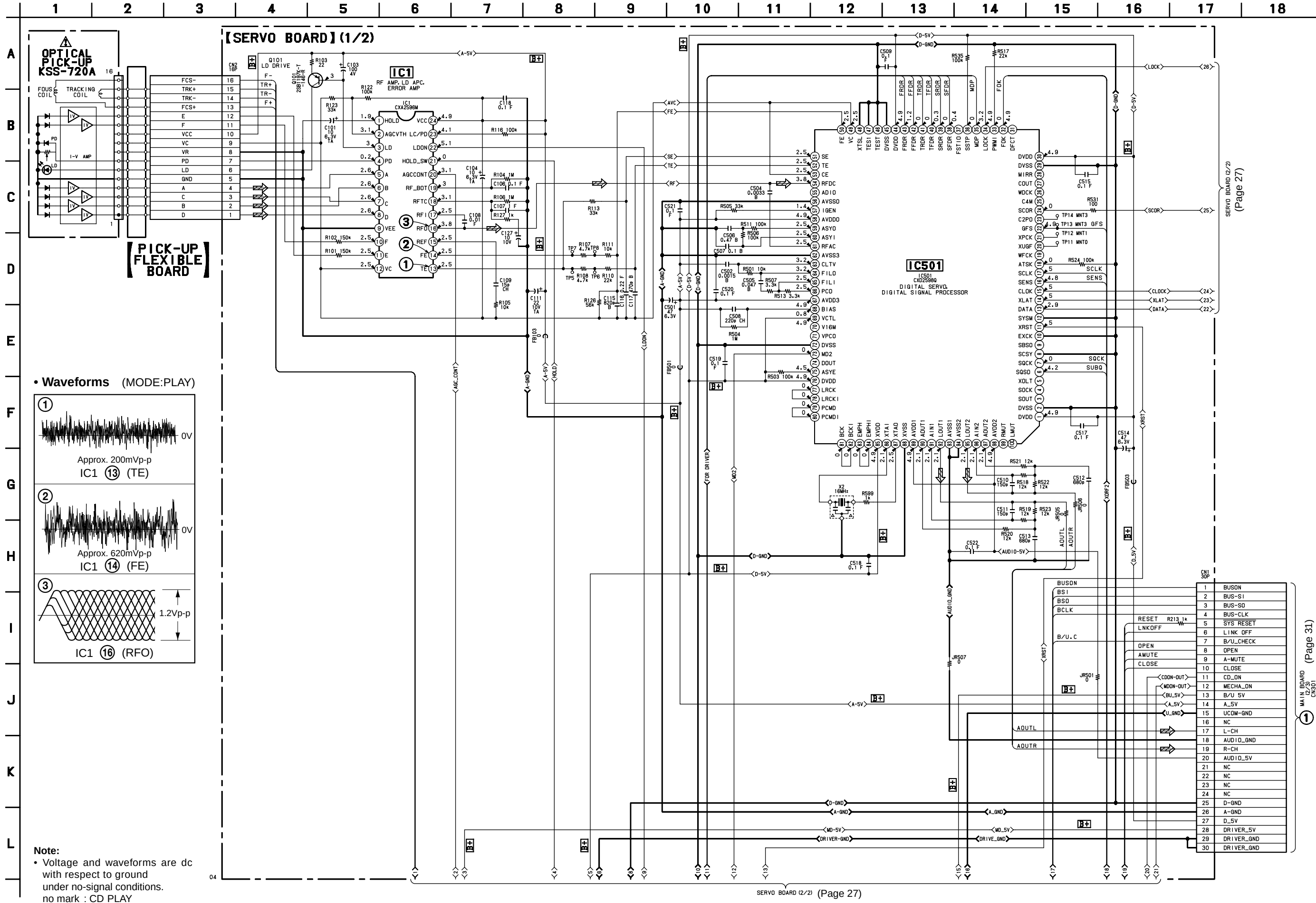
【MOTOR FLEXIBLE BOARD】

1-659-880-

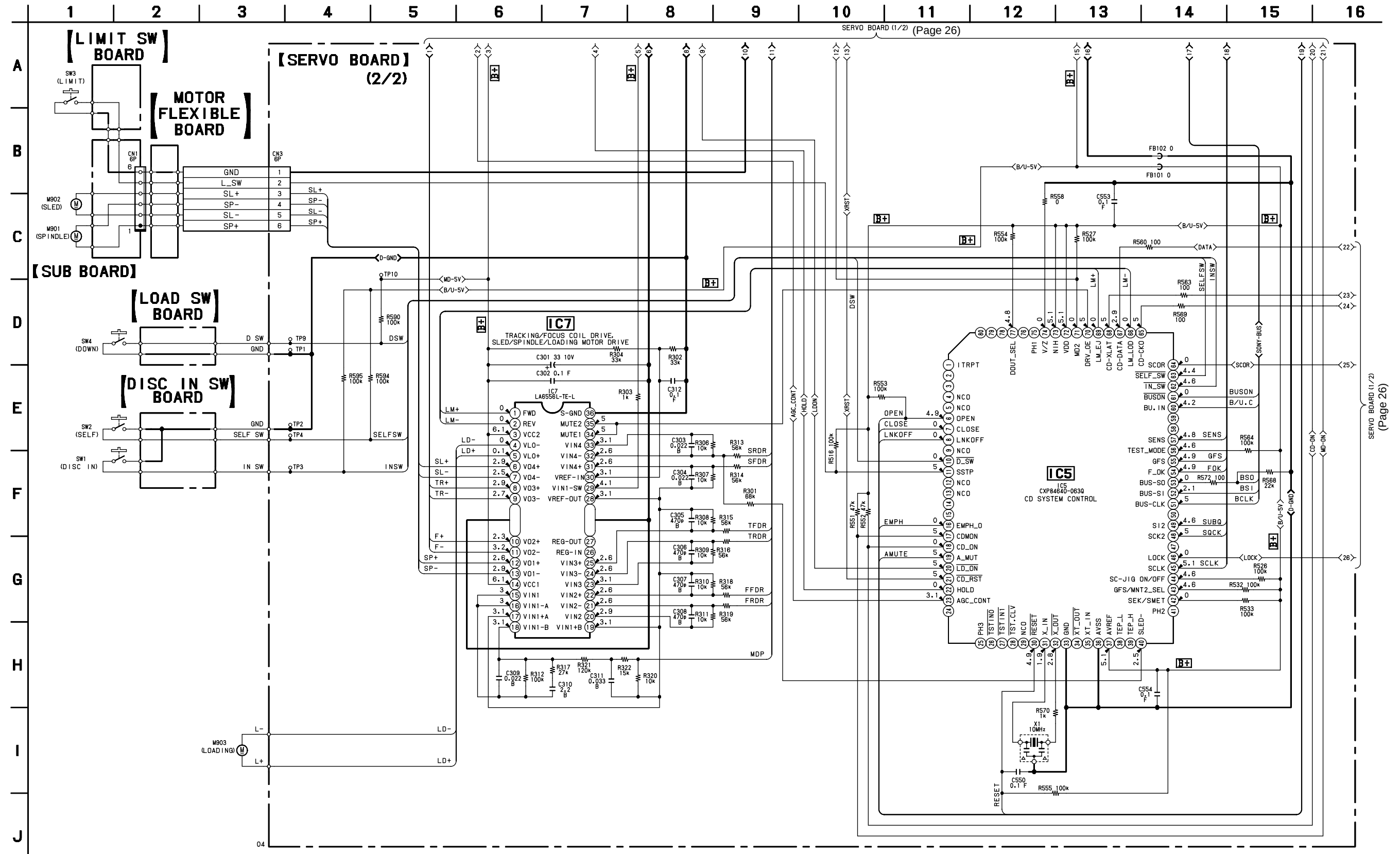
11



3-7. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (1/2) — • Refer to page 37 for IC Block Diagrams.



3-8. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (2/2) — • Refer to page 38 for IC Block Diagrams.



Note:

- Voltage is dc with respect to ground under no-signal conditions.
- no mark : CD PLAY

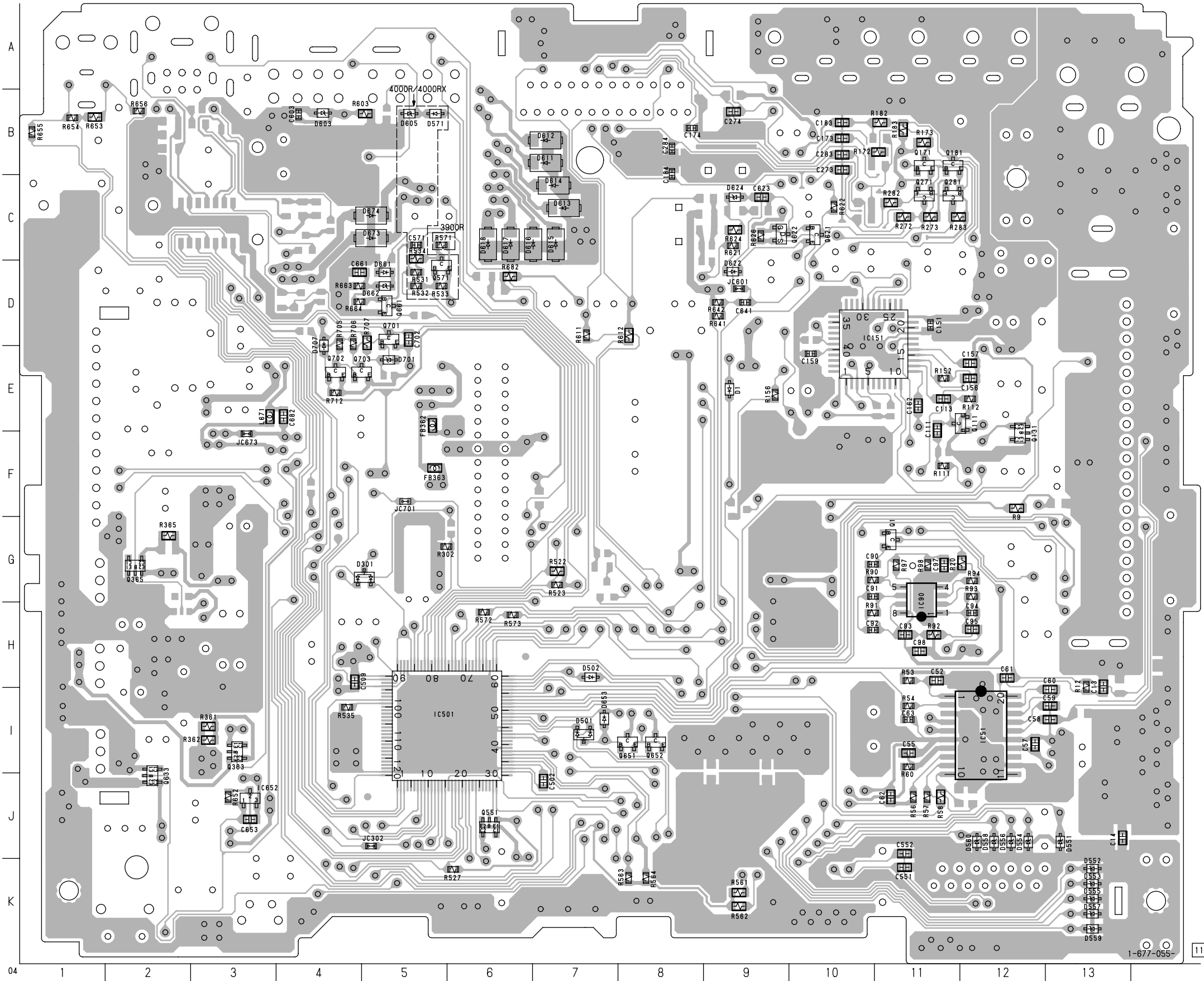
3-9. PRINTED WIRING BOARD — MAIN SECTION —

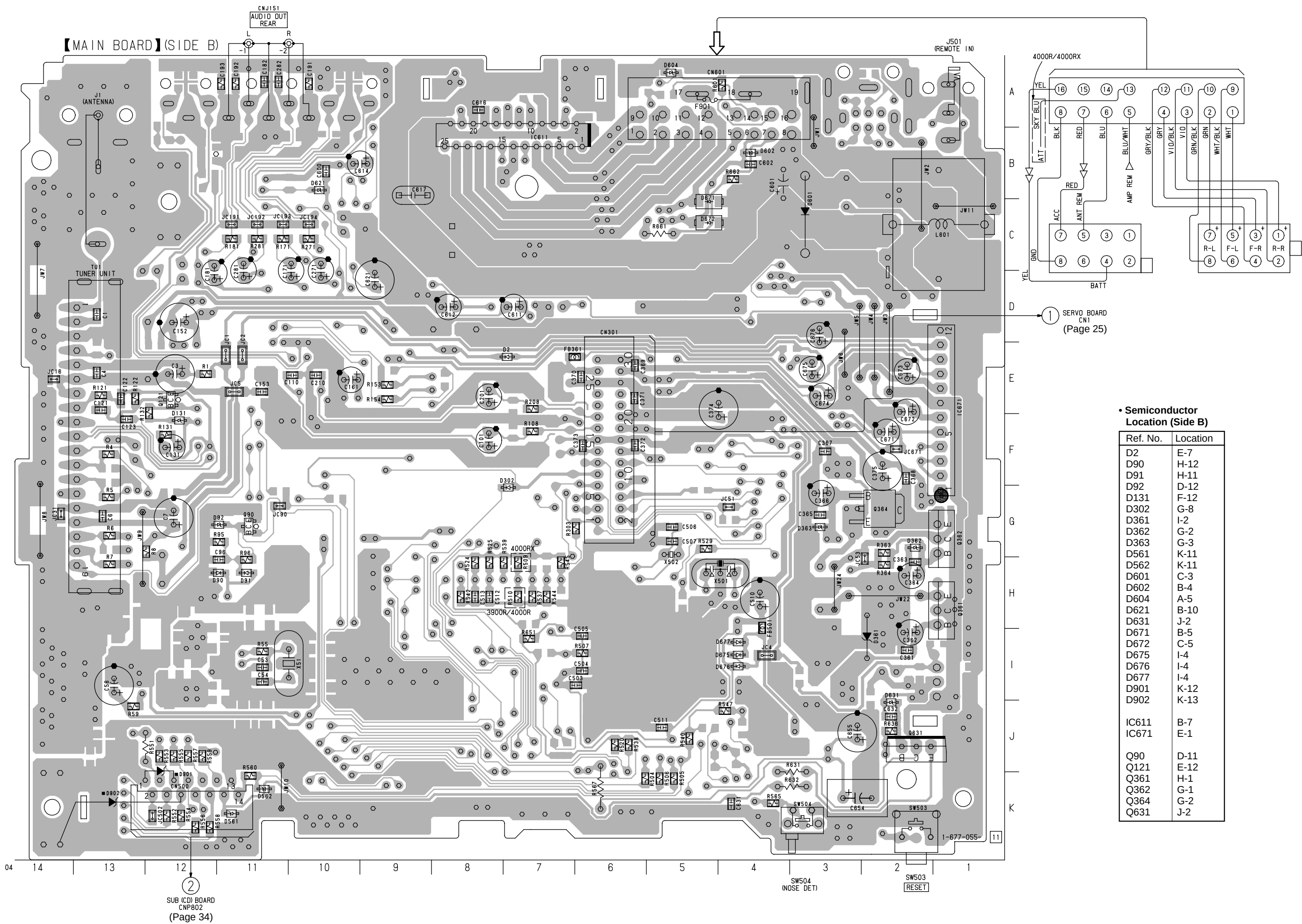
- Semiconductor Location (Side A)

Ref. No.	Location
D1	E-9
D301	G-4
D501	I-7
D502	H-7
D551	J-13
D552	K-13
D553	K-13
D554	J-12
D555	K-13
D556	J-12
D557	K-13
D558	J-12
D559	K-13
D560	J-12
(D571)	B-5
D603	B-4
(D605)	B-5
D611	B-7
D612	B-7
D613	C-7
D614	B-7
D615	C-7
D616	C-7
D617	C-6
D618	C-6
D622	D-9
D624	C-9
D653	I-7
D661	D-5
D662	D-5
D673	C-5
D674	C-5
D701	E-5
D707	D-4
IC51	I-12
IC90	H-11
IC151	D-11
IC501	I-6
IC652	J-3
Q1	G-11
Q111	E-12
Q131	F-12
Q171	B-11
Q181	B-12
Q271	C-11
Q281	C-12
Q363	I-3
Q365	G-2
Q551	J-6
(Q571)	D-6
Q621	C-10
Q622	C-9
Q633	J-2
Q651	I-8
Q652	I-8
Q661	D-5
Q701	E-5
Q702	E-4
Q703	E-4
Q704	G-7

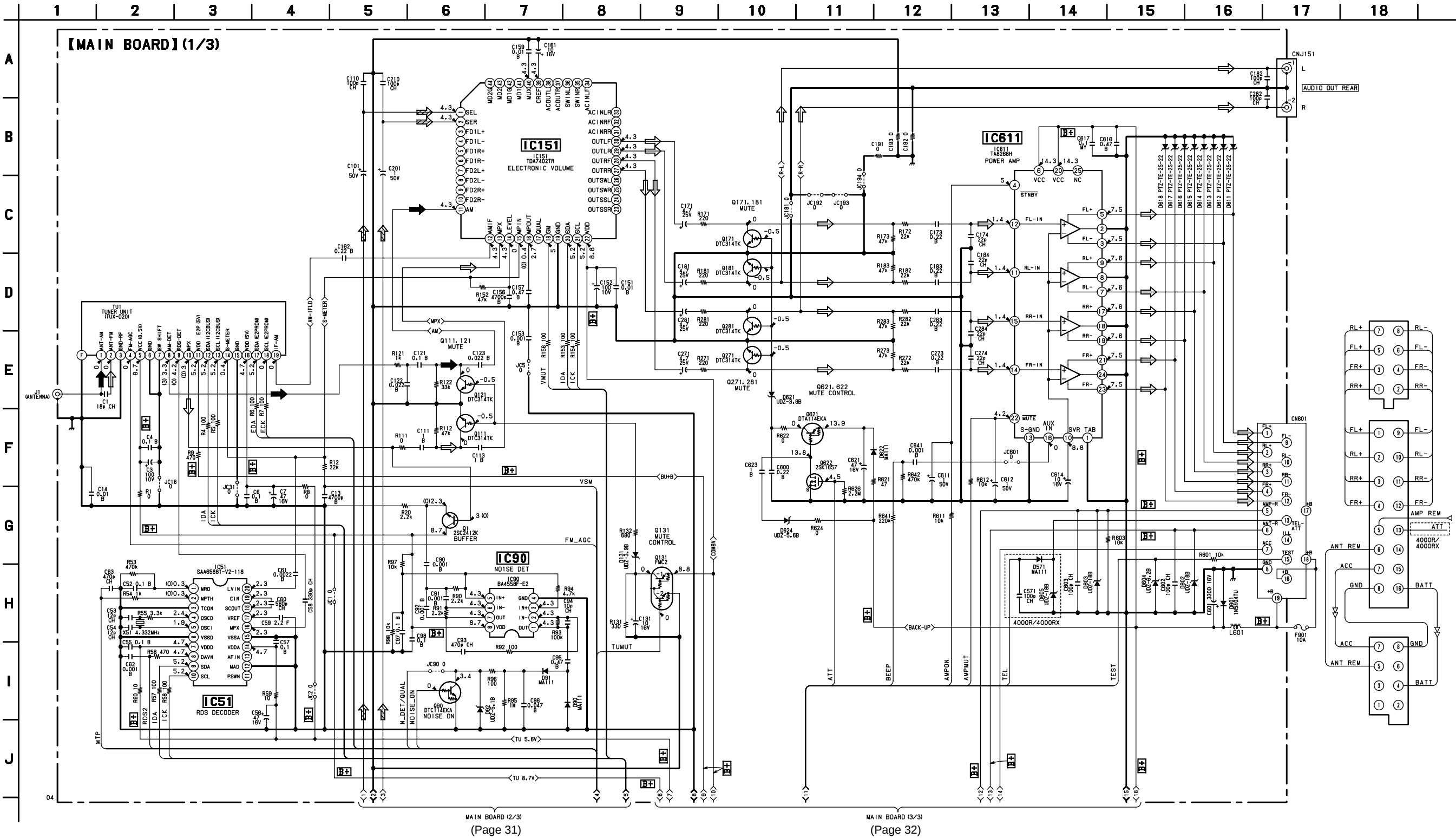
() : CDX-4000R/4000RX only

【 MAIN BOARD 】 (SIDE A)



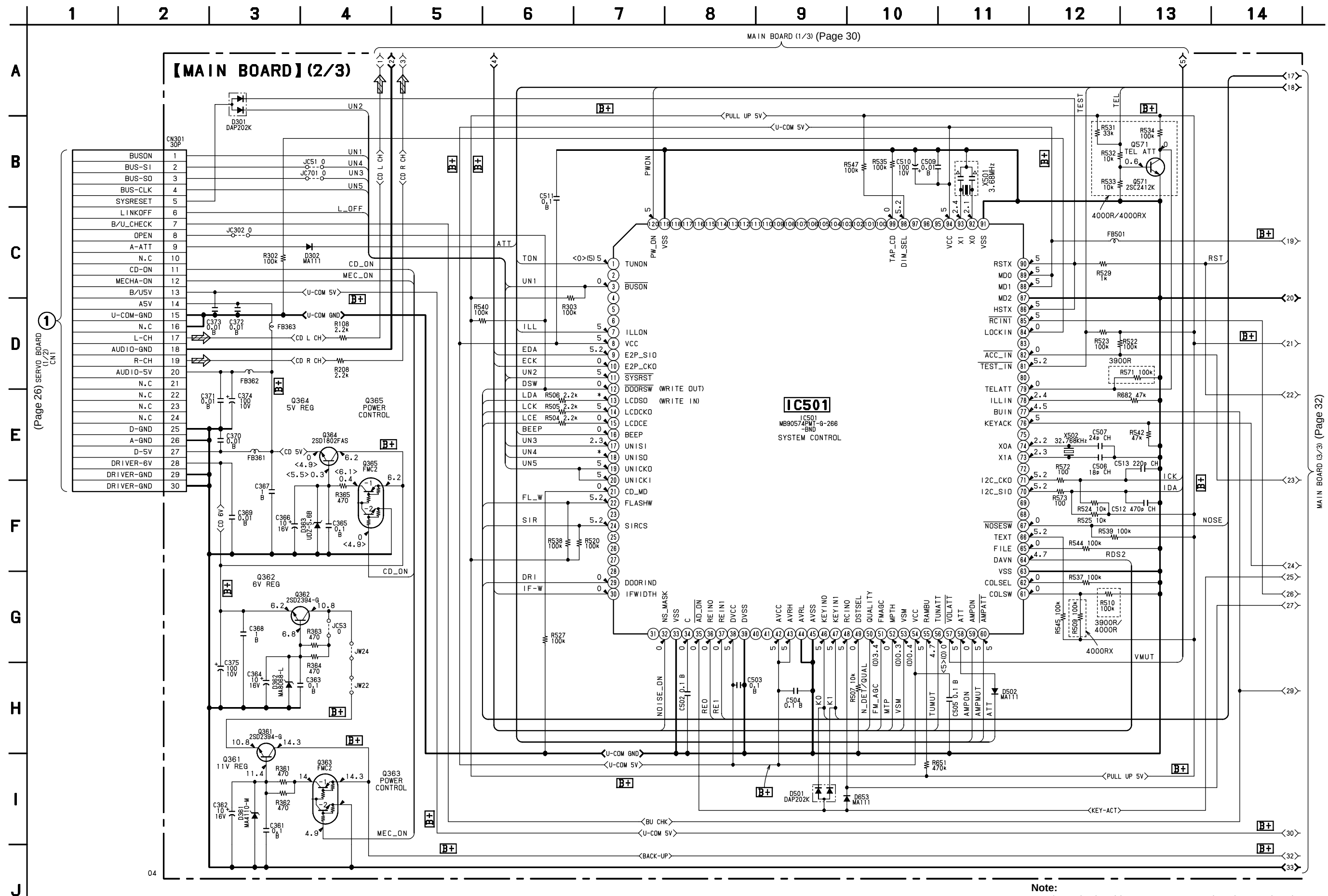


3-10. SCHEMATIC DIAGRAM — MAIN SECTION (1/3) — • Refer to page 39 for IC Block Diagrams.



Note:
• Voltage is dc with respect to ground under no-signal (detuned) condition.
no mark : FM
() : MW

3-11. SCHEMATIC DIAGRAM — MAIN SECTION (2/3) —

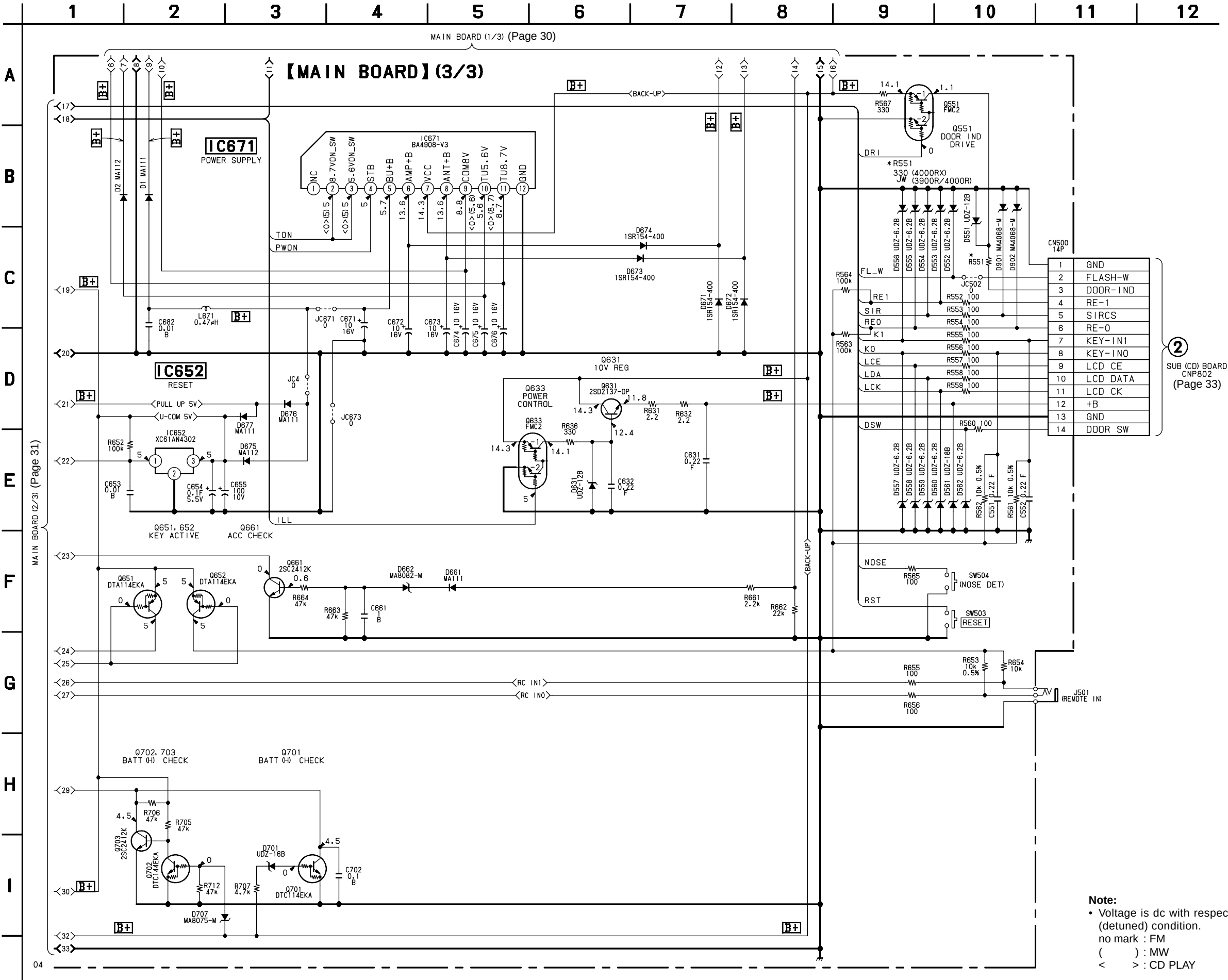


Note:

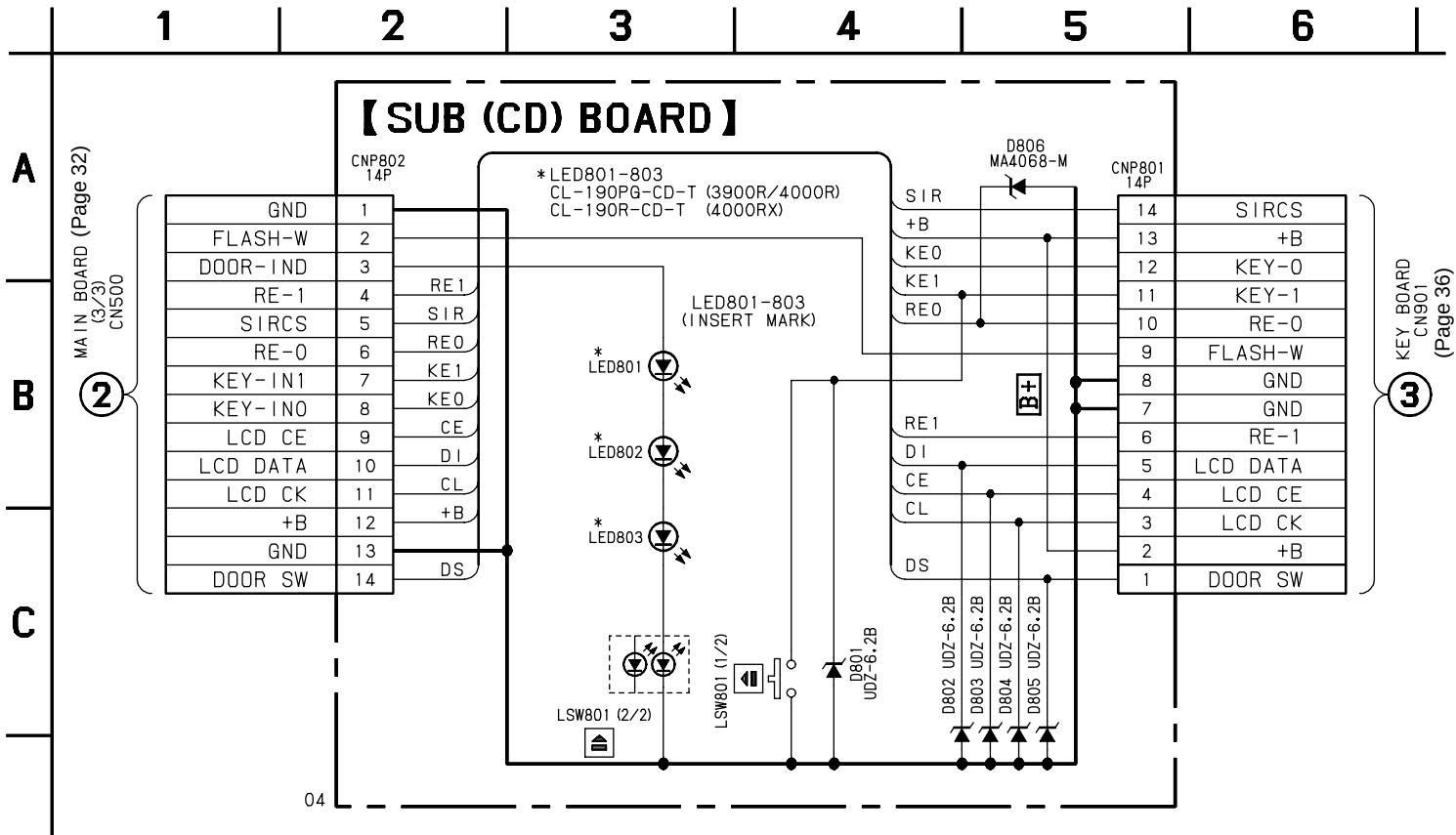
- Voltage is dc with respect to ground under no-signal (detuned) condition.

no mark : FM
 () : MW
 < : CD PLAY

3-12. SCHEMATIC DIAGRAM — MAIN SECTION (3/3) — • Refer to page 39 for IC Block Diagrams.

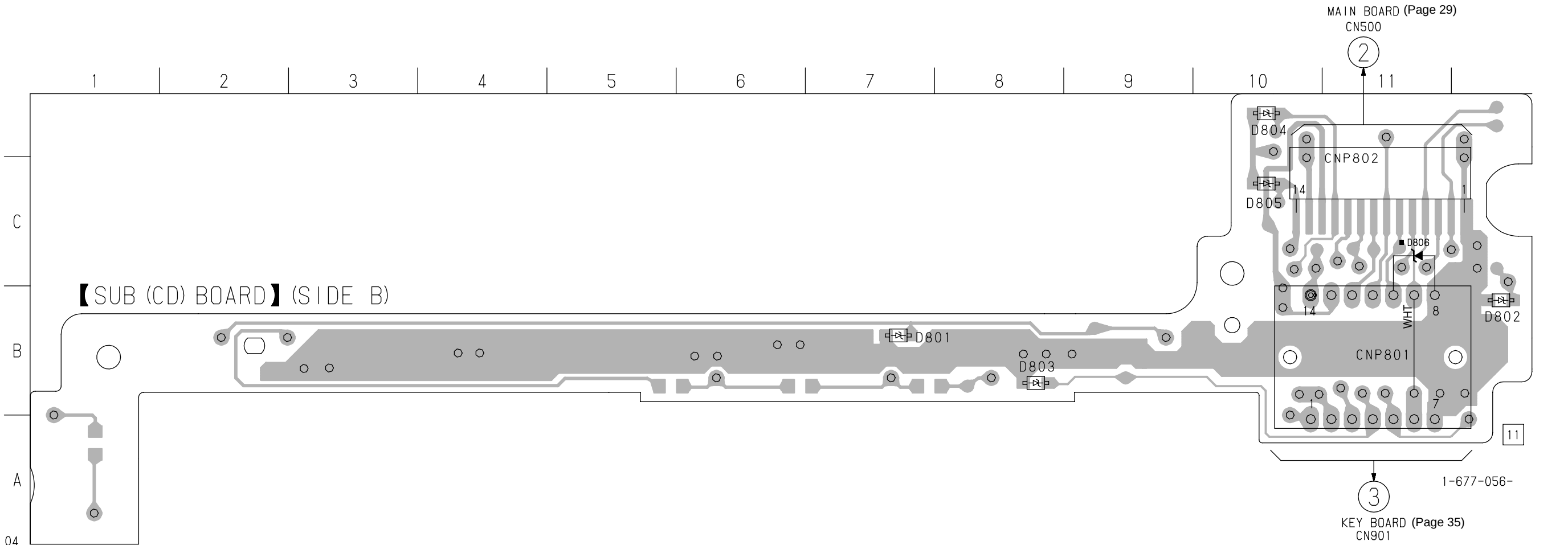
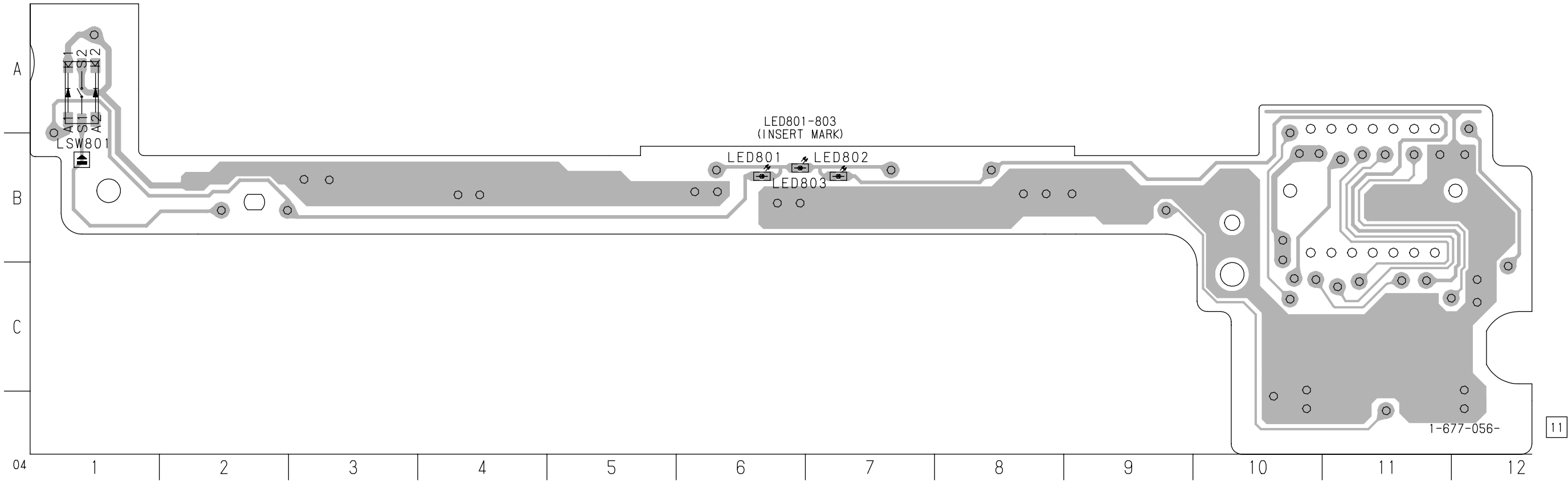


3-13. SCHEMATIC DIAGRAM — SUB (CD) SECTION —



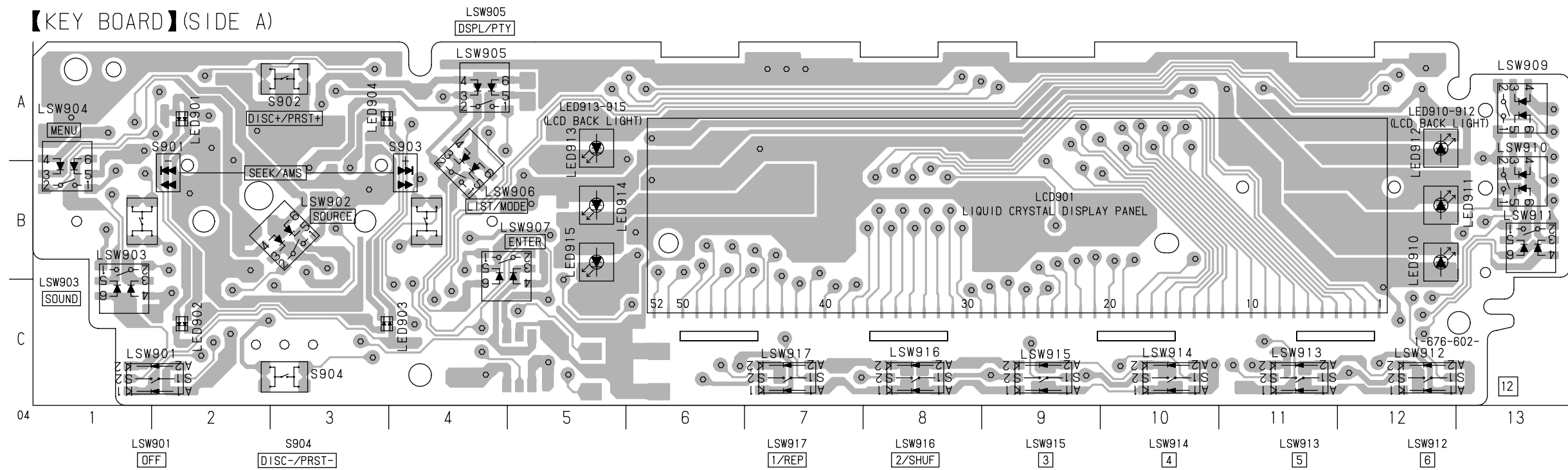
3-14. PRINTED WIRING BOARD — SUB (CD) SECTION —

【SUB (CD) BOARD】(SIDE A)



3-15. PRINTED WIRING BOARD — KEY SECTION —

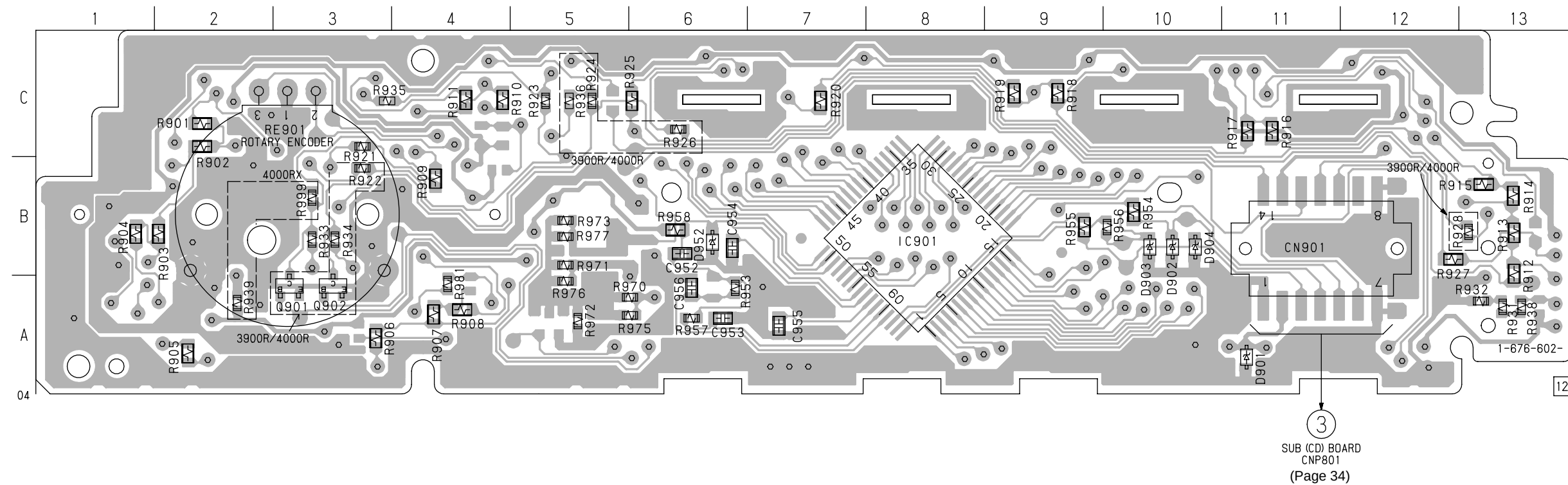
【KEY BOARD】(SIDE A)



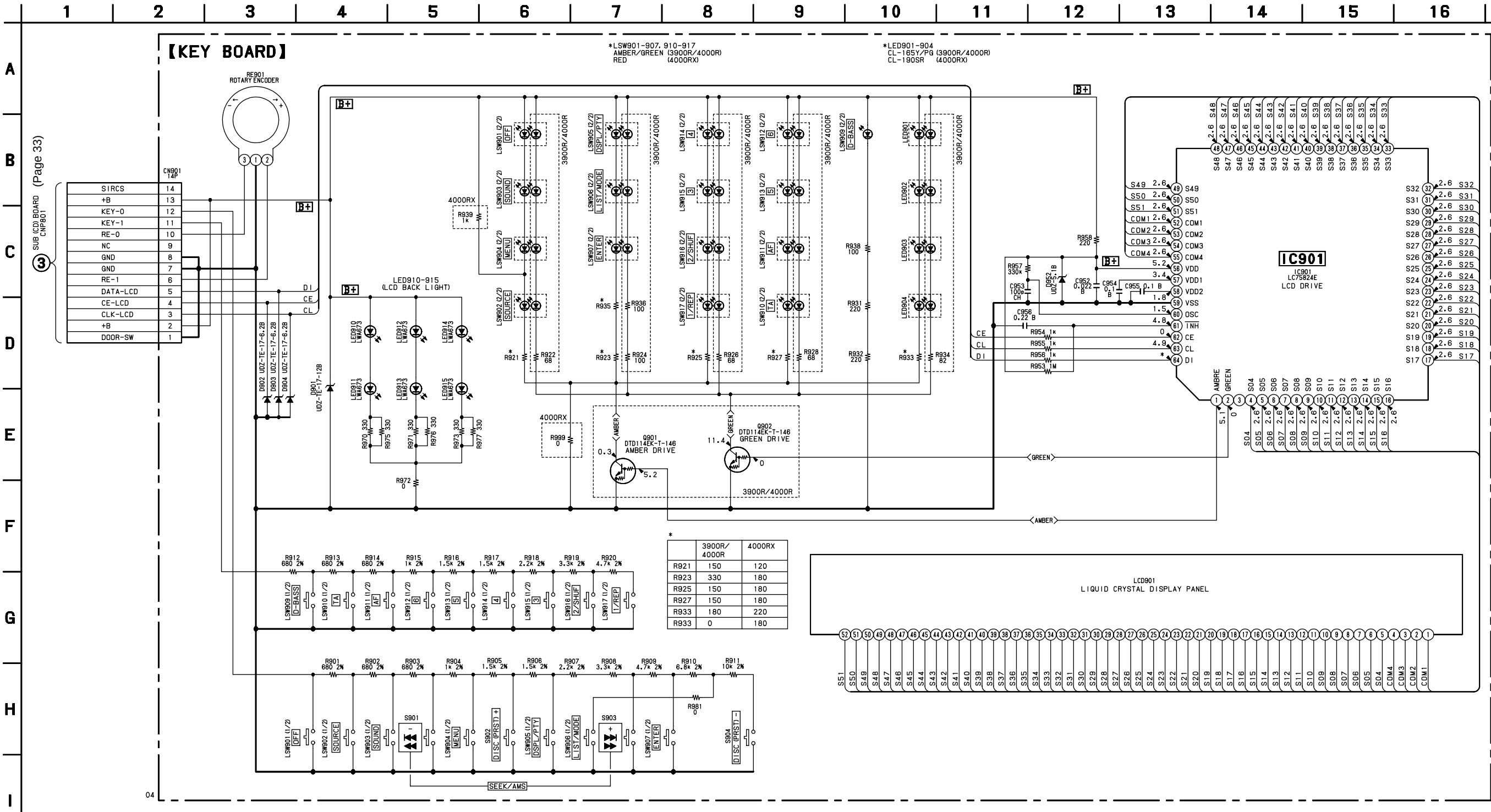
Ref. No.	Location
(D901)	A-11
(D902)	B-10
(D903)	B-10
(D904)	B-10
(D952)	B-6
(IC901)	B-8
LED901	A-2
LED902	C-2
LED903	C-4
LED904	A-4
LED910	B-12
LED911	B-12
LED912	A-12
LED913	B-5
LED914	B-5
LED915	B-5
(Q901)	A-3
(Q902)	A-3

() : SIDE B

【KEY BOARD】(SIDE B)



3-16. SCHEMATIC DIAGRAM — KEY SECTION —

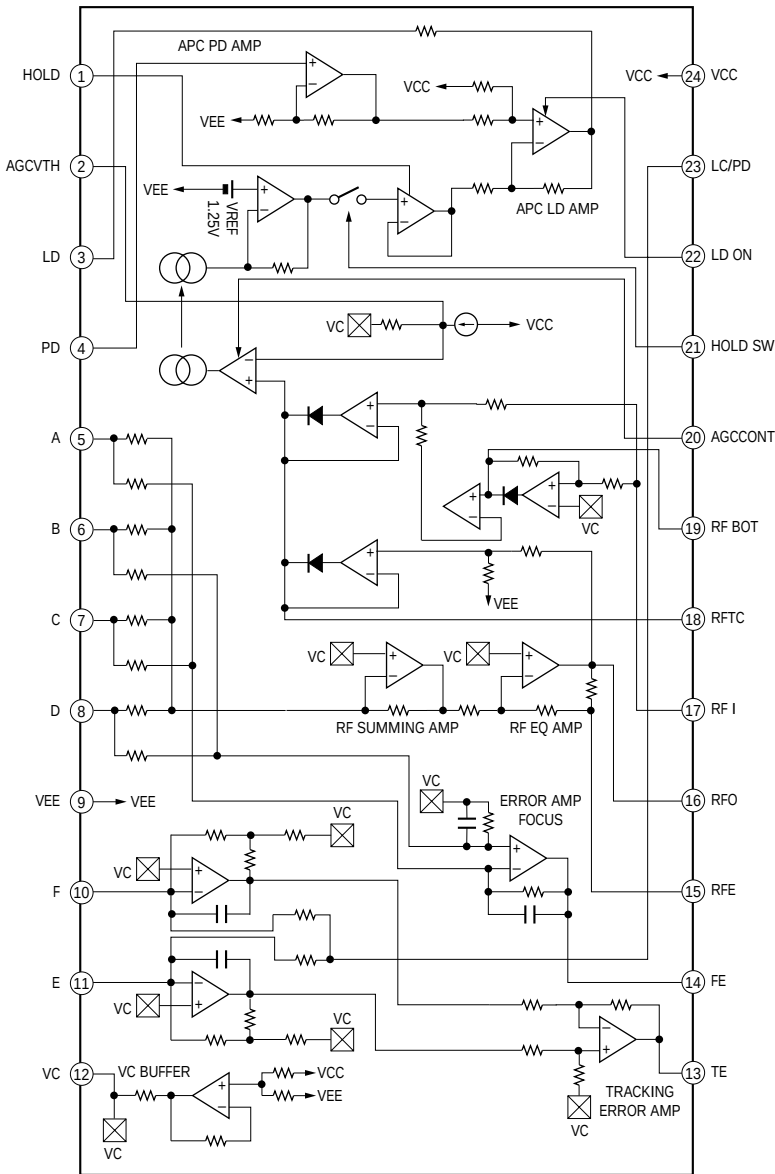


Note:

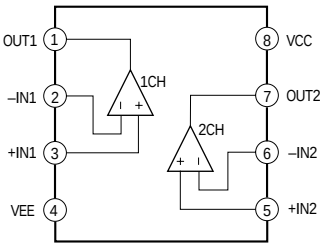
- Voltage is dc with respect to ground under no-signal (detuned) condition.
no mark : FM

• IC Block Diagrams

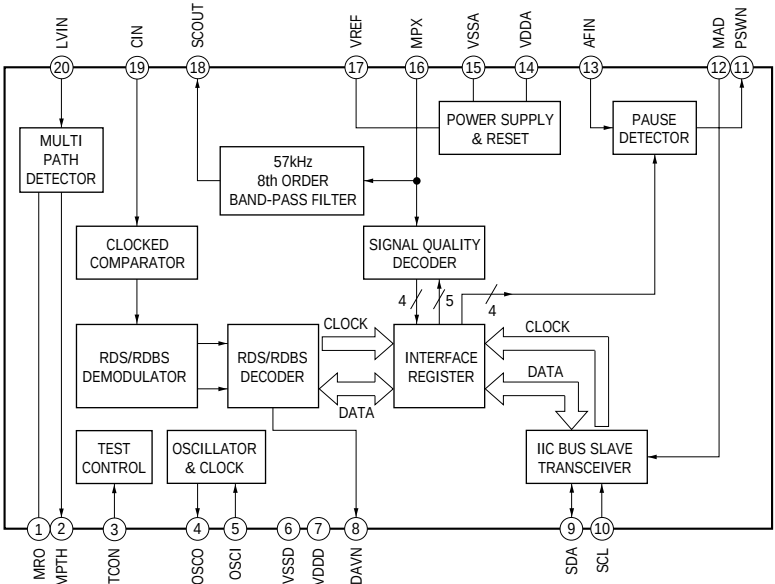
IC1 CXA2596M



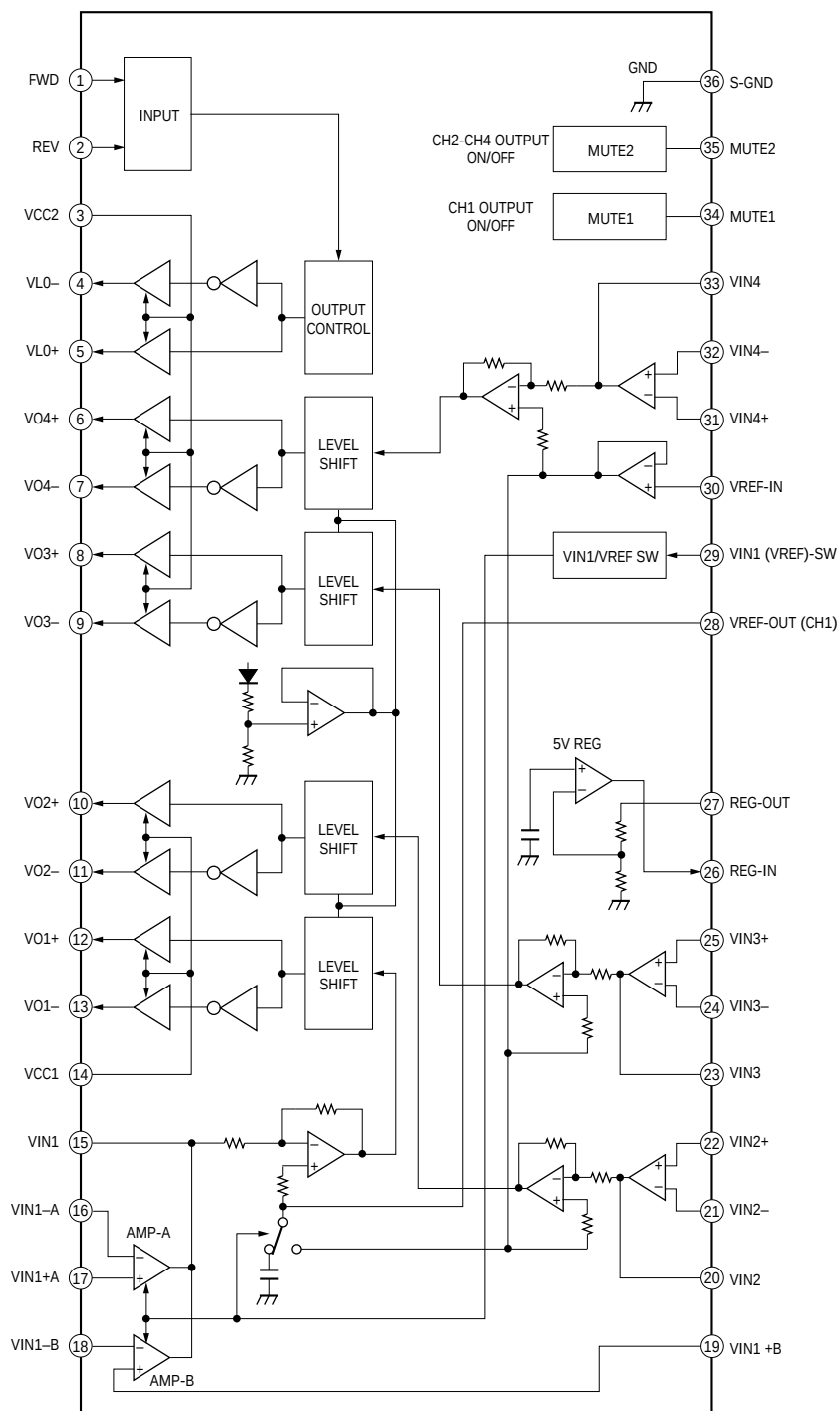
IC90 BA4558F-E2



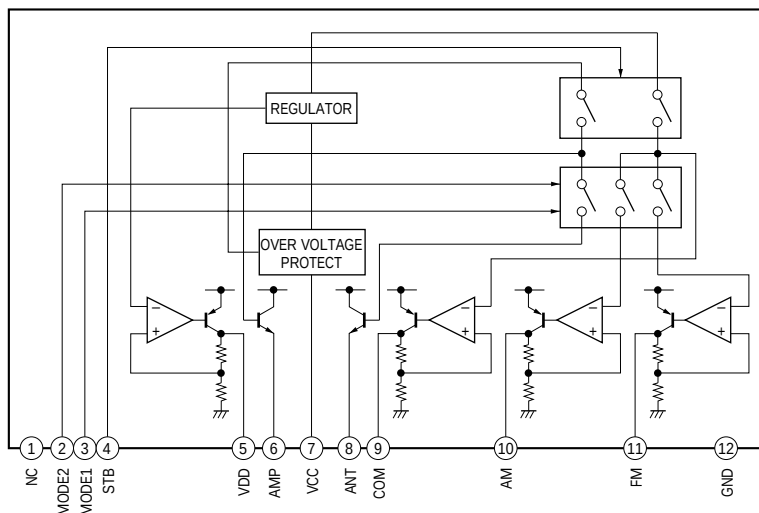
IC51 SAA6588T-V2-118



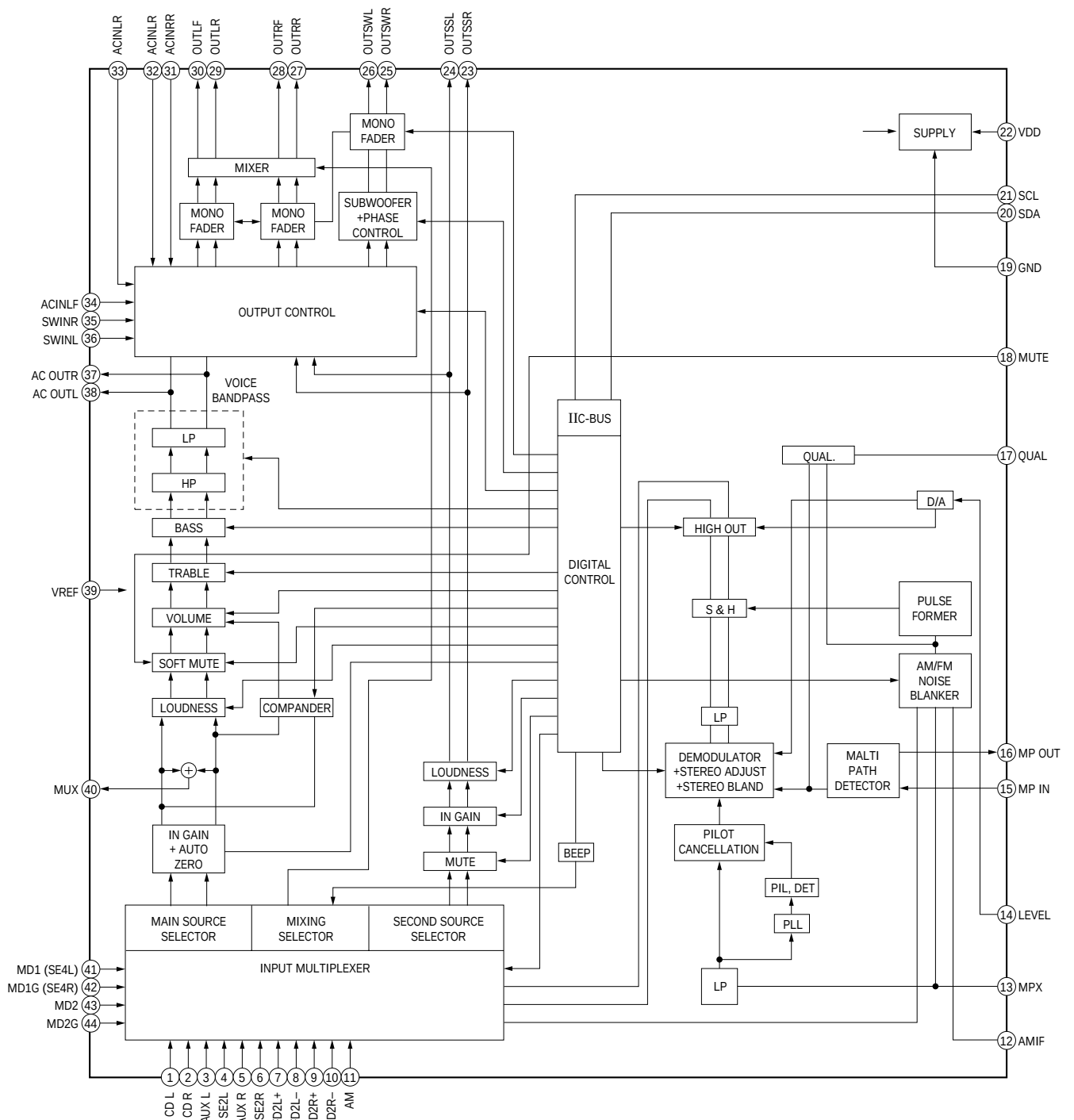
IC7 LA6556L-TE-L



IC671 BA4908-V3



IC151 TDA7402TR



SECTION 4 EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.

Color Indication of Appearance Parts

Example :

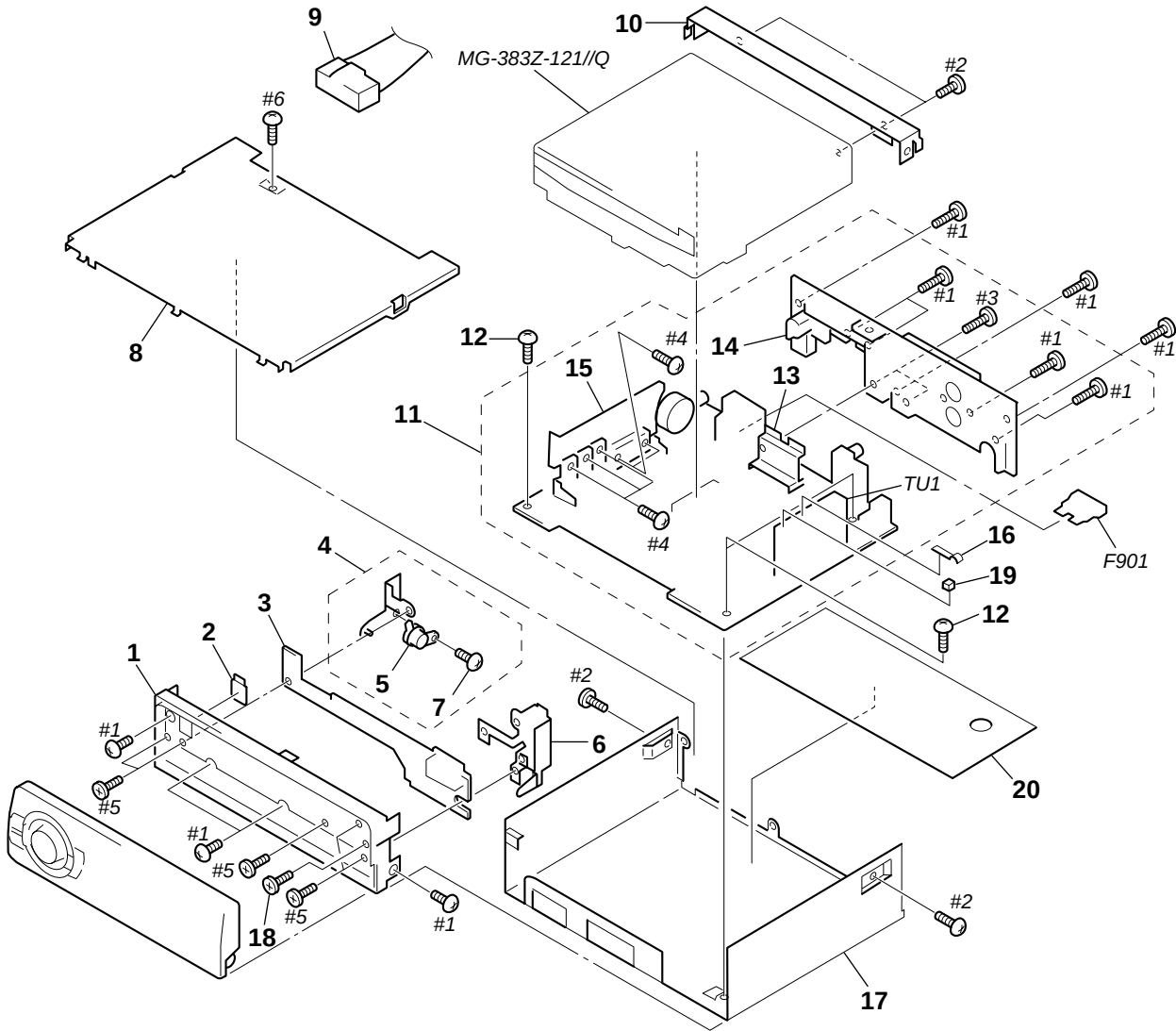
KNOB, BALANCE (WHITE) ... (RED)

Parts Color Cabinet's Color

- Accessories and packing materials and hardware (# mark) list are given in the last of this parts list.

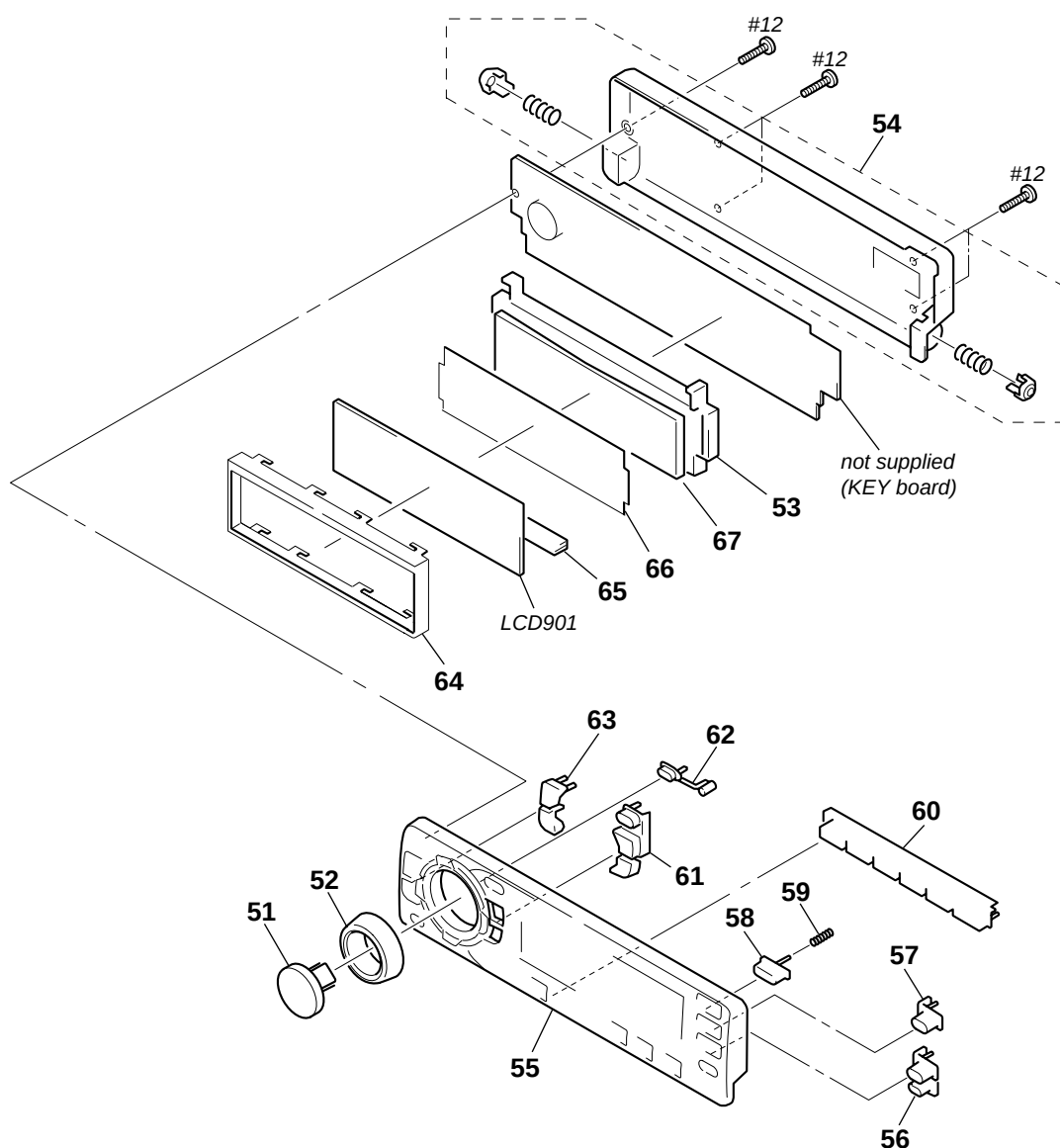
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

4-1. CHASSIS SECTION



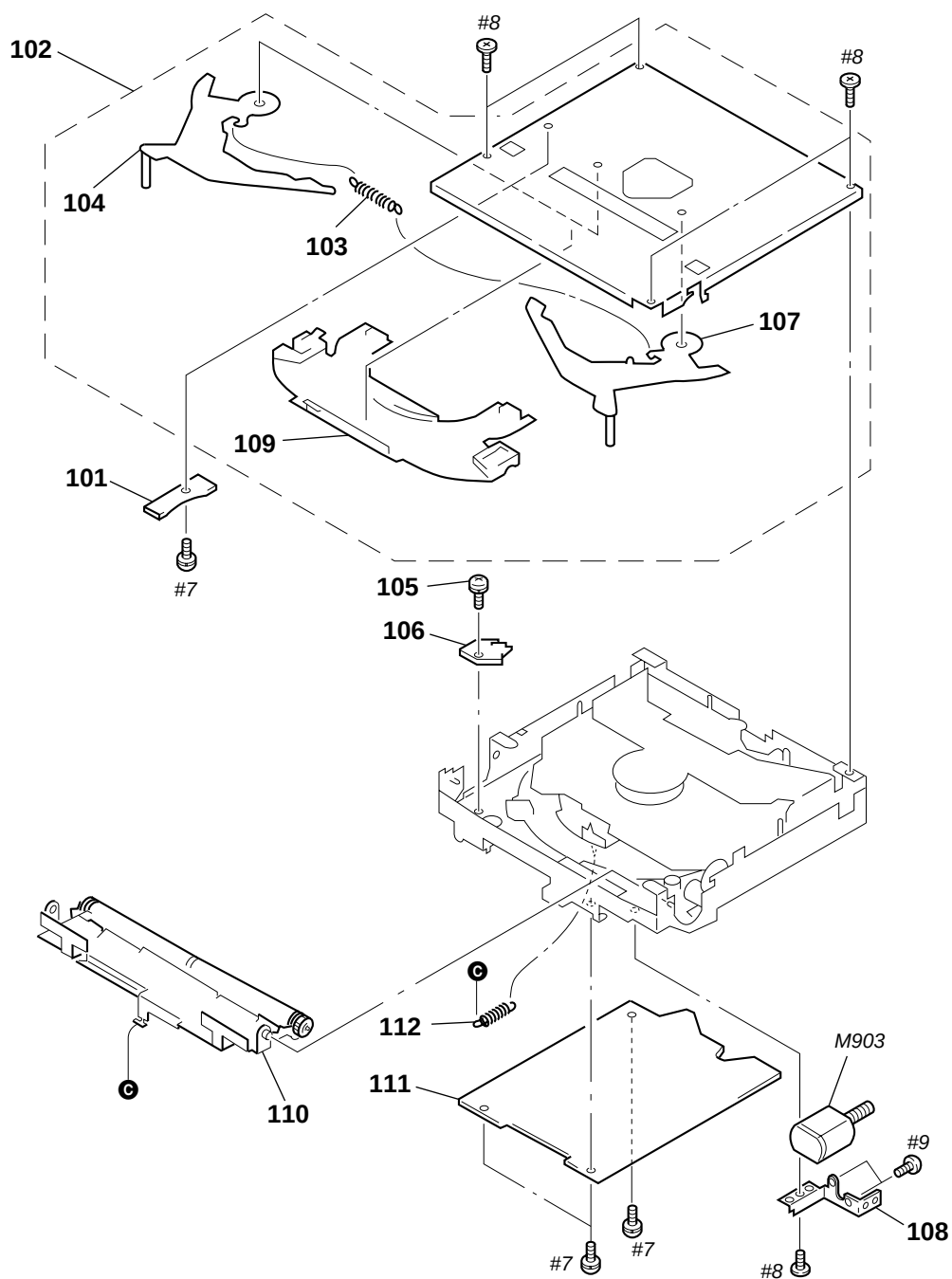
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-3378-512-1	PANEL ASSY, SUB		* 11	A-3326-188-A	MAIN BOARD, COMPLETE (4000R)	
2	3-040-990-01	BUTTON (EJECT)		* 11	A-3326-202-A	MAIN BOARD, COMPLETE (4000RX)	
* 3	1-677-056-11	SUB (CD) BOARD		12	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
4	X-3376-699-2	GEAR ASSY		* 13	3-040-998-01	BRACKET (IC)	
5	3-030-909-02	DAMPER, OIL		14	3-040-996-41	HEAT SINK (2P)	
6	X-3377-621-2	LOCK ASSY		* 15	3-041-011-01	HEAT SINK (REG)	
7	3-713-786-51	SCREW +P 2X3		* 16	3-045-878-01	PLATE (TU), GROUND	
* 8	3-040-995-01	COVER		* 17	3-040-994-11	CHASSIS	
9	1-776-527-51	CORD (WITH CONNECTOR) (ISO) (POWER)		18	3-047-812-01	SCREW (LOCK)	
9	1-776-527-61	CORD (WITH CONNECTOR) (ISO) (POWER)	(3900R)	* 19	3-045-877-01	CUSHION (TU)	
			(4000R/4000RX)	* 20	3-045-828-01	PLATE, INSULATED	
* 10	3-041-012-01	BRACKET (CD)		F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
* 11	A-3326-186-A	MAIN BOARD, COMPLETE (3900R)		TU1	A-3220-738-A	TUNER UNIT (TUX-020)	

4-2. FRONT PANEL SECTION



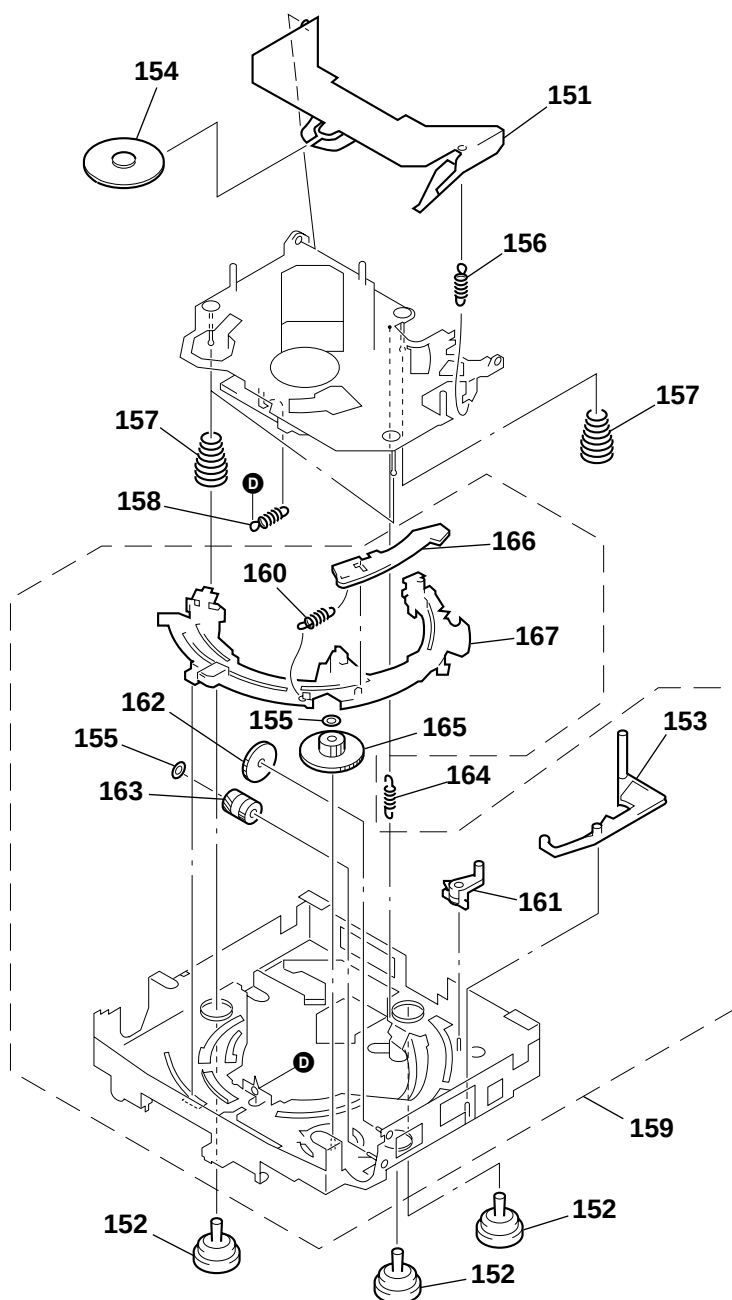
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	3-040-980-01	BUTTON (SOURCE)		60	3-040-988-01	BUTTON (1-6)	
52	3-040-981-01	KNOB (VOL)		61	3-041-009-01	BUTTON (MODE/ENTER)	
* 53	3-040-992-01	HOLDER (LCD)		62	3-040-987-01	BUTTON (OFF)	
54	X-3378-398-1	PANEL ASSY, FRONT BACK		63	3-040-986-01	BUTTON (MENU/SOUND)	
55	X-3378-514-1	SUB ASSY, PANEL (4000R)		* 64	3-040-997-01	PLATE (LCD), GROUND	
55	X-3378-515-1	SUB ASSY, PANEL (3900R)		65	1-694-660-11	CONDUCTIVE BOARD, CONNECTION	
55	X-3378-590-1	SUB ASSY, PANEL (4000RX)		* 66	3-041-371-02	SHEET (REFLECTOR)	
56	3-041-006-01	BUTTON (AF/TA)		* 67	3-040-993-01	PLATE (LCD), LIGHT GUIDE	
57	3-041-005-11	BUTTON (D)		LCD901	1-803-906-21	DISPLAY PANEL, LIQUID CRYSTAL	(3900R/4000R)
58	3-040-989-01	BUTTON (OPEN)		LCD901	1-803-906-41	DISPLAY PANEL, LIQUID CRYSTAL (4000RX)	
59	3-037-267-01	SPRING (OPEN)					

4-3. CD MECHANISM SECTION (1) (MG-383Z-121//Q)



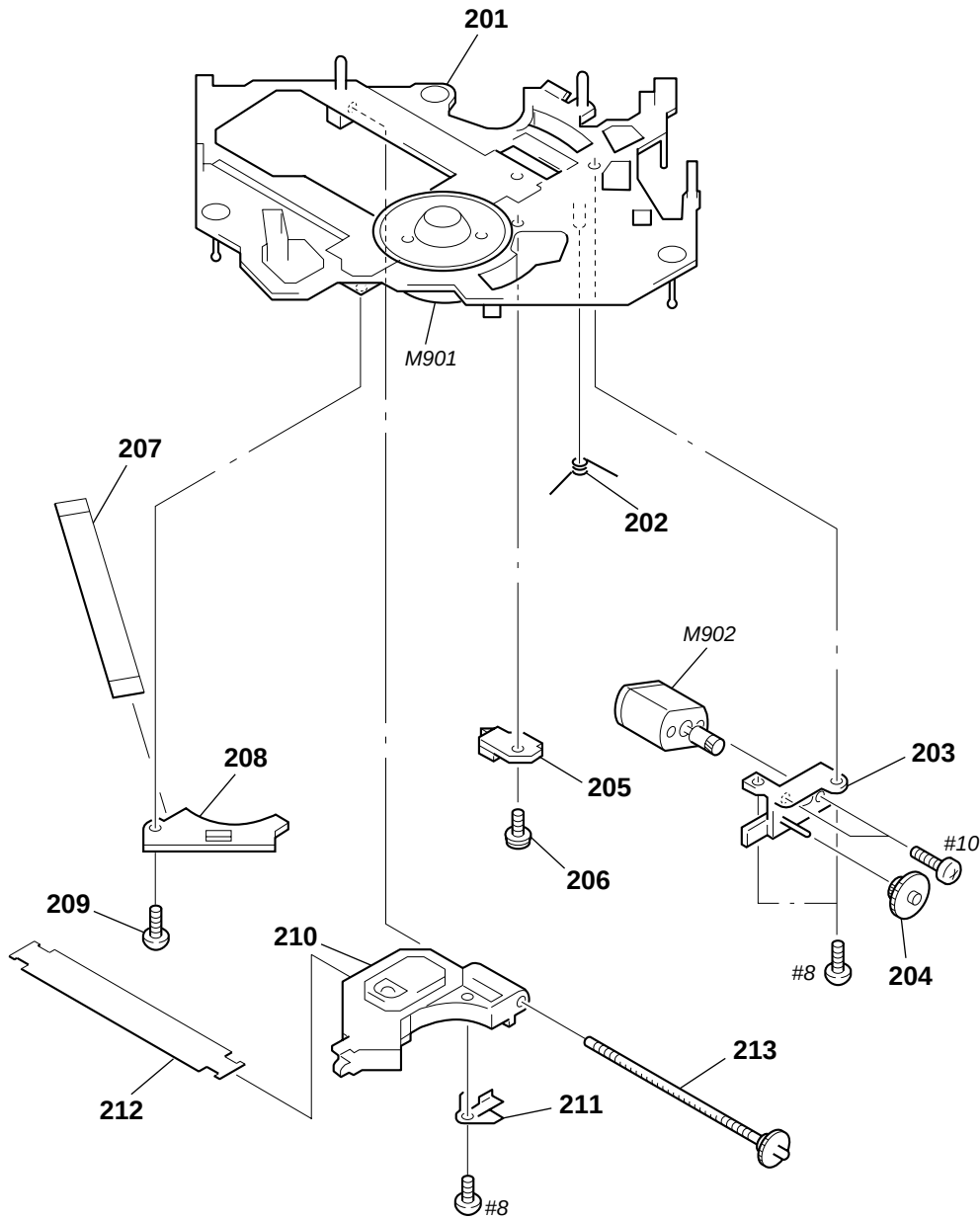
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 101	1-659-836-11	DISC IN SW BOARD		* 108	3-039-629-01	BRACKET (MOTOR)	
* 102	A-3315-034-A	CHASSIS (T) ASSY		109	3-013-388-02	GUIDE (DISC)	
103	3-931-909-01	SPRING (LR), TENSION		110	A-3315-040-A	ROLLER ASSY, ARM	
104	X-3371-501-1	LEVER (L) ASSY		* 111	A-3326-231-A	SERVO BOARD, COMPLETE	
105	3-338-737-01	SCREW (2X3), +PS		112	3-047-477-01	SPRING (RA2), TENSION	
* 106	1-659-837-11	LOAD SW BOARD		M903	A-3315-039-A	MOTOR SUB ASSY, LD (LOADING)	
107	X-3371-502-1	LEVER (R) ASSY					

4-4. CD MECHANISM SECTION (2)
(MG-383Z-121//Q)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	X-3378-956-1	ARM ASSY, CHUCKING		160	3-931-883-01	SPRING (TR), TENSION	
152	3-931-897-61	DAMPER (T)		161	3-931-881-01	LEVER (LOCK)	
153	3-039-627-01	LEVER (D)		162	3-931-882-02	GEAR (MDL)	
154	3-040-165-01	RETAINER (DISC)		163	3-007-537-11	WHEEL (U), WORM	
155	3-018-272-01	WASHER		164	3-032-484-01	SPRING (KR1), TENSION	
156	3-931-895-01	SPRING (CH), TENSION		165	3-014-727-01	WHEEL (LW), WORM	
157	3-931-898-01	SPRING (FL), COMPRESSION		166	3-039-626-01	LEVER (TR)	
158	3-032-483-02	SPRING (KF1), TENSION		167	3-025-418-21	RING, LOADING	
159	A-3307-471-A	OVERALL ASSY, CHASSIS (M)					

4-5. CD MECHANISM SECTION (3)
(MG-383Z-121/Q)



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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	X-3378-598-1	CHASSIS (OP) ASSY (INCLUDING M901)		* 208	1-659-834-11	SUB BOARD	
202	3-043-494-01	SPRING (SL), TORSION		209	3-909-607-01	SCREW	
203	3-040-170-01	BASE (DRIVING)		$\triangle$ 210	8-820-103-03	PICK-UP, OPTICAL KSS-720A/K1RP	
204	3-040-419-01	GEAR (MIDWAY)		211	3-931-834-01	SPRING (FEED), PLATE	
* 205	1-659-835-12	LIMIT SW BOARD		212	1-676-707-21	PICK-UP FLEXIBLE BOARD	
206	3-338-737-01	SCREW (2X3), +PS		213	A-3291-669-A	SHAFT (FEED) ASSY	
207	1-659-880-11	MOTOR FLEXIBLE BOARD		M902	A-3291-674-A	MOTOR ASSY, SLED (SLED)	

SECTION 5 ELECTRICAL PARTS LIST

DISC IN SW

KEY

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u : μ , for example:
uA.. : μ A.. uPA.. : μ PA..
uPB.. : μ PB.. uPC.. : μ PC.. uPD.. : μ PD..
- CAPACITORS
uF : μ F
- COILS
uH : μ H

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

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

- Abbreviation
G : German model
SE : South European model

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-659-836-11	DISC IN SW BOARD *****		LED902	8-719-078-15	LED CL-165Y/PG-D-T (3900R/4000R)	
		< SWITCH >		LED903	8-719-061-16	LED CL-190SR-CD-T (4000RX)	
SW1	1-572-288-21	SWITCH, PUSH (DISC IN)		LED903	8-719-078-15	LED CL-165Y/PG-D-T (3900R/4000R)	
SW2	1-572-288-21	SWITCH, PUSH (SELF)		LED904	8-719-061-16	LED CL-190SR-CD-T (4000RX)	
*****				LED904	8-719-078-15	LED CL-165Y/PG-D-T (3900R/4000R)	
		KEY BOARD *****		LED910	8-719-078-19	LED LWA673-R1S2	
	1-694-660-11	CONDUCTIVE BOARD, CONNECTION		LED911	8-719-078-19	LED LWA673-R1S2	
*	3-040-992-01	HOLDER (LCD)		LED912	8-719-078-19	LED LWA673-R1S2	
*	3-040-993-01	PLATE (LCD), LIGHT GUIDE		LED913	8-719-078-19	LED LWA673-R1S2	
*	3-040-997-01	PLATE (LCD), GROUND		LED914	8-719-078-19	LED LWA673-R1S2	
*	3-041-371-02	SHEET (REFLECTOR)					
		< CAPACITOR >		LED915	8-719-078-19	LED LWA673-R1S2	
C952	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V					
C953	1-163-251-11	CERAMIC CHIP 100PF 5% 50V					
C954	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V					
C955	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V					
C956	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V					
		< CONNECTOR >					
CN901	1-794-065-21	PLUG, CONNECTOR 14P					
		< DIODE >					
D901	8-719-158-49	DIODE UDZ-TE-17-12B		LSW901	1-771-610-11	SWITCH, TACTILE (WITH LED) (OFF) (3900R/4000R)	
D902	8-719-056-82	DIODE UDZ-TE-17-6.2B		LSW901	1-771-883-21	SWITCH, TACTILE (WITH LED) (OFF) (4000RX)	
D903	8-719-056-82	DIODE UDZ-TE-17-6.2B		LSW902	1-762-620-21	SWITCH, KEY BOARD (WITH LED) (SOURCE) (3900R/4000R)	
D904	8-719-056-82	DIODE UDZ-TE-17-6.2B		LSW902	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (SOURCE) (4000RX)	
D952	8-719-976-99	DIODE UDZ-TE-17-5.1B		LSW903	1-762-620-21	SWITCH, KEY BOARD (WITH LED) (SOUND) (3900R/4000R)	
		< IC >		LSW903	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (SOUND) (4000RX)	
IC901	8-759-366-34	IC LC75824E		LSW904	1-762-620-21	SWITCH, KEY BOARD (WITH LED) (MENU) (3900R/4000R)	
		< LIQUID CRYSTAL DISPLAY >		LSW904	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (MENU) (4000RX)	
LCD901	1-803-906-21	DISPLAY PANEL, LIQUID CRYSTAL (3900R/4000R)		LSW905	1-762-620-21	SWITCH, KEY BOARD (WITH LED) (DSPL/PTY) (3900R/4000R)	
LCD901	1-803-906-41	DISPLAY PANEL, LIQUID CRYSTAL (4000RX)		LSW905	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (DSPL/PTY) (4000RX)	
		< DIODE >		LSW906	1-762-620-21	SWITCH, KEY BOARD (WITH LED) (LIST/MODE) (3900R/4000R)	
LED901	8-719-061-16	LED CL-190SR-CD-T (4000RX)		LSW906	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (LIST/MODE) (4000RX)	
LED901	8-719-078-15	LED CL-165Y/PG-D-T (3900R/4000R)		LSW907	1-762-620-21	SWITCH, KEY BOARD (WITH LED) (ENTER) (3900R/4000R)	
LED902	8-719-061-16	LED CL-190SR-CD-T (4000RX)		LSW907	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (ENTER) (4000RX)	
				LSW909	1-762-737-11	SWITCH, KEY BOARD (WITH LED) (D-BASS)	
				LSW910	1-762-620-21	SWITCH, KEY BOARD (WITH LED) (TA) (3900R/4000R)	
				LSW910	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (TA) (4000RX)	

KEY

Ref. No.	Part No.	Description	Remark
LSW911	1-762-620-21	SWITCH, KEY BOARD (WITH LED) (AF) (3900R/4000R)	
LSW911	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (AF) (4000RX)	
LSW912	1-771-610-11	SWITCH, TACTILE (WITH LED) (6) (3900R/4000R)	
LSW912	1-771-883-21	SWITCH, TACTILE (WITH LED) (6) (4000RX)	
LSW913	1-771-610-11	SWITCH, TACTILE (WITH LED) (5) (3900R/4000R)	
LSW913	1-771-883-21	SWITCH, TACTILE (WITH LED) (5) (4000RX)	
LSW914	1-771-610-11	SWITCH, TACTILE (WITH LED) (4) (3900R/4000R)	
LSW914	1-771-883-21	SWITCH, TACTILE (WITH LED) (4) (4000RX)	
LSW915	1-771-610-11	SWITCH, TACTILE (WITH LED) (3) (3900R/4000R)	
LSW915	1-771-883-21	SWITCH, TACTILE (WITH LED) (3) (4000RX)	
LSW916	1-771-610-11	SWITCH, TACTILE (WITH LED) (2/SHUF) (3900R/4000R)	
LSW916	1-771-883-21	SWITCH, TACTILE (WITH LED) (2/SHUF) (4000RX)	
LSW917	1-771-610-11	SWITCH, TACTILE (WITH LED) (1/REP) (3900R/4000R)	
LSW917	1-771-883-21	SWITCH, TACTILE (WITH LED) (1/REP) (4000RX)	
< TRANSISTOR >			
Q901	8-729-904-75	TRANSISTOR DTD114EK-T-146 (3900R/4000R)	
Q902	8-729-904-75	TRANSISTOR DTD114EK-T-146 (3900R/4000R)	
< RESISTOR >			
R901	1-216-647-11	METAL CHIP 680 0.5% 1/10W	
R902	1-216-647-11	METAL CHIP 680 0.5% 1/10W	
R903	1-216-647-11	METAL CHIP 680 0.5% 1/10W	
R904	1-216-651-11	METAL CHIP 1K 0.5% 1/10W	
R905	1-216-655-11	METAL CHIP 1.5K 0.5% 1/10W	
R906	1-216-655-11	METAL CHIP 1.5K 0.5% 1/10W	
R907	1-216-659-11	METAL CHIP 2.2K 0.5% 1/10W	
R908	1-216-663-11	METAL CHIP 3.3K 0.5% 1/10W	
R909	1-216-667-11	METAL CHIP 4.7K 0.5% 1/10W	
R910	1-216-671-11	METAL CHIP 6.8K 0.5% 1/10W	
R911	1-208-806-11	RES-CHIP 10K 2% 1/10W	
R912	1-216-647-11	METAL CHIP 680 0.5% 1/10W	
R913	1-216-647-11	METAL CHIP 680 0.5% 1/10W	
R914	1-216-647-11	METAL CHIP 680 0.5% 1/10W	
R915	1-216-651-11	METAL CHIP 1K 0.5% 1/10W	
R916	1-216-655-11	METAL CHIP 1.5K 0.5% 1/10W	
R917	1-216-655-11	METAL CHIP 1.5K 0.5% 1/10W	
R918	1-216-659-11	METAL CHIP 2.2K 0.5% 1/10W	
R919	1-216-663-11	METAL CHIP 3.3K 0.5% 1/10W	
R920	1-216-667-11	METAL CHIP 4.7K 0.5% 1/10W	
R921	1-216-810-11	METAL CHIP 120 5% 1/16W (4000RX)	

Ref. No.	Part No.	Description	Remark
R921	1-216-811-11	METAL CHIP 150 5% 1/16W (3900R/4000R)	
R922	1-216-807-11	METAL CHIP 68 5% 1/16W (3900R/4000R)	
R923	1-216-812-11	METAL CHIP 180 5% 1/16W (4000RX)	
R923	1-216-815-11	METAL CHIP 330 5% 1/16W (3900R/4000R)	
R924	1-216-809-11	METAL CHIP 100 5% 1/16W (3900R/4000R)	
R925	1-216-029-00	METAL CHIP 150 5% 1/10W (3900R/4000R)	
R925	1-216-031-00	METAL CHIP 180 5% 1/10W (4000RX)	
R926	1-216-807-11	METAL CHIP 68 5% 1/16W (3900R/4000R)	
R927	1-216-029-00	METAL CHIP 150 5% 1/10W (3900R/4000R)	
R927	1-216-031-00	METAL CHIP 180 5% 1/10W (4000RX)	
R928	1-216-807-11	METAL CHIP 68 5% 1/16W (3900R/4000R)	
R931	1-216-813-11	METAL CHIP 220 5% 1/16W	
R932	1-216-813-11	METAL CHIP 220 5% 1/16W	
R933	1-216-812-11	METAL CHIP 180 5% 1/16W (3900R/4000R)	
R933	1-216-813-11	METAL CHIP 220 5% 1/16W (4000RX)	
R934	1-216-808-11	METAL CHIP 82 5% 1/16W (3900R/4000R)	
R935	1-216-812-11	METAL CHIP 180 5% 1/16W (4000RX)	
R935	1-216-864-11	METAL CHIP 0 5% 1/16W (3900R/4000R)	
R936	1-216-809-11	METAL CHIP 100 5% 1/16W (3900R/4000R)	
R938	1-216-809-11	METAL CHIP 100 5% 1/16W	
R939	1-216-821-11	METAL CHIP 1K 5% 1/16W (4000RX)	
R953	1-216-857-11	METAL CHIP 1M 5% 1/16W	
R954	1-216-049-11	RES-CHIP 1K 5% 1/10W	
R955	1-216-049-11	RES-CHIP 1K 5% 1/10W	
R956	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R957	1-216-851-11	METAL CHIP 330K 5% 1/16W	
R958	1-216-033-00	METAL CHIP 220 5% 1/10W	
R970	1-216-815-11	METAL CHIP 330 5% 1/16W	
R971	1-216-815-11	METAL CHIP 330 5% 1/16W	
R972	1-216-864-11	METAL CHIP 0 5% 1/16W	
R973	1-216-815-11	METAL CHIP 330 5% 1/16W	
R975	1-216-815-11	METAL CHIP 330 5% 1/16W	
R976	1-216-815-11	METAL CHIP 330 5% 1/16W	
R977	1-216-815-11	METAL CHIP 330 5% 1/16W	
R981	1-216-864-11	METAL CHIP 0 5% 1/16W	
R999	1-216-864-11	METAL CHIP 0 5% 1/16W (4000RX)	

							KEY		LIMIT SW		LOAD SW		MAIN	
Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark				
		< ROTARY ENCODER >												
RE901	1-475-014-12	ENCODER, ROTARY					C60	1-163-135-00	CERAMIC CHIP	560PF	5%	50V		
		< SWITCH >					C61	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V		
S901	1-771-884-21	SWITCH, TACTILE (WITH LED) (SEEK/AMS	⏮⏮ ⏮⏮ -)				C62	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V		
S902	1-771-884-21	SWITCH, TACTILE (WITH LED) (DISC/PRST +)					C63	1-164-315-11	CERAMIC CHIP	470PF	5%	50V		
S903	1-771-884-21	SWITCH, TACTILE (WITH LED) (SEEK/AMS	⏭⏭ ⏭⏭ +)				C90	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V		
S904	1-771-884-21	SWITCH, TACTILE (WITH LED) (DISC/PRST -)					C91	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V		

*	1-659-835-12	LIMIT SW BOARD	*****				C92	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V		
		< SWITCH >					C93	1-163-133-00	CERAMIC CHIP	470PF	5%	50V		
SW3	1-572-688-11	SWITCH, PUSH (1 KEY) (LIMIT)					C94	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V		

*	1-659-837-11	LOAD SW BOARD	*****				C95	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V		
		< SWITCH >					C96	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V		
SW4	1-572-288-21	SWITCH, PUSH (DOWN)					C97	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V		

*	A-3326-186-A	MAIN BOARD, COMPLETE (3900R)					C98	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V		
*	A-3326-188-A	MAIN BOARD, COMPLETE (4000R)					C101	1-126-160-11	ELECT	1uF	20%	50V		
*	A-3326-202-A	MAIN BOARD, COMPLETE (4000RX)	*****				C110	1-163-251-11	CERAMIC CHIP	100PF	5%	50V		
	3-040-996-41	HEAT SINK (2P)					C111	1-109-982-11	CERAMIC CHIP	1uF	10%	10V		
*	3-040-998-01	BRACKET (IC)					C113	1-109-982-11	CERAMIC CHIP	1uF	10%	10V		
*	3-041-011-01	HEAT SINK (REG)					C121	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V		
	7-685-647-11	SCREW BVTP 3X10 TYPE 2 N-S					C122	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V		
	7-685-793-09	SCREW +PTT 2.6X8 (S)					C123	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V		
	7-685-795-09	SCREW +PTT 2.6X12 (S)					C131	1-124-233-11	ELECT	10uF	20%	16V		
		< CAPACITOR >					C151	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V		
C1	1-163-233-11	CERAMIC CHIP	18PF	5%	50V	C152	1-124-584-00	ELECT	100uF	20%	10V			
C3	1-124-584-00	ELECT	100uF	20%	10V	C153	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V			
C4	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	C156	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V			
C6	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	C157	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V			
C7	1-124-589-11	ELECT	47uF	20%	16V	C159	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V			
C13	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	C161	1-124-233-11	ELECT	10uF	20%	16V			
C14	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	C162	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V			
C52	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	C171	1-126-163-11	ELECT	4.7uF	20%	50V			
C53	1-163-229-11	CERAMIC CHIP	12PF	5%	50V	C173	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V			
C54	1-163-229-11	CERAMIC CHIP	12PF	5%	50V	C174	1-162-919-11	CERAMIC CHIP	22PF	5%	50V			
C55	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	C181	1-126-163-11	ELECT	4.7uF	20%	50V			
C56	1-124-589-11	ELECT	47uF	20%	16V	C182	1-163-251-11	CERAMIC CHIP	100PF	5%	50V			
C57	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	C183	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V			
C58	1-163-263-11	CERAMIC CHIP	330PF	5%	50V	C184	1-162-919-11	CERAMIC CHIP	22PF	5%	50V			
C59	1-164-505-11	CERAMIC CHIP	2.2uF		16V	C191	1-216-295-00	SHORT	0					
						C192	1-216-295-00	SHORT	0					
						C193	1-216-295-00	SHORT	0					
						C201	1-126-160-11	ELECT	1uF	20%	50V			
						C210	1-163-251-11	CERAMIC CHIP	100PF	5%	50V			
						C271	1-126-163-11	ELECT	4.7uF	20%	50V			
						C273	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V			
						C274	1-163-235-11	CERAMIC CHIP	22PF	5%	50V			
						C281	1-126-163-11	ELECT	4.7uF	20%	50V			
						C282	1-163-251-11	CERAMIC CHIP	100PF	5%	50V			
						C283	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V			
						C284	1-162-919-11	CERAMIC CHIP	22PF	5%	50V			
						C361	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V			
						C362	1-126-157-11	ELECT	10uF	20%	16V			
						C363	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V			
						C364	1-126-157-11	ELECT	10uF	20%	16V			
						C365	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V			

Ref. No.	Part No.	Description			Remark
C366	1-124-233-11	ELECT	10uF	20%	16V
C367	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C368	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C369	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C370	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C371	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C372	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C373	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C374	1-124-584-00	ELECT	100uF	20%	10V
C375	1-124-584-00	ELECT	100uF	20%	10V
C502	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C503	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C504	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C505	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C506	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C507	1-163-102-00	CERAMIC CHIP	24PF	5%	50V
C509	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C510	1-124-584-00	ELECT	100uF	20%	10V
C511	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C512	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C513	1-163-259-11	CERAMIC CHIP	220PF	5%	50V
C551	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C552	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C571	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (4000R/4000RX)
C600	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C601	1-135-473-21	ELECT	3300uF	20%	16V
C602	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C603	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C611	1-126-160-11	ELECT	1uF	20%	50V
C612	1-126-160-11	ELECT	1uF	20%	50V
C614	1-126-157-11	ELECT	10uF	20%	16V
C616	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C617	1-136-165-00	MYLAR	0.1uF	5%	50V
C621	1-124-589-11	ELECT	47uF	20%	16V
C623	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C631	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C632	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C641	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C653	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C654	1-125-710-11	DOUBLE LAYERS	0.1F		5.5V
C655	1-124-584-00	ELECT	100uF	20%	10V
C661	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C671	1-126-157-11	ELECT	10uF	20%	16V
C672	1-126-157-11	ELECT	10uF	20%	16V
C673	1-126-157-11	ELECT	10uF	20%	16V
C674	1-124-233-11	ELECT	10uF	20%	16V
C675	1-124-233-11	ELECT	10uF	20%	16V
C676	1-126-157-11	ELECT	10uF	20%	16V
C682	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C702	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V

Ref. No.	Part No.	Description	Remark
		< CONNECTOR >	
CN301	1-764-617-12	PIN, CONNECTOR (PC BOARD) 30P	
CN500	1-784-456-11	CONNECTOR, FFC/FPC 14P	
CN601	1-774-701-11	PIN, CONNECTOR 16P	
		< JACK >	
CNJ151	1-774-698-11	JACK, PIN 2P (AUDIO OUT REAR)	
		< DIODE >	
D1	8-719-073-01	DIODE MA111-TX	
D2	8-719-067-56	DIODE MA112-TX	
D90	8-719-073-01	DIODE MA111-TX	
D91	8-719-073-01	DIODE MA111-TX	
D92	8-719-976-99	DIODE UDZ-TE-17-5.1B	
D131	8-719-422-12	DIODE UDZ-TE-17-3.9B	
D301	8-719-914-44	DIODE DAP202K-T-146	
D302	8-719-073-01	DIODE MA111-TX	
D361	8-719-035-98	DIODE MA4110-M(TA)	
D362	8-719-017-62	DIODE MA8068-L-TX	
D363	8-719-158-15	DIODE UDZ-TE-17-5.6B	
D501	8-719-914-44	DIODE DAP202K-T-146	
D502	8-719-073-01	DIODE MA111-TX	
D551	8-719-158-49	DIODE UDZ-TE-17-12B	
D552	8-719-056-82	DIODE UDZ-TE-17-6.2B	
D553	8-719-056-82	DIODE UDZ-TE-17-6.2B	
D554	8-719-056-82	DIODE UDZ-TE-17-6.2B	
D555	8-719-056-82	DIODE UDZ-TE-17-6.2B	
D556	8-719-056-82	DIODE UDZ-TE-17-6.2B	
D557	8-719-056-82	DIODE UDZ-TE-17-6.2B	
D558	8-719-056-82	DIODE UDZ-TE-17-6.2B	
D559	8-719-056-82	DIODE UDZ-TE-17-6.2B	
D560	8-719-056-82	DIODE UDZ-TE-17-6.2B	
D561	8-719-056-93	DIODE UDZ-TE-17-18B	
D562	8-719-056-82	DIODE UDZ-TE-17-6.2B	
D571	8-719-073-01	DIODE MA111-TX (4000R/4000RX)	
D601	8-719-049-38	DIODE 1N5404TU	
D602	8-719-056-93	DIODE UDZ-TE-17-18B	
D603	8-719-056-93	DIODE UDZ-TE-17-18B	
D604	8-719-056-82	DIODE UDZ-TE-17-6.2B	
D605	8-719-056-93	DIODE UDZ-TE-17-18B (4000R/4000RX)	
D611	8-719-079-55	DIODE PTZ-TE25-22	
D612	8-719-079-55	DIODE PTZ-TE25-22	
D613	8-719-079-55	DIODE PTZ-TE25-22	
D614	8-719-079-55	DIODE PTZ-TE25-22	
D615	8-719-079-55	DIODE PTZ-TE25-22	
D616	8-719-079-55	DIODE PTZ-TE25-22	
D617	8-719-079-55	DIODE PTZ-TE25-22	
D618	8-719-079-55	DIODE PTZ-TE25-22	
D621	8-719-422-12	DIODE UDZ-TE-17-3.9B	
D622	8-719-073-01	DIODE MA111-TX	
D624	8-719-158-15	DIODE UDZ-TE-17-5.6B	
D631	8-719-158-49	DIODE UDZ-TE-17-12B	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D653	8-719-073-01	DIODE MA111-TX		JC701	1-216-864-11	METAL CHIP 0 5% 1/16W	
D661	8-719-073-01	DIODE MA111-TX				< COIL >	
D662	8-719-420-14	DIODE MA8082-M(TX)					
D671	8-719-053-18	DIODE 1SR154-400TE-25		L601	1-419-476-11	COIL, CHOKE (2000)	
D672	8-719-053-18	DIODE 1SR154-400TE-25		L671	1-410-989-11	INDUCTOR CHIP 0.47uH	
						< TRANSISTOR >	
D673	8-719-053-18	DIODE 1SR154-400TE-25		Q1	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
D674	8-719-053-18	DIODE 1SR154-400TE-25		Q90	8-729-900-53	TRANSISTOR DTC114EKA-T146	
D675	8-719-067-56	DIODE MA112-TX		Q111	8-729-920-21	TRANSISTOR DTC314TK-T-146	
D676	8-719-073-01	DIODE MA111-TX		Q121	8-729-920-21	TRANSISTOR DTC314TK-T-146	
D677	8-719-073-01	DIODE MA111-TX		Q131	8-729-921-25	TRANSISTOR FMC2-T148	
D701	8-719-978-69	DIODE UDZ-TE-17-16B					
D707	8-719-422-76	DIODE MA8075-M-TX		Q171	8-729-920-21	TRANSISTOR DTC314TK-T-146	
D901	8-719-109-97	DIODE RD6.8ESB2		Q181	8-729-920-21	TRANSISTOR DTC314TK-T-146	
D902	8-719-109-97	DIODE RD6.8ESB2		Q271	8-729-920-21	TRANSISTOR DTC314TK-T-146	
		< FERRITE BEAD >		Q281	8-729-920-21	TRANSISTOR DTC314TK-T-146	
FB361	1-414-233-22	FERRITE BEAD INDUCTOR		Q361	8-729-019-00	TRANSISTOR 2SD2394-G	
FB362	1-414-233-22	FERRITE BEAD INDUCTOR					
FB363	1-414-233-22	FERRITE BEAD INDUCTOR		Q362	8-729-019-00	TRANSISTOR 2SD2394-G	
FB501	1-414-233-22	FERRITE BEAD INDUCTOR		Q363	8-729-921-25	TRANSISTOR FMC2-T148	
		< IC >		Q364	8-729-015-11	TRANSISTOR 2SD1802FAST-TL	
IC51	8-759-650-68	IC SAA6588T/V2-118		Q365	8-729-921-25	TRANSISTOR FMC2-T148	
IC90	8-759-909-71	IC BA4558F-E2		Q551	8-729-921-25	TRANSISTOR FMC2-T148	
IC151	8-759-653-27	IC TDA7402TR					
IC501	8-759-663-56	IC MB90574PMT-G-266-BND		Q571	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR (4000R/4000RX)	
IC611	8-759-663-88	IC TA8268H		Q621	8-729-027-23	TRANSISTOR DTA114EKA-T146	
				Q622	8-729-021-94	FET 2SK1657-T1B	
IC652	8-759-574-61	IC XC61AN4302MR		Q631	8-729-423-99	TRANSISTOR 2SD2137-OP-TA	
IC671	8-759-661-47	IC BA4908-V3		Q633	8-729-921-25	TRANSISTOR FMC2-T148	
		< JACK >					
J1	1-764-808-21	JACK (ANTENNA)		Q651	8-729-027-23	TRANSISTOR DTA114EKA-T146	
J501	1-566-822-41	JACK (REMOTE IN)		Q652	8-729-027-23	TRANSISTOR DTA114EKA-T146	
		< JUMPER RESISTOR >		Q661	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
				Q701	8-729-900-53	TRANSISTOR DTC114EKA-T146	
JC1	1-216-296-00	SHORT 0		Q702	1-801-806-11	TRANSISTOR DTC144EKA-T146	
JC2	1-216-296-00	SHORT 0					
JC4	1-216-296-00	SHORT 0		Q703	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
JC5	1-216-296-00	SHORT 0				< RESISTOR >	
JC16	1-216-295-00	SHORT 0		R1	1-216-295-00	SHORT 0	
				R4	1-216-025-11	RES-CHIP 100 5% 1/10W	
JC31	1-216-295-00	SHORT 0		R5	1-216-025-11	RES-CHIP 100 5% 1/10W	
JC51	1-216-295-00	SHORT 0		R6	1-216-025-11	RES-CHIP 100 5% 1/10W	
JC53	1-216-295-00	SHORT 0		R7	1-216-025-11	RES-CHIP 100 5% 1/10W	
JC90	1-216-295-00	SHORT 0					
JC191	1-216-295-00	SHORT 0		R8	1-216-295-00	SHORT 0	
				R9	1-216-041-00	METAL CHIP 470 5% 1/10W	
JC192	1-216-295-00	SHORT 0		R12	1-216-837-11	METAL CHIP 22K 5% 1/16W	
JC193	1-216-295-00	SHORT 0		R20	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
JC194	1-216-295-00	SHORT 0		R53	1-216-853-11	METAL CHIP 470K 5% 1/16W	
JC302	1-216-864-11	METAL CHIP 0 5% 1/16W					
JC502	1-216-295-00	SHORT 0		R54	1-216-821-11	METAL CHIP 1K 5% 1/16W	
				R55	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
JC601	1-216-864-11	METAL CHIP 0 5% 1/16W		R56	1-216-817-11	METAL CHIP 470 5% 1/16W	
JC671	1-216-295-00	SHORT 0		R57	1-216-809-11	METAL CHIP 100 5% 1/16W	
JC673	1-216-864-11	METAL CHIP 0 5% 1/16W		R58	1-216-025-11	RES-CHIP 100 5% 1/10W	
				R59	1-216-001-00	METAL CHIP 10 5% 1/10W	

MAIN

Ref. No.	Part No.	Description	Remark		
R60	1-216-797-11	METAL CHIP	10	5%	1/16W
R90	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R91	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R92	1-216-025-11	RES-CHIP	100	5%	1/10W
R93	1-216-845-11	METAL CHIP	100K	5%	1/16W
R94	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R95	1-216-121-11	RES-CHIP	1M	5%	1/10W
R96	1-216-025-11	RES-CHIP	100	5%	1/10W
R97	1-216-833-11	RES-CHIP	10K	5%	1/16W
R98	1-216-833-11	RES-CHIP	10K	5%	1/16W
R108	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R111	1-216-864-11	METAL CHIP	0	5%	1/16W
R112	1-216-841-11	METAL CHIP	47K	5%	1/16W
R121	1-216-049-11	RES-CHIP	1K	5%	1/10W
R122	1-216-085-00	METAL CHIP	33K	5%	1/10W
R131	1-216-037-00	METAL CHIP	330	5%	1/10W
R132	1-216-045-00	METAL CHIP	680	5%	1/10W
R152	1-216-841-11	METAL CHIP	47K	5%	1/16W
R153	1-216-025-11	RES-CHIP	100	5%	1/10W
R154	1-216-025-11	RES-CHIP	100	5%	1/10W
R156	1-216-809-11	METAL CHIP	100	5%	1/16W
R171	1-216-033-00	METAL CHIP	220	5%	1/10W
R172	1-216-081-00	METAL CHIP	22K	5%	1/10W
R173	1-216-089-11	RES-CHIP	47K	5%	1/10W
R181	1-216-033-00	METAL CHIP	220	5%	1/10W
R182	1-216-081-00	METAL CHIP	22K	5%	1/10W
R183	1-216-089-11	RES-CHIP	47K	5%	1/10W
R208	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R271	1-216-033-00	METAL CHIP	220	5%	1/10W
R272	1-216-081-00	METAL CHIP	22K	5%	1/10W
R273	1-216-089-11	RES-CHIP	47K	5%	1/10W
R281	1-216-033-00	METAL CHIP	220	5%	1/10W
R282	1-216-081-00	METAL CHIP	22K	5%	1/10W
R283	1-216-089-11	RES-CHIP	47K	5%	1/10W
R302	1-216-845-11	METAL CHIP	100K	5%	1/16W
R303	1-216-097-11	RES-CHIP	100K	5%	1/10W
R361	1-216-041-00	METAL CHIP	470	5%	1/10W
R362	1-216-041-00	METAL CHIP	470	5%	1/10W
R363	1-216-041-00	METAL CHIP	470	5%	1/10W
R364	1-216-041-00	METAL CHIP	470	5%	1/10W
R365	1-216-041-00	METAL CHIP	470	5%	1/10W
R504	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R505	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R506	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R507	1-216-073-00	METAL CHIP	10K	5%	1/10W
R509	1-216-097-11	RES-CHIP	100K	5%	1/10W (4000RX)
R510	1-216-097-11	RES-CHIP	100K	5%	1/10W (3900R/4000R)
R520	1-216-097-11	RES-CHIP	100K	5%	1/10W
R522	1-216-097-11	RES-CHIP	100K	5%	1/10W
R523	1-216-845-11	METAL CHIP	100K	5%	1/16W
R524	1-216-073-00	METAL CHIP	10K	5%	1/10W

Ref. No.	Part No.	Description	Remark		
R525	1-216-073-00	METAL CHIP	10K	5%	1/10W
R527	1-216-845-11	METAL CHIP	100K	5%	1/16W
R529	1-216-049-11	RES-CHIP	1K	5%	1/10W
R531	1-216-839-11	METAL CHIP	33K	5%	1/16W (4000R/4000RX)
R532	1-216-833-11	RES-CHIP	10K	5%	1/16W (4000R/4000RX)
R533	1-216-833-11	RES-CHIP	10K	5%	1/16W (4000R/4000RX)
R534	1-216-097-11	RES-CHIP	100K	5%	1/10W (4000R/4000RX)
R535	1-216-845-11	METAL CHIP	100K	5%	1/16W
R537	1-216-097-11	RES-CHIP	100K	5%	1/10W
R538	1-216-097-11	RES-CHIP	100K	5%	1/10W
R539	1-216-097-11	RES-CHIP	100K	5%	1/10W
R540	1-216-097-11	RES-CHIP	100K	5%	1/10W
R542	1-216-089-11	RES-CHIP	47K	5%	1/10W
R544	1-216-097-11	RES-CHIP	100K	5%	1/10W
R545	1-216-097-11	RES-CHIP	100K	5%	1/10W
R547	1-216-097-11	RES-CHIP	100K	5%	1/10W
R551	1-249-411-11	CARBON	330	5%	1/4W (4000RX)
R552	1-216-025-11	RES-CHIP	100	5%	1/10W
R553	1-216-025-11	RES-CHIP	100	5%	1/10W
R554	1-216-025-11	RES-CHIP	100	5%	1/10W
R555	1-216-025-11	RES-CHIP	100	5%	1/10W
R556	1-216-025-11	RES-CHIP	100	5%	1/10W
R557	1-216-025-11	RES-CHIP	100	5%	1/10W
R558	1-216-025-11	RES-CHIP	100	5%	1/10W
R559	1-216-025-11	RES-CHIP	100	5%	1/10W
R560	1-216-025-11	RES-CHIP	100	5%	1/10W
R561	1-208-806-11	RES-CHIP	10K	0.5%	1/10W
R562	1-208-806-11	RES-CHIP	10K	0.5%	1/10W
R563	1-216-845-11	METAL CHIP	100K	5%	1/16W
R564	1-216-845-11	METAL CHIP	100K	5%	1/16W
R565	1-216-025-11	RES-CHIP	100	5%	1/10W
R567	1-249-411-11	CARBON	330	5%	1/4W
R571	1-216-845-11	METAL CHIP	100K	5%	1/16W (3900R)
R572	1-216-809-11	METAL CHIP	100	5%	1/16W
R573	1-216-809-11	METAL CHIP	100	5%	1/16W
R601	1-216-073-00	METAL CHIP	10K	5%	1/10W
R603	1-216-073-00	METAL CHIP	10K	5%	1/10W
R611	1-216-833-11	RES-CHIP	10K	5%	1/16W
R612	1-216-073-00	METAL CHIP	10K	5%	1/10W
R621	1-216-805-11	METAL CHIP	47	5%	1/16W
R622	1-216-864-11	METAL CHIP	0	5%	1/16W
R624	1-216-295-00	SHORT	0		
R626	1-216-861-11	METAL CHIP	2.2M	5%	1/16W
R631	1-249-385-11	CARBON	2.2	5%	1/6W
R632	1-249-385-11	CARBON	2.2	5%	1/6W
R636	1-216-037-00	METAL CHIP	330	5%	1/10W
R641	1-216-849-11	METAL CHIP	220K	5%	1/16W
R642	1-216-853-11	METAL CHIP	470K	5%	1/16W

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R651	1-216-113-00	METAL CHIP	470K	5%	1/10W	C308	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
R652	1-216-845-11	METAL CHIP	100K	5%	1/16W	C309	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
R653	1-208-806-11	RES-CHIP	10K	0.5%	1/10W	C310	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
R654	1-216-833-11	RES-CHIP	10K	5%	1/16W	C311	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
R655	1-216-809-11	METAL CHIP	100	5%	1/16W	C312	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R656	1-216-809-11	METAL CHIP	100	5%	1/16W	C501	1-126-391-11	ELECT CHIP	47uF	20%	6.3V
R661	1-249-421-11	CARBON	2.2K	5%	1/4W	C502	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
R662	1-216-081-00	METAL CHIP	22K	5%	1/10W	C504	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
R663	1-216-841-11	METAL CHIP	47K	5%	1/16W	C505	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
R664	1-216-841-11	METAL CHIP	47K	5%	1/16W	C506	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
R682	1-216-089-11	RES-CHIP	47K	5%	1/10W	C507	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
R705	1-216-841-11	METAL CHIP	47K	5%	1/16W	C508	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
R706	1-216-841-11	METAL CHIP	47K	5%	1/16W	C509	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R707	1-216-065-11	RES-CHIP	4.7K	5%	1/10W	C510	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
R712	1-216-841-11	METAL CHIP	47K	5%	1/16W	C511	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
< SWITCH >						C512	1-162-963-11	CERAMIC CHIP	680PF	10%	50V
SW503	1-692-431-21	SWITCH, TACTILE (RESET)				C513	1-162-963-11	CERAMIC CHIP	680PF	10%	50V
SW504	1-771-540-11	SWITCH, PUSH (1 KEY) (NOSE DET)				C514	1-126-391-11	ELECT CHIP	47uF	20%	6.3V
< TUNER >						C515	1-164-360-11	CERAMIC CHIP	0.1uF		16V
TU1	A-3220-738-A	TUNER UNIT (TUX-020)				C517	1-164-360-11	CERAMIC CHIP	0.1uF		16V
< VIBRATOR >						C518	1-164-360-11	CERAMIC CHIP	0.1uF		16V
X51	1-579-242-41	VIBRATOR, CRYSTAL (4.332MHz)				C519	1-164-360-11	CERAMIC CHIP	0.1uF		16V
X501	1-767-833-21	VIBRATOR, CERAMIC (3.68MHz)				C520	1-164-360-11	CERAMIC CHIP	0.1uF		16V
X502	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)				C521	1-164-360-11	CERAMIC CHIP	0.1uF		16V
*****						C522	1-164-360-11	CERAMIC CHIP	0.1uF		16V
* A-3326-231-A SERVO BOARD, COMPLETE						C550	1-164-360-11	CERAMIC CHIP	0.1uF		16V
*****						C553	1-164-360-11	CERAMIC CHIP	0.1uF		16V
< CAPACITOR >						C554	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C101	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V	< CONNECTOR >					
C103	1-104-609-11	ELECT CHIP	100uF	20%	4V	CN1	1-764-616-12	HOUSING, CONNECTOR (PC BOARD) 30P			
C104	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V	CN2	1-794-153-21	CONNECTOR, FPC (ZIF) 16P			
C106	1-164-360-11	CERAMIC CHIP	0.1uF		16V	CN3	1-770-347-21	CONNECTOR, FPC 6P			
C107	1-115-156-11	CERAMIC CHIP	1uF		10V	< FERRITE BEAD >					
C108	1-162-974-11	CERAMIC CHIP	0.01uF		50V	FB101	1-216-295-00	SHORT	0		
C109	1-162-917-11	CERAMIC CHIP	15PF	5%	50V	FB102	1-216-295-00	SHORT	0		
C111	1-104-852-11	TANTAL. CHIP	22uF	20%	10V	FB103	1-216-295-00	SHORT	0		
C115	1-164-733-11	CERAMIC CHIP	820PF	10%	50V	FB501	1-216-295-00	SHORT	0		
C116	1-165-128-11	CERAMIC CHIP	0.22uF		16V	FB503	1-500-445-21	FERRITE BEAD INDUCTOR			
C117	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	< IC >					
C118	1-164-360-11	CERAMIC CHIP	0.1uF		16V	IC1	8-752-095-36	IC CXA2596M-T6			
C127	1-104-851-11	TANTAL. CHIP	10uF	20%	10V	IC5	8-752-911-88	IC CXP84640-063Q			
C301	1-126-393-11	ELECT CHIP	33uF	20%	10V	IC7	8-759-653-67	IC LA6556L-TE-L			
C302	1-164-360-11	CERAMIC CHIP	0.1uF		16V	IC501	8-752-392-04	IC CXD2598Q			
C303	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	< JUMPER RESISTOR >					
C304	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	JR501	1-216-295-00	SHORT	0		
C305	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	JR505	1-216-864-11	METAL CHIP	0	5%	1/16W
C306	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	JR506	1-216-864-11	METAL CHIP	0	5%	1/16W
C307	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	JR507	1-216-295-00	SHORT	0		

SERVO
SUB
SUB (CD)

Ref. No.	Part No.	Description	Remark		
< TRANSISTOR >					
Q101	8-729-904-87	TRANSISTOR 2SB1197K-T-146-R			
< RESISTOR >					
R101	1-216-847-11	METAL CHIP 150K	5%	1/16W	
R102	1-216-847-11	METAL CHIP 150K	5%	1/16W	
R103	1-216-158-00	RES-CHIP 22	5%	1/8W	
R104	1-216-857-11	METAL CHIP 1M	5%	1/16W	
R105	1-216-833-11	RES-CHIP 10K	5%	1/16W	
R106	1-216-857-11	METAL CHIP 1M	5%	1/16W	
R107	1-216-829-11	METAL CHIP 4.7K	5%	1/16W	
R108	1-216-829-11	METAL CHIP 4.7K	5%	1/16W	
R110	1-216-837-11	METAL CHIP 22K	5%	1/16W	
R111	1-216-833-11	RES-CHIP 10K	5%	1/16W	
R113	1-216-839-11	METAL CHIP 33K	5%	1/16W	
R116	1-216-845-11	METAL CHIP 100K	5%	1/16W	
R122	1-216-845-11	METAL CHIP 100K	5%	1/16W	
R123	1-216-839-11	METAL CHIP 33K	5%	1/16W	
R126	1-216-842-11	METAL CHIP 56K	5%	1/16W	
R127	1-216-821-11	METAL CHIP 1K	5%	1/16W	
R213	1-216-821-11	METAL CHIP 1K	5%	1/16W	
R301	1-216-843-11	METAL CHIP 68K	5%	1/16W	
R302	1-216-839-11	METAL CHIP 33K	5%	1/16W	
R303	1-216-821-11	METAL CHIP 1K	5%	1/16W	
R304	1-216-839-11	METAL CHIP 33K	5%	1/16W	
R306	1-216-833-11	RES-CHIP 10K	5%	1/16W	
R307	1-216-833-11	RES-CHIP 10K	5%	1/16W	
R308	1-216-833-11	RES-CHIP 10K	5%	1/16W	
R309	1-216-833-11	RES-CHIP 10K	5%	1/16W	
R310	1-216-833-11	RES-CHIP 10K	5%	1/16W	
R311	1-216-833-11	RES-CHIP 10K	5%	1/16W	
R312	1-216-845-11	METAL CHIP 100K	5%	1/16W	
R313	1-216-842-11	METAL CHIP 56K	5%	1/16W	
R314	1-216-842-11	METAL CHIP 56K	5%	1/16W	
R315	1-216-842-11	METAL CHIP 56K	5%	1/16W	
R316	1-216-842-11	METAL CHIP 56K	5%	1/16W	
R317	1-216-838-11	METAL CHIP 27K	5%	1/16W	
R318	1-216-842-11	METAL CHIP 56K	5%	1/16W	
R319	1-216-842-11	METAL CHIP 56K	5%	1/16W	
R320	1-216-833-11	RES-CHIP 10K	5%	1/16W	
R321	1-216-846-11	METAL CHIP 120K	5%	1/16W	
R322	1-216-835-11	METAL CHIP 15K	5%	1/16W	
R501	1-216-833-11	RES-CHIP 10K	5%	1/16W	
R503	1-216-845-11	METAL CHIP 100K	5%	1/16W	
R504	1-216-857-11	METAL CHIP 1M	5%	1/16W	
R505	1-216-839-11	METAL CHIP 33K	5%	1/16W	
R506	1-216-845-11	METAL CHIP 100K	5%	1/16W	
R507	1-216-827-11	METAL CHIP 3.3K	5%	1/16W	
R511	1-216-845-11	METAL CHIP 100K	5%	1/16W	
R513	1-216-827-11	METAL CHIP 3.3K	5%	1/16W	
R516	1-216-845-11	METAL CHIP 100K	5%	1/16W	
R517	1-216-837-11	METAL CHIP 22K	5%	1/16W	

Ref. No.	Part No.	Description			Remark
R518	1-216-834-11	METAL CHIP	12K	5%	1/16W
R519	1-216-834-11	METAL CHIP	12K	5%	1/16W
R520	1-216-834-11	METAL CHIP	12K	5%	1/16W
R521	1-216-834-11	METAL CHIP	12K	5%	1/16W
R522	1-216-834-11	METAL CHIP	12K	5%	1/16W
R523	1-216-834-11	METAL CHIP	12K	5%	1/16W
R524	1-216-845-11	METAL CHIP	100K	5%	1/16W
R526	1-216-845-11	METAL CHIP	100K	5%	1/16W
R527	1-216-845-11	METAL CHIP	100K	5%	1/16W
R531	1-216-809-11	METAL CHIP	100	5%	1/16W
R532	1-216-845-11	METAL CHIP	100K	5%	1/16W
R533	1-216-845-11	METAL CHIP	100K	5%	1/16W
R535	1-216-845-11	METAL CHIP	100K	5%	1/16W
R551	1-216-841-11	METAL CHIP	47K	5%	1/16W
R552	1-216-841-11	METAL CHIP	47K	5%	1/16W
R553	1-216-845-11	METAL CHIP	100K	5%	1/16W
R554	1-216-845-11	METAL CHIP	100K	5%	1/16W
R555	1-216-845-11	METAL CHIP	100K	5%	1/16W
R558	1-216-864-11	METAL CHIP	0	5%	1/16W
R560	1-216-809-11	METAL CHIP	100	5%	1/16W
R563	1-216-809-11	METAL CHIP	100	5%	1/16W
R564	1-216-845-11	METAL CHIP	100K	5%	1/16W
R568	1-216-837-11	METAL CHIP	22K	5%	1/16W
R569	1-216-809-11	METAL CHIP	100	5%	1/16W
R570	1-216-821-11	METAL CHIP	1K	5%	1/16W
R572	1-216-809-11	METAL CHIP	100	5%	1/16W
R590	1-216-845-11	METAL CHIP	100K	5%	1/16W
R594	1-216-845-11	METAL CHIP	100K	5%	1/16W
R595	1-216-845-11	METAL CHIP	100K	5%	1/16W
R599	1-216-821-11	METAL CHIP	1K	5%	1/16W
< VIBRATOR >					
X1	1-781-758-21	VIBRATOR, CERAMIC (CHIP TYPE) (10MHz)			
X2	1-781-759-21	VIBRATOR, CERAMIC (CHIP TYPE) (16MHz)			

*	1-659-834-11	SUB BOARD	*****		
< CONNECTOR >					
CN1	1-770-347-21	CONNECTOR, FPC 6P			

*	1-677-056-11	SUB (CD) BOARD	*****		
< CONNECTOR >					
CNP801	1-794-064-11	SOCKET, CONNECTOR 14P			
CNP802	1-792-195-11	CABLE, FLEXIBLE FLAT			
< DIODE >					
D801	8-719-056-82	DIODE	UDZ-TE-17-6.2B		
D802	8-719-056-82	DIODE	UDZ-TE-17-6.2B		
D803	8-719-056-82	DIODE	UDZ-TE-17-6.2B		

Ref. No.	Part No.	Description	Remark
D804	8-719-056-82	DIODE UDZ-TE-17-6.2B	
D805	8-719-056-82	DIODE UDZ-TE-17-6.2B	
D806	8-719-109-97	DIODE RD6.8ESB2	
LED801	8-719-037-97	LED CL-190R-CD-T (INSERT MARK)	(4000RX)
LED801	8-719-038-07	LED CL-190PG-CD-T (INSERT MARK)	(3900R/4000R)
LED802	8-719-037-97	LED CL-190R-CD-T (INSERT MARK)	(4000RX)
LED802	8-719-038-07	LED CL-190PG-CD-T (INSERT MARK)	(3900R/4000R)
LED803	8-719-037-97	LED CL-190R-CD-T (INSERT MARK)	(4000RX)
LED803	8-719-038-07	LED CL-190PG-CD-T (INSERT MARK)	(3900R/4000R)
< SWITCH >			
LSW801	1-771-609-11	SWITCH, TACTILE (WITH LED) (▲)	(3900R/4000R)
LSW801	1-771-883-21	SWITCH, TACTILE (WITH LED) (▲)	(4000RX)

MISCELLANEOUS			

9	1-776-527-51	CORD (WITH CONNECTOR) (ISO) (POWER)	(3900R)
9	1-776-527-61	CORD (WITH CONNECTOR) (ISO) (POWER)	(4000R/4000RX)
201	X-3378-598-1	CHASSIS (OP) ASSY (INCLUDING M901)	
207	1-659-880-11	MOTOR FLEXIBLE BOARD	
△ 210	8-820-103-03	PICK-UP, OPTICAL KSS-720A/K1RP	
212	1-676-707-21	PICK-UP FLEXIBLE BOARD	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
M902	A-3291-674-A	MOTOR ASSY, SLED (SLED)	
M903	A-3315-039-A	MOTOR SUB ASSY, LD (LOADING)	

ACCESSORIES & PACKING MATERIALS			

3-044-185-11	MANUAL, INSTRUCTION INSTALL (ENGLISH, SPANISH, SWEDISH, PORTUGUESE) (AEP, UK)		
3-044-185-21	MANUAL, INSTRUCTION INSTALL (FRENCH, GERMAN, DUTCH, ITALIAN, GREEK) (AEP, G)		
3-044-185-31	MANUAL, INSTRUCTION INSTALL (ENGLISH, CZECH, POLISH, TURKISH, RUSSIAN) (SE)		
3-044-187-11	MANUAL, INSTRUCTION (ENGLISH, SPANISH, SWEDISH, PORTUGUESE) (AEP, UK)		
3-044-187-21	MANUAL, INSTRUCTION (FRENCH, GERMAN, DUTCH, ITALIAN, GREEK) (AEP)		
3-044-187-31	MANUAL, INSTRUCTION (GERMAN) (G)		
3-044-187-41	MANUAL, INSTRUCTION (ENGLISH, CZECH, POLISH, TURKISH, RUSSIAN) (SE)		
X-3378-490-1	CASE (PANEL) ASSY (for FRONT PANEL)		

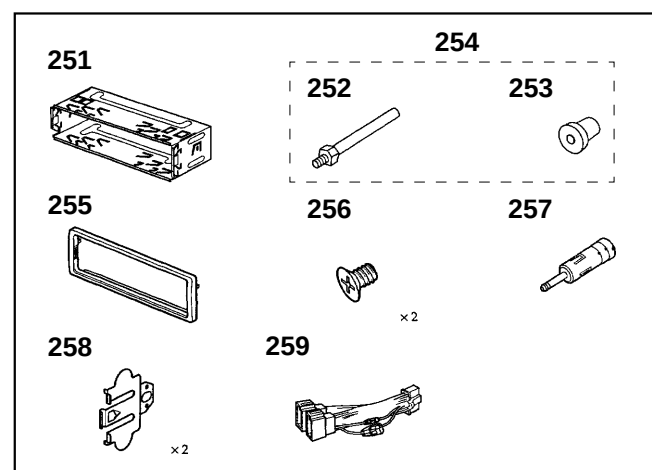
Ref. No.	Part No.	Description	Remark

HARDWARE LIST			

#1	7-685-793-09	SCREW +PTT 2.6X8 (S)	
#2	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#3	7-685-795-09	SCREW +PTT 2.6X12 (S)	
#4	7-685-647-79	SCREW +BVTP 3X10 TYPE N-S	
#5	7-621-772-20	SCREW +B 2X5	
#6	7-685-791-09	SCREW +PTT 2.6X5 (S)	
#7	7-628-253-00	SCREW +PS 2X4	
#8	7-627-553-37	SCREW, PRECISION +P 2X3 TYPE 3	
#9	7-627-553-17	SCREW, PRECISION +P 2X2 TYPE 3	
#10	7-627-850-28	SCREW, PRECISION +P 1.4X3	
#11	7-627-000-00	SCREW, PRECISION +P 1.7X2.2 TYPE 3	
#12	7-685-106-19	SCREW +P 2X10 TYPE 2 NON-SLIT	

PARTS FOR INSTALLATION AND CONNECTIONS

251	X-3373-602-1	FRAME ASSY	
252	3-386-828-01	SCREW, FITTING	
253	3-349-410-01	BUSHING	
254	X-3366-405-1	SCREW ASSY (EXP), FITTING	
255	3-040-979-01	COLLAR	
256	3-934-325-01	SCREW, +K (5X8) TAPPING	
257	1-465-459-21	ADAPTOR, ANTENNA	
258	3-041-000-01	SPRING, FITTING	
259	1-776-527-51	CORD (WITH CONNECTOR) (ISO) (POWER)	(3900R)
259	1-776-527-61	CORD (WITH CONNECTOR) (ISO) (POWER)	(4000R/4000RX)



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

