DENON

Hi-Fi FM-AM Receiver/Compact Disc Player

SERVICE MANUAL
MODEL DCC-1500R

FM-AM TUNER/COMPACT DISC PLAYER

CONTENTS

NIPPON COLUMBIA CO., LTD.
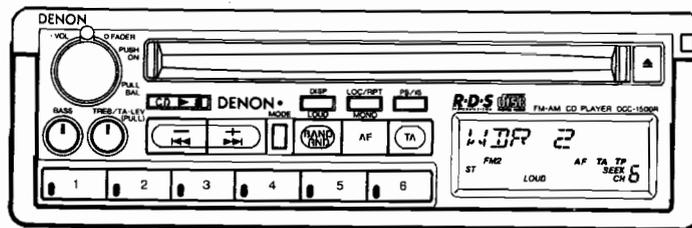
Please read carefully all safety and operating instructions before installation and use.
It will help you to obtain the best performances from your new FM/AM Compact Disc Player.

FEATURES

- 20 bit digital filter with 8-times oversampling and noise shaper.
- Dual 18-bit D/A converter.
- 24 Station-presets (12 FM, 6 MW, 6 LW)
- DENON Optimum Reception System V (FM circuitry auto high blend, FM pulse noise canceller and Multipath canceller).
- Up/Down manual & seek tuning.
- RDS (PI, PS, AF, TA, *PTY) * Only code 31.
- Stereo/mono (FM), local buttons.
- Thermal shut down laser protection circuitry.
- Automatic Search.
- Manual Search.
- 3-Beam laser pickup servo.
- Night illumination with dash light dimmer lead.
- Beep tone
- Exclusive D-Mount system.
  - DIN "E" extractable
  - DIN "E" non extractable (with optional kit)
  - ISO fixed mount

> **LITHIUM BATTERY WARNING!**
> The battery should only be changed by qualified service personnel.
> Improper handling could cause dangerous leakage or explosion!

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

The Compact Disc Player should not be adjusted or repaired by anyone except properly qualified service personnel.

FOR YOUR RECORDS
Please record the serial number of your unit in the space provided below and keep it as a permanent record. The serial number is indicated on the top of the unit.
You will need the serial number, if the need for service should arise.

Model   DCC-1500R
Serial Number _____

COMPACT DISC

1. Precautions on handling compact discs			
Do not let fingerprints, dust or oil on the discs! If the disc is dirty, wipe it clean with a clean, dry cloth.	Do not bend.	Do not enlarge the hole in the center of the disc.	Do not attempt to play a CD-ROM Disc.
Do not use benzene, thinner, water, record spray, electrostatic proof chemicals, or silicone-treated cloths to wipe discs.	Do not apply heat!	Do not write on the label (printed side) with a hard tipped implement such as a pencil or ball-point pen.	When condensation form, do not attempt to dry the disc with a hair dryer, etc.
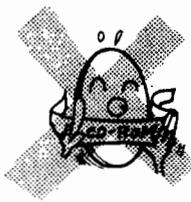
2. Precautions on storage

- After playing a disc, always unload it from the player.
- Always return a disc to its proper case to prevent it from becoming dirty or damaged.
- Do not place discs in the following types of areas:
  1) Areas exposed to direct sunlight for a considerable time.
  2) Areas subject to accumulation of dust or high humidity.
  3) Locations near the path of hot air from the heater vent.
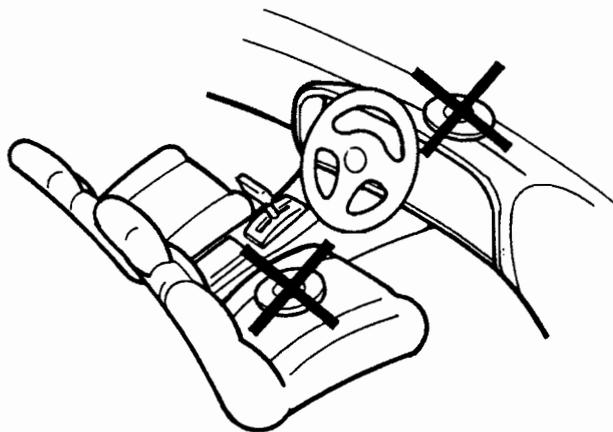
For safety, heed the following cautions. Failure to do so can lead to accidents and damage to the unit:

Do not disassemble.	Do not subject to strong shocks.	Do not let the unit get wet.	Keep away from strong magnetic forces.
Replace the fuse with a fuse of the same amperage.	Always unload discs before removing the set.	Do not wipe with benzene or thinner.	Remember that the unit becomes hot.

"HOT" is indicated in the LCD display when the temperature is too high.

The temperature inside a vehicle rises to a high level when the vehicle is parked in the direct path of the sun's rays.

This unit includes a safety circuit which operates and stops operation of the CD player when the temperature inside the vehicle rises to a high level. In such a case, open the windows or use some other method to lower the temperature inside the vehicle.

While a compact disc is playing.

"HOT" is indicated in the LCD display and the disc is stopped until the temperature drops and the "HOT" display goes off.

- **When Condensation has Formed**

  On extremely cold days, turning on the heater inside the vehicle may cause condensation to form on the lens in the laser inside the CD unit. In such a case, the unit will not operate correctly. Wait approximately 30 minutes for the moisture to dry before operating the CD player.

- **Skipping**

  A strong shock may cause the laser head to skip, but the CD player will return to the position at which the skipping occurred and resume playing.

3

INSTALLATION

• Use screws supplied as accessories when installing the unit.
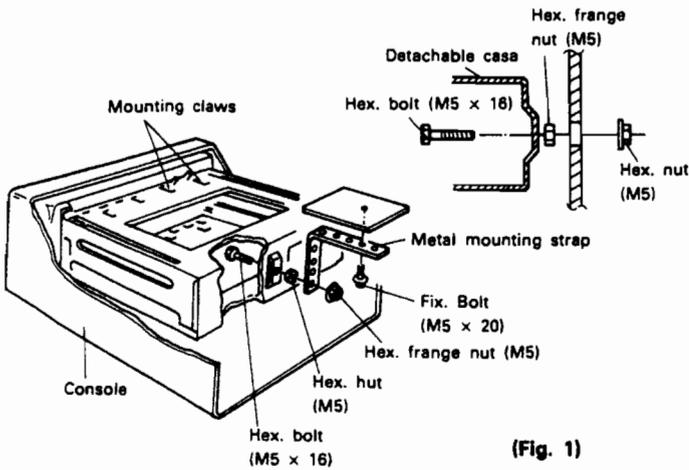
(Fig. 1)

Insert the detachable case into the console and clamp with the claws. If the detachable case cannot be inserted, file opening slightly to accommodate.

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0    10    20    30    40    50 (mm)
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(Fig. 4)

CAUTION
Be sure to secure the rear of the case with the metal mount strap when installing the detachable case on the console. If it is not secured, the sound may skip due to vibration while driving.
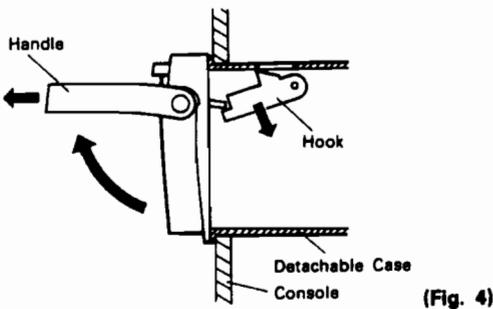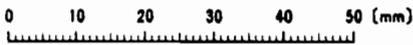
• When inserting the unit, do so with the handle remaining in the up position. After inserting the unit, lower the handle so that the hook engages. (Fig. 2)

• When pulling out the unit, press the push button and the handle will protrude a little. (Fig. 3)
Raise the handle to the top and when the hook has disengaged, pull out the unit. (Fig. 4)
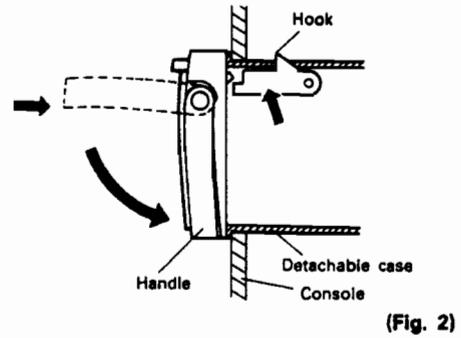
(Fig. 2)
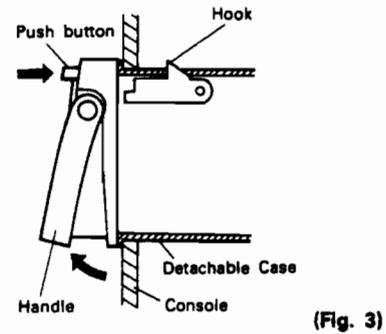
(Fig. 3)

ACCESSORIES

No.	Part name	Q'ty
①	M5 Nut	2
②	M5 Washer	2
③	Hex. Bolt 5×16	1
④	Fix. Bolt 5×20	5
⑤	Nut W/Flange (M5)	1
⑥	Metal Mounting Strap	1
⑦	Bind Screw 4×6	4
⑧	Stay	2

- **Installing the Tuner Unit**
1. Attach the tuner unit beneath the seat or where it will not be in the way using the accessory L-fittings.
   Avoid installing the tuner unit in the following locations.
2. Near a heater vent.
3. In a location exposed to the direct rays of the sun.
4. Near a window or door where rain or moisture could fall on it.
5. In a location where it could interfere with safe driving, such as near the pedals.

Fix. bolt 5×20

Bind Screw 4×6
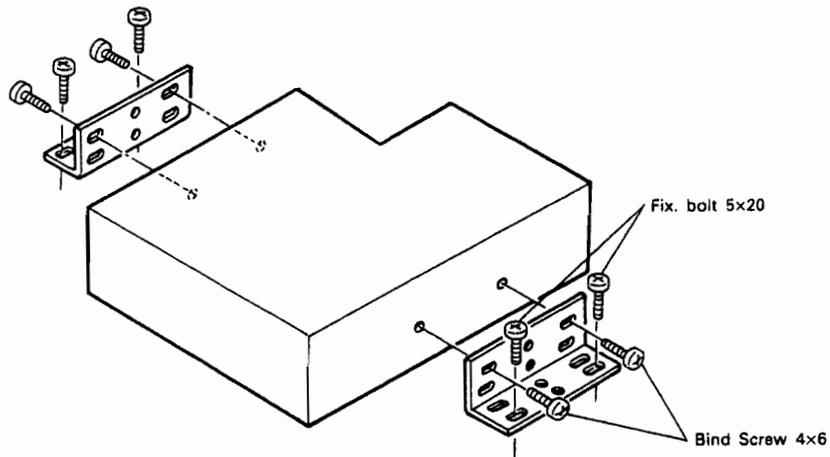
CONNECTIONS
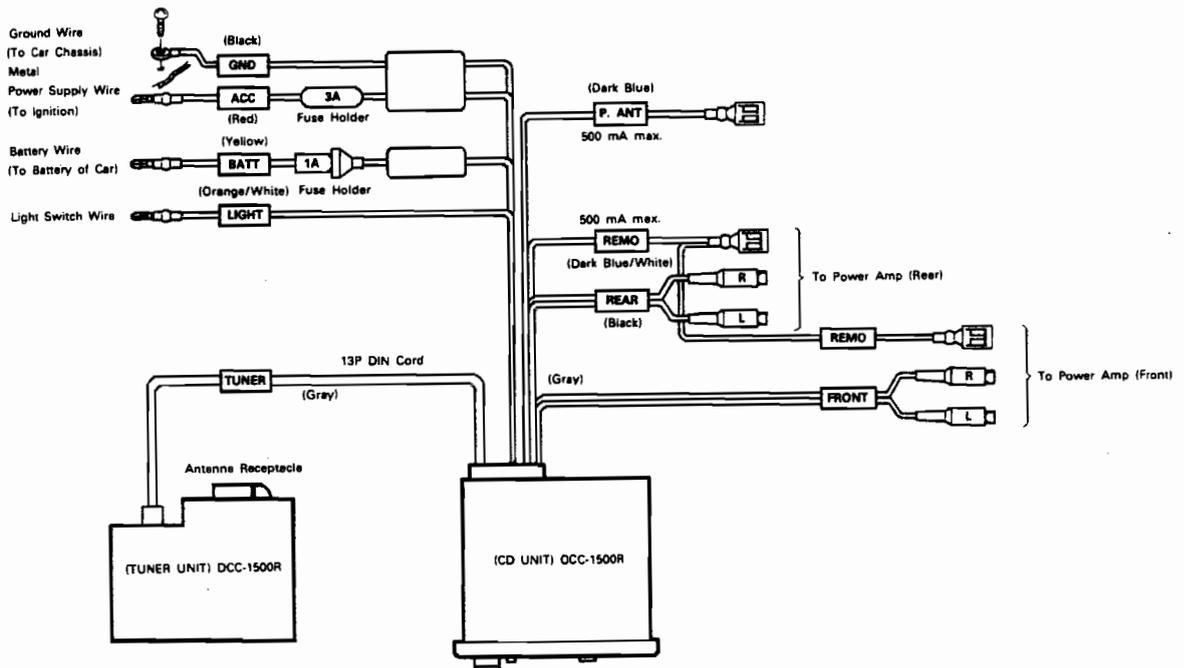
DENON FM-AM Compact Disc Player DCC-1500R operates properly with 14.4 V (11 V–16 V) car batteries. You cannot use it with 24 V or other types of car batteries.
Maximum rated current capacity from two Remote outputs and power antenna are total 500 mA.

CD Play/Stop button
SEEK up/down button
MODE button
Reset button
Display/Loudness button
Band/Random button
Local/Repeat, MONO button
PS/IS button
Compact Disc Slot
Eject button

TUNER ON/OFF button
Volume Knob (pull Balance)

Fader knob

Treble knob (Pull TA-Boost Level)
Bass knob

LCD Display
TA button
Preset button
AF button
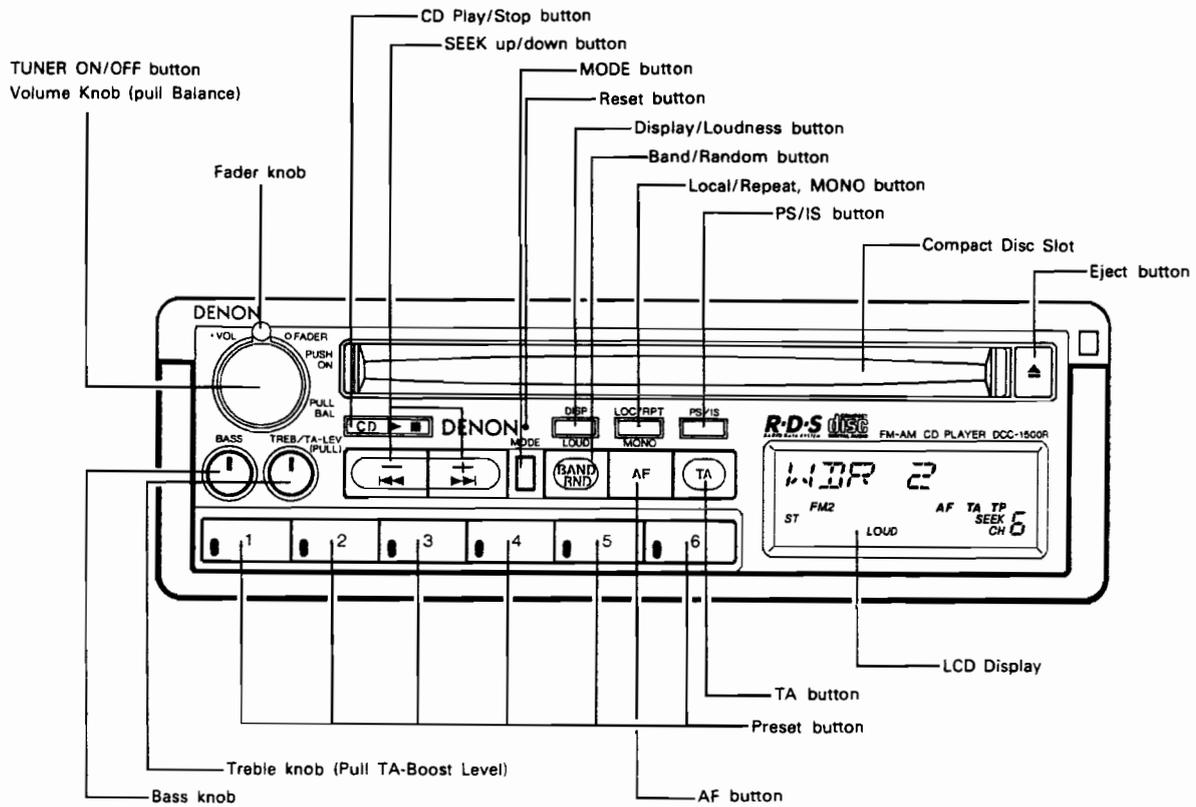
Using the Volume Knob

Volume Adjustment

Turn the knob clockwise to increase the volume.

Turn clockwise
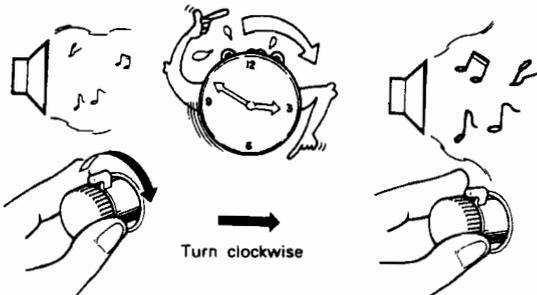
Pull out .... Balance adjustment

The balance can be adjusted when the volume knob is pulled out. Press the knob back in after adjusting the balance.

Left

Right
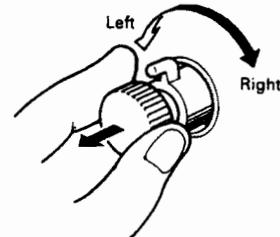
Adjusting to the Desired Tone

• **Bass and Treble Adjustment**
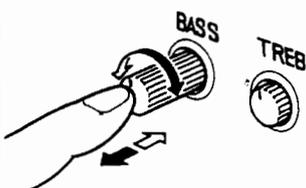
Press the bass and treble knobs to pop them out. The bass and treble can be adjusted easily. Press the knobs again to set them back to their original positions.
Adjust the bass and treble knobs to obtain the desired tone.

• **Loudness**
When this button is pressed for more than 2 seconds, the bass and treble are emphasized, making for a powerful sound.

If the sound is too mild ...
Press the DISPLAY/LOUD button for more than 2 seconds.
Powerful sound!!
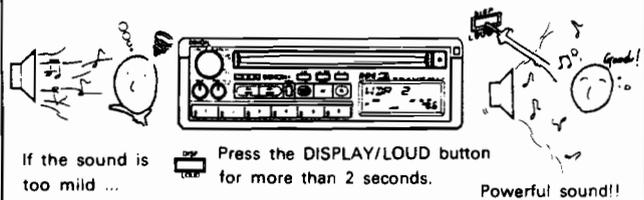
Listening to Compact Discs
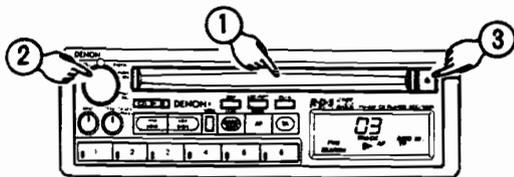
1 Insert a disc with the labeled side facing up. Once the disc is inserted part way, it is automatically drawn in and playback starts.
The track number is displayed.
2 Adjust the volume control for the desired volume.
3 Press the [•] button to remove or replace a disc.

Note: If the disc is not removed from the set within 15 seconds after the [•] button is pressed and the disc is ejected, the disc is automatically reloaded into the set.

Searching for the Desired Track

(1) Automatic Search
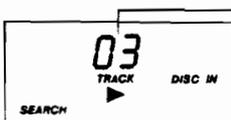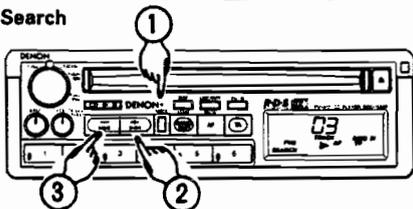
The number of the track being searched for is displayed.

1 Pushing the [□] MODE button will display "SEARCH" on the LCD and set the unit to the automatic search mode.
2 Pushing the [⊡] button will find the beginning of the next song and resume play.
3 Pushing the [⊡] button will return to the beginning of the song in play, and resume play.
4 Continuing to push the [⊡] (or [⊡]) button will find the beginning of the next song (or the previous song) and resume play.
• The track numbers of the songs being searched will be displayed on the LCD.

(2) Manual Search
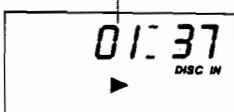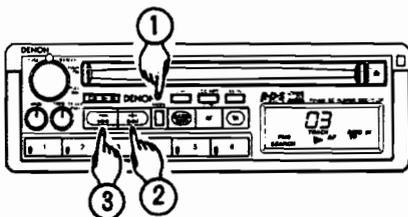
The time is displayed during the manual search operation.

1 Pushing the [□] MODE button will set the manual search mode and the "SEARCH" display on the LCD will go out.
2 Continuing to push the [⊡] up button will fast forward the disc.
3 Continuing to push the [⊡] down button will fast reverse the disc.
At this time the sound can be heard at a lower volume than during regular playback.

Switching the LCD Display to the Time Display

Pressing the DISP button while a CD is being played buttons the display in the LCD between TRACK No. and the elapsed time for the current track.
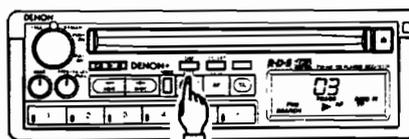
Stopping CD Playback
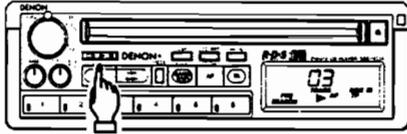
1 Pushing the PLAY/STOP button will stop the CD play.
2 Pushing this button once again will start the CD playing.
The " ▶ " sign and the currently playing track number will be displayed on the LCD.

Convenient CD Functions

Single-track repeat function

Use this to play a certain track repeatedly.
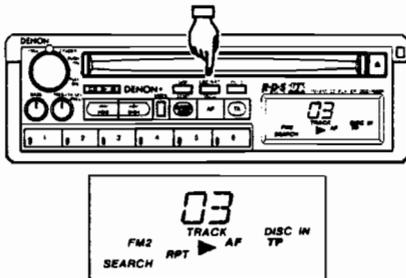
Pushing the REPEAT button will provide repeat playback of the song currently being played. "RPT" will be displayed on the LCD.

Random play repeat

Use this to play the tracks in random order.
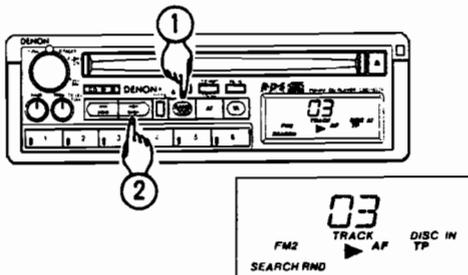
1 Pushing the RANDOM button will play back each of the tracks being played in random order once.
"RND" will be displayed on the LCD.
2 To move to the next track (selected in random order) when in the middle of a track, check that "SEARCH" is displayed on the LCD, then press the ⊡ button.

Intro scan function

Use this to play the first 10 seconds of each track.

The INTRO SCAN
Press the INTRO SCAN button to play the first 10 seconds of each track.
"IS" will be displayed on the LCD.
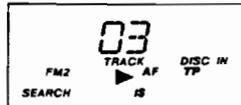
Convenient when searching for a particular track.

Note: When any of the buttons REPEAT, RANDOM and INTRO SCAN are pushed one more time, the unit will return to the regular playback mode and the LCD display will go out.

Convenient Functions for the Tuner

Presetting of 12 FM Stations, 6 MW and 6 LW Stations

12 FM stations, 6 MW and 6 LW stations can be preset at buttons 1 to 6 and then tuned in directly.

Example: Preset 102.5 MHz at preset button 1 for FM1:
1 Tune in FM1 102.5 MHz.
2 Press preset button 1 and hold it in for at least two seconds.
3 After about two seconds, "CH1" appears on the LCD, and a beep tone sound. The station is now preset in the memory.

After 2 seconds
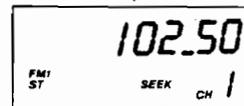
Use this procedure to store other stations. To tune in preset stations directly, simply press the button at which the station was stored.

Preset Scanning

This function lets you check the stations stored at preset buttons 1 to 6.
Example: When you have preset a classical music station, a rock station and a news station but have forgotten:

The stations are received in order for 5 seconds each.

After 5 seconds
After 5 seconds
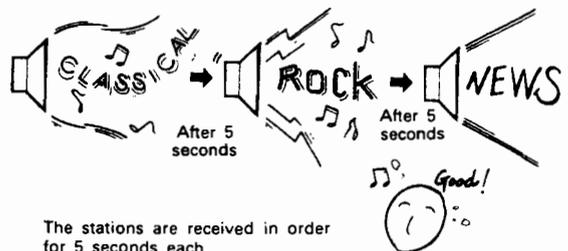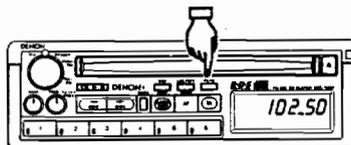
What did I store at preset buttons 1 to 6?   Press the ⌷ button.

9

Listening to the Radio

1 Press the volume knob to turn the tuner on.	2 Press the 🔘 button to select one of the FM, MW or LW bands.	3 Use the seek buttons to set the desired frequency. There are two ways to adjust the frequency, as explained below.
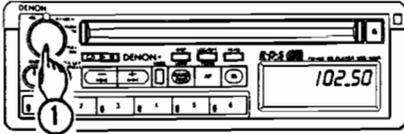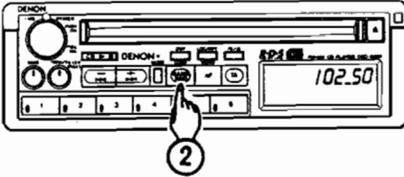
● To turn the tuner off, press the volume knob again.

━━ FM1 → FM2 → MW → LW ━━
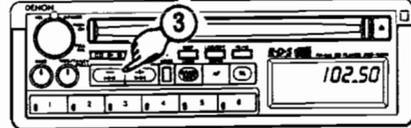
"ST" appears on the LCD when a stereo broadcast is received. If the sound is poor, press the 🔘 button for more than 2 seconds to set the monaural mode.

(1) Seek Tuning
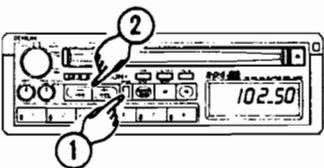
① Press the 🔘 button and check that "SEEK" has appeared on the LCD.

② Use the seek buttons to adjust the frequency.

Press this button to move to higher frequencies. Tuning stops automatically when a station is found.

Press this button to move to lower frequencies. Tuning stops automatically when a station is found.

Tuning will not stop at stations whose signals are weak. To tune in such stations, use manual tuning.

(2) Manual Tuning
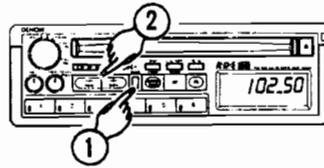
① If "SEEK" is displayed on the LCD, press the 🔘 button to turn it off.

② Use the seek buttons to adjust the frequency.
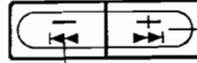
The frequency increases in steps of 50 kHz for FM, 9 kHz for MW and 1 kHz for LW each time this button is pressed.

The frequency decreases in steps of 50 kHz for FM, 9 kHz for MW and 1 kHz for LW each time this button is pressed.

Local Function

Use this to search for only stations with strong signals when tuning in the seek mode.
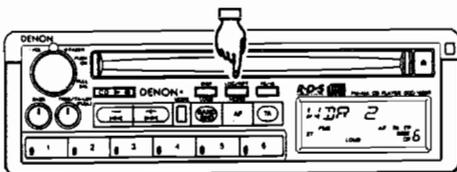
Your DENON Car Tuner is equipped with the most advanced mobile tuning circuitry available. You may also find using the LOCAL button under very high signal strength situations desirable when turning by SEEK mode.

"LOCAL" will be indicated on the LCD display.

● Press the LOCAL switch.

Mono Function (Auto/Mono Selection)

This function is used at the time of FM reception when the stereo broadcast is hard to hear or when there is noise interference. It forces the stereo reception to monaural.

Stereo music station

Stereo sound
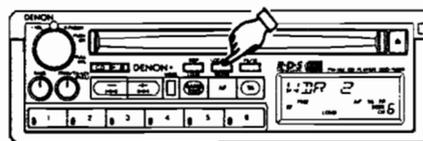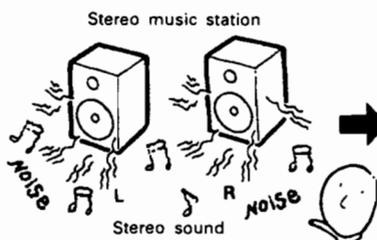
Press the LOCAL/REPEAT MONO button for more than 2 seconds.

MONO sound

● Even when the MONO button is used, there are occasions when the sound is not improved, depending on the reception conditions.

Using the RDS (Radio Data System)

TA (Traffic Announcement) Function
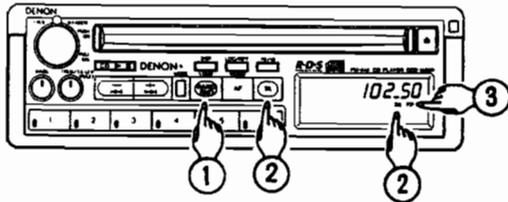
Searching for TP (Traffic Program) broadcast stations automatically
1 Press the 📻 button and select FM1 or FM2.
2 Press the 🔘 button. "TA" appears on the LCD.
3 Tuning automatically stops at a station broadcasting traffic information, "TP" is displayed on the LCD and the TP station is received.
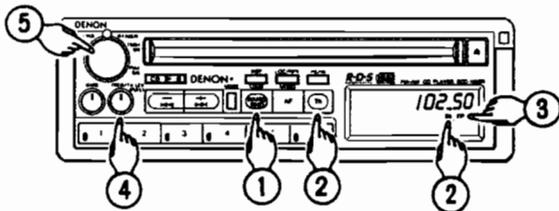
Setting the volume to automatically increase when a TA (traffic information announcement) starts while in standby (on FM1 or FM2)
1 Press the 📻 button and select FM1 or FM2.
2 Press the 🔘 button. "TA" appears on the LCD.
3 Tuning automatically stops at a station broadcasting traffic information and that station is received. The volume increases when a traffic information announcement starts.
4 Use the TA boost level knob (the treble knob pulled out) to adjust the level to which the volume increases. The center clip position is the most suitable position.
5 To listen only to traffic information announcements:
Set the main volume knob to the minimum.
The volume turns up when a traffic information announcement starts.

TA (Traffic Announcement) Function
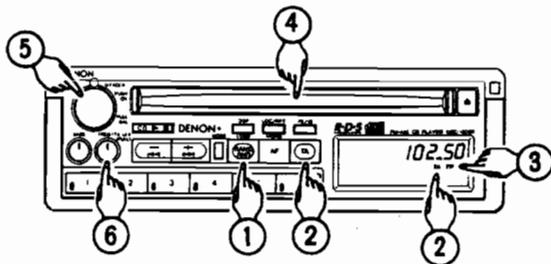
Automatically listening to traffic information announcements while playing CDs
1 Press the 📻 button and select FM1 or FM2.
2 Press the 🔘 button. "TA" appears on the LCD.
3 Tuning automatically stops at a station broadcasting traffic information and "TP" appears on the LCD.
4 Insert a CD.
• If a traffic information announcement is being broadcast when the CD is inserted, the CD is not played.
5 Use the main volume knob to adjust the volume of the CD.
6 The volume increases when a traffic information announcement starts.
• Use the TA boost level knob (the treble knob pulled out) to adjust the level to which the volume increases. The center clip position is the most suitable position.

<Notes on Using the TA Function>
1) If the signals for the station being received become weak for over 10 seconds, another station broadcasting the same TP (Traffic Program) is tuned in.
However, if there is no other station broadcasting the same program or if its signals are weak, a station broadcasting a different TP is tuned in.
2) A beep tone is sounded if there is no station broadcasting a TP (Traffic Program) or if its signals are weak. If this happens, press the 🔘 button again so that "TA" disappears from the LCD, then wait until entering an area in which a station broadcasting TPs can be received and press the 🔘 button again.

3) "TA" flashes on the LCD if the signals of the station being received become weak and the data cannot be identified.
4) The TA boost level knob (the treble knob pulled out) can be used to adjust the level to which the volume increases, but if it is turned fully counterclockwise the volume will not turn up when a traffic information announcement begins.
5) Some stations broadcast TA (traffic announcement) signals even when they are not broadcasting traffic information announcements. In such cases, the TA function will not work properly.
6) When the TA boost level is adjusted, the rotation indication of the treble changes. (The knob indication does not show center at the center position.)

AF (Alternative Frequency) Function
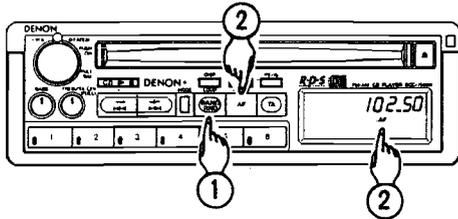
To constantly receive stations broadcasting the same program

1 Press the 🔘 button and select FM1 or FM2.
2 Press the ⌐•⌐ button. "AF" appears on the LCD.
  If the station being received at this time is not an RDS station, an RDS station is tuned in automatically.
- When the signals of the station being received become weak, "AF" flashes on the LCD, and another station broadcasting the same program is searched for based on the AF list.
- The frequency changes when another station broadcasting the same program is found.
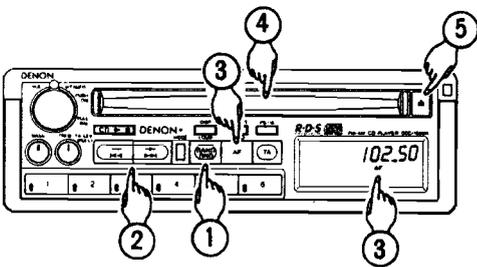
Automatically tracking stations broadcasting the same program while playing a CD so that reception is always good when switching to the tuner

1 Press the 🔘 button and select FM1 or FM2.
2 Use the seek/manual up/down buttons to tune in the desired RDS station.
3 Press the ⌐•⌐ button. "AF" appears on the LCD.
4 Insert a CD.
- When the signals of the station being received become weak, "AF" flashes on the LCD, and another station broadcasting the same program is searched for based on the AF list.
- The frequency changes when another station broadcasting the same program is found.
5 When the eject button (⬛) is pressed, the radio continues to track stations broadcasting the same program as when the CD was inserted.

AF (Alternative Frequency) Function/PI (Program Identification) Function
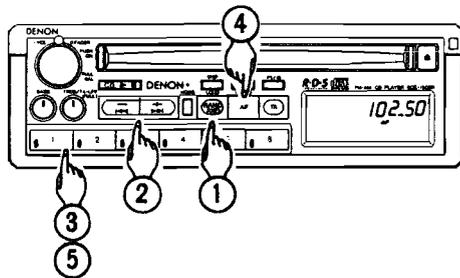
Storing the AF lists and PI codes in the preset memory

1 Press the 🔘 button and select FM1 or FM2.
2 Use the seek/manual up/down buttons to tune in the desired RDS station.
3 Press the preset memory button (M1 to M6) at which you want to store that station and hold it in for at least 2 seconds.
4 Press the ⌐•⌐ button. "AF" appears on the LCD.
5 When a preset button at which the AF list or PI codes was stored is pressed, the AF or PI search operation is performed automatically.The stored broadcast stations and broadcast stations carrying the same content are searched for based on the AF list. When pertinent broadcast stations are not on the AF list, a search is made for broadcast stations having the same PI code.
- The PI codes can be preset for both the FM1 and FM2 bands.
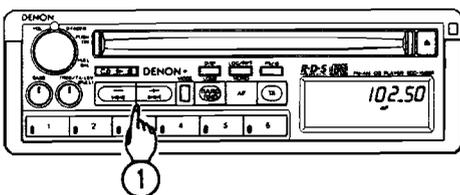
If no new broadcast station with strong signals is found when the ⌐•⌐ button is pressed

1 Use the seek up/down buttons for tuning.
2 Tune in an RDS station.
- If the signals for all of the stations at the frequencies on the AF list are weak, tune in a station broadcasting a different program.

AF (Alternative Frequency) Function / Region Function

● Sometimes certain stations in a network broadcast regional programs different from the programs broadcast on the other stations in the network.

To continue listening to the currently tuned in regional program:

1 Press the ⟨•⟩ button and hold it in for at least 2 seconds.
2 "REG ON" appears on the LCD.
● If "REG OFF" appears when the AF button is pressed, press it again.

To continue listening to stations in a certain network, regardless of the program:

1 Press the ⟨•⟩ button and hold it in for at least 2 seconds.
2 "REG OFF" appears on the LCD.
● If "REG ON" appears when the AF button is pressed, press it again.
● The stations are tracked, the program may differ from what was previously being received, but this is because the station is broadcasting a regional program, and is not a malfunction.
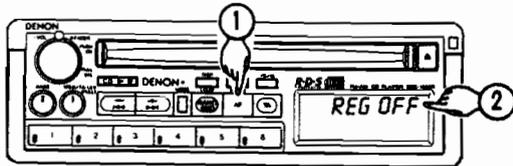
AF (Alternative Frequency) Function

<Notes on Using the AF Function>
1) With the AF function, the AF button is pressed and stations broadcasting the same program as the station currently being received are searched for based on the AF list. The AF list includes stations broadcasting the same program. If no receivable station is found when the list is checked through 10 times, stations are searched for using the PI codes (codes for stations broadcasting the same program) and a beep tone is sounded. This operation is then repeated. Thus, in areas far from the broadcasting stations, the alternative frequency function may not work.
2) Sometimes if the alternative frequency function is used, "NO AF" may be displayed if no station broadcasting the same program is found. This indicates that all frequencies were checked but no station broadcasting the same program was found. If this happens, use the seek up/down buttons to tune in a different station.

3) When presetting, both the PI codes and AF list are stored along with the station's frequency in the preset memory for the FM1 and FM2 bands.
4) The sound may be interrupted once ever 10 seconds or so after the ⟨•⟩ button is pressed while the station with the best reception is being searched for based on the AF list. This is not a malfunction.
5) "AF" flashes on the LCD if the signals of the station being received become weak and the data cannot be identified.
6) The AF function may not work properly for RDS stations which do not transmit AF lists.

NO AF

13

## PTY (Program Type) Function
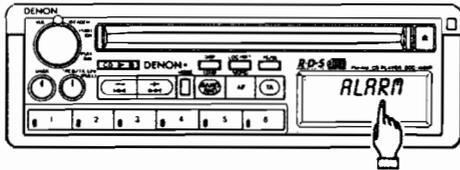
"PTY" (code 31)

If the station being received on the FM1 or FM2 band transmits a PTY code 31, "ALARM" appears on the LCD and an alarm is sounded.

Also, the volume turns up even if the main volume knob is set at the minimum, indicating an emergency. Follow the instructions being broadcast.

- This function will only work when receiving RDS stations (stations with program service names). In addition, it may not work properly if the signals of the station being received are weak.
- There are no buttons for the PTY (code 31) operation.

PS (Program Service Name) Function
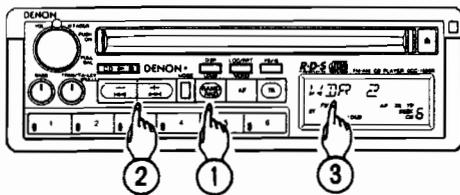
Displaying the PS (Program Service Name) on the LCD

1 Press the 🔲 button and select FM1 or FM2.
2 Use the seek/manual up/down buttons to tune in the desired station.
3 After the frequency of the station being received appears on the LCD, the display buttons to the PS (Program Service Name).
4 To check the frequency of the station being received, press the DISP button. The display changes to the frequency. Three seconds later, the PS (Program Service Name) reappears.

<Notes on Using the PS Function>

- The PS (Program Service Name) is not displayed if the station being received is not an RDS station or if its signals are weak.
- The PS (Program Service Name) is only displayed for the FM1 and FM2 bands, not for the MW and LW bands.
- The PS (Program Service Name) is always displayed for the FM1 and FM2 bands.
- The PS (Program Service Name) may not be displayed correctly as transmitted from the station.

Reset Function

Press the reset button using the tip of a ball-point pen, etc., when the power supply is first connected or when the LCD display malfunctions due to external interference.

NOTES:

- Everything stored in the memory, including the stations stored at preset channels M1 to M6, is cleared when the reset button is pressed.
- Do not press the reset button with a sharp object, such as a metal pin.
- If the problem persists after the reset button is pressed, contact a Denon dealer or a local Denon service center.

CAUTION

Be sure to secure the rear of the case with the metal mount

Memory back up battery

Removable type DCC-1500R lithium battery powers the memory and preset memory.

Battery life is about 4 years.

In extremely high or low temperatures the memory back up occasionally does not work properly.

For replacement contact your DENON dealer or local DENON service center.

CLEANING

When playback sound begins to deteriorate, it is time to clean the playback head. Insert a special head cleaning cassette into the tape-loading slot and allow it to run for a few minutes to remove any foreign matter.
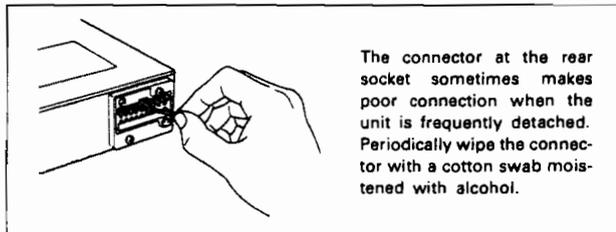
The connector at the rear socket sometimes makes poor connection when the unit is frequently detached. Periodically wipe the connector with a cotton swab moistened with alcohol.

TROUBLESHOOTING

If the player does not seem to be functioning, check the following.

Disc cannot be loaded or the disc is automatically ejected.

- A disc is already loaded.
- The disc is inserted with the label surface downward.
- Dusty or defective disc.
- The ambient temperature is more than 55°C (131°F)

Play does not begin.

- The unit is in the STOP mode.

The sound breaks off, or the CD player does not operate when the button is pressed.

- The built-in microprocessor malfunctions. Press the reset button.

The sound is skipped due to vibration.

- The unit is installed at an angle of more than 20° from the horizontal.
- The unit is not installed on the sturdy part of the car.
- Dusty or defective disc.

CAUTION

Be sure to secure the rear of the case with the metal mount strap when installing the detachable case on the console. If it is not secured, the CD-player may skip due to vibration while driving.

SPECIFICATIONS

FM TUNER
- **Mono Usable Sensitivity**   14.8 dBf 1.5 µV (75 ohms)
- **50 dB Quieting Sensitivity**   20.3 dBf 2.8 µV (75 ohms)
- **Alternate Channel**
  Selectivity   70 dB
- **S/N (Signal to Noise Ratio)**   70 dB
- **Stereo Separation**   40 dB at 1 kHz
- **Capture Ratio**   2.5 dB
- **Image Rejection**   70 dB
- **IF Rejection**   120 dB

AM TUNER
- **Sensitivity (MW)**   30 µV (S/N 20 dB)
-     **(LW)**   60 µV

CD
- **Frequency Response**   5 Hz ~ 20 kHz ±1.0 dB
- **Dynamic Range**   96 dB
- **Signal to Noise Ratio**   96 dB
- **Harmonic Distortion**   0.005%
- **Wow and Flutter**   Below a Measurable level

DISC
- **Applicable Disc**   Compact Disc

SIGNAL FORMAT
- **Sampling Frequency**   44.1 kHz
- **Quantization**   16 Bit Linear
- **Transfer Bit Rate**   4.3218 Megabits/sec.

GENERAL
- **Bass**   ±12 dB at 40 Hz
- **Treble**   ±12 dB at 15 kHz
- **Loudness (Vol. –30dB)**   +10 dB at 100 Hz
      +10 dB at 10 kHz
- **Remote Output**   12 V 500 mA max.
- **Power Antenna Output**   12 V 500 mA max.
- **Chassis Size (W × H × D)**   178 mm × 50 mm × 172 mm
      (7-5/64" × 1-31/32" × 6-59/64")
- **Panel Size (W × H × D)**   187 mm × 59 mm × 17 mm
      (7-23/64" × 2-21/64" × 43/64")
- **Tuner Size (W × H × D)**   178 mm × 25 mm × 135 mm
      (7-5/64" × 63/64" × 5/16")
- **Weight**   2.4 kg (5 lbs 5 oz)

Design and specifications are subject to change for improvement without prior notice.

MEMO : _____

REMOVAL OF EACH SECTION

According to the flow chart to remove screws to disaasemble part.

```
┌──────────────┐
│  Top Cover   │
└──────┬───────┘
       │              ┌──────────────────┐        ┌──────────────────┐
       ├─────────────▶│ Conn. P.W.B. Unit│───────▶│ Connector Bracket│
       │              └──────────────────┘        └──────────────────┘
       │               Remove 2 screws ① .          Remove 2 screws ② .
       │
       │              ┌──────────────────┐        ┌──────────────────┐
       ├─────────────▶│   Handle Ass'y   │───────▶│  Front Panel Ass'y│
       │              └──────────────────┘        └──────────────────┘
       │               Remove 4 screws ③ .          Remove 2 screws ④ .
       ▼                                            Remove 2 knobs ⑤ .
┌──────────────┐
│ CD Mecha. Unit│
└──────┬───────┘
  Remove 3 screws ⑥ .
       │
       ▼
┌──────────────┐
│ Bottom Cover │
└──────┬───────┘
       │              ┌──────────────────┐
       ├─────────────▶│ Front P.W.B. Unit│
       │              └──────────────────┘
       │               Remove screw ⑦.
       │
       │              ┌──────────────────┐
       ├─────────────▶│    LCD Module    │
       │              └──────────────────┘
       ▼               Remove 4 nuts.
┌──────────────┐
│ Front Chassis│
└──────┬───────┘
  Remove 2 screws ⑧ .
       │
       ▼
┌──────────────┐
│ VR P.W.B. Unit│
└──────┬───────┘
  Remove nut ⑨ .
       │
       ▼
┌──────────────┐
│ Tone P.W.B. Unit│
└──────────────┘
  Remove 2 knobs ⑩ .
  Remove 2 nuts ⑪ .
```
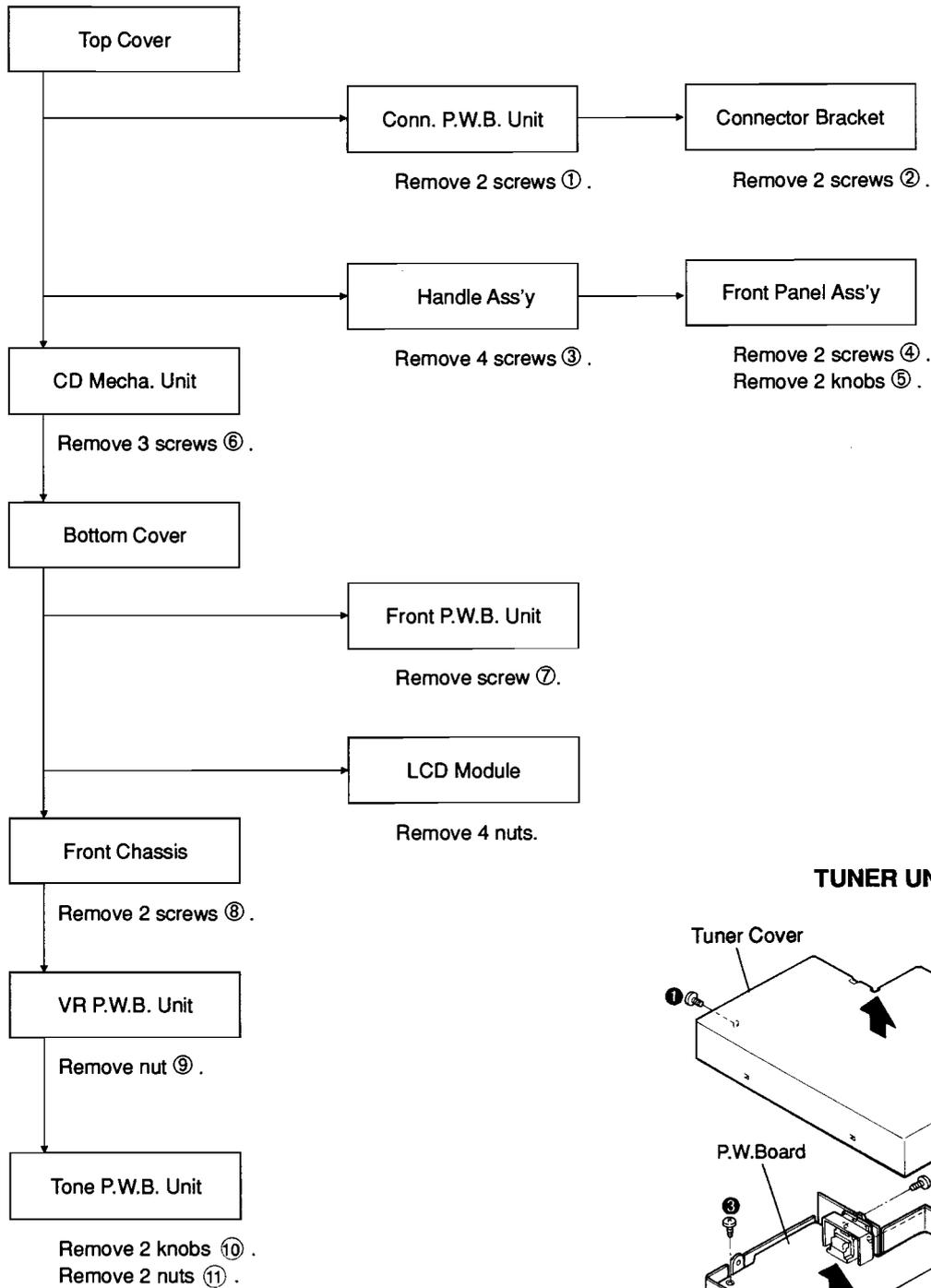
TUNER UNIT
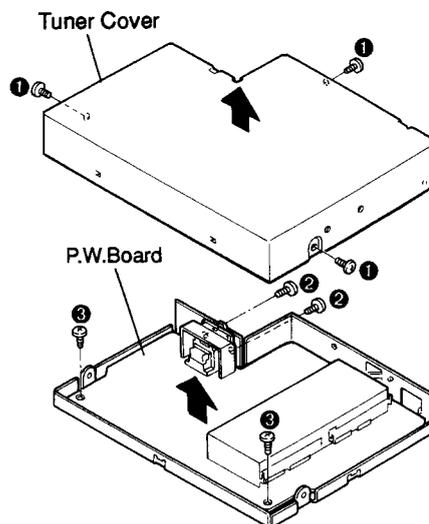
● **Top Cover and Frame Ass'y**
1) Remove 4 screws ❶ , and detach the Tuner Cover.
2) Remove 2 screws ❷ .
3) Remove 2 screws ❸, P.W.Board removed.

Top Cover

CD Mecha. Unit

⑥

⑥

Conn. P.W.B. Unit

VR P.W.B. Unit

①

Connector Bracket

Tone P.W.B. Unit

②

Push Lightly

⑧

⑧

Front P.W.B. Unit

nut ⑨

Front Panel Ass'y

knobs ⑩

④

nuts ⑪

knobs ⑤

③

hooks

Front Chassis

Bottom Cover

④

LCD Module

③

Handle Ass'y
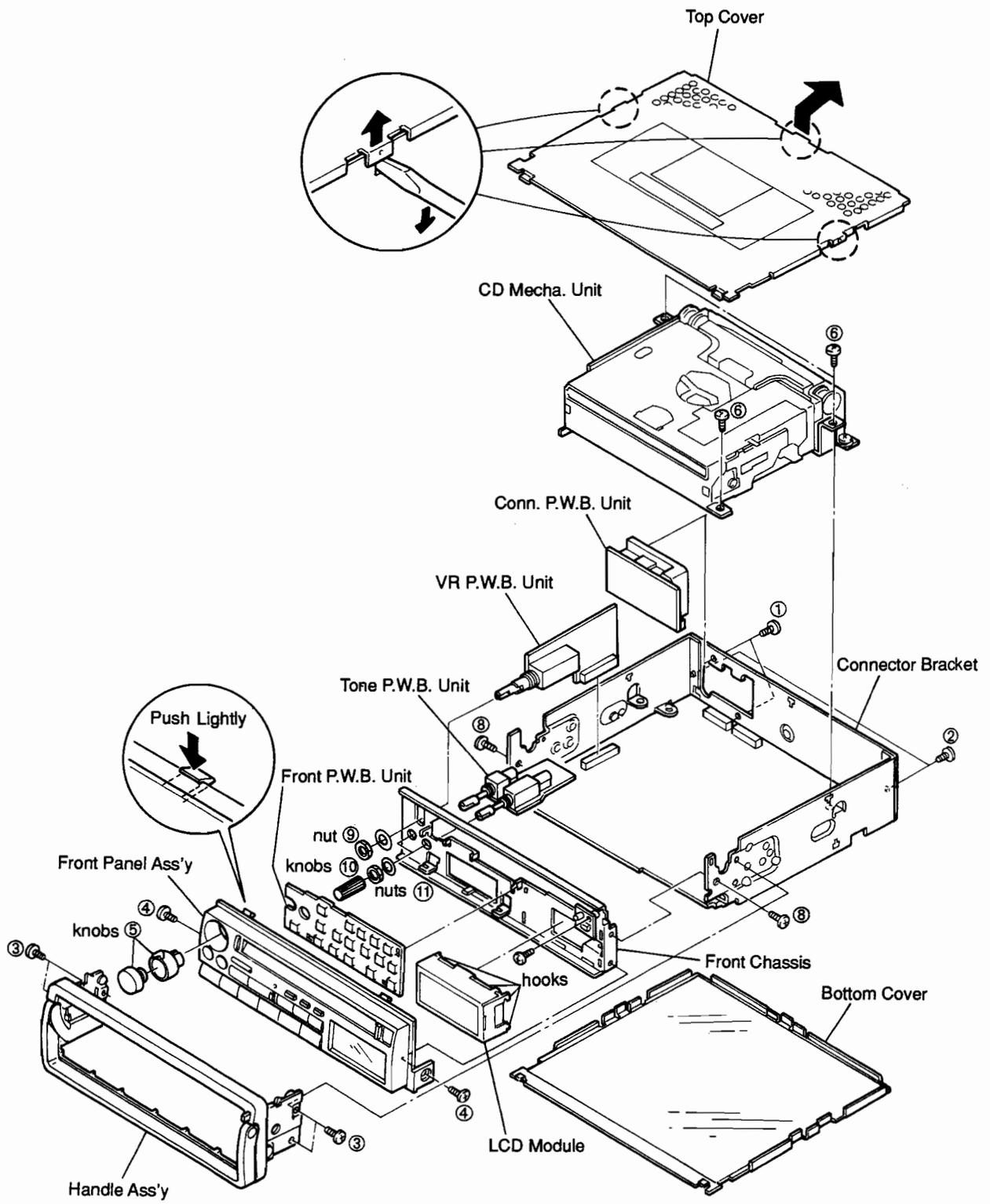
SPECIFICATIONS FOR ADJUSTMENT
● WIRING DIAGRAM
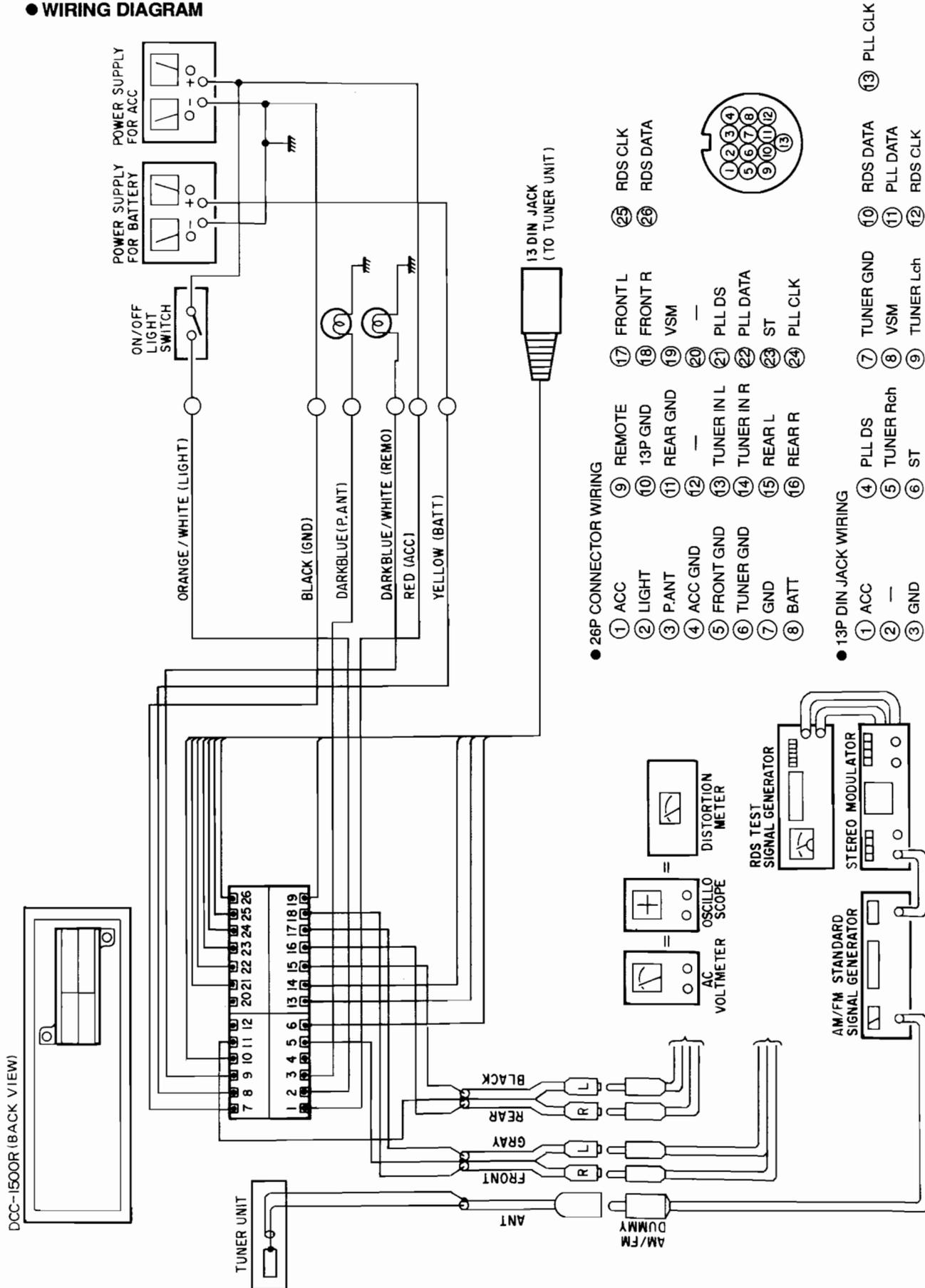
1. Conditions for adjustment (adjustment must be done in the following conditions)
    1-1 Supply voltage   14.4V DC
    1-2 Temperature   Normal temperature
    1-3 Dummy antenna   Use standard dummy antenna

AM standard dummy

For 50ohm signal generator   For 75ohm signal generator
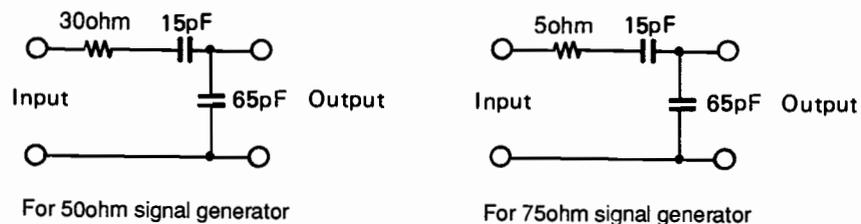
Note: Input level should be read at the SG output.

FM standard dummy

For 50ohm signal generator   For 75ohm signal generator
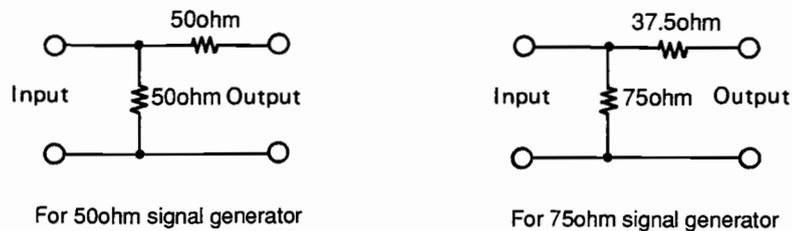
Note: Input level should be read at the unit input (antenna input).

2. Setting of controls before adjustment (controls and switches must be set as follows)
    2-1 Controls
          ● Requires semifixed resistors — set at mechanical center position.
          ● Balance, bass and treble control — set at machanical center position.
          ● Volume at approximate maximum position.
          ● Fader balance at center.

    2-2 Switches
          ● LOUD, and MONO, LOCAL, AF, TA - set to OFF position.

ADJUSTMENT

There is no change except undermentioned FM ALIGNMENT, FM MPX ALIGNMENT and CONFIRMATION ITEMS (Appendix.)

● **FM ALIGNMENT (Confirm that the LOCAL is not indicated.)**   **Table 1**

Step	Aligning	SG set	Tune in to	Output Connection	Adjusting Method	Remarks
1	Discriminator (FM Det Coil)	98.1 MHz 1 kHz, 75 kHz dev 60 dBμ (Ant input)	98.1 MHz	TP1 and TP2 0-center meter	Adjust T401 and obtain 0-center meter indication at 0V.	Indication should be within 0 ± 0.05V.
2	FM IF (Tuner Pack)	98.1 MHz 1 kHz, 75 kHz dev Low level without limiter effect	98.1 MHz	LINE Amp output to AC Voltmeter	(Adjust T1 for) maximum output.	Preset by the factory. Adjust only as necessary.
3	Muting	98.1 MHz 1 kHz, 75 kHz dev 60 dBμ (Ant input)	98.1 MHz	LINE Amp output to AC Voltmeter	Adjust RT204 and Set the Line output to 0 dB and move Ant input from 60 dBμ to 13 dBμ, and confirm that output is –3 dB.	Confirm –3dB limit sensitivity. 13 ± 5 dBμ
4	Output level	98.1 MHz 1 kHz, 75 kHz dev 60 dBμ (Ant input)	98.1 MHz	LINE Amp output to AC Voltmeter	None	Set the Volume control at maximum. Confirm that LINE Amp output is within $1.25V \pm 0.35V$ (center 1.25V)
5	Auto-stop level	98.1 MHz 1 kHz 75 kHz dev 17 dBμ (Ant input)	98.1 MHz	None	Adjust RT205 and set to the range.	Select appropriate frequency point and search. Confirm that auto stop functions at 17 ± 3dBμ ANT input.
6	Auto-stop level (Local)	98.1 MHz 1 kHz 75 kHz dev 37 dBμ (Ant input)	98.1 MHz	None	Press the LOCAL switch. Adjust RT202 and set to the range	Select appropriate frequency point and search. Conform that auto stop functions at 37 ± 3dBμ ANT input.

● **FM MPX ALIGNMENT (Confirm that the MONO is not indicated.)**   **Table 2**

Step	Aligning	SG set	Tune in to	Output Connection	Adjusting Method	Remarks
7	Pilot Canceler	98.1 MHz Pilot Only	98.1 MHz	L and R LINE Amp output to AC Voltmeter	Adjust RT301 to set to the minimum point of L and R LINE 19 kHz output. (Balance output)	
8	Separation	98.1 MHz 1 kHz, 67.5 kHz dev Pilot 7.5kHz dev 60 dBμ (Ant input)	98.1 MHz	L and R LINE Amp output to AC Voltmeter	Adjust RT302 for optimum L and R separation.	

Step	Aligning	SG set	Tune in to	Output Connection	Adjusting Method	Remarks
9	D.O.R.S V (Auto-blend)	98.1 MHz 1 kHz, 67.5 kHz dev Pilot 7.5 kHz dev 40 dBµ (Ant input)	98.1 MHz	L and R LINE Amp output to AC Voltmeter	Adjust RT201 so that the L and R separation becomes 10 ± 3 dB.	As input 60 dBµ separation occasionally changes for worse when performing adjustment, repeat adjustments. Separation and Auto-blend for any number of times.

● **CONFIRMATION ITEMS**

Confirmation of High-cut operation

1. Input 98.1 MHz 30%, modulation frequency 10 kHz, set input level 15 dBµ (about) and confirm the waveform by LINE Amp output .

2. Keep conditions in which SG level is as it is and an external noise (such as motor rotation noise, etc.) is input, and confirm that high-cut is operated. (level down mode)

● **RDS ALIGNMENT**   Table 3

Step	Aligning	SG set	Tune in to	Output Connection	Adjusting Method	Remarks
10	RDS leval (57 kHz level)	98.1 MHz 1 kHz 60 kHz. dev. Pilot 7.5 kHz RDS 1.2 kHz 60 dBµ (ANT input)	98.1 MHz	TP-3 to AC Voltmeter	Adjust RT361 for maximum output	PS indication should be within 22±5dBµ

● AM (MW/LW) ALIGNMENT

Table 4

Step	Aligning	SG set	Tune in to	Output Connection	Adjusting Point	Adjusting Method	Remarks
11	AM IF	999 kHz 400 Hz 30% Level at no AGC effect	999 kHz	L and R Line Amp output to AC Voltmeter	IF401 IF402 IF403 L402	Preset by the factory. Adjust only as necessary.	
12	Tuning Voltage		531 kHz 1602 kHz			Preset by the factory. Adjust only as necessary.	
13	Tracking	603 kHz 400 Hz 30% Low level without limiter effect 1404 kHz 400 Hz 30% Low level without limiter effect		L and R Line Amp output to AC Voltmeter	None	Preset by the factory. Adjust only as necessary.	
14	Auto-stop level	999 kHz 400 Hz 30% 35 dBμ (Ant input)	Select appropriate frequency point and search.		RT401	None	Indication should be within 35 ± 5dBμ.
15	Output level	999 kHz 400 Hz 90% 74 dBμ (Ant input)	999 kHz	L and R Line Amp output to AC Voltmeter	None	None	Set the Volume control at maximum. Confirm that LINE Amp output is within 1.25V ± 0.25V (center 1.25V)

ADJUSTMENT POINTS

TUNER UNIT
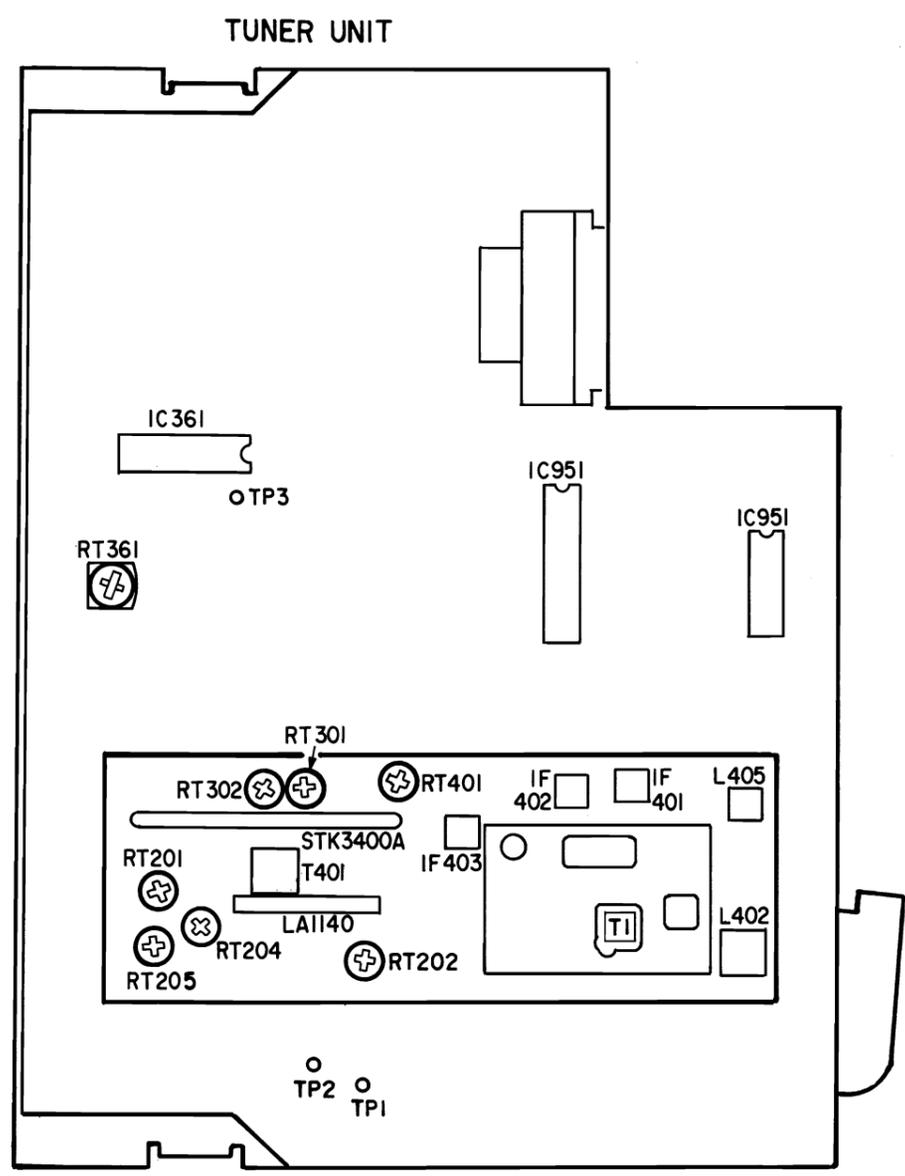
FM-AM Tuner Pack (AV-T803) Part No.
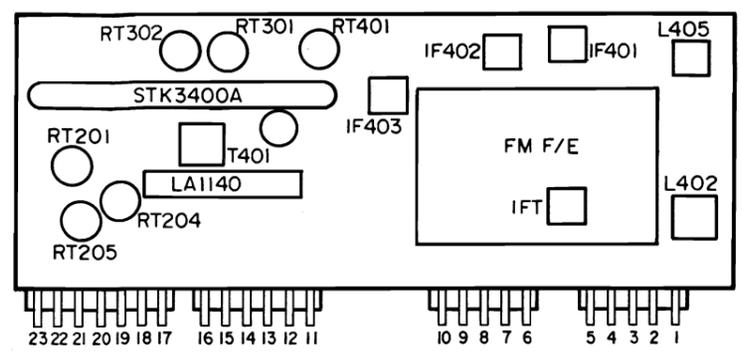
Terminal No.

1	ANT	13	0V AFC
2	ANT GND	14	RDS SIG.
3	LO/DX	15	0V Ref.
4	AM IF	16	S. METER
5	IF CONT	17	Hcc
6	VT	18	RECEIVE
7	AM OSC	19	RECEIVE
8	FM OSC	20	RADIO+B
9	SD	21	L
10	AM+B	22	R
11	FM+B	23	ST/MONO
12	FMIF		

25
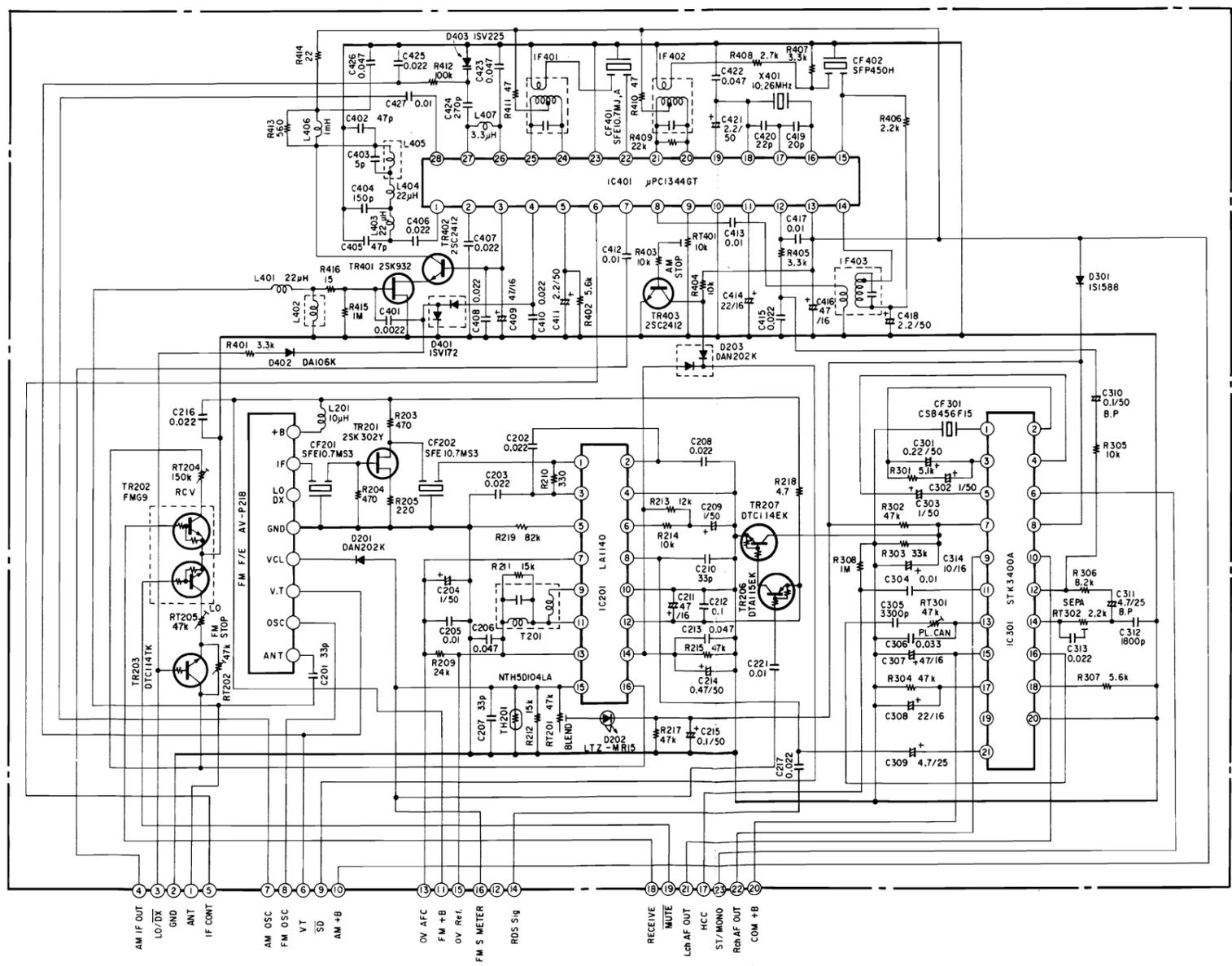
CIRCUIT DESCRIPTION

RDS (Radio Data System)

● Car radio is mainly operated by the driver, each time when the car travels out of the service area of a broadcasting station, the driver will have to tune to another station, and an automatic selective tuning is considered as one of a main features of the radio. European broadcasting Union (EBU) has standardized Radio Data System (RDS) to facilitate automatic tuning to the optimum FM broadcasting station. RDS transmits multidata to facilitate automatic tuning to an optimum station which is broadcasting the same program: Identification of traffic information, and display of the station code.

● Main specifications of RDS

Data rate	1,187.5 bps
Signal format	(26,16) modified shortened cyclic code
Baseband signal format	Differential phase shift keying (DPSK)
Subcarrier frequency	57 kHz
Subcarrier frequency modulation	Double Side Band Suppressed Carrier Amplitude Modulation
Maincarrier frequency deviation	±2 kHz

● Data channel
Data channel employs 57 kHz band to minimize interference to programme band. RDS signal is a signal with bit rate of 1,187.5 bps. modulated by differential phase shift keying (DPSK). This signal comprises the composite signal and an additional signal with subcarries of 57kHz modulated in amplitude by double side band suppressed carriers.

Frequency (kHz)
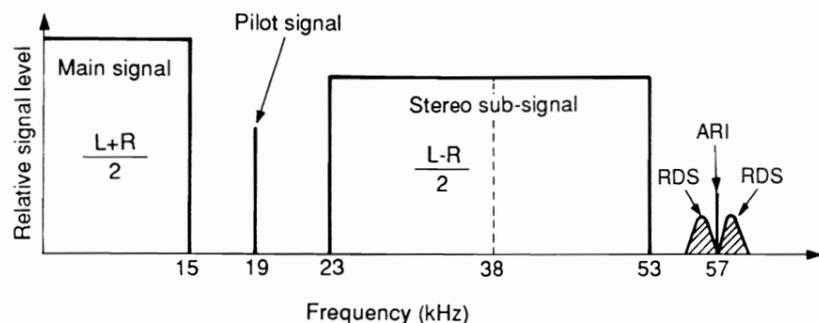
● Data Format
All data are transmitted in a group unit which comprises 104 bit. The 104 bit unit comprises 4 groups, which format 26 bit group respectively. Each group comprises 16 bit information words and 10 bit check words. Data in each group are specified depending on the situation: The first 16 bit of the first group is always the program identification (PI) code, the first 5 bit of the second group is a group-type to clarify the group application, the next 1 bit is Traffic program Identification (TP) code, and the following 5 bit is Program Type (PTY) code. Each contents of data is specified for remainder of the second block, the third and fourth block data respectively.
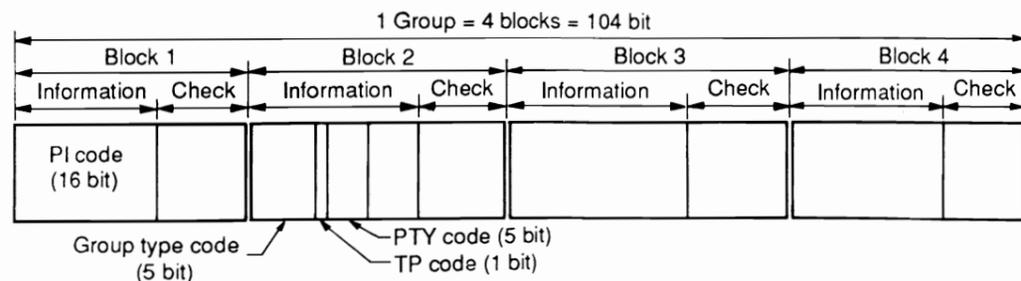
PI: Program Identification Code (Country identification, Area coverage, Programme reference number)
TP: Traffic Program identification Code.
PTY: Program Type Code (News, Light music, Education, Sports, etc.)

RDS Control

1. Signal Flow (Refer to Block Diagram)
   Picks up RDS signal from the output (Tuner Module Pin 14) of FM IF IC (IC201/LA1140), Inputs to RDS decoder IC361 (µPC1346CS) for decoding, further, inputs this signal to synchro correction IC IC602 (LA7070M) to demodulate RDS data, thus RDS data will be demodulated.
   RDS data as in form of serial data consists of RDS START, RDS CLK, and RDS DATA is emitted from IC602 and applied to system control microcomputer IC603 (µPD75516G). This IC603 performs DCC-1500R related all controls of LCD indication, control of CD changer, etc. besides control of RDS.

2. PS Function: Program Service Name
   A function to indicate a name of broadcast station being received on the LCD by PS code in BLOCK 4. Also, functions to indicate on the LCD when PS code is received through the continual check of PS code without relying on "AF" key or "TA" key if it is FM BAND.

3. AF Function: Alternative Frequencies (frequency list of stations broadcasting the same program)
   An automatic searching function, i.e. when reception condition of RDS station being received becomes poor for some reason, or in case a station being received comes into out of service area and makes no reception as receiving is carried out on the moving vehicle, shifts to a station broadcasting the same program. The automatic searching function only performs at the time "AF" key ON or "TA" key ON state, on the other hand P1 code or AF code is continually checked in FM BAND.

4. TA Function: Traffic Announcement
   A function at the time TA code of 12th bit in BLOCK 2 becomes ON, it automatically shifts the voice to RADIO and listen to traffic announcement even if the voice of cassette or CD changer is in output state. At the same time, sound volume will also be boosted however the volume is set at minimum that can be feasible to listen to the traffic announcement. Note that TA function is only effective in "TA" key ON state.

5. PTY Function: Program Type (only 31, ALARM code)
   With the PTY code of 7th thru 11th bit in BLOCK 2, discriminating the program contents of broadcast being received is feasible. Remind that this model detects only PTY code = 31(ALARM). When it is detected, it automatically shifts the voice to RADIO, outputs the ALARM tone, and automatically boosts the volume level.
   Also, PTY Function does not depend on the "AF" key or "TA" key to effect if it is FM BAND.

6. Search Function
   1 AF Search
   AF search performs automatic search as mentioned in "Paragraph 3. AF Function", also performs the optimum reception searching (to select best receiving condition station among the same PI code broadcast stations) at the time RADIO ON, shifting from LW, MW to FM BAND, or at (*) preset call, etc.
   The latter one is called AF Search (A) and the former one is called AF Search (B).
   AF search (B) will function when RDS data is unable to receive for 10 seconds (**), or the same PI code is unable to receive for 10 seconds. Also, AF search (B) stops searching when RDS code is enable to receive and at the time searches the same PI code station, then shifts the receiving station. The both AF search (A) and (B) return to the receiving station searching has started when an appropriate station which satisfies the conditions is unable to find in one round search.

   (*) Preset is feasible to memorize 13 stations maximum.

   (**)When RDS signal is unable to receive for 5 seconds, AF indication will blink in "AF" key ON state, and TA indication will blink in "TA" key ON state.
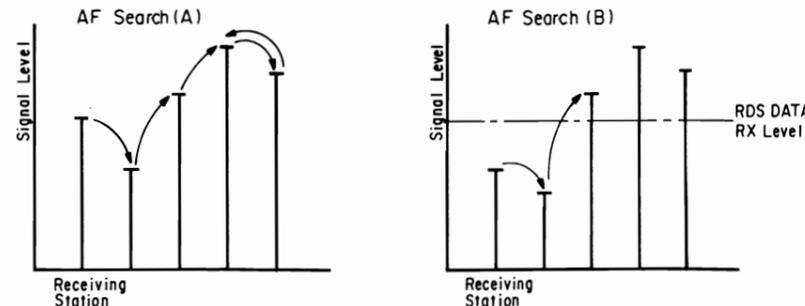
   2 PI Search
   When performing AF Search (A) and receives no RDS station, performing AF Search (B) consecutively 10 times, and receives no RDS station, or PI code is detected however, AF code can not be read and that the performing of AF search is unable to do, then, PI Search will be performed 15 seconds later. This PI Search is Auto Seek and to search the same PI code station, and to produce a "BEEP" tone at beginning of search and indicates 'P' preceding to the frequency display on LCD. And, when searching FM BAND for one round and can not find the same PI code station, produces a BEEP" tone again to finish searching.

3. RDS Search

When ⌐ key or ⌐ key is pressed (only in SEEK mode), it becomes AUTO Seek, RDS Search to stop only at RDS station. At this time, preceding to the frequency display on LCD indicates 'R' letter. Also, in "AF" key ON state, when wholly has not received PI code or AF code by the station being received (stores no PI code or AF code in the memory of microcomputer) and RDS data can not be received for 2 seconds causes to produce a BEEP" tone and automatically performs RDS search.

4 TP Search

When ⌐ key or ⌐ key is pressed in "T" key ON state (only in SEEK mode), become AUTO Seek, TP Search to stop only at a station which TP code is ON in BLOCK 2. At this time, 'T' letter will be displayed preceding to the frequency indication on LCD.

Or, when TP code can not be detected for 15 seconds in "TA" key ON state when turning ON the RADIO or becomes FM mode from MW, LW mode and can not detect TP code for 2 seconds, or at the time a receiving station is not TP station and to turn ON "TA" key, produces a "BEEP" tone and performs TP Search automatically.

Also, when performs TP Search for 5 rounds in BAND and can not search TP station, continually produces "ALARM" tone. This alarm tone continues until finding TP station or when it becomes "TA" key OFF state, it also continues however shifting to cassette or CD mode if "TA" key ON state remains.

7. MODE

DCC-1500R has 3 modes: RDS OFF, AF, TA, and the mode will be cyclically shifted with "AF" key and "TA" key.

Key In / Present Mode	AF	TA
RDS OFF	AF	TA
AF	RDS OFF	TA
TA	AF	RDS OFF

The following is the effective functions for each mode.

	PS	PTY (ONLY 31)	AF Search	PI Search	RDS Search	TP Search
RDS OFF	O	O	×	×	×	×
AF	O	O	O	O	O	×
TA	O	O	O	×	×	O

SERVICE NOTE FOR CD SECTION
Test Mode
There are two kinds of test mode for this unit; one is the checking mode on actions from PLAY to EJECT after inserting the disc, and the other is the mechanical checking mode to check on performance of CD mechanism.

1. Action checking
①Press reset key while simultaneously pressing "1", "2", "3", and "4" keys.
②Press TUNER SW and insert DISC.
③When DISC is inserted, the following actions will be performed:

Loading start

The loading time is monitored. If 16 seconds elapse, error message "LOCAL" is displayed.

Play, starting with the first music

The sled motor is moved toward the internal circumference. If the limit switch is not turned on in 15 seconds, error message "RPT" is displayed. If no focus is obtained, the disc is ejected.

Last music search and play

If the access time exceeds 20 seconds, error message "SEEK" is displayed.

Stop

The stop time is 5 seconds.

Play

The play time is 8 seconds.

If a focus error occurs, error message "RND" is displayed.
If a GFS error occurs, error message "MUTE" is displayed.

First music search & play

If the access time exceeds 20 seconds, error message "SEEK" is displayed.

Eject

If the eject time exceeds 16 seconds, error message "MONO" is displayed.

END

2. Mechanical checking
Actions of spindle motor, focus-tracking of pick-up, action of sled motor, and Laser ON can be checked by eyes.
①Press RESET SW while simultaneously pressing "1", "2", "3", and "4" keys.
②Press the TUNER SW.
③When " ▶■ " key is pressed, spindle motor turns ON, and focus searching and pick-up action toward tracking direction are performed. when " ▶■ " key is pressed again, the performance stops.
④When " + ◄◄ " key is pressed, sled motor is moved toward external circumference while pressing is kept.
⑤When " − ◄◄ " key is pressed, sled motor is moved toward internal circumference while pressing is kept.

Caution for Repair

Never reverse the set when inserting or removing the disc.
When checking the boards, put the set as illustrated below.

During service, do not take the Optical Pick-up Block apart, and
do not adjust the APC circuit. If there is a breakdown in the APC
circuit (including laser diode), replace the entire Optical Pick-up
Block (including APC board).

> 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.

In play mode, the disc section is connected to the chassis
section only through the damper so that it is not affected by
vibration.

The lock gear is fixed in the notch of the chassis only in STOP
mode.

If the lock gear is not firmly fixed in the notch, the disc cannot be
removed or inserted. In such a case, rotate the gear near the
sled motor by your fingers to fix the lock gear in the notch.

Note for reassembling

When reassembling SENSOR BOARD, place the board with
keeping the lever pressed in the direction of arrow. If attach it
forcibly, the switch may be broken.
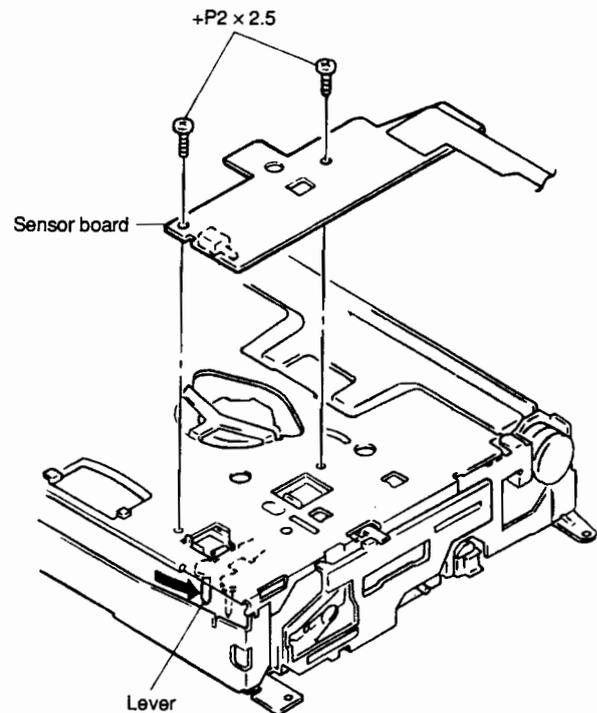
CIRCUIT DESCRIPTION

When the optical section moved toward the inner circumference and the limit switch is turned on, the sled motor starts to rotate the gear in the direction of the arrow, and the MD section is fixed to the chassis.

When the lock gear is fixed to the chassis, SW632 is turned on. When SW632 is turned on, the loading motor is rotated to eject the disc.
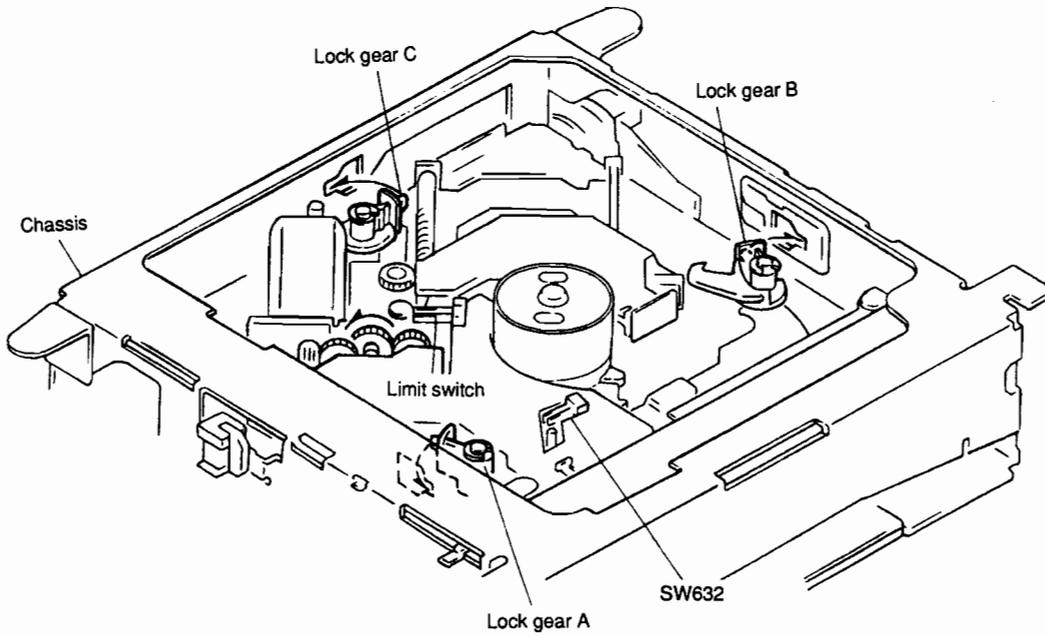
CD SECTION ADJUSTMENTS

MECHANICAL

Turntable Height Adjustment

Loosen the fixing screws and adjust the height to the specification illustrated.

Lock Gears (A and B) Installing Adjustment

Since installing lock gears A and B is the same, only lock gear B is described below.

1. Rotate the gear near the motor with your fingers to move the optical section toward the external circumference.
2. Continue to rotate the gear until the lock gear is disconnected from the notch of the chassis and stops.
3. Fix the lock gear so that the holes of the lock lever and the lock gear and the spindle are roughly aligned.

Lock Gear C Installing Position Adjustment

1. Rotate the gear near the motor and move the optical section toward the external circumference.
2. Continue to rotate the gear until the lock gear is disconnected from the notch of the chassis and stops.
3. Fix lock gear C so that the spindle, the lock gear C fixing axis and the center of the lock gear C projection are roughly aligned.

31

ELECTRICAL

PLL free-run frequency adjustment
Adjustment:
1. Remove the soldering bridge (EFM) from the MD main board.
2. Dettach R522 from MAIN P.C.Board. (R522 is connected to pin 11 of IC503.)
3. Connect the frequency counter to test point (PLCK).
4. Turn the power on and adjust RV505 so that frequency counter reading satisfies the specification.

Adjustable limits: 4.3118 to 4.3318MHz

Focus offset adjustment
Adjustment:
1. Connect the oscilloscope to test point RF on the MD main board.
2. Load a disc and set mode to PLAY.
3. Adjust RV502 so that the waveform on the oscilloscope (eye pattern) is maximum with good shape. "Well-shaped eye pattern" means that the mark " ◇ " is clearly distinguished at the center of the waveform.

Adjustment point: MD main board
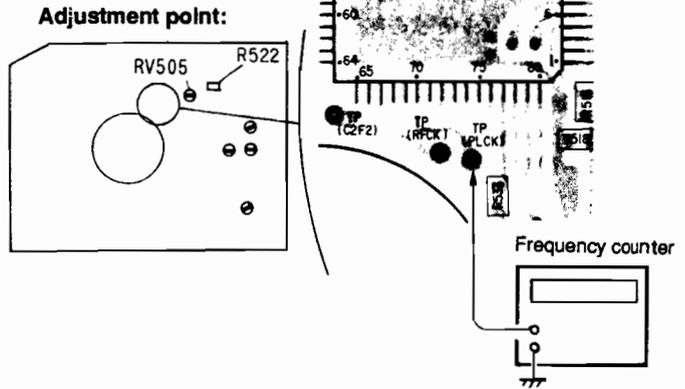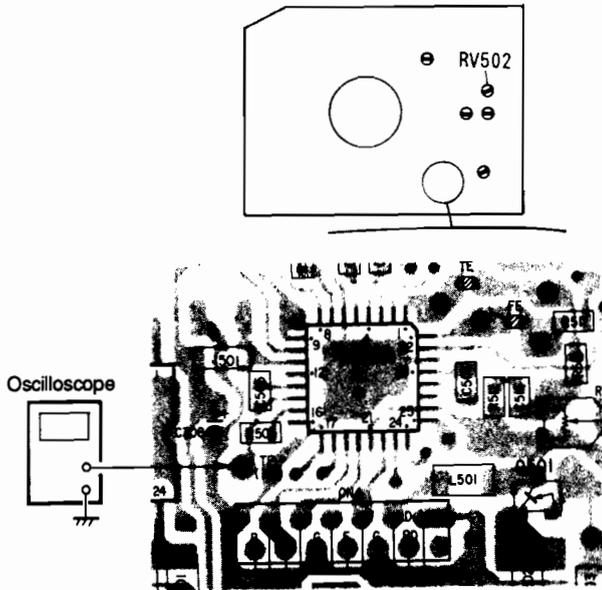
Volt/div: 200mV
Time/div: 0.5μsec

1.3±0.3Vp-p

Adjustment point:

Frequency counter

Tracking offset adjustment
Adjustment:
1. Connect the oscilloscope to test point TE on the MD main board.
2. Load a disc and set mode to PLAY.
3. Press button |◄◄ or ►►| and observe the traverse waveform.
4. Adjust RV501 so that the waveform is symmetric when centered at the level to be accessed.

Adjustment point: MD main board

Oscilloscope

* Traverse waveform: Tracking error waveform which is observed when the track is traversed.
Volt/div: 0.5V
Time/div: 2msec
Center: 0V

A
0V
B
A = B

Traverse waveform
(100 track jump waveform)
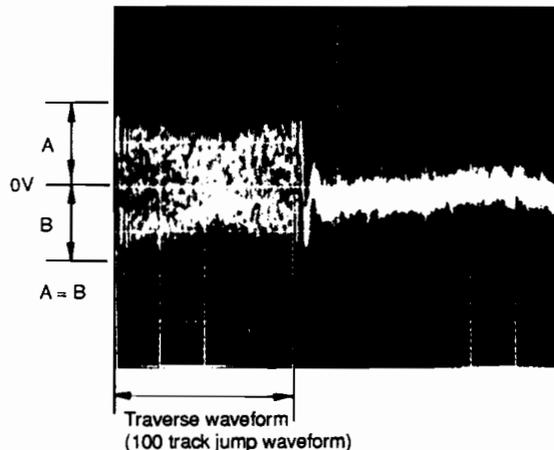
Tracking gain adjustment (Coarse adjustment)

This adjustment is not required unless the following parts are replaced:

● Optical block
● RV503

Before starting this adjustment, complete the focus offset adjustment and the tracking offset adjustment.

Adjustment:

1. Connect the oscilloscope to test point TE on the main board.
2. Load a disc and set mode to PLAY.
3. Turning RV503 clockwise, from the left most position, observe the waveform on the oscilloscope.
   Fix RV503 at the position where the waveform becomes stable.

Adjustment point: MD main board

Oscilloscope

Volt/div: 0.5V
Tile/div: 2msec

Fluctuating waveform

Stable waveform
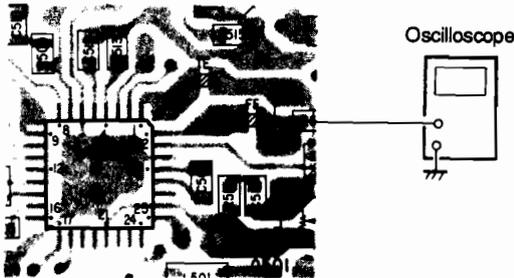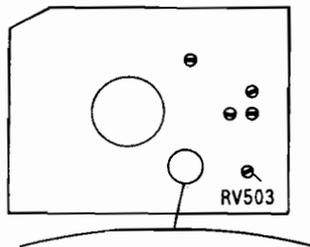
● If the gain is too low

When music is selected by pressing button |◀◀ or ▶▶|, the tracking jump waveform is not focused completely and the music selection is delayed. (Break function does not work well because its gain is too low.)

100-track jump waveform | Traverse waveform caused when break is not functioning well.
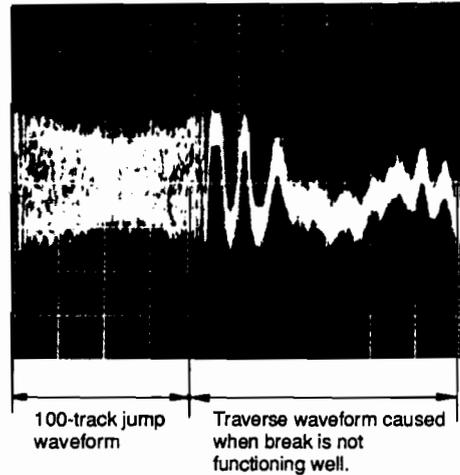
● If the gain is too high

Noise due to scratches and dust is heard and the operation becomes unstable.

MAX Position
(High gain)

MIN Position
(Low gain)
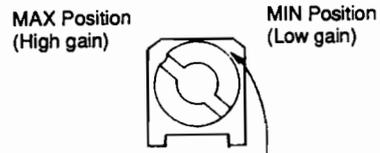
The standard setting is with the contact point located at this position.

—RV503 standard setting—

33

Focus gain adjustment (Coarse adjustment)
This adjustment is not required unless the following parts are replaced:
● Optical block
● RV504

Adjustment
1. Set RV504 to the standard position.
2. Check whether operation noise (white noise type) caused by the double-axis device (lens section of the optical block) is abnormally loud.

   If the operation noise is too loud, turn RV504 slightly counterclockwise.

MAX position
(High gain)

MIN position
(Low gain)

The standard setting is with
the contact point located here.
— RV504 standard setting —

RV504
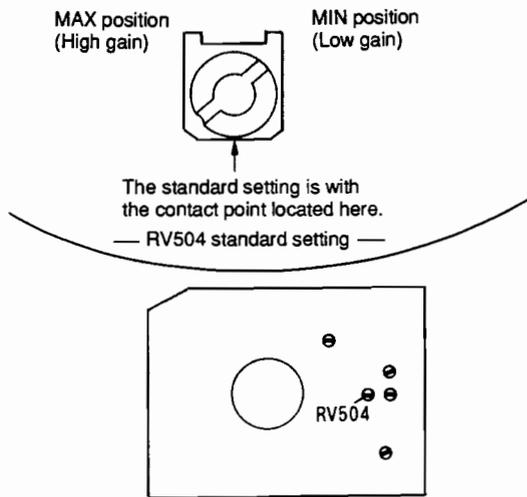
● If the gain is too low:
  Focus does not function and no music is selected.
● If the gain is too high:
  Noise caused by scratches and dust is heard and the operation becomes unstable.

BLOCK DIAGRAM–(1/2)

TUNER, AMP SECTION
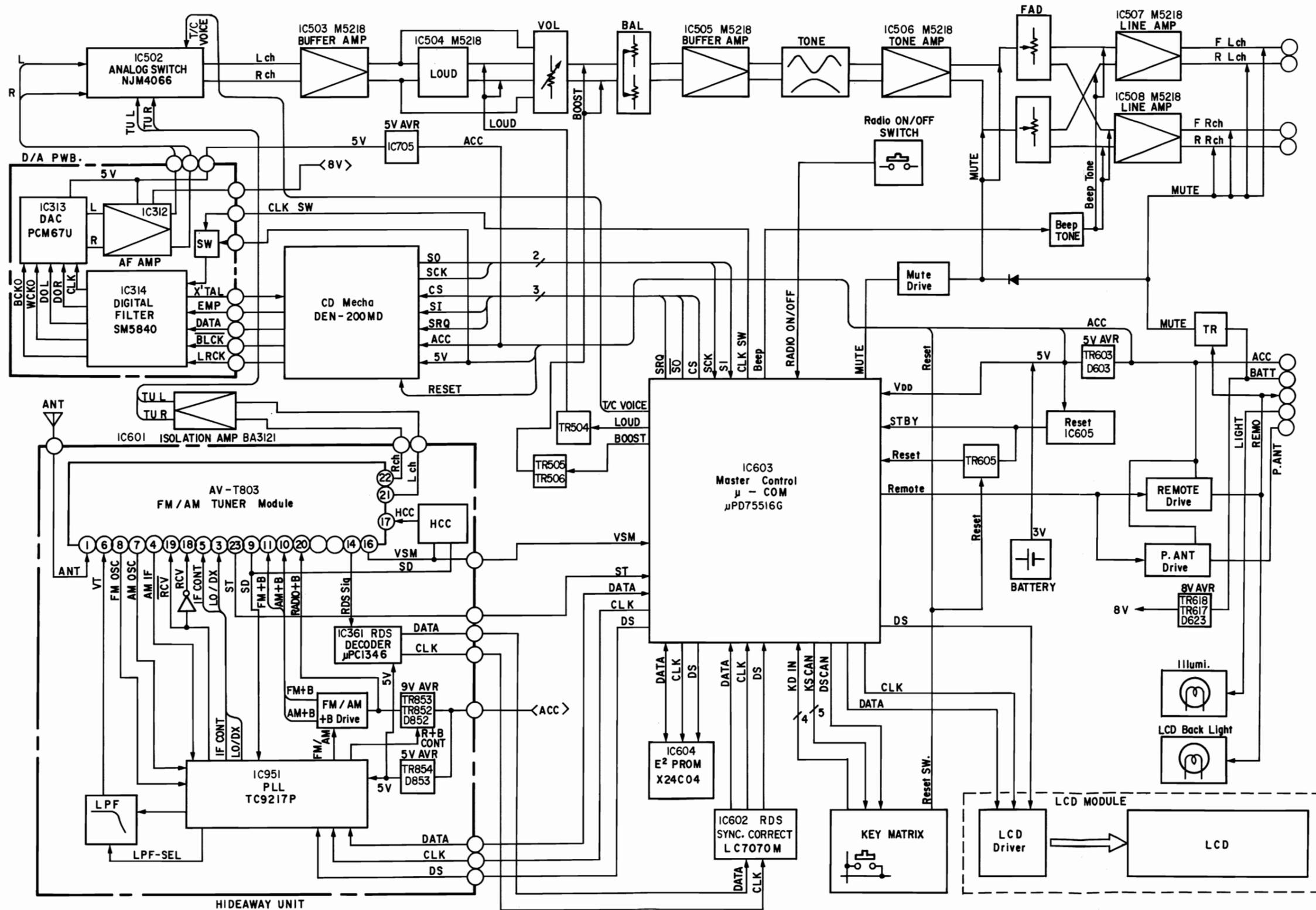
BLOCK DIAGRAM—(2/2)

CD MECH. SECTION
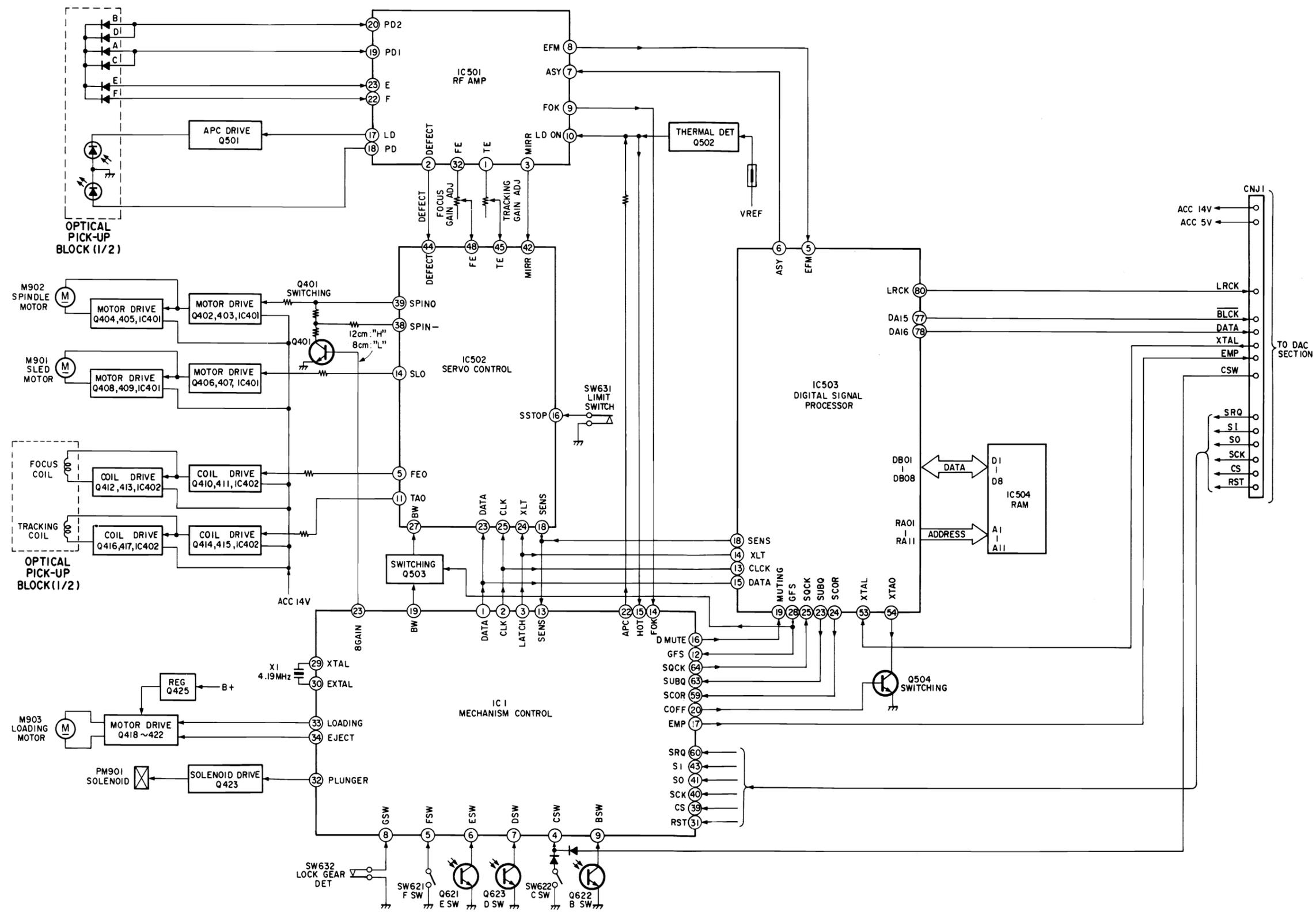
SEMICONDUCTORS

CD Mech. Section

● IC's

CXA1081Q
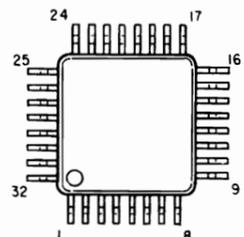
CXP5068H-008Q
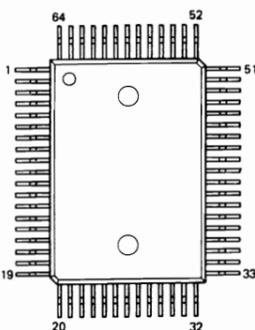
CXD1125Q
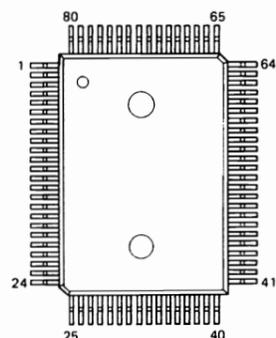
CXA-1081Q (IC501)
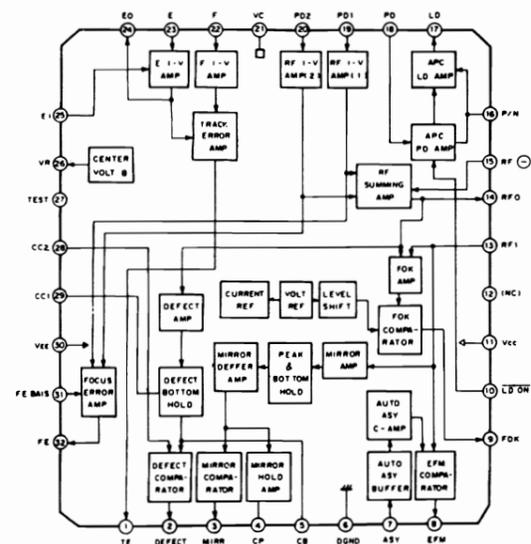
CXD1125Q (IC503)

M5228FP (IC401, 402)

V OUT1	1	14	V OUT4
V IN1 −	2	13	V IN4 −
V IN1 +	3	12	V IN4 +
Vcc	4	11	GND
V IN2 +	5	10	V IN3 +
V IN2 −	6	9	V IN3 −
V OUT3	7	8	V OUT3
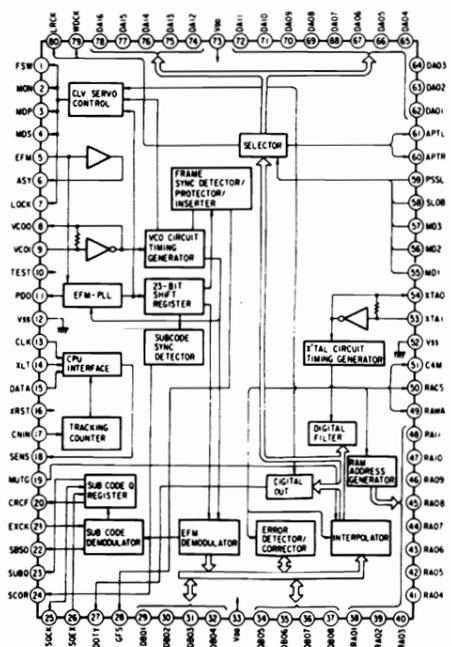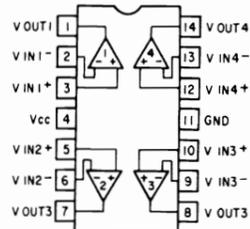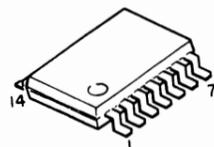
CXP5068H-008Q Terminal Function

Pin No.	Description
1	Serial data output to IC502 and IC503
2	Clock output for the serial data transfer to IC502 and IC503
3	Latch output to IC502 and IC503
4	Loading start switch input; 8cm disc eject complete switch input. (Turns on at "H") (Switch C)
5	Disc chucking complete switch input (Turn on at "L") (Switch F)
6	Chucking start switch while loading is in progress (plunger on timing) (Turns on at "H")
7	Input signal for 8cm or 12cm disc detection. Signal input is upon completion of the 12cm disc eject or loading start sensor from that status. (The signal turns on at "H") (Switch D)
8	Input signal from the floating lock status (on or off) detection switch. (The signal is locked at "L") (Switch Q)
9	Input from the disc sensor (Disc detected if "H") (Switch B)
10, 11	GND
12	Input from the GFS (frame sync lock status display) (Normal when "H")
13	SENSE signal input (IC502 and IC503 internal status input).
14	FOK signal input (Focus OK signal input).
15	Input signal from detect high temperature. (Usually, set to "H")
16	Digital mute control output. (Mute on when "H")
17	Emphasis control (on or off) output.
18	Audio mute control output.
19	PLL lock range control output (on when "H").
20	IC503 clock control (on or off) output (on when "H").
21	IC502 and IC503 reset control (on or off) output (on when "H").
22	Laser control (on or off) output (on when "L").
23	8cm disc gain control ("H". if 8cm)
24,25	GND
26	VDD
27,39	Chip select signal input.
28,38	VDD
29,30	Crystal connection terminal.
31	Reset signal input.
32	Plunger control (on or off) output (on when "H").
33,34	Loading motor control output (Disc is loaded when the signal changes from "H" to "L" and ejected when the signal is changed from "L" to "H".
35	"H" is output during test mode.
36	"H" is output if an error occurs during test mode.
37	Reserved.
40	Input of the clock signal from the main microcomputer.
41	Serial data output to the main microcomputer.
42	Reserved.
43	Serial data input from the main microcomputer.
44	GND
45–48	Reserved.
49	Input for detection of sound skip during test mode.
50–52	GND
53–56	Test mode setting terminals.
57	Reserved.
58	VDD
59	Subcode sync SO+SI Signal input.
60	Signal output to the main microcomputer, requesting communication. (Communication is requested when "L".)
61,62	Sled motor control output (Motor is locked when the signal changed from "L" to "H", and released when the signal changes from "H" to "L".)
63	Subcode Q signal input.
64	Clock output for the subcode Q signal input.

CXK5816M
(IC504)

CXA1082AQ

CXA1082AQ
(IC502)
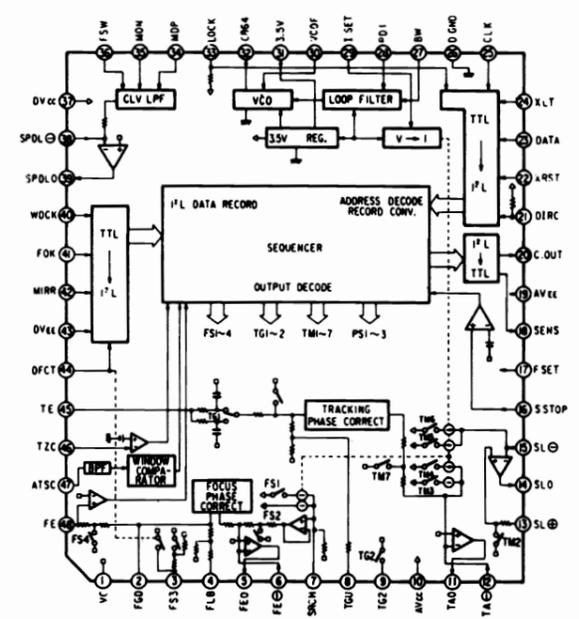
● TRANSISTORS

2SB1124
2SD1624
(Chip)

E (Emitter)
C (Collector)
B (Base)

2SB1000
2SD1870
(Chip)

E (Emitter)
C (Collector)
B (Base)
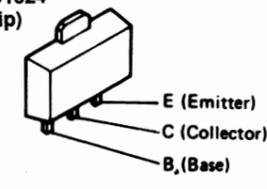
2SB624
2SA1179
(Chip)
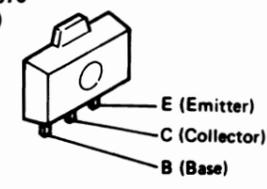
1: Emitter
2: Base
3: Collector
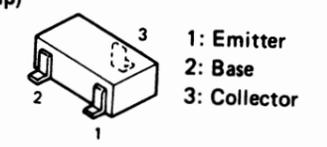
DTC114EU
DTC143TU
(Chip)
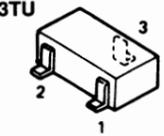
1: GND/Emitter
2: In/Base
3: Out/Collector

DTCEU Series
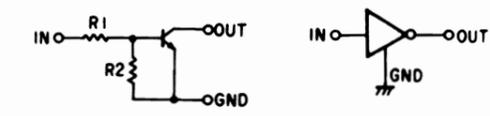
	R1	R2
DTC114EKU	10kohm	10kohm
DTC143EKU	4.7kohm	4.7kohm

DTCTK Series
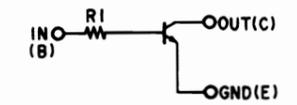
	R1
DTC343TK	4.7kohm

FMG-9 (Chip)

1: Emitter
2: Base
3: Collector

(1)Tr 1 OUT
(2)Tr 2 OUT
(3)Tr 2 IN
(4)GND
(5)Tr 1 IN

R 1=4.7kΩ
R 2=47kΩ
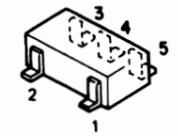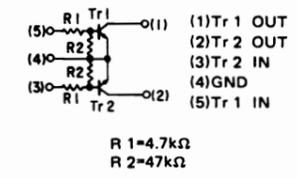
IMX2

IMB1

PN147-LF-R

E MARK
C
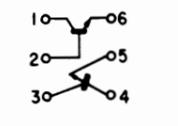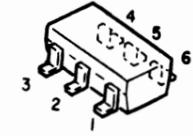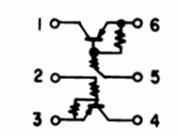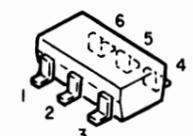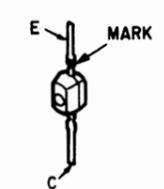
● DIODES (including LED)

DCA015

Anode
Cathode Cathode
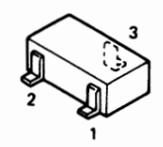
1 : Cathode
2 : Cathode
3 : Anode

DCB015

Cathode
Anode Anode

1 : Anode
2 : Anode
3 : Cathode

RD5.1M

Dark Blue

LN1261C

Cathode Anode

CXK5816H-12/15L Terminal Function

Terminal Symbol	Terminal Function
A0 – A10	Address input/output terminal.
I/O1 – I/O8	Data input terminal.
CE	Chip enable input terminal.
WE	Light enable input terminal.
OE	Output enable input terminal.
Vcc	+5V power supply terminal.
GND	Ground terminal.
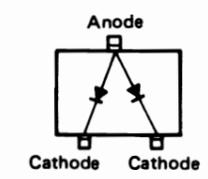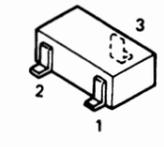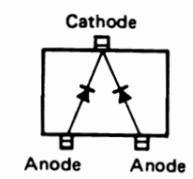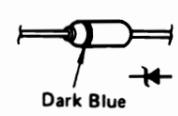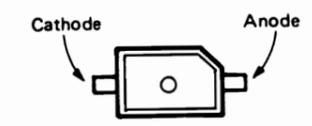
Main, Tuner, DAC Section

● IC's

STK3400A
(IC301)
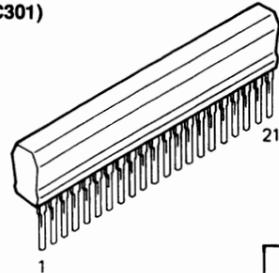
Model	De-emphasis constant
STK3400A	50µs C14, 15: 0.015µF for Europe
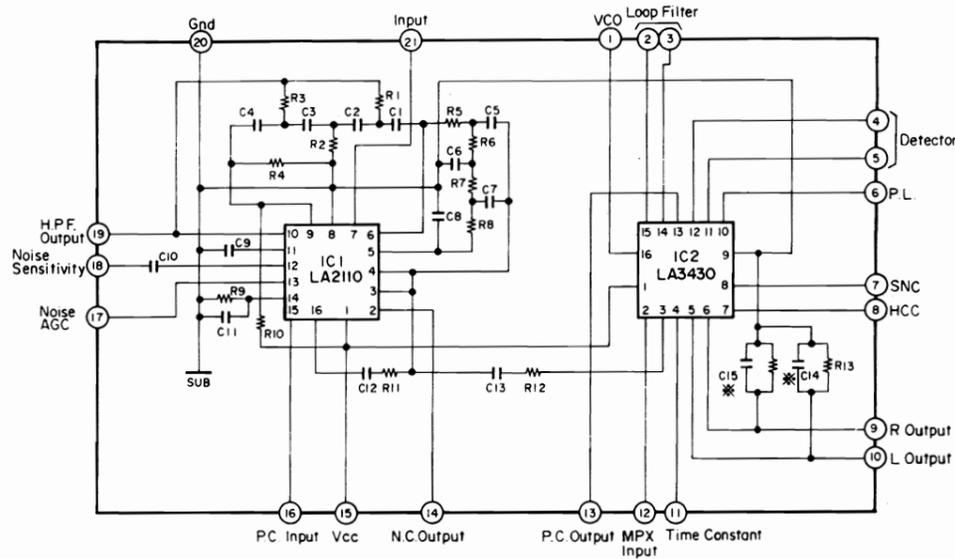
PCM67U
(IC313)
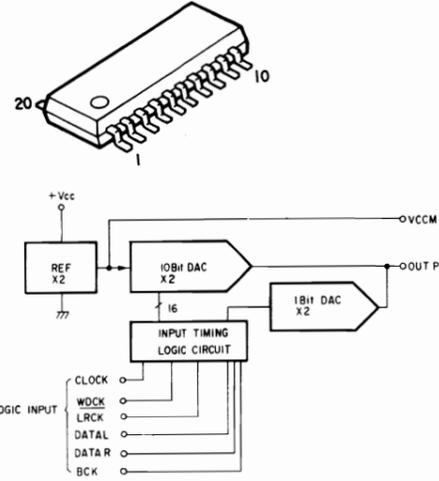
PCM67U Terminal Function

Terminal No.	Terminal Symbol	Terminal Function
1	+VDD	Digital power supply terminal.
2	V COM L	V COM L terminal.
3	N.C.	No connection.
4	Lchout	Lch output terminal.
5	V REF SENSE	Reference sens terminal.
6	V REF	Reference output terminal.
7	Rchout	Rch output terminal.
8	N.C.	No connection.
9	VCOMR	V COM R terminal.
10	A GND	Analog ground terminal.
11	D GND	Digital ground terminal.
12	TP 2	Test terminal 2.
13	DATA R	DATA R input terminal.
14	BCK	Bit clock input terminal.
15	SYS CLK	System clock input terminal.
16	WDCK	WDCK input terminal.
17	DATA L	DATA L input terminal.
18	N.C.	No connection.
19	TP 1	Test terminal 1.
20	+Vcc	Power supply +Vcc terminal.

M5218FP
(IC314)
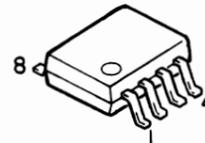
M5218AP
(IC503, 504, 505, 506, 507, 508)
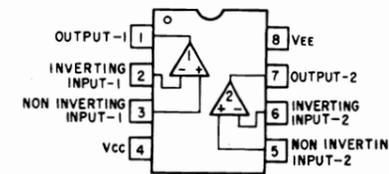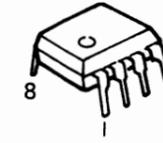
LA1140
(IC201)

M51957BL
(IC605)

5 OUT
4 DELAY CAPACITY
3 GND
2 IN
1 Vcc
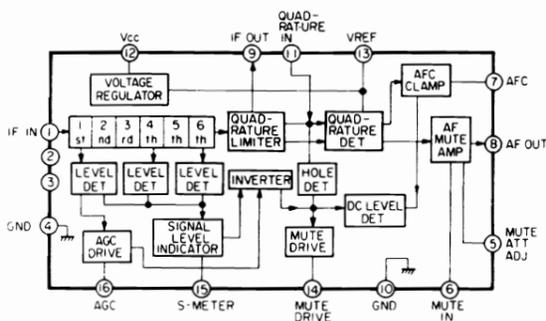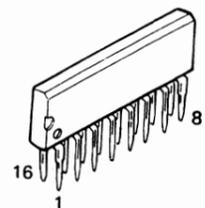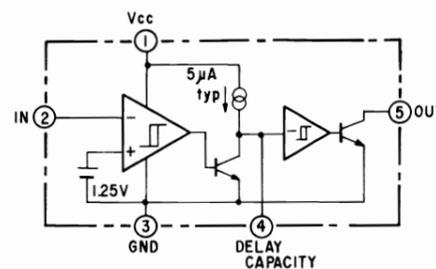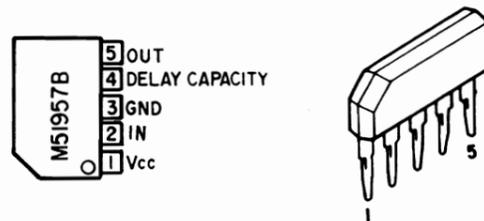
µPC1344GT
(IC401)
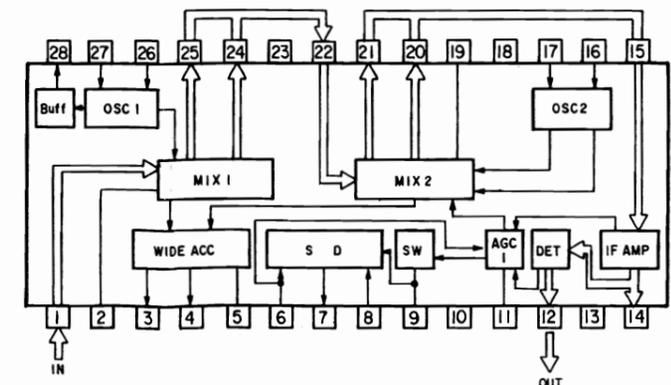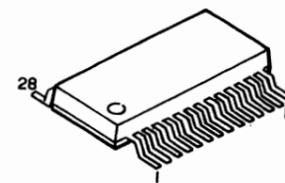
μPD75516G
(IC603)
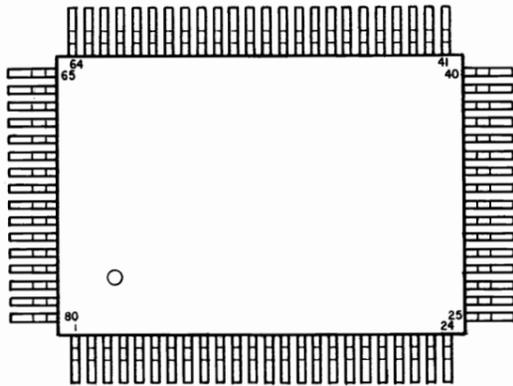
μPD75516G Terminal Function

Pin No.	Name of Port	Name	Active	I/O	Description
1	AN0	S-Meter	–	I	Reception signal strength measuring input.
2	AV ref	AV_REF IN	–	I	Reference voltage input terminal of AD converter.
3	VDD	VDD	–	–	Power input.
4	VDD	VDD	–	–	Power input.
5	P113		–	–	
6	P112		–	–	
7	P111		–	–	
8	P110		–	–	
9	P103	FM/AM+B CONT	–	–	
10	P102	RADIO+B CONT	H	O	Radio+B(8V) Control output.
11	P101		H	O	FM+B or AM+B(8V) Control output.
12	P100		–	–	
13	P93		–	–	
14	P92		–	–	
15	P91		–	–	
16	P90		–	–	
17	P83		–	–	
18	P82	LCDOUT	–	O	Serial output for LCD driver (MSM-5265).
19	P81	LCDCLK	–	O	Serial clock output for LCD driver (MSM-5265).
20	P80	LCDLOAD	–	O	LOAD data output for LCD driver (MSM-5265).
21	P73	KDIN1	–	I	KEY & diode return input.
22	P72	KDIN2	–	I	KEY & diode return input.
23	P71	KDIN3	–	I	KEY & diode return input.
24	P70	KDIN4	–	I	KEY & diode return input.
25	P63	PLLCLK	–	O	Serial clock output to PLL IC (TC 9217P).
26	P62	PLLDATA	–	O	Serial data input/output to PLL IC (TC-9217P).
27	P61	PLLDS	–	I/O	Serial data input/output timing to PLL IC (TC-9217P).
28	P60		–	–	
29	P53		–	–	
30	P52		–	–	

Pin No.	Name of Port	Name	Active	I/O	Description
31	P51	DSCAN1	–	O	Initial setting diode matrix signal output.
32	P50	KSCAN5	–	O	KEY matrix signal output.
33	Vss	GND	–	–	Ground terminal.
34	P43	KSCAN4	–	O	KEY matrix signal output.
35	P42	KSCAN3	–	O	KEY matrix signal output.
36	P41	KSCAN2	–	O	KEY matrix signal output.
37	P40	KSCAN1	–	O	KEY matrix signal output.
38	P33		–	–	
39	P32	ERAMSCL	–	O	Serial clock output for external RAM.
40	P31	ERAMDATA	–	I/O	Serial data input/output for external RAM.
41	P30	CLKSW	L	O	Outputs 'H' in RADIO, AUX mode.
42	P23		–	–	
43	P22	CS	L	O	Mute timing output for hand-shaking to CD mechanism.
44	P21	REMOTE	H	O	REMOTE output controlling terminal.
45	P20	BEEP	–	O	BEEP tone and ALARM tone output terminal.
46	P13	SRQ	L	I	Mute timing input terminal from CD auto-changer.
47	P12	RDS IN	–	I	Serial data input for RDS decoder (LC-7070).
48	P11	RDS CLK	–	I	Serial data clock input for RDS decoder (LC-7070).
49	P10	RDS START	–	I	Serial data start input for RDS decoder (LC-7070).
50	P03	SI	–	I	Serial data input from CD auto-changer.
51	P02		–	–	
52	P01	RADIO ON/OFF	L	I	RADIO SWITCH input terminal.
53	P00	STBY	H	I	Inputs "L" to stop system clock oscillation and becomes memory hold. Inputs "H" to start system clock oscillation and becomes operating state.
54	Vss	GND	–	–	
55	XT1	N.C.	–	I	Not used.
56	XT2	N.C.	–	I	Not used.
57	IC	GND	–	–	
58	X1	X'TAL	–	I	Connecting terminal of crystal oscillator.
59	X2	X'TAL	–	–	Connecting terminal of crystal oscillator.
60	RESET	RESET	L	I	System reset input terminal.
61	P143	SO	–	O	Serial data output to CD auto-changer.
62	P142	SCK	–	O	Serial data output from CD auto-changer.
63	P141	IFCONT	H	O	ON/OFF terminal of signal for IF count.
64	P140	LPF-SEL	H	O	VCO filter constant selection output. Output "H" while searching (AF, PI, TP, RDS).
65	P133	MUTE	H	O	Mute output terminal.
66	P132	BOOST	L	O	Outputs "L" at boosting sound volume.
67	P131	LOUD	H	O	Outputs "H" at LOUD ON.
68	P130		–	–	
69	P123	T/C VOICE	L	O	RADIO/CD voice switching output. "L" to RADIO, "H" to CD voice.
70	P122		–	–	
71	P121		–	–	
72	P120		–	–	
73	A Vss	GND	–	–	Standard GND potential terminal of A/D converter.
74	P153		–	–	
75	P152		–	–	
76	P151		–	–	
77	P150		–	–	
78	AN3	ST	L	I	"ST" indicator input.
79	AN2		–	–	
80	AN1	SD	L	I	Station presence detection input.

MSM5265GS
(ICxxx)
(Including LCD Models)

LC7070N
(IC602)

TC9217P
(IC951)
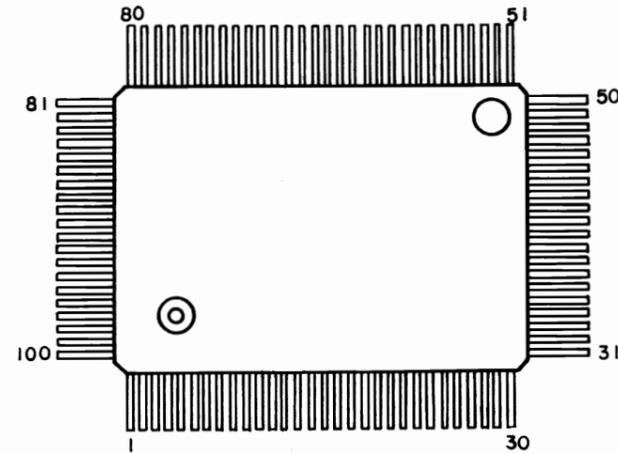
MSM5265GS Terminal Function

Pin No.	Name of Port	Pin No.	Name of Port	Pin No.	Name of Port	Pin No.	Name of Port
1	SEG 51	26	SEG 76	51	SEG 1	76	SEG 26
2	SEG 52	27	SEG 77	52	SEG 2	77	SEG 27
3	SEG 53	28	SEG 78	53	SEG 3	78	SEG 28
4	SEG 54	29	SEG 79	54	SEG 4	79	SEG 29
5	SEG 55	30	SEG 80	55	SEG 5	80	SEG 30
6	SEG 56	31	LOAD	56	SEG 6	81	SEG 31
7	SEG 57	32	CLOCK	57	SEG 7	82	SEG 32
8	SEG 58	33	DATA-IN	58	SEG 8	83	SEG 33
9	SEG 59	34	DATA-OUT1	59	SEG 9	84	SEG 34
10	SEG 60	35	DATA-OUT2	60	SEG 10	85	SEG 35
11	SEG 61	36	OSC-OUT	61	SEG 11	86	SEG 36
12	SEG 62	37	OSC-OUT	62	SEG 12	87	SEG 37
13	SEG 63	38	OSC-IN	63	SEG 13	88	SEG 38
14	SEG 64	39	EXT/INT	64	SEG 14	89	SEG 39
15	SEG 65	40	V_{DD}	65	SEG 15	90	SEG 40
16	SEG 66	41	D/S	66	SEG 16	91	SEG 41
17	SEG 67	42	GND	67	SEG 17	92	SEG 42
18	SEG 68	43	SEG-TEST	68	SEG 18	93	SEG 43
19	SEG 69	44	BLANK	69	SEG 19	94	SEG 44
20	SEG 70	45	SYNC	70	SEG 20	95	SEG 45
21	SEG 71	46	COM-OUT	71	SEG 21	96	SEG 46
22	SEG 72	47	V_{LC1}	72	SEG 22	97	SEG 47
23	SEG 73	48	COM-A	73	SEG 23	98	SEG 48
24	SEG 74	49	COM-B	74	SEG 24	99	SEG 49
25	SEG 75	50	V_{LC2}	75	SEG 25	100	SEG 50
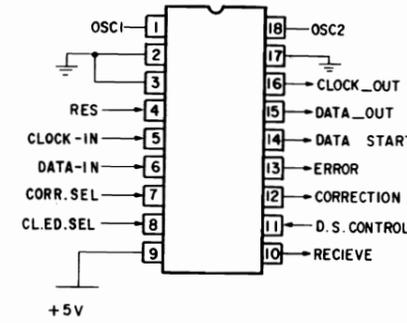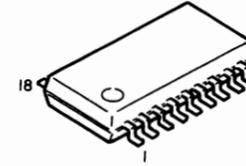
BA3121N
(IC601)

SM5840CS-L1
(IC314)

μPC1346
(IC361)

B.P.F

DSB DEMDO

SELECTOR

BIPHASE DECODER

SK DET.

CLOCK RECOVERY

DEF. DECODER

OSC

NJU4066BD
(IC952, 502)

in/Out
10Ω
V SS
VDD
Control
1.5kΩ
V DD
Out/in
10Ω
V DD
V SS

IN/OUT SIG A [1]   [14] VDD
OUT/IN [2]   [13] CONTA
OUT/IN SIG B [3]   [12] CONTD
IN/OUT [4]   [11] IN/OUT SIG D
CONTB [5]   [10] OUT/IN
CONTC [6]   [9] OUT/IN SIG C
VSS [7]   [8] IN/OUT

SW A
SW D
SW B
SW C
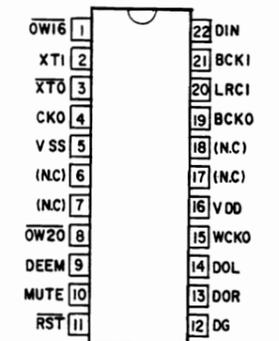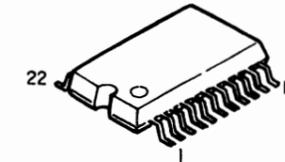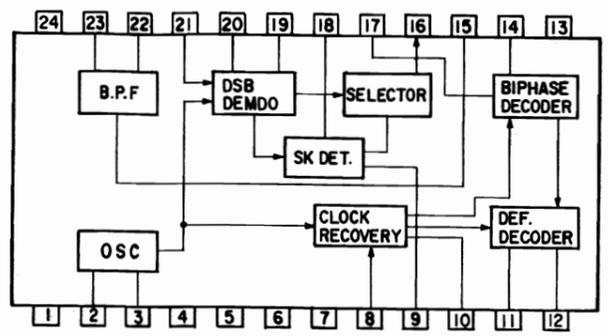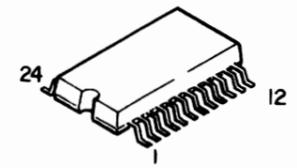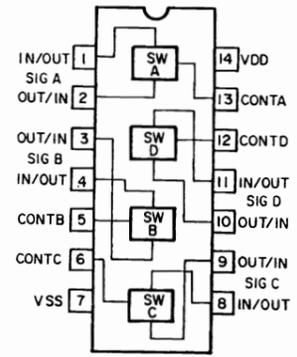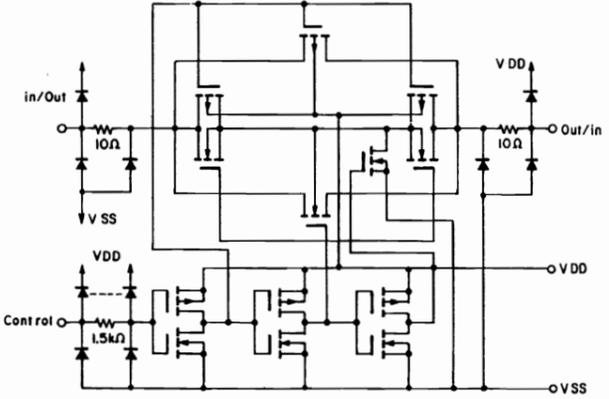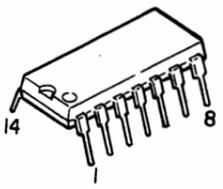
A~D   : Control Input
IN/OUT : Signal Input/Output
OUT/IN : Signal Output/Input

X24C04P
(IC604)

PIN CONFIGURATIONS

AO [1]   [8] VCC
AI [2]   [7] TEST
A2 [3]   [6] SCL
VSS [4]   [5] SDA
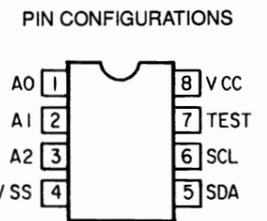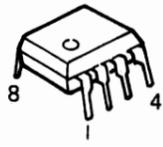
PIN NAMES

AO-A2	Address Inputs
SDA	Serial Data
SCL	Serial Clock
TEST	Hold at Vss
Vss	Ground
Vcc	Supply Voltage
NC	No Connect

NJM78L05A
(IC501)

1. OUT
2. GND
3. IN

● TRANSISTORS
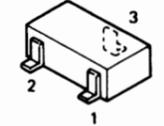
1 : GND/Emitter
2 : In/Base
3 : Out/Collector

DTA115EK
DTA143EK
DTC114EK
DTC114TK
DTC314TK
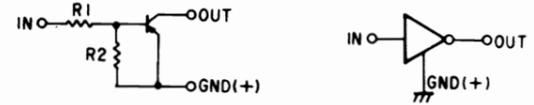
DTAEK Series

	R1	R2
DTA115EK	100kohm	100kohm
DTA143EK	4.7kohm	4.7kohm

DTCTK Series
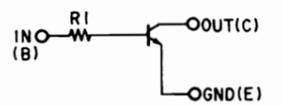
	R1
DTC114TK	10Kohm
DTC314TK	10Kohm

DTCEK Series

	R1	R2
DTC114EK	10kohm	10Kohm
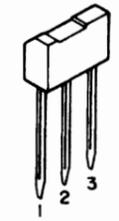
1. GND/Emitter
2. Out/Collector
3. In/Base

DTA114EL
DTA143EL
DTA144EL
DTC114EL
DTC114TL
DTC314TL
DTC323TL
(Chip)

DTAEL Series

	R1	R2
DTA114EL	10kohm	10kohm
DTA143EL	4.7kohm	4.7kohm
DTA144EL	47kohm	47kohm

DTCTL Series
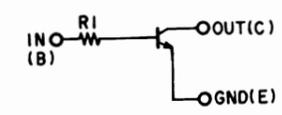
	R1
DTC114TL	10kohm
DTC314TL	10kohm
DTC323TL	2.2kohm

DTCEL Series
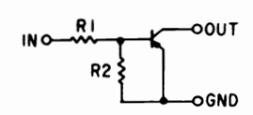
	R1	R2
DTC114EL	47Kohm	10Kohm

2SA1036K (S)
2SC2412K (LN)
2SC2412KLN
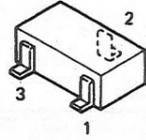
1. GND/Emitter
2. Out/Collector
3. In/Base

2SK932-23
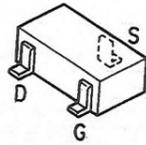
G : Gate
S : Source
D : Drain

2SK302Y
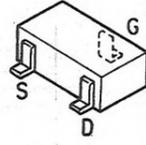
G : Gate
S : Source
D : Drain

FMG9 (Chip)

(5) R1 Tr1 (1)
(4) R2
(3) R2
R1 Tr2 (2)
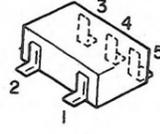
(1) Tr 1 OUT
(2) Tr 2 OUT
(3) Tr 2 IN
(4) GND
(5) Tr 1 IN

R 1=10 kΩ
R 2=10 kΩ

2SA1561 (Q)
(Chip)
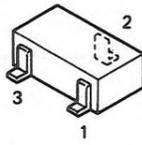
1: Base
2: Collector
3: Emitter

● LCD Ass'y
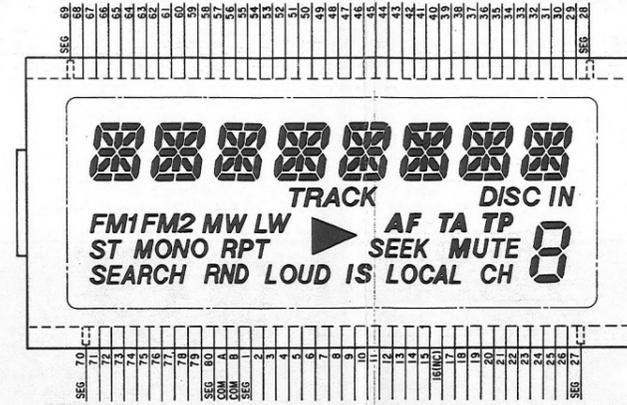
2SB1237(Q)
2SD1858(Q)
2SC4038(R)
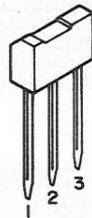
1 : Emitter
2 : Collector
3 : Base

2SD1762

1 : Base
2 : Collector
3 : Emitter

COMMON

SEGMENT
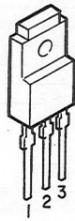
● DIODES (including LED)

1SS1588
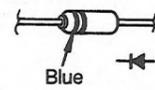
Blue

MTZ5, 6B, 10A
MTZ5 3.3B, 5.1A, 6.2B
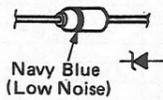
Navy Blue
(Low Noise)

DSP201N
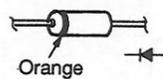
Orange

1S2076
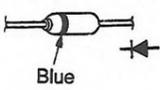
Blue

1S2473
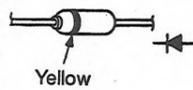
Yellow

LTZ-MR15
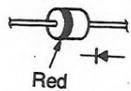
Red

WG713A

Black

1A3

C   A
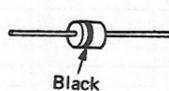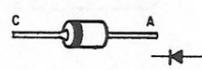
DA106K
DA202K
DA116
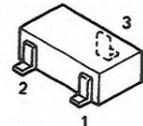
1SV225
1SV172
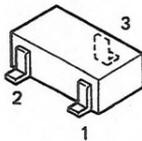
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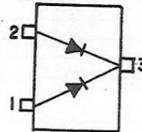
1: Anode 1
2: Anode 2
3: Cathode

1SV172
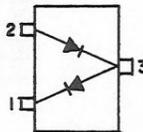
1: Cathode 2
2: Anode 1
3: Cathode 1
/Anode 2

DAN202K
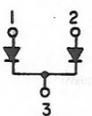
1: Anode
2: Anode
3: Cathode

DA204K
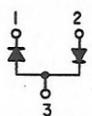
1: Cathode
2: Anode
3: Anode

DA106K
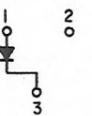
1: Anode
2: —
3: Cathode

DA116

1: Cathode
2: —
3: Anode

43
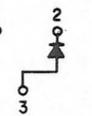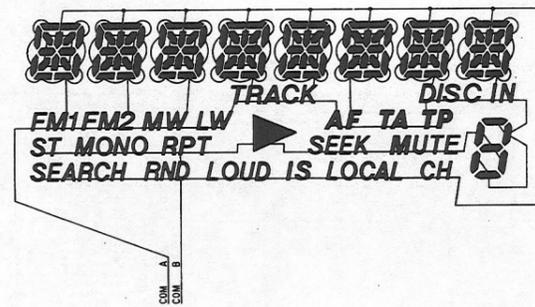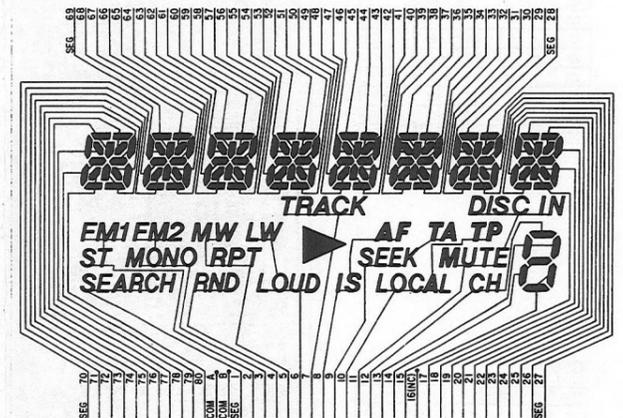
PRINTED WIRING BOARD

MD UNIT & OUTSKIRTS P.W. UNIT

Pattern Side

IC1

Pin	Voltage	Pin	Voltage
1	0V	33	0V
2	5.2V	34	0V
3	5.2V	35	
4	0.6V	36	
5	5.1V	37	
6	0.2V	38	5.1V
7	0.3V	39	4.8V
8	5.0V	40	
9	0.2V	41	0V
10	0V	42	
11	0V	43	4.8V
12	0.1V(5.1V)	44	0V
13	0.1V(5.1V)	45	
14	0.1V(5.1V)	46	
15	5.1V	47	
16	5.1V(0V)	48	
17	0V(5.1V)	49	5.1V
18	5.1V	50	0V
19	5.0V	51	0V
20	5.0V	52	0V
21	0V(5.2V)	53	0V
22	5.1V	54	0V
23	0V	55	0V
24	0V	56	0V
25	0V	57	
26	5.1V	58	5.1V
27	4.8V	59	0V
28	5.1V	60	5.1V
29	0V	61	0V
30		62	2.5V
31	5.0V	63	0V
32	0V	64	5.2V

IC501

Pin	Voltage	Pin	Voltage
1		17	4.7V
2	0.2V	18	0V
3	0V	19	2.6V
4	1.4V	20	2.6V
5	2.5V	21	2.6V
6	0V	22	2.6V
7	2.6V	23	2.6V
8	2.5V	24	2.6V
9	0.1V(5.1V)	25	2.5V
10	5.1V	26	2.6V
11	5.1V	27	
12		28	1.5V
13	2.5V	29	3.7V
14	2.5V	30	0V
15	2.5V	31	
16		32	2.6V
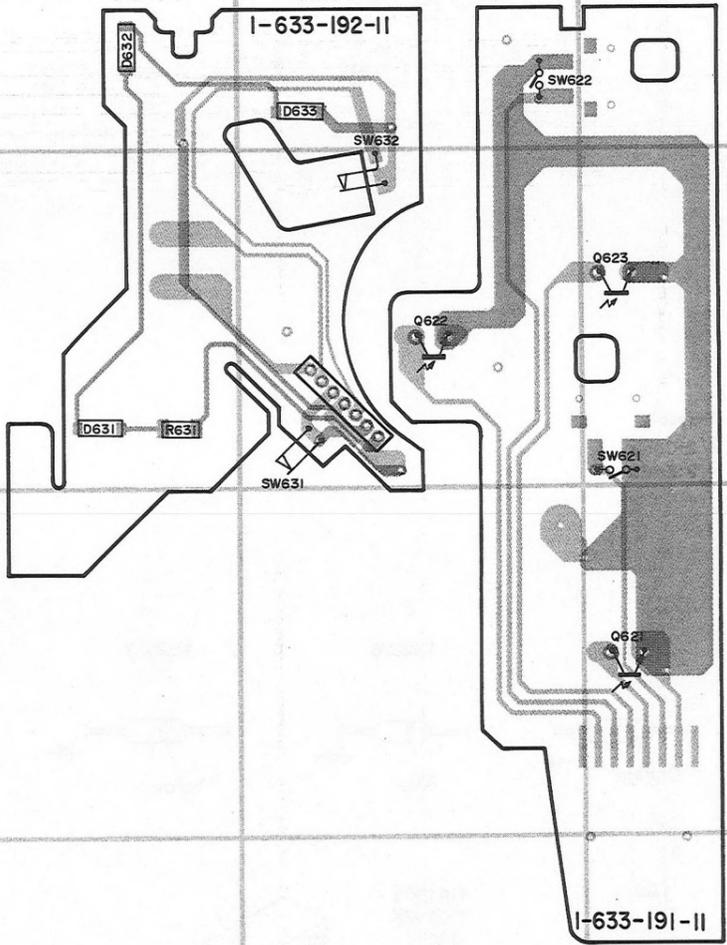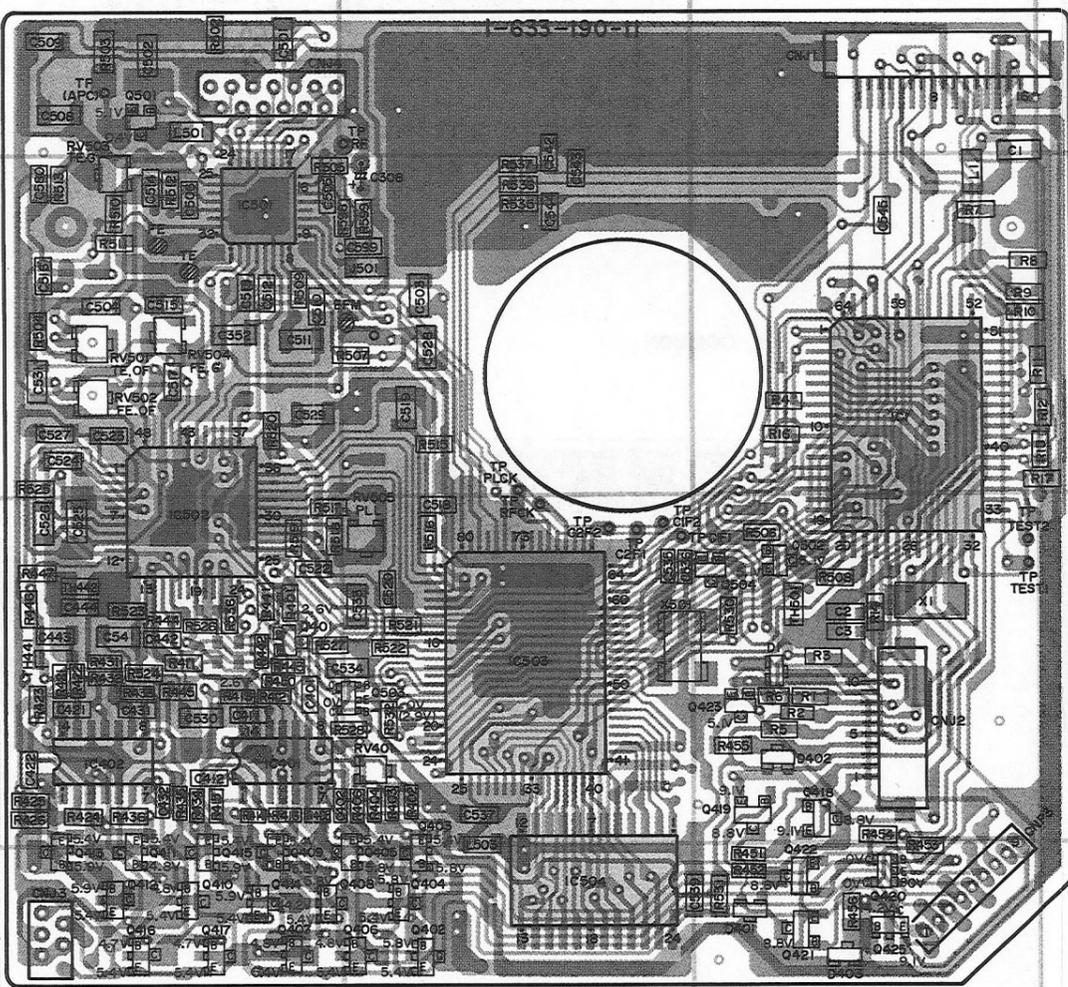
IC502

Pin	Voltage	Pin	Voltage
1	2.6V	25	5.2V
2	2.6V	26	0V
3	2.4V	27	4.5V
4	2.4V	28	4.5V
5	2.6V	29	2.3V
6	2.6V	30	2.4V
7	2.8V	31	3.6V
8	2.6V	32	2.2V
9	2.5V	33	0V(5.1V)
10	5.1V	34	0V(2.6V)
11	2.6V	35	0V(5.1V)
12	2.6V	36	0.2V
13	2.6V	37	5.2V
14	2.6V	38	2.6V
15	2.6V	39	2.5V
16	2.6V	40	
17	0.8V	41	5.1V
18	0.1V(5.1V)	42	0V
19	0V	43	0V
20	0.1V	44	0.1V
21		45	2.6V
22	0V(5.2V)	46	2.5V
23	0V	47	2.5V
24	5.2V	48	2.6V

IC504

Pin	Voltage	Pin	Voltage
1		13	
2		14	
3		15	
4		16	
5		17	
6		18	
7		19	
8		20	
9		21	
10		22	
11		23	
12	0V	24	5.1V

IC401

Pin	Voltage	Pin	Voltage
1	5.8V	8	5.8V
2	2.6V	9	2.6V
3	2.6V	10	2.6V
4	14.2V	11	0V
5	2.6V	12	2.6V
6	2.6V	13	2.6V
7	5.8V	14	4.8V

IC503

Pin	Voltage	Pin	Voltage
1	0V	41	
2	0V(5.1V)	42	
3	0V(2.6V)	43	
4	0V(2.9V)	44	
5	2.5V	45	
6	2.6V	46	
7	0V(5.1V)	47	
8		48	
9		49	
10	0V	50	
11		51	
12	0V	52	0V
13	5.2V	53	
14	5.2V	54	
15	0V	55	0V
16	0V(5.2V)	56	0V
17	0.1V	57	0V
18	0.1V(5.1V)	58	0V
19	0V(5.1V)	59	0V
20		60	
21		61	
22		62	
23	0V	63	
24	0V	64	
25	2.5V	65	
26		66	
27		67	
28	0.1V(5.1V)	68	
29		69	
30		70	
31		71	
32		72	
33	5.1V	73	
34		74	
35		75	
36		76	
37		77	
38		78	0.1V
39		79	
40		80	

IC402

Pin	Voltage	Pin	Voltage
1	5.9V	8	5.9V
2	2.6V	9	2.6V
3	2.6V	10	2.6V
4	14.2V	11	0V
5	2.6V	12	2.6V
6	2.6V	13	2.6V
7	4.7V	14	4.8V

1-633-190-11
1-633-192-11
1-633-191-11

Component Side

1 2 3 4 5 6 7 8

A

B

C

D

E

F

SW622
SW632
SW621
SW633
Q622
Q620
Q621
BLACK
RED
FG
DC
CC
B
1-633-191-11
1-633-192-11
1-633-190-11

5V
GND
7.2V
RESET
DSP
GND
SC0
S1
SR01
GSM0
GND
XTAL
BCLK
DATA
GREK
R306
G308
CN624
CN623
CNP24
CNP25

45

MAIN UNIT ASS'Y

Pattern Side

IC601

Pin	Voltage
1	4.9V
2	4.9V
3	4.9V
4	0V
5	4.7V
6	4.6V
7	4.9V
8	8.9V

IC503~508

Pin	Voltage
1	4.7V
2	4.7V
3	4.7V
4	0V
5	4.7V
6	4.7V
7	4.7V
8	8.9V

IC604

Pin	Voltage
1	0V
2	0V
3	0V
4	0V
5	4.8V
6	4.8V
7	0V
8	4.8V

IC502

Pin	Voltage
1	1.0V
2	1.0V
3	5.0V
4	5.0V
5	8.8V
6	8.8V
7	0V
8	5.0V
9	5.0V
10	0V
11	0V
12	0V
13	0V
14	8.9V

IC605

Pin	Voltage
1	4.8V
2	2.5V
3	3.0V
4	1.2V
5	4.8V

IC602

Pin	Voltage
1	2.3V
2	0V
3	0V
4	4.8V
5	2.6V
6	2.6V
7	0V
8	4.7V
9	4.8V
10	1.8V
11	0V
12	0V
13	0V
14	4.7V
15	4.7V
16	4.7V
17	0V
18	2.3V

IC603

Pin	Voltage	Pin	Voltage
1	0V	41	4.8V[0V]
2	4.3V	42	4.8V
3	4.8V	43	4.8V
4	4.8V	44	4.8V
5	4.8V	45	0V
6	0V	46	4.6V
7	0V	47	4.7V
8	0V	48	4.7V
9	0V	49	4.7V
10	4.8V	50	0V
11	4.8V	51	0V
12	0V	52	4.1V
13	0V	53	4.8V
14	0V	54	0V
15	0V	55	0V
16	0V	56	4.8V
17	0V	57	0V
18	1.4V	58	0V
19	4.8V	59	4.9V
20	0V	60	4.9V
21	0V	61	3.5V
22	0V	62	3.5V
23	0V	63	0V
24	4.8V	64	3.7V
25	4.8V	65	0V
26	4.8V	66	2.9V
27	0V	67	0V
28	0V	68	0V
29	0V	69	0V[1.3V]
30	0V	70	0V
31	0V	71	4.8V
32	0V	72	4.8V
33	0V	73	0V
34	0V	74	4.8V
35	0V	75	4.8V
36	0V	76	0V
37	0V	77	0V
38	0V	78	4.2V
39	4.8V	79	0V
40	4.8V	80	0V

Component Side

IC501 IC502 IC503 IC504 IC505 IC506 IC507 IC508
IC601 IC602 IC603 IC604 IC605

S100 DCC-1500R

PLY/STOP   DWN   UP   MOD   BND/RND   MO/LO/REP   LUD   AF   PS/IS   TA

RSET

S100

TUNER UNIT

Pattern Side

CN4 R308 R207 CN3 J D301 C216 CN2 L101 CN1 L401
25 17 C 16 I 10 6 5 I L402
TR202 B E B R303 B E R218 C212 C206 C217 RT205 R205 R203 R204 C416 FM FRONT END R401 D402 R416
RT202 B C C C R209 FM STOP CF201 AV-P218 R415
FM STOP R201 B E C211 C205 D D203 J C417 C425 C412 C410 C401 TR401
TR203 C E TR206 A S G TR201 R404 J J R405 C415 C406 D401 C404 B E
RT204 R215 C204 CF202 R308 C415 C427 J IC401 C407 L403 S G
RCV R212 C207 C202 R210 C310 B.P C414 I4 C408 L404 TR402
RT201 TH201 R21I C210I R214 R213 IF403 J C419 28 C413 C403
BLEND C214 R219 C203 C208 R306 C420 R409 L407 R412 R402
C215 R217 C209 J C424 C411 L405
D202 D201 T201 C309 TR403 J X401 IF402 CF401 C423 C426 C402
IC301 J C E 21 R403 C422 C421 R410 D403 R414 R413
I B E R406 R407 R408 IF401 L406
CF301 C302 R302 C304 C315 C305 C308 C418 R411
R301 C314 R306 C311 R304 C307 AM STOP CF402
C301 C303 B.P C312 RT302 RT301 C306 RT401
J SEPA PILOT R307
C316 R305

48

Component Side

A   B   C   D   E   F
1   2   3   4   5   6   7   8

CF301

C301   C303   C311   SEPA   RT301   C307   RT401   CF402   X401   IF402 CF401 IF401   L406
C302   C314   RT302   PILOT   C308   AM STOP   C418   IF403   C421   L407   C411   L405
C215   D202   IC STK3400A   C309   2   C209   C414   L404
TH201   C214   T201   C204   FM F/E   C409
RT201   RT204   IC201   CF202   AV-P218   L403
BLEND   A   RT205   C310   L402
RT202   B   IC LA1140 A   FM STOP   CF201
DX   RCV   AV-T803   L9   J22
23 FM STOP   17-16   PWB-1274 B   C416   C21
CN4   CN3   D301   10   CN2   L101   CN1   L401
RT205   D301   6   5   1

HIDAWAY UNIT ASS'Y

Pattern Side

IC952

Pin	Voltage
1	0V
2	0V
3	0V
4	0V
5	0V
6	9.3V
7	0V
8	1.4V
9	1.4V
10	1.4V
11	1.4V
12	0V
13	0V
14	9.3V

IC951

Pin	Voltage
1	2.4V
2	2.4V
3	0V
4	4.7V
5	4.7V
6	0V
7	0V
8	4.8V
9	4.8V[0V]
10	4.8V
11	0V
12	0V
13	0V
14	2.4V
15	0V
16	2.4V
17	0V
18	—
19	1.1V
20	4.9V

IC361

Pin	Voltage
1	5.0V
2	2.2V
3	2.1V
4	0V
5	0V
6	0V
7	5.0V
8	5.0V
9	5.0V
10	5.0V
11	2.5V
12	2.5V
13	0V
14	2.5V
15	1.4V
16	2.5V
17	2.5V
18	2.5V
19	2.5V
20	2.5V
21	2.5V
22	2.3V
23	2.2V
24	5.0V

IC301

Pin	Voltage
1	3.4V
2	3.4V
3	4.6V
4	3.4V
5	3.4V
6	3.4V
7	3.4V
8	4.4V
9	0V
10	4.8V
11	4.2V[0V]
12	4.2V(0V)[5.0V]
13	4.4V
14	5.0V
15	
16	0V
17	0V
18	0V
19	4.4V
20	5.0V
21	0V

IC201

Pin	Voltage
1	1.6V
2	1.6V
3	0V
4	0V
5	0V
6	0V
7	0.7V
8	0.2V[0V]
9	2.9V(0.3V)
10	0.1V(1.8V)
11	2.7V(0V)
12	4.4V
13	4.4V
14	2.4V(2.7V)0V
15	1.3V(0V)
16	0V

CJ151 connector pin labels:
1 ANT
2 GND
3 LO/DX
4 AM IF
5 IF CONT
6 VT
7 AM OSC
8 FM OSC
9 SD
10 AM +B
11 FM +B
12
13 0V
14 RDS SIO
15 0V
16 V SM
17 HCC
18 REC
19 REC
20 RADIO +B
21 L CH
22 R CH
23 ST

PCB-1285-1

Component Side

PCB-1285-1

VR UNIT

Pattern Side
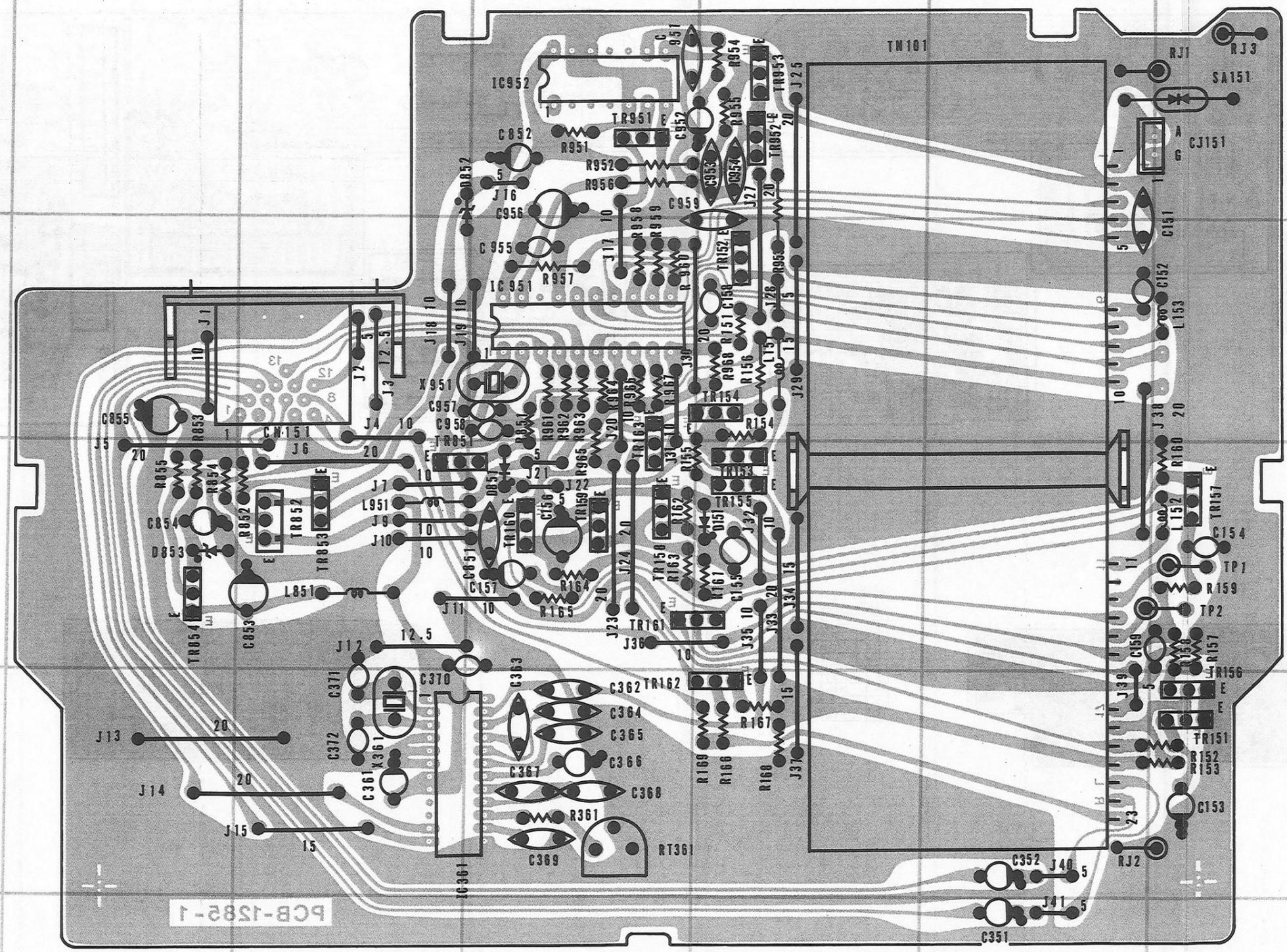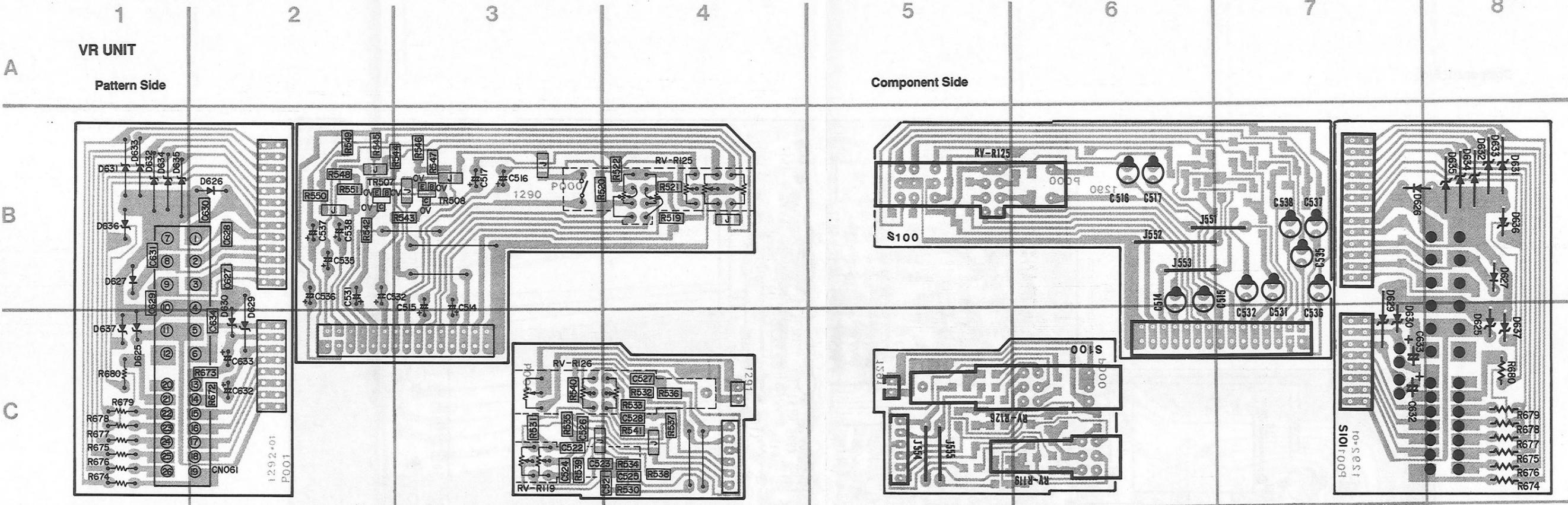
Component Side

D/A UNIT

Pattern Side

Component Side

IC314

Pin	Voltage	Pin	Voltage
1	[4.9V]	12	[2.9V]
2	[2.5V]	13	[1.3V]
3	[2.5V]	14	[1.3V]
4	[2.3V]	15	[3.5V]
5	[0V]	16	[4.9V]
6		17	
7		18	
8	[4.9V]	19	[0.8V]
9	[0V]	20	[2.5V]
10	[0V]	21	[2.5V]
11	[4.4V]	22	[2.5V]
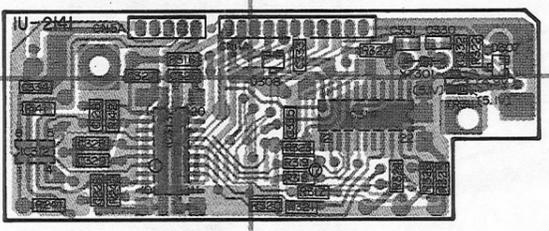
IC312

Pin	Voltage
1	[5.0V]
2	[3.6V]
3	[3.6V]
4	[0V]
5	[3.6V]
6	[3.6V]
7	[5.0V]
8	[8.7V]
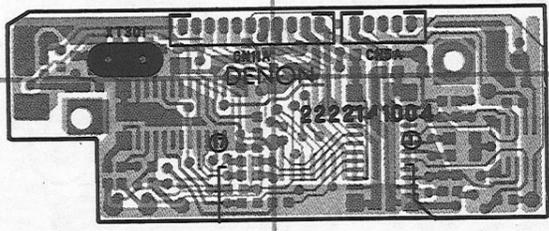
IC313

Pin	Voltage	Pin	Voltage
1	[5.1V]	11	[0V]
2	[3.6V]	12	[5.1V]
3		13	[1.8V]
4	[3.6V]	14	[1.7V]
5	[3.1V]	15	[2.4V]
6	[4.3V]	16	[3.7V]
7	[3.6V]	17	[1.8V]
8		18	[5.1V]
9	[3.6V]	19	[5.1V]
10	[0V]	20	[5.1V]

WIRING DIAGRAM

CONNECTOR UNIT

MAIN UNIT

MOTOR

DAC UNIT

1-633-191-11

VR UNIT

MOTOR

MOTOR

TONE UNIT

SWITCH UNIT

LCD MODULE

EJ UNIT
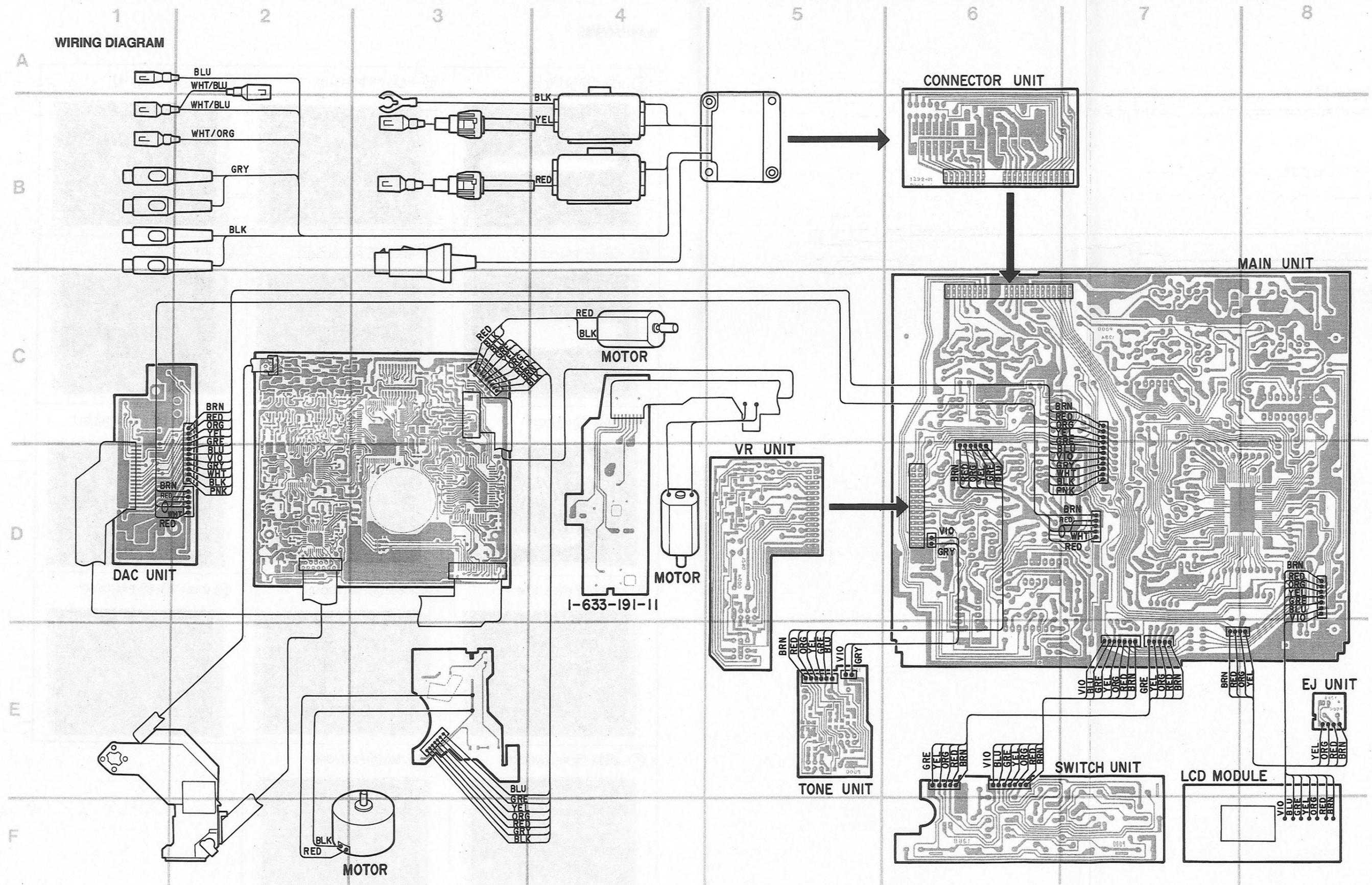
WAVEFORMS
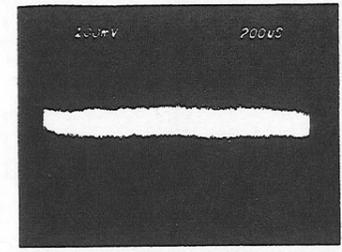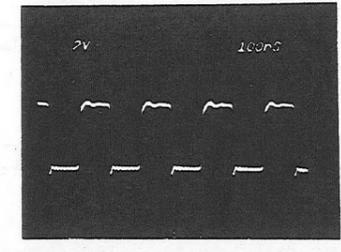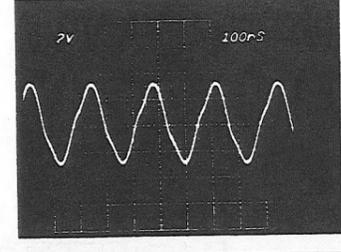
① IC501 ㉜ PIN (F.E.)	⑥ IC503 ㊆ PIN (BLCK)	⑪ IC1 ㉚ PIN (EXTAL)
② IC501 ① PIN (T.E.)	⑦ IC503 ㊀ PIN (PLCK)	⑫ IC1 ㊵ PIN (SCK)
③ IC501 ⑭ PIN (RF)	⑧ IC503 ㊳, ㊵, ㊽, ㊻, ㊽ PIN	⑬ IC901 ㊱ ～ ㊽ PIN (SEG)
④ IC503 ㊿ PIN (LRCK)	⑨ IC503 ⑧ PIN (VCOO)	⑭ IC901 ㊻, ㊿ PIN (COM)
⑤ IC503 ㊼ PIN (WDCK)	⑩ IC503 ⑨ PIN (VCOI)	
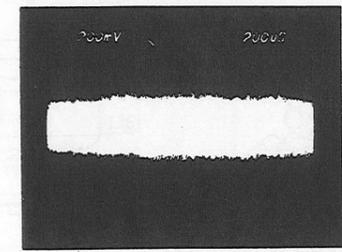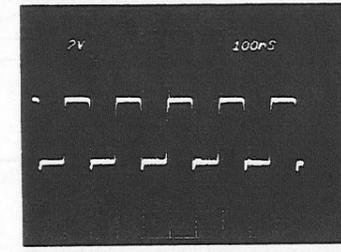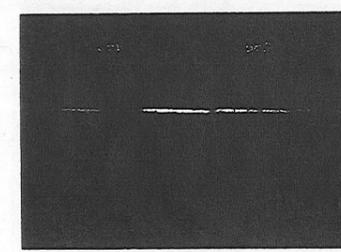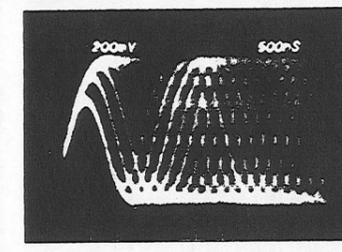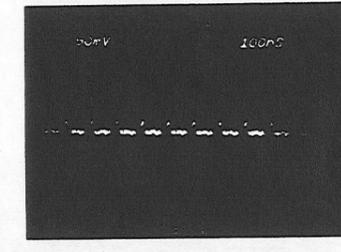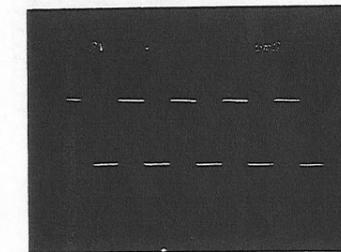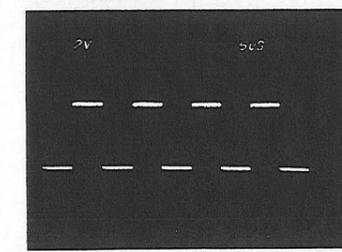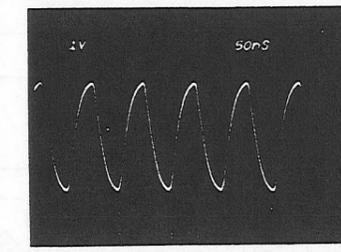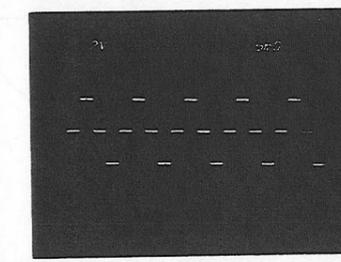
54
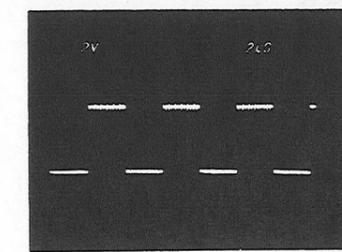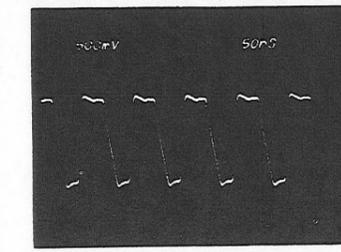
IC				IC401 IC402		IC401 IC402			IC501 IC502
Transistor	Q621 Q622 Q623		Q404 Q405 Q408 Q409 Q421 Q412 Q413 Q416 Q417	Q419 Q418 Q425 Q420 Q422 Q423		Q402 Q403 Q406 Q407 Q410 Q411 Q414 Q415	Q401		ICI
Diode (including LED)	D631 D632 D633		D401		D402		D403		

NOTES
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.
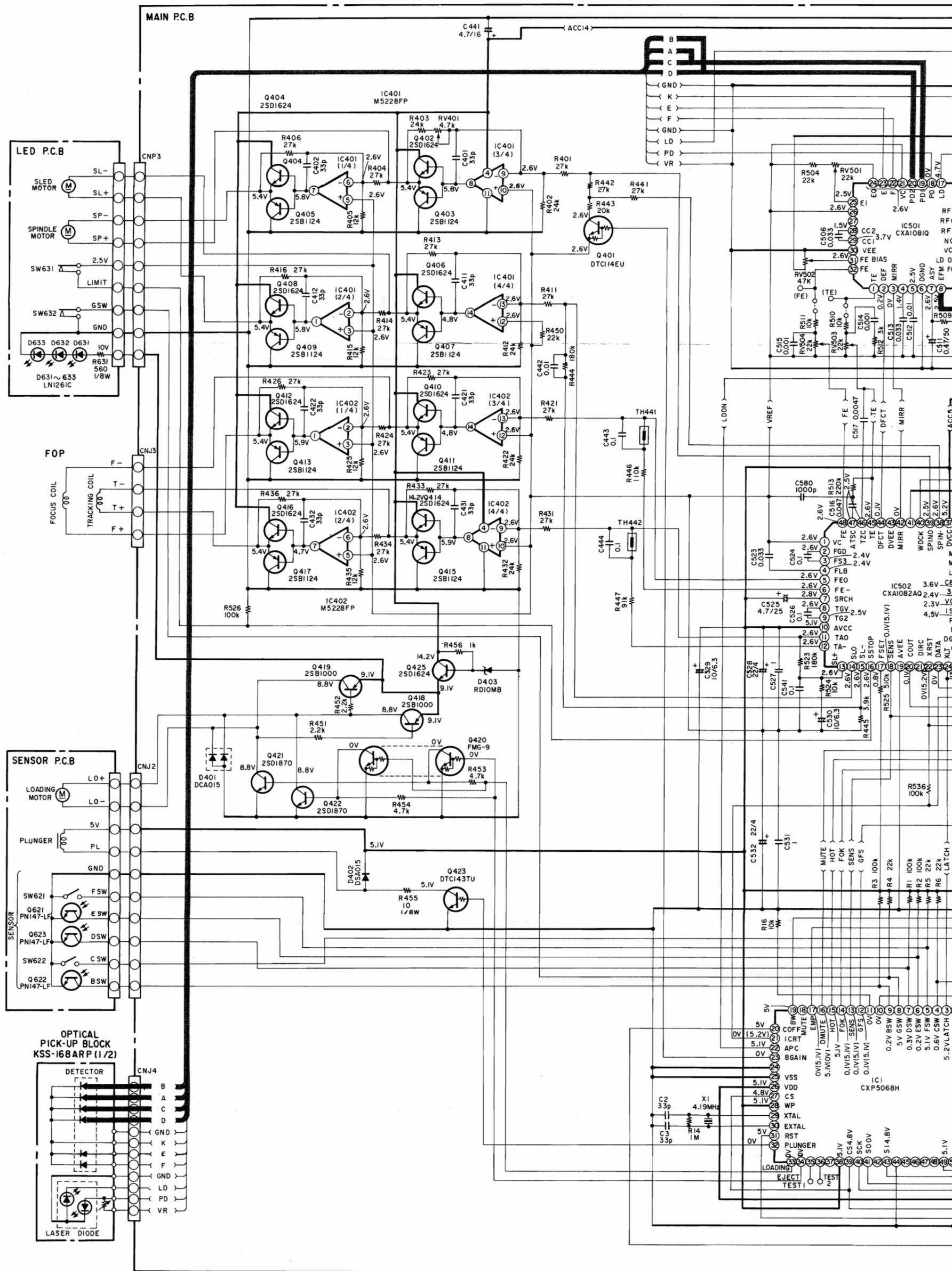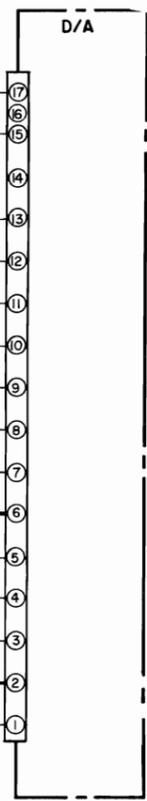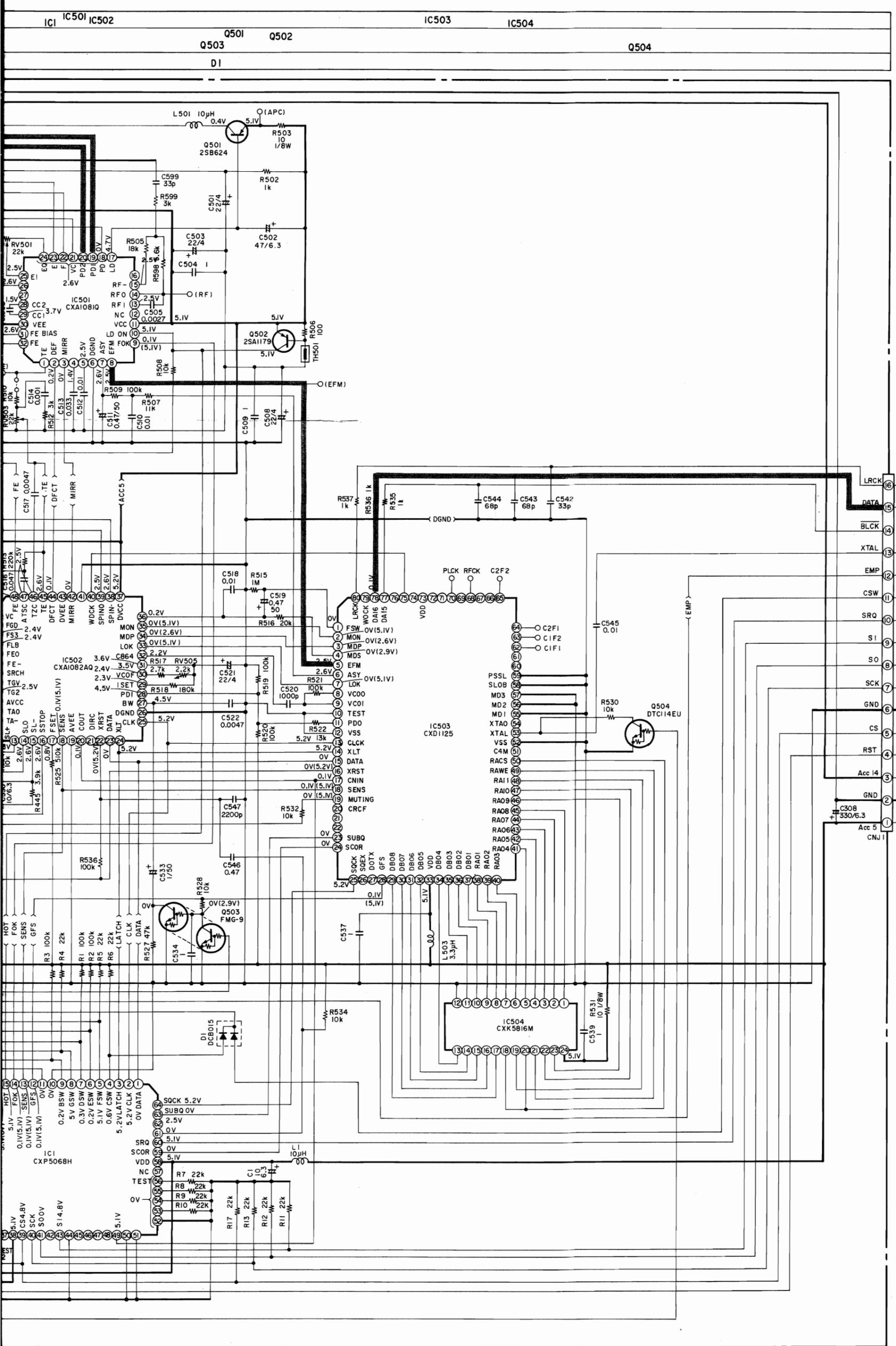
NOTE
NO MAKE : STOP MODE
( ) : PLAY MODE
──── : +B LINE
▬▬▬▬ : SIGNAL LINE

SCHEMATIC DIAGRAM—(2/2)   MAIN SECTION

IC		IC312		IC705	IC601	IC502	IC503	IC504	
		IC313 IC314					IC602		
	IC952		IC951			IC361			
Transistor			TR311	TR151	TR153 TR154 TR155 TR156	TR157	TR158 TR159 TR160	TR161	TR502 TR503
			TR152					TR162 TR163	TR504
	TR951	TR953 TR952				TR851	TR852 TR853	TR854	TR603
Diode (including LED)	D308	D307		D501 D638		D502		D603 D601 D602 D604	
				D629~637 D151					
				D851	D852	D853			

NOTES
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

NOTE FOR PARTS LIST

- Part indicated with the mark " ⊙ " are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "I" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.
- Not including Carbon Film ±5%, 1/4W Type in the P.W.Board parts list, except parts for non-burning (N.B.), audio equipment. (Refer to the Schematic Diagram for those parts.)

WARNING:

Parts marked with this symbol △ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

VR UNIT

Ref. No.	Part No.	Part Name	Remarks	Q'ty
SEMICONDUCTORS GROUP				
TR507,508	269 0103 904	Transistor DTC314TK		
RESISTORS GROUP				
R519,520	247 1011 943	Chip Resistor 47 Kohm, 1/8W	RM73B2B473J	
R521,522	247 1008 927	Chip Resistor 2.2 Kohm, 1/8W	RM73B2B222J	
R542	247 0007 945	Chip Resistor 1 Kohm, 1/10W	RM73B--102J	
R543	247 1007 944	Chip Resistor 1 Kohm, 1/8W	RM73B2B102J	
R544~546	247 1009 926	Chip Resistor 5.6 Kohm, 1/8W	RM73B2B562J	
R547	247 0009 927	Chip Resistor 5.6 Kohm, 1/10W	RM73B--562J	
R548~551	247 0014 967	Chip Resistor 1Mohm, 1/10W	RM73B--105J	
	247 0018 905	Chip Resistor 0 ohm, 1/10W	RM73B--0R0K	
RV-R125	940 0456 831	Main Volume	RV-R125	1
CAPACITORS GROUP				
C514~517	254 4300 934	Electrolytic 22µF/6.3V (SRE)	CE04W0J220M	
C531,532	254 4304 927	Electrolytic 4.7µF/35V (SRE)	CE04W1V4R7M	
C535~538	254 4304 927	Electrolytic 4.7µF/35V (SRE)	CE04W1V4R7M	
OTHER GROUP				
	—	(P.W. Board)	PWB-1290	(1)
	205 0613 034	30P Connector Socket		1
	—	Jumper Wire P=10mm		2
	—	Jumper Wire P=15mm		1

TONE UNIT

Ref. No.	Part No.	Part Name	Remarks	Q'ty
RESISTORS GROUP				
C530~531	247 0010 961	Chip Resistor 22 Kohm, 1/10W	RM73B--223J	
R532,533	247 0009 956	Chip Resistor 7.5Kohm	RM73B--752J	
R534,535	247 0009 985	Chip Resistor 10 Kohm, 1/10W	RM73B--103J	
R536,537	247 0007 932	Chip Resistor 910 ohm, 1/10W	RM73B--911J	
R538,539	247 0010 961	Chip Resistor 22Kohm	RM73B--223J	
R540,541	247 0009 956	Chip Resistor 7.5 Kohm, 1/10W	RM73B--752J	
	247 1018 904	Chip Resistor 0 ohm, 1/8W	RM73B2B0R0K	2
RV-R119	211 0617 006	Tone Volume	BASS	1
RV-R126	211 0729 004	Tone Volume	TREBLE	1
CAPACITORS GROUP				
C521~524	257 0010 942	Chip Ceramic 0.022µF/50V	CK73B1H223K	
C525,526	257 0008 909	Chip Ceramic 220PF/50V	CK73B1H221K	
C527,528	257 0009 924	Chip Ceramic 2200PF/50V	CK73B1H222K	
OTHER GROUP				
	—	(PW.Board)	PWB-1291	(1)
	205 0343 029	2P Connector Base (KR-PH)		
	205 0343 061	6P Connector Base (KR-PH)		

MAIN UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks
RADIO SECTION			
SEMICONDUCTORS GROUP			
IC601	940 0465 903	IC BA3121N	
TR601,602	940 0421 400	Transistor DTC114TL	
RESISTORS GROUP			
R601	241 2112 005	Carbon Film 6.8 Kohm, 1/4W	RD14B2E682J(10)
R602	241 2400 050	Carbon Film 6.8 Kohm, 1/4W	RD14B2E682J(5)
R603,604	241 2400 076	Carbon Film 8.2 Kohm, 1/4W	RD143B2E822J(5)
CAPACITORS GROUP			
C601	254 4300 934	Electrolytic 22µF/6.3V (SRE)	CE04W0J220J
C602	254 4299 906	Eelectrolytic 10µF/16V (SRE)	CE04W1C100M
C603,604	254 4304 927	Electrolytic 4.7µF/35V (SRE)	CE04W1V4R7M
C605	254 4305 900	Eelectrolytic 0.1µF/50V (SRE)	CE04W1H0R1M
C606,607	254 4300 934	Electrolytic 22µF/6.3V (SRE)	CE04W0J220J
SWITCH•CD SECTION			
SEMICONDUCTORS GROUP			
IC501	263 0432 004	IC NJM78L05A	
IC502	940 0466 009	IC NJU4066BD	
TR501	940 0457 005	Transistor DTC114EL	
D501	276 0432 000	Diode WG713A	
RESISTORS GROUP			
R501,502	241 2400 050	Carbon Film 6.8 Kohm, 1/4W	RD14B2E682J(5)
R503,504	241 2401 062	Carbon Film 20 Kohm, 1/4W	RD14B2E183J(5)
R505	241 2400 092	Carbon Film 10 Kohm, 1/4W	RD14B2E103J(5)
R506	241 2116 001	Carbon Film 10 Kohm, 1/4W	RD14B2E103J(10)
R507	241 2132 001	Carbon Film 47 Kohm, 1/4W	RD14B2E473J(10)
CAPACITORS GROUP			
C501	254 4302 974	Electrolytic 100µF/10V (SRE)	CE04W1A101M
C502	254 4255 704	Electrolytic 3300µF/16V (SRE)	CE04W1C332M
C503,504	254 4300 934	Electrolytic 22µF/6.3V (SRE)	CE04W0J220M

Ref. No.	Part No.	Part Name		Q'ty
OTHER GROUP				
L501	940 0466 106	Inductor 3.3µH		1

Ref. No.	Part No.	Part Name	Remarks
LEVEL AMP, LOUD, SECTION			
SEMICONDUCTORS GROUP			
IC503,504	263 0711 000	IC M5218AP	
TR502,503	940 0466 216	Transistor DTC314TL	
TR504	940 0466 203	Transistor DTA114EL	
D502	276 0514 902	Zener Diode MTZJ5.1A	

Ref. No.	Part No.	Part Name	Remarks
RESISTORS GROUP			
R508,509	241 2401 091	Carbon Film 27 Kohm, 1/4W	RD14B2E273J(5)
R510	241 2092 002	Carbon Film 1 Kohm, 1/4W	RD14B2E102J(10)
R511,512	241 2402 016	Carbon Film 33 Kohm, 1/4W	RD14B2E333J(5)
R513,514	241 2400 092	Carbon Film 10 Kohm, 1/4W	RD14B2E103J(5)
R515,516	241 2396 083	Carbon Film 180 ohm 1/4W	RD14B2E181J(5)
R517,518	241 2399 093	Carbon Film 3.9 Kohm, 1/4W	RD14B2E392J(5)
CAPACITORS GROUP			
C505	253 9031 001	B.C Ceramic 0.047µF/25V	CK45=1E473K
C506,507	253 3623 004	Ceramic 68pF/50V	CC45SL1H680J
C508	254 4302 974	Electrolytic 100µF/10V (SRE)	CE04W1A101M
C509,510	253 1001 000	Ceramic 330pF/50V	CK45B1H331K
C511,512	256 1034 050	Metalized 0.068µF/50V	CF93A1H683J
C513	254 4300 934	Electrolytic 22µF/6.3V (SRE)	CE04W0J220M
TONE AMP. SECTION			
SEMICONDUCTORS GROUP			
IC505,506	263 0432 004	IC M5218AP	
TR505,506	940 0446 605	Transistor DTC323TL	
RESISTORS GROUP			
R523	241 2396 025	Ccarbon Film 100 ohm, 1/4W	RD14B2E101J(5)
R524,525	241 2401 075	Carbon Film 22 Kohm, 1/4W	RD14B2E223J(5)
R526,527	241 2400 092	Carbon Film 10 Kohm, 1/4W	RD14B2E103J(5)
R528,529	241 2401 075	Carbon Film 22 Kohm, 1/4W	RD14B2E223J(5)
CAPACITORS GROUP			
C518	253 9031 027	Ceramic 0.1µF/50V	CK45=1E104K
C519,520	254 4300 934	Electrolytic 22µF/6.3V (SRE)	CE04W0J220M
C529,530	253 3603 008	Ceramic 10pF/50V	CC45SL1H100D
LINEOUT SECTION			
SEMICONDUCTORS GROUP			
IC507,508	263 0432 004	IC M5218AP	
TR509~512	940 0466 216	Transistor DTC314TL	
D503	276 0514 902	Zener Diode MTZJ5.1A	
RESISTORS GROUP			
R554	241 2399 051	Carbon Film 2.7 Kohm, 1/4W	RD14B2E272J(5)
R555~558	241 2401 075	Carbon Film 22 Kohm, 1/4W	RD14B2E223J(5)
R559~562	241 2400 092	Carbon Film 10 Kohm, 1/4W	RD14B2E103J(5)
R563~566	241 2400 050	Carbon Film 6.8 Kohm,1/4W	RD14B2E333j(5)
R567,568	241 2084 007	Carbon Film 470 ohm, 1/4W	RD14B2E471J(10)
R569,570	241 2397 079	Carbon Film 470 ohm, 1/4W	RD14B2E471J(5)
R571~574	241 2402 058	Carbon Film 47 Kohm, 1/4W	RD14B2E473J(5)
CAPACITORS GROUP			
C539	254 4302 974	Electrolytic 100µF/10V (SRE)	CE04W1A101M
C540~543	254 4300 934	Electrolytic 22µF/10V (SRE)	CE04W0J220M

Left Column

Ref. No.	Part No.	Part Name	Remarks
MUTE SECTION			
SEMICONDUCTORS GROUP			
TR606	940 0457 005	Transistor DTC114EL	
TR607	940 0422 302	Transistor DTA144EL	
TR608	940 0421 303	Transistor DTA114TL	
D616	276 0049 008	Diode 1S2076	
D617,618	276 0432 000	Diode WG713A	
D619,620	940 0456 103	Zener Diode MTZJ3.3B	
RESISTORS GROUP			
R659,660	241 2400 092	Carbon Film 10 Kohm, 1/4W	RD14B2E103J(5)
R671	241 2400 092	Carbon Film 10 Kohm, 1/4W	RD14B2E103J(5)
CAPACITOR GROUP			
C619	254 4304 901	Electrolytic 2.2µF/35V (SRE)	CE04W1V2R2M
RECT. SECTION			
SEMICONDUCTORS GROUP			
TR603	274 0120 002	Transistor 2SD1762	
TR609	940 0457 005	Transistor DTC114EL	
TR610	940 0466 229	Transistor DTA143EL	
TR611	272 0099 904	Transistor 2SB1237(Q)	
TR612,613	940 0457 005	Transistor DTC114EL	
TR614	940 0466 229	Transistor DTA143EL	
TR615	272 0099 904	Transistor 2SB1237(Q)	
TR616	940 0457 005	Transistor DTC114EL	
TR617	940 0420 906	Transistor 2SC4038(R)	
TR618	272 0099 904	Transistor 2SB1237(Q)	
D601,602	276 0432 000	Diode WG713A	
D603	940 0312 013	Zener Diode MTZ6.2B	
D604	276 0432 000	Diode WG713A	
D621,622	276 0432 000	Diode WG713A	
D623	276 0440 908	Zener Diode MTZ10A	
D624	276 0432 000	Diode WG713A	
RESISTORS GROUP			
R608	241 2398 094	Carbon Film 1.5 Kohm, 1/4W	RD14B2E152J(5)
R609	241 2400 092	Carbon Film 10 Kohm, 1/4W	RD14B2E103J(5)
R661	241 2397 008	Carbon Film 220 ohm, 1/4W	RD14B2E221J(5)
R662,663	241 2398 094	Carbon Film 1.5 Kohm, 1/4W	RD14B2E152J(5)
R664	241 2397 008	Carbon Film 220 ohm, 1/4W	RD14B2E221J(5)
R665,666	241 2398 094	Carbon Film 1.5 Kohm, 1/4W	RD14B2E152J(5)
R667	241 2082 009	Carbon Film 390 ohm, 1/4W	RD14B2E391J(10)
CAPACITORS GROUP			
C609	254 4299 906	Electrolytic 10µF/16V (SRE)	CE04W1C100M
C610	254 4252 927	Electrolytic 47µF/10V (SME)	CE04W1A470M
C611	253 9031 014	B.C Ceramic 0.1µF/25V	CK45=1E104K
C612,613	254 4252 927	Electrolytic 47µF/10V (SME)	CE04W1A470M
C620	253 9031 001	B.C Ceramic 0.047µF/25V	CK45=1E473K
C621	253 9031 014	B.C Ceramic 0.1µF/25V	CK45=1E104K
C622	254 4299 906	Electrolytic 10µF/16V (SRE)	CE04W1C100M
C623	254 4252 927	Electrolytic 47µF/10V (SME)	CE04W1A470M
C624	253 9031 014	B.C Ceramic 0.1µF/25V	CK45=1E104K

Right Column

Ref. No.	Part No.	Part Name	Remarks
OTHER GROUP			
B601	940 0445 512	Battery	(CR2032-VE1H)
RDS-RESET SECTION			
SEMICONDUCTORS GROUP			
IC602	940 0466 300	IC LC7070N	
IC604	940 0466 407	IC X24C04P	
IC605	263 0454 008	IC M51957BL	
RESISTORS GROUP			
R611	241 2402 058	Carbon Film 47 Kohm, 1/4W	RD14B2E473J(5)
R646	241 2400 050	Carbon Film 6.8 Kohm, 1/4W	RD14B2E682J(5)
R668,689	241 2400 092	Carbon Film 10 Kohm, 1/4W	RD14B2E103J(5)
R670	241 2402 058	Carbon Film 47Kohm, 1/4W	RD14B2E473J(5)
CAPACITORS GROUP			
C614,615	253 3615 009	Carbon Film 33PF/50V	CC45SL1H330J
C616	253 9031 001	B.C Ceramic 0.047µF/25V	CK45=1E473Z
C625	256 1034 034	Metalized 0.047µF/50V	CF93A1H473J
C626	253 9031 001	B.C Ceramic 0.047µF/25V	CK45=1E473Z

Ref. No.	Part No.	Part Name	Remarks	Q'ty
OTHER GROUP				
CF601	399 0041 008	Ceramic Vibrator	CSA4.00MG	1

Ref. No.	Part No.	Part Name	Remarks
CONTROL SECTION			
SEMICONDUCTORS GROUP			
IC603	940 0466 504	IC µPD-75516G	
TR604,605	940 0421 400	Transistor DTC114TL	
D605~608	276 0432 000	Diode WG713A	
D610	276 0432 000	Diode WG713A	
D611~615	276 0049 008	Diode 1S2076	
RESISTORS GROUP			
R552	241 2400 050	Carbon Film 6.8 Kohm, 1/4W	RD14B2E682J(5)
R553	241 2108 006	Carbon Film 4.7 Kohm, 1/4W	RD14B2E472J(5)
R555	241 2400 092	Carbon Film 10 Kohm, 1/4W	RD14B2E103J(5)
R606	241 2405 071	Carbon Film 1Mohm, 1/4W	RD14B2E105J(5)
R607	241 2398 052	Carbon Film 1 Kohm, 1/4W	RD14B2E102J(5)
R610	241 2403 031	Carbon Film 100 Kohm, 1/4W	RD14B2E104J(5)
R612	241 2402 058	Carbon Film 47 Kohm, 1/4W	RD14B2E473J(5)
R613	241 2403 031	Carbon Film 100 Kohm, 1/4W	RD14B2E104J(5)
R614	241 2402 058	Carbon Film 47 Kohm, 1/4W	RD14B2E473J(5)
R616,617	241 2402 058	Carbon Film 47Kohm, 1/4W	RD14B2E473J(5)
R618~620	241 2401 075	Carbon Film 22 Kohm, 1/4W	RD14B2E223J(5)
R621~624	241 2132 001	Carbon Film 47 Kohm, 1/4W	RD14B2E473J(10)
R625	241 2112 005	Carbon Film 6.8 Kohm, 1/4W	RD14B2E682J(10)
R626	241 2400 050	Carbon Film 6.8 Kohm, 1/4W	RD14B2E682J(5)
R627~630	241 2402 058	Carbon Film 47 Kohm, 1/4W	RD14B2E473J(5)
R631	241 2132 001	Carbon Film 47 Kohm, 1/4W	RD14B2E473J(10)
R632	241 2128 002	Carbon Film 33 Kohm, 1/4W	RD14B2E333J(10)
R633	241 2092 002	Carbon Film 1 Kohm, 1/4W	RD14B2E102J(10)
R634	241 2108 006	Carbon Film 4.7 Kohm, 1/4W	RD14B2E472J(10)
R635	241 2398 052	Carbon Film 1 Kohm, 1/4W	RD14B2E102J(5)

CONNECTOR UNIT

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
D625	940 0456 103	Zener Diode MTZ3.3B	
D626,627	940 0466 805	Diode 1A3	
D629,630	276 0440 908	Zener Diode MTZ10A	
D631	276 0514 902	Zener Diode MTZ5.1A	
D632~636	940 0456 200	Zener Diode MTZ7.5C	
D637	276 0514 902	Zener Diode MTZ5.1A	
RESISTORS GROUP			
R672,673	247 0009 985	Chip Resistor 10 Kohm 1/10W	RM73B--103J
R674~680	241 2398 052	Carbon Film 1 Kohm 1/4W	RD14B2E102J(5)
CAPACITORS GROUP			
C627~631	257 1013 993	Chip Ceramic 0.1µF/50V	CK73B1F104K
C632,633	254 4304 927	Electrolytic 4.7µF/35V	CE04W1V4R7M
C634	257 1013 993	Chip Ceramic 0.1µF/50V	CK73B1E104K

Ref. No.	Part No.	Part Name		Q'ty
OTHER GROUP				
	—	(P.W. Board)	PWB-1292	(1)
	205 0613 021	16P Connector Socket		1
	205 0613 034	26P Connector Socket		1
	940 0461 800	Connector Base	CN-061	1
	—	Jumper Wire P=5mm		1

Ref. No.	Part No.	Part Name	Remarks
R636,637	241 2092 002	Carbon Film 1 Kohm, 1/4W	RD14B2E102J(10)
R638	241 2132 001	Carbon Film 47 Kohm, 1/4W	RD14B2E473J(10)
R639~645	241 2108 006	Carbon Film 4.7Kohm,1/4W	RD14B2E472J(10)
R647	241 2132 001	Carbon Film 47 Kohm, 1/4W	RD14B2E473J(10)
R648,649	241 2402 058	Carbon Film 47Kohm, 1/4W	RD14B2E473J(5)
R650	241 2405 071	Carbon Film 1 Mohm, 1/4W	RD14B2E105J(5)
R651	241 2402 058	Carbon Film 47 Kohm, 1/4W	RD14B2E473J(5)
R652~654	241 2132 001	Carbon Film 47 Kohm, 1/4W	RD14B2E473J(10)
R656	241 2116 001	Carbon Film 10 Kohm, 1/4W	RD14B2E103J(10)
R657	241 2369 010	Carbon Film 1ohm, 1/4W	RD14B2E010J(10)
R658	241 2397 008	Carbon Film 220 ohm, 1/4W	RD14B2E221J(5)
CAPACITORS GROUP			
C533	253 1055 001	Ceramic 270PF/50V	CK45B1H271K
C534	253 1004 007	Ceramic 1000PF/50V	CK45B1H102K
C608	253 3627 000	Ceramic 100PF/50V	CC45SL1H101J
C617,618	253 9031 001	B.C Ceramic 0.047µF/25V	CK45=1H473Z

Ref. No.	Part No.	Part Name	Q'ty
OTHER GROUP			
CF602	399 0107 007	Ceramic Vibrator CST4.19MGW	1
OTHER SECTION			
	—	(P.W. Board)	PWB-1284	(1)
	205 0355 075	7P KR Connector Base (L)		1
	205 0612 022	16P Connector Base		1
	940 0466 708	26P Connector Base		1
	205 0612 035	30P Connector Base		1

SWITCH UNIT

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
D609	276 0049 008	Diode 1S2076	
D628	276 0432 000	Diode WG713A	

Ref. No.	Part No.	Part Name		Q'ty
OTHER GROUP				
	—	(P.W. Board)	PWB-1288	(1)
S601~605	212 5604 907	Tact Switch		5
S607~618	212 5604 907	Tact Switch		12
PL601,602	393 0102 017	Pilot Lamp Ass'y	16V 40mA	2
	—	Jumper Wire P=5 mm		1
	—	Jumper Wire P=7.5 mm		4
	—	Jumper Wire P=10mm		2
	—	Jumper Wire P=12.5mm		3
	—	Jumper Wire P=15mm		1

EJ UNIT

Ref. No.	Part No.	Part Name		Q'ty
OTHER GROUP				
	—	(P.W. Board)	PWB-1289	(1)
PL603	393 0102 017	Lamp Ass'y		1
S606	940 0423 835	Tact Switch		1

DAC UNIT

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC312	263 0424 902	IC M5218FP	
IC313	263 0725 902	IC PCM67U	
IC314	262 1397 909	IC SM5840CS-L1	
TR311	269 0047 905	Transistor DTA143EX	
D307	276 0558 900	Diode DA204K	
D308	276 0438 910	Diode DA116	
RESISTORS GROUP			
R141,241	247 0008 931	Chip Resistor 2.4 Kohm, 1/10W	RM73B--242J
R142,242	247 0007 961	Chip Resistor 1.2 Kohm, 1/10W	RM73B--122J
R316	247 1003 948	Chip Resistor 22ohm, 1/8W	RM73B2B220J
R317~321	247 0007 945	Chip Resistor 1 Kohm, 1/10W	RM73B--102J
R322	247 0009 901	Chip Resistor 4.7 Kohm, 1/10W	RM73B--472J
R323~326	247 0008 915	Chip Resistor 2 Kohm, 1/10W	RM73B--202J
R327	247 0005 905	Chip Resistor 100 ohm, 1/10W	RM73B--101J
CAPACITORS GROUP			
C128,228	257 0014 935	Chip Ceramic 0.1µF/25V	CK73F1E104Z
C326~329	257 1016 958	Chip Ceramic 1µF/25V	CK73F1E105Z
C330	257 0001 977	Chip Ceramic 5PF/50V	CC73SL1H5R0C
C331	257 0001 951	Chip Ceramic 3PF/50V	CC73SL1H3R0C
C332	257 0014 935	Chip Ceramic 0.1µF/25V	CK73F1E104Z
C333	257 0005 986	Chip Ceramic 330PF/50V	CC73SL1H331J
C334	257 0014 935	Chip Ceramic 0.1µF/25V	CK73F1E104Z
C335	257 0008 983	Chip Ceramic 1000PF/50V	CK73B1H102K

Ref. No.	Part No.	Part Name	Remarks	Q'ty
OTHER GROUP				
	—	P.W. Board	1U-2141	(1)
XT301	399 0036 013	X'tal (16.9344 MHz)		1
CN05A	205 0343 058	5P Conn. Base (KR-PH)		1
CN11A	205 0375 013	11P Conn. Base (KR-PH)		1

OTHER PARTS

Ref. No.	Part No.	Part Name	Remarks	Q'ty
	337 0007 002	CD Mech. Unit		1
	940 0466 902	LCD Module		1
	940 0461 813	26P Connector Ass'y		1
	415 0453 008	RCA Cap	Black	2

HIDAWAY UNIT

Ref. No.	Part No.	Part Name	Remarks
TUNER SECTION			
SEMICONDUCTORS GROUP			
TR151	940 0420 906	Transistor 2SC4038(R)	
TR152	940 0457 005	Transistor DTC114EL	
TR153,154	940 0420 906	Transistor 2SC4038(R)	
TR155	940 0422 205	Transistor 2SA1561(Q)	
TR156~158	940 0420 906	Transistor 2SC4038(R)	
TR159~161	940 0421 400	Transistor DTC114TL	
TR162	940 0466 203	Transistor DTA114EL	
TR163	940 0421 400	Transistor DTC114TL	
D151	276 0432 000	Diode WG713A	
SA151	399 0039 007	Surge Absorber DSP201N	
RESISTORS GROUP			
R151	241 2398 052	Carbon Film 1 Kohm, 1/4W	RD14B2E102J(5)
R152,153	241 2400 092	Carbon Film 10 Kohm,1/4W	RD14B2E103J(5)
R154	241 2397 079	Carbon Film 470 ohm, 1/4W	RD14B2E471J85)
R155	241 2399 077	Carbon Film 3.3Kohm, 1/4W	RD14B2E332J(5)
R156	241 2116 001	Carbon Film 10 Kohm, 1/4W	RD14B23103J(10)
R157	241 2402 090	Carbon Film 68 Kohm, 1/4W	RD14B2E683J(5)
R158	241 2403 073	Carbon Film 150 Kohm, 1/4W	RD14B2E154J(5)
R159	241 2400 092	Carbon Film 10 Kohm, 1/4W	RD14B2E103J(5)
R160	241 2398 052	Carbon Film 1 Kohm, 1/4W	RD14B2E102J(5)
R161	241 2400 089	Carbon Film 9.1 Kohm, 1/4W	RD14B2E912J(5)
R162	241 2399 064	Carbon Film 3 Kohm, 1/4W	RD14B2E302J(5)
R163	241 2400 092	Carbon Film 10 Kohm, 1/4W	RD14B2E103J(5)
R164	241 2404 098	Carbon Film 470 Kohm, 1/4W	RD14B2E474J(5)
R165	241 2400 092	Carbon Film 10 Kohm, 1/4W	RD14B2E103J(5)
R166~169	241 2398 052	Carbon Film 1 Kohm, 1/4W	RD14B2E102J(5)
CAPACITORS GROUP			
C151	253 9031 001	B.C Ceramic 0.047µF/25V	CK45=1E473K
C152	253 9030 060	B.C Ceramic 0.01µF/25V	CK45=1E103K
C153	254 4196 902	Electrolytic 0.1µF/50V (SRA)	CE04W1H0R1M
C154	253 9030 060	B.C Ceramic 0.01µF/25V	CK45=1E103K
C155	940 0455 104	Electrolytic 4.7µF/16V (Bi pole) (SRA)	CE04D1C4R7MBP
C156	254 4252 927	Electrolytic 47µF/10V (SRA)	CE04W1A470M
C157	254 4193 905	Electrolytic 10µF/16V (SRA)	CE04W1C100M
C158	253 3615 009	Ceramic 33PF/50V	CC45SL1H330J
C159	253 1004 007	Ceramic 1000PF/50V	CK45B1H102K

Ref. No.	Part No.	Part Name	Remarks	Q'ty
OTHER GROUP				
	—	(P.W. Board)	PCB-1285-1	(1)
L151	940 0467 024	Choke Coil 22µH		1
L152	940 0467 011	Choke Coil 22µH		1
L153	940 0467 008	Choke Coil 0.22uH		1
TP1,2	209 0223 002	0 ohm Jumper		5
CJ151	205 0233 029	2P EH Connector Base		1
OTHER SECTION				
OTHER GROUP				
CN151	204 8215 004	13P DIN Socket		1
	940 0467 105	Connector Holder		1
	940 0419 920	Ant. Jack Ass'y		

Ref. No.	Part No.	Part Name	Remarks
PLL SECTION			
SEMICONDUCTORS GROUP			
IC951	940 0467 202	IC TC9217P	
IC952	940 0466 009	IC NJU4066BD	
TR951	940 0421 400	Transistor DTC114TL	
TR952,953	940 0420 906	Transistor 2SC4038(R)	
RESISTORS GROUP			
R951	241 2401 075	Carbon Film 22 Kohm, 1/4W	RD14B2E223J(5)
R952	241 2124 006	Carbon Film 22 Kohm, 1/4W	RD14B2E223J(10)
R953	241 2068 007	Carbon Film 100 ohm, 1/4W	RD14B2E101J(10)
R954	241 2398 052	Carbon Film 1 Kohm, 1/4W	RD14B2E102J(5)
R955	241 2399 051	Carbon Film 2.7 Kohm, 1/4W	RD14B2E272J(5)
R956	241 2086 005	Carbon Film 560 ohm, 1/4W	RD14B2E561J(10)
R957	241 2052 000	Carbon Film 22 ohm, 1/4W	RD14B2E220J(10)
R958	241 2399 035	Carbon Film 2.2 Kohm, 1/4W	RD14B2E222J(5)
R959,960	241 2400 092	Carbon Film 10 Kohm, 1/4W	RD14B2E103J(5)
R961~963	241 2403 031	Carbon Film 100 Kohm, 1/4W	RD14B2E104J(5)
R964~968	241 2400 092	Carbon Film 10 Kohm, 1/4W	RD14B2E103J(5)
CAPACITORS GROUP			
C951	253 9031 001	B.C Ceramic 0.047μF/25V	CK45=1E473K
C952	254 4196 957	Electrolytic 2.2μF/50V (SRA)	CE04W1H2R2M
C953	253 9035 023	B.C Ceramic 0.027μF/25V	CK45=1E273K
C954	253 1055 056	Ceramic 2200PF/50V	CK45B1H222K
C955	253 9030 060	B.C Ceramic 0.01μF/25V	CK45=1E103K
C956	254 4252 927	Electrolytic 47μF/10V (SME)	CE04W1A470M
C957,958	253 3613 001	Ceramic 27PF/50V	CC45SL1H560J
C959	253 9031 001	B.C Ceramic 0.047μF/25V	CK45=1E473K

Ref. No.	Part No.	Part Name		Q'ty
OTHER GROUP				
L951	940 0467 024	Choke Coil 22μH		1
X951	940 0083 026	X'tal (7.2 MHz)		1

Ref. No.	Part No.	Part Name	Remarks
RDS DECODER SECTION			
SEMICONDUCTORS GROUP			
IC361	940 0467 309	IC μPC1346	
RESISTORS GROUP			
R361	241 2401 091	Carbon Film 27 Kohm, 1/4W	RD14B2E273J(5)
RT361	211 6047 036	Semi Fixed Resistor 10 Kohm	V06PB103
CAPACITORS GROUP			
C361	254 4193 905	Electrolytic 10μF/16V (SRA)	CE04W1C100M
C362	253 1008 003	Ceramic 4700PF/50V	CK45B1H472K
C364,365	253 1007 004	Ceramic 3300PF/50V	CK45B1H332K
C366	254 4196 957	Electrolytic 2.2μF/50V (SRA)	CE04W1H2R2M
C367	253 9031 001	B.C Cermaic 0.047μF/25V	CK45=1E473K
C368	253 9030 086	B.C Ceramic 0.022μF/25V	CK45=1E223K
C369	253 1008 003	Ceramic 4700pF/50V	CK45B1H472K
C370	253 9030 060	B.C Ceramic 0.01μF/25V	CK45=1E103K
C371,372	253 3611 003	Ceramic 22PF/50V	CC45SL1H220J

Ref. No.	Part No.	Part Name		Q'ty
OTHER GROUP				
X361	940 0467 406	X'tal (4.332 MHz)		1

Ref. No.	Part No.	Part Name	Remarks
DE-EMPHASIS SECTION			
SEMICONDUCTORS GROUP			
TR851	940 0421 400	Transistor DTC114TL	
TR852	940 0445 101	Transistor 2SD2037(E)	
TR853	940 0466 229	Transistor DTA143EL	
TR854	274 0146 905	Transistor 2SD1858(Q)	
D851	276 0432 000	Diode WG713A	
D852	276 0440 908	Zener Diode MTZ10A	
D853	943 0000 251	Zener Diode MTZ5.6B	
CAPACITORS GROUP			
C351,352	254 4195 916	Electrolytic 4.7μF/35V (SRA)	CE04W1V4R7M

Ref. No.	Part No.	Part Name		Q'ty
OTHER GROUP				
L851	940 0467 037	Choke Coil 10μH		1

Ref. No.	Part No.	Part Name	Remarks
RECT. SECTION			
RESISTORS GROUP			
R851	241 2400 092	Carbon Film 10 Kohm, 1/4W	RD14B2E103J(5)
R852	241 2396 038	Carbon Film 390 ohm, 1/4W	RD14B2E391J(5)
R853	241 2398 094	Carbon Film 1.5 Kohm, 1/4W	RD14B2E152J(5)
R854	241 2400 018	Carbon Film 4.7 Kohm, 1/4W	RD14B2E472J(5)
R855	241 2397 008	Carbon Film 220 ohm, 1/4W	RD14B2E221J(5)
CAPACITORS GROUP			
C851	253 9030 086	B.C Ceramic 0.022μF/25V	CK45=1E223K
C852	254 4193 905	Electrolytic 10μF/16V (SRA)	CE04W1C100M
C853	254 4252 927	Electrolytic 47μF/10V (SME)	CE04W1A470M
C854	254 4193 905	Electrolytic 10μF/16V (SRA)	CE04W1C100M
C855	254 4193 934	Electrolytic 47μF/16V (SRA)	CE04W1C470M

FM/AM TUNER PACK PARTS LIST (AV-T803)

Ref. No.	Part No.	Part Name	Remarks
FM FRONT, IF SECTION			
SEMICONDUCTORS GROUP			
IC201	263 0193 000	IC LA1140	
TR201	940 0457 704	FET 2SK302Y	Chip FET
TR202	287 2992 028	Transistor FMG9	Chip
TR203	269 0088 906	Transistor DTC114TK	Chip
TR206	269 0115 905	Transistor DTA115EK	Chip
TR207	269 0082 902	Transistor DTC114EK	Chip
D201	276 0560 901	Diode DAN 202K	Chip
D202	276 0443 002	LED LTZ-MR15	LED
D203	276 0560 901	Diode DAN202K	Chip
TH201	279 0029 001	Thermistor NTH5D104KA	
RESISTORS GROUP			
R201	247 0010 945	Chip 18 Kohm, 1/10W	RM73B--183J
R203,204	247 0006 962	Chip 470 ohm, 1/10W	RM73B--471J
R205	247 0005 989	Chip 220 ohm, 1/10W	RM73B--221J
R209	247 0010 974	Chip 24 Kohm, 1/10W	RM73B--243J
R210	247 0006 920	Chip 330 ohm, 1/10W	RM73B--331J
R211,212	247 0010 929	Chip 15 Kohm, 1/10W	RM73B--153J
R213	247 0010 903	Chip 12 Kohm, 1/10W	RM73B--123J
R214	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J
R215	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
R217	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
R218	247 0001 983	Chip 4.7 ohm, 1/10W	RM73B--4R7J
R219	247 0012 901	Chip 82 Kohm, 1/10W	RM73B--823J
RT201,202	940 0458 004	Semi Fixed Resistor 47 Kohm	
RT204	940 0458 046	Semi Fixed Resistor 150 Kohm	
RT205		Semi Fixed Resistor 47 Kohm	
CAPACITORS GROUP			
C101	257 0003 946	Chip Ceramic 33PF/50V	CC73SL1H330J
C202,203	257 0010 942	Chip Ceramic 0.022µF/50V	CK73B1H223K
C204	254 4305 065	Electrolytic 1µF/50V	CE04W1H010M
C205	257 0010 900	Chip Ceramic 0.01µF/50V	CK73B1H103K
C206	940 0458 101	Chip Ceramic 0.047µF/50V	CK73F1H473Z
C207	257 0003 946	Chip Ceramic 33PF/50V	CC73SL1H330J
C208	257 0010 942	Chip Ceramic 0.022µF/50V	CK73B1H223K
C209	254 4305 065	Electrolytic 1µF/50V	CE04W1H010M
C210	257 0003 946	Chip Ceramic 33PF/50V	CC73SL1H330J
C211	254 4302 055	Electrolytic 47µF/10V	CE04W1A470M
C212	940 0458 114	Chip Ceramic 0.1µF/25V	CK73F1E104Z
C213	940 0458 101	Chip Ceramic 0.047µF/50V	CK73F1H473Z
C214	254 4305 942	Electrolytic 0.47µF/50V	CE04W1HR47M
C215	254 4305 007	Electrolytic 0.1µF/50V	CE04W1HR10M
C216,217	257 0010 942	Chip Ceramic 0.022µF/50V	CK73B1H223K
C221	257 0010 900	Chip Ceramic 0.01µF/50V	CK73B1H103K

Ref. No.	Part No.	Part Name		Q'ty
OTHER GROUP				
CF201,202	261 0097 003	FM Ceramic Filter SFE10.7MS3GH-A		2
L101	940 0457 801	Inductor	10µH	1
T201	231 2089 005	Det. Coil		1
	940 0455 007	FM Front End		1

Ref. No.	Part No.	Part Name	Remarks
N.C MPX SECTION			
SEMICONDUCTORS GROUP			
IC301	262 1129 009	IC STK3400A	
D301	940 0458 208	Diode 1SS1588	
RESISTORS GROUP			
R301	247 0009 914	Chip 5.1 Kohm, 1/10W	RM73B--512J
R302	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
R303	247 0012 927	Chip 100Kohm, 1/10W	RM73B--104J
R304	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
R305	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J
R306	247 0009 969	Chip 8.2 Kohm, 1/10W	RM73B--822J
R307	247 0009 927	Chip 5.6 Kohm, 1/10W	RM73B--562J
R308	247 0014 967	Chip 1 Mohm, 1/10W	RM73B--105J
RT301	940 0458 004	Semi Fixed Resistor 47 Kohm	
RT302	940 0458 020	Semi Fixed Resistor 2.2 Kohm	
CAPACITORS GROUP			
C301	254 4305 023	Electrolytic 0.22µF/50V	CE04W1HR22M
C302,303	254 4305 065	Electrolytic 1µF/50V	CE04W1H010M
C304	257 0010 900	Chip Ceramic 0.01µF/50V	CK73B1H103K
C305	257 0009 940	Chip Ceramic 3300PF/50V	CK73B1H332K
C306	257 0011 970	Chip Ceramic 0.033µF/25V	CK73B1E333K
C307	254 4302 055	Electrolytic 47µF/10V	CE04W1A470M
C308	254 4302 039	Electrolytic 22µF/10V	CE04W1A220M
C309	254 4303 012	Electrolytic 4.7µF/25V	CE04W1E4R7M
C310	940 0458 008	Electrolytic 0.1µF/50V (Bi pole)	CE04D1H0R1MBP
C311	940 0458 318	Electrolytic 4.7µF/25V (Bi pole)	CE04D1E4R7MBP
C312	257 0009 911	Chip Ceramic 1800PF/50V	CK73B1H182K
C313	257 0010 942	Chip Ceramic 0.022µF/50V	CK73B1H223K
C314	254 4302 916	Electrolytic 10µF/10V	CE04W1A100M
OTHER GROUP			
CF301	261 0104 006	Ceramic Vibrator	CSB456F15
MW, LW SECTION			
SEMICONDUCTORS GROUP			
IC401	940 0458 402	IC µPC1344GT	
TR401	940 0458 509	Transistor 2SK932-23	Chip FET
TR402,403	940 0458 606	Transistor 2SC2412KLN	Chip (Low Noise)
D401	940 0461 606	Diode 1SV172	Chip
D402	940 0461 703	Diode DA106K	Chip
D403	940 0461 619	Varicap 1SV225	Chip
RESISTORS GROUP			
R401	247 0008 960	Chip 3.3 Kohm, 1/10W	RM73B--332J
R402	247 0009 927	Chip 5.6 Kohm, 1/10W	RM73B--562J
R403,404	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J
R405	247 0008 960	Chip 3.3 Kohm, 1/10W	RM73B--332J
R406	247 0008 928	Chip 2.2 Kohm, 1/10W	RM73B--222J
R407	247 0008 960	Chip 3.3 Kohm, 1/10W	RM73B--332J
R408	247 0008 944	Chip 2.7 Kohm, 1/10W	RM73B--272J
R409	247 0010 961	Chip 22 Kohm, 1/10W	RM73B--223J
R410,411	247 0004 922	Chip 47 ohm, 1/10W	RM73B--470J

Ref. No.	Part No.	Part Name	Remarks
R412	247 0012 927	Chip 100 Kohm, 1/10W	RM73B--104J
R413	247 0006 988	Chip 560 ohm, 1/10W	RM73B--561J
R414	247 0003 949	Chip 22 ohm, 1/10W	RM73B--220J
R415	247 0014 967	Chip 1 Mohm, 1/10W	RM73B--105J
R416	247 0003 907	Chip 15 ohm, 1/10W	RM73B--150J
J1~10, 19,20	247 0018 905	Chip 0 ohm, 1/10W	RM73B--0R0
J11~18,21	247 1018 904	Chip 0 ohm, 1/8W	RM73B2B0R0
RT401	940 0458 033	Semi Fixed resistor 10 Kohm	

CAPACITORS GROUP

Ref. No.	Part No.	Part Name	Remarks
C401	257 0009 924	Chip Ceramic 2200PF/50V	CK73B1H222K
C402	257 0003 988	Chip Ceramic 47PF/50V	CC73SL1H470J
C403	257 0001 977	Chip Ceramic 5PF/50V	CC73SL1H5R0C
C404	257 0005 902	Chip Ceramic 150PF/50V	CC73SL1H151J
C405	257 0003 988	Chip Ceramic 47PF/50V	CC73SL1H470J
C406~408	257 0010 942	Chip Ceramic 0.022µF/50V	CK73B1H223K
C409	254 4302 055	Electrolytic 47µF/10V	CE04W1A470M
C410	257 0010 942	Chip Ceramic 0.022µF/50V	CK73B1H223K
C411	254 4305 081	Electrolytic 2.2µF/50V	CE04W1H2R2M
C412	257 1011 908	Chip Ceramic 0.01µF/50V	CK73B1H103K
C413	257 0010 900	Chip Ceramic 0.01µF/50V	CK73B1H103K
C414	254 4302 039	Electrolytic 22µF/10V	CE04W1A220M
C415	257 0010 942	Chip Ceramic 0.022µF/50V	CK73B1H223K
C416	254 4302 055	Electrolytic 47µF/10V	CE04W1A470M
C417	257 0010 900	Chip Ceramic 0.01µF/50V	CK73B1H103K
C418	254 4305 081	Electrolytic 2.2µF/50V	CE04W1H2R2M
C419	940 0459 003	Chip Ceramic 20PF/50V (Temp.)	CC73CH1H200J
C420	940 0459 010	Chip Ceramic 22PF/50V (Temp.)	CC73CH1H220J
C421	254 4305 081	Electrolytic 2.2µF/50V	CE04W1H2R2M
C422	940 0458 101	Chip Ceramic 0.047µF/50V	CK73F1H473Z
C423	257 1011 982	Chip Ceramic 0.047µF/50V	CK73B1H473K
C424	940 0459 023	Chip Ceramic 270PF/50V (Temp.)	CC73CH1H271J
C425	257 0010 942	Chip Ceramic 0.022µF/50V	CK73B1H223K
C426	940 0458 101	Chip Ceramic 0.047µF/50V	CK73F1H473Z
C427	257 1011 908	Chip Ceramic 0.01µF/50V	CK73B1H103K

OTHER GROUP

Ref. No.	Part No.	Part Name	Remarks	Q'ty
CF401	940 0458 703	FM C. Filter	SFE10.7MJ-A	1
CF402	930 0293 000	AM C. Filter	SFP 450H	1
X401	940 0458 800	X'tal	10.26MHz	1
L401	940 0457 827	Inductor	22µH	1
L402	940 0458 907	Ant. Coil		1
L403,404	940 0457 827	Inductor	22µH	2
L405	940 0458 910	Low Pass Filter	LPF	1
L406	940 0457 843	Inductor	1mH	1
L407	940 0457 814	Inductor	3.3µH	1
IF401	940 0458 923	IFT		1
IF402	940 0458 936	IFT		1
IF403	940 0458 949	IFT		1
J22	—	Jumper Wire		1

OTHER SECTION

Ref. No.	Part No.	Part Name	Remarks	Q'ty
CN1,2	940 0465 806	5P Pin Header		2
CN3	940 0465 819	6P Pin Header		1
CN4	940 0465 822	7P Pin Header		1
	—	2P Wire (l=65)		
	—	Shield Case		1
	—	Bottom Shield Case		1

Ref. No.	Part No.	Part Name	Remarks	Q'ty
	940 0459 100	Radiator Plate		1
	940 0459 207	Label		1
	—	(P.W. Board)	PWB-1274	(1)

MD UNIT PARTS LIST

Ref. No.	Part No	Part Name & Descriptions
SEMICONDUCTORS		
IC1	S87 5281 210	IC CXP5068H
IC401,402	S87 5960 457	IC M5228FP
IC501	S87 5203 314	IC CXA1081Q
IC502	S87 5203 229	IC CXA1082AQ
IC503	S87 5233 238	IC CXD1130Q
IC504	S87 5232 369	IC CXK5816M
Q401	S87 2990 701	D. Transistor DTC114EU
Q402	S87 2980 844	Transistor ransistor 2SD1624 (R)/(S)
Q403	S87 2982 063	Transistor 2SB1124 (R)/(S)
Q404	S87 2980 844	Transistor 2SD1624 (R)/(S)
Q405	S87 2982 063	Transistor 2SB1124 (R)/(S)
Q406	S87 2980 844	Transistor 2SD1624 (R)/(S)
Q407	S87 2982 063	Transistor 2SB1124 (R)/(S)
Q408	S87 2980 844	Transistor 2SD1624 (R)/(S)
Q409	S87 2982 063	Transistor 2SB1124 (R)/(S)
Q410	S87 2980 844	Transistor 2SD1624 (R)/(S)
Q411	S87 2982 063	Transistor 2SB1124 (R)/(S)
Q412	S87 2980 844	Transistor 2SD1624 (R)/(S)
Q413	S87 2982 063	Transistor 2SB1124 (R)/(S)
Q414	S87 2980 844	Transistor 2SD1624 (R)/(S)
Q415	S87 2982 063	Transistor 2SB1124 (R)/(S)
Q416	S87 2980 844	Transistor 2SD1624 (R)/(S)
Q417	S87 2982 063	Transistor 2SB1124 (R)/(S)
Q418,419	S87 2930 287	Transistor 2SB1000
Q420	S87 2992 029	D. Transistor FMG-9
Q421,422	S87 2932 059	Transistor 2SD1870
Q423	S87 2992 295	D. Transistor DTC143TU
Q425	S87 2980 845	Transistor 2SD1624 (S)
Q501	S87 2910 282	Transistor 2SB624
Q502	S87 2980 065	Transistor 2SA1179M5
Q503	S87 2992 029	D. Transistor FMG-9
Q504	S87 2990 701	D. Transistor DTC114EU
Q621–623	S87 2940 208	Photo Sensor PN147-LF
D1	S87 1994 039	Diode DCB015
D401	S87 1994 036	Diode DCA015
D402	S87 1994 020	Diode DSA015
D403	S87 1910 656	Diode RD10MB
D631–633	S87 1940 429	LED LN261C
TH441,442	S18 0865 621	Thermister
TH501	S18 0865 621	Thermister
RESISTORS (Chip Resistor)		
R1,2	247 0012 927	100 Kohm ±5% 1/10W
R4–13	247 0010 961	22 Kohm ±5% 1/10W
R14	247 0014 967	1M ohm ±5% 1/10W
R16	247 0009 985	10 Kohm ±5% 1/10W
R17	247 0010 961	22 Kohm ±5% 1/10W
R401	247 0010 987	27 Kohm ±5% 1/10W
R402,403	247 0010 974	24 Kohm ±5% 1/10W
R404	247 0010 987	27 Kohm ±5% 1/10W
R405	247 0010 903	12 Kohm ±5% 1/10W
R406	247 0010 987	27 Kohm ±5% 1/10W
R411	247 0010 987	27 Kohm ±5% 1/10W
R412	247 0010 974	24 Kohm ±5% 1/10W

Ref. No.	Part No	Part Name & Descriptions
R413,414	247 0010 987	27 Kohm ±5% 1/10W
R415	247 0010 903	12 Kohm ±5% 1/10W
R416	247 0010 987	27 Kohm ±5% 1/10W
R421	247 0010 987	27 Kohm ±5% 1/10W
R422	247 0010 974	24 Kohm ±5% 1/10W
R423,424	247 0010 987	27 Kohm ±5% 1/10W
R425	247 0010 903	12 Kohm ±5% 1/10W
R426	247 0010 987	27 Kohm ±5% 1/10W
R431	247 0010 987	27 Kohm ±5% 1/10W
R432	247 0010 974	24 Kohm ±5% 1/10W
R433,434	247 0010 987	27 Kohm ±5% 1/10W
R435	247 0010 903	12 Kohm ±5% 1/10W
R436	247 0010 987	27 Kohm ±5% 1/10W
R441,442	247 0010 987	27 Kohm ±5% 1/10W
R443	247 0010 958	20 Kohm ±5% 1/10W
R444	247 0012 985	180 Kohm ±5% 1/10W
R445	247 0008 986	3.9 Kohm ±5% 1/10W
R446	247 0012 930	110 Kohm ±5% 1/10W
R447	247 0012 914	91 Kohm ±5% 1/10W
R450	247 0010 961	22 Kohm ±5% 1/10W
R451,452	247 0008 928	2.2 Kohm ±5% 1/10W
R453,454	247 0009 901	4.7 Kohm ±5% 1/10W
R455	247 1002 965	10 ohm ±5% 1/8W
R456	247 0007 945	1 Kohm ±5% 1/10W
R502	247 0007 945	1 Kohm ±5% 1/10W
R503	247 1002 965	10 ohm ±5% 1/8W
R504	247 0010 961	22 Kohm ±5% 1/10W
R506	247 0005 905	100 ohm ±5% 1/10W
R507	247 0009 998	11 Kohm ±5% 1/10W
R508	247 0009 985	10 Kohm ±5% 1/10W
R509	247 0012 927	100 Kohm ±5% 1/10W
R510,511	247 0009 985	10 Kohm ±5% 1/10W
R512	247 0008 957	3 Kohm ±5% 1/10W
R513	247 0013 900	220 Kohm ±5% 1/10W
R515	247 0014 967	1 Mohm ±5% 1/10W
R516	247 0010 958	20 Kohm ±5% 1/10W
R517	247 0008 944	2.7 Kohm ±5% 1/10W
R518	247 0012 985	180 Kohm ±5% 1/10W
R519–521	247 0012 927	100 Kohm ±5% 1/10W
R522	247 0010 916	13 Kohm ±5% 1/10W
R523	247 0013 926	270 Kohm ±5% 1/10W
R524	247 0011 902	33 Kohm ±5% 1/10W
R525	247 0013 997	510 Kohm ±5% 1/10W
R526	247 0012 927	100 Kohm ±5% 1/10W
R527	247 0011 944	47 Kohm ±5% 1/10W
R528	247 0009 985	10 Kohm ±5% 1/10W
R530	247 0009 985	10 Kohm ±10% 1/10W
R531	247 1002 965	10 ohm ±5% 1/8W
R532	247 0009 985	10 Kohm ±5% 1/10W
R535–537	247 0007 945	1 Kohm ±5% 1/10W
R631	247 0006 988	560 ohm ±5% 1/10W
R701	247 0009 927	5.6 Kohm ±5% 1/10W
R702	247 0010 945	18 Kohm ±5% 1/10W
R703	247 0008 957	3 Kohm ±5% 1/10W
R996	247 0013 997	510 Kohm ±5% 1/10W
R997	247 0013 913	240 Kohm ±5% 1/10W
R998	247 0010 990	30 Kohm ±5% 1/10W

Ref. No.	Part No.	Part Name & Descriptions
R999	247 0013 942	330 Kohm ±5% 1/10W
JW1	S12 1629 691	0 ohm ±5% 1/8W
JW401	247 0018 905	0 ohm ±5% 1/10W
RV401	S12 3808 921	Semi Fixed Resistor 4.7 Kohm
RV501	S12 3835 221	Semi Fixed Resistor 22 Kohm
RV502	S12 3835 321	Semi Fixed Resistor 47 Kohm
RV503,504	S12 3087 121	Semi Fixed Resistor 22 Kohm
RV505	S12 3086 821	Semi Fixed Resistor 2.2 Kohm
CAPACITORS		
(Chip Ceramic Capacitors)		
C2,3	257 0003 946	33pF ±5% 50V
C401,402	257 0003 946	33pF ±5% 50V
C411,412	257 0003 946	33pF ±5% 50V
C421,422	257 0003 946	33pF ±5% 50V
C431,432	257 0003 946	33pF ±5% 50V
C442	257 0011 909	0.01µF ±10% 25V
C443,444	257 1013 993	0.1µF ±10% 25V
C504	S11 6263 891	1µF +80,–20% 16V
C505	257 0009 937	2700pF ±10% 50V
C506	257 0011 967	0.033µF ±10% 25V
C509	S11 6263 891	1µF +80,–20% 16V
C510	257 0011 909	0.01µF ±10% 25V
C512	257 0011 909	0.01µF ±10% 25V
C513	257 0011 967	0.033µF ±10% 25V
C514	257 0008 983	1000pF ±10% 50V
C515	257 0008 983	1000pF ±10% 50V
C516	257 1013 951	0.047µF ±10% 25V
C517	257 0009 966	4700pF ±10% 50V
C518	257 0011 909	0.01µF ±10% 25V
C520	257 0008 983	1000pF ±10% 50V
C522	257 0009 966	4700pF ±10% 50V
C523	257 0011 967	0.033µF ±10% 25V
C527	257 1013 993	0.1µF ±10% 25V
C526	257 1013 993	0.1µF ±10% 25V
C524	S11 6263 891	1µF +80,–20% 16V
C531	S11 6263 891	1µF +80,–20% 16V
C534	S11 6263 891	1µF +80,–20% 16V
C537	S11 6263 891	1µF +80,–20% 16V
C539	S11 6263 891	1µF +80,–20% 16V
C541	257 1013 993	0.1µF ±10% 25V
C542	257 0003 946	33pF ±5% 50V
C543,544	257 0004 929	68pF ±5% 50V
C545	257 0011 909	0.01µF ±10% 25V
C580	257 0008 983	1000pF ±10% 50V
C701	257 0003 946	33pF ±5% 50V
(Chip Tantalum Capacitors)		
C502	257 2002 961	47µF ±20% 7V
C525	257 2006 941	4.7µF ±20% 25V

Ref. No.	Part No.	Part Name & Descriptions			
(Electrolytic Capacitors)					
C1	254 4300 918	10µF	±20%	6.3V	(SRE)
C308	254 4250 945	330µF	±20%	6.3V	(SME)
C441	254 4299 922	4.7µF	±20%	16V	(SRE)
C501	254 4301 917	22µF	±20%	4V	(SRE)
C503	254 4301 917	22µF	±20%	4V	(SRE)
C508	254 4301 917	22µF	±20%	4V	(SRE)
C511	254 4305 942	0.47µF	±20%	50V	(SRE)
C519	254 4305 942	0.47µF	±20%	50V	(SRE)
C521	254 4301 917	22µF	±20%	4V	(SRE)
C528	254 4301 917	22µF	±20%	4V	(SRE)
C529,530	254 4300 918	10µF	±20%	6.3V	(SRE)
C532	254 4301 917	22µF	±20%	4V	(SRE)
C533	254 4305 968	1µF	±20%	50V	(SRE)

Ref. No.	Part No.	Part Name & Descriptions	Q'ty
E.U. PARTS			
L1	S14 1020 421	Chip Inductor 10µH	1
L501	S14 1020 421	Chip Inductor 10µH	1
L503	S14 1019 821	Chip Inductor 3.3µH	1
X1	S15 7727 321	Ceramic OSC Element	1
SW621,622	S15 7175 421	Push Switch	2
OTHER PARTS			
◉	—	P.W. Board	1
	SX3 3514 101	Flx. Plate Ass'y	1

65

PARTS LIST OF EXPLODED VIEW

Ref. No.	Add.	Part No.	Part Name	Remarks	Q'ty
1	6-D	940 0459 317	Front Chassis		1
2	5-B	940 0441 613	Side Chassis L		1
3	7-C	940 0441 626	Side Chassis R		1
4	7-C	411 1144 000	Connector Bracket		1
◉ 5	4-A	412 3288 006	Cover		2
◉ 6	6-B	412 3222 004	Mech Bracket R		1
◉ 7	5-B	412 3221 209	Mech Bracket F		1
◉ 8	2-D	412 3289 209	Handle Bracket L Ass'y		1
◉ 9	3-E	412 3292 209	Handle Bracket R Ass'y		1
10	1-F	106 0066 009	Handle		1
11	7-A	412 2685 202	Mount Sleeve Ass'y		1
12	1-E	462 0114 107	Washer		1
13	1-E	422 0412 102	Collar		2
14		—	—		
15	2-D	463 0474 002	Knob Spring		1
16	2-D	112 0583 008	Vol. Knob		1
17	2-D	112 0680 008	Fader Knob		1
18	4-C	112 0585 019	Tone Knob		2
19		—	—		
20	3-D	940 0465 204	Front Panel Ass'y		1
21	2-E	146 1247 003	Frame		1
22		—	—		
23	2-E	113 1435 103	Handle Button		1
24	3-D	113 1421 007	Up Button		1
25	3-D	113 1422 006	Down Button		1
26	2-E	940 0465 301	Preset Button 1		1
27	2-E	940 0465 314	Preset Button 2		1
28	3-E	940 0465 327	Preset Button 3		1
29	3-E	940 0465 330	Preset Button 4		1
30	3-E	940 0465 343	Preset Button 5		1
31	3-E	940 0465 356	Preset Button 6		1
32	3-D	143 0730 402	Knob Lens		1
33	3-E	940 0465 408	Band Button		1
34	3-E	940 0465 411	AF Button		1
35	3-E	940 0465 424	TA Button		1
◉ 36	4-D	—	CD Guide Panel		1
37	3-D	940 0465 437	Reset Button		1
38	4-E	940 0465 440	Eject Button		1
39	4-D	940 0465 453	Mode Button Ass'y		1
40	5-D	—	LCD Cover		1
◉ 41	4-D	—	CD Front Sheet		2
◉ 42	2-C	940 0467 707	Hidaway Unit Ass'y		1^S
43		204 8215 004	13P Din Socket		1
44	2-D	940 0419 920	Ant Jack Ass'y		1
45	2-C	—	FM/AM Tuner Pack	AV-T803	1
◉ 46		940 0467 503	Main Unit Ass'y		1
46-1	6-D	—	Main Unit		1^S
46-2	5-D	—	Switch Unit		(1)
46-3	5-D	—	EJ. SW. Unit		(1)
47		—	—		
◉ 48		940 0467 600	VR Unit Ass'y		1^S
48-1	5-B	—	VR Unit		(1)
48-2	5-C	—	Tone Unit		(1)
48-3	6-B	—	Connector Unit		(1)
49		—	—		
50	5-C	940 0456 831	Main Volume		1
51	5-C	211 0617 006	Tone Volume		1
52	5-C	211 0729 004	Tone Volume		1
◉ 53	3-C	1U-2141	DAC Unit Ass'y		1^S
◉ 54	3-C	337 0007 002	CD Mech Unit		1
◉ 55	6-D	940 0466 902	LCD Module		1
56	6-E	940 0461 813	26P Connector Ass'y		1
57	7-D	415 0453 008	RCA Cap		2
58	5-E	415 0544 001	Insulating Sheet A	FB-364	1
59	4-B	940 0441 545	Insulating Sheet B	FB-283S	1

Ref. No.	Add.	Part No.	Part Name	Remarks	Q'ty
60	6-B	940 0441 558	Insulating Sheet C	FB-283T	1
61		—	—		
62	3-E	940 0441 736	Cushion		1
63	1-D	940 0465 505	Tuner Case		1
64	1-B	940 0465 602	Tuner Cover		1
65	2-D	940 0467 105	Connector Holder		1
66	2-C	940 0467 118	Tuner Holder		1
67	2-E	106 0067 105	Handle Plate		1
68	5-D	—	Collar		1
◉ 69	3-C	—	Shield Plate		1
◉ 70	7-C	—	IC Holder		1

LABEL, SHEET

Ref. No.	Add.	Part No.	Part Name	Remarks	Q'ty
90		940 0459 919	Caution Label		1
91	2-A	513 1762 005	Serial No. Label		1
92	4-A	940 0460 018	Rating Sheet		1
93	3-A	513 1908 021	License Label		1
94	4-A	513 0985 003	Inst. Label		1
95	4-B	513 1880 000	CE Label		1

SCREWS

Ref. No.	Add.	Part No.	Part Name	Remarks	Q'ty
101	1-B	473 7005 073	Tapping Screw (S) 3x5		13
102	2-C	471 3302 017	Bind Screw 3x5		4
103	2-D	473 7016 033	Tapping Screw (S) 2.6x4		6
104	1-E	471 3802 012	Bind Screw 2.6x3		2
105	1-E	471 3202 023	Bind Screw 2.6x5	Black	2
106	3-D	473 7506 006	Tapping Screw (P) 2x5		5
107	5-D	471 1104 013	Pan Screw 2x8		1
108	6-B	473 7500 015	Tapping Screw (P) 3x8		2
109	3-B	471 3101 014	Bind Screw 2x4		2
110	6-E	477 0095 008	Washer φ3		2
111	1-B	473 7005 073	F.T. Bind Screw 3x6		9
112	4-C	930 0854 009	M9 Nut		1
113	4-C	930 0854 002	M6 Nut		2
114	6-E	473 7002 018	Tapping Screw (S) 3x8		2
115					

PACKING & ACCESSORIES (Not including EXPLODED VIEW)

Ref. No.	Add.	Part No.	Part Name	Remarks	Q'ty
◉ 200		940 0428 322	Cushion L		1
◉ 201		940 0428 335	Cushion R		1
◉ 202		940 0460 212	Carton Case (Individual)		1
◉ 203		—	Carton Case (Master)		1/3
204		930 0236 041	Envelope (300x450)	Set	1
205		930 0236 012	Envelope (170x240)	Inst. Manual	1
206		930 0124 001	Envelope (250x350)	Tuner	1
207		513 1338 005	Control Service Card		1
◉ 208		940 0442 117	Envelope Sub Ass'y		1^S
◉ 208-1		412 2036 000	Hanger Bracket		1
◉ 208-2		441 0748 013	Stay		2
◉ 208-3		475 1006 003	Washer φ5		8
◉ 208-4		475 2005 003	Spring Washer φ5		6
◉ 208-5		477 0289 005	Hex, Hole Screw 5x16		2
◉ 208-6		477 0291 006	Hex, Hole T. Screw5x20		5
◉ 208-7		477 0293 004	Nut Washer M5		1
◉ 208-8		475 6010 007	Nut M5		2
◉ 208-9		471 3403 013	Bind Screw 4x6		4
◉ 208-10		511 2265 000	Inst Manual (E, G, F)		1
◉ 208-11		511 2266 009	Inst Manual (IT, ES, NL, S)		1
◉ 209		513 1338 015	Control Card Base		1
210		513 1349 004	Thermal Carbon Film		2
					2

NOTE FOR PARTS LIST

- Part indicated with the mark " ◉ " are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "l" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.
- Not including Carbon Film ±5%, 1/4W Type in the P.W.Board parts list, except parts for non-burning (N.B.), audio equipment. (Refer to the Schematic Diagram for those parts.)

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

EXPLODED VIEW OF CHASSIS AND CABINET
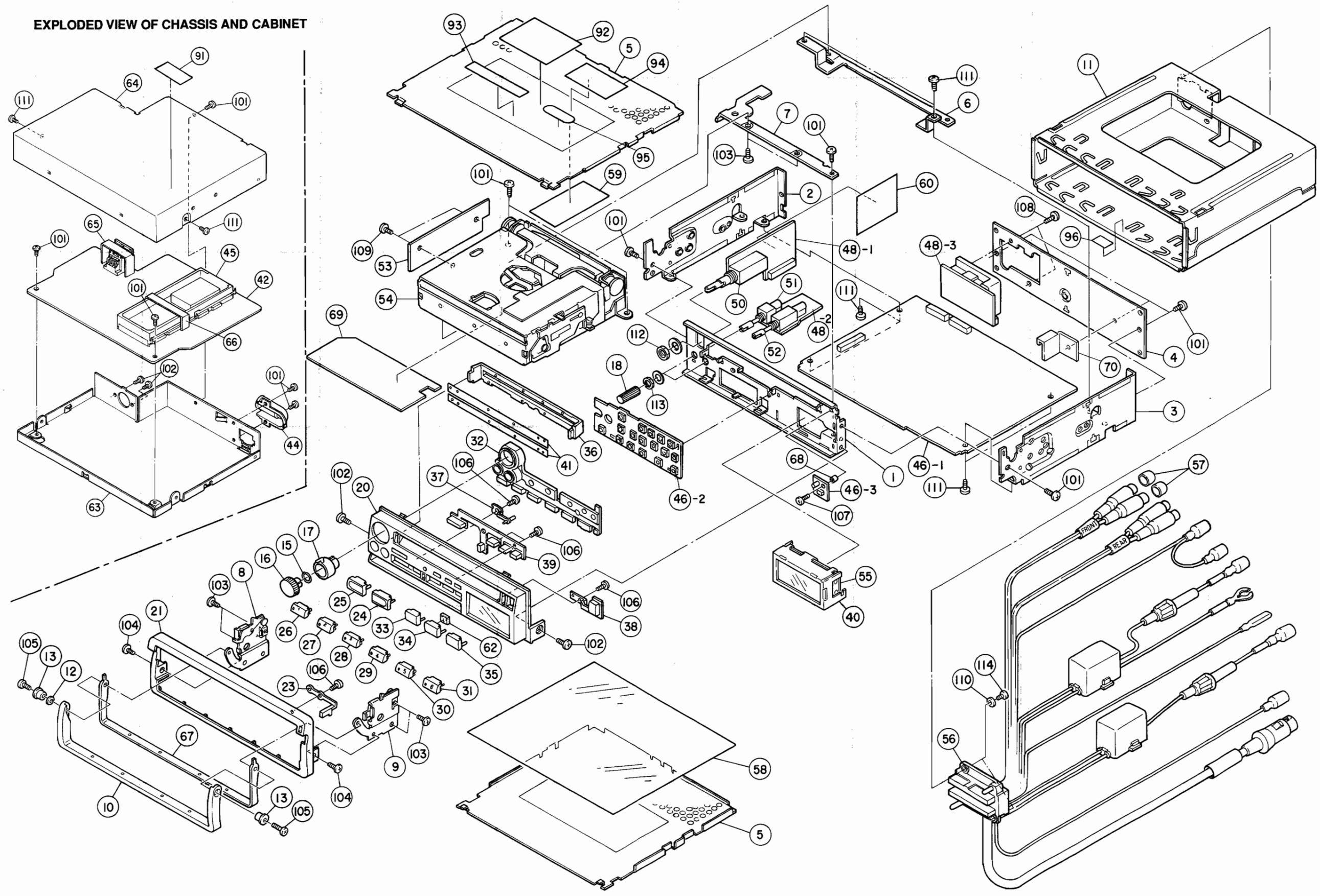
MD SECTION (1)

Ref. No.	Part No.	Part Name & Descriptions
301	S33 5144 901	Sleeve
◉ 302	SX3 3514 091	Set Plate (Roller) Ass'y
303	S33 5143 701	Spring (Roller)
304	S33 5141 601	Bearing (Roller Shaft)
305	S37 0143 821	Poly Washer φ2.5
306	S33 2323 102	Roller (Lower)
◉ 307	S33 5141 001	Set Plate (Damper C)
308	S33 2326 301	Teflon Washer
309	S33 3092 901	Damper (S)
310	S33 5144 501	Coil Spring (Floating C.D)
311	S33 5144 401	Coil Spring (Floating A, B)
◉ 312	S33 5140 901	Set Plate (Damper B)
◉ 313	S33 3514 101	Set Plate (F) Ass'y
◉ 314	S33 5140 801	Set Plate (Damper A)
315	S33 4262 501	Thrust Holder (S2)
◉ 316	S33 5145 302	Checking Arm
317	S33 4855 801	Check Plate
◉ 318	S33 5141 101	Set Plate (Damper D)
319	S33 5144 301	Coil Spring (Checking)
◉ 320	SX3 3514 011	Set Plate (M) Ass'y
321	S33 5141 301	Gear (B)
322	S76 2755 218	Precision Screw +P 1.7 × 1.6, Type 1
◉ 323	S33 5145 701	Set Plate (Rear A)
◉ 324	SX3 3514 051	Lever (Ch Cancel) Ass'y
◉ 325	SX3 3514 121	Chassis (Main) Ass'y
◉ 326	SX3 3514 061	Lever (Gear C) Ass'y
327	S33 5146 301	Coil Spring (SW Lever 2)
◉ 328	S33 5146 601	Insulating Sheet
329	S33 1538 411	Stop Washer
330	S33 5143 801	Cam Gear
331	SX3 3514 021	Lever (SW) Ass'y
332	S33 5144 101	Hold Plate (Side Gear)
333	S33 5141 401	Gear (C)
334	S35 7822 400	Washer
335	—	—
336	S33 5145 601	Lever (L, E)
337	SX3 3514 131	Roller Shaft
338	476 1001 001	E-Ring φ2.0
339	S76 2755 327	Precision Screw +P 2 × 2.5, Type 1
340	S76 2177 208	Bind Screw +B 2 × 3
341	S76 2785 057	Precision Screw +P 1.4 × 3.5, Type 3
342	S38 9246 401	Spacer
◉ 343	S33 5146 701	Insulating Sheet
◉ 344	S33 5146 401	Insulating Sheet
◉ 345	S33 5147 001	Insulating Sheet
◉ 920	S16 2891 111	Relay Unit
◉ 921	S16 2891 011	Sensor Unit
◉ 922	S16 2891 211	LED Unit
◉ 923	SA3 2608 82A	MD Main Mount
924	S16 2958 111	Sensor Flexible Unit
925	S16 2958 211	Relay Flexible Unit
926	—	—
◉ 927	S16 2845 011	Metal SW Unit
M903	SA3 2492 13A	Gear (A) Ass'y (Reading)
PM901	S14 5446 111	Plunger Solenoid

DISASSEMBLY OF CD MECHANISM–(1/3)
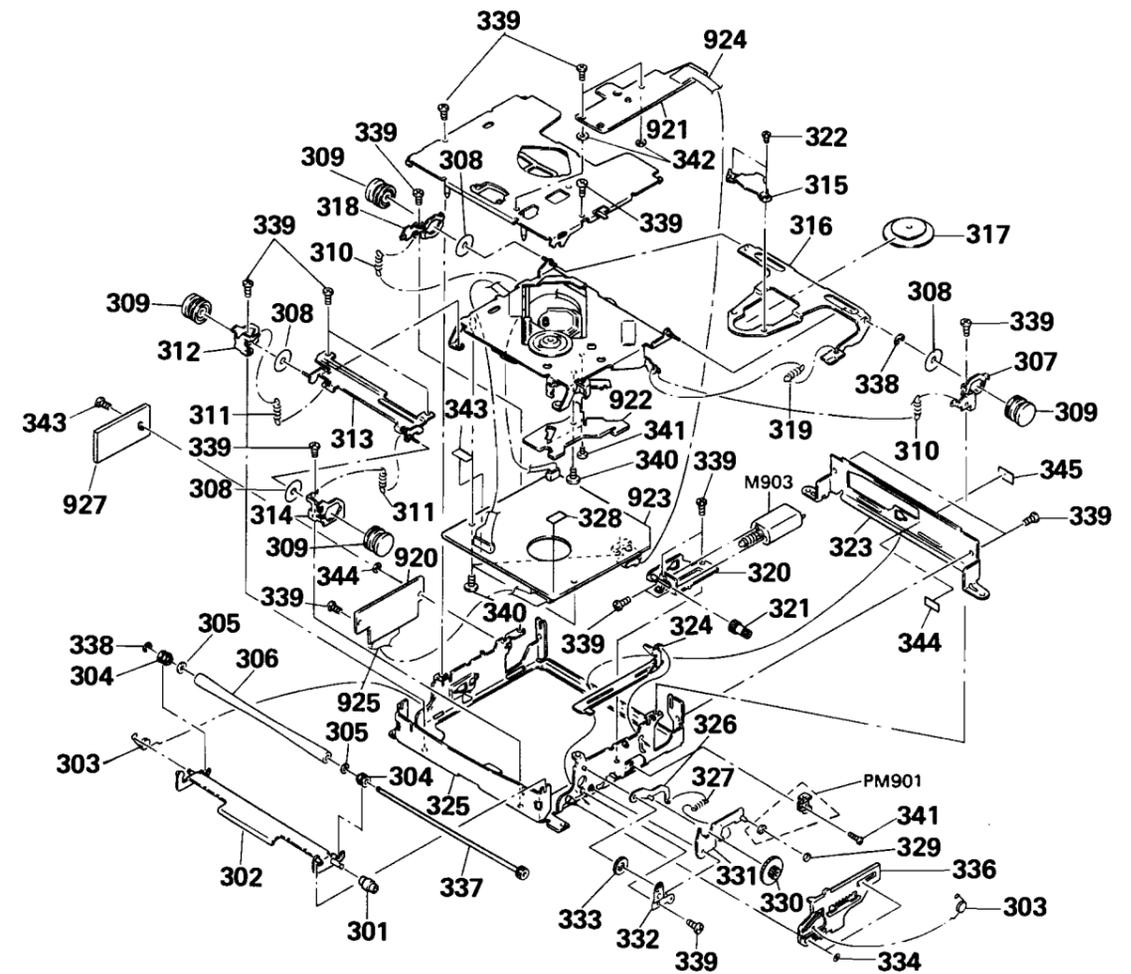
DISASSEMBLY OF CD MECHANISM–(2/3)
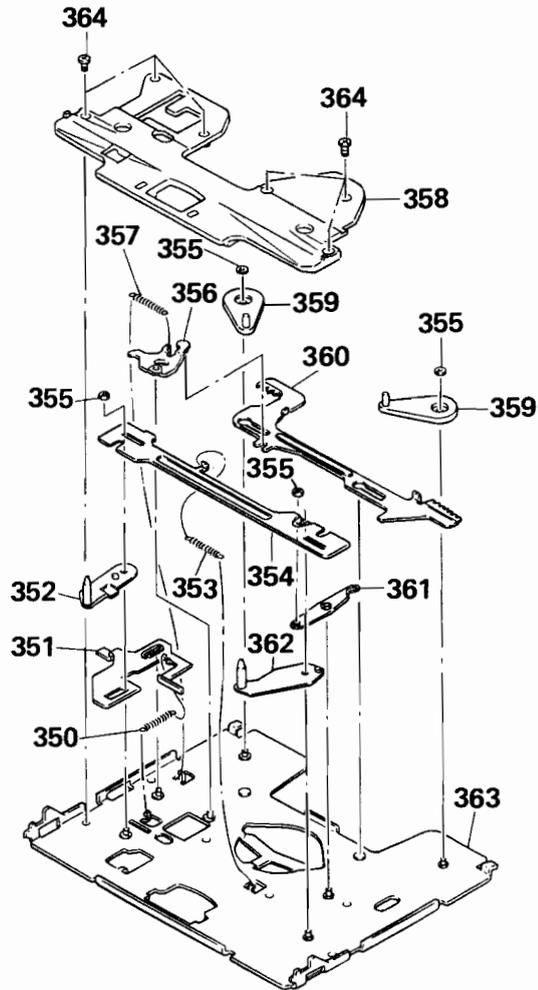
MD SECTION (2)

Ref. No.	Part No.	Part Name & Descriptions
350	S33 5144 801	Coil Spring (Lock Lever)
351	S33 5143 401	Lever (Lock)
352	SX3 3514 041	Lever (D Sensor R) Ass'y
353	S33 5144 701	Coil Spring (Coupling Plate F)
354	S33 5140 201	Coupling Plate
355	S35 7822 400	Washer
356	SX3 3514 071	Coupling Plate (R) Ass'y
357	S33 5144 601	Coil Spring (Coupling Plate R)
358	S33 5146 001	Guide (Disc)
359	S33 5143 201	Gear (DS)
360	S33 5143 301	Lever (DS)
361	SX3 3514 081	Coupling Plate (M) Ass'y
362	SX3 3514 031	Lever (D Sensor L) Ass'y
⊚ 363	SX3 3514 113	Chassis (T) Ass'y
364	S76 2755 337	Precision Screw +P 2 × 3, Type 1

DISASSEMBLY OF CD MECHANISM–(3/3)
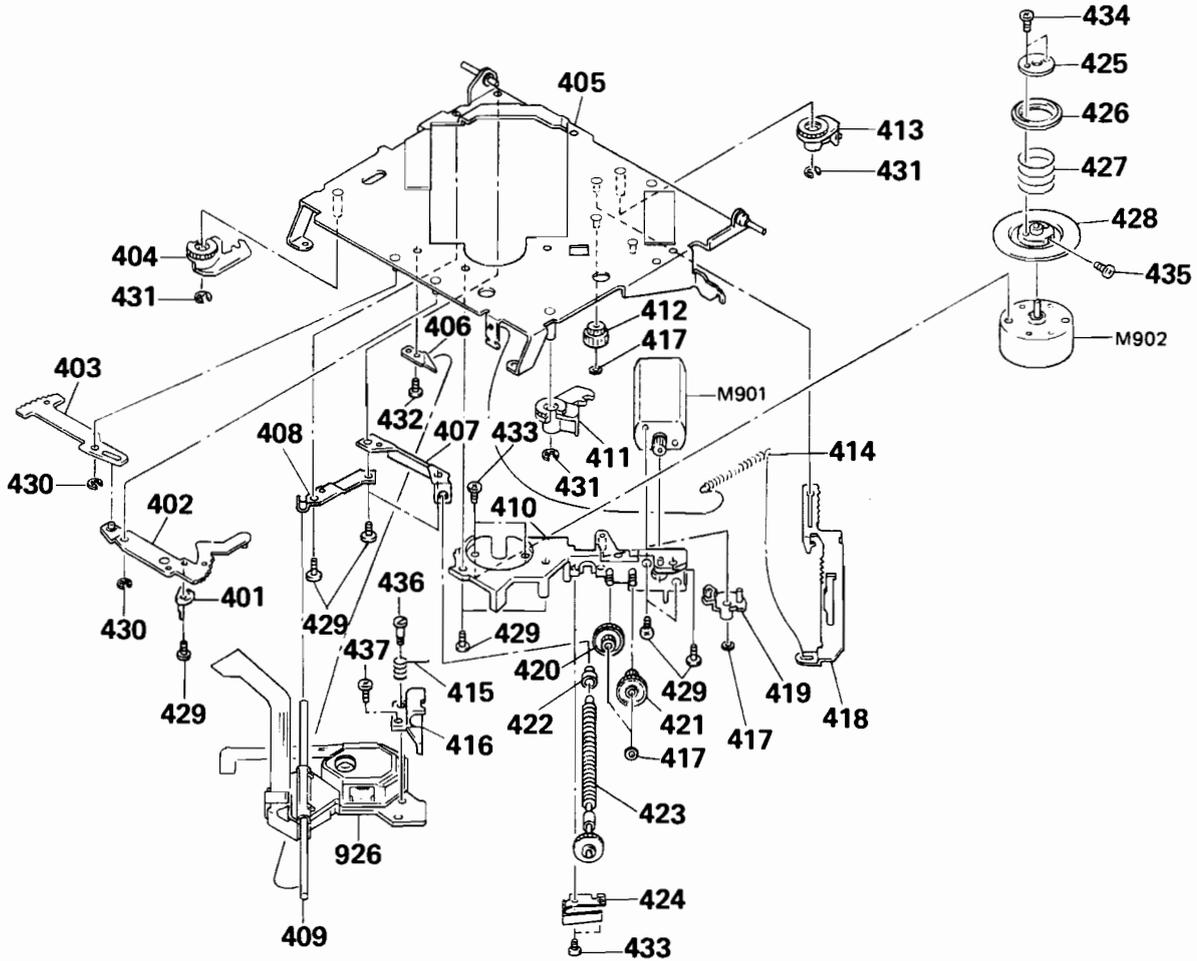
MD SECTION (3)

Ref. No.	Part No.	Part Name & Descriptions
⊚ 401	S26 4340 701	Switch Plate
⊚ 402	SX2 6415 341	Lock Lever Ass'y
⊚ 403	S26 4158 201	Lock Lever B
404	S26 4341 402	Lock Gear B
⊚ 405	SX2 6415 362	Main Chassis Ass'y
406	S26 4340 201	Shaft Holder (B)
407	S26 4340 301	Forward Screw Holder
408	S26 4340 101	Shaft Holder (A)
409	S26 4063 201	Guide Shaft
⊚ 410	SX2 6415 352	Sub Chassis Ass'y
411	S26 4341 302	Lock Gear A
412	S26 4340 501	Warm Wheel
413	S26 4159 902	Lock Gear C
414	S26 4159 502	Coil Spring
415	S26 4342 001	Forward Nut Spring
416	S26 4341 202	Forward Nut
417	S33 2181 301	Poly Washer (Cut)
⊚ 418	S26 4158 302	Lock Lever C
419	S26 4340 602	Changeable Lever
420	S26 4341 001	Gear E
421	S26 4340 901	Gear D

Ref. No.	Part No.	Part Name & Descriptions
422	S26 4340 802	Thrust Holder
423	SA4 9101 84B	Forward Screw Ass'y
424	S26 4340 401	Thrust Spring
425	S26 4065 001	Ring Stopper
426	S26 4341 801	Centering
427	S26 4061 702	Compress Coil Spring
428	SX2 6415 411	Turntable Ass'y
429	S76 2755 418	Precision Screw +P 2 × 3.5, Type 1
430	476 1001 001	E-Ring φ2
431	S76 2410 604	E-Ring φ3
432	S76 2755 317	Precision Screw +P 2 × 2, Type 3
433	S76 2755 208	Precision Screw +P 1.7 × 2,5 Type 1
434	S76 2745 117	Precision Screw +K 1.4 × 2.5, Type 1
435	S76 2745 157	Precision Screw +K 1.4 × 4, Type 1
436	S26 4342 301	SP Screw
437	S76 2785 217	Precision Screw Pan (3 Type) +P 1.7 × 4
⚠ 926	S86 4812 411	Optical Pickup KSS-168ARP
M901	SA4 9101 83A	SL Motor Ass'y (SLED)
M902	S15 4144 841	Motor (SPINDLE)

DENON