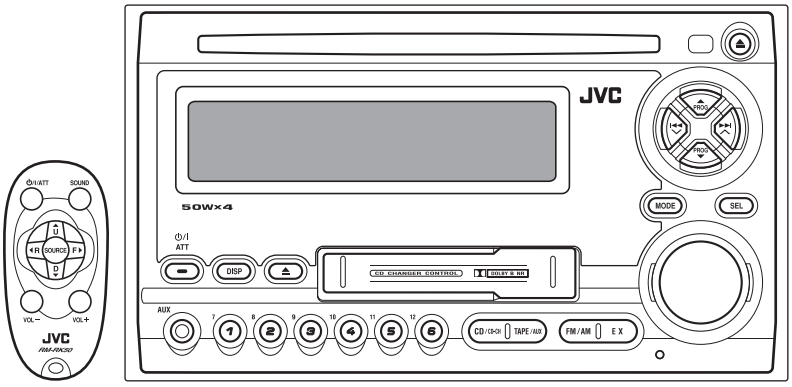
JVC

# SERVICE MANUAL

## CD/CASSETTE RECEIVER

# KW-TC410,KW-TC411

| Area suffix |
| --- |
| UN ---------- Indonesia |



COMPACT disc DIGITAL AUDIO TEXT MP3 WMA

Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade)

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No.MA244
2005/12

# SPECIFICATION

| | | |
|---|---|---|
| **AUDIO AMPLIFIER SECTION** | | |
| Maximum Power Output | Front | 50 W per channel |
| | Rear | 50 W per channel |
| Continuous Power Output (RMS) | Front | 19 W per channel into 4 Ω, 40 Hz to 20 000 Hz at no more than 0.8% total harmonic distortion. |
| | Rear | 19 W per channel into 4 Ω, 40 Hz to 20 000 Hz at no more than 0.8% total harmonic distortion. |
| Load Impedance | | 4 Ω (4 Ω to 8 Ω allowance) |
| Equalizer Control Range | Low | ±12 dB (60 Hz, 80 Hz, 100 Hz, 120 Hz) |
| | Mid | ±12 dB |
| | High | ±12 dB (8 kHz, 10 kHz, 12 kHz, 15 kHz) |
| Frequency Response | | 40 Hz to 20 000 Hz |
| Signal-to-Noise Ratio | | 70 dB |
| Line-Out Level/Impedance | | 2.0 V/20 kΩ load (full scale) |
| Output Impedance | | 1 kΩ |
| Other terminals | | CD changer, AUX (auxiliary) input jack |
| **TUNER SECTION** | | |
| Frequency Range | FM | 87.5 MHz to 108.0 MHz |
| | AM | 531 kHz to 1 602 kHz |
| [FM Tuner] | Usable Sensitivity | 11.3 dBf (1.0 μV/75 Ω) |
| | 50 dB Quieting Sensitivity | 16.3 dBf (1.8 μV/75 Ω) |
| | Alternate Channel Selectivity (400 kHz) | 65 dB |
| | Frequency Response | 40 Hz to 15 000 Hz |
| | Stereo Separation | 30 dB |
| | Capture Ratio | 1.5 dB |
| [AM Tuner] | Sensitivity | 20 μV |
| | Selectivity | 35 dB |
| **CD PLAYER SECTION** | | |
| Type | | Compact disc player |
| Signal Detection System | | Non-contact optical pickup (semiconductor laser) |
| Number of Channels | | 2 channels (stereo) |
| Frequency Response | | 5 Hz to 20 000 Hz |
| Dynamic Range | | 96 dB |
| Signal-to-Noise Ratio | | 98 dB |
| Wow and Flutter | | Less than measurable limit |
| MP3 Decoding Format (KW-TC411/KW-TC410 only) | | MPEG1/2 Audio Layer 3<br>Max. Bit Rate: 320 kbps |
| WMA (Windows Media® Audio) Decoding Format (KW-TC411/KW-TC410 only) | | Max. Bit Rate: 192 kbps |
| **CASSETTE DECK SECTION** | | |
| Wow and Flutter | | 0.1 % (WRMS) |
| Fast-Wind Time | | 100 sec. (C-60) |
| Frequency Response | | 30 Hz to 16 000 Hz (Normal tape) |
| Signal-to-Noise Ratio (Normal tape) | Dolby B NR ON | 65 dB |
| | Dolby B NR OFF | 56 dB |
| | Stereo Separation | 40 dB |
| **GENERAL** | | |
| Power Requirement | Operating Voltage | DC 14.4 V (11 V to 16 V allowance) |
| Grounding System: | | Negative ground |
| Allowable Operating Temperature | | 0°C to +40°C |
| Dimensions (W × H × D) | Installation Size (approx.) | 178 mm × 100 mm × 158 mm |
| | Set Size (approx.) | 178 mm × 100 mm × 177 mm |
| | Mass (approx.) | 2.3 kg (excluding accessories) |

Design and specification are subject to change without notice.

# SECTION 1
# PRECAUTIONS

## 1.1 Safety Precautions

> ⚠ ***CAUTION*** **Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.**

> ⚠ ***CAUTION*** **Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.**

### 1.2 Preventing static electricity

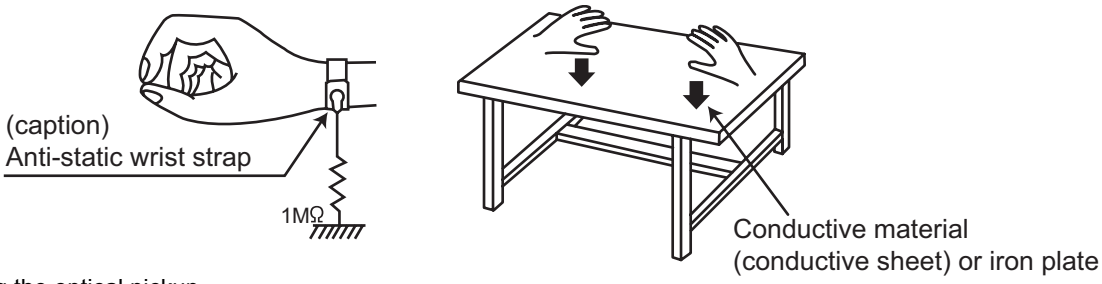
Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

#### 1.2.1 Grounding to prevent damage by static electricity

Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as CD players.
Be careful to use proper grounding in the area where repairs are being performed.

(1) Ground the workbench
Ground the workbench by laying conductive material (such as a conductive sheet) or an iron plate over it before placing the traverse unit (optical pickup) on it.

(2) Ground yourself
Use an anti-static wrist strap to release any static electricity built up in your body.




(3) Handling the optical pickup
- In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the text.)
- Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

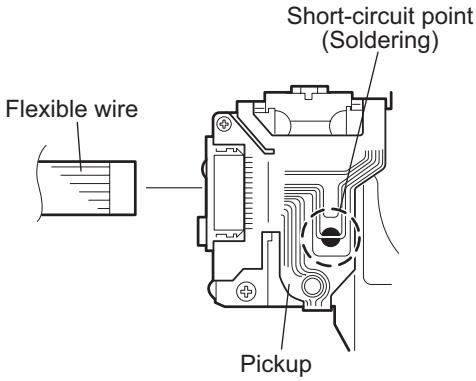
### 1.3 Handling the traverse unit (optical pickup)

(1) Do not subject the traverse unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.
(2) Cut off the shorted part of the flexible cable using nippers, etc. after replacing the optical pickup. For specific details, refer to the replacement procedure in the text. Remove the anti-static pin when replacing the traverse unit. Be careful not to take too long a time when attaching it to the connector.
(3) Handle the flexible cable carefully as it may break when subjected to strong force.
(4) It is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it.

### 1.4 Attention when traverse unit is decomposed

***Please refer to "Disassembly method" in the text for the CD pickup unit.**

- Apply solder to the short land before the flexible wire is disconnected from the connector on the CD pickup unit. (If the flexible wire is disconnected without applying solder, the CD pickup may be destroyed by static electricity.)
- In the assembly, be sure to remove solder from the short land after connecting the flexible wire.



### 1.5 Important for laser products

**1.CLASS 1 LASER PRODUCT**

**2.DANGER :** Invisible laser radiation when open and inter lock failed or defeated. Avoid direct exposure to beam.

**3.CAUTION :** There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.

**4.CAUTION :** The CD,MD and DVD player uses invisible laser radiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.

**5.CAUTION :** If safety switches malfunction, the laser is able to function.

**6.CAUTION :** Use of controls, adjustments or performance of procedures other than those specified here in may result in hazardous radiation exposure.

⚠ ***CAUTION*** **Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.**

| | |
|---|---|
| **CAUTION :** Visible and invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSUREBTO BEAM. | **VARNING :** Synlig och osynlig laserstråling när den öppnas och spärren är urkopplad. Betrakta ej strålen. |
| **ADVARSEL :** Synlig og usynlig laserstråling når maskinen er åben eller interlocken fejler. Undgå direkte eksponering til stråling. | **VARO :** Avattaessa ja suojalukitus ohitettuna tai viallisena olet alttiina näkyvälle ja näkymätttömälle lasersäteilylle. Vältä säteen kohdistumista suoraan itseesi. |

REPRODUCTION AND POSITION OF LABELS

**WARNING LABEL**

CLASS 1
LASER PRODUCT

| | | | |
|---|---|---|---|
| **CAUTION** : Visible and Invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM. (e) | **ADVARSEL** : Synlig og usynlig laserstråling når maskinen er åben eller interlocken fejeler. Undgå direkte eksponering til stråling. (d) | **VARNING** : Synlig och osynling laserstrålning när den öppnas och spärren är urkopplad. Betrakta ej strålen. (s) | **VARO**: Avattaessa ja suojalukitus ohitettuna tai viallisena olet alttiina näkyvälle ja näkymättömälle lasersäteilylle. Vältä säteen kohdistumista suoraan itseesi. (f) |

# SECTION 2
# SPECIFIC SERVICE INSTRUCTIONS

### 2.1 CD mechanism and cassette mechanism

For the CD mechanism, please refer the mechanism manual TN2001-1013 No.MY001.
For the Cassette mechanism, please refer the mechanism manual CDS-802JE3 No.MY002.

# SECTION 3
# DISASSEMBLY

### 3.1 Main body section

#### 3.1.1 Removing the front panel assembly (See Figs.1 and 2)

(1) From the both side of the main body, remove the two screws **A** attaching the front panel assembly. (See Figs.1 and 2.)

(2) Release the four joints **a** and remove the front panel assembly in the direction of the arrow. (See Figs.1 and 2.)

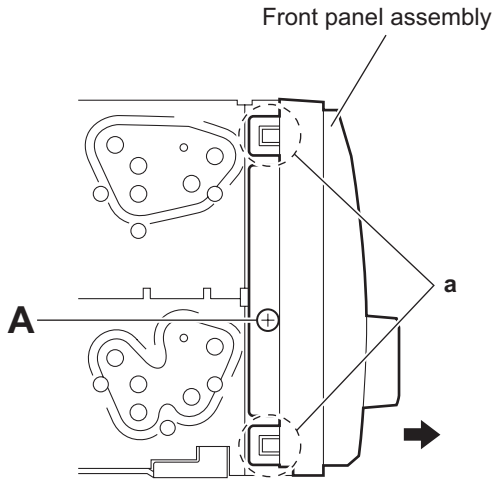



Fig.1

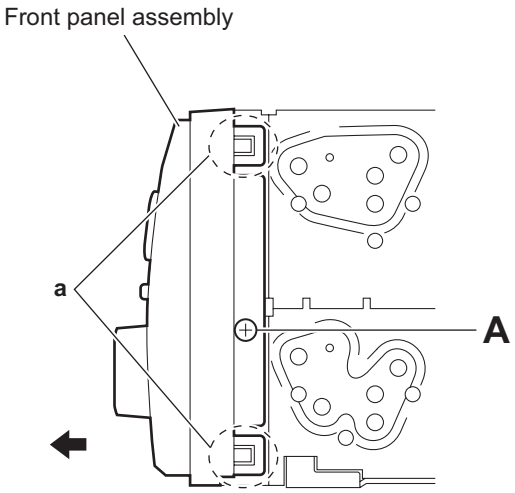



Fig.2

### 3.1.2 Removing the heat sink (See Figs.3 and 4)

(1) From the back side of the main body, remove the six screws **B** attaching the heat sink. (See Fig.3.)
(2) Remove the heat sink from the main body.

**Note:**

- Before attaching the heat sink, attach the cooling rubbers on the power amplifier IC. (See Fig.4)
- When attaching the heat sink, set the projections **b** on the rear bracket in the holes of the heat sink. (See Fig.3.)

### 3.1.3 Removing the rear bracket (See Fig.4)

- Remove the heat sink.

(1) From the back side of the main body, remove the six screws **C**, two screws **D** and screw **E** attaching the rear bracket.
(2) Remove the rear bracket from the main body.

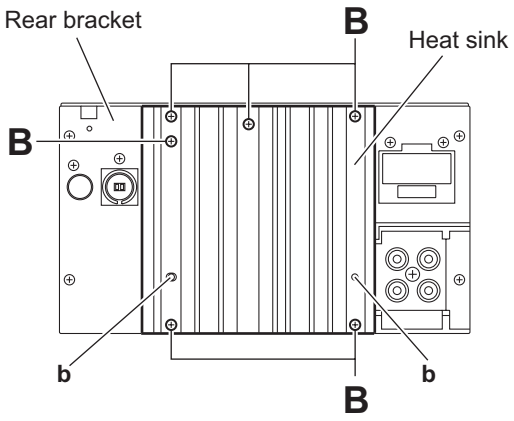



Fig.3

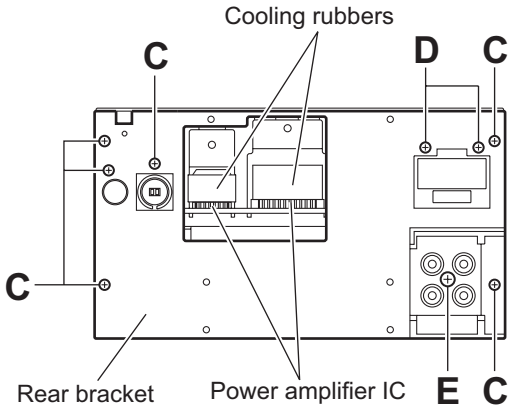



Fig.4

### 3.1.4 Removing the bottom chassis assembly (See Fig.5)

- Remove the front panel assembly, heat sink and rear bracket.

(1) From the bottom side of the main body, remove the four screws **F** attaching the bottom chassis assembly.
(2) Take out the bottom chassis assembly from the main body.

**Reference:**

When attaching the bottom chassis assembly, set the projections **c** of the main body in the holes of the bottom chassis assembly.

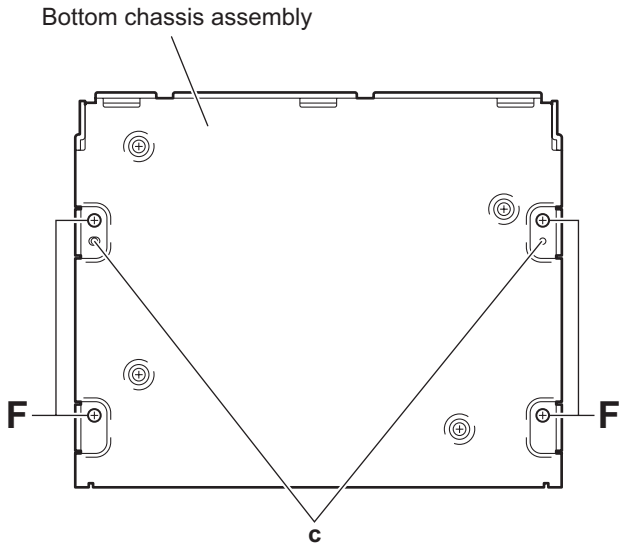



Fig.5

### 3.1.5 Removing the cassette mechanism control board (See Fig.6)

- Remove the front panel assembly, heat sink, rear bracket and bottom chassis assembly.
  (1) From the inside of the bottom chassis assembly, disconnect the card wire from the connector CN403 on the cassette mechanism control board.
  (2) Disconnect the wire from the connector CN402 on the cassette mechanism control board.
  (3) Remove the three screws **G** attaching the cassette mechanism control board.
  (4) Take out the cassette mechanism control board from the bottom chassis assembly.

**Reference:**

- When attaching the cassette mechanism control board, set the projections **d** of the bottom chassis assembly in the holes of the cassette mechanism control board.
- After attaching the cassette mechanism control board, fix the wire with the wire clamp as before.

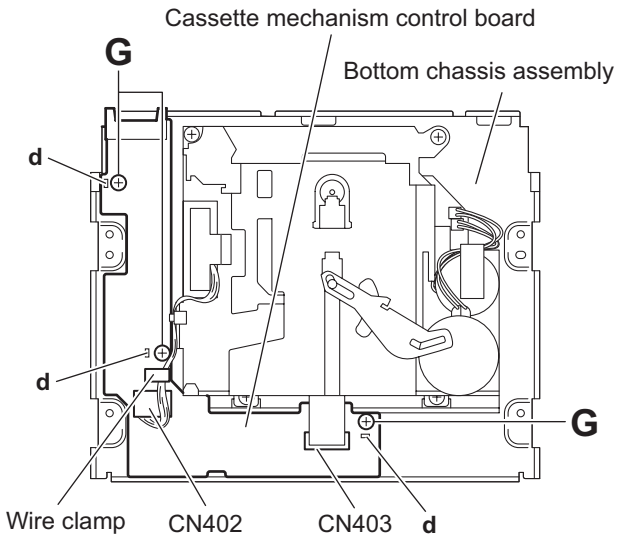



Fig.6

### 3.1.6 Removing the cassette mechanism assembly (See Fig.7)

- Remove the front panel assembly, heat sink, rear bracket and bottom chassis assembly.
  (1) From the inside of the bottom chassis assembly, disconnect the card wire from the connector CN403 on the cassette mechanism control board.
  (2) Disconnect the wire from the connector CN402 on the cassette mechanism control board.
  (3) Remove the four screws **H** attaching the cassette mechanism assembly.

**Reference:**

After attaching the cassette mechanism control board, fix the wire with the wire clamp as before.

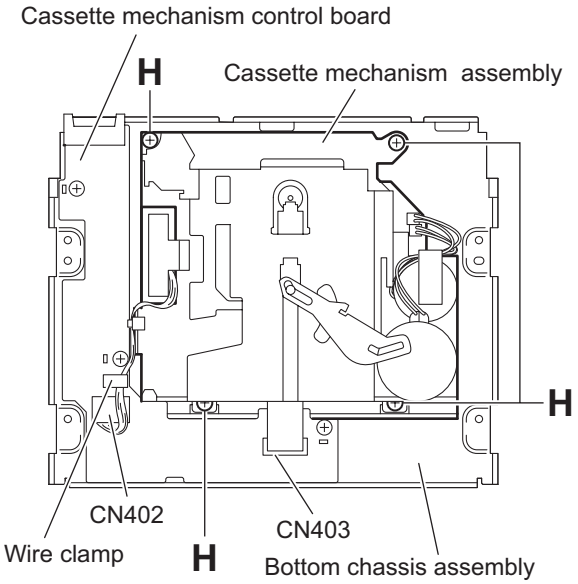



Fig.7

### 3.1.7 Removing the func board (See Fig.8)

- Remove the front panel assembly, heat sink, rear bracket and bottom chassis assembly.
  (1) From the bottom side of the main body, disconnect the wire from the connector CN321 on the func board.
  (2) Remove the screw **J** and take out the func board from the main body.

### 3.1.8 Removing the middle chassis assembly (See Fig.8)

- Remove the front panel assembly, heat sink, rear bracket and bottom chassis assembly.
  (1) From the bottom side of the main body, remove the four screws **K** attaching the middle chassis assembly.
  (2) Disconnect the connector CN705 of the main board on the middle chassis assembly from the CD mechanism assembly in an upward direction.

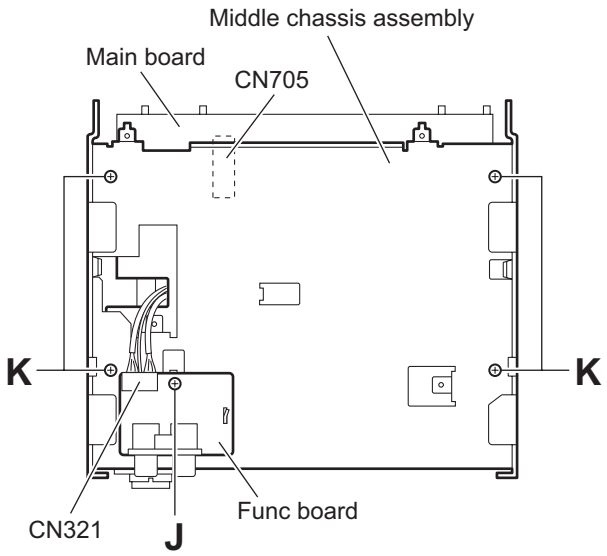



Fig.8

### 3.1.9 Removing the main board (See Fig.9)

- Remove the front panel assembly, heat sink, rear bracket, bottom chassis assembly and middle chassis assembly.
  (1) From the top side of the middle chassis assembly, disconnect the wire from the connector CN323 on the main board.
  (2) Remove the four screws **M** attaching the main board on the middle chassis.
  (3) Remove the main board from the middle chassis.

**Reference:**

When attaching the main board, set the projections **e** of the middle chassis in the holes of the main board.

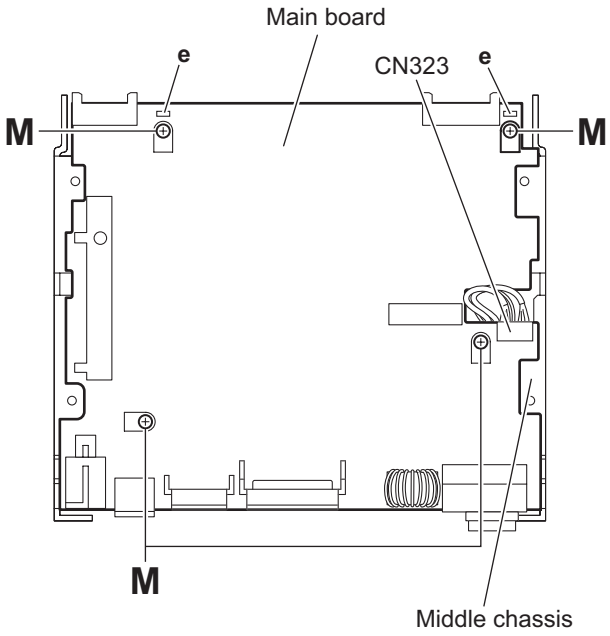



Fig.9

### 3.1.10 Removing the CD mechanism control board (See Fig.10)

- Remove the front panel assembly, heat sink, rear bracket, bottom chassis assembly and middle chassis assembly.
  (1) From the inside of the top chassis assembly, disconnect the card wire from the connector CN601 on the CD mechanism control board.
  (2) Remove the five screws **N** attaching the CD mechanism control board.
  (3) Lift the CD mechanism control board to remove the joint **f** and remove the joint **g** in the direction of the arrow.

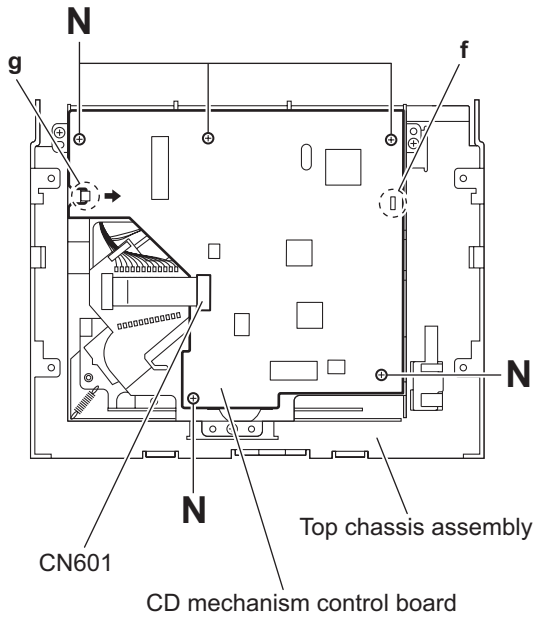



Fig.10

### 3.1.11 Removing the CD mechanism assembly (See Fig.11)

- Remove the front panel assembly, heat sink, rear bracket, bottom chassis assembly, middle chassis assembly and CD mechanism control board.
  (1) From the inside of the top chassis assembly, remove the three screws **P** attaching the CD mechanism assembly.
  (2) Take out the CD mechanism assembly from the top chassis.

**Reference:**

When attaching the CD mechanism assembly, set the projections **h** of the top chassis assembly in the holes of the CD mechanism assembly.

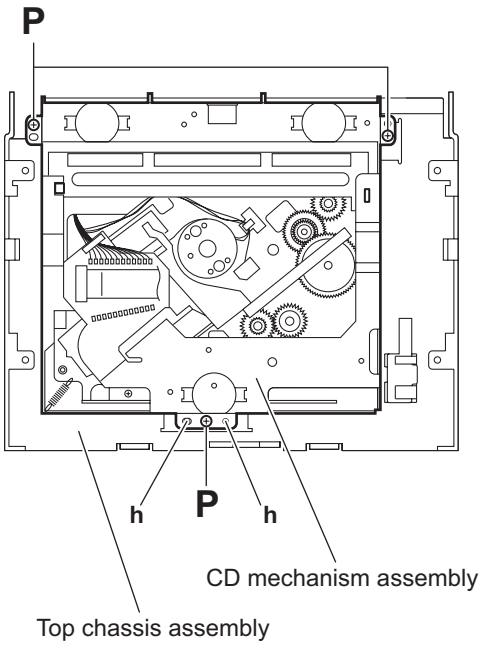



Fig.11

### 3.1.12 Removing the switch board (See Fig.12)

- Remove the front panel assembly.
  (1) From the inside of front panel assembly, remove the thirteen screws **Q** attaching the switch board.
  (2) Remove the volume knob from the front side of the front panel assembly in the direction of the arrow while lifting the switch board little by little.
  (3) Release the sections j while extending the lower section of the front panel assembly in the direction of the arrow and take out the switch board.

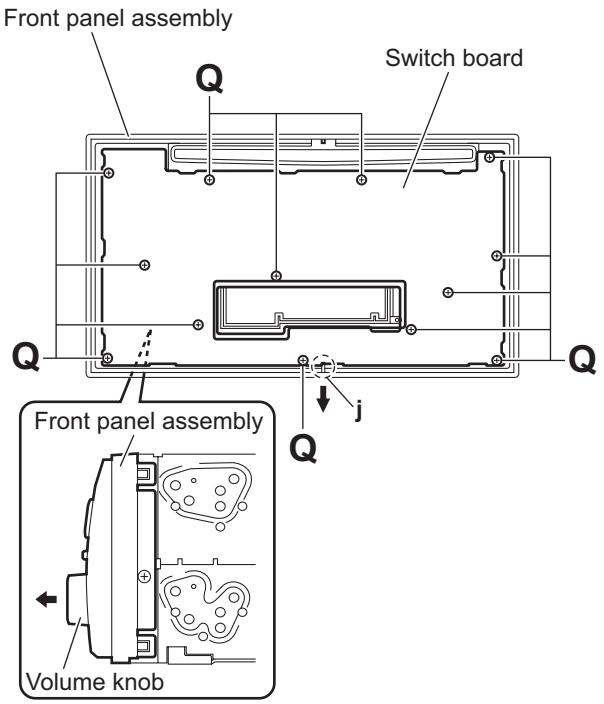



Fig.12

# SECTION 4
# ADJUSTMENT

### 4.1 Adjustment method

■ **Test instruments required for adjustment**

(1) Digital oscilloscope (100MHz)
(2) Frequency counter meter
(3) Electric voltmeter
(4) Wow & flutter meter
(5) Test tapes
- VT724.....For DOLBY level measurement
- VT739.....For playback frequency measurement
- VT712....For wow flutter & tape speed measurement
- VT703.....For head azimuth measurement

(6) Torque gauge.....Cassette type for CTG-N
(Mechanism adjustment)
(7) Laser power meter(Reader:LP800102)
(8) Prove for MD (Reader:LP8010-02)
(9) Pre masterd disc (TGYS-1)
(10)Test disc (JVC:CTS1000)

■ **Measuring conditions (Amplifier section)**

- Power supply voltage..... DC14.4V (11V to 16V allowance)
- Load impedance..... 4Ω (4Ω to 8Ω allowance)
- Line out level/Impedance.....1.0V/20k load (250 nWb/m)

■ **Standard volume position**

Balance and Bass, Treble volume, Fader : Center (Indication "0")
Loudness, Dolby NR, Sound, Cruise : Off
Volume position is about 2V at speaker output with following conditions, Playback the test tape VT721.

| | |
|---|---|
| AM mode | 999kHz/62dB, INT/400Hz, 30% modulation signal on receiving. |
| FM mono mode | 97.9MHz/66dB, INT/400Hz, 22.5kHz deviation pilot off mono |
| FM stereo mode | 1kHz, 67.5kHz dev. pilot 7.5kHz dev. |
| Output level | 0dB (1μV,50Ω/open terminal) |

■ **Information for using a car audio service jig**

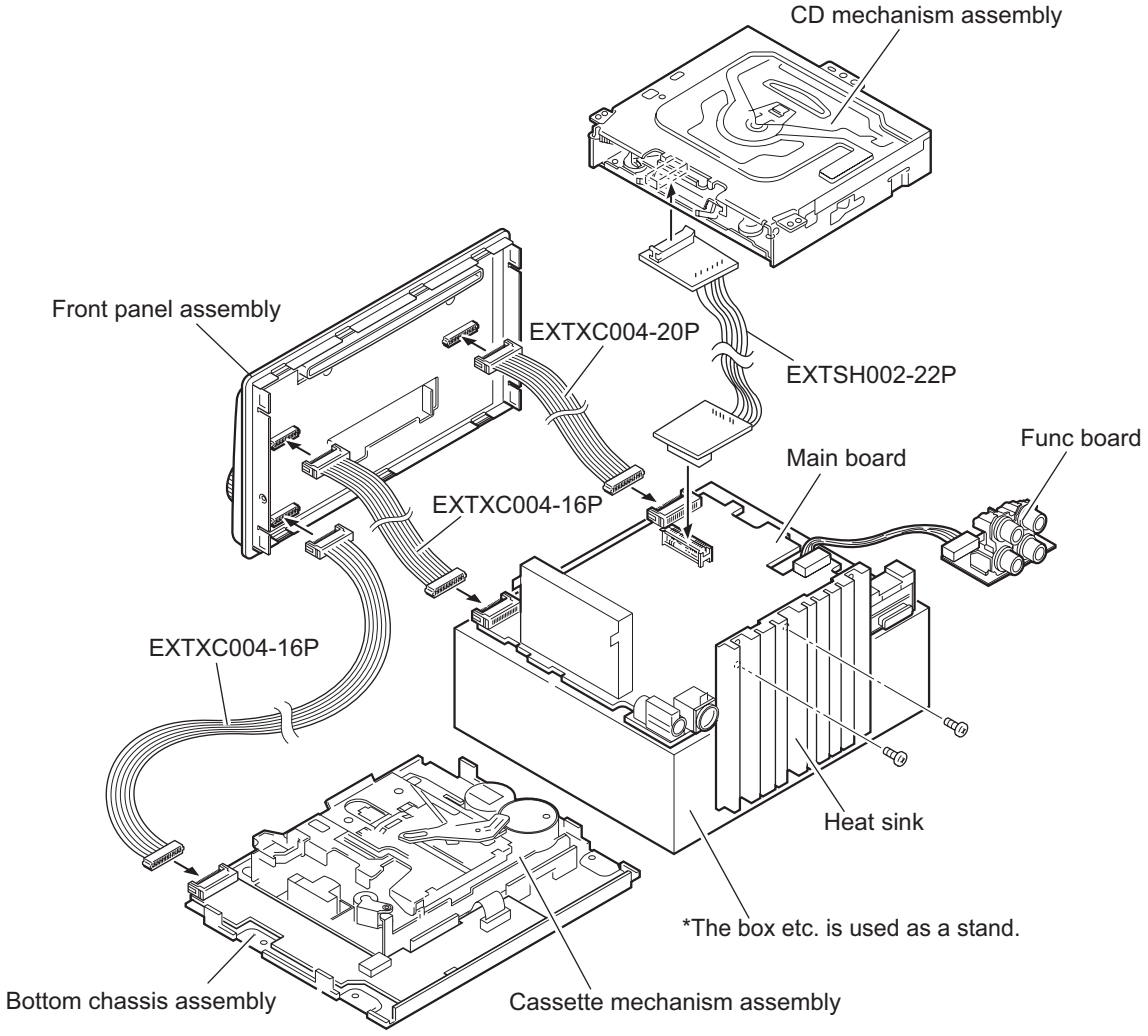
(1) We're advancing efforts to make our extension cords common for all car audio products.
Please use this type of extension cord as follows.
(2) As a U-shape type top cover is employed, this type of extension cord is needed to check operation of the mechanism assembly after disassembly.
(3) Extension cord : EXTSH002-22P ( 22 pin extension cord ) For connection between the mechanism assembly and main board.
EXTXC004-20P ( 20 pin extension cord ) For connection between the front panel assembly and main board.
EXTXC004-16P ( 16 pin extension cord ) For connection between the front panel assembly and main board.
EXTXC004-16P ( 16 pin extension cord ) For connection between the front panel assembly and cassette mechanism assembly.
(4) Check for mechanism driving section such as motor ,etc.

■ **Disassembly method**

(1) Remove the front panel assembly.
(2) Remove the heat sink.
(3) Remove the rear bracket.
(4) Remove the bottom chassis assembly and middle chassis assembly.
(5) Remove the main board.
(6) Remove the CD mechanism assembly.
(7) Reattach the heat sink with two screws to the main board. (Refer to Disassembly method.)
(8) Connect the main board, front panel assembly, bottom chassis assembly and CD mechanism assembly with the extension cords.

**CAUTION :**

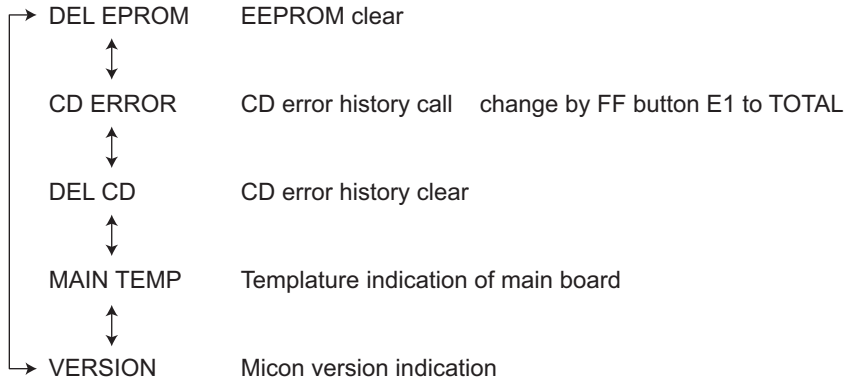
**Be sure to attach a heat sink on the power amplifier IC of a main board when supplying the power.**
**If voltage is applied without attaching the heat sink, the**
**power amplifier IC will be destroyed by heat.**



### 4.2 Service mode

Set up

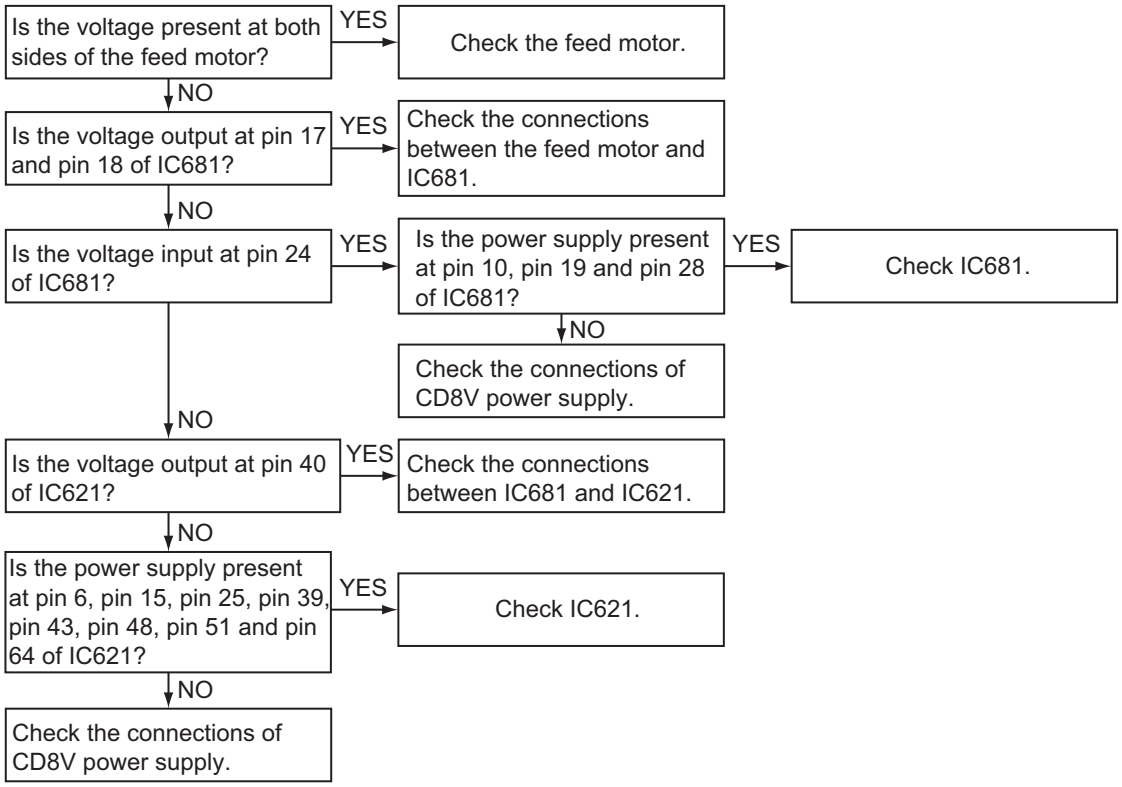
Press POWER ON [SEL] → [POWER] → [CD EJECT] together more than 2 sec.
UP,DW button to select
SEL button to determination



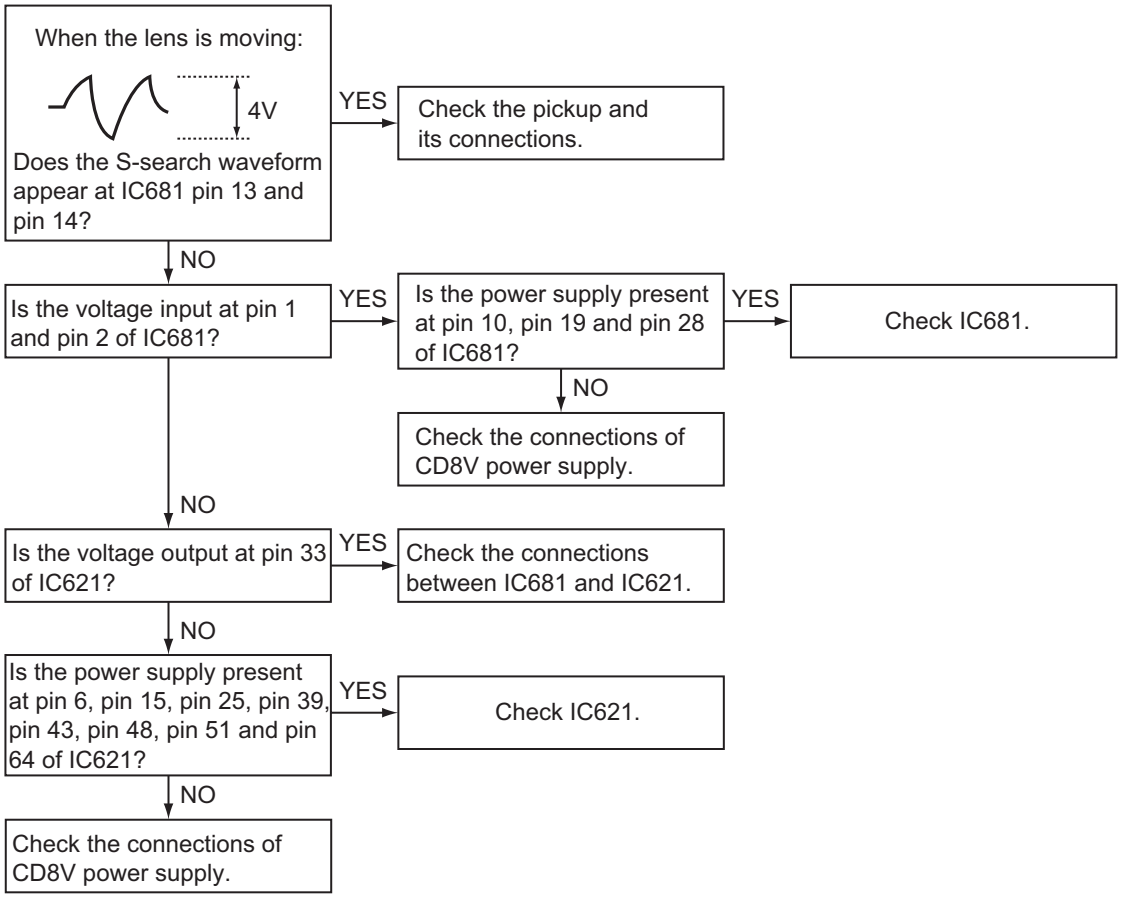

For next operation, service mode is stop automaticaly.
1. No input signal (key operation) more than 5 sec.
2. press other key without SEL,UP,DOWN.
3. ACC to OFF.

# SECTION 5
# TROUBLESHOOTING

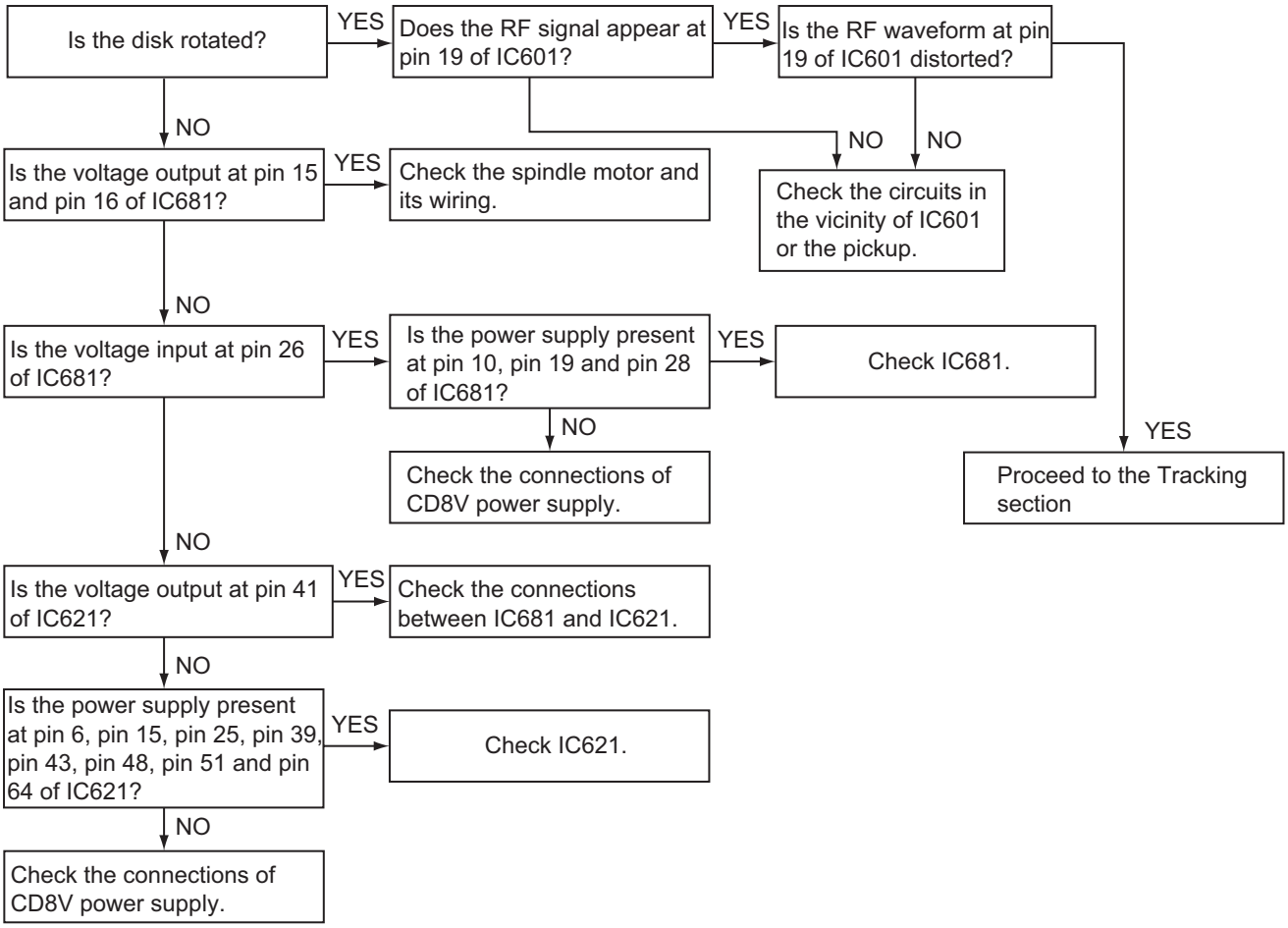
## 5.1 Feed section



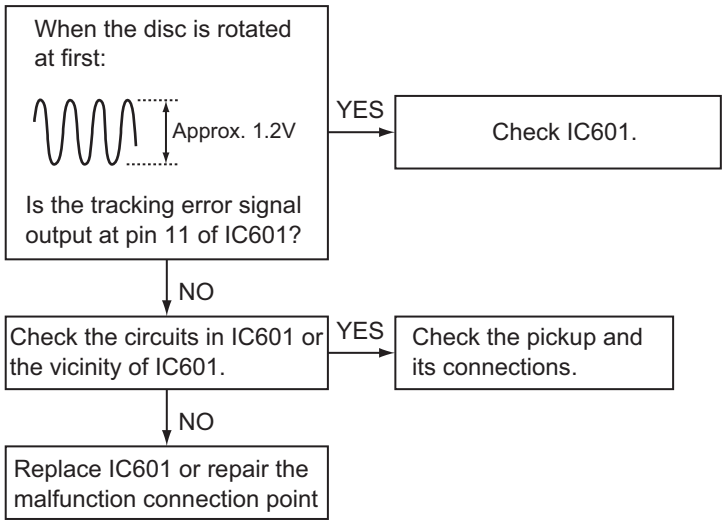

## 5.2 Focus section



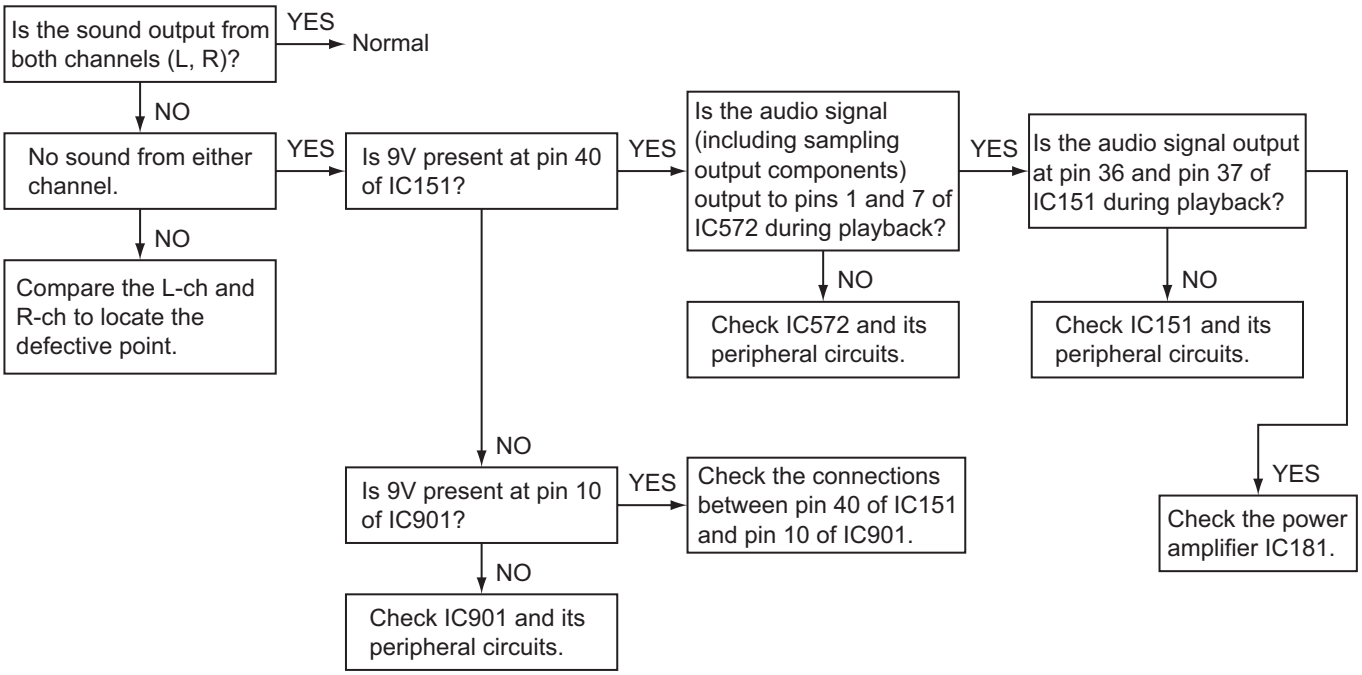
### 5.3 Spindle section




### 5.4 Tracking section



### 5.5 Signal processing section

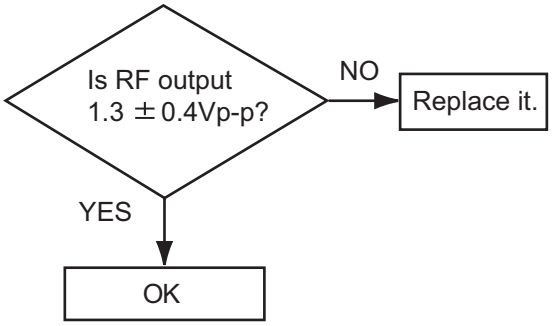


### 5.6 Maintenance of laser pickup

(1) Cleaning the pick up lens
Before you replace the pick up, please try to clean the lens with a alcohol soaked cotton swab.

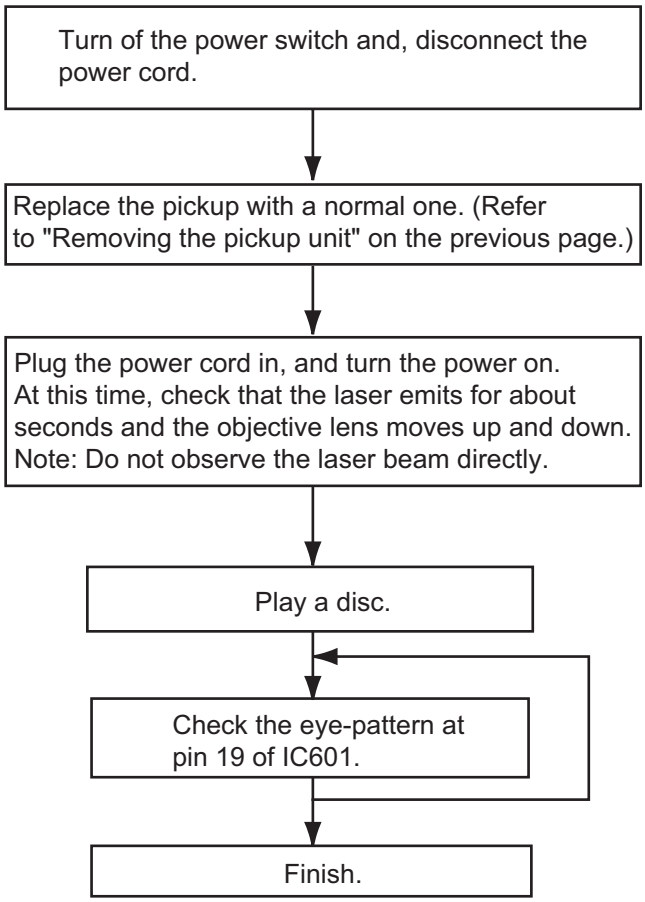
(2) Life of the laser diode
When the life of the laser diode has expired, the following symptoms will appear.

- The level of RF output (EFM output: amplitude of eye pattern) will be low.

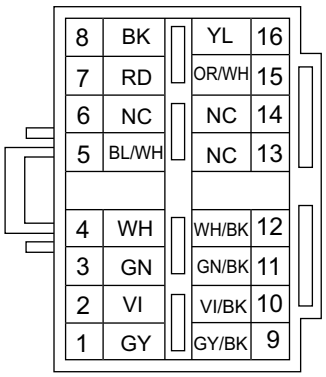



(3) Semi-fixed resistor on the APC PC board
The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power.Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.
If the laser power is lower than the specified value, the laser diode is almost worn out, and the laser pickup should be replaced. If the semi-fixed resistor is adjusted while the pickup is functioning normally, the laser pickup may be damaged due to excessive current.

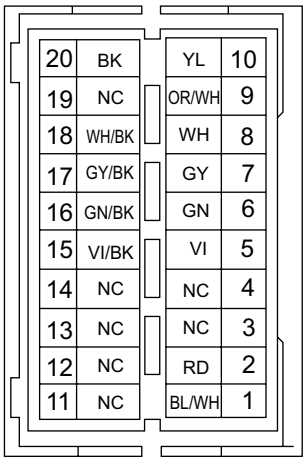
### 5.7 Replacement of laser pickup



### 5.8 16 PIN CORD DIAGRAM




| | | | |
|---|---|---|---|
| BK | Black | GN | Green |
| RD | Red | VI | Violet |
| BL | Blue | GY | Gray |
| WH | White | YL | Yellow |
| | | OR | Orange |



JVC
Victor Company of Japan, Limited
Mobile Entertainment Business Group Mobile Entertainment Category 10-1,1chome,Ohwatari-machi,Maebashi-city,371-8543,Japan

(No.MA244)

Printed in Japan
VPT

ENGLISH

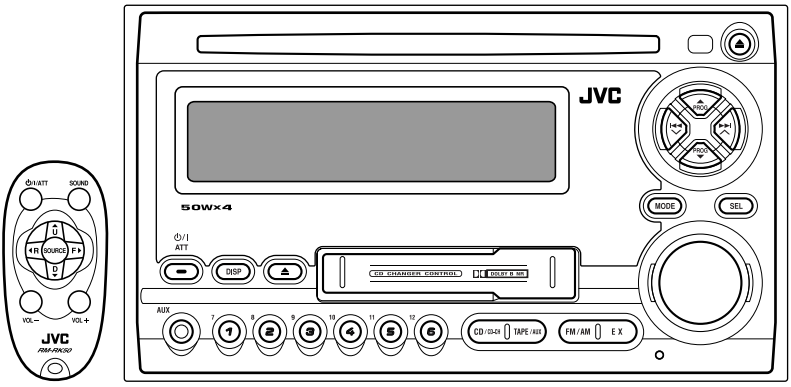
INDONESIA

# CD/CASSETTE RECEIVER

**KW-TC411/KW-TC410/**
**KW-TC111/KW-TC110**

# ALAT PENERIMA CD/KASET

**KW-TC411/KW-TC410/**
**KW-TC111/KW-TC110**




**KW-TC411/KW-TC410:**

COMPACT disc DIGITAL AUDIO TEXT

MP3 WMA

**KW-TC111/KW-TC110:**

COMPACT disc DIGITAL AUDIO TEXT

CD-RW

For canceling the display demonstration, see page 8.
Untuk membatalkan tampilan demonstrasi, lihat halaman 8.

# *INSTRUCTIONS*
## *BUKU PETUNJUK*

GET0315-001A
[UN]

Thank you for purchasing a JVC product.
Please read all instructions carefully before operation, to ensure your complete understanding and to obtain the best possible performance from the unit.

## IMPORTANT FOR LASER PRODUCTS

1. CLASS 1 LASER PRODUCT
2. **CAUTION:** Do not open the top cover. There are no user serviceable parts inside the unit; leave all servicing to qualified service personnel.
3. **CAUTION:** Visible and invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
4. REPRODUCTION OF LABEL: CAUTION LABEL, PLACED OUTSIDE THE UNIT.

| | | | |
|---|---|---|---|
| **CAUTION :** Visible and invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM. (e) | **ADVARSEL :** Synlig og usynlig laserstråling når maskinen er åben eller interlocken fejler. Undgå direkte eksponering til stråling. (d) | **VARNING :** Synlig och osynlig laserstrålning när den öppnas och spärren är urkopplad. Betrakta ej stråien. (s) | **VARO :** Avattaessa ja suojalukitus ohitettuna tai viallisena olet alttiina näkyvälle ja näkymättömälle lasersäteilylle. Välitä säteen kohdistumista suoraan itseesi. (f) |

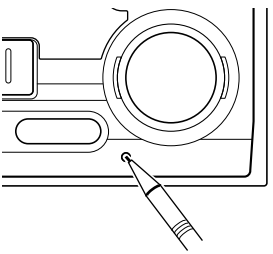
**Warning:**

If you need to operate the unit while driving, be sure to look ahead carefully or you may be involved in a traffic accident.

**Caution on volume setting:**

Discs produce very little noise compared with other sources. Lower the volume before playing a disc to avoid damaging the speakers by the sudden increase of the output level.

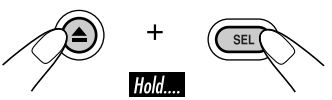
### How to reset your unit



*This will reset the microcomputer. Your preset adjustments will also be erased.*

### How to forcibly eject a disc

If a disc cannot be recognized or cannot be ejected, eject the disc as follows.




- *If this does not work, reset your unit.*
- *Be careful not to drop the disc when it ejects.*

# Contents


How to reset your unit ..... 2
How to forcibly eject a disc ..... 2
How to read this manual ..... 4
How to use the MODE button ..... 4

**Control panel — KW-TC411/ KW-TC410/KW-TC111/KW-TC110 .... 5**
Parts identification ..... 5

**Remote controller — RM-RK50 ... 6**
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**Getting started ..... 7**
**Basic operations ..... 7**
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Storing stations in memory ..... 9
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**Selecting preset sound modes (EQ: equalizer) ..... 18**
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Handling cassettes ..... 23

**More about this unit ..... 24**

**Troubleshooting ..... 27**

**Specifications ..... 29**


ENGLISH

## For safety....

- Do not raise the volume level too much, as this will block outside sounds, making driving dangerous.
- Stop the car before performing any complicated operations.

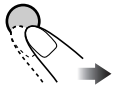
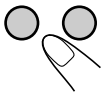
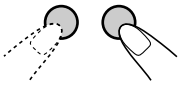
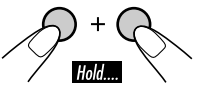
## Temperature inside the car....

If you have parked the car for a long time in hot or cold weather, wait until the temperature in the car becomes normal before operating the unit.

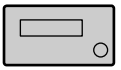
## How to read this manual

The following methods are used to make the explanations simple and easy-to-understand:

- Some related tips and notes are explained in "More about this unit" (see pages 24 – 26).
- Button operations are mainly explained with the illustrations as follows:

| | |
|---|---|
| | Press briefly. |
|  | Press repeatedly. |
|  | Press either one. |
|  | |
| | Press and hold until your desired response begins. |
|  | Press and hold both buttons at the same time. |

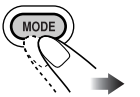
**The following marks are used to indicate...**

 : Built-in CD player operations.

: External CD changer operations.

## How to use the MODE button

Press MODE repeatedly to select the different functions available during play.




Time countdown indicator

Ex.: When "SSM" is selected

**While listening to the radio:**

- You cannot select "SSM" or "SCAN" if you are listening to the station stored in the EX (extra) button, see page 10 for details.

**SSM → SCAN → MONO**
**Canceled**
(Station frequency)*

**While listening to a disc:**

**▼–10 +10 ▲ → REPEAT → RANDOM**
**Canceled ← INTRO**
(Track no. and Elapsed playing time)*

**While listening to a tape:**

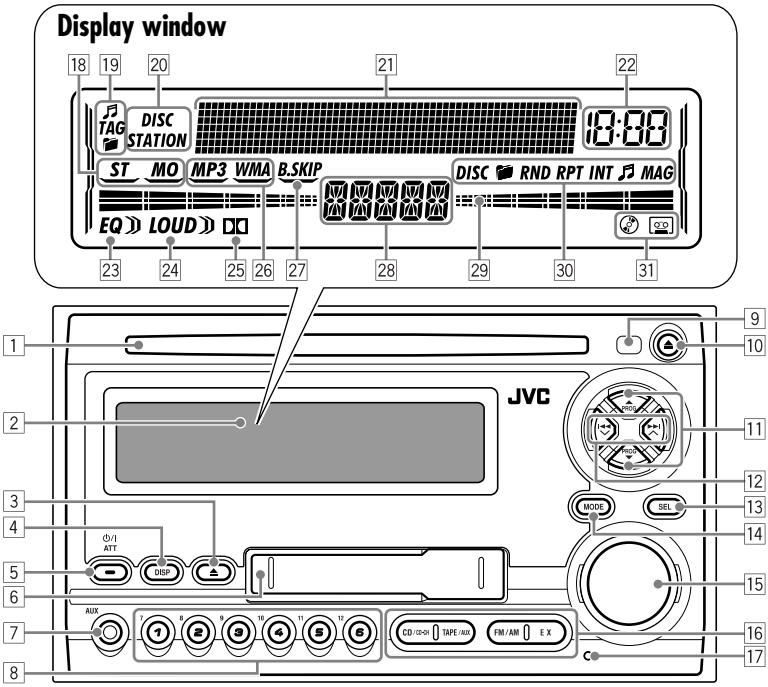
**DOLBY B → B.SKIP → REPEAT**
**Canceled**
(Playback direction)*

**While adjusting the sound mode:**

- Pressing MODE allows you to store the adjusted sound mode into memory. (See page 19 for details.)

** Depending on the level meter setting. (See page 20 for details.)*

## Parts identification




1 Loading slot
2 Display window
3 ▲ (tape eject) button
4 DISP (display) button
5 ⏻/I ATT (standby/on attenuator) button
6 Cassette compartment
7 AUX (auxiliary) input jack
8 Number buttons
9 Remote sensor
- *DO NOT expose the remote sensor to strong light (direct sunlight or artificial lighting).*

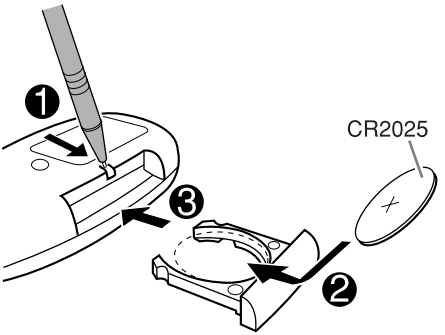
10 ▲ (CD eject) button
11 ▲ PROG (program) / ▼ PROG (program) buttons
12 ⏮ ⌄ / ⏭ ⌃ buttons
13 SEL (select) button
14 MODE button
15 Control dial
16 Source buttons—CD/CD-CH, TAPE/AUX, FM/AM, EX (extra)
17 Reset button

### Display window

18 Tuner reception indicators—ST (stereo), MO (monaural)
19 Disc information indicators—♫ (track/file), TAG (ID3 Tag), 🗀 (folder)
20 Text name indicators—DISC, STATION
21 Main display, level meter
22 Clock indicator
23 EQ (equalizer) indicator
24 LOUD (loudness) indicator
25 DD (Dolby B NR) indicator
26 Playback disc indicators—MP3, WMA
27 B.SKIP (blank skip) indicator
28 Source display
29 Level meter, volume meter, time countdown indicator
30 Playback mode indicators—DISC, 🗀 (folder), RND (random), RPT (repeat), INT (intro), ♫ (track/file), MAG (magazine)
31 Loaded source indicators— (disc), (tape)

# Remote controller — RM-RK50

## Installing the lithium coin battery (CR2025)

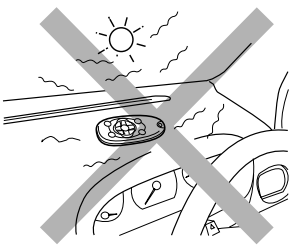



- **When operating, aim the remote controller directly at the remote sensor on the unit. Make sure there is no obstacle in between.**

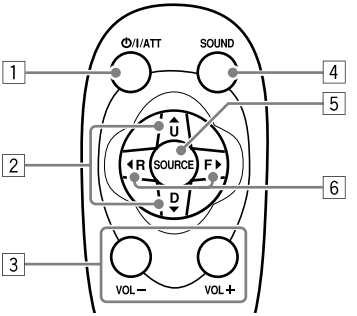
**Warning:**

- Do not install any battery other than CR2025 or its equivalent; otherwise, it may explode.
- Store the battery in a place where children cannot reach to avoid risk of accident.
- To prevent the battery from over-heating, cracking, or starting a fire:
  - Do not recharge, short, disassemble, heat the battery, or dispose of it in a fire.
  - Do not leave the battery with other metallic materials.
  - Do not poke the battery with tweezers or similar tools.
  - Wrap the battery with tape and insulate when throwing away or saving it.

**Caution:**



## Main elements and features




1 ⏻/I/ATT (standby/on/attenuator) button
- Turns the power on if pressed briefly or attenuates the sound when the power is on.
- Turns the power off if pressed and held.

2 ▲ U (up) / D (down) ▼ buttons
- Changes the FM/AM bands with ▲ U only.
- Changes the preset stations with D ▼ only.
- Changes the folder of the MP3/WMA discs (only for KW-TC411/KW-TC410).
- Changes the tape directions with ▲ U only.
- While playing an MP3 disc on an MP3-compatible CD changer:
  – Changes the disc if pressed briefly.
  – Changes the folder if pressed and held.

3 VOL – / VOL + buttons
- Adjusts the volume level.

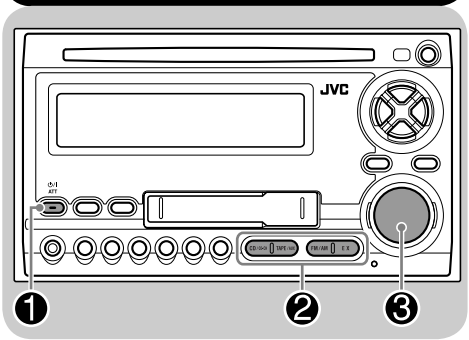
4 SOUND button
- Selects the sound mode (EQ: equalizer).

5 SOURCE button
- Selects the source.

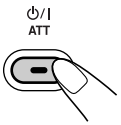
6 ◄ R (reverse) / F (forward) ► buttons
- Searches for stations if pressed briefly.
- Fast-forwards or reverses the track if pressed and held.
- Changes the tracks of the disc if pressed briefly.
- Fast-forwards or reverses the tape if pressed and held.*
- Finds the beginning of a tune (MMS) while listening to a tape if pressed briefly.*

** To release these operations, press ▲ U. Playback resumes.*

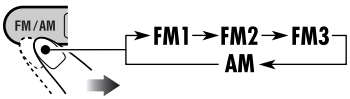
## Basic operations



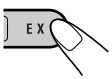

**1** **Turn on the power.**




**2** **For FM/AM tuner**

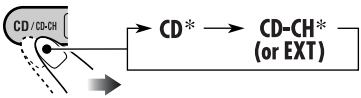



**For your favorite station**




- Stored your favorite station, see page 10 for details.

**For CD/CD-CH**

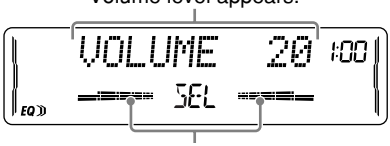



**For TAPE/AUX**

** You cannot select these sources if they are not ready.*

**3** **Adjust the volume.**

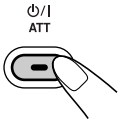
Volume level appears.




Volume level indicator

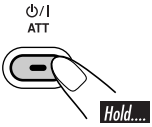
**4** **Adjust the sound as you want. (See pages 18 and 19.)**

### To drop the volume in a moment (ATT)




To restore the sound, press it again.

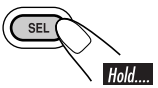
### To turn off the power



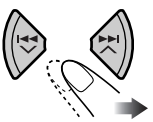
## Canceling the display demonstrations

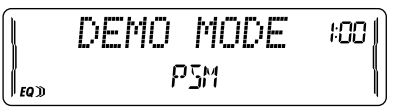
If no operations are done for about 20 seconds, display demonstration starts.
*[Initial: DEMO ON]—see page 20.*

**1**

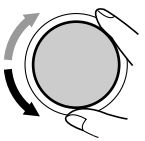



**2**

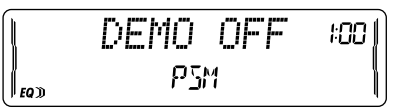




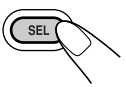

**3**



DEMO OFF ↔ DEMO ON

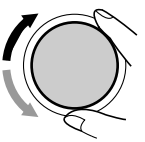



**4 Finish the procedure.**




### To activate the display demonstration

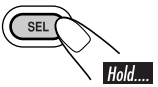
In step **3** above...



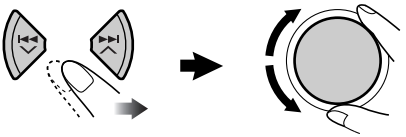
DEMO OFF ↔ DEMO ON

## Setting the clock

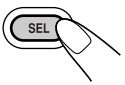
**1**



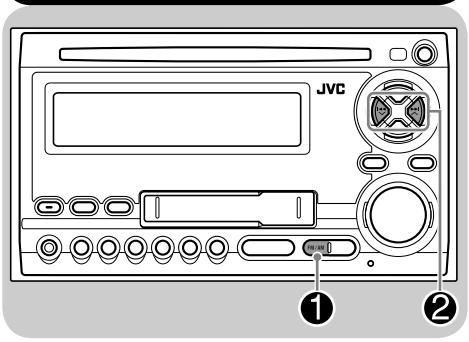

**2 Set the hour and minute.**
1 **Select "CLOCK HOUR," then adjust the hour.**
2 **Select "CLOCK MIN," (minute) then adjust the minute.**



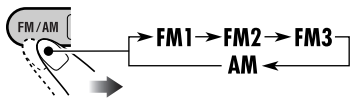
**3 Finish the procedure.**



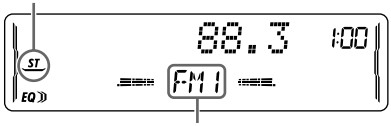
## Listening to the radio




**1**



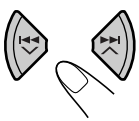

Lights up when receiving an FM stereo broadcast with sufficient signal strength.




Selected band appears.

**2**

**Start searching for a station.**



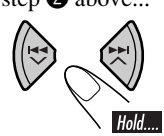
When a station is received, searching stops.

**To stop searching,** press the same button again.

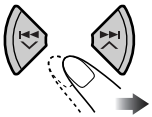
### To tune in to a station manually

In step ❷ above...

1

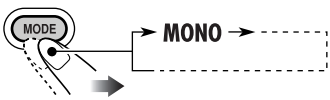


2 **Select the desired station frequencies.**



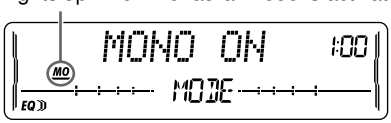
### When an FM stereo broadcast is hard to receive

1




2

Lights up when monaural mode is activated.




Reception improves, but stereo effect will be lost.

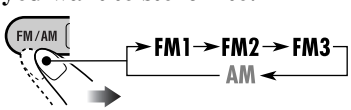
**To restore the stereo effect,** repeat the same procedure. Then, in step 2, select "MONO OFF."

## Storing stations in memory

You can preset six stations for each band.

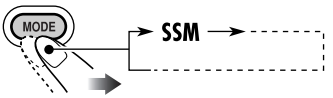
### FM station automatic presetting—SSM (Strong-station Sequential Memory)

**1 Select the FM band (FM1 – FM3) you want to store into.**

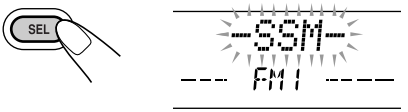



*To be continued....*

**2**




**3**




"SSM" flashes, then disappears when automatic presetting is over.

Local FM stations with the strongest signals are searched and stored automatically in the FM band.

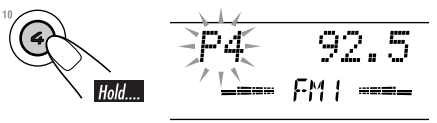
## Manual presetting

Ex.: Storing FM station of 92.5 MHz into the preset number 4 of the FM1 band.

**1**

**2**

**3**

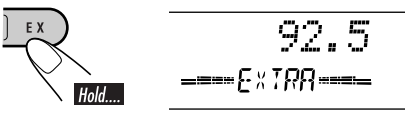



Preset number flashes for a while.

### Storing your favorite station into the EX (extra) button

Ex.: Storing your favorite FM station of 92.5 MHz into the EX button

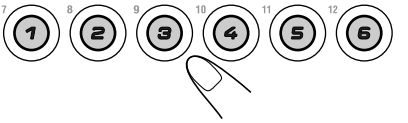
**While listening to an FM station, tune in to your favorite station, then....**



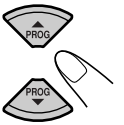

## Listening to a preset station

**1**

**2 Select the preset station (1 – 6) you want.**




**or**

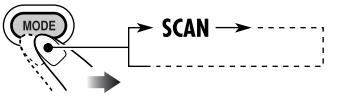



### To tune in to your favorite station (EX)

If you press the button again, the previous source will be played back again.

## Scanning broadcast stations

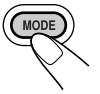
**1**




**2 Start scanning.**

Each time a broadcast is tuned in, scanning stops for about 5 seconds (tuned frequency appears on the display), and you can check what program is now being broadcast.

**3 Start listening to the program.**

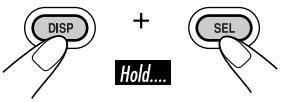


## Assigning titles to the stations

You can assign titles to 30 station frequencies (including both FM and AM). Each station name can be assigned up to 10 characters. However, you cannot assign title to the station frequency stored in the EX button.

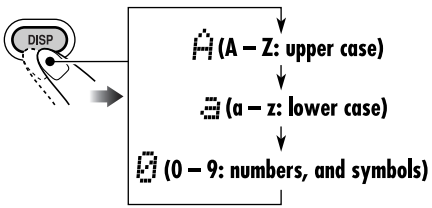
**1 Tune in to the station you would like to assign a title to.**

**2 Enter the assigning mode.**

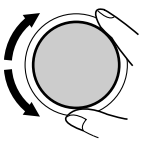


**3 Assign a title.**

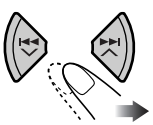
**1 Select a character set.**




**2 Select a character.**



**3 Move to the next (or previous) character position.**



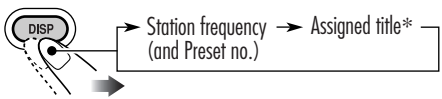
**4 Repeat steps 1 to 3 until you finish entering the title.**

**4 Finish the procedure.**

### To erase the entire title

In step **3** on the left...

### To change the information shown on the display




** If no title is assigned, "NO NAME" appears for a while.*

### Available characters

Upper case

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | B | C | D | E | F | G | H | I | J | K | L | M | N |
| O | P | Q | R | S | T | U | V | W | X | Y | Z | space | |

Lower case

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a | b | c | d | e | f | g | h | i | j | k | l | m | n |
| o | p | q | r | s | t | u | v | w | x | y | z | space | |

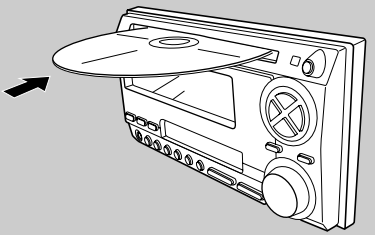
Numbers and symbols

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | ! | ” | # | $ |
| % | & | ’ | ( | ) | * | + | , | – | . | / | : | ; | < |
| = | > | ? | @ | _ | ` | space | | | | | | | |

ENGLISH

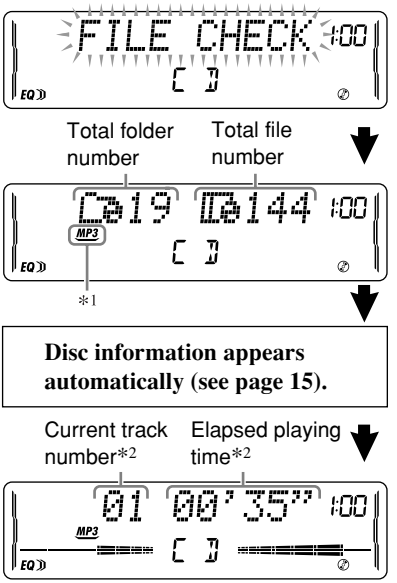
## Playing a disc in the unit

- KW-TC111/KW-TC110 cannot play back MP3 or WMA discs in the unit.
- KW-TC111/KW-TC110 can only control MP3 discs in an MP3-compatible CD changer.

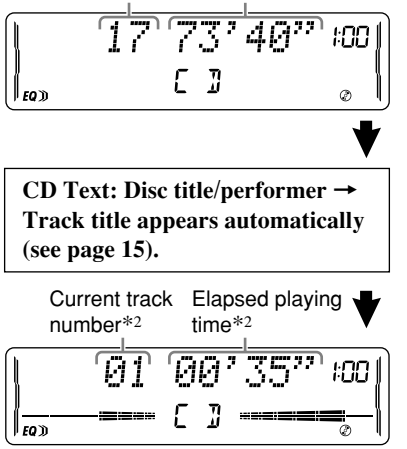


All tracks will be played repeatedly until you change the source or eject the disc.

- **When inserting an MP3 or a WMA disc:**




- **When inserting an audio CD or a CD Text disc:**



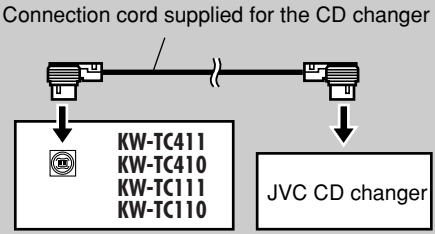

### To stop play and eject the disc

The source changes to the last selected source.

*1 *Either the MP3 or WMA indicator lights up depending on the detected file.*

*2 *Depending on the level meter setting. (See page 20 for details.)*

## Connecting the CD changer




### Before connecting the CD changer

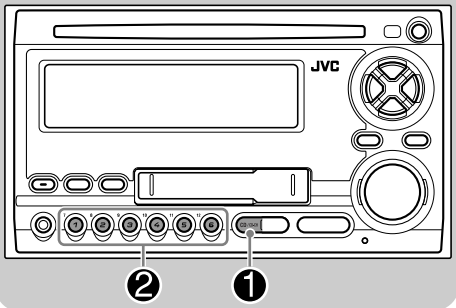
- To prevent short circuits, it is recommended to disconnect the car battery's negative terminal and make all electrical connections before connecting the CD changer.
- When mounting this unit into your car, be sure to use the screws provided.
- When tightening screws or bolts, be careful not to pinch any connection cord.
- If you are not sure how to connect the CD changer correctly, consult your car dealer or JVC car audio dealer, or have it installed by a qualified technician.

### About the CD changer

It is recommended to use a JVC MP3-compatible CD changer with your unit.

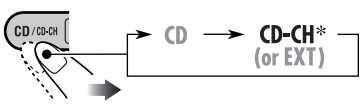
- You can also connect other CH-X series CD changers (except CH-X99 and CH-X100). However, they are not compatible with MP3 discs, so you cannot play back MP3 discs.
- You cannot play any WMA disc in the CD changer.
- You cannot use the KD-MK series CD changers with this unit.
- Disc text information recorded in the CD Text can be displayed when a JVC CD Text compatible CD changer is connected.

## Playing discs in the CD changer




All tracks of the inserted discs in the magazine will be played repeatedly until you change the source or eject the magazine from the CD changer.

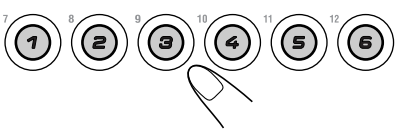
1



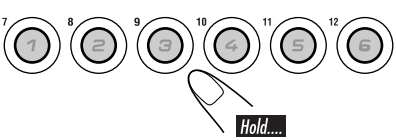

** If you have changed "EXT INPUT" setting to "EXT INPUT" (see page 21), you cannot select the CD changer.*

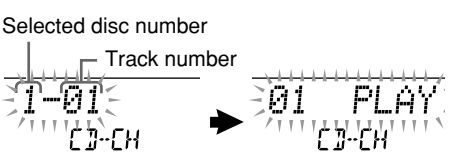
2 **Select a disc.**

For disc number from 01 – 06:

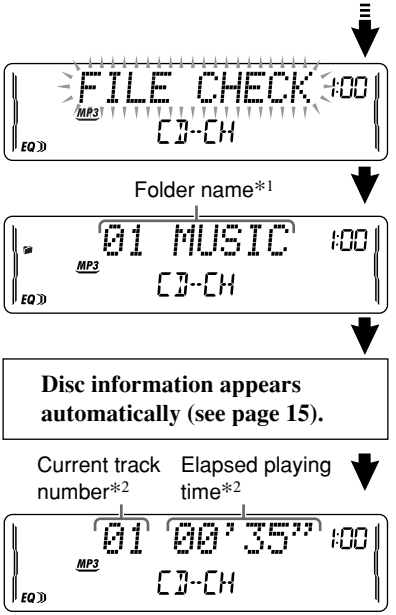



For disc number from 07 – 12:

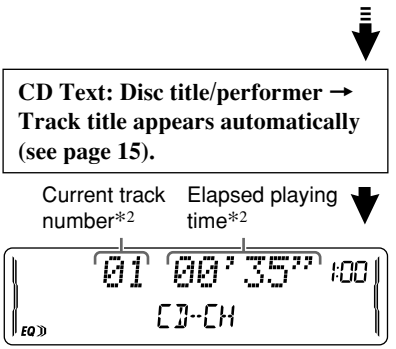


• **When the current disc is an MP3 disc:**



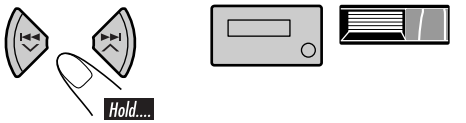

• **When the current disc is an audio CD or a CD Text disc:**



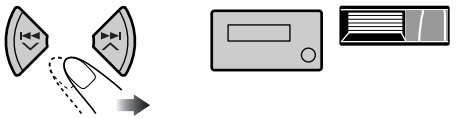

*1 *"ROOT" appears if no folder is included in the disc.*

*2 *Depending on the level meter setting. (See page 20 for details.)*

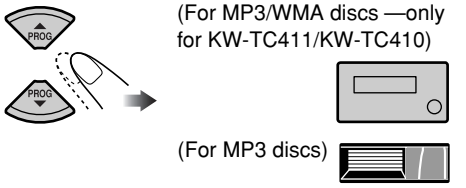
## To fast-forward or reverse the track



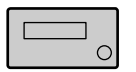

## To go to the next or previous tracks



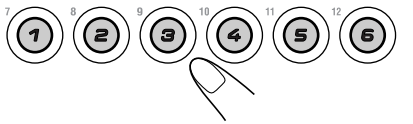
## To go to the next or previous folders—for MP3 and WMA discs



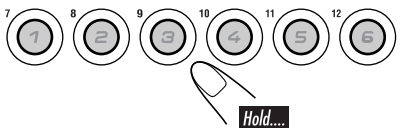

## To locate a particular track—for CD or folder—for MP3 or WMA discs (only for KW-TC411/KW-TC410) directly



To select a number from 01 – 06:

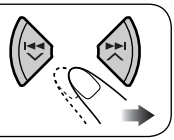



To select a number from 07 – 12:



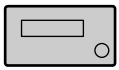

• To use folder search on MP3/WMA discs, it is required that folders are assigned with 2-digit numbers at the beginning of their folder names—01, 02, 03, and so on.

To select a particular track in a folder (for MP3 or WMA disc):



# Other main functions

## Skipping a track quickly during play

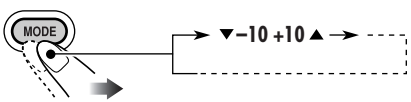


**Only possible on JVC MP3-compatible CD changer**

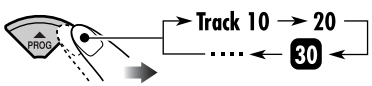
- For MP3 or WMA disc, you can skip a track within the same folder.

Ex.: To select track 32 while playing track 6

**1**



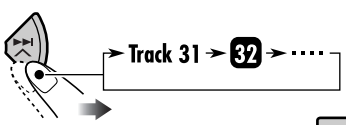

**2**



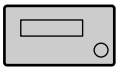

First time you press ▲ PROG/▼ PROG button, the track skips to the nearest higher or lower track with a track number of multiple ten (ex. 10th, 20th, 30th).
Then each time you press the button, you can skip 10 tracks.

- After the last track, the first track will be selected and vice versa.

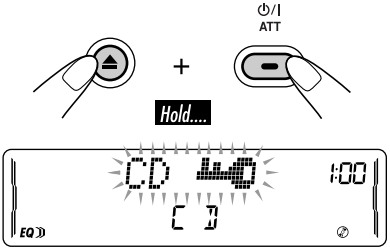
**3**




## Prohibiting disc ejection

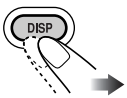


You can lock a disc in the loading slot.




**To cancel the prohibition,** repeat the same procedure.

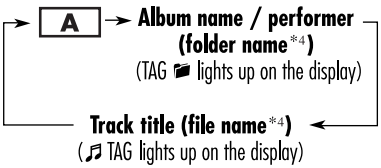
# Changing the display information



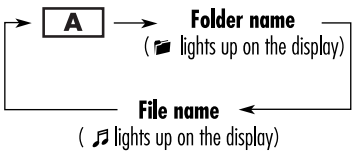

## While playing an audio CD or a CD Text

## While playing an MP3 or WMA disc

- **When "TAG DISP" is set to "TAG ON" (see page 21)**




- **When "TAG DISP" is set to "TAG OFF"**




**A : Current track/file number and Elapsed playing time**

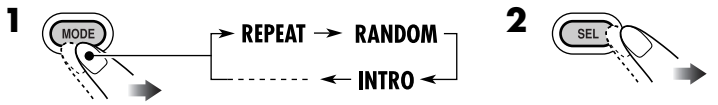
*3 *If the current disc is an audio CD, "NO NAME" appears.*

*4 *If an MP3/WMA file does not have ID3 tags, folder name and file name appear. In this case, the TAG indicator will not light up.*

# Selecting the playback modes

You can use only one of the following playback modes at a time.

**Select your desired playback mode.**

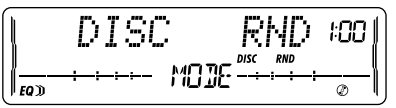



## Repeat play

Ex.: When "TRACK RPT" is selected

| Mode | Plays repeatedly |
|---|---|
| **TRACK RPT** | : The current track.<br>• RPT and ♫ light up. |
| **FOLDER RPT***1 | : All tracks of the current folder.<br>• 🗀 and RPT light up. |
| **DISC RPT***2 | : All tracks of the current disc.<br>• DISC and RPT light up. |
| **REPEAT OFF** | : Cancels. |

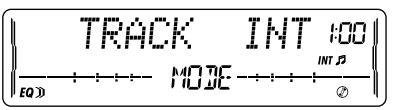
## Random play




Ex.: When "DISC RND" is selected

| Mode | Plays at random |
|---|---|
| **FOLDER RND***1 | : All tracks of the current folder, then tracks of the next folder and so on.<br>• 🗀 and RND light up. |
| **DISC RND** | : All tracks of the current disc.<br>• DISC and RND light up. |
| **MAG RND***2 | : All tracks of the inserted discs.<br>• RND and MAG light up. |
| **RANDOM OFF** | : Cancels. |

## Intro scan

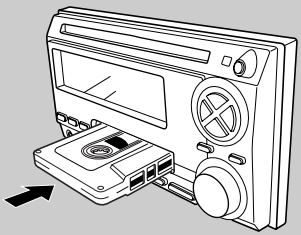



Ex.: When "TRACK INT" is selected

| Mode | Plays the beginning 15 seconds of... |
|---|---|
| **TRACK INT** | : All tracks of the current disc.<br>• INT and ♫ light up. |
| **FOLDER INT***1 | : The first track of every folder of the current disc.<br>• 🗀 and INT light up. |
| **DISC INT***2 | : The first tracks of the inserted discs.<br>• DISC and INT light up. |
| **INTRO OFF** | : Cancels. |

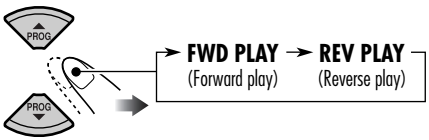
*1 *Only while playing an MP3 disc or WMA disc.*
*2 *Only while playing discs in the CD changer.*

## Playing a tape

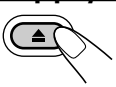


Playback starts automatically. When one side of the tape reaches its end during play, the other side of the tape automatically starts playing. (Auto Reverse)

### To change the playback direction

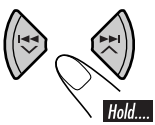



### To stop play and eject the cassette



The source changes to the last selected source.

### To fast-forward or rewind a tape

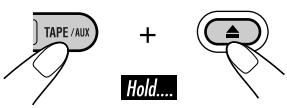



When the tape reaches its end while fast-forwarding, the tape direction will change automatically.

**To stop fast-forwarding or rewinding,** press ▲ PROG/▼ PROG.

### Prohibiting tape ejection

You can lock a tape in the loading slot.

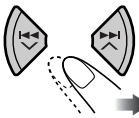



**To cancel the prohibition,** repeat the same procedure.

## Finding the beginning of a tune

Multi Music Scan (MMS) allows you to automatically start playback from the beginning of a specified tune.

**Specify the tune you want to locate (how many tunes ahead of or before the current tune)**



When the beginning of the specified tune is located, playback starts automatically.

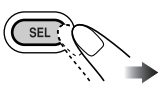
**MMS –9 ⟷ MMS –1**[*3]**, MMS +1 ⟷ MMS +9**

[*3] *Goes back to the beginning of the current tune.*

## Other convenient tape functions

**1**

**2**




- **To turn on or off Dolby B NR**[*4]

  **DOLBY ON ⟷ DOLBY OFF**
  (DD lights up on the display)

- **To skip blank portions on the tape**

  **B.SKIP ON ⟷ B.SKIP OFF**
  (B.SKIP lights up on the display)

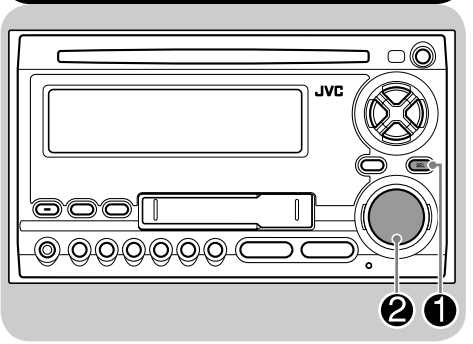
- **To play the current tune repeatedly**

  **REPEAT ON ⟷ REPEAT OFF**
  (**RPT** lights up on the display)

[*4] *Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.*

ENGLISH

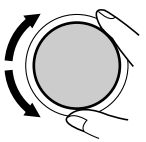
## Selecting preset sound modes
**(EQ: equalizer)**




You can select a preset sound mode suitable to the music genre.

1

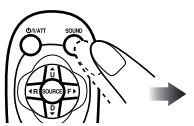
2



**FLAT** ⇄ **Hard Rock** ⇄ **R & B** ⇄ **POP** ⇄ **JAZZ** ⇄ **DanceMusic** ⇄ **Country** ⇄ **Reggae** ⇄ **Classic** ⇄ **USER 1** ⇄ **USER 2** ⇄ **USER 3** ⇄ (back to the beginning)

### To select the sound mode directly

You can select the sound mode directly using the remote controller.

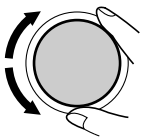


## Adjusting the sound

You can adjust the sound characteristics to your preference.

1

2



| Indication | Range |
|---|---|
| **FADER***1<br>Adjust the front and rear speaker balance. | R06 (Rear only)<br>to<br>F06 (Front only) |
| **BAL** (balance)<br>Adjust the left and right speaker balance. | L06 (Left only)<br>to<br>R06 (Right only) |
| **LOUD** (loudness)<br>Boost low and high frequencies to produce a well-balanced sound at low volume level. | LOUD ON<br>⬍<br>LOUD OFF |
| **VOLUME***2<br>Adjust the volume. | 00 (min.) to<br>30 or 50 (max.)*3 |

*1 *If you are using a two-speaker system, set the fader level to "00."*

*2 *Normally the control dial works as the volume control. So you do not have to select "VOLUME" to adjust the volume level.*

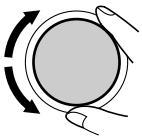
*3 *Depending on the amplifier gain control setting. (See page 21 for details.)*

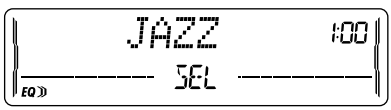
## Storing your own sound adjustments

You can adjust the sound modes and store your own adjustments in memory.

**1**

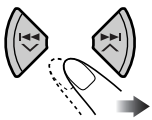
**2 Select one of the sound mode to adjust.**






Ex.: When "JAZZ" is selected

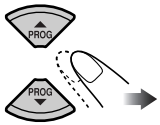
**3 Select the sound elements to adjust while the selected sound mode is shown.**



**LOW LEVEL** ⇄ **LOW FREQ.** ⇄ **LOW WIDTH** ⇄ **MID LEVEL** ⇄ **MID WIDTH** ⇄ **HIGH LEVEL** ⇄ **HIGH FREQ.** ⇄ (back to the beginning)

- **(LOW, MID, HIGH) LEVEL:** Adjust the enhancement level.
- **(LOW, HIGH) FREQ:** Select the center frequency to adjust.
- **(LOW, MID) WIDTH :** Select the band width level.

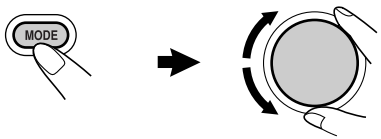
**4 Adjust the selected sound elements while the indication on step 3 is shown.**



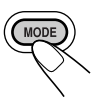

| Indication | Preset values | | |
|---|---|---|---|
| | LOW | MID | HIGH |
| LEVEL | –06 (min.) to +06 (max.) | –06 (min.) to +06 (max.) | –06 (min.) to +06 (max.) |
| FREQ | 60Hz<br>80Hz<br>100Hz<br>120Hz | ——— | 8kHz<br>10kHz<br>12kHz<br>15kHz |
| WIDTH | 1 (min.) to 4 (max.) | 1 (min.) to 2 (max.) | ——— |

**5 Repeat steps 3 and 4 to set (or adjust) the other sound elements.**

**6 Select one of the user sound modes (USER 1, USER 2, USER 3).**




**7 Store the adjustments.**




"MEMORY" appears for a while.

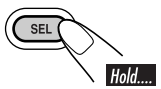
# General settings — PSM

ENGLISH

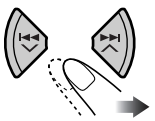
## Basic procedure

You can change PSM (Preferred Setting Mode) items listed in the table that follows.

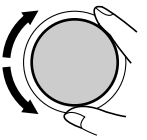
**1**




**2** **Select a PSM item.**

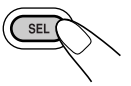


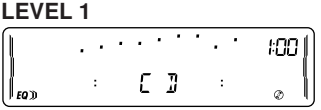
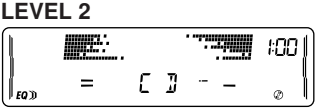
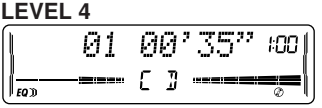
**3** **Adjust the PSM item selected.**



**4** **Repeat steps 2 and 3 to adjust the other PSM items if necessary.**

**5** **Finish the procedure.**




| Indications | Selectable settings, [reference page] |
|---|---|
| **DEMO MODE**<br>Display demonstration | **DEMO ON** : *[Initial];* Display demonstration will be activated automatically if no operation is done for about 20 seconds, [8].<br>**DEMO OFF** : Cancels. |
| **CLOCK HOUR**<br>Hour adjustment | 1 – 12, [8]<br>*[Initial: 1 (1:00)]* |
| **CLOCK MIN**<br>Minute adjustment | 00 – 59, [8]<br>*[Initial: 00 (1:00)]* |
| **CLOCK DISP**<br>Clock display | **CLOCK ON** : Clock time is shown on the display at all times even when the unit is turned off.<br>**CLOCK OFF** : *[Initial];* Clock time is shown when the unit is turned on. If the unit is turned off, pressing DISP will show the clock time for about 5 seconds. |
| **LEVELMETER**<br>Audio level meter | You can select one of the four different level meter patterns or a demonstration of all the patterns.<br>**LEVEL ALL** *[Initial]* ⇄ **LEVEL 1** ⇄ **LEVEL 2** ⇄ **LEVEL 3** ⇄ **LEVEL 4** ⇄ **LEVEL OFF** (canceled) ⇄ (back to the beginning)<br>**LEVEL ALL** : Demonstrates all the level meter patterns, each for about 20 seconds.<br>**LEVEL 1**<br>  <br>**LEVEL 2**<br>  <br>**LEVEL 3**<br> <br>**LEVEL 4**<br>  |

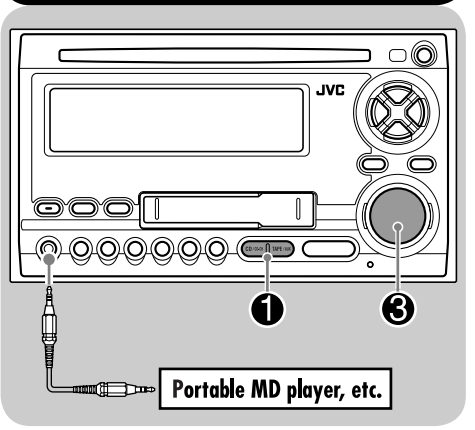
| Indications | Selectable settings, [reference page] |
|---|---|
| **DIMMER**<br>Dimmer | **AUTO** : *[Initial];* Dims the display when you turn on the headlights.<br>**ON** : Activates dimmer.<br>**OFF** : Cancels. |
| **CONTRAST**<br>Display contrast | **1 – 10** : Adjust the display contrast to make the display indications clear and legible.<br>*[Initial: 5]* |
| **SCROLL***1<br>Scroll | **ONCE** : *[Initial];* Scrolls the disc information once.<br>**AUTO** : Repeats scrolling (5-second intervals in between).<br>**OFF** : Cancels.<br>• Pressing DISP for more than one second can scroll the display regardless of the setting. |
| **EXT INPUT***2<br>External input | **CHANGER** : *[Initial];* To use a JVC CD changer, [13].<br>**EXT INPUT** : To use another external component, [22]. |
| **AUX ADJUST**<br>Auxiliary input level adjustment | **AUX ADJ 00 – AUX ADJ 05:** Adjust the auxiliary input level accordingly, to avoid the sudden increase of the output level when changing the source from external component connected to the AUX input jack on the control panel.<br>*[Initial: AUX ADJ 00]* |
| **TAG DISP**<br>Tag display | **TAG ON** : *[Initial];* Shows the ID3 tag while playing MP3/WMA tracks, [15].<br>**TAG OFF** : Cancels. |
| **AMP GAIN**<br>Amplifier gain control | You can change the maximum volume level of this unit.<br>**LOW PWR** : VOLUME 00 – VOLUME 30 (Select this if the maximum power of the speaker is less than 50 W to avoid damaging the speaker.)<br>**HIGH PWR** : *[Initial];* VOLUME 00 – VOLUME 50 |
| **IF FILTER**<br>IF filter | **AUTO** : *[Initial];* Increases the tuner selectivity to reduce noise interference between the stations. (Stereo effect will also be lost.)<br>**WIDE** : Subject to noise interference from adjacent stations, but sound quality will not be degraded and will retain the stereo effect. |

*1 *Some characters or symbols will not be shown (and will be blanked) or substituted on the display.*

*2 *Cannot be selected if the source is "CD-CH" or "EXT."*

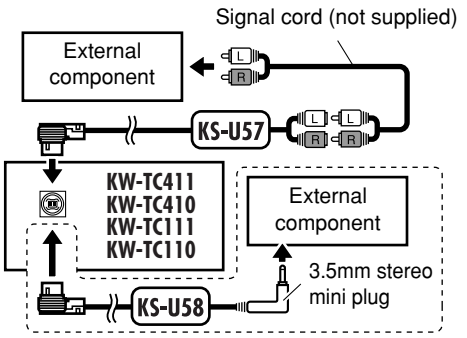
ENGLISH

## Playing an external component

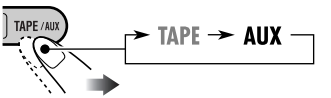



You can connect an external component to....
- CD changer jack on the rear using the Line Input Adapter—KS-U57 (not supplied) or AUX Input Adapter—KS-U58 (not supplied).
- AUX (auxiliary) input jack on the control panel.

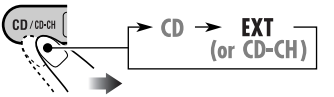
### To connect an external component to the CD changer jack using KS-U57 or KS-U58




**1** **For selecting the external component connected to....**
- **AUX input jack**

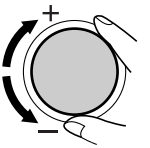



- **CD changer jack on the rear using KS-U57 or KS-U58**
  If "EXT" does not appear, see page 21 and select the external input (EXT INPUT).




**2** **Turn on the connected component and start playing the source.**

**3** **Adjust the volume.**




**4** **Adjust the sound as you want. (See pages 18 and 19.)**

## Handling discs

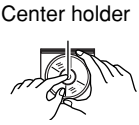
### Moisture condensation

Moisture may condense on the lens inside the CD player in the following cases:

- After starting the heater in the car.
- If it becomes very humid inside the car.

Should this occur, the CD player may malfunction. In this case, eject the disc and leave the unit turned on for a few hours until the moisture evaporates.

### How to handle discs




**When removing a disc from its case,** press down the center holder of the case and lift the disc out, holding it by the edges.

- Always hold the disc by the edges. Do not touch its recording surface.

**When storing a disc into its case,** gently insert the disc around the center holder (with the printed surface facing up).

- Make sure to store discs into the cases after use.

### To keep discs clean

A dirty disc may not play correctly. If a disc does become dirty, wipe it with a soft cloth in a straight line from center to edge.

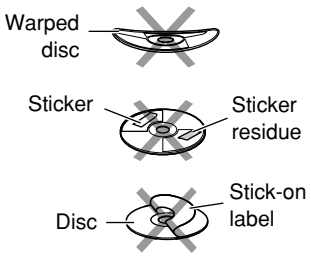
- Do not use any solvent (for example, conventional record cleaner, spray, thinner, benzine, etc.) to clean discs.

### To play new discs

New discs may have some rough spots around the inner and outer edges. If such a disc is used, this unit may reject the disc.

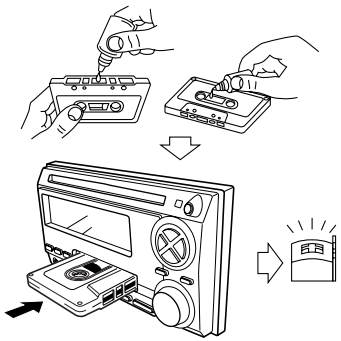
To remove these rough spots, rub the edges with a pencil or ball-point pen, etc.

**Do not use the following discs:**




## Handling cassettes

### To clean the head



- Clean the heads after every 10 hours of use using a wet-type head cleaning tape (available at an audio store).
  When the head becomes dirty, you may realize the following symptoms:
  – Sound quality is reduced.
  – Sound level decreases.
  – Sound drops out.
- Do not touch the highly-polished head with any metallic or magnetic tools.

### To keep the tape clean

- Always store the cassettes in their storage cases after use.
- Do not store cassettes in the following places:
  – Subject to direct sunlight
  – With high humidity
  – At extremely hot temperatures

# More about this unit

## Basic operations

### Turning on the power

- By pressing the source buttons on the unit, you can also turn on the power. If the source is ready, playback also starts.

### Turning off the power

- If you turn off the ignition key without turning off this unit, the unit will automatically turn on when you turn on the ignition key next time. If the last selected source is ready for playback (ex. a disc or a tape is in the unit), playback starts automatically.
- If you turn off the power while listening to a disc, disc play will start from where playback has been stopped previously, next time you turn on the power.

### Selecting the sources

- When no disc or cassette is loaded in the unit, "CD" or "TAPE" cannot be selected.
- Without connecting to the CD changer, "CD-CH" cannot be selected.

## Tuner operations

### Storing stations in memory

- During SSM search...
  - – All previously stored stations are erased and stations are stored newly.
  - – Received stations are preset in No. 1 (lowest frequency) to No. 6 (highest frequency).
  - – When SSM is over, the station stored in No. 1 will be automatically tuned in.
- When storing a station manually, a previously preset station is erased when a new station is stored in the same preset number.

## Disc operations

- KW-TC111/KW-TC110 cannot play back MP3 or WMA discs in the unit.
- KW-TC111/KW-TC110 can only control MP3 discs in an MP3-compatible CD changer.

### Caution for DualDisc playback

- The Non-DVD side of a "DualDisc" does not comply with the "Compact Disc Digital Audio" standard. Therefore, the use of Non-DVD side of a DualDisc on this product may not be recommended.

### General

- MP3 and WMA (Windows Media® Audio) "tracks" (words "file" and "track" are used interchangeably) are recorded in "folders."
- This unit has been designed to reproduce CDs/CD Texts, and CD-Rs (Recordable)/ CD-RWs (Rewritable) in audio CD (CD-DA), MP3 and WMA format.
- When a disc has been loaded, selecting "CD" for the playback source starts disc play.

### Inserting a disc

- When a disc is inserted upside down, the disc automatically ejects and the unit starts playing the last selected source.
- Do not insert 8 cm discs (single CD) and unusual shape discs (heart, flower, etc.) into the loading slot.

### Playing a disc

- While fast-forwarding or reversing on an MP3 or WMA disc, you can only hear intermittent sounds.

## Playing a CD-R or CD-RW

- Use only "finalized" CD-Rs or CD-RWs.
- This unit can play back only the files of the same type which is first detected if a disc includes both audio CD (CD-DA) files and MP3/WMA files.
- This unit can play back multi-session discs; however, unclosed sessions will be skipped while playing.
- Some CD-Rs or CD-RWs may not play back on this unit because of their disc characteristics, and for the following causes:
  – Discs are dirty or scratched.
  – Moisture condensation occurs on the lens inside the unit.
  – The pickup lens inside the unit is dirty.
  – CD-R/CD-RW on which the files are written with "Packet Write" method.
  – There are improper recording conditions (missing data, etc.) or media conditions (stain, scratch, warp, etc.).
- CD-RWs may require a longer readout time since the reflectance of CD-RWs is lower than that of regular CDs.
- Do not use the following CD-Rs or CD-RWs:
  – Discs with stickers, labels, or protective seal stuck to the surface.
  – Discs on which labels can be directly printed by an ink jet printer.

  Using these discs under high temperatures or high humidity may cause malfunctions or damages to the unit.

## Playing an MP3/WMA disc

- This unit can play back MP3/WMA files with the extension code <.mp3> or <.wma> (regardless of the letter case—upper/lower).
- This unit can show the names of albums, artists (performer), and ID3 Tag (Version 1.0, 1.1, 2.2, 2.3, or 2.4) for MP3 files and for WMA files.
- This unit can display only one-byte characters. No other characters can be correctly displayed (see page 11).
- This unit can play back MP3/WMA files meeting the conditions below:
  – Bit rate: 8 kbps — 320 kbps
  – Sampling frequency:
    48 kHz, 44.1 kHz, 32 kHz (for MPEG-1)
    24 kHz, 22.05 kHz, 16 kHz (for MPEG-2)
    48 kHz, 44.1 kHz, 32 kHz (for WMA)
  – Disc format: ISO 9660 Level 1/ Level 2, Romeo, Joliet, Windows long file name
- The maximum number of characters for file/folder names vary among the disc format used (includes 4 extension characters—<.mp3> or <.wma>).
  – ISO 9660 Level 1: up to 12 characters
  – ISO 9660 Level 2: up to 31 characters
  – Romeo*: up to 128 (72) characters
  – Joliet*: up to 64 (36) characters
  – Windows long file name*: up to 128 (72) characters

  * *The parenthetic figure is the maximum number of characters for file/folder names in case the total number of files and folders is 313 or more.*
- This unit can recognize the total of 512 files, of 200 folders, and of 8 hierarchies.
- This unit can play back the files recorded in VBR (variable bit rate).
  The files recorded in VBR have a discrepancy in elapsed time display, and do not show the actual elapsed time. This difference becomes noticeable especially after performing the search function.
- This unit cannot play back the following files:
  – MP3 files encoded with MP3i and MP3 PRO format.
  – MP3 files encoded in an unappropriated format.
  – MP3 files encoded with Layer 1/2.
  – WMA files encoded with lossless, professional, and voice format.
  – WMA files which are not based upon Windows Media® Audio.
  – WMA files copy-protected with DRM.
  – Files which have the data such as WAVE, ATRAC3, etc.
- The search function works but search speed is not constant.

*To be continued....*

### Changing the source

- If you change the source, playback also stops (without ejecting the disc).
  Next time you select "CD" or "CD-CH" for the playback source, disc play starts from where it has been stopped previously.

### Ejecting a disc

- If the ejected disc is not removed within 15 seconds, the disc is automatically inserted again into the loading slot to protect it from dust. (Disc will not play this time.)

## Tape operations

### Playing a tape

- While locating a specified tune:
  – If the tape is rewound to its beginning, playback starts from the beginning of that side.
  – If the tape is fast-forwarded to the end, it is reversed and played from the beginning of the other side.
- In the following cases, Multi Music Scan (MMS), Blank Skip, and Repeat Play may not operate correctly:
  – Tapes with tunes having long pianissimo passages (very quiet parts) or non-recorded portions.
  – Tapes with short non-recorded sections.
  – Tapes with high level noise or humming between tunes.
  – The Dolby NR setting does not match. For example, if the tape is recorded with the Dolby C NR.
- Do not use the following tape:
  – Dirty or dusty tapes.
  – Cassette with peeling labels.
  – Loose tape which may become entangled with the mechanism.

### Changing the source

- If you change the source, playback also stops (without ejecting the cassette).

### Ignition key-off release

- When you turn off the ignition key with a cassette in the compartment, the unit automatically releases the tape from its head.

## General settings—PSM

- If you change the "TAG DISP" setting from "TAG OFF" to "TAG ON" while playing MP3/WMA file, the tag display will be activated when the next file starts playing.
- If you change the "AMP GAIN" setting from "HIGH PWR" to "LOW PWR" while the volume level is set higher than "VOLUME 30," the unit automatically changes the volume level to "VOLUME 30."

## Other main functions

- If you try to assign a title to the 31st station frequency, "NAME FULL" flashes. Delete unwanted titles before assignment.

# Troubleshooting



What appears to be trouble is not always serious. Check the following points before calling a service center.

| | Symptoms | Remedies/Causes |
|---|---|---|
| General | • Sound cannot be heard from the speakers. | • Adjust the volume to the optimum level.<br>• Check the cords and connections. |
| | • The unit does not work at all. | Reset the unit (see page 2). |
| FM/AM | • SSM automatic presetting does not work. | Store stations manually. |
| | • Static noise while listening to the radio. | Connect the antenna firmly. |
| Disc playback | • Disc cannot be played back. | Insert the disc correctly. |
| | • CD-R/CD-RW cannot be played back.<br>• Tracks on the CD-R/CD-RW cannot be skipped. | • Insert a finalized CD-R/CD-RW.<br>• Finalize the CD-R/CD-RW with the component which you used for recording. |
| | • Disc can be neither played back nor ejected. | • Unlock the disc (see page 15).<br>• Eject the disc forcibly (see page 2). |
| | • Disc sound is sometimes interrupted. | • Stop playback while driving on rough roads.<br>• Use an unscratched disc.<br>• Check the cords and connections. |
| | • "NO DISC" appears on the display. | Insert a correct disc into the loading slot. |
| MP3/WMA playback | • KW-TC111/KW-TC110 cannot play back MP3 or WMA discs in the unit.<br>• KW-TC111/KW-TC110 can only control MP3 discs in an MP3-compatible CD changer. | |
| | • Disc cannot be played back. | • Use a disc with MP3/WMA tracks recorded in the format compliant with ISO 9660 Level 1, Level 2, Romeo, or Joliet.<br>• Add the extension code <.mp3> or <.wma> to the file names. |
| | • Noise is generated. | Skip to another track or change the disc. (Do not add the extension code <.mp3> or <.wma> to non-MP3 or WMA tracks.) |
| | • A longer readout time is required ("CHECK" keeps flashing on the display). | Do not use too many hierarchies and folders. |

*To be continued....*

| | Symptoms | Remedies/Causes |
|---|---|---|
| MP3/WMA playback | • Tracks do not play back in the order you have intended them to play. | Playback order is determined when the files are recorded. |
| | • Elapsed playing time is not correct. | This sometimes occurs during play. This is caused by how the tracks are recorded on the disc. |
| | • "NO FILES" appears on the display. | Insert a disc that contains MP3/WMA tracks. |
| | • Correct characters are not displayed (e.g. album name). | This unit can only display alphabets (upper/lower case), numbers, and a limited number of symbols. |
| Tape playback | • A cassette cannot be inserted. | Insert the cassette with the exposed tape facing right. |
| | • Cassette can be neither played back nor ejected. | Unlock the cassette (see page 17). |
| | • "NO TAPE" appears on the display. | Insert a cassette correctly. |
| | • Cassette tapes become hot. | This is not a malfunction. |
| | • Tape sound is at very low level and sound quality is degraded. | Clean the tape head using a head cleaning tape. |
| CD changer | • "NO DISC" appears on the display. | Insert a disc into the magazine. |
| | • "NO MAG" appears on the display. | Insert the magazine. |
| | • "RESET 8" appears on the display. | Connect this unit and the CD changer correctly and press the reset button of the CD changer. |
| | • "RESET 1" – "RESET 7" appears on the display. | Press the reset button of the CD changer. |
| | • The CD changer does not work at all. | Reset the unit (see page 2). |

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# Specifications



## AUDIO AMPLIFIER SECTION

Maximum Power Output:
- Front: 50 W per channel
- Rear: 50 W per channel

Continuous Power Output (RMS):
- Front: 19 W per channel into 4 Ω, 40 Hz to 20 000 Hz at no more than 0.8% total harmonic distortion.
- Rear: 19 W per channel into 4 Ω, 40 Hz to 20 000 Hz at no more than 0.8% total harmonic distortion.

Load Impedance: 4 Ω (4 Ω to 8 Ω allowance)
Equalizer Control Range:
- Low: ±12 dB (60 Hz, 80 Hz, 100 Hz, 120 Hz)
- Mid: ±12 dB
- High: ±12 dB (8 kHz, 10 kHz, 12 kHz, 15 kHz)

Frequency Response: 40 Hz to 20 000 Hz
Signal-to-Noise Ratio: 70 dB
Line-Out Level/Impedance:
- 2.0 V/20 kΩ load (full scale)

Output Impedance: 1 kΩ
Other terminals: CD changer, AUX (auxiliary) input jack

## TUNER SECTION

Frequency Range:
- FM: 87.5 MHz to 108.0 MHz
- AM: 531 kHz to 1 602 kHz

**[FM Tuner]**

Usable Sensitivity: 11.3 dBf (1.0 µV/75 Ω)
50 dB Quieting Sensitivity:
- 16.3 dBf (1.8 µV/75 Ω)

Alternate Channel Selectivity (400 kHz): 65 dB
Frequency Response: 40 Hz to 15 000 Hz
Stereo Separation: 30 dB
Capture Ratio: 1.5 dB

**[AM Tuner]**

Sensitivity: 20 µV
Selectivity: 35 dB

## CD PLAYER SECTION

Type: Compact disc player
Signal Detection System: Non-contact optical pickup (semiconductor laser)
Number of Channels: 2 channels (stereo)
Frequency Response: 5 Hz to 20 000 Hz
Dynamic Range: 96 dB
Signal-to-Noise Ratio: 98 dB
Wow and Flutter: Less than measurable limit
KW-TC411/KW-TC410 only:
- MP3 Decoding Format:
  - MPEG1/2 Audio Layer 3
  - Max. Bit Rate: 320 kbps
- WMA (Windows Media® Audio) Decoding Format:
  - Max. Bit Rate: 192 kbps

## CASSETTE DECK SECTION

Wow and Flutter: 0.1 % (WRMS)
Fast-Wind Time: 100 sec. (C-60)
Frequency Response: 30 Hz to 16 000 Hz (Normal tape)
Signal-to-Noise Ratio: (Normal tape)
- Dolby B NR ON: 65 dB
- Dolby B NR OFF: 56 dB

Stereo Separation: 40 dB

## GENERAL

Power Requirement:
- Operating Voltage:
  - DC 14.4 V (11 V to 16 V allowance)

Grounding System: Negative ground
Allowable Operating Temperature:
- 0°C to +40°C

Dimensions (W × H × D):
- Installation Size (approx.):
  - 178 mm × 100 mm × 158 mm
- Set Size (approx.):
  - 178 mm × 100 mm × 177 mm

Mass (approx.):
- 2.3 kg (excluding accessories)

*Design and specifications are subject to change without notice.*

## Having TROUBLE with operation?

### Please reset your unit

**Refer to page of How to reset your unit**

## Ada MASALAH dengan cara pengoperasian?

### Setel kembali unit Anda

**Lihat halaman mengenai Bagaimana mereset unit anda**

JVC

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0905DTSMDTJEIN

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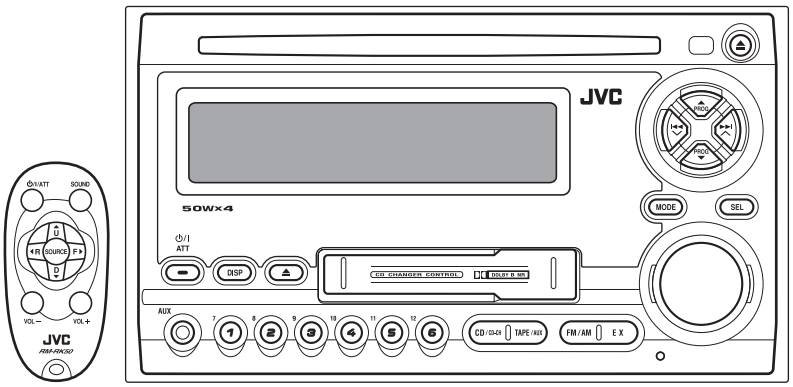
# SCHEMATIC DIAGRAMS

## CD/CASSETTE RECEIVER

# KW-TC410,KW-TC411

**CD-ROM No.SML200512**

| Area suffix |
| --- |
| UN ---------- Indonesia |




COMPACT disc DIGITAL AUDIO TEXT  MP3  WMA

Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade)

## Contents


Block diagram ---------- 2-1
Standard schematic diagrams ---------- 2-2
Printed circuit boards ---------- 2-6 to 8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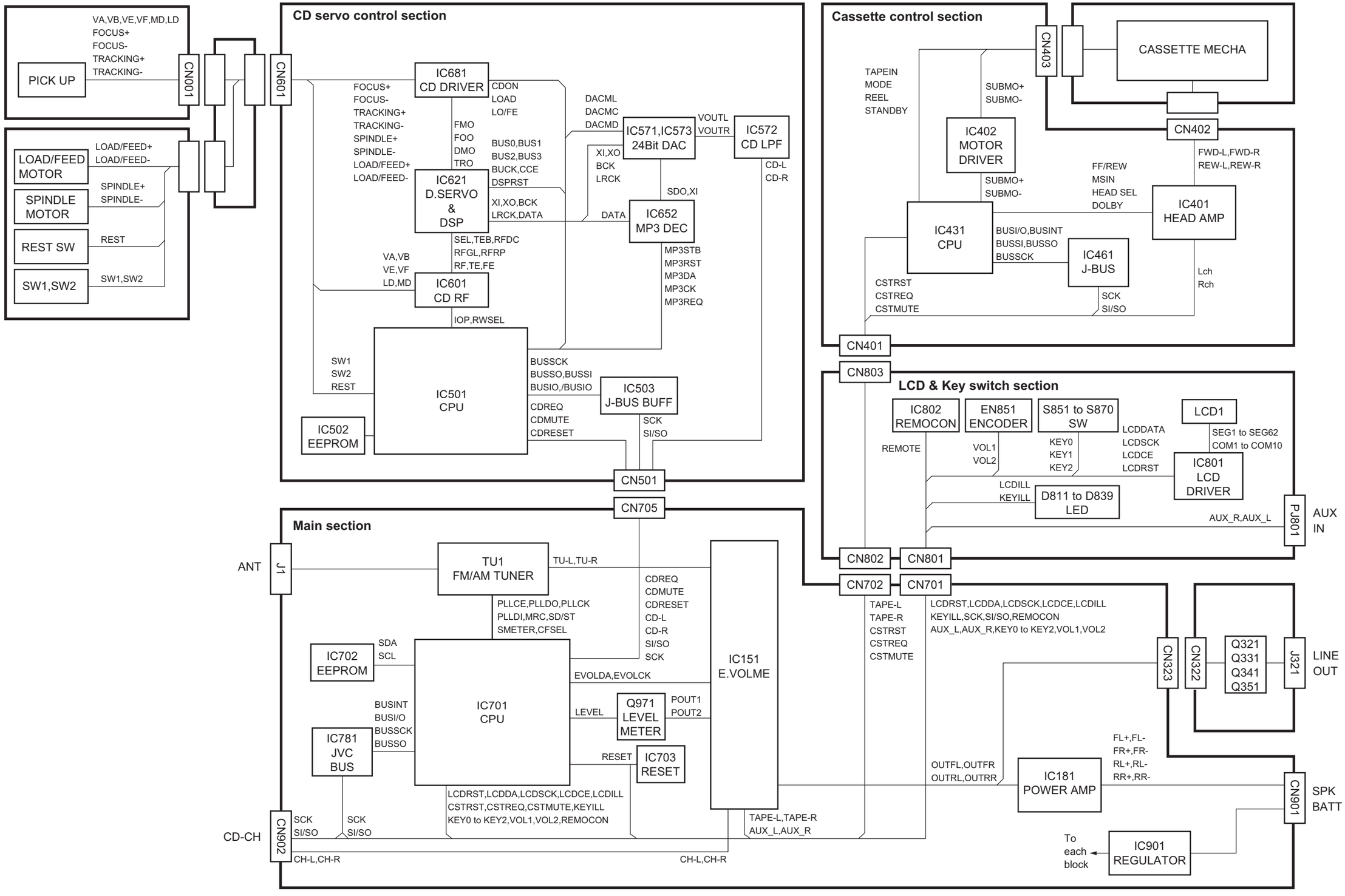
**No.MA244SCH**
**2005/12**

# Safety precaution

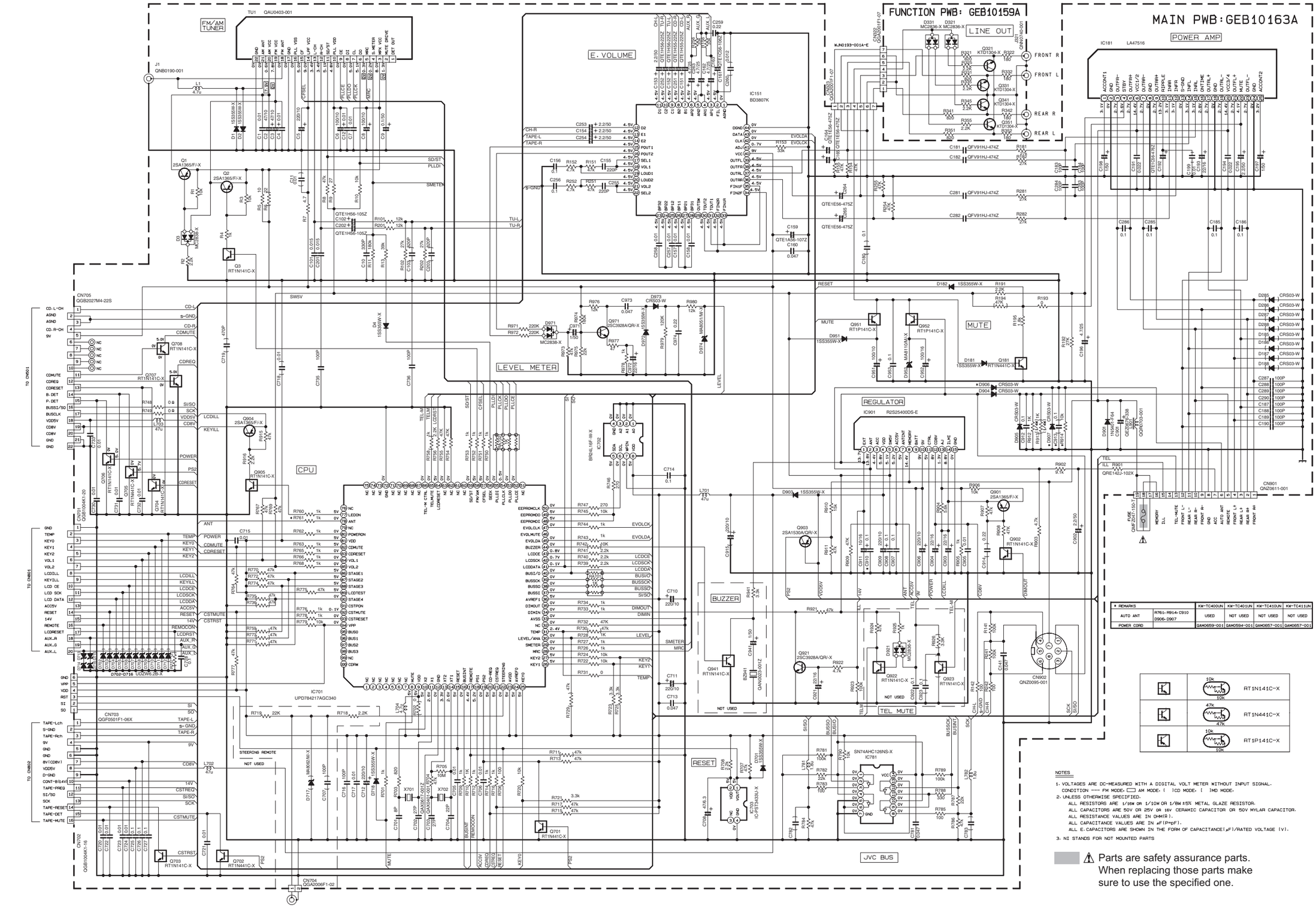
⚠ ***CAUTION*** **Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.**

⚠ ***CAUTION*** **Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.**

# Block diagram



# Standard schematic diagrams ■ Main section




| ★ REMARKS | | KW-TC400UN | KW-TC401UN | KW-TC410UN | KW-TC411UN |
|---|---|---|---|---|---|
| AUTO ANT | R761, R914-D910 D905-D907 | USED | NOT USED | NOT USED | NOT USED |
| POWER CORD | | QAM0659-001 | QAM0594-001 | QAM0657-001 | QAM0657-001 |

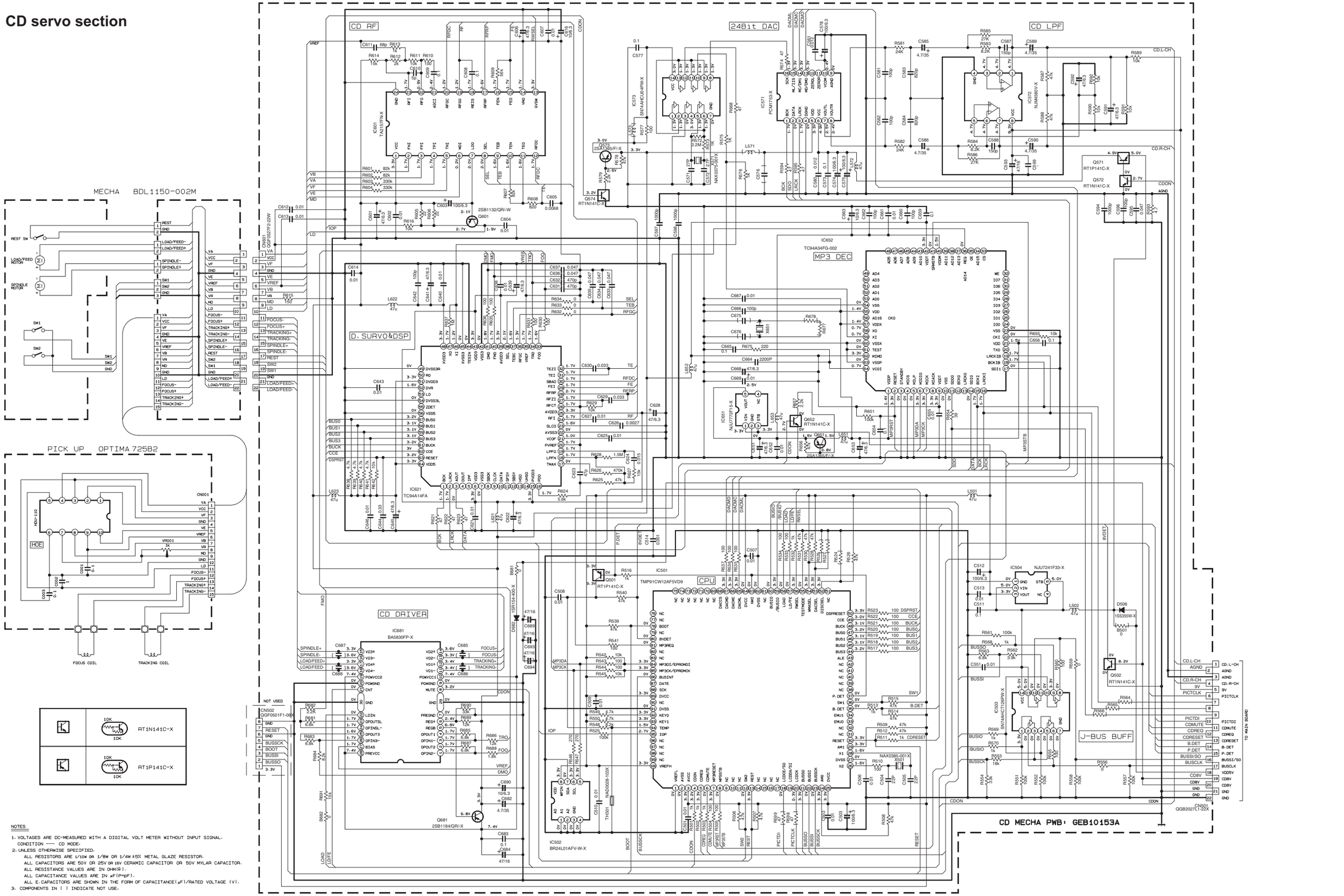
| | | |
|---|---|---|
| | 10k | RT1N141C-X |
| | 47k | RT1N441C-X |
| | 10k | RT1P141C-X |

NOTES

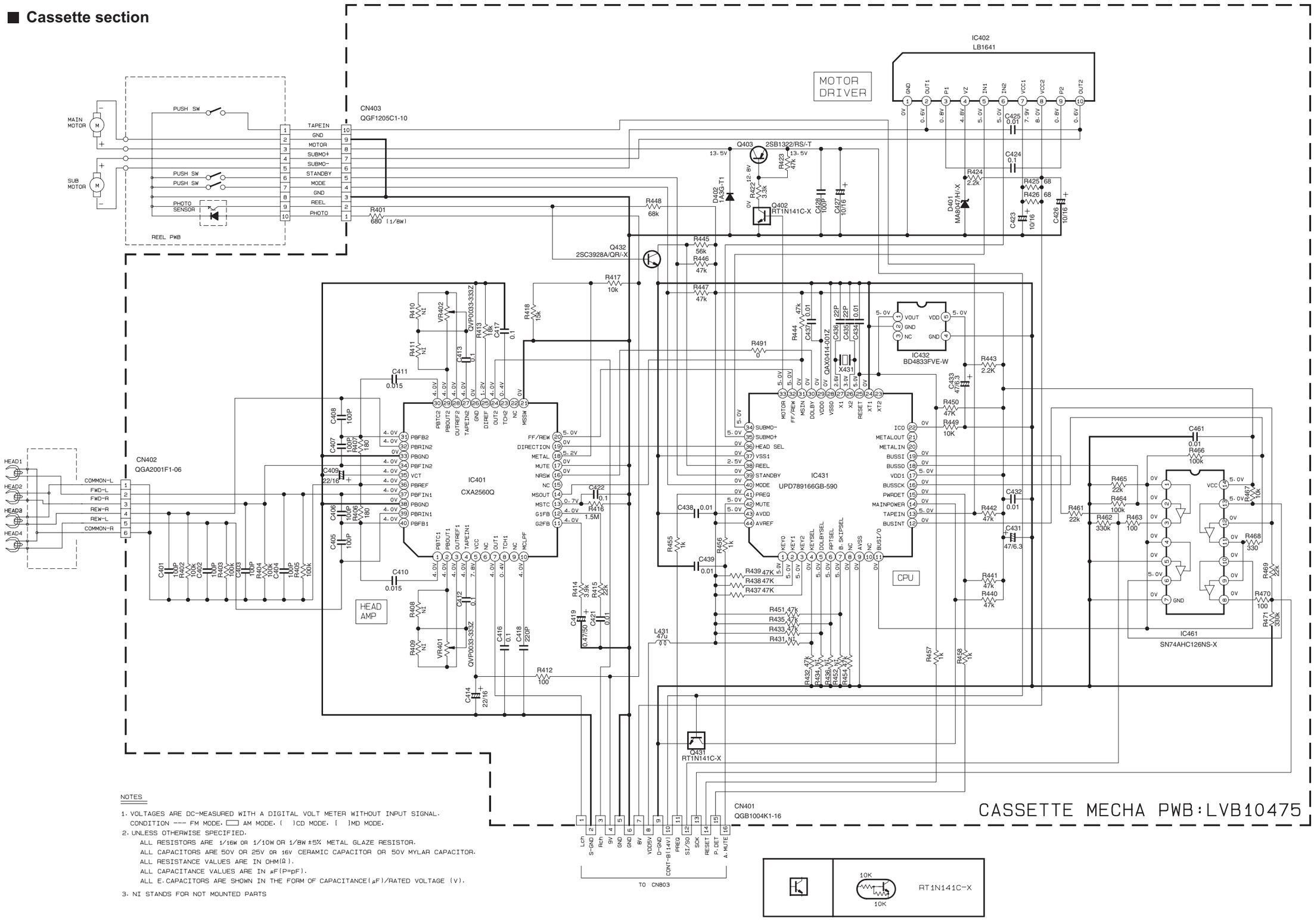
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL.
   CONDITION --- FM MODE: □ AM MODE: ( )CD MODE: [ ]MD MODE:
2. UNLESS OTHERWISE SPECIFIED.
   ALL RESISTORS ARE 1/16W OR 1/10W OR 1/8W ±5% METAL GLAZE RESISTOR.
   ALL CAPACITORS ARE 50V OR 25V OR 16V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR.
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITANCE VALUES ARE IN μF(P=pF).
   ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(μF)/RATED VOLTAGE (V).
3. NI STANDS FOR NOT MOUNTED PARTS

⚠ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

## ■ CD servo section



## ■ Cassette section




NOTES

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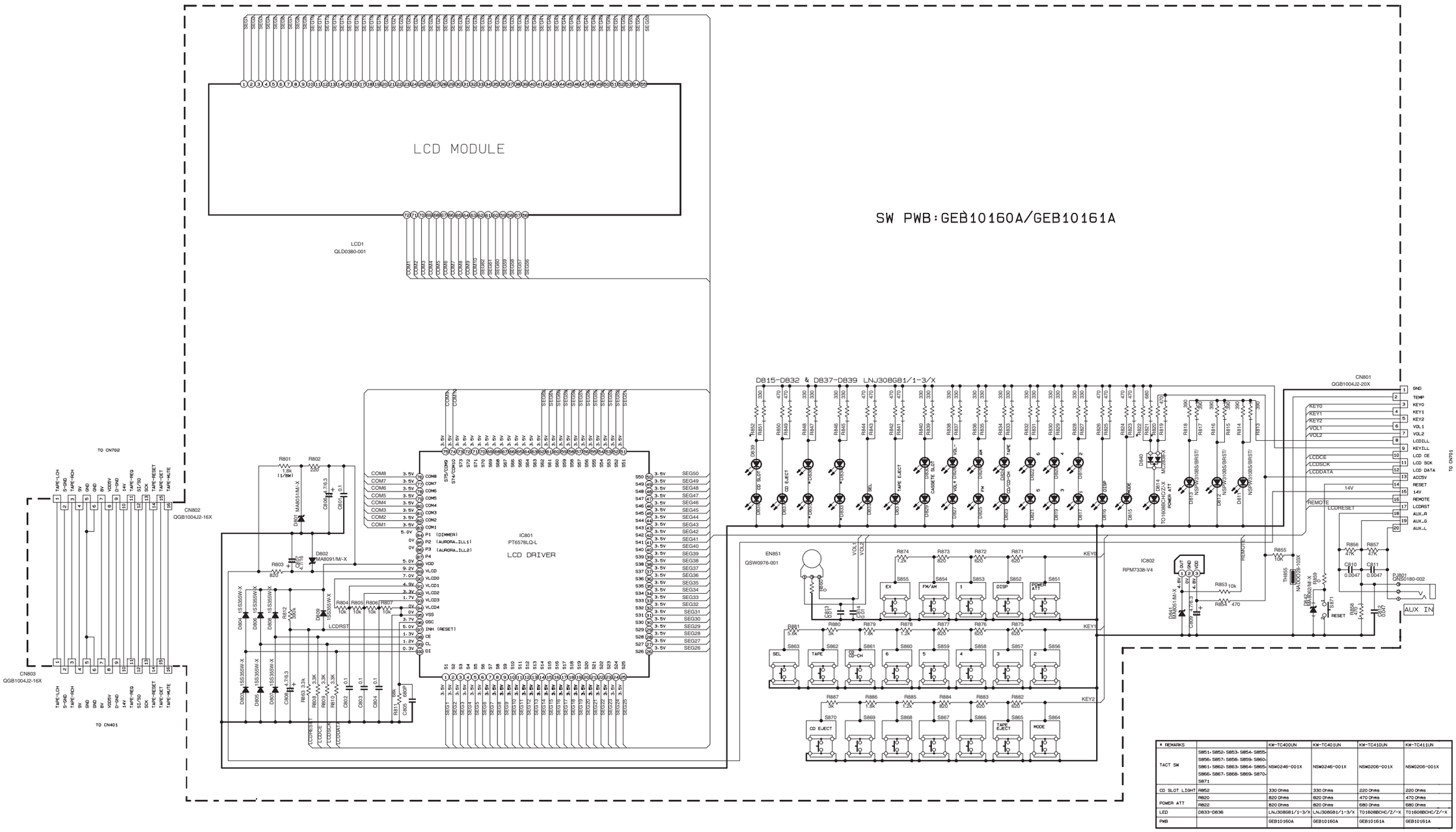
3. NI STANDS FOR NOT MOUNTED PARTS

## ■ LCD & Key control section




| * REMARKS | | KW-TC400UN | KW-TC401UN | KW-TC410UN | KW-TC411UN |
|---|---|---|---|---|---|
| TACT SW | S851, S852, S853, S854, S855, S856, S857, S858, S859, S860, S861, S862, S863, S864, S865, S866, S867, S868, S869, S870, S871 | NSW0246-001X | NSW0246-001X | NSW0206-001X | NSW0206-001X |
| CD SLOT LIGHT | RB52 | 330 Ohms | 330 Ohms | 220 Ohms | 220 Ohms |
| | RB20 | 820 Ohms | 820 Ohms | 470 Ohms | 470 Ohms |
| POWER ATT | RB22 | 820 Ohms | 820 Ohms | 680 Ohms | 680 Ohms |
| LED | D833-D836 | LNJ308G81/1-3/X | LNJ308G81/1-3/X | TO1608BCHC/Z/-X | TO1608BCHC/Z/-X |
| PWB | | GEB10160A | GEB10160A | GEB10161A | GEB10161A |

NOTES

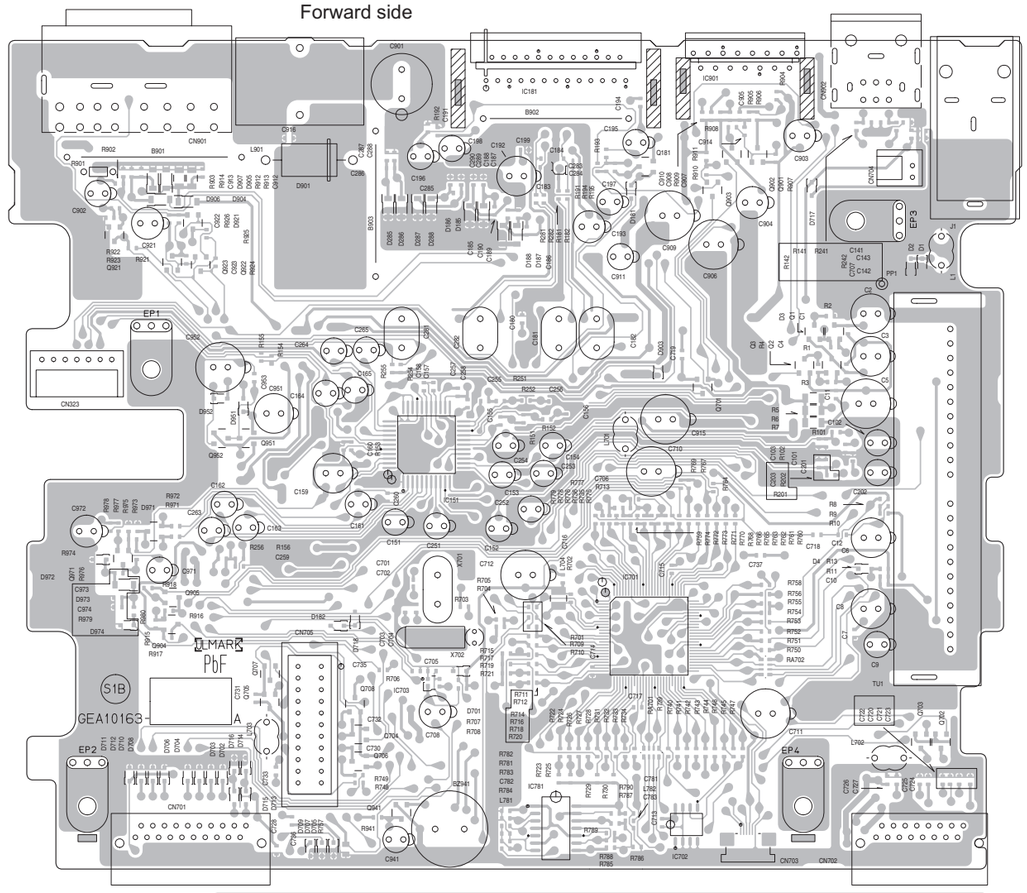
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL.
   CONDITION ---- FM MODE.  AM MODE. ( )CD MODE. [ ]TAPE MODE.
2. UNLESS OTHERWISE SPECIFIED.
   ALL RESISTORS ARE 1/16W OR 1/10W OR 1/8W ±5% METAL GLAZE RESISTOR.
   ALL CAPACITORS ARE 50V OR 25V OR 16V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR.
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITANCE VALUES ARE IN μF(P=pF).
   ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(μF)/RATED VOLTAGE (V).
3. NI STANDS FOR NOT MOUNTED PARTS

# Printed circuit boards

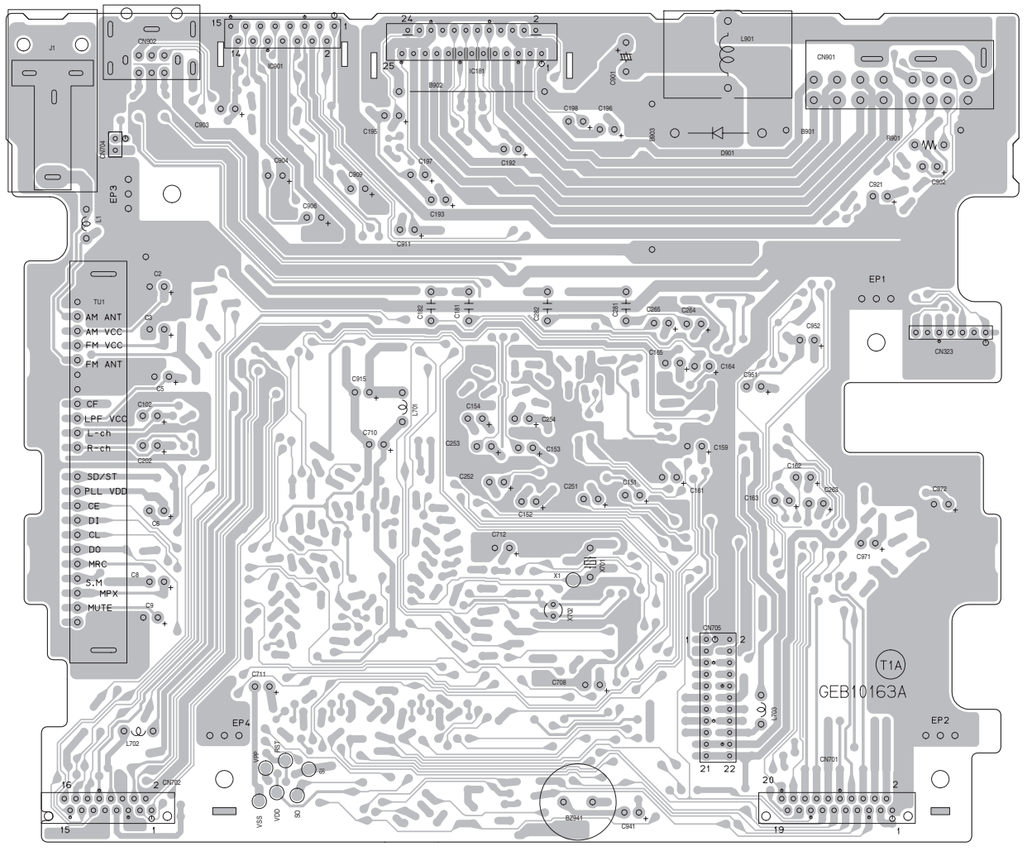
## ■ Main board

Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade)

Forward side



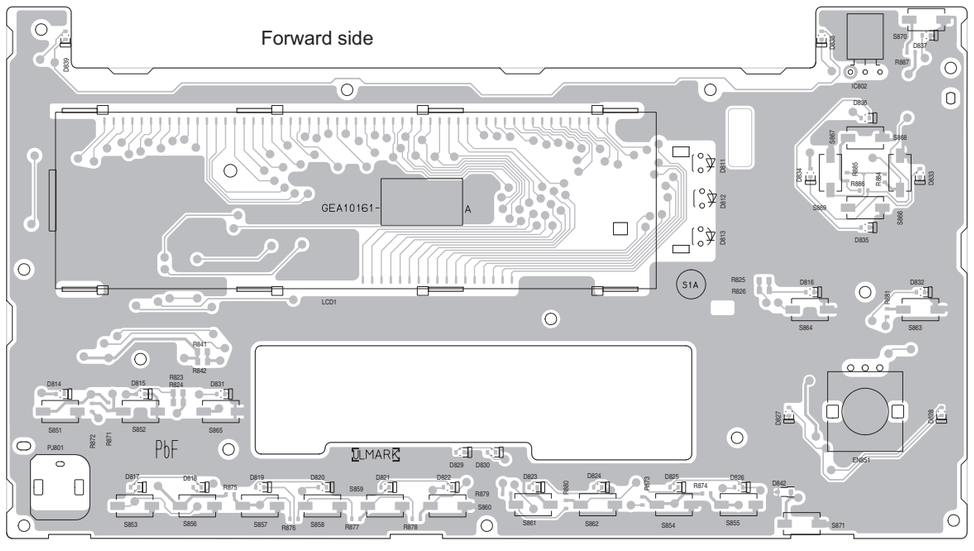

Reverse side



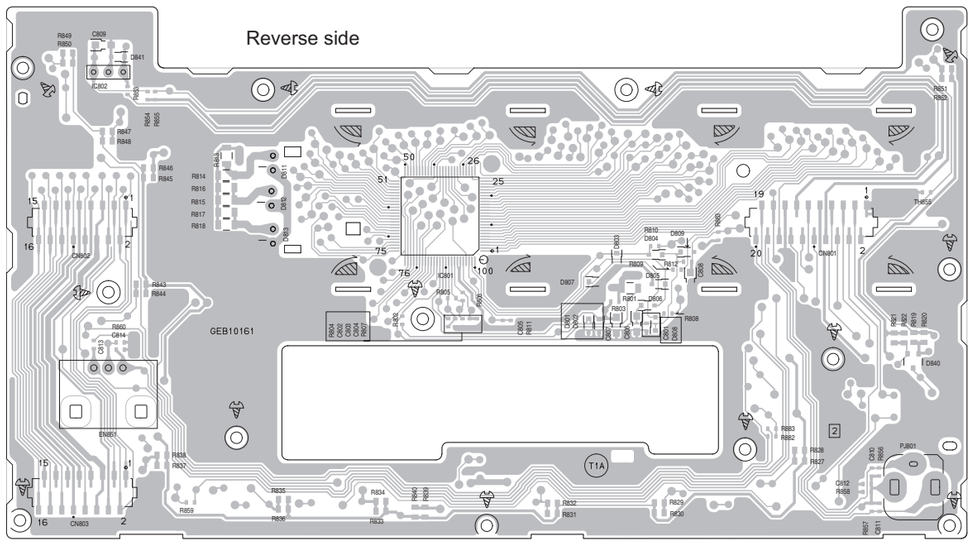

## ■ Switch board

Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade)

Forward side



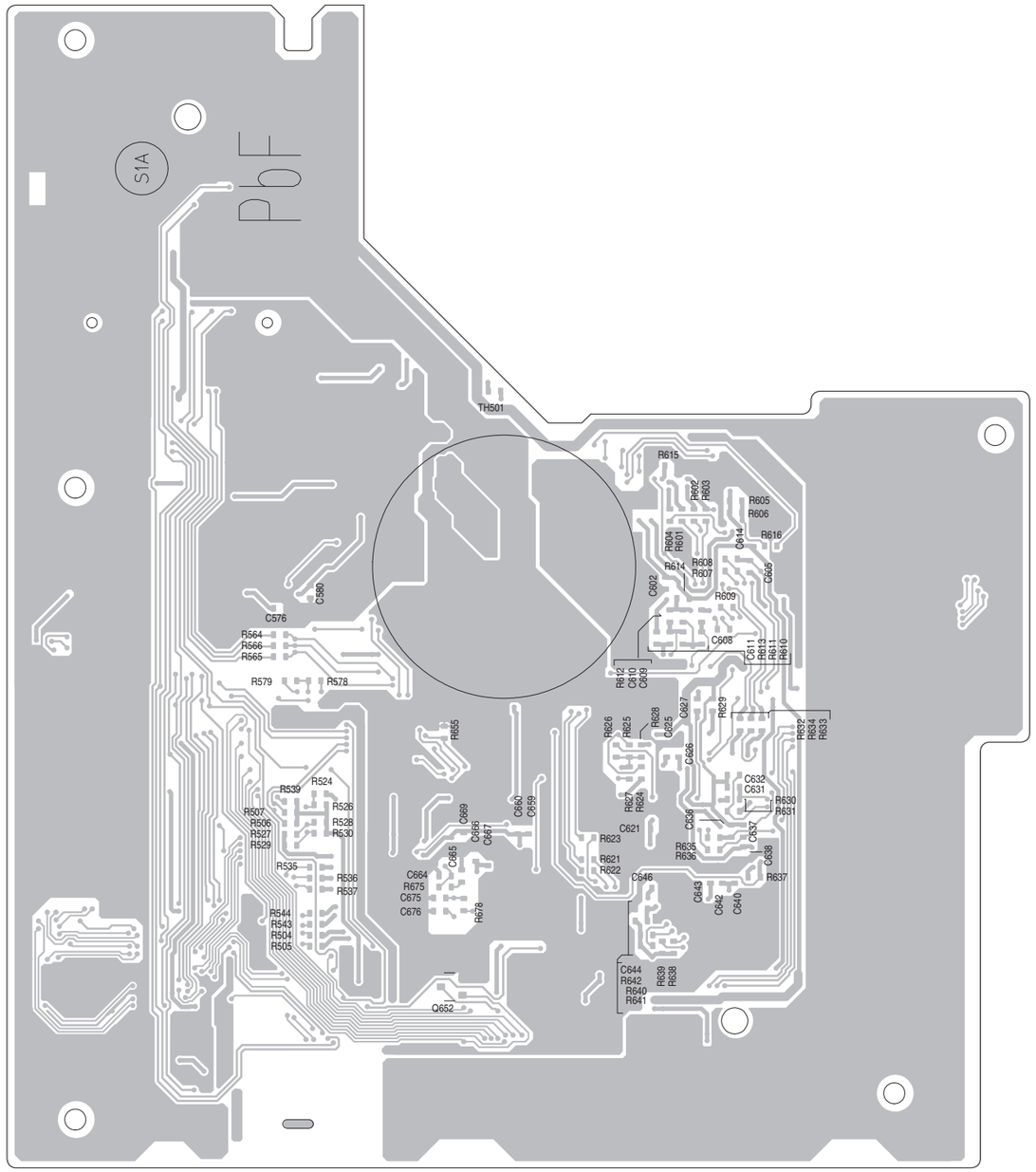

Reverse side



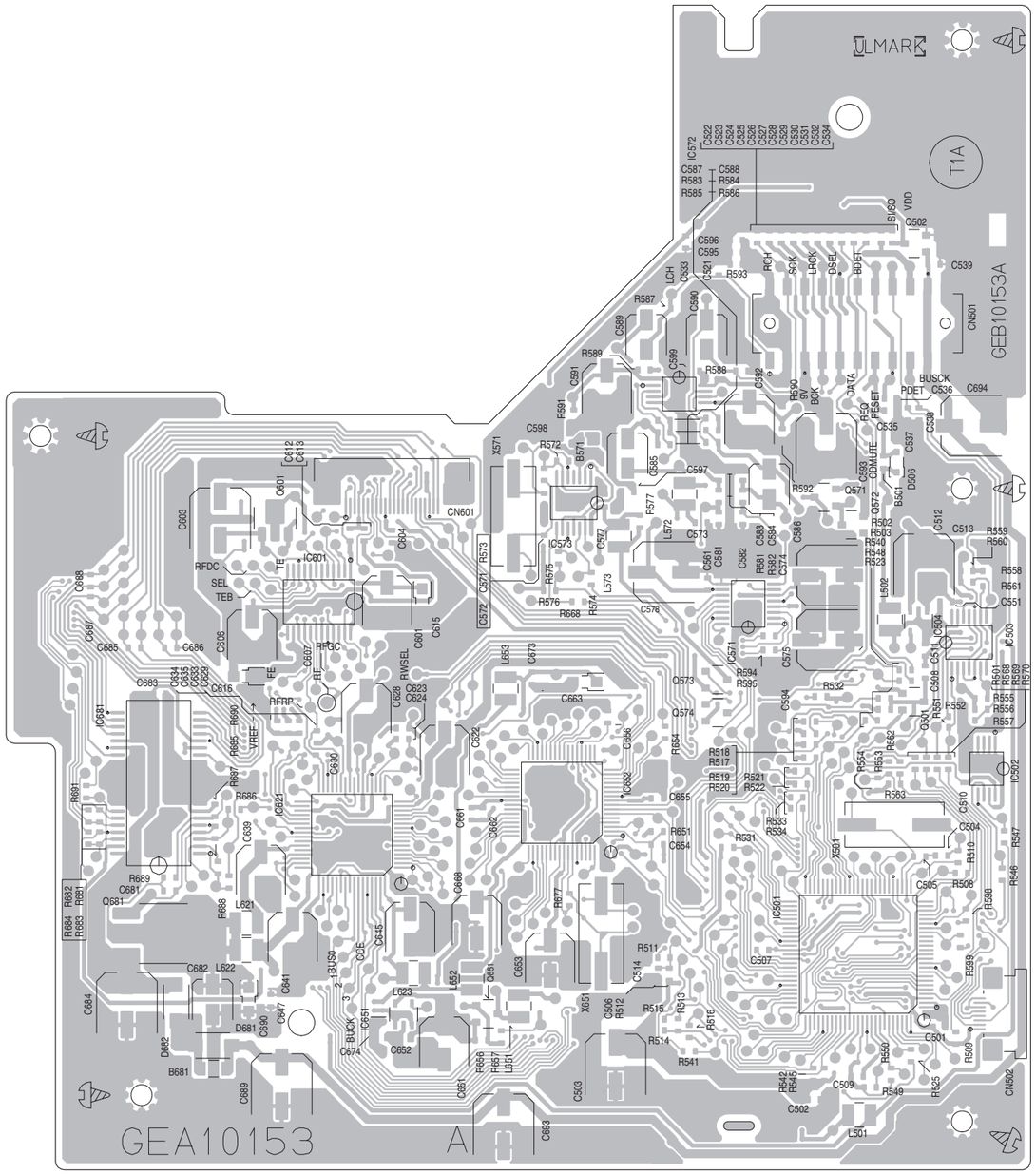
## ■ CD board

Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade)

Forward side



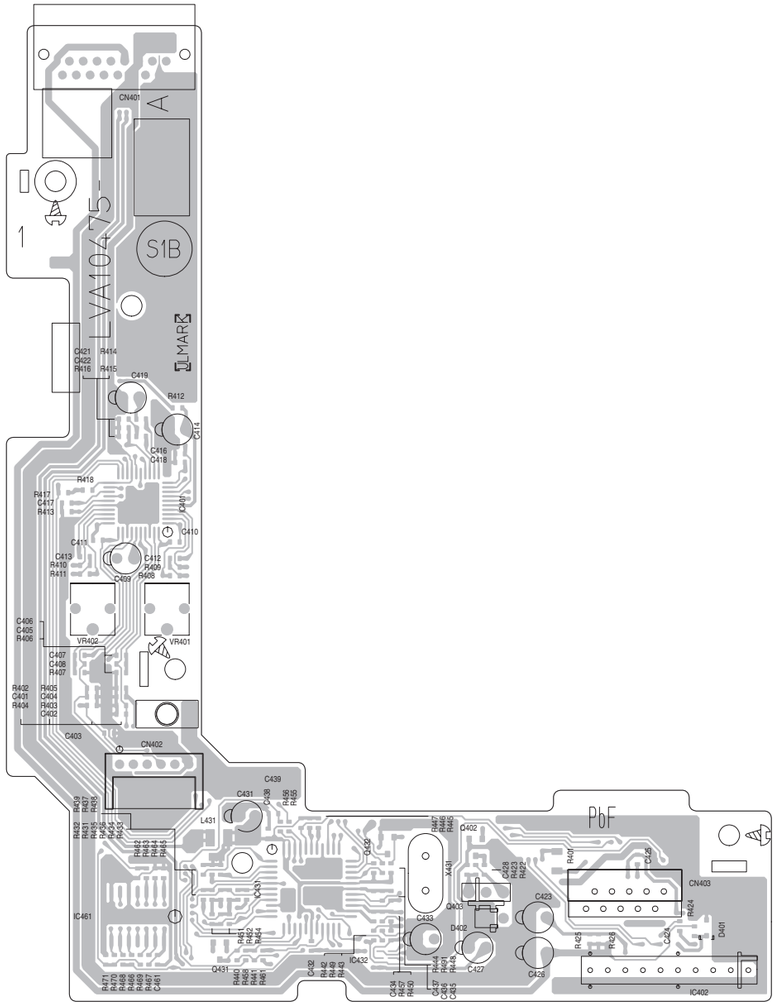

Reverse side



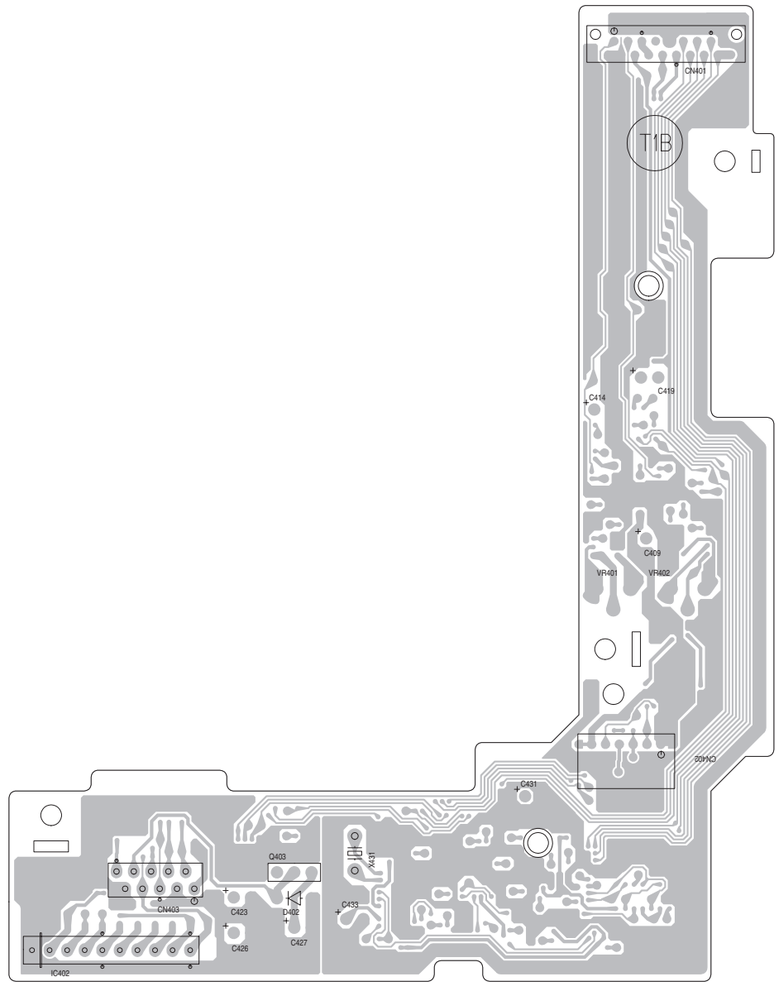
## ■ Cassette board

Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade)

Forward side

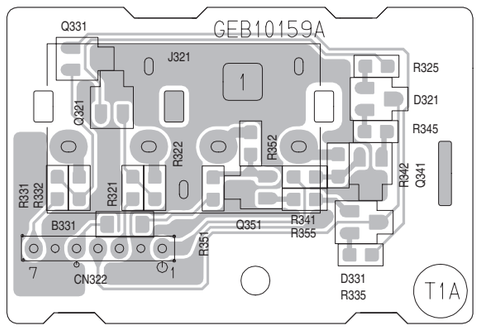



Reverse side




## ■ Function board

Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade)



< MEMO >

JVC

**Victor Company of Japan, Limited**

Mobile Entertainment Business Group Mobile Entertainment Category 10-1,1chome,Ohwatari-machi,Maebashi-city,371-8543,Japan

(No.MA244SCH)

Printed in Japan
VPT

# PARTS LIST

## [ KW-TC410 ] [ KW-TC411 ]

* All printed circuit boards and its assemblies are not available as service parts.

| **KW-TC410, KW-TC411** |
| --- |
| Area suffix<br><br>UN ---------- Indonesia |

- Contents -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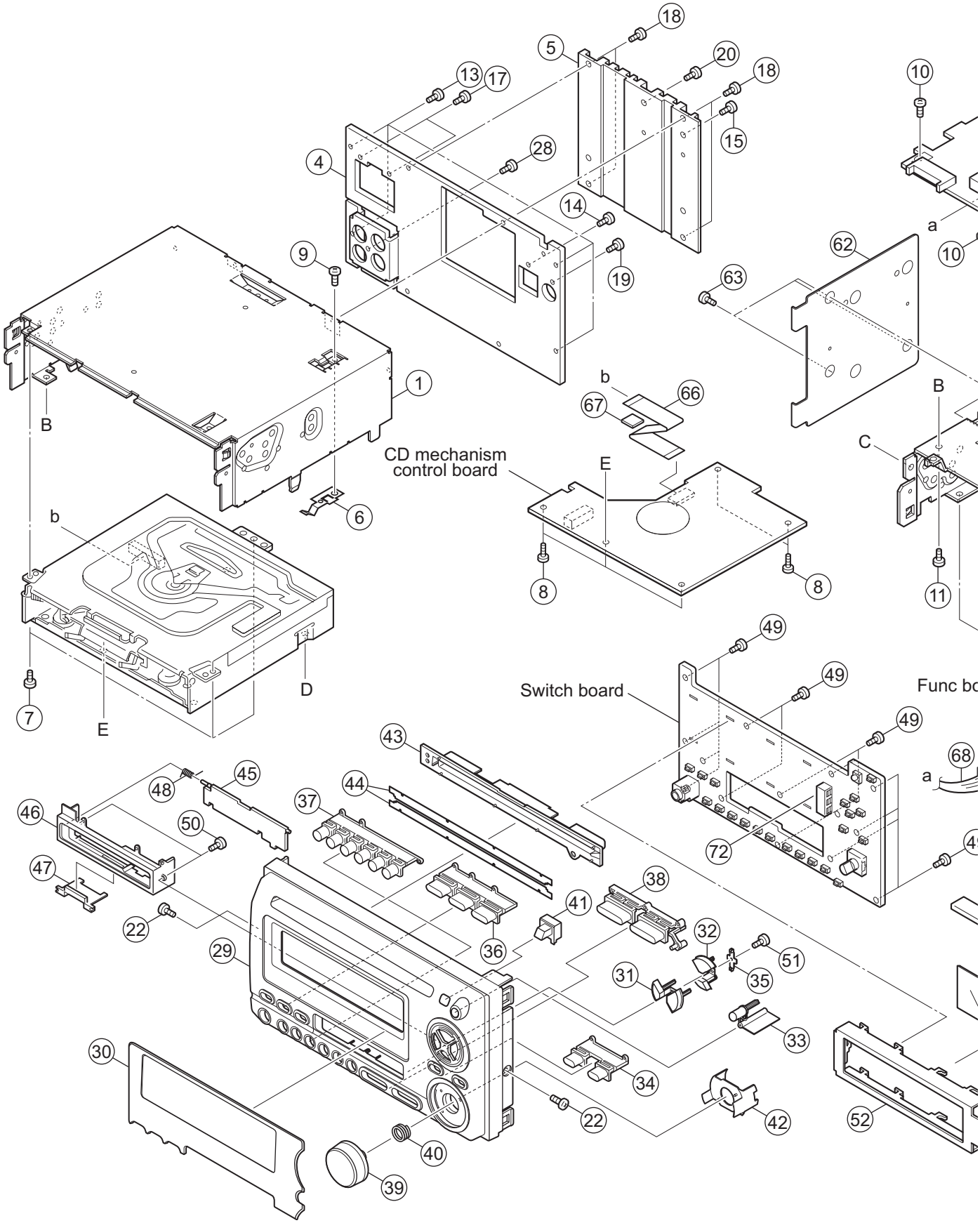
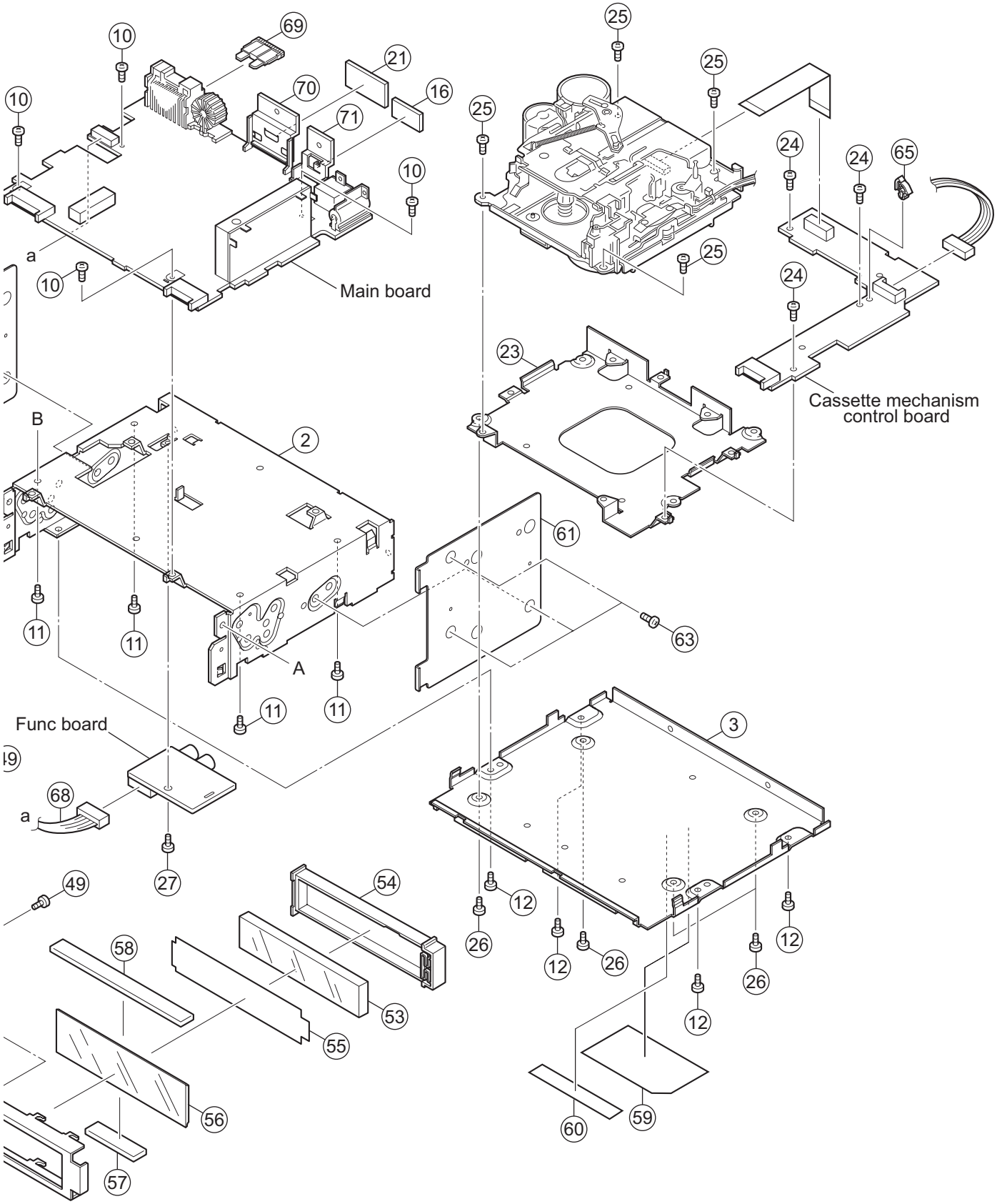
Electrical parts list (Block No.01~05) ---------- 3-5
Packing materials and accessories parts list (Block No.M3)---------- 3-12

# Exploded view of general assembly and parts list

Block No. M 1 M M




Main board
Cassette mechanism control board
Func board
A
B
a

# General Assembly

Block No. [M][1][M][M]

| ⚠ | Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|---|
| | 1 | LV10863-001A | TOP CHASSIS | | |
| | 2 | LV10864-002A | MIDDLE CHASSIS | | |
| | 3 | LV10865-001A | BOTTOM CHASSIS | | |
| | 4 | GE31799-001A | REAR BRACKET | | |
| | 5 | LV34655-001A | HEAT SINK | | |
| | 6 | LV34654-001A | EARTH PLATE | | |
| | 7 | QYSDST2604ZA | TAP SCREW | M2.6 x 4mm(x3) | |
| | 8 | QYSDST2004ZA | TAP SCREW | M2 x 4mm(x5) | |
| | 9 | QYSDST2606ZA | TAP SCREW | M2.6 x 6mm | |
| | 10 | GE40235-004A | SCREW | (x4) | |
| | 11 | QYSDST2606ZA | TAP SCREW | M2.6 x 6mm(x4) | |
| | 12 | QYSDST2606ZA | TAP SCREW | M2.6 x 6mm(x4) | |
| | 13 | QYSDST2606ZA | TAP SCREW | M2.6 x 6mm(x4) | |
| | 14 | QYSDST2606ZA | TAP SCREW | M2.6 x 6mm | |
| | 15 | QYSDST2606ZA | TAP SCREW | M2.6 x 6mm | |
| | 16 | LV43693-001A | COOLING RUBBER | | |
| | 17 | QYSDSF2606ZA | TAP SCREW | M2.6 x 6mm(x2) | |
| | 18 | QYSDST2606ZA | TAP SCREW | M2.6 x 6mm(x4) | |
| | 19 | QYSDST2606ZA | TAP SCREW | M2.6 x 6mm | |
| | 20 | QYSDST2606ZA | TAP SCREW | M2.6 x 6mm | |
| | 21 | LV43694-001A | COOLING RUBBER | | |
| | 22 | QYSDST2004ZA | TAP SCREW | M2 x 4mm(x2) | |
| | 23 | LV21628-001A | CS MECHA BKT | | |
| | 24 | QYSDST2606ZA | TAP SCREW | M2.6 x 6mm(x3) | |
| | 25 | QYSDST2606ZA | TAP SCREW | M2.6 x 6mm(x4) | |
| | 26 | QYSDST2606ZA | TAP SCREW | M2.6 x 6mm(x4) | |
| | 27 | QYSDST2606ZA | TAP SCREW | M2.6 x 6mm | |
| | 28 | QYSDSF3006ZA | TAP SCREW | M3 x 6mm | |
| | 29 | GE10128-001A | FRONT PANEL | | |
| | 30 | GE31803-001A | FINDER ASSY | | TC410 |
| | 30 | GE31803-003A | FINDER ASSY | | TC411 |
| | 31 | GE31766-001A | SEARCH BTN | | |
| | 32 | GE31765-001A | UP/DOWN BTN | | |
| | 33 | GE31759-001A | CD EJECT BTN | | |
| | 34 | GE31762-001A | DISP/SEL BTN | | |
| | 35 | LV43181-002A | 4WAY BUTTON BAS | | |
| | 36 | GE31760-001A | POWER/EJECT BTN | | |
| | 37 | GE20186-001A | PRESET BTN | | |
| | 38 | GE31761-001A | D.FUNCTION BTN | | |
| | 39 | GE31763-001A | VOLUME KNOB | | |
| | 40 | GE40127-001A | KNOB SPRING | | |
| | 41 | GE40287-001A | REMOTE LENS | | |
| | 42 | GE31764-001A | RIM LENS | | |
| | 43 | GE31758-001A | CD GUIDE | | |
| | 44 | GE40286-001A | CD BLIND | (x2) | |
| | 45 | GE31775-001A | CASS.LID | | |
| | 46 | GE31767-001A | CASS.GUIDE | | |
| | 47 | GE40289-001A | CASS.LENS | | |
| | 48 | VKW5312-001 | DOOR SPRING | | |
| | 49 | VKZ4777-010 | MINI SCREW | (x13) | |
| | 50 | VKZ4777-011 | MINI SCREW | (x2) | |
| | 51 | VKZ4777-010 | MINI SCREW | | |
| | 52 | GE31771-001A | LCD CASE | | |
| | 53 | GE31773-001A | LCD LENS | | |
| | 54 | GE31772-001A | LENS CASE | | |
| | 55 | GE40285-001A | LIGHTING SHEET | | |
| | 56 | QLD0380-001 | LCD MODULE | | |
| | 57 | QNZ0817-001 | RUBBER CONNECTO | | |
| | 58 | QNZ0818-001 | RUBBER CONNECTO | | |
| | 59 | GE31789-002A | NAME PLATE | | TC410 |
| | 59 | GE31791-002A | NAME PLATE | | TC411 |
| | 60 | LV41843-002A | LASER CAUTION | | |
| | 61 | LV42375-005A | BRACKET R | | |
| | 62 | LV42376-005A | BRACKET L | | |
| | 63 | QYSSSP5008ZA | SCREW | M5 x 8mm(x6) | |
| | 65 | QZW0143-001 | WIRE CLAMP | | |
| | 66 | QUQ105-2207AE-E | FFC WIRE | 22pin 7cm | |
| | 67 | VYSH101-009 | SPACER | | |
| | 68 | WJN0193-001A-E | E-SH C WIRE C-C | | |
| ⚠ | 69 | QMFZ047-150-T | FUSE | 15A | |
| | 70 | LV34650-001A | IC BKT | | |
| | 71 | LV34651-001A | REG BKT | | |
| | 72 | GE31774-001A | LED HOLDER | | |

# Electrical parts list

## Main board

Block No. [0][1]

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| IC151 | BD3807K | IC | | |
| IC181 | LA47516 | POWER IC | | |
| IC701 | UPD784217AGC340 | IC | | |
| IC702 | BR24L16F-W-X | IC | | |
| IC703 | S-80833CNNB-G-W | IC | | |
| IC781 | SN74AHC126NS-X | IC | | |
| IC901 | R2S25400DS-E | REGULATOR IC | | |
| Q1 | 2SA1365/F/-X | TRANSISTOR | | |
| Q2 | 2SA1365/F/-X | TRANSISTOR | | |
| Q3 | RT1N141C-X | DIGI TRANSISTOR | | |
| Q181 | RT1N441C-X | TRANSISTOR | | |
| Q701 | RT1N441C-X | TRANSISTOR | | |
| Q702 | RT1N441C-X | TRANSISTOR | | |
| Q703 | RT1N141C-X | DIGI TRANSISTOR | | |
| Q704 | RT1N141C-X | DIGI TRANSISTOR | | |
| Q705 | RT1N441C-X | TRANSISTOR | | |
| Q706 | RT1N141C-X | DIGI TRANSISTOR | | |
| Q707 | RT1N141C-X | DIGI TRANSISTOR | | |
| Q708 | RT1N141C-X | DIGI TRANSISTOR | | |
| Q901 | 2SA1365/F/-X | TRANSISTOR | | |
| Q902 | RT1N141C-X | DIGI TRANSISTOR | | |
| Q903 | 2SA1530A/QR/-X | TRANSISTOR | | |
| Q904 | 2SA1365/F/-X | TRANSISTOR | | |
| Q905 | RT1N141C-X | DIGI TRANSISTOR | | |
| Q921 | 2SC3928A/QR/-X | TRANSISTOR | | |
| Q951 | RT1P141C-X | DIGI TRANSISTOR | | |
| Q952 | RT1P141C-X | DIGI TRANSISTOR | | |
| Q971 | 2SC3928A/QR/-X | TRANSISTOR | | |
| D1 | 1SS355W-X | DIODE C.M | | |
| D2 | 1SS355W-X | DIODE C.M | | |
| D3 | MC2838-X | DIODE | | |
| D4 | 1SS355W-X | DIODE C.M | | |
| D181 | 1SS355W-X | DIODE C.M | | |
| D182 | 1SS355W-X | DIODE C.M | | |
| D701 | 1SS355W-X | DIODE C.M | | |
| D713 | UDZW6.2B-X | DIODE | | |
| D714 | UDZW6.2B-X | DIODE | | |
| D715 | UDZW6.2B-X | DIODE | | |
| D716 | UDZW6.2B-X | DIODE | | |
| D718 | 1SS355W-X | DIODE C.M | | |
| D901 | 1N5401-F64 | DIODE | | |
| D903 | 1SS355W-X | DIODE C.M | | |
| D904 | CRS03-W | SB DIODE | | |
| D905 | CRS03-W | SB DIODE | | |
| D951 | 1SS355W-X | DIODE C.M | | |
| D952 | UDZW11B-X | Z DIODE | | |
| D971 | MC2838-X | DIODE | | |
| D972 | 1SS355W-X | DIODE C.M | | |
| D973 | CRS03-W | SB DIODE | | |
| D974 | UDZW5.1B-X | SI DIODE | | |
| C1 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C2 | QERF1AM-476Z | E CAPACITOR | 47uF 10V M | |
| C3 | QERF1AM-476Z | E CAPACITOR | 47uF 10V M | |
| C4 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C5 | QERF1AM-227Z | E CAPACITOR | 220uF 10V M | |
| C6 | QERF1AM-107Z | E CAPACITOR | 100uF 10V M | |
| C7 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C8 | QERF1AM-107Z | E CAPACITOR | 100uF 10V M | |
| C9 | QERF1HM-104Z | E CAPACITOR | 0.1uF 50V M | |
| C10 | NCS31HJ-331X | C CAPACITOR | 330pF 50V J | |
| C12 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C101 | NCB31HK-153X | C CAPACITOR | 0.015uF 50V K | |
| C102 | QTE1H56-105Z | E CAPACITOR | 1uF 50V | |
| C141 | NCB31CK-473X | C CAPACITOR | 0.047uF 16V K | |
| C151 | QTE1H55-225Z | E CAPACITOR | 2.2uF 50V | |
| C152 | QTE1H56-225Z | E CAPACITOR | 2.2uF 50V | |
| C153 | QERF1HM-225Z | E CAPACITOR | 2.2uF 50V M | |
| C154 | QERF1HM-225Z | E CAPACITOR | 2.2uF 50V M | |
| C155 | NCB31HK-221X | C CAPACITOR | 220pF 50V K | |
| C156 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C157 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C158 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C159 | QTE1A56-107Z | E CAPACITOR | 100uF 10V | |
| C160 | NCB31CK-473X | C CAPACITOR | 0.047uF 16V K | |
| C161 | QTE1C56-106Z | E CAPACITOR | 10uF 16V | |
| C162 | QERF1EM-475Z | E CAPACITOR | 4.7uF 25V M | |
| C163 | QERF1EM-475Z | E CAPACITOR | 4.7uF 25V M | |
| C164 | QTE1E56-475Z | E CAPACITOR | 4.7uF 25V | |
| C165 | QTE1E56-475Z | E CAPACITOR | 4.7uF 25V | |
| C181 | QFV91HJ-474Z | MF CAPACITOR | 0.47uF 50V J | |
| C182 | QFV91HJ-474Z | MF CAPACITOR | 0.47uF 50V J | |
| C183 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C184 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C185 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C186 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C187 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C188 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C189 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C190 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C191 | NCB31HK-223X | C CAPACITOR | 0.022uF 50V K | |
| C192 | QTE1C56-476Z | E CAPACITOR | 47uF 16V | |
| C193 | QERF1CM-226Z | E CAPACITOR | 22uF 16V M | |
| C194 | NCB31HK-223X | C CAPACITOR | 0.022uF 50V K | |
| C195 | QERF1HM-225Z | E CAPACITOR | 2.2uF 50V M | |
| C196 | QERF1EM-475Z | E CAPACITOR | 4.7uF 25V M | |
| C197 | QERF1HM-105Z | E CAPACITOR | 1uF 50V M | |
| C198 | QERF1HM-105Z | E CAPACITOR | 1uF 50V M | |
| C201 | NCB31HK-153X | C CAPACITOR | 0.015uF 50V K | |
| C202 | QTE1H56-105Z | E CAPACITOR | 1uF 50V | |
| C251 | QTE1H55-225Z | E CAPACITOR | 2.2uF 50V | |
| C252 | QTE1H56-225Z | E CAPACITOR | 2.2uF 50V | |
| C253 | QERF1HM-225Z | E CAPACITOR | 2.2uF 50V M | |
| C254 | QERF1HM-225Z | E CAPACITOR | 2.2uF 50V M | |
| C255 | NCB31HK-221X | C CAPACITOR | 220pF 50V K | |
| C256 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C257 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C258 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C259 | NCB31CK-224X | C CAPACITOR | 0.22uF 16V K | |
| C263 | QERF1EM-475Z | E CAPACITOR | 4.7uF 25V M | |
| C264 | QTE1E56-475Z | E CAPACITOR | 4.7uF 25V | |
| C265 | QTE1E56-475Z | E CAPACITOR | 4.7uF 25V | |
| C281 | QFV91HJ-474Z | MF CAPACITOR | 0.47uF 50V J | |
| C282 | QFV91HJ-474Z | MF CAPACITOR | 0.47uF 50V J | |
| C283 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C284 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C285 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C286 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C287 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C288 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C289 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C290 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C701 | NDC31HJ-8R0X | C CAPACITOR | 8pF 50V J | |
| C702 | NDC31HJ-270X | C CAPACITOR | 27pF 50V J | |
| C703 | NDC31HJ-270X | C CAPACITOR | 27pF 50V J | |
| C704 | NDC31HJ-220X | C CAPACITOR | 22pF 50V J | |
| C705 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C706 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C708 | QERF0JM-476Z | E CAPACITOR | 47uF 6.3V M | |
| C710 | QERF1AM-227Z | E CAPACITOR | 220uF 10V M | |
| C711 | QERF1AM-227Z | E CAPACITOR | 220uF 10V M | |
| C712 | QERF1AM-227Z | E CAPACITOR | 220uF 10V M | |
| C713 | NCB31CK-473X | C CAPACITOR | 0.047uF 16V K | |
| C714 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C715 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C716 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C717 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C720 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C721 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C722 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C723 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C724 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C725 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C726 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C727 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C728 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| C730 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C731 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C732 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C733 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C735 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C736 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C781 | NCB31CK-473X | C CAPACITOR | 0.047uF 16V K | |
| C901 | QEZ0676-338 | E CAPACITOR | 3300uF | |
| C902 | QERF1HM-225Z | E CAPACITOR | 2.2uF 50V M | |
| C903 | QERF1CM-226Z | E CAPACITOR | 22uF 16V M | |
| C904 | QERF1CM-226Z | E CAPACITOR | 22uF 16V M | |
| C905 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C906 | QERF1AM-227Z | E CAPACITOR | 220uF 10V M | |
| C907 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C908 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C909 | QERF1AM-227Z | E CAPACITOR | 220uF 10V M | |
| C911 | QERF1CM-106Z | E CAPACITOR | 10uF 16V M | |
| C912 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C921 | QERF1CM-226Z | E CAPACITOR | 22uF 16V M | |
| C951 | QERF1AM-107Z | E CAPACITOR | 100uF 10V M | |
| C952 | QERF1CM-107Z | E CAPACITOR | 100uF 16V M | |
| C953 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C971 | QERF1HM-105Z | E CAPACITOR | 1uF 50V M | |
| C972 | QERF1CM-226Z | E CAPACITOR | 22uF 16V M | |
| C973 | NCB31EK-473X | C CAPACITOR | 0.047uF 25V K | |
| C974 | NCB31CK-224X | C CAPACITOR | 0.22uF 16V K | |
| R1 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R2 | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J | |
| R3 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R4 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R5 | NRS181J-100X | MG RESISTOR | 10Ω 1/8W J | |
| R7 | NRS181J-4R7X | MG RESISTOR | 4.7Ω 1/8W J | |
| R8 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R9 | NRSA63J-270X | MG RESISTOR | 27Ω 1/16W J | |
| R10 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R11 | NRSA63J-184X | MG RESISTOR | 180kΩ 1/16W J | |
| R13 | NRSA63J-393X | MG RESISTOR | 39kΩ 1/16W J | |
| R101 | NRSA63J-123X | MG RESISTOR | 12kΩ 1/16W J | |
| R102 | NRSA63J-273X | MG RESISTOR | 27kΩ 1/16W J | |
| R141 | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J | |
| R142 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R151 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R152 | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J | |
| R153 | NRSA63J-333X | MG RESISTOR | 33kΩ 1/16W J | |
| R154 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R155 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R156 | NRSA63J-333X | MG RESISTOR | 33kΩ 1/16W J | |
| R181 | NRSA63J-273X | MG RESISTOR | 27kΩ 1/16W J | |
| R182 | NRSA63J-273X | MG RESISTOR | 27kΩ 1/16W J | |
| R191 | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J | |
| R192 | NRSA63J-273X | MG RESISTOR | 27kΩ 1/16W J | |
| R193 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R195 | NRSA63J-182X | MG RESISTOR | 1.8kΩ 1/16W J | |
| R201 | NRSA63J-123X | MG RESISTOR | 12kΩ 1/16W J | |
| R202 | NRSA63J-273X | MG RESISTOR | 27kΩ 1/16W J | |
| R241 | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J | |
| R242 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R251 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R252 | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J | |
| R254 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R255 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R256 | NRSA63J-333X | MG RESISTOR | 33kΩ 1/16W J | |
| R281 | NRSA63J-273X | MG RESISTOR | 27kΩ 1/16W J | |
| R282 | NRSA63J-273X | MG RESISTOR | 27kΩ 1/16W J | |
| R701 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R703 | NRSA63J-821X | MG RESISTOR | 820Ω 1/16W J | |
| R704 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R705 | NRSA63J-106X | MG RESISTOR | 10MΩ 1/16W J | |
| R706 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R707 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R708 | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J | |
| R709 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R710 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R712 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R713 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R714 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R715 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R716 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R717 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R720 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R721 | NRSA63J-332X | MG RESISTOR | 3.3kΩ 1/16W J | |
| R722 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R723 | NRSA63J-332X | MG RESISTOR | 3.3kΩ 1/16W J | |
| R724 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R725 | NRSA63J-332X | MG RESISTOR | 3.3kΩ 1/16W J | |
| R726 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R727 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R728 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R731 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R732 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R733 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R734 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R739 | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J | |
| R740 | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J | |
| R741 | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J | |
| R743 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R744 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R745 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R746 | NRSA63J-271X | MG RESISTOR | 270Ω 1/16W J | |
| R747 | NRSA63J-271X | MG RESISTOR | 270Ω 1/16W J | |
| R748 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R749 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R750 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R751 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R752 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R753 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R754 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R755 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R756 | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J | |
| R760 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R762 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R763 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R764 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R765 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R766 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R767 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R768 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R769 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R770 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R772 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R774 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R775 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R776 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R777 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R778 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R779 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R781 | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J | |
| R782 | NRSA63J-223X | MG RESISTOR | 22kΩ 1/16W J | |
| R783 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R784 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R785 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R786 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R787 | NRSA63J-223X | MG RESISTOR | 22kΩ 1/16W J | |
| R788 | NRSA63J-331X | MG RESISTOR | 330Ω 1/16W J | |
| R789 | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J | |
| R790 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R901 | QRE142J-102X | C RESISTOR | 1kΩ 1/4W J | |
| R902 | NRSA63J-912X | MG RESISTOR | 9.1kΩ 1/16W J | |
| R903 | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J | |
| R904 | NRSA63J-562X | MG RESISTOR | 5.6kΩ 1/16W J | |
| R905 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R906 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R907 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R908 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R909 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R910 | NRSA63J-153X | MG RESISTOR | 15kΩ 1/16W J | |
| R911 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R912 | NRS181J-102X | MG RESISTOR | 1kΩ 1/8W J | |
| R915 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R916 | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J | |
| R921 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R922 | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J | |
| R923 | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J | |
| R971 | NRSA63J-224X | MG RESISTOR | 220kΩ 1/16W J | |
| R972 | NRSA63J-224X | MG RESISTOR | 220kΩ 1/16W J | |

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| R973 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R974 | NRSA63J-184X | MG RESISTOR | 180kΩ 1/16W J | |
| R975 | NRSA63J-223X | MG RESISTOR | 22kΩ 1/16W J | |
| R976 | NRSA63J-123X | MG RESISTOR | 12kΩ 1/16W J | |
| R977 | NRSA63J-470X | MG RESISTOR | 47Ω 1/16W J | |
| R978 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R979 | NRSA63J-124X | MG RESISTOR | 120kΩ 1/16W J | |
| R980 | NRSA63J-123X | MG RESISTOR | 12kΩ 1/16W J | |
| RA701 | NRZ0065-102X | MG RESISTOR | 1kΩ | |
| RA702 | NRZ0065-102X | MG RESISTOR | 1kΩ | |
| L1 | QQL244J-4R7Z | COIL | 4.7uH J | |
| L701 | QQL244J-470Z | COIL | 47uH J | |
| L702 | QQL244J-470Z | COIL | 47uH J | |
| L703 | QQL244J-470Z | COIL | 47uH J | |
| L704 | NQL114M-4R7X | COIL | 4.7uH M | |
| L781 | NQL093K-1R8X | COIL | 1.8uH K | |
| L782 | NQL093K-1R8X | COIL | 1.8uH K | |
| L901 | QQR0703-001 | CHOKE COIL | | |
| CN323 | QGA2001F1-07 | CONNECTOR | W-B (1-7) | |
| CN701 | QGB1004K1-20 | CONNECTOR | B-B (1-20) | |
| CN702 | QGB1004K1-16 | CONNECTOR | B-B (1-16) | |
| CN705 | QGB2027M4-22S | CONNECTOR | B-B (1-22) | |
| CN901 | QNZ0611-001 | 16P CONNECTOR | | |
| CN902 | QNZ0095-001 | CONNECTOR | | |
| J1 | QNB0190-001 | ANTENNA JACK | | |
| TU1 | QAU0403-001 | TUNER PACK | | |
| X701 | QAX0617-001Z | CRYSTAL | 12.500MHz | |
| X702 | QAX0401-001 | CRYSTAL | 32.768KHz | |

## Func board

Block No. [0][2]

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| Q321 | KTD1304-X | TRANSISTOR | | |
| Q331 | KTD1304-X | TRANSISTOR | | |
| Q341 | KTD1304-X | TRANSISTOR | | |
| Q351 | KTD1304-X | TRANSISTOR | | |
| D321 | MC2836-X | DIODE | | |
| D331 | MC2836-X | DIODE | | |
| R321 | NRSA63J-821X | MG RESISTOR | 820Ω 1/16W J | |
| R322 | NRSA63J-181X | MG RESISTOR | 180Ω 1/16W J | |
| R325 | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J | |
| R331 | NRSA63J-821X | MG RESISTOR | 820Ω 1/16W J | |
| R332 | NRSA63J-181X | MG RESISTOR | 180Ω 1/16W J | |
| R335 | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J | |
| R341 | NRSA63J-821X | MG RESISTOR | 820Ω 1/16W J | |
| R342 | NRSA63J-181X | MG RESISTOR | 180Ω 1/16W J | |
| R345 | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J | |
| R351 | NRSA63J-821X | MG RESISTOR | 820Ω 1/16W J | |
| R352 | NRSA63J-181X | MG RESISTOR | 180Ω 1/16W J | |
| R355 | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J | |
| CN322 | QGA2001F1-07 | CONNECTOR | W-B (1-7) | |
| J321 | QNN0740-001 | PIN JACK | | |

## Switch board

Block No. [0][3]

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| IC801 | PT6578LQ-L | IC | | |
| IC802 | RPM7338-V4 | RM.RECEIVER | | |
| D801 | UDZW5.1B-X | SI DIODE | | |
| D802 | UDZW9.1B-X | Z DIODE | | |

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| D803 | 1SS355W-X | DIODE C.M | | |
| D804 | 1SS355W-X | DIODE C.M | | |
| D805 | 1SS355W-X | DIODE C.M | | |
| D806 | 1SS355W-X | DIODE C.M | | |
| D807 | 1SS355W-X | DIODE C.M | | |
| D808 | 1SS355W-X | DIODE C.M | | |
| D809 | 1SS355W-X | DIODE C.M | | |
| D811 | NSPW310BS/BRST/ | LED | | |
| D812 | NSPW310BS/BRST/ | LED | | |
| D813 | NSPW310BS/BRST/ | LED | | |
| D814 | TO1608BCHC/Z/-X | LED | | |
| D815 | LNJ308G81/1-3/X | LED | | |
| D816 | LNJ308G81/1-3/X | LED | | |
| D817 | LNJ308G81/1-3/X | LED | | |
| D818 | LNJ308G81/1-3/X | LED | | |
| D819 | LNJ308G81/1-3/X | LED | | |
| D820 | LNJ308G81/1-3/X | LED | | |
| D821 | LNJ308G81/1-3/X | LED | | |
| D822 | LNJ308G81/1-3/X | LED | | |
| D823 | LNJ308G81/1-3/X | LED | | |
| D824 | LNJ308G81/1-3/X | LED | | |
| D825 | LNJ308G81/1-3/X | LED | | |
| D826 | LNJ308G81/1-3/X | LED | | |
| D827 | LNJ308G81/1-3/X | LED | | |
| D828 | LNJ308G81/1-3/X | LED | | |
| D829 | LNJ308G81/1-3/X | LED | | |
| D830 | LNJ308G81/1-3/X | LED | | |
| D831 | LNJ308G81/1-3/X | LED | | |
| D832 | LNJ308G81/1-3/X | LED | | |
| D833 | TO1608BCHC/Z/-X | LED | | |
| D834 | TO1608BCHC/Z/-X | LED | | |
| D835 | TO1608BCHC/Z/-X | LED | | |
| D836 | TO1608BCHC/Z/-X | LED | | |
| D837 | LNJ308G81/1-3/X | LED | | |
| D838 | LNJ308G81/1-3/X | LED | | |
| D839 | LNJ308G81/1-3/X | LED | | |
| D840 | MC2838-X | DIODE | | |
| D841 | UDZW5.1B-X | SI DIODE | | |
| C801 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C802 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C803 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C804 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C805 | NCS31HJ-681X | C CAPACITOR | 680pF 50V J | |
| C806 | NBE20JM-475X | TA E CAPACITOR | 4.7uF 6.3V M | |
| C807 | NBE21CM-475X | TA E CAPACITOR | 4.7uF 16V M | |
| C808 | NBE20JM-475X | TA E CAPACITOR | 4.7uF 6.3V M | |
| C809 | NBE20JM-475X | TA E CAPACITOR | 4.7uF 6.3V M | |
| C810 | NCB31HK-472X | C CAPACITOR | 4700pF 50V K | |
| C811 | NCB31HK-472X | C CAPACITOR | 4700pF 50V K | |
| C812 | NCB31CK-473X | C CAPACITOR | 0.047uF 16V K | |
| C813 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C814 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| R801 | NRS181J-182X | MG RESISTOR | 1.8kΩ 1/8W J | |
| R802 | NRSA63J-221X | MG RESISTOR | 220Ω 1/16W J | |
| R803 | NRSA63J-821X | MG RESISTOR | 820Ω 1/16W J | |
| R804 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R805 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R806 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R807 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R808 | NRSA63J-332X | MG RESISTOR | 3.3kΩ 1/16W J | |
| R809 | NRSA63J-332X | MG RESISTOR | 3.3kΩ 1/16W J | |
| R810 | NRSA63J-332X | MG RESISTOR | 3.3kΩ 1/16W J | |
| R811 | NRSA63J-683X | MG RESISTOR | 68kΩ 1/16W J | |
| R812 | NRSA63J-394X | MG RESISTOR | 390kΩ 1/16W J | |
| R814 | NRS181J-391X | MG RESISTOR | 390Ω 1/8W J | |
| R816 | NRS181J-391X | MG RESISTOR | 390Ω 1/8W J | |
| R818 | NRS181J-391X | MG RESISTOR | 390Ω 1/8W J | |
| R820 | NRSA02J-471X | MG RESISTOR | 470Ω 1/10W J | |
| R822 | NRSA02J-681X | MG RESISTOR | 680Ω 1/10W J | |
| R824 | NRSA02J-471X | MG RESISTOR | 470Ω 1/10W J | |
| R826 | NRSA02J-471X | MG RESISTOR | 470Ω 1/10W J | |
| R828 | NRSA02J-331X | MG RESISTOR | 330Ω 1/10W J | |
| R830 | NRSA02J-331X | MG RESISTOR | 330Ω 1/10W J | |
| R832 | NRSA02J-331X | MG RESISTOR | 330Ω 1/10W J | |
| R834 | NRSA02J-331X | MG RESISTOR | 330Ω 1/10W J | |
| R836 | NRSA02J-331X | MG RESISTOR | 330Ω 1/10W J | |

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| R838 | NRSA02J-331X | MG RESISTOR | 330Ω 1/10W J | |
| R840 | NRSA02J-331X | MG RESISTOR | 330Ω 1/10W J | |
| R842 | NRSA02J-471X | MG RESISTOR | 470Ω 1/10W J | |
| R844 | NRSA02J-471X | MG RESISTOR | 470Ω 1/10W J | |
| R846 | NRSA02J-331X | MG RESISTOR | 330Ω 1/10W J | |
| R848 | NRSA02J-331X | MG RESISTOR | 330Ω 1/10W J | |
| R850 | NRSA02J-471X | MG RESISTOR | 470Ω 1/10W J | |
| R852 | NRSA02J-222X | MG RESISTOR | 2.2kΩ 1/10W J | |
| R853 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R854 | NRSA63J-471X | MG RESISTOR | 470Ω 1/16W J | |
| R855 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R856 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R857 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R859 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R860 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R863 | NRSA63J-332X | MG RESISTOR | 3.3kΩ 1/16W J | |
| R871 | NRSA63J-621X | MG RESISTOR | 620Ω 1/16W J | |
| R872 | NRSA63J-621X | MG RESISTOR | 620Ω 1/16W J | |
| R873 | NRSA63J-821X | MG RESISTOR | 820Ω 1/16W J | |
| R874 | NRSA63J-122X | MG RESISTOR | 1.2kΩ 1/16W J | |
| R875 | NRSA63J-621X | MG RESISTOR | 620Ω 1/16W J | |
| R876 | NRSA63J-621X | MG RESISTOR | 620Ω 1/16W J | |
| R877 | NRSA63J-821X | MG RESISTOR | 820Ω 1/16W J | |
| R878 | NRSA63J-122X | MG RESISTOR | 1.2kΩ 1/16W J | |
| R879 | NRSA63J-182X | MG RESISTOR | 1.8kΩ 1/16W J | |
| R880 | NRSA63J-302X | MG RESISTOR | 3kΩ 1/16W J | |
| R881 | NRSA63J-562X | MG RESISTOR | 5.6kΩ 1/16W J | |
| R882 | NRSA63J-621X | MG RESISTOR | 620Ω 1/16W J | |
| R883 | NRSA63J-621X | MG RESISTOR | 620Ω 1/16W J | |
| R884 | NRSA63J-821X | MG RESISTOR | 820Ω 1/16W J | |
| R885 | NRSA63J-122X | MG RESISTOR | 1.2kΩ 1/16W J | |
| R886 | NRSA63J-182X | MG RESISTOR | 1.8kΩ 1/16W J | |
| R887 | NRSA63J-302X | MG RESISTOR | 3kΩ 1/16W J | |
| CN801 | QGB1004J2-20X | CONNECTOR | B-B (1-20) | |
| CN802 | QGB1004J2-16X | CONNECTOR | B-B (1-16) | |
| CN803 | QGB1004J2-16X | CONNECTOR | B-B (1-16) | |
| EN851 | QSW0976-001 | ROTARY ENCODER | | |
| PJ801 | QNS0180-002 | 3.5 JACK | | |
| S851 | NSW0206-001X | TACT SWITCH | | |
| S852 | NSW0206-001X | TACT SWITCH | | |
| S853 | NSW0206-001X | TACT SWITCH | | |
| S854 | NSW0206-001X | TACT SWITCH | | |
| S855 | NSW0206-001X | TACT SWITCH | | |
| S856 | NSW0206-001X | TACT SWITCH | | |
| S857 | NSW0206-001X | TACT SWITCH | | |
| S858 | NSW0206-001X | TACT SWITCH | | |
| S859 | NSW0206-001X | TACT SWITCH | | |
| S860 | NSW0206-001X | TACT SWITCH | | |
| S861 | NSW0206-001X | TACT SWITCH | | |
| S862 | NSW0206-001X | TACT SWITCH | | |
| S863 | NSW0206-001X | TACT SWITCH | | |
| S864 | NSW0206-001X | TACT SWITCH | | |
| S865 | NSW0206-001X | TACT SWITCH | | |
| S866 | NSW0206-001X | TACT SWITCH | | |
| S867 | NSW0206-001X | TACT SWITCH | | |
| S868 | NSW0206-001X | TACT SWITCH | | |
| S869 | NSW0206-001X | TACT SWITCH | | |
| S870 | NSW0206-001X | TACT SWITCH | | |
| S871 | NSW0206-001X | TACT SWITCH | | |
| TH855 | NAD0028-103X | N THERMISTOR | 10kΩ | |

## CD mechanism control board

Block No. [0][4]

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| IC501 | TMP91CW12AF5VD9 | IC | | |
| IC502 | BR24L01AFV-W-X | IC | | |
| IC503 | SN74AHCT126PW-X | IC(DIGITAL) | | |
| IC504 | NJU7241F33-X | IC | | |
| IC571 | PCM1753-X | IC | | |
| IC572 | NJM4580V-X | IC | | |
| IC573 | SN74AHCU04PW-X | IC | | |
| IC601 | TA2157FN-X | RF AMP IC | | |
| IC621 | TC94A14FA | IC | | |
| IC651 | NJU7772F15-X | IC | | |
| IC652 | TC94A34FG-002 | IC | | |
| IC681 | BA5830FP-X | IC | | |
| Q501 | RT1P141C-X | DIGI TRANSISTOR | | |
| Q502 | RT1N141C-X | DIGI TRANSISTOR | | |
| Q571 | RT1P141C-X | DIGI TRANSISTOR | | |
| Q572 | RT1N141C-X | DIGI TRANSISTOR | | |
| Q573 | 2SA1365/F/-X | TRANSISTOR | | |
| Q574 | RT1N141C-X | DIGI TRANSISTOR | | |
| Q601 | 2SA1947/E/-X | CHIP.TR.C.M | | |
| Q651 | 2SA1365/F/-X | TRANSISTOR | | |
| Q652 | RT1N141C-X | DIGI TRANSISTOR | | |
| Q681 | 2SB1184/QR/-X | TRANSISTOR | | |
| D506 | 1SS355W-X | DIODE C.M | | |
| D682 | 1SR154-400-X | DIODE | | |
| C501 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C502 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C503 | NEAG0JM-107X | E CAPACITOR | 100uF 6.3V M | |
| C504 | NDC31HJ-220X | C CAPACITOR | 22pF 50V J | |
| C505 | NDC31HJ-220X | C CAPACITOR | 22pF 50V J | |
| C506 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C507 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C508 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C509 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C510 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C511 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C512 | NEAG0JM-107X | E CAPACITOR | 100uF 6.3V M | |
| C513 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C514 | NCS31HJ-102X | C CAPACITOR | 1000pF 50V J | |
| C551 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C561 | NCB31HK-123X | C CAPACITOR | 0.012uF 50V K | |
| C571 | NDC31HJ-270X | C CAPACITOR | 27pF 50V J | |
| C572 | NDC31HJ-270X | C CAPACITOR | 27pF 50V J | |
| C573 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C574 | NEAG0JM-107X | E CAPACITOR | 100uF 6.3V M | |
| C575 | NEAG0JM-107X | E CAPACITOR | 100uF 6.3V M | |
| C577 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C578 | NEAG0JM-107X | E CAPACITOR | 100uF 6.3V M | |
| C580 | NCB31HK-123X | C CAPACITOR | 0.012uF 50V K | |
| C581 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C582 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C583 | NCS31HJ-821X | C CAPACITOR | 820pF 50V J | |
| C584 | NCS31HJ-821X | C CAPACITOR | 820pF 50V J | |
| C585 | NEAG1VM-475X | E CAPACITOR | 4.7uF 35V M | |
| C586 | NEAG1VM-475X | E CAPACITOR | 4.7uF 35V M | |
| C587 | NDC31HJ-151X | C CAPACITOR | 150pF 50V J | |
| C588 | NDC31HJ-151X | C CAPACITOR | 150pF 50V J | |
| C589 | NEAG1VM-475X | E CAPACITOR | 4.7uF 35V M | |
| C590 | NEAG1VM-475X | E CAPACITOR | 4.7uF 35V M | |
| C591 | NEAG0JM-476X | E CAPACITOR | 47uF 6.3V M | |
| C592 | NEAG0JM-476X | E CAPACITOR | 47uF 6.3V M | |
| C593 | NEAG1CM-476X | E CAPACITOR | 47uF 16V M | |
| C594 | NCS31HJ-102X | C CAPACITOR | 1000pF 50V J | |
| C595 | NCB31CK-473X | C CAPACITOR | 0.047uF 16V K | |
| C596 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C597 | NCS31HJ-102X | C CAPACITOR | 1000pF 50V J | |
| C598 | NCS31HJ-102X | C CAPACITOR | 1000pF 50V J | |
| C601 | NEAG0JM-476X | E CAPACITOR | 47uF 6.3V M | |
| C602 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C603 | NEAG0JM-107X | E CAPACITOR | 100uF 6.3V M | |
| C604 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C605 | NCB31HK-682X | C CAPACITOR | 6800pF 50V K | |
| C606 | NEAG0JM-476X | E CAPACITOR | 47uF 6.3V M | |
| C607 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C608 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C609 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C610 | NDC31HJ-5R0X | C CAPACITOR | 5pF 50V J | |
| C611 | NDC31HJ-680X | C CAPACITOR | 68pF 50V J | |
| C612 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C613 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C614 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C616 | NBE20JM-106X | TA E CAPACITOR | 10uF 6.3V M | |
| C621 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| C622 | NEAG0JM-476X | E CAPACITOR | 47uF 6.3V M | |
| C623 | NDC31HJ-470X | C CAPACITOR | 47pF 50V J | |
| C624 | NCB31HK-153X | C CAPACITOR | 0.015uF 50V K | |
| C625 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C626 | NCB31HK-272X | C CAPACITOR | 2700pF 50V K | |
| C627 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C628 | NEAG0JM-476X | E CAPACITOR | 47uF 6.3V M | |
| C629 | NCB31EK-333X | C CAPACITOR | 0.033uF 25V K | |
| C630 | NCB31EK-333X | C CAPACITOR | 0.033uF 25V K | |
| C631 | NDC31HJ-471X | C CAPACITOR | 470pF 50V J | |
| C632 | NDC31HJ-471X | C CAPACITOR | 470pF 50V J | |
| C633 | NCB31CK-473X | C CAPACITOR | 0.047uF 16V K | |
| C634 | NCB31CK-473X | C CAPACITOR | 0.047uF 16V K | |
| C635 | NCB31CK-473X | C CAPACITOR | 0.047uF 16V K | |
| C636 | NCB31CK-473X | C CAPACITOR | 0.047uF 16V K | |
| C637 | NCB31CK-473X | C CAPACITOR | 0.047uF 16V K | |
| C638 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C639 | NEAG0JM-476X | E CAPACITOR | 47uF 6.3V M | |
| C640 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C641 | NEAG0JM-476X | E CAPACITOR | 47uF 6.3V M | |
| C642 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C643 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C644 | NCB31AK-334X | C CAPACITOR | 0.33uF 10V K | |
| C645 | NEAG0JM-476X | E CAPACITOR | 47uF 6.3V M | |
| C646 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C651 | NEAG0JM-476X | E CAPACITOR | 47uF 6.3V M | |
| C652 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C653 | NEAG0JM-476X | E CAPACITOR | 47uF 6.3V M | |
| C654 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C655 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C656 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C659 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C660 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C661 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C662 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C663 | NBE20JM-106X | TA E CAPACITOR | 10uF 6.3V M | |
| C664 | NCB31HK-222X | C CAPACITOR | 2200pF 50V K | |
| C665 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C666 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C667 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C668 | NEAG0JM-476X | E CAPACITOR | 47uF 6.3V M | |
| C669 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C682 | NEAG1VM-475X | E CAPACITOR | 4.7uF 35V M | |
| C683 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C684 | NEAG1CM-476X | E CAPACITOR | 47uF 16V M | |
| C689 | NEAG1CM-476X | E CAPACITOR | 47uF 16V M | |
| C690 | NBE20JM-106X | TA E CAPACITOR | 10uF 6.3V M | |
| C693 | NEAG1CM-476X | E CAPACITOR | 47uF 16V M | |
| R501 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R502 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R503 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R504 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R505 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R506 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R507 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R508 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R509 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R510 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R511 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R512 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R513 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R514 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R515 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R516 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R517 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R518 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R519 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R520 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R521 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R522 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R523 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R525 | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J | |
| R526 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R528 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R530 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R531 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R532 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R533 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R534 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R535 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R536 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R537 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R539 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R540 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R541 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R542 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R543 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R544 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R545 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R546 | NRSA63J-271X | MG RESISTOR | 270Ω 1/16W J | |
| R547 | NRSA63J-271X | MG RESISTOR | 270Ω 1/16W J | |
| R548 | NRSA63J-822X | MG RESISTOR | 8.2kΩ 1/16W J | |
| R549 | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J | |
| R550 | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J | |
| R551 | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J | |
| R552 | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J | |
| R553 | NRSA63J-183X | MG RESISTOR | 18kΩ 1/16W J | |
| R554 | NRSA63J-333X | MG RESISTOR | 33kΩ 1/16W J | |
| R555 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R556 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R557 | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J | |
| R558 | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J | |
| R559 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R560 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R561 | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J | |
| R562 | NRSA63J-392X | MG RESISTOR | 3.9kΩ 1/16W J | |
| R563 | NRSA63J-682X | MG RESISTOR | 6.8kΩ 1/16W J | |
| R568 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R569 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R570 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R572 | NRSA63J-225X | MG RESISTOR | 2.2MΩ 1/16W J | |
| R573 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R574 | NRSA63J-470X | MG RESISTOR | 47Ω 1/16W J | |
| R575 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R576 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R577 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R578 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R579 | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J | |
| R581 | NRSA63J-243X | MG RESISTOR | 24kΩ 1/16W J | |
| R582 | NRSA63J-243X | MG RESISTOR | 24kΩ 1/16W J | |
| R583 | NRSA63J-822X | MG RESISTOR | 8.2kΩ 1/16W J | |
| R584 | NRSA63J-822X | MG RESISTOR | 8.2kΩ 1/16W J | |
| R585 | NRSA63J-273X | MG RESISTOR | 27kΩ 1/16W J | |
| R586 | NRSA63J-273X | MG RESISTOR | 27kΩ 1/16W J | |
| R587 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R588 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R589 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R590 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R591 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R592 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R593 | NRSA63J-4R7X | MG RESISTOR | 4.7Ω 1/16W J | |
| R594 | NRSA63J-470X | MG RESISTOR | 47Ω 1/16W J | |
| R595 | NRSA63J-470X | MG RESISTOR | 47Ω 1/16W J | |
| R601 | NRSA63J-823X | MG RESISTOR | 82kΩ 1/16W J | |
| R602 | NRSA63J-823X | MG RESISTOR | 82kΩ 1/16W J | |
| R603 | NRSA63J-334X | MG RESISTOR | 330kΩ 1/16W J | |
| R604 | NRSA63J-334X | MG RESISTOR | 330kΩ 1/16W J | |
| R605 | NRSA63J-220X | MG RESISTOR | 22Ω 1/16W J | |
| R606 | NRSA63J-220X | MG RESISTOR | 22Ω 1/16W J | |
| R607 | NRSA63J-823X | MG RESISTOR | 82kΩ 1/16W J | |
| R608 | NRSA63J-821X | MG RESISTOR | 820Ω 1/16W J | |
| R609 | NRSA63J-563X | MG RESISTOR | 56kΩ 1/16W J | |
| R610 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R611 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R612 | NRSA63J-202X | MG RESISTOR | 2kΩ 1/16W J | |
| R613 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R614 | NRSA63J-153X | MG RESISTOR | 15kΩ 1/16W J | |
| R615 | NRSA63J-151X | MG RESISTOR | 150Ω 1/16W J | |
| R616 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R621 | NRSA63J-470X | MG RESISTOR | 47Ω 1/16W J | |
| R622 | NRSA63J-470X | MG RESISTOR | 47Ω 1/16W J | |
| R623 | NRSA63J-470X | MG RESISTOR | 47Ω 1/16W J | |
| R624 | NRSA63J-562X | MG RESISTOR | 5.6kΩ 1/16W J | |
| R625 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R626 | NRSA63J-474X | MG RESISTOR | 470kΩ 1/16W J | |

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| R627 | NRSA63J-153X | MG RESISTOR | 15kΩ 1/16W J | |
| R628 | NRSA63J-155X | MG RESISTOR | 1.5MΩ 1/16W J | |
| R629 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R630 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R631 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R632 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R633 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R634 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R635 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R636 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R637 | NRSA63J-105X | MG RESISTOR | 1MΩ 1/16W J | |
| R638 | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J | |
| R639 | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J | |
| R640 | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J | |
| R641 | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J | |
| R642 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R651 | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J | |
| R654 | NRSA63J-390X | MG RESISTOR | 39Ω 1/16W J | |
| R655 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R656 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R657 | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J | |
| R668 | NRSA63J-470X | MG RESISTOR | 47Ω 1/16W J | |
| R675 | NRSA63J-221X | MG RESISTOR | 220Ω 1/16W J | |
| R681 | NRSA63J-682X | MG RESISTOR | 6.8kΩ 1/16W J | |
| R682 | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J | |
| R683 | NRSA63J-682X | MG RESISTOR | 6.8kΩ 1/16W J | |
| R684 | NRSA63J-822X | MG RESISTOR | 8.2kΩ 1/16W J | |
| R685 | NRSA63J-682X | MG RESISTOR | 6.8kΩ 1/16W J | |
| R686 | NRSA63J-123X | MG RESISTOR | 12kΩ 1/16W J | |
| R687 | NRSA63J-682X | MG RESISTOR | 6.8kΩ 1/16W J | |
| R688 | NRSA63J-182X | MG RESISTOR | 1.8kΩ 1/16W J | |
| R689 | NRSA63J-123X | MG RESISTOR | 12kΩ 1/16W J | |
| R690 | NRSA63J-333X | MG RESISTOR | 33kΩ 1/16W J | |
| R691 | NRSA63J-153X | MG RESISTOR | 15kΩ 1/16W J | |
| L501 | NQL114K-470X | COIL | 47uH K | |
| L502 | NQL114K-470X | COIL | 47uH K | |
| L572 | NQL114K-470X | COIL | 47uH K | |
| L621 | NQL114K-470X | COIL | 47uH K | |
| L622 | NQL114K-470X | COIL | 47uH K | |
| L623 | NQL114K-470X | COIL | 47uH K | |
| L651 | NQL114K-470X | COIL | 47uH K | |
| L652 | NQL114K-470X | COIL | 47uH K | |
| L653 | NQL114K-470X | COIL | 47uH K | |
| CN501 | QGB2027L1-22X | CONNECTOR | B-B (1-22) | |
| CN601 | QGF0501F8-22X | CONNECTOR | FFC/FPC (1-22) | |
| TH501 | NAD0028-103X | N THERMISTOR | 10kΩ | |
| X501 | NAX0385-001X | CRYSTAL | 24.576MHz | |
| X571 | NAX0375-001X | CRYSTAL | 16.9344MHz | |

## Cassette mechanism control board

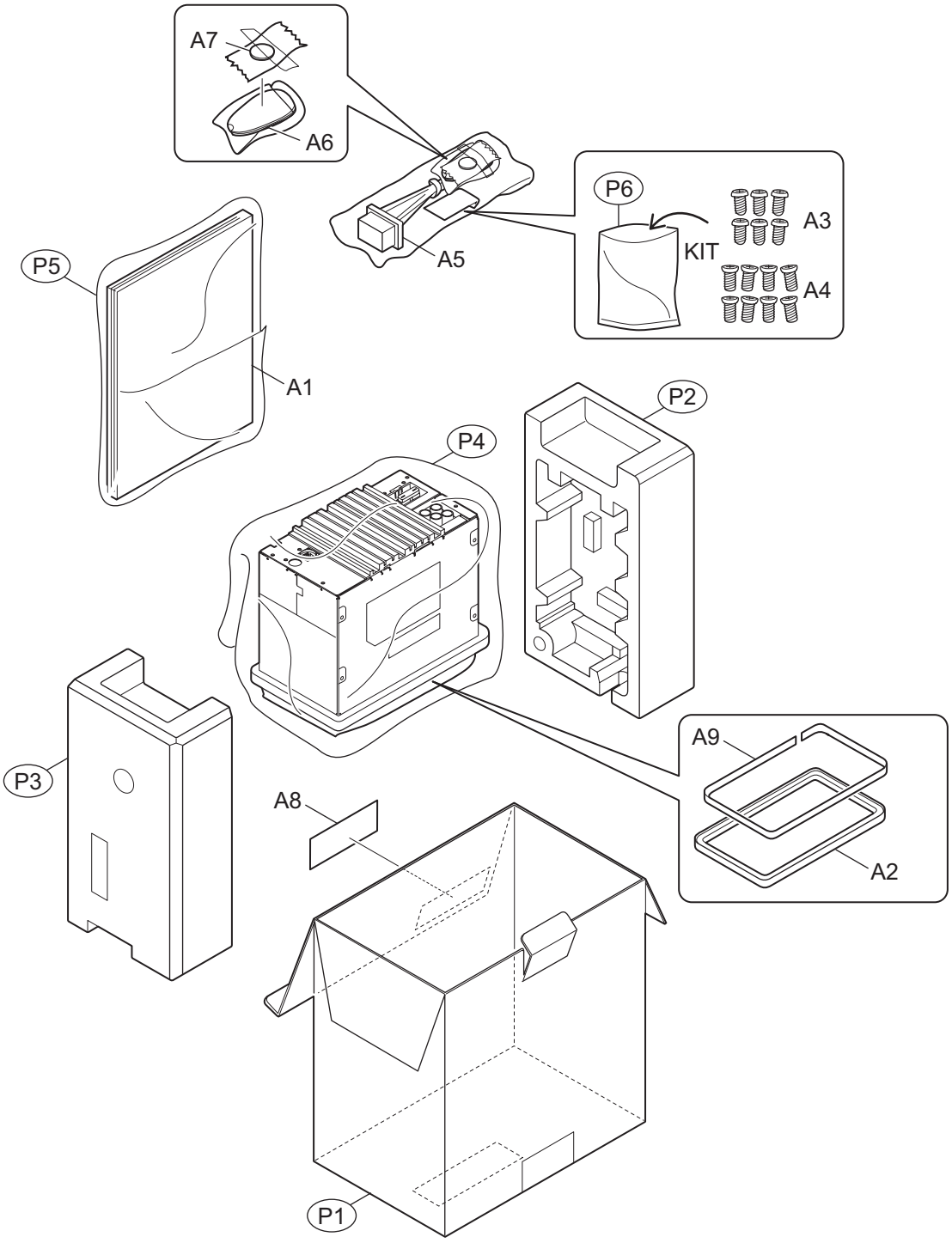
Block No. [0][5]

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| IC401 | CXA2560Q | IC | | |
| IC402 | LB1641 | IC | | |
| IC431 | UPD789166GB-590 | IC | | |
| IC432 | BD4833FVE-W | IC | | |
| IC461 | SN74AHC126NS-X | IC | | |
| Q402 | RT1N141C-X | DIGI TRANSISTOR | | |
| Q403 | 2SB1322/RS/-T | TRANSISTOR | | |
| Q431 | RT1N141C-X | DIGI TRANSISTOR | | |
| Q432 | 2SC3928A/QR/-X | TRANSISTOR | | |
| D401 | MA8047/H/-X | Z DIODE | | |
| D402 | 1A3G-T1 | SI DIODE | | |
| C401 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C402 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C403 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C404 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C405 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C406 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C407 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C408 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C409 | QEKJ1CM-226Z | E CAPACITOR | 22uF 16V M | |
| C410 | NCB31HK-153X | C CAPACITOR | 0.015uF 50V K | |
| C411 | NCB31HK-153X | C CAPACITOR | 0.015uF 50V K | |
| C412 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C413 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C414 | QEKJ1CM-226Z | E CAPACITOR | 22uF 16V M | |
| C416 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C417 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C418 | NDC31HJ-221X | C CAPACITOR | 220pF 50V J | |
| C419 | QEKJ1HM-474Z | E CAPACITOR | 0.47uF 50V M | |
| C421 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C422 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C423 | QEKJ1CM-106Z | E CAPACITOR | 10uF 16V M | |
| C424 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C425 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C426 | QEKJ1CM-106Z | E CAPACITOR | 10uF 16V M | |
| C427 | QEKJ1CM-106Z | E CAPACITOR | 10uF 16V M | |
| C428 | NDC31HJ-101X | C CAPACITOR | 100pF 50V J | |
| C431 | QEKJ0JM-476Z | E CAPACITOR | 47uF 6.3V M | |
| C432 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C433 | QEKJ0JM-476Z | E CAPACITOR | 47uF 6.3V M | |
| C434 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C435 | NDC31HJ-220X | C CAPACITOR | 22pF 50V J | |
| C436 | NDC31HJ-220X | C CAPACITOR | 22pF 50V J | |
| C437 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C438 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C439 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| C461 | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K | |
| R401 | NRS181J-681X | MG RESISTOR | 680Ω 1/8W J | |
| R402 | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J | |
| R403 | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J | |
| R404 | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J | |
| R405 | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J | |
| R406 | NRSA63J-181X | MG RESISTOR | 180Ω 1/16W J | |
| R407 | NRSA63J-181X | MG RESISTOR | 180Ω 1/16W J | |
| R412 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R413 | NRSA63J-183X | MG RESISTOR | 18kΩ 1/16W J | |
| R414 | NRSA63J-392X | MG RESISTOR | 3.9kΩ 1/16W J | |
| R415 | NRSA63J-223X | MG RESISTOR | 22kΩ 1/16W J | |
| R416 | NRSA63J-155X | MG RESISTOR | 1.5MΩ 1/16W J | |
| R417 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R418 | NRSA63J-153X | MG RESISTOR | 15kΩ 1/16W J | |
| R422 | NRSA63J-332X | MG RESISTOR | 3.3kΩ 1/16W J | |
| R423 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R424 | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J | |
| R425 | NRSA63J-680X | MG RESISTOR | 68Ω 1/16W J | |
| R426 | NRSA63J-680X | MG RESISTOR | 68Ω 1/16W J | |
| R432 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R433 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R435 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R437 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R438 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R439 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R440 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R441 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R442 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R443 | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J | |
| R444 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R445 | NRSA63J-563X | MG RESISTOR | 56kΩ 1/16W J | |
| R446 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R447 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R448 | NRSA63J-683X | MG RESISTOR | 68kΩ 1/16W J | |
| R449 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R450 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R451 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R454 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R455 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R456 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R457 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R458 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R461 | NRSA63J-223X | MG RESISTOR | 22kΩ 1/16W J | |
| R462 | NRSA63J-334X | MG RESISTOR | 330kΩ 1/16W J | |
| R463 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| R464 | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J | |
| R465 | NRSA63J-223X | MG RESISTOR | 22kΩ 1/16W J | |
| R466 | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J | |
| R467 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R468 | NRSA63J-331X | MG RESISTOR | 330Ω 1/16W J | |
| R469 | NRSA63J-223X | MG RESISTOR | 22kΩ 1/16W J | |
| R470 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R471 | NRSA63J-334X | MG RESISTOR | 330kΩ 1/16W J | |
| R491 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| VR401 | QVP0033-333Z | TRIM RESISTOR | 33kΩ | |
| VR402 | QVP0033-333Z | TRIM RESISTOR | 33kΩ | |
| L431 | NQL114K-470X | COIL | 47uH K | |
| CN401 | QGB1004K1-16 | CONNECTOR | B-B (1-16) | |
| CN402 | QGA2001F1-06 | CONNECTOR | W-B (1-6) | |
| CN403 | QGF1205C1-10 | CONNECTOR | FFC/FPC (1-10) | |
| X431 | QAX0414-001Z | CRYSTAL | 4.19430MHz | |

# Packing materials and accessories parts list

Block No. M 3 M M



# Packing and Accessories

Block No. [M][3][M][M]

| ⚠ | Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|---|
| | A 1 | GET0315-001A | INST BOOK | ENG INA | |
| | A 2 | LV21055-003A | TRIM PLATE | | |
| | A 3 | QYSDSP5008ZA | SCREW | M5 x 8mm(x6) | |
| | A 4 | QYSSSP5008ZA | SCREW | M5 x 8mm(x8) | |
| | A 5 | QAM0657-002 | POWER CORD | | |
| | A 6 | RM-RK50C | REMOCON | | |
| | A 7 | ---------- | BATTERY | | |
| | A 8 | LV33728-001A | CARTON LABEL | | |
| | A 9 | LV40846-014A | SPACER(F) | | |
| | KIT | SRW-KW410U | SCREW PARTS KIT | A3 A4 | |
| | P 1 | LV31639-003A | CARTON | | |
| | P 2 | GE10163-001A | CUSHION(L) | | |
| | P 3 | GE10164-001A | CUSHION(R) | | |
| | P 4 | QPC03004315P | POLY BAG | 30cm x 43cm | |
| | P 5 | FSPG4002-001 | POLY BAG | | |
| | P 6 | QPA00801205 | POLY BAG | 8cm x 12cm | |