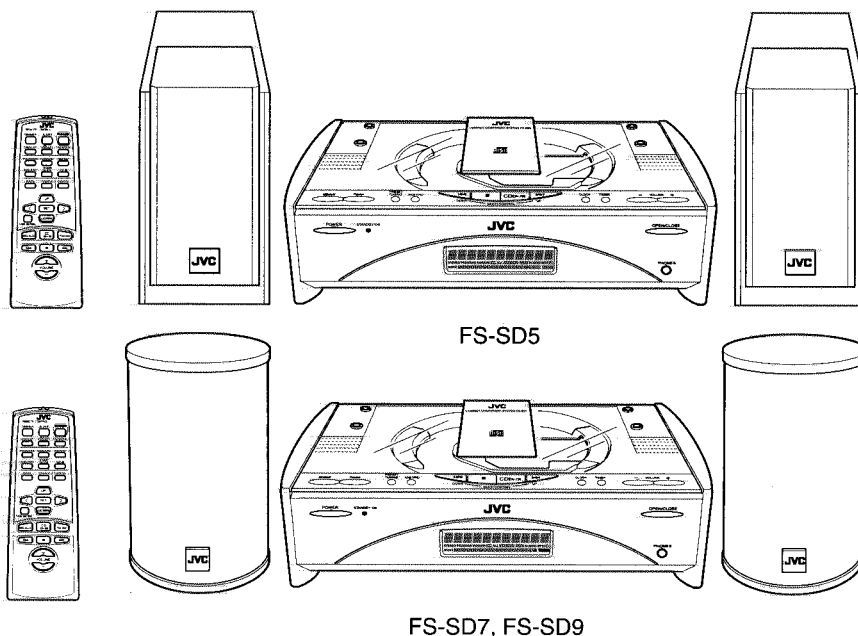


# JVC

# SERVICE MANUAL

## DIGITAL SATELLITE RECEIVER

### FS-SD5 FS-SD7 / FS-SD9



**Area Suffix**  
J ..... U.S.A

**COMPACT  
disc  
DIGITAL AUDIO**

These models are different only speaker systems.

**Contents** These models not have adjustment.

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## Safety Precautions

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by ( $\Delta$ ) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage current check (Electrical shock hazard testing)  
After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock. Do not use a line isolation transformer during this check.

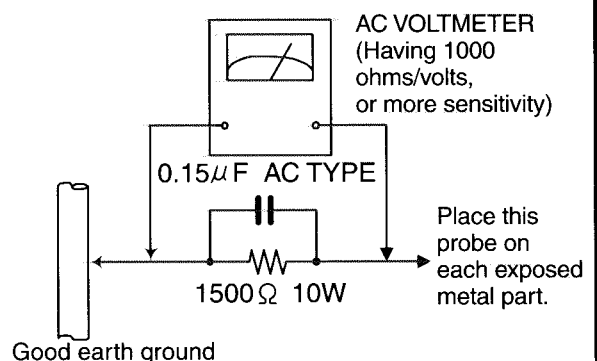
- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.)

- Alternate check method

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 $\Omega$  10W resistor paralleled by a 0.15 $\mu$ F AC-type capacitor between an exposed metal part and a known good earth ground.

Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. voltage measured Any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



## Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

**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 performing repair of this system.

## 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.

### 1.1. Grounding to prevent damage by static electricity

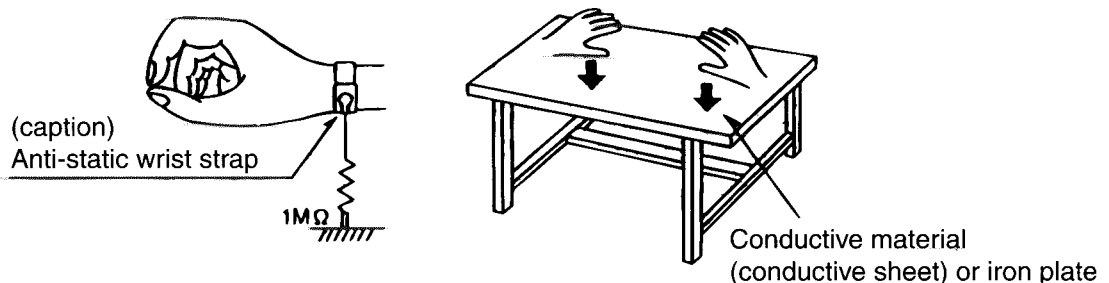
Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as DVD players. Be careful to use proper grounding in the area where repairs are being performed.

#### 1.1.1. Ground the workbench

1. 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.

#### 1.1.2. Ground yourself

1. Use an anti-static wrist strap to release any static electricity built up in your body.



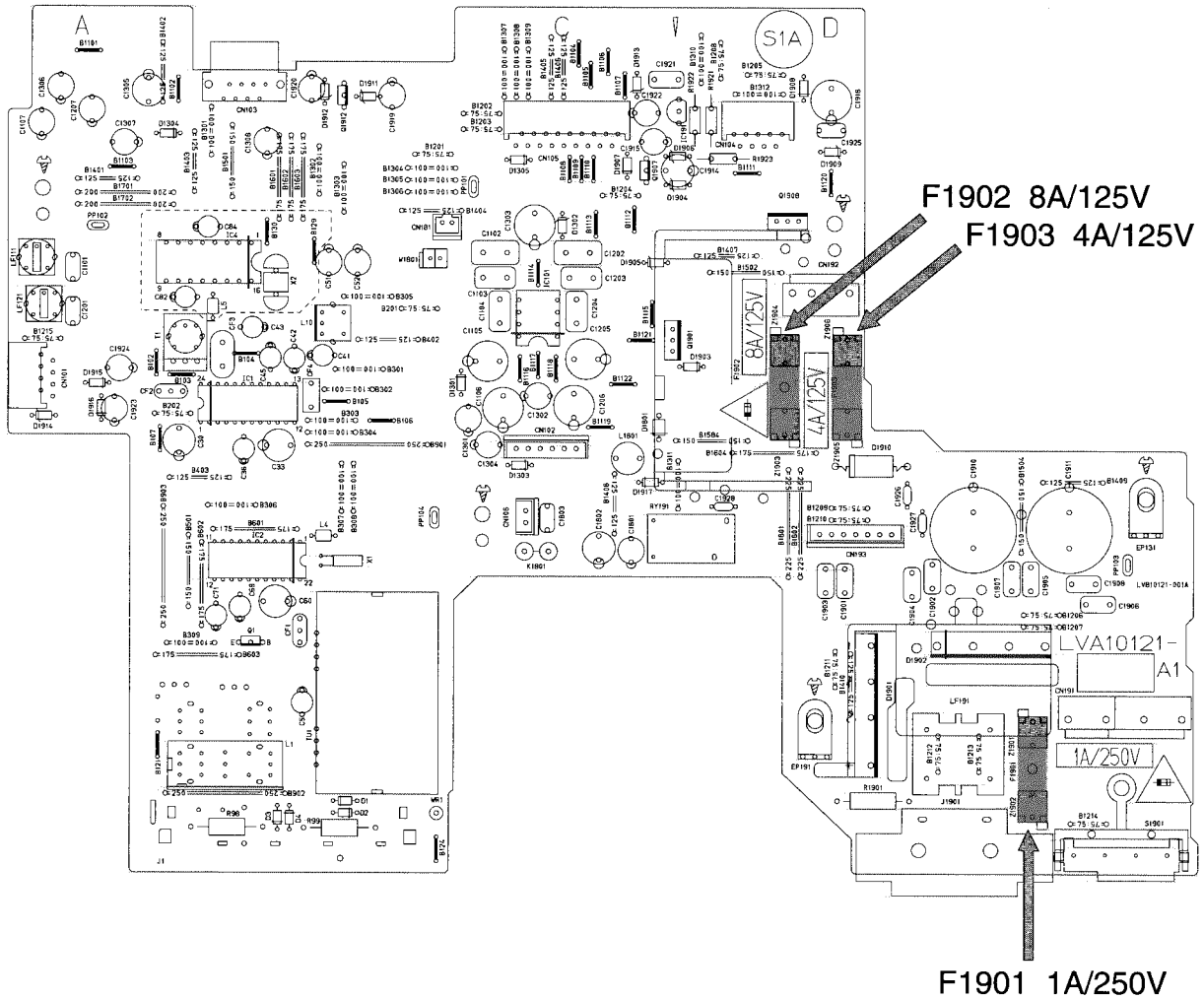
#### 1.1.3. Handling the optical pickup

1. 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.)
2. 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.

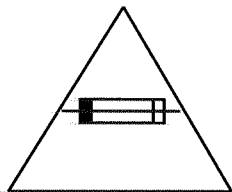
### 1.2. Handling the traverse unit (optical pickup)

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

# Importance administering point on the safety



For USA and Canada / pour États - Unis d'Amérique et Canada

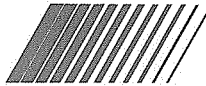


Caution: For continued protection against risk of fire, replace only with same type 1A/250V for F1901, 8A/125V for F1902 and 4A/125V for F1903. This symbol specifies type of fast operating fuse.

Précaution: Pour éviter risques de feux, remplacez le fusible de sûreté de F1901 comme le même type que 1A/250V, et 8A/125V pour F1902 et 4A/125V pour F8921. Ce sont des fusibles sûretés qui fonctionnent rapide.

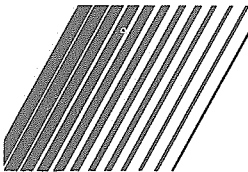
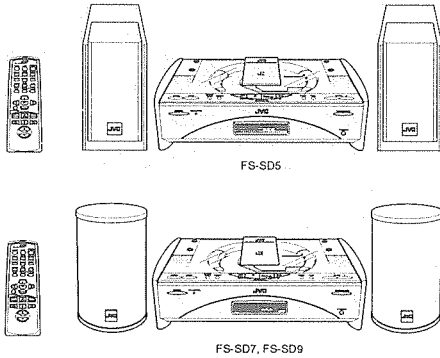


# Instructions



## COMPACT COMPONENT SYSTEM SYSTEME DE COMPOSANTS COMPACT

### FS-SD5/FS-SD7/FS-SD9



### INSTRUCTIONS MANUEL D'INSTRUCTIONS

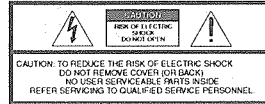
For Customer Use:  
Enter below the Model No. and Serial No. which are located either on the rear, bottom or side of the cabinet. Retain this information for future reference.

Model No. \_\_\_\_\_  
Serial No. \_\_\_\_\_

LVT0418-001A  
[J]

### Warnings, Cautions and Others / Mises en garde, précautions et indications diverses

(For U.S.A.)



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.**

#### INFORMATION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### For Canada/pour le Canada

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.  
PRECAUTION: POUR EVITER LES CHOCES ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND

#### For Canada/pour Le Canada

THIS DIGITAL APPARATUS DOES NOT EXCEED THE CLASS B LIMITS FOR RADIO NOISE EMISSIONS FROM DIGITAL APPARATUS AS SET OUT IN THE INTERFERENCE-CAUSING EQUIPMENT STANDARD ENTITLED "DIGITAL APPARATUS," ICES-003 OF THE DEPARTMENT OF COMMUNICATIONS.

CET APPAREIL NUMERIQUE RESPECTE LES LIMITES DE BRUITS RADIOELECTRIQUES APPLICABLES AUX APPAREILS NUMERIQUES DE CLASSE B PRESCRITES DANS LA NORME SUR LE MATERIEL BRUYEUR "APPAREILS NUMERIQUES," NMB-003 EDICTEE PAR LE MINISTRE DES COMMUNICATIONS.

#### 1. CLASS 1 LASER PRODUCT

2. DANGER: Invisible laser radiation when open and interlock latched or defeated. Avoid direct exposure to beam.  
3. CAUTION: Do not open the top cover. There are no user serviceable parts inside the unit, leave all servicing to qualified service personnel.

#### 1. PRODUIT LASER CLASSE 1

2. ATTENTION: Radiation laser invisible quand l'appareil est ouvert ou que le verrouillage est en panne ou désactivé. Eviter une exposition directe au rayon.  
3. ATTENTION: Ne pas ouvrir le couvercle du dessus. Il n'y a aucune pièce utilisable à l'intérieur. Laissez à un personnel qualifié le soin de réparer votre appareil.

#### CAUTION

To reduce the risk of electrical shocks, fire, etc.:  
1. Do not remove screws, covers or cabinet.  
2. Do not expose this appliance to rain or moisture.

#### ATTENTION

Afin d'éviter tout risque d'électrocution, d'incendie, etc.:  
1. Ne pas enlever les vis ni les panneaux et ne pas ouvrir le coffret de l'appareil.  
2. Ne pas exposer l'appareil à la pluie ni à l'humidité.

Caution — POWER switch!  
Disconnect the mains plug to shut the power off completely. The POWER switch in any position does not disconnect the mains line. The power can be remote controlled.

Attention — Commutateur POWER!  
Déconnecter la fiche de secteur pour couper complètement le courant. Le commutateur POWER ne coupe jamais complètement la ligne de secteur, quelle que soit sa position. Le courant peut être télécommandé.

G-1

## Introduction

Thank you for purchasing the JVC Compact Component System. We hope it will be a valued addition to your home, giving you years of enjoyment. Be sure to read this instruction manual carefully before operating your new stereo system. In it you will find all the information you need to set up and use the system. If you have a query that is not answered by the manual, please contact your dealer.

### Features

- Here are some of the things that make your System both powerful and simple to use.
- The controls and operations have been redesigned to make them very easy to use, freeing you to just enjoy the music.
  - With JVC's **COMPU PLAY** you can turn on the System and automatically start the Radio or CD Player with a single touch.
  - The System incorporates Active Hyper Bass PRO circuitry to faithfully reproduce low frequency sounds.
  - A 45-station preset capability (30 FM and 15 AM) in addition to auto-seek and manual tuning.
  - CD options that include repeat, random and program play.
  - Timer functions, Daily Timer and Sleep Timer.
  - You can connect various external units, such as an MD recorder.



### How This Manual Is Organized

- Basic information that is the same for many different functions - e.g. setting the volume - is given in the section "Basic Operations", and not repeated under each function.
- The names of buttons/controls and display messages are written in all capital letters: e.g. FM/AM, "NO DISC".
- System functions are written with an initial capital letter only: e.g. Normal Play.

Use the table of contents to look up specific information you require. We have enjoyed making this manual for you, and hope it serves you in enjoying the many features built into your System.

### WARNINGS

- DO NOT PUT ANYTHING ON THE TOP COVER. IF THE SYSTEM IS OPERATED WITH SOMETHING PUT ON THE TOP COVER, IT WILL BE DAMAGED WHEN YOU TRY TO OPEN THE TOP COVER.
- NEVER REMOVE THE TOP COVER FROM THE UNIT. SERIOUS INJURY MAY OCCUR IF THE SYSTEM IS OPERATED WITHOUT THE TOP COVER.

### IMPORTANT CAUTIONS

- 1 Installation of the System**
  - Select a place which is level, dry and neither too hot nor too cold. (Between 5°C and 35°C or 41°F and 95°F)
  - Leave sufficient distance between the System and a TV.
  - Do not use the System in a place subject to vibrations.
- 2 Power cord**
  - Do not handle the power cord with wet hands!
  - Some power is always consumed as long as the power cord is connected to the wall outlet.
  - When unplugging the System from the wall outlet, always pull the plug, not the power cord.
- 3 Malfunctions, etc.**
  - There are no user serviceable parts inside. In case of system failure, unplug the power cord and consult your dealer.
  - Do not insert any metallic object into the System.
  - Do not insert your hand between the Top Cover and the main body when the Top Cover is being closed.

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English  
English

**Getting Started**

**Accessories**

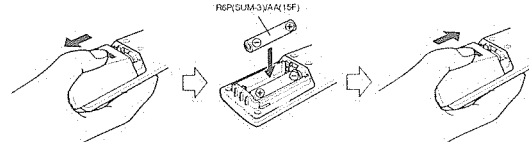
Make sure that you have all of the following items, which are supplied with the System.

- Power Cord (1)
- AM Loop Antenna (1)
- Remote Control (1)
- Batteries (2)
- FM Wire Antenna (1)
- Speaker Cords (2)
- Spacers (6) (only for FS-SD7 / SD9)

If any of these items are missing, contact your dealer immediately.

**How To Put Batteries In the Remote Control**

Match the polarity (+ and -) on the batteries with the + and - markings in the battery compartment.

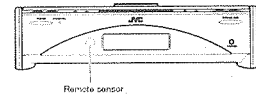


**CAUTION:**  
 • Handle batteries properly.

- To avoid battery leakage or explosion:
  - Remove batteries when the Remote Control will not be used for a long time.
  - When you need to replace the batteries, replace both batteries at the same time with new ones.
  - Do not use an old battery with a new one.
  - Do not use different types of batteries together.

**Using the Remote Control**

The Remote Control makes it easy to use many of the functions of the System from a distance of up to 7m (23 feet) away. You need to point the Remote Control at the remote sensor on the System's front panel.

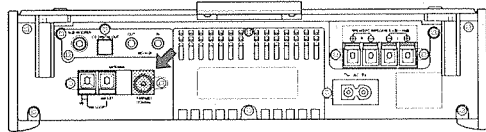


**Getting Started**

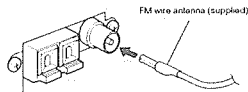
**CAUTION:**  
 • Make all connections before plugging the System into an AC power outlet.

**Connecting the FM Antenna**

**Rear Panel of the Unit**



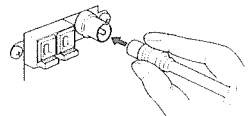
**Using the Supplied Wire Antenna**



**Note:**  
 • Before attaching a 75 ohm coaxial lead (the kind with a round wire going to an outdoor antenna), disconnect the supplied FM Wire Antenna.

**Using the Coaxial Type Connector (Not Supplied)**

A 75-ohm antenna with coaxial type connector should be connected to the FM 75-ohm COAXIAL terminal.



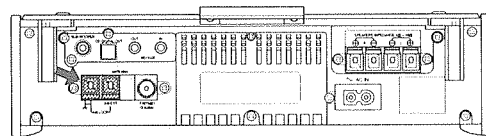
If reception is poor, connect the outdoor antenna.



**Getting Started**

**Connecting the AM Antenna**

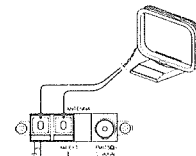
**Rear Panel of the Unit**



AM loop antenna (Supplied)



Attach the AM loop to its base by snapping the tabs on the loop into the slot on the base.



Turn the loop until you have the best reception.

**CAUTION:**  
 • To avoid noise, keep antennas away from the System, the connecting cord and the AC power cord.

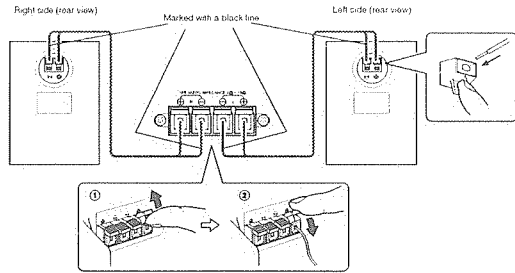
Getting Started

**CAUTION:**

- Make all connections before plugging the System into an AC power outlet.

**Connecting the Speakers**

1. Open each of the terminals to connect the speaker wire leads.
2. Connect the speaker cords between the Speaker terminals of the Unit and the terminals of the Speakers.
  - Connect the cords with a black line to the (-) terminals and cords without a black line to the (+) terminals.
3. Close each of the terminals to securely connect the cords.



**Note**

- Since both speakers are the same, you can put either one to the right or left side.

**CAUTION:**

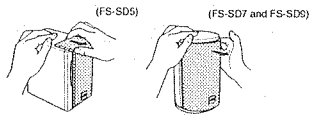
- A TV may display irregular colors if located near the speakers. If this happens, set the speakers away from the TV.

**Removing the speaker grilles**

The speaker grilles can be moved.

**When removing:**

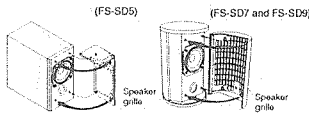
1. Pull the top forwards with your fingers.
2. Also pull the bottom towards you.



**Note**

- When removing the speaker grille from the FS-SD9's speaker, be careful not to damage the cabinet.

**When attaching the speaker grille:**

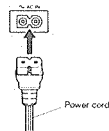


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Getting Started

**Connecting the AC Power Cord**

Firmly insert the supplied AC power cord into the AC inlet on the back of the Unit.



The provided AC power cord for this unit has certain one-way direction connections to prevent electric shock. Refer to the illustration for correct connection.

**CAUTIONS:**

- ONLY USE THE JVC POWER CORD PROVIDED WITH THIS SYSTEM TO AVOID MALFUNCTION OR DAMAGE TO THE SYSTEM.
- BE SURE TO UNPLUG THE POWER CORD FROM THE OUTLET WHEN GOING OUT OR WHEN THE SYSTEM IS NOT IN USE FOR AN EXTENDED PERIOD OF TIME.

Now you can plug the AC power cord into the wall outlet, and your System is at your command!

**COMPU Play**

JVC's COMPU PLAY feature lets you control the most frequently used System functions with a single touch. With One Touch Operation you can play a CD, turn on the radio, or listen to an external equipment with a single press of the play button for that function. One Touch Operation turns the power on for you, then starts the function you have specified. At the same time, the Top Cover moves backward to allow the Unit's top button operation. If the System is not ready (no CD in place), the System still powers on so you can insert a CD. How One Touch Operation works in each case is explained in the section dealing with that function. The COMPU PLAY buttons are:

**On the Remote Control**

- CD Eject button
- FM/AM button
- MD/AUX button

**Automatic Power On**

The System automatically turns on with the following operation.

- When you press the CD Eject button on the Remote Control or the OPEN/CLOSE button on the Unit, the System automatically turns on and the Top Cover opens to allow CD setting. However, this operation does not change the function to CD.
- When you press the POWER button to turn off the System, the Top Cover will be automatically closed if it is opened.
- When you press the DOOR SLIDE button on the Remote Control, the System automatically turns on and the Top Cover moves backwards to allow button operation.

When you press the POWER button to turn off the System, the Top Cover will automatically moves back to the original position, if it is in the backward position.

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Getting Started

**Attaching the Spacers**

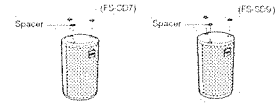
**CAUTION:**

**Note for Installation**

- Take special care to select an appropriate installation place where an earthquake or shock does not cause the speaker to collapse or drop on the floor.

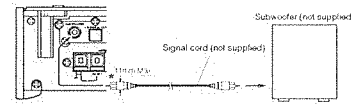
**FS-SD7 / SD9**

Attach the supplied spacers to the bottom of the speaker to protect the cabinet, prevent slipping, and absorb the cabinet vibration. Peel off the backing from a spacer and attach it.



**Connecting a Subwoofer**

Connect a signal cord (not supplied) between the System's SUBWOOFER terminal and the input terminal of an external subwoofer.

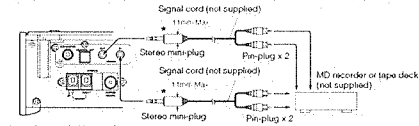


\* Use the plug whose diameter is 1.1mm or less.

**Connecting External Equipment**

Connect signal cords (not supplied) between the System's MD/AUX-OUT/IN terminals and the output/input terminals of the external MD recorder, tape deck, etc.

You can then listen to the external source through the System or record the System's CD player or tuner to the external unit.

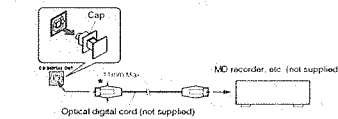


\* Use the plug whose diameter is 1.1mm or less.

**Connecting an MD Recorder, etc (Digital Output)**

Unplug the cap and connect an optical digital cord (not supplied) between the System's CD DIGITAL OUT terminal and the input terminal of the MD recorder, etc.

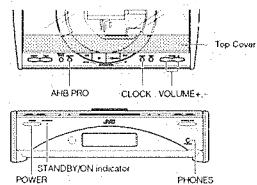
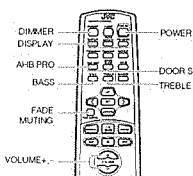
You can record the digital output signal from the System's CD Player to the MD recorder, etc.



\* Use the plug whose diameter is 1.1mm or less.

7

**Basic Operations**



**Turning the Power On and Off**

**Turning the System On**

Press the POWER button. The Top Cover moves backward and the Unit's top buttons appear. The display comes on and "HELLO" is displayed once. The STANDBY/ON indicator lights in green. The System comes on ready to continue in the mode it was in when the power was last turned off.

- For example, if the last thing you were doing was listening to a CD, you are now ready to listen to a CD again. If you wish, you can change to another source.
- If you were listening to the Tuner last, the Tuner comes on playing the station it was last set to.

**Turning the System Off**

Press the POWER button again. The Top Cover moves back to the original position. "GOOD BYE" is displayed and the display goes out, except for the clock display. The STANDBY/ON indicator lights in red.

- Some power is always consumed even though power is turned off (called Standby Mode).
- To switch off the System completely, unplug the AC power cord from the wall outlet. When you unplug the AC power cord, the clock will be reset to AM 12:00 after about 20 minutes.

**Adjusting the Brightness (DIMMER)**

You can adjust the brightness of the backlighting for the display.

**When the System is Turned On**

Each time you press the DIMMER button on the Remote Control, the brightness of the backlighting changes as follows: Bright → Dark → (back to the beginning)

**When the System is Turned Off (STANDBY MODE)**

Each time you press the DIMMER button on the Remote Control, the brightness of the backlighting changes as follows: No backlighting → Dark backlighting → (back to the beginning)

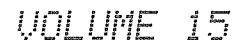
No backlighting → Dark backlighting → (back to the beginning)

**Note**

- When the System is turned off again after power on, the brightness in Standby mode will be restored to the previous one since the brightness setting in Standby mode is stored in memory.

**Adjusting the Volume**

Press the VOLUME + button to increase the volume or press the VOLUME - button to decrease it.



You can adjust the volume level between 0 and 50.

**CAUTION:**

- DO NOT turn on the System and/or start playing any source without first setting the VOLUME control to minimum, as a sudden blast of sound could damage your hearing, speakers and/or headphones.

**For private listening**

Connect a pair of headphones to the PHONES jack. No sound comes out of the speakers. Be sure to turn down the volume before connecting or putting on headphones.

Basic Operations

**Fade-out Muting (FADE MUTING)**

You can mute the output with one touch operation.  
**To mute the output**, press the FADE MUTING button on the Remote Control. Then, the output will be faded out and becomes 0.  
**To release muting**, press the FADE MUTING button once again. Then, the output will be faded in to the original level.

**Reinforcing the Bass Sound (AHB PRO)**

You can reinforce the bass sound to maintain rich, full bass at low volume.  
**To get the effect**, press the AHB (Active Hyper Bass) PRO button.  
 The "AHB PRO" indicator lights up on the display.  
**To cancel the effect**, press the button again.  
 The "AHB PRO" indicator goes out.

**Tone Control (BASS/TREBLE)**

You can control the tone by changing the bass and treble.  
**BASS Control**  
 You can adjust the bass level (low frequency range level) between -6 and +6. (0: Flat)

- 1 Press the BASS button on the Remote Control.
- 2 Press the UP or DOWN button on the Remote Control to adjust the bass level.



**TREBLE Control**  
 You can adjust the treble level (high frequency range level) between -6 and +6. (0: Flat)

- 1 Press the TREBLE button on the Remote Control.
- 2 Press the UP or DOWN button on the Remote Control to adjust the treble level.



**Showing the Time (CLOCK/DISPLAY)**

You can show the current time on the display.  
**To display the clock**, press the CLOCK button on the Unit or DISPLAY button on the Remote Control.  
**To return to the previous mode**, press the same button again.



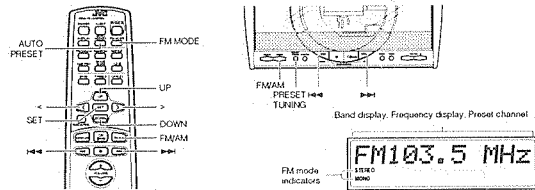
**Note:**  
 • To let the clock work, you need to set the clock beforehand. (See "Setting the Clock" on page 17.)

**Sliding the Top Cover (DOOR SLIDE)**

Each time you press the DOOR SLIDE button on the Remote Control, the Top Cover slides back and forth.  
 Slide the Top Cover backward to allow Unit's top button operation. Slide it toward you to cover the buttons.

English  
English

Using the Tuner



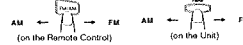
\* When the System is in use, the display shows other items as well. For simplicity, we show here only the items described in this section.

You can listen to FM and AM stations. Stations can be tuned in manually, automatically, or from preset memory storage.

- Before listening to the radio:
  - Make sure that both the FM and AM antennas are correctly connected. (See pages 4 and 5.)
- You can switch from any other sound source to the radio by pressing the FM/AM button.

**Tuning In a Station**

- 1 Press the FM/AM button.  
 The Band and Frequency you were last tuned to appear on the display.  
 (If the last station was selected using the preset number, the preset number appears first.)  
 Each time you press the button, the band alternates between FM and AM.

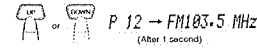


- 2 Select a station using one of the following methods.
  - **Manual Tuning**  
 Press the  $\leftarrow$  or  $\rightarrow$  button on the Unit or the Remote Control repeatedly to move from frequency to frequency until you find the station you want.

• **Auto Tuning**  
 If you press and hold the  $\leftarrow$  or  $\rightarrow$  button on the Unit or the Remote Control for one second or more, the frequency changes down, or up, automatically until a station is found.

OR  
 • **Preset Tuning using the Remote Control (Possible only after presetting stations)**  
 Select the desired preset number using the UP, DOWN, > and < button on the Remote Control. After 1 second the display will show the preset number's band and frequency.

**Example:**  
 Press the UP button until the preset number "12" "P12" appears.



• **Preset Tuning using the Unit**  
 Press the PRESET TUNING button to select the desired preset number.  
 Its band and frequency are displayed.

**Note:**  
 • In AM broadcast, reception sensitivity will be changed by turning the AM loop antenna. Turn the AM loop antenna for best reception.

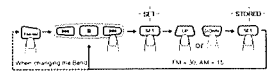
Using the Tuner

**Presetting Stations**

You can preset up to 30 FM stations and up to 15 AM stations using the Remote Control.

**Note:**  
 • Preset numbers may have been set to factory test frequencies prior to shipment. This is not a malfunction. You can preset the stations you want into memory by following one of the presetting methods below.

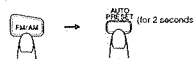
**Manual Presetting**



- 1 Select a band by pressing the FM/AM button.
- 2 Press the  $\leftarrow$  or  $\rightarrow$  button to tune in a station.
- 3 Press the SET button.  
 "SET" will blink for 5 seconds.  
 Within 5 seconds, proceed to the next step.  
 When the display returns to the one set in step 2 after 5 seconds, press the SET button again.
- 4 Press the UP, DOWN, >, or < button within 5 seconds to select the preset number.  
 UP or DOWN button: Increase or decrease the preset number by 1.  
 Pressing and holding the button will continuously increase or decrease the preset number.  
 > or < button: Increase or decrease the preset number by 1.  
 Pressing and holding the button will rapidly increase or decrease the preset number.
- 5 Press the SET button within 5 seconds.  
 "STORED" appears and after 2 seconds, the display returns to the broadcast frequency display.
- 6 Repeat above steps 1 to 5 for each station you want to store in memory with a preset number.  
 To change the preset stations, repeat the same steps as above.

**Auto Presetting**

In each band, you can automatically preset FM-30, AM-15 stations. Preset numbers will be allocated as stations are found, starting from the lowest frequency and moving up the frequency.



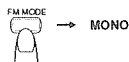
- 1 Select a band by pressing the FM/AM button.
- 2 Press the AUTO PRESET button on the Remote Control for more than two seconds.
- 3 Repeat steps 1-2 for the other band.

• If you want to change the preset stations, carry out the Manual Presetting for the desired preset numbers.  
**CAUTION:**  
 • Even if the system is unplugged or if the power failure occurs, the preset stations will be stored for about 24 hours. However, in case the preset stations are erased, you will need to preset the stations again.

**To Change the FM Reception Mode**

When you are tuned into an FM stereo broadcast, the "STEREO" indicator lights up and you can hear stereo effects.  
 If an FM stereo broadcast is hard to receive or noisy, you can select Monoaural mode. Reception improves, but you lose stereo effect.

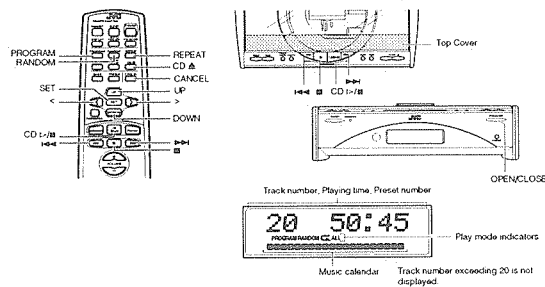
Press the FM MODE button on the Remote Control so that the "MONO" indicator lights up on the display.



To restore the stereo effect, press the FM MODE button on the Remote Control so that the "MONO" indicator goes off.

English  
English

Using the CD Player



\* When the System is in use, the display shows other items as well. For simplicity, we show here only the items described in this section.

You can use Normal, Random, Program or Repeat Play. Repeat Play can repeat all the tracks or just one of the tracks on the CD.  
 Here are the basic things you need to know to play a CD and locate the different tracks on it.

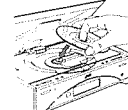
**The Quickest Way To Start a CD is With the One Touch Operation**

- Press the CD  $\rightarrow$  button on the Remote Control.
- The power is automatically turned on and the Top Cover moves backward to allow the Unit's top button operation. If a CD is already inserted, it will start playing from the first track.
- If no CD is inserted, "NO DISC" appears on the display and the CD Player remains in Stop mode.

**To Insert a CD**

- 1 Press the OPEN/CLOSE button on the Unit (or the CD  $\rightarrow$  button on the Remote Control).  
 The Top Cover opens.

- 2 Place a CD, with its label side up as shown below. Press down on the CD's center until you hear a click.



- 3 Press the OPEN/CLOSE button (or CD  $\rightarrow$  button) again to close the Top Cover.

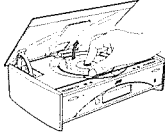
- To close the Top Cover and play the CD, you can just press the CD  $\rightarrow$  button.
- You can place an 8 cm (3") CD without an adaptor.
- If the CD cannot be read correctly (because it is scratched, for example), "00:00" appears on the display.
- You can insert a CD while listening to the other source.

**CAUTION:**  
 • DO NOT try to open or close the Top Cover by hands as it will be damaged.

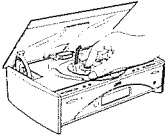
Using the CD Player

To Unload a CD

Take out the CD as shown below.



To unload an 8 cm (3") CD, use the concavity to make removal easier.



Basics of Using the CD Player-Normal Play

To Play a CD

1 Insert a CD.

2 Press the CD EJECT button.

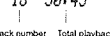
The first track of the CD begins playing.



- The track number that has already played disappears from the music calendar.
- The CD Player automatically stops when the last track of the CD has finished playing.

To stop playing the CD, press the STOP button.

The following information for the CD is displayed.



To stop playing and remove the CD, press the OPEN/CLOSE button on the Unit or CD EJECT button on the Remote Control to open the Top Cover.

To pause, press the CD PAUSE button. The playback time blinks on the display.  
To cancel pause, press the same button again. Play continues from the point where it was paused.

To Select a Track or Passage within a Track  
During playback, press the TRACK SKIP buttons to select the track you want.

- The selected track starts playing.
- Press the TRACK SKIP or TRACK SKIP button once to skip to the beginning of the next track.
- Press the TRACK SKIP or TRACK SKIP button to skip to the beginning of the track being played. Press twice quickly to skip to the beginning of the previous track.
- When the TRACK SKIP or TRACK SKIP button on the Remote Control is kept pressing, the track continuously skips.

Search Play

Holding down the TRACK SKIP or TRACK SKIP button, during playback, will fast forward/backwards the CD so you can quickly find a particular passage in the track you are listening to.

Programming the Playing Order of the Tracks

You can program the playing order of the tracks using the Remote Control.

- You can program up to 32 tracks in any desired order including the same tracks.
- You can only make a program when the CD Player is stopped.

1 Insert a CD.

2 Press the CD EJECT button.

3 Press the STOP button to stop the CD.

4 Press the PROGRAM button.

The System enters the programming mode and the "PROGRAM" indicator lights up.



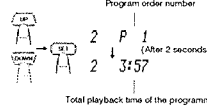
5 Press the UP, DOWN, >, or < button to select the track to program.

- UP or > button: Increases the track number by 1.
- DOWN or < button: Decreases the track number by 1.
- When the > or < button is kept pressing, the track number changes rapidly.

(To be continued on the next page)

Using the CD Player

6 Press the SET button.



7 Repeat steps 5 and 6 to select the other tracks for the program.

You can see the total playback time of programmed tracks on the display. Also, you can see the programmed tracks on the music calendar.

8 Press the CD EJECT button.

The System plays the tracks in the order you have programmed them.

You can skip to a particular program track by pressing the TRACK SKIP or TRACK SKIP button during Program Play.

To stop playing, press the STOP button once. To confirm the programmed tracks while the CD player is stopped, each time press the TRACK SKIP or TRACK SKIP button; the tracks making up the program will successively be displayed in the programmed order.

To delete all the tracks in the program, in stop mode, press the STOP button. Pressing the CD EJECT button to open the Top Cover will also clear the programmed tracks. To exit the program mode once, while the CD Player is stopped, press the PROGRAM button to light off the "PROGRAM" indicator.

- If the total playback time of the programmed tracks exceeds 99 minutes 59 seconds, the total playback time will go out on the display.
- If you try to program the 33rd track, "MEMORY FULL" appears on the display for about 2 seconds.

To Modify the Program

Modify the contents of the program while the CD Player is stopped.

Each time you press the CANCEL button, the last track in the program is deleted. To add new tracks to the end of the program, repeat above steps 5 to 7.

Random Play

The tracks will play in no special order when you use this mode.

1 Press the RANDOM button on the Remote Control.

The "RANDOM" indicator lights up on the display.

2 Press the CD EJECT button.

The tracks are played in random order.

To skip a track during playback, press the TRACK SKIP button to jump to the next track in the random sequence. Press the TRACK SKIP button to jump back to the start of a track being played. To exit Random Play mode, while the CD Player is stopped, press the RANDOM button to light off the "RANDOM" indicator and carry out Normal Play, or press the CD EJECT button to open the Top Cover.

Repeating Tracks

You can repeat all tracks or individual track, as many times as you like.

Press the REPEAT button on the Remote Control. The Repeat indicator changes with each press of the button, as shown below.

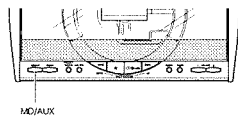
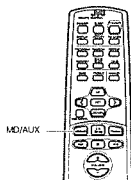
- REPEAT: blank display (back to the beginning)
- REPEAT: Repeats one track.
- REPEAT: In Normal Play mode, repeats all the tracks.
- REPEAT: In Program Play mode, repeats all the tracks in the program.
- REPEAT: In Random Play mode, repeats all the tracks in random order.

To exit Repeat mode, press the REPEAT button until the Repeat indicator on the display goes out.

In Random Play, REPEAT cannot be selected.

Repeat mode remains in effect even when you change the play mode.

Using External Equipments



Listening to External Equipment

You can listen to external equipment such as MD recorder, turntable or other auxiliary.

- First make sure that the external equipment is properly connected to the System. (See page 7).

1 Set the VOLUME control to the minimum position.

2 Press the MD/AUX button.

"MD/AUX" appears on the display.



3 Start playing the external equipment.

4 Adjust the VOLUME control to the desired listening level.

5 Apply sound effects, if you wish.

- Press the AHB PRO button to reinforce the bass sound.
  - Press the BASS/TREBLE button on the Remote Control to control the tone. (See "Tone Control" on page 10.)
- To exit MD/AUX mode, you will automatically switch out of MD/AUX mode when you select another source.

For operation of the external equipment, refer to its instructions.

Recording the System's Source to External Equipment

You can record the System's source to external equipment which is connected to the MD/AUX-IN/OUT or CD DIGITAL OUT terminals of the System, such as cassette deck or MD recorder, etc.

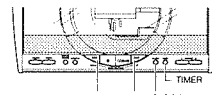
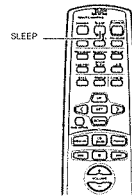
- First make sure that the external equipment is properly connected to the System. (See page 7).

1 Play the System's CD Player or tune in to a station.

- The recording level is not affected by the VOLUME level set by the System. Also it is not affected by the sound effects.

For operation of the external equipment, refer to its instructions.

Using the Timers



\* When the System is in use, the display shows other items as well. For simplicity, we show here only the items described in this section.

The timers let you control listening functions automatically.

Setting the Clock

- Use the Unit's button to set the clock.
- When you plug the AC power cord into the wall outlet, the time indication "AM 12:00" blinks on the display.

- The clock must be correctly set for the timers to work.
- The procedure must be completed within two minutes. Otherwise, the setting is cleared and must be repeated from the beginning.

1 Press the POWER button.

Then, the Unit's top buttons appear.



2 Press the CLOCK button on the Unit for more than two seconds.

The hour digit of the time indication rapidly blinks on the display.

3 Press the TRACK SKIP or TRACK SKIP button on the Unit to set the hour.

Pressing the TRACK SKIP button moves the time forwards and pressing the TRACK SKIP button moves it backwards. Hold down the button to move the time rapidly.

4 Press the CLOCK button.

The minute digits of the time indication rapidly blink on the display.

5 Press the TRACK SKIP or TRACK SKIP button to set the minute.

6 Press the CLOCK button.

The selected time is set and the seconds start counting from 0.

CAUTION:

- If there is a power failure, the clock loses its setting after about 20 minutes. "AM 12:00" blinks on the display and the clock must be reset.

The clock may gain or lose one to two minutes per month.

Setting the Daily Timer

Once you have set the Daily Timer, the timer will be activated at the same time every day.

The Timer indicator on the display shows that the Daily Timer you have set is in effect.

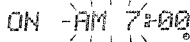
- Use the Unit's button to set the timer.

Perform each setting within 30 seconds. Otherwise, setting will be cleared and the procedure must be repeated from the beginning.

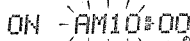
Using the Timers

1 Setting the ON time (Example: AM 10:15).

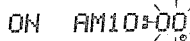
1. Press the **TIMER** button on the Unit for more than two seconds.  
The Timer indicator lights up and the hour digit of the current ON time blinks on the display.  
When the clock is not set, "CLOCK" and "ADJUST" appear alternately on the display. Set the clock first.



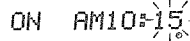
Press the **▶** or **◀** button on the Unit to set the hour you want the Unit to come on.  
Pressing the **▶** button moves the time forwards and pressing the **◀** button moves it backwards. Hold down the button to move the time rapidly.



2. Press the **TIMER** button.  
The minute digits of the ON time blink on the display.

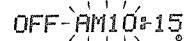


Set the minute you want the Unit to come on, using the **▶** or **◀** button.

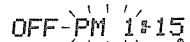


2 Setting the OFF time (Example: PM 1:30).

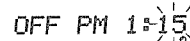
1. Press the **TIMER** button.  
The hour digit of the OFF time blinks on the display. (The same time as the ON time will be automatically set.)



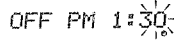
Set the hour you want the Unit to be turned off using the **▶** or **◀** button.



2. Press the **TIMER** button.  
The minute digits of the OFF time blink on the display.



Set the minute you want the Unit to be turned off, using the **▶** or **◀** buttons.

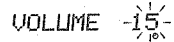


3 Selecting the music source.

1. Press the **TIMER** button.  
The "TUNER" or "CD" blinks on the display.  
2. Press the **▶** or **◀** button to select the music source you want to listen to.  
The display changes as shown below.  
**TUNER**—**CD**—(back to the beginning)

4 Setting the volume level.

1. Press the **TIMER** button.  
The current volume setting blinks on the display.  
2. Press the **▶** or **◀** button to select the volume level.  
The current volume level will be used.  
0 to 50. When the timer is turned on, the Volume will be automatically set to the selected level.



5 Press the **TIMER** button.

The timer setting is completed and the display returns to the display before you set the Timer. The Timer indicator remains lit.

6 Before turning off the System, prepare the music source selected in step 3.

**TUNER:** Tune in to the desired station.  
**CD:** Insert a CD (Playback will start from the first track at Timer on.)

7 Press the **POWER** button to turn off the System.

In standby mode, you can see the Timer indicator (⊙) on the display.  
When the timer turns on, the Timer indicator starts blinking and the prepared source in step 6 will be played.

**To cancel the timer,** press the **TIMER** button. The Timer indicator (⊙) goes out on the display.  
**To re-activate the cancelled timer,** press the **TIMER** button to light the Timer indicator (⊙). At this time, you can see the current timer settings. Each setting appears on the display for two seconds in the order of ON time, OFF time, music source and volume.  
**To change the timer setting,** repeat the setting procedure from the beginning.

**CAUTION:**  
If the System is unplugged, or a power failure occurs, the timer setting will be lost. You will need to reset the clock first, then the timer.

Using the Timers

Setting the SLEEP Timer

(Using the Remote Control)  
Use the Sleep Timer to turn the System off after a certain number of minutes when it is playing. By setting the Sleep Timer, you can fall asleep to music and know that your System will turn off by itself rather than play all night.

You can only set the Sleep Timer when the System is on and a source is playing.

1 Play a CD or tune in to the desired station.

2 Press the **SLEEP** button on the Remote Control.

The "SLEEP" indicator lights up.  
When the clock is not set, "CLOCK" and "ADJUST" appear alternately on the display. Set the clock first.

3 Set the length of time you want the source to play before shutting off.

Each time you press the **SLEEP** button, it changes the number of minutes shown on the display in this sequence:  
10 - 20 - 30 - 60 - 90 - 120 - Cancelled - (back to the beginning)

The selected number of minutes for the Sleep Timer will stop blinking five seconds later and the display returns to the original one before setting the Sleep Timer. (The display is dimmed.)  
The System is now set to turn off after the number of minutes you set.

**To Confirm the Sleep Time:**  
When the **SLEEP** button is pressed, the remaining sleep time is displayed. Wait until the display returns to the original display.

**To Cancel the SLEEP Timer Setting:**  
Press the **SLEEP** button until the "SLEEP" indicator goes out on the display.  
Turning off the System also cancels the **SLEEP** Timer.

If you are setting the Daily Timer, the System will be turned on at the set time to wake you up.

Care And Maintenance

Handle your CDs carefully, and they will last a long time.

Compact Discs



- Only CDs bearing this mark can be used with this System. However, continued use of irregular shape CDs (heart shape, octagonal, etc.) can damage the System.
- Remove the CD from its case by holding it at the edges while pressing the case's center hole lightly.
- Do not touch the shiny surface of the CD, or bend the CD.
- Put the CD back in its case after use to prevent warping.
- Be careful not to scratch the surface of the CD when placing it back in the case.
- Avoid exposure to direct sunlight, temperature extremes, and moisture.
- A dirty CD may not play correctly. If a CD does become dirty, wipe it with a soft cloth in a straight line from center to edge.

CAUTION:

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

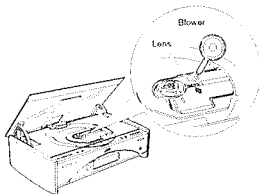
General Notes

- In general, you will have the best performance by keeping your CDs and the mechanism clean.
- Store CDs in their cases, and keep them in cabinets or on shelves.
- Keep the System's Top Cover closed when not in use.

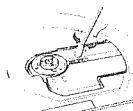
Cleaning the Lens

If the lens in the CD pickup is dirty, dropout, etc., could degrade sound.  
Open the Top Cover and clean the lens as shown.

Use a blower (available from a camera store) to blow dust off the lens.



If there are fingerprints, etc. on the lens, gently wipe clean with a cotton swab.



Moisture Condensation



Moisture may condense on the lens inside the System in the following cases:  
After turning on heating in the room.  
In a damp room.  
If the System is brought directly from a cold to a warm place.  
Should this occur, the System may malfunction. In this case, leave the System turned on for a few hours until the moisture evaporates, unplug the AC power cord, and then plug it in again.

Troubleshooting

- If you are having a problem with your System, check this list for a possible solution before calling for service.
- If you cannot solve the problem from the hints given here, or the System has been physically damaged, call a qualified person, such as your dealer, for service.

| Symptom                               | Possible Cause  | Action   |
|---------------------------------------|---|--|
| No sound is heard.                    | • Connections are incorrect, or loose.<br>• Headphones are connected.   | • Check all connections and make corrections. (See pages 4 to 8.)<br>• Disconnect the headphones.  |
| Poor radio reception                  | • The antenna is disconnected.<br>• The AM Loop Antenna is too close to the System.<br>• The FM Wire Antenna is not properly extended and positioned. | • Reconnect the antenna securely.<br>• Change the position and direction of the AM Loop Antenna.<br>• Extend FM Wire Antenna to the best reception position. |
| The CD skips.                         | The CD is dirty or scratched.   | Clean or replace the CD.   |
| The CD does not play.                 | The CD is upside down.  | Put the CD in with the label side up.  |
| Unable to operate the Remote Control. | • The path between the Remote Control and the sensor on the Unit is blocked.<br>• The batteries have lost their charge.                               | • Remove the obstruction.<br>• Replace the batteries.  |
| Operations are disabled.              | The built-in microprocessor has malfunctioned due to external electrical interference.  | Unplug the System then plug it back in.  |

## Specifications

English

|   |  |
|---|--|
| <b>Amplifier</b>                          |  |
| Output Power                              | 19 watts per channel, min. RMS, at 4 ohms from 80 Hz to 20 kHz, with no more than 10% total harmonic distortion (for U.S.A.)<br>38 W (19 W + 19 W) at 4 ohms (Max.) (for Canada) |
| Input Sensitivity/Impedance (1 kHz)       | 500 mV/47 kohms  |
| Output Sensitivity/Impedance (1 kHz)      | MD/AUX IN 500 mV/5 kohms<br>MD/AUX OUT 500 mV/5 kohms  |
| CD DIGITAL OUT (Optical out)              | -21 dBm - -15 dBm  |
| Speaker terminals                         | 4 - 16 ohms  |
| Subwoofer out                             | 230mV/16kohms  |
| Phones                                    | 16 ohms - 1 kohm   |
|   | 0 - 15 mW/ch output into 32 ohms   |
| <b>CD Player</b>                          |  |
| Signal-To-Noise Ratio                     | 90 dB  |
| Wow And Flutter                           | Unmeasurable   |
| <b>Tuner</b>                              |  |
| FM Tuner                                  |  |
| Tuning Range                              | 87.5 - 108.0 MHz   |
| AM Tuner                                  |  |
| Tuning Range                              | 530 - 1,710 kHz  |
| <b>Center Unit (FS-SD5/SD7/SD9)</b>       |  |
| Dimensions                                | 300mm × 75mm × 215mm (W/H/D)<br>(11 - <sup>13</sup> / <sub>16</sub> " × 3" × 8 - <sup>1</sup> / <sub>2</sub> " )   |
| Mass                                      | Approx. 3.0kg (6.7 lbs)  |
| <b>Speaker Specifications (each unit)</b> |  |
| <b>FS-SD5</b>                             |  |
| Speakers                                  | 8 cm cone  |
| Impedance                                 | 4 ohms   |
| Dimensions                                | 100mm × 186mm × 193.5mm (W/H/D)<br>(3 - <sup>13</sup> / <sub>16</sub> " × 7 - <sup>3</sup> / <sub>8</sub> " × 7 - <sup>11</sup> / <sub>16</sub> " )                              |
| Mass                                      | 1.5kg (3.4 lbs)  |
| <b>FS-SD7</b>                             |  |
| Speakers                                  | 8 cm cone  |
| Impedance                                 | 4 ohms   |
| Dimensions                                | 137mm × 231mm × 141mm (W/H/D)<br>(5 - <sup>3</sup> / <sub>8</sub> " × 9 - <sup>1</sup> / <sub>8</sub> " × 5 - <sup>3</sup> / <sub>8</sub> " )                                    |
| Mass                                      | 1.4kg (3.1 lbs)  |
| <b>FS-SD9</b>                             |  |
| Speakers                                  | 8 cm cone  |
| Impedance                                 | 4 ohms   |
| Dimensions                                | 135mm × 231mm × 141mm (W/H/D)<br>(5 - <sup>3</sup> / <sub>8</sub> " × 9 - <sup>1</sup> / <sub>8</sub> " × 5 - <sup>3</sup> / <sub>8</sub> " )                                    |
| Mass                                      | 1.4kg (3.1 lbs)  |
| <b>Accessories</b>                        |  |
| Power Cord (1)                            |  |
| AM Loop Antenna (1)                       |  |
| Remote Control (1)                        |  |
| Batteries R6P (SUM-3)/AA (15F) (2)        |  |
| FM Wire Antenna (1)                       |  |
| Speaker Cords (2)                         |  |
| Spacers (6) (only for FS-SD7/SD9)         |  |
| <b>Power Specifications</b>               |  |
| Power Requirements                        | AC 120 V ~ , 60 Hz   |
| Power Consumption                         | 28 watts (power on mode)<br>2.1 watts (in Standby mode)  |

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



FS-SD5/FS-SD7/FS-SD9

<<MEMO>>



## Disassembly method

### <Main body>

#### ■ Removing the rear cover (See Fig.1)

1. Remove the ten screws A and the five screws B attaching the rear cover on the back of the body.

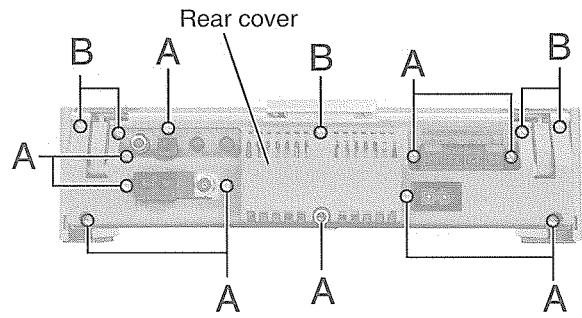


Fig.1

#### ■ Removing the right and left covers (See Fig.2)

- Prior to performing the following procedure, remove the rear cover.
1. Remove the four screws C attaching the side covers on the bottom of the body.
  2. Move the left cover backward and remove outward. Also remove the right cover in the same way.

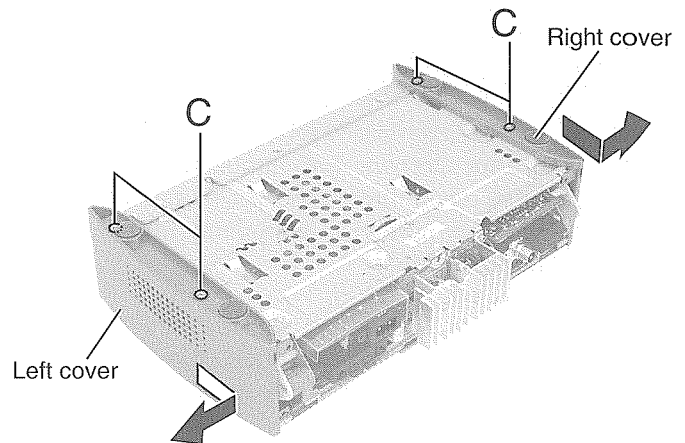


Fig.2

#### ■ Removing the front panel assembly (See Fig.3 to 5)

- Prior to performing the following procedure, remove the rear cover and the side covers.
1. Remove the three screws D on the bottom of the body.
  2. Release two joints a and two joints b on both sides of the body using a screwdriver and remove the front panel assembly toward the front.

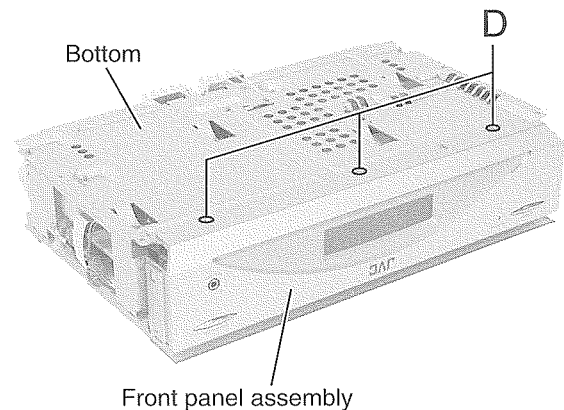


Fig.3

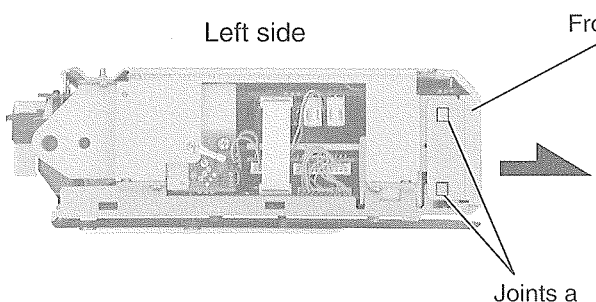


Fig.4

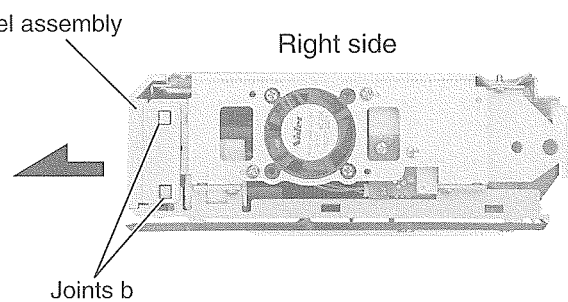


Fig.5

■Removing the CD mechanism base assembly (See Fig.6 to 13)

• Prior to performing the following procedure, remove the rear cover, the side covers and the front panel assembly.

1. Remove the four screws E attaching the CD door on the upper side of the body.
2. Disconnect the card wire from connector CN104 and CN105 of the main board in the front part of the body. Disconnect the card wire from CN101 of the main board on the right side, and the harness from CN705 and CN708 of the CD mechanism base assembly respectively.
3. Remove the four screws F attaching the CD mechanism base assembly on the upper side of the body. Remove the screw I attaching the earth terminal on the right side.
4. Remove the screw G attaching the heat sink board on the back of the body. Disconnect the harness from connector CN301 and pull the heat sink board fully outward.

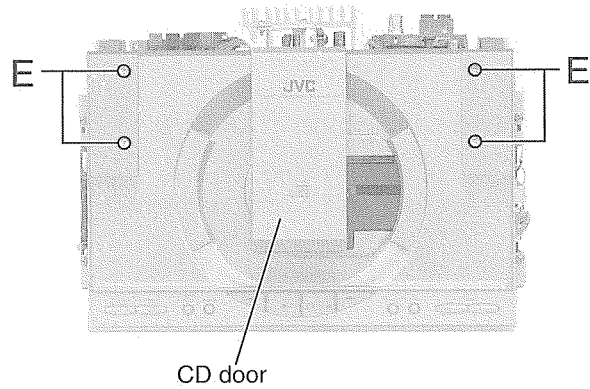


Fig.6

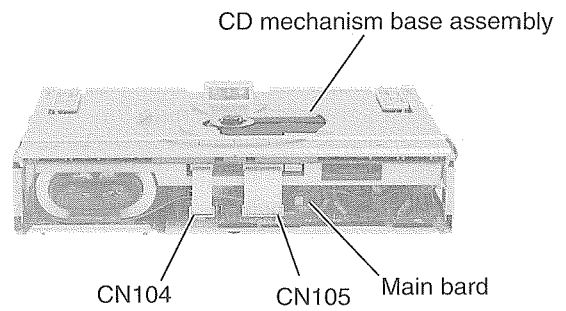


Fig.7

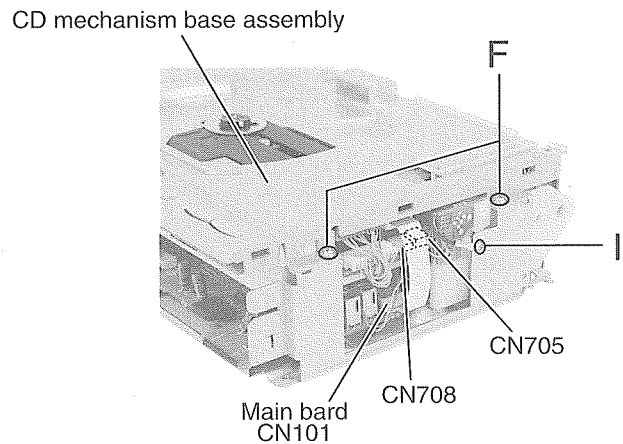


Fig.8

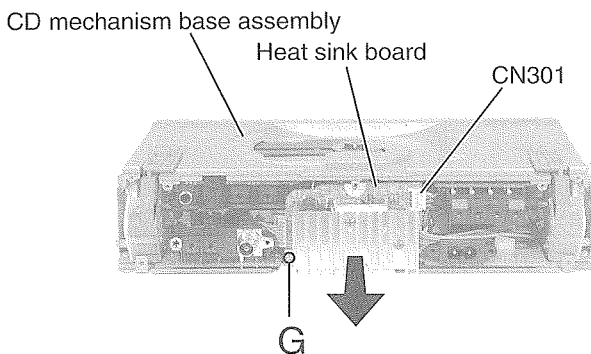


Fig.10

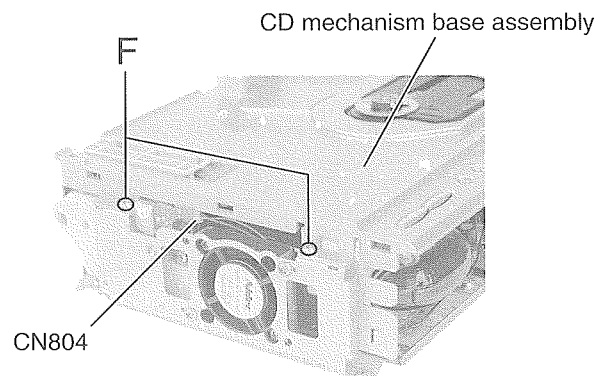


Fig.9

5. Raise the right and left door arms by turning the gear a in the rear of the heat sink board.
6. After the CD mechanism base assembly is detached from the door arms, pull the CD mechanism base assembly toward the front and disconnect the harness from connector CN804 on the left side of the door arm board.
7. Pull out the CD mechanism base assembly toward the front.

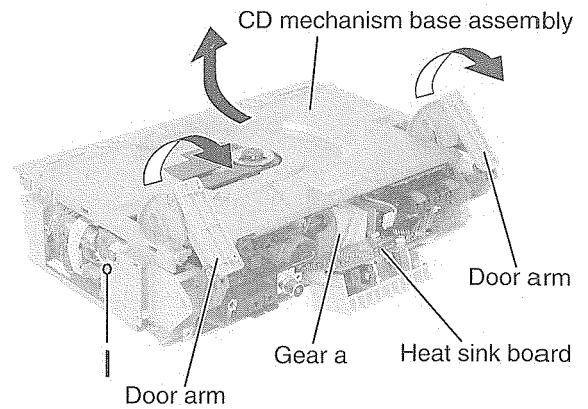


Fig.11

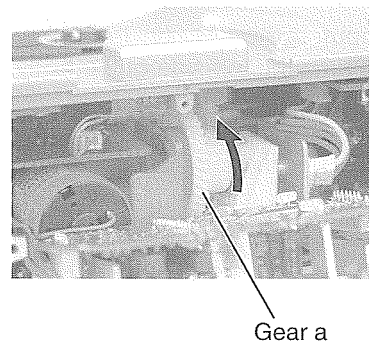


Fig.12

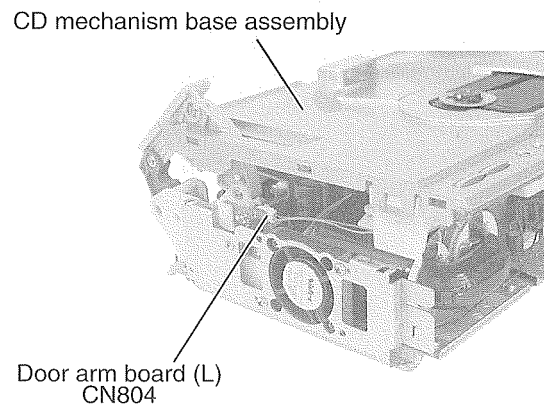


Fig.13

**■ Removing the door arm assembly / the door arm board (R) and (L)**  
**(See Fig.14 to 19)**

• Prior to performing the following procedure, remove the rear cover, the side covers, the front panel assembly and the CD mechanism base assembly.

1. In case that the upper parts of the door arms attached to the CD door are not level, let down them to the level position by turning the gear a in the direction of the arrow.

**ATTENTION:** When the door arms incline, the door arm assembly and the door arm board (R) and (L) may not be removed.

2. Remove the four screws H on the upper side and the one screw I on the left side of the body.
3. Remove the four screws J attaching the door arm board (L) and (R) on both sides of the door arm assembly.

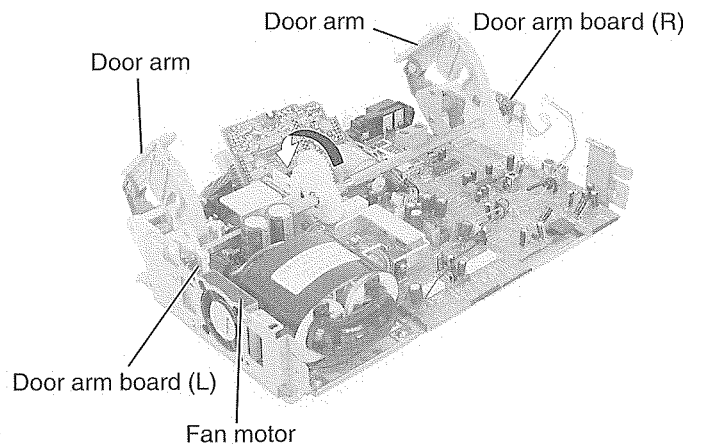


Fig.14

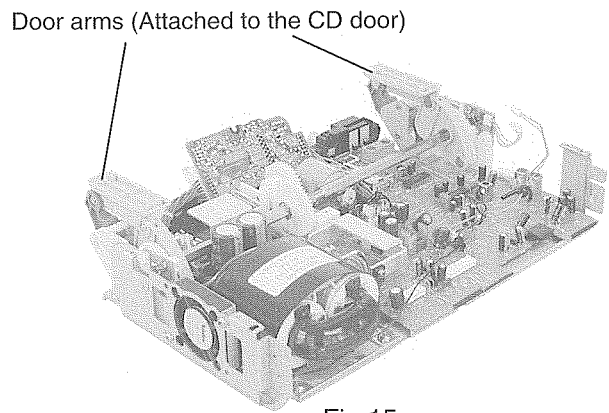


Fig.15

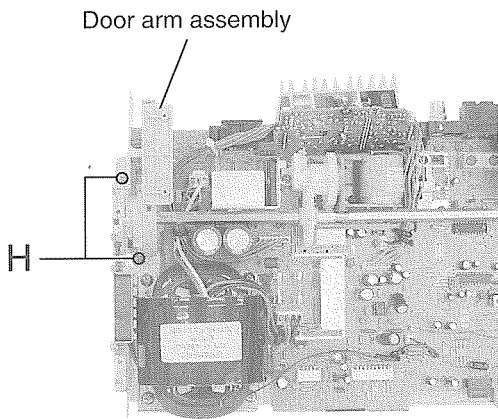


Fig.16

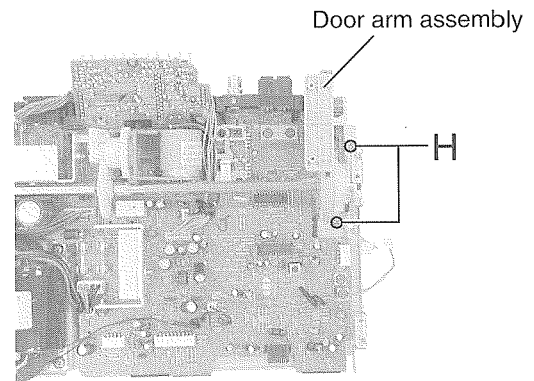


Fig.17

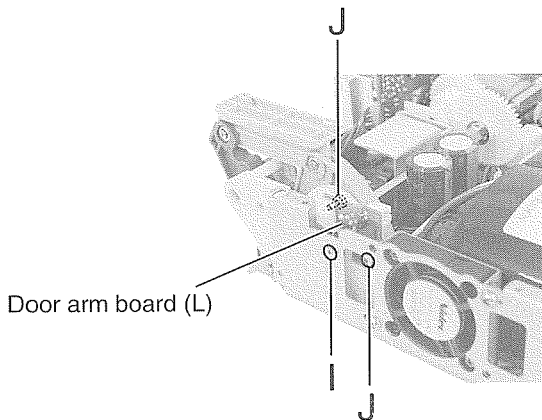


Fig.18

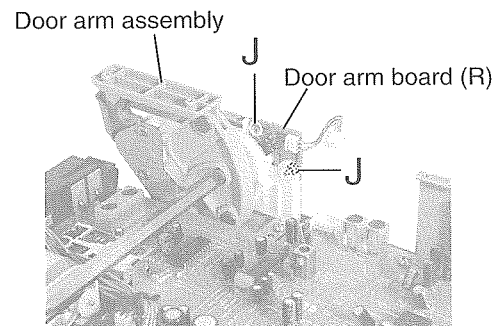


Fig.19

**■Removing the power amplifier board  
(See Fig.20 and 21)**

• Prior to performing the following procedure, remove the CD mechanism base assembly.

1. Disconnect the harnesses from connector CN102 and CN193 on the main board and release them from the cord stopper respectively.
2. Remove the two screws K and the two screws L attaching the heat sink and the power amplifier board.

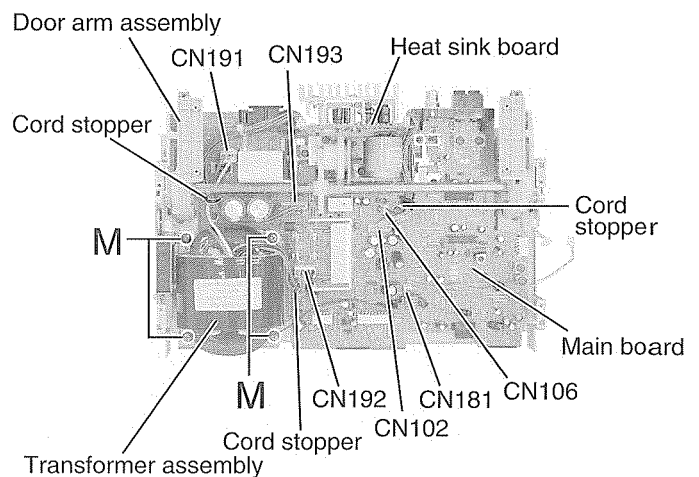


Fig.20

**■Removing the transformer assembly  
(See Fig.20)**

• Prior to performing the following procedure, remove the CD mechanism base assembly.

1. Disconnect the harnesses from connector CN191 and CN192 on the main board and release them from the cord stopper respectively.
2. Remove the four screws M attaching the transformer assembly.

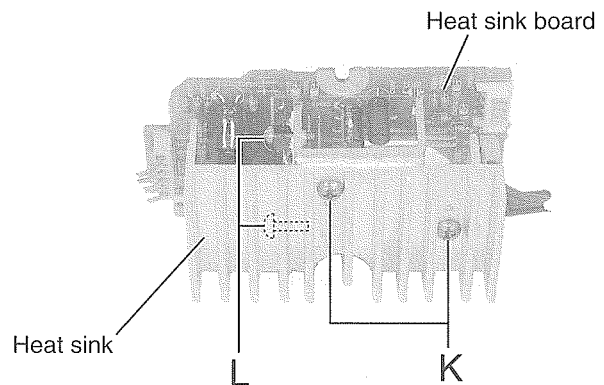


Fig.21

**■Removing the gear motor assembly  
(See Fig.22 to 24)**

• Prior to performing the following procedure, remove the CD mechanism base assembly and the door arm assembly.

1. Disconnect the harness from connector CN106 on the main board and release it from the cord stopper.
2. Remove the three screws N attaching the gear motor assembly. Remove the gear motor assembly with the gear motor stopper.
3. Remove the belt from the gear motor assembly.
4. Remove the two screws O from the gear motor assembly.

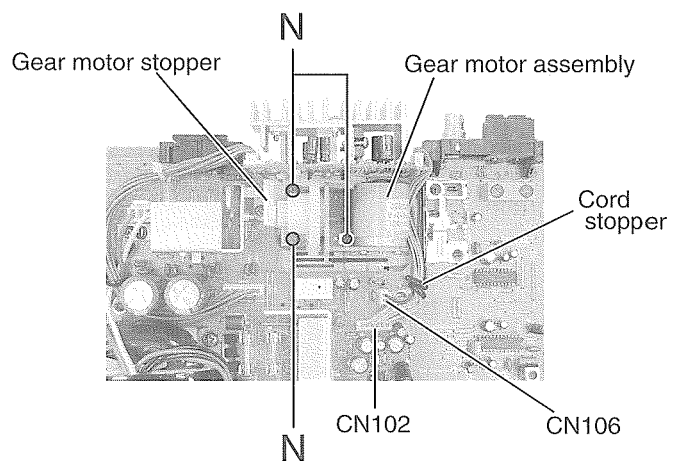


Fig.22

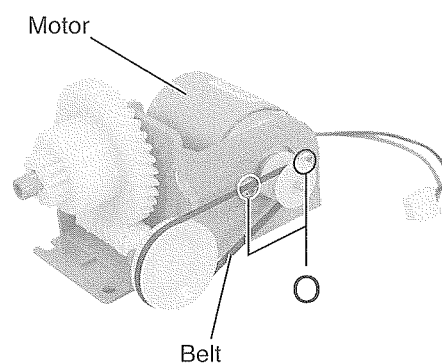
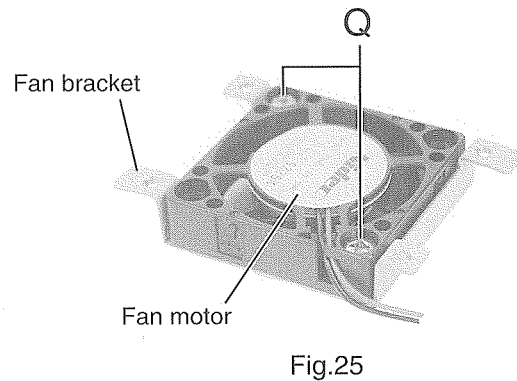
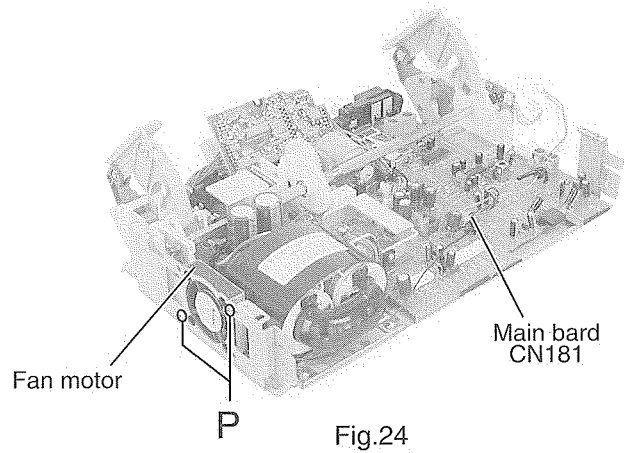


Fig.23

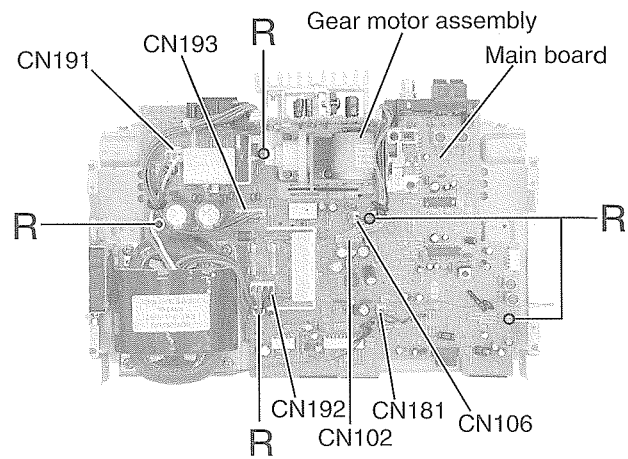
**■Removing the fan motor assembly  
(See Fig.24 and 25)**

- Prior to performing the following procedure, remove the CD mechanism base assembly.
1. Disconnect the harness from connector CN181 on the main board.
  2. Remove the two screws P on the left side of the body. Move the fan motor assembly upward to remove it from the base chassis.
  3. Remove the two screws Q and the fan motor from the fan bracket.



**■Removing the main board (See Fig.26)**

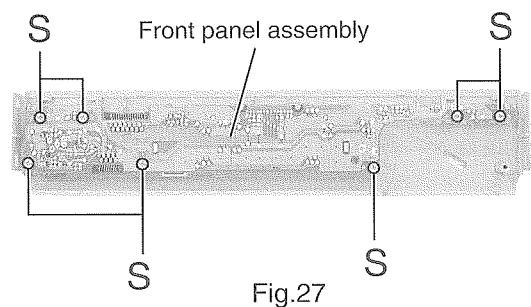
- Prior to performing the following procedure, remove the CD mechanism base assembly and the door arm assembly.
  - To facilitate operation process, remove the gear motor assembly before performing the following procedure.
1. Disconnect the harnesses from connector CN102, CN106, CN191, CN192, CN193 and CN181 on the main board.
  2. Remove the five screws R attaching the main board with the cord clamp.



**<Front panel assembly>**

**■Removing the front panel board  
(See Fig.27)**

- Prior to performing the following procedure, remove the front panel assembly.
1. Remove the seven screws S attaching the front panel board inside the front panel assembly.



<CD mechanism base assembly>

- Prior to performing the following procedure, remove the CD mechanism base assembly.

■ Removing the speaker terminal board (See Fig.28)

1. Remove the two screws T attaching the speaker terminal board on the underside of the CD mechanism base assembly.

■ Removing the CD mechanism board / CD mechanism assembly (See Fig.28 to 32)

1. Turn over the CD mechanism base assembly and disconnect the harness from connector CN703 and CN706 on the CD mechanism board.
2. Turn over the CD mechanism base assembly and disconnect the harness from connector CN703 and CN706 on the CD mechanism board.
3. Turn back the CD mechanism assembly and detach the CD mechanism cover while pulling the CD mechanism assembly outward to release the two joint tabs marked c.
4. Disconnect the card wire from the connector of the CD mechanism assembly inside the CD mechanism cover. Disconnect the harness from CN605 on the CD mechanism board. Pull the CD mechanism assembly out of the three shaft of the CD mechanism cover.

ATTENTION: When reassembling, confirm that the cushion of the CD mechanism assembly is reattached to the three shafts.

5. Remove the CD mechanism board from the CD mechanism cover.

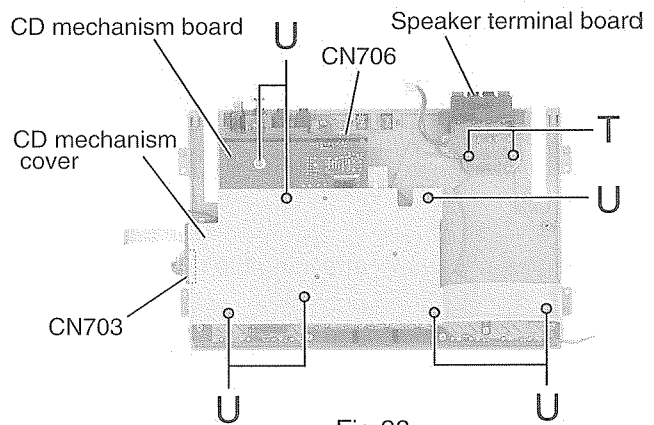


Fig.28

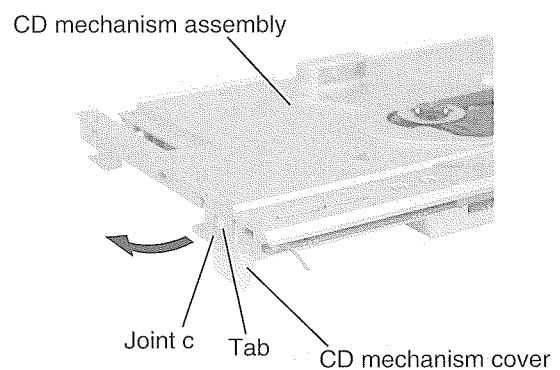


Fig.29

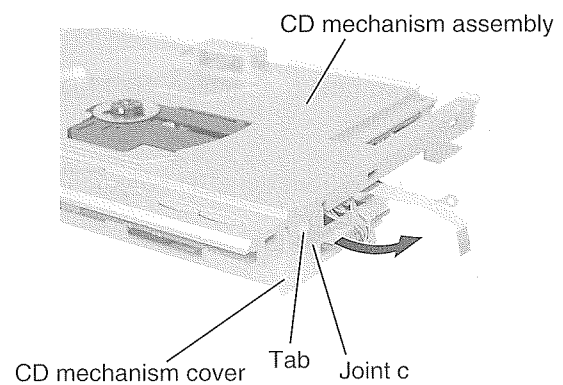


Fig.30

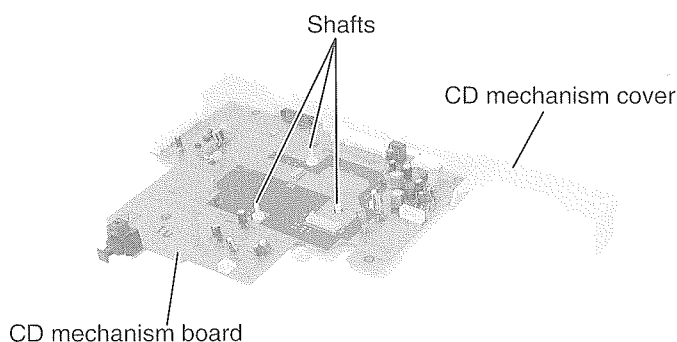


Fig.32

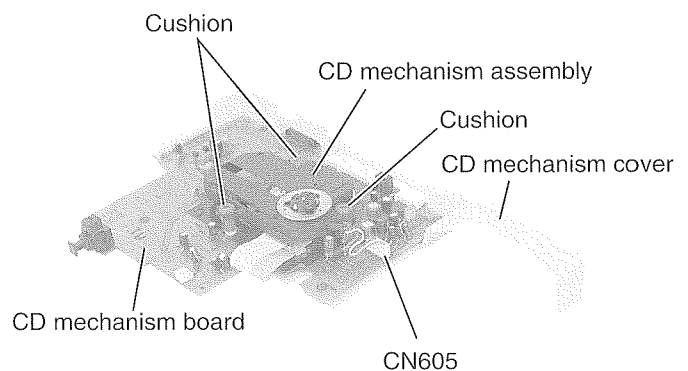
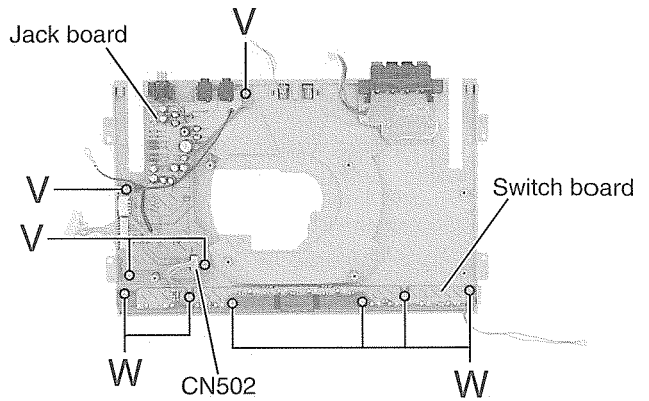


Fig.31

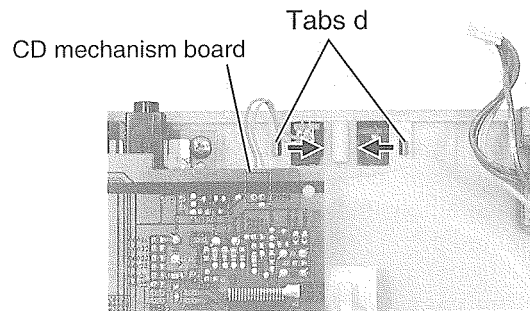
■ **Removing the jack board (See Fig.33)**

- Prior to performing following procedure, remove the CD mechanism board.
1. Disconnect the harness from connector CN502 on the jack board.
  2. Remove the four screws V attaching the jack board.



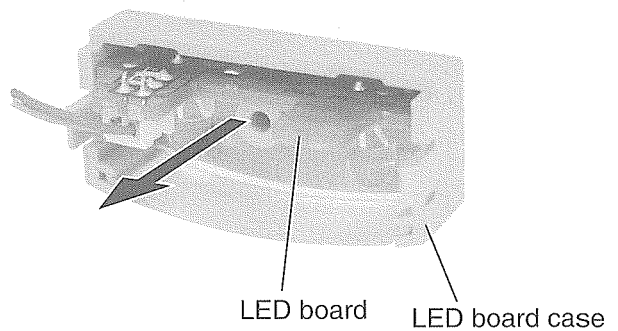
■ **Removing the switch board (See Fig.33)**

- Prior to performing following procedure, remove the CD mechanism board.
1. Disconnect the harness from connector CN502 on the jack board.
  2. Remove the six screws W attaching the switch board.



■ **Removing the LED board (See Fig.34 and 35)**

1. Disconnect the harness from connector CN706 on the CD mechanism board on the underside of the CD mechanism base assembly.
2. Push inward the two tabs d attaching the LED board case and release them.
3. Pull out the LED board from the LED board case.



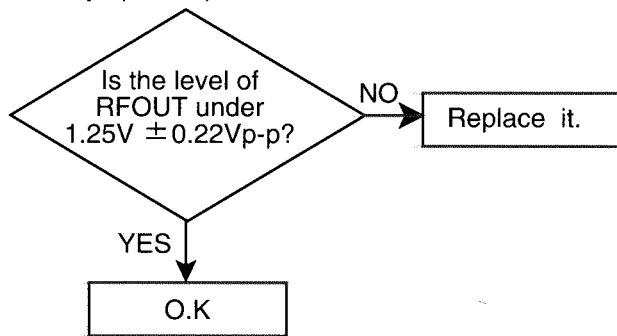


## Maintenance of laser pickup

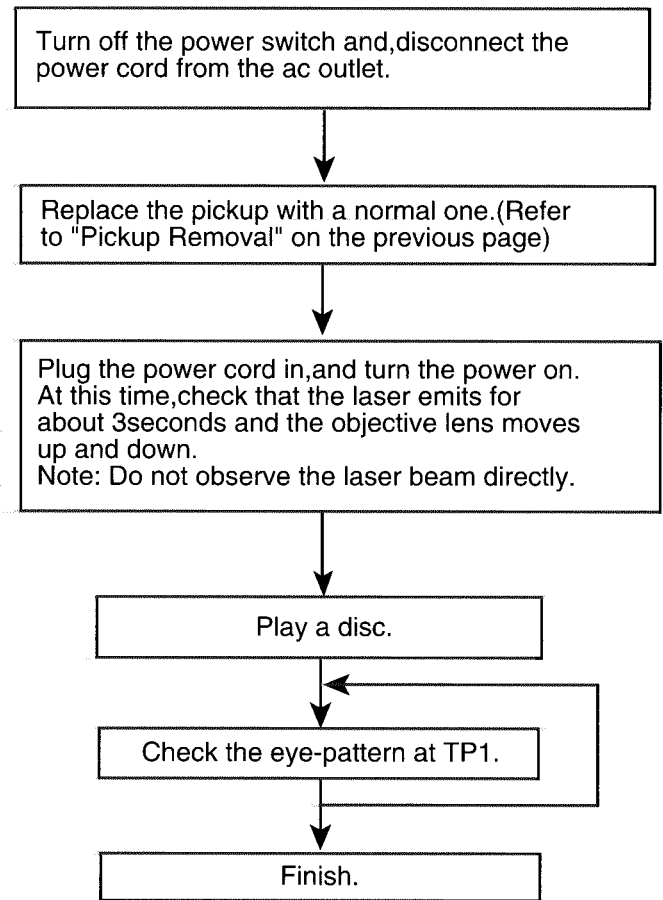
(1) Cleaning the pick up lens  
 Before you replace the pick up, please try to clean the lens with a alcohol soaked cotton swab.

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

1. The level of RF output (EFM output: amplitude of eye pattern) will below.

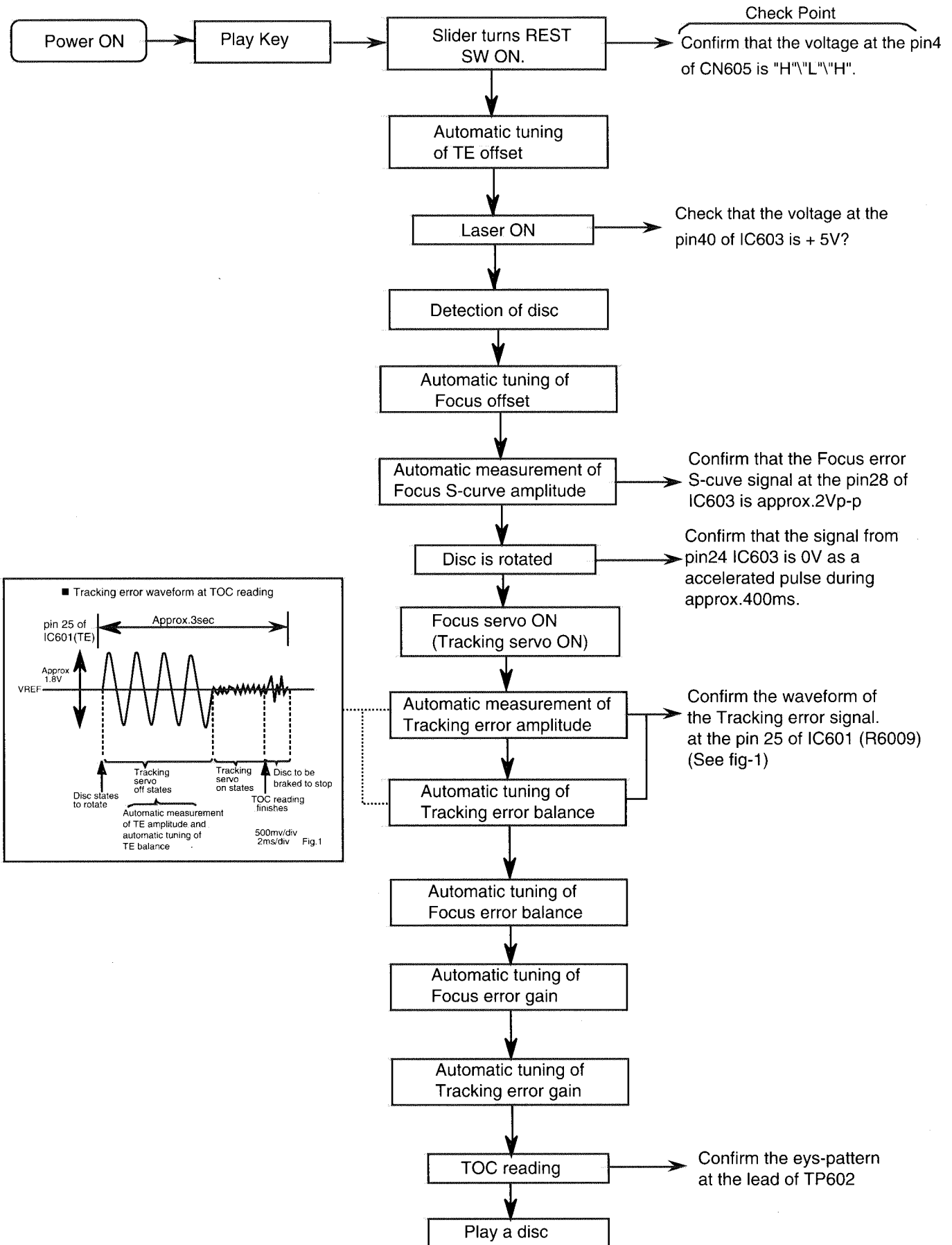


## Replacement of laser pickup



(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.

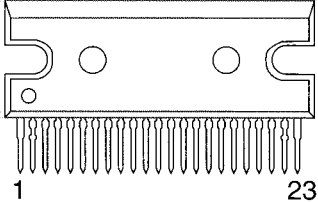
## Flow of functional operation until TOC read



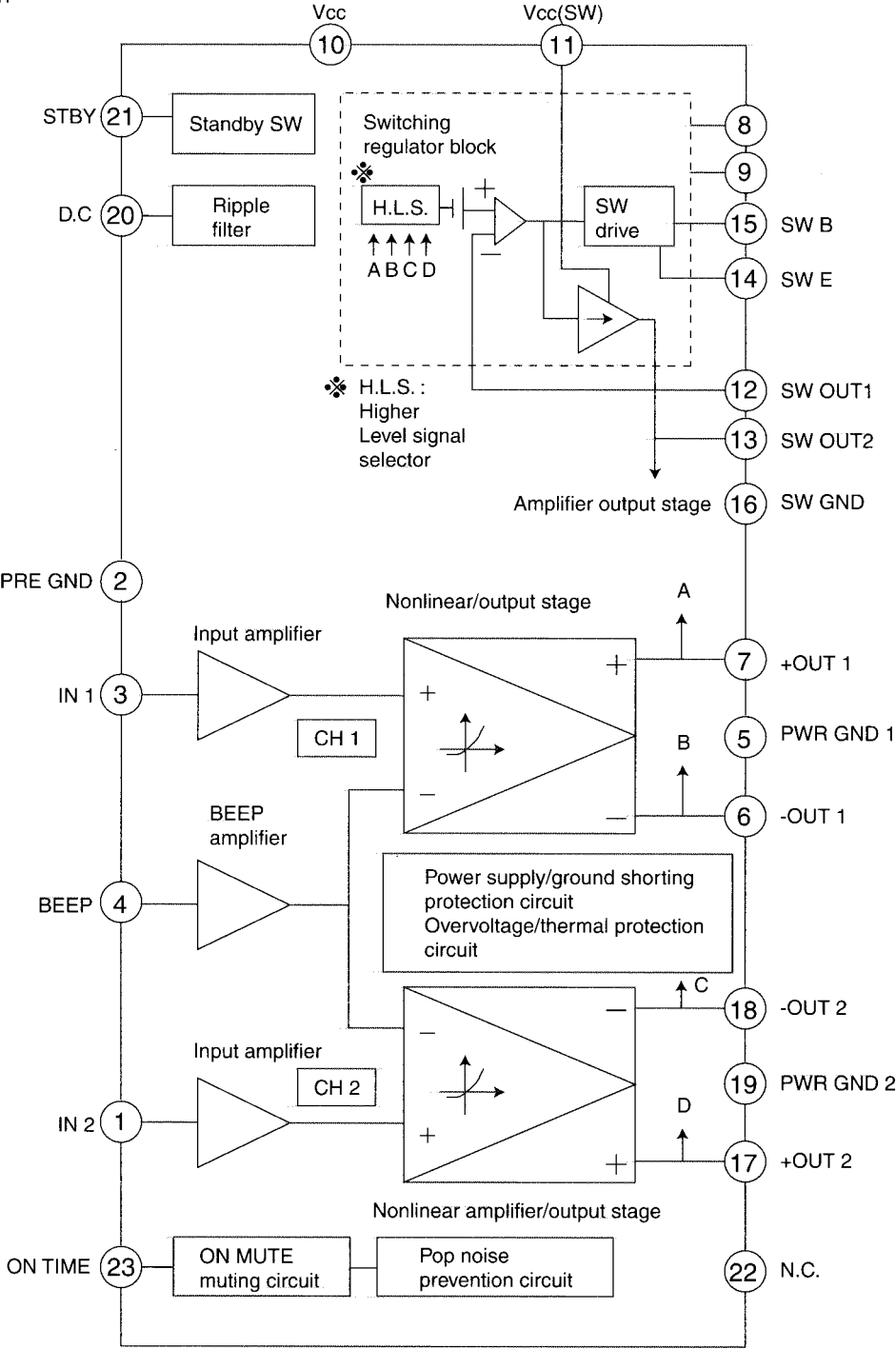
# Description of major ICs

## LA4905 (IC301) : 2ch BTL power IC

### 1. Pinlayput



### 2. Block diagram

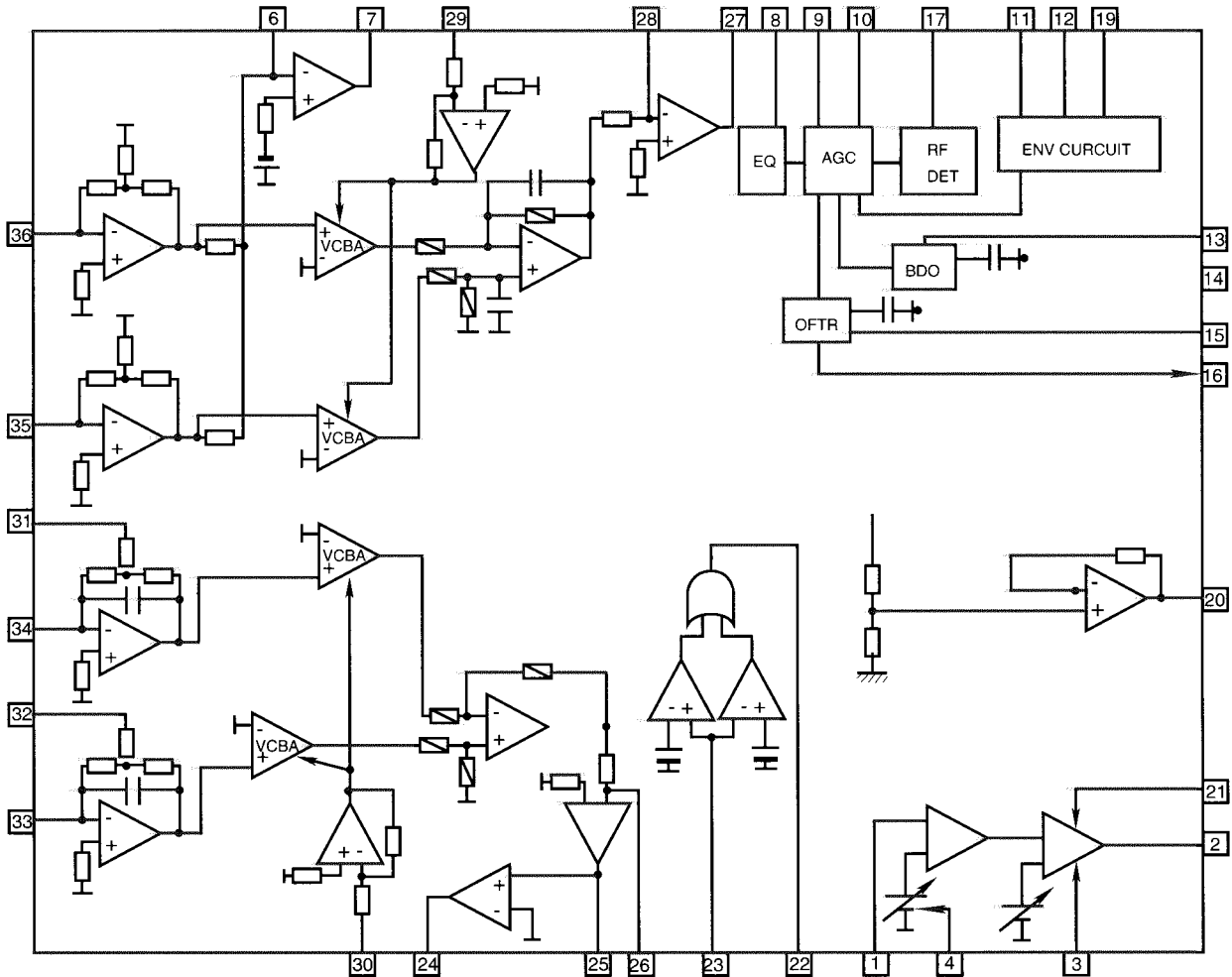


■ AN8806SB-W (IC601) : RF & Servo amp.

1.Pin layout

|            |           |
|------------|-----------|
| PD 1       | 36 PDAC   |
| LD 2       | 35 PDBD   |
| LDON 3     | 34 PDF    |
| LDP 4      | 33 PDE    |
| VCC 5      | 32 PDER   |
| RF- 6      | 31 PDFR   |
| RF OUT 7   | 30 TBAL   |
| RF IN 8    | 29 FBAL   |
| C.AGC 9    | 28 EF-    |
| ARF 10     | 27 EF OUT |
| C.ENV 11   | 26 TE-    |
| C.EA 12    | 25 TE OUT |
| CS BDO 13  | 24 CROSS  |
| BDO 14     | 23 TE BPF |
| CS BRT 15  | 22 VDET   |
| OFTR 16    | 21 LD OFF |
| /NRFDET 17 | 20 VREF   |
| GND 18     | 19 ENV    |

2.Block diagram

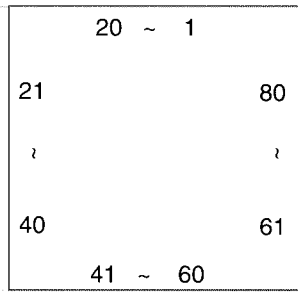


## 3. Pin function

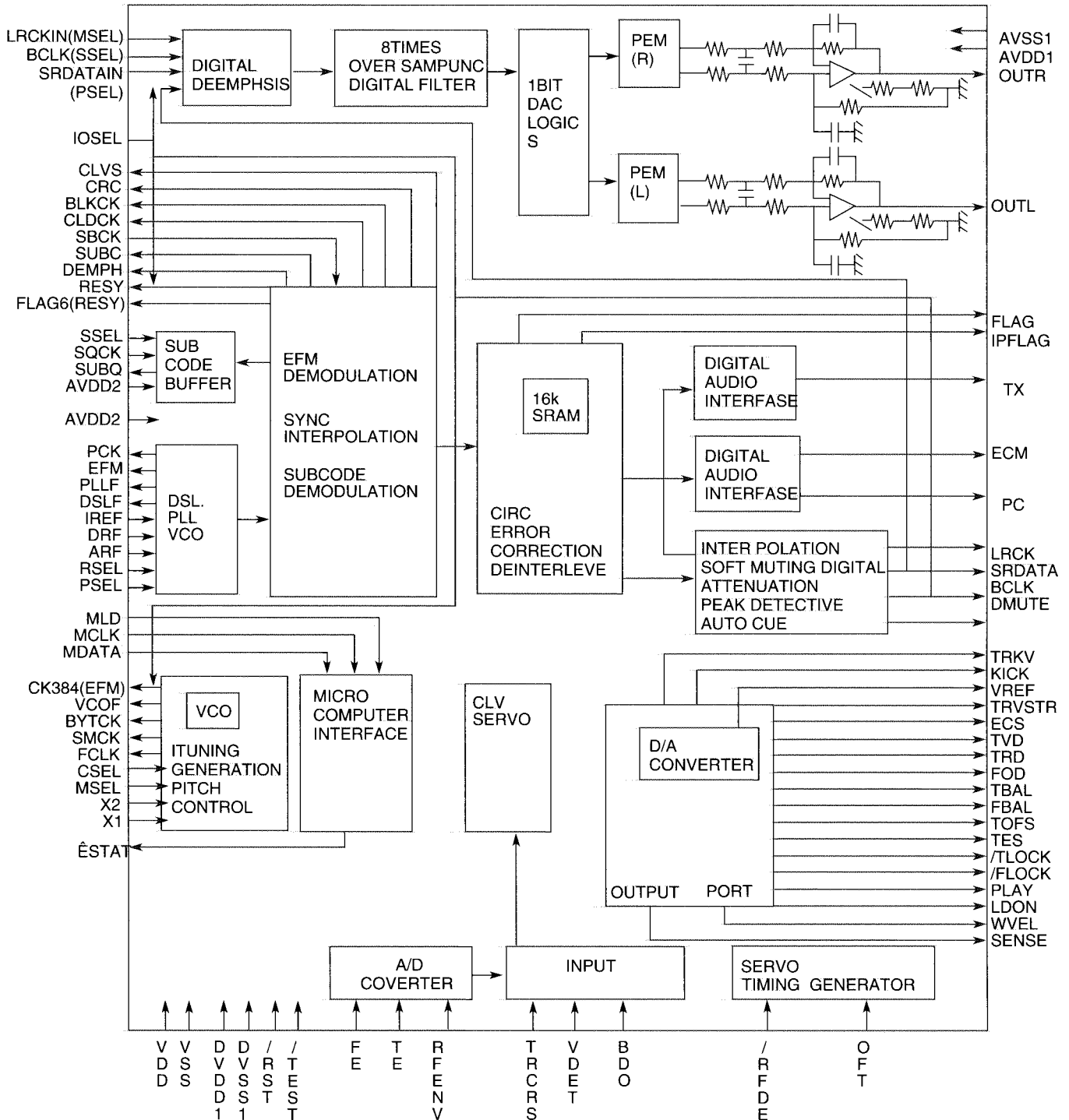
| Pin No. | symbol  | I/O | Function  |
|---------|---------|-----|---|
| 1       | PD      | I   | APC amp . Input terminal  |
| 2       | LD      | O   | APC amp . Output terminal   |
| 3       | LD ON   | I   | LD ON/OFF control terminal  |
| 4       | LDP     | --  | Connect to GND  |
| 5       | VCC     | --  | Power supply  |
| 6       | RF-     | I   | RF amp . Reversing input terminal                                       |
| 7       | RF OUT  | O   | RFamp . Output terminal   |
| 8       | RF IN   | I   | AGC input terminal  |
| 9       | C.AGC   | I/O | AGC loop filter connection terminal                                     |
| 10      | ARF     | O   | ARF output terminal   |
| 11      | C.ENV   | I/O | RF detection capacity connection terminal                               |
| 12      | C.EA    | I/O | HPF-amp capacity connection terminal                                    |
| 13      | CS BDO  | I/O | Capacity connection terminal for RF discernment side envelope detection |
| 14      | BDO     | O   | BDO output terminal   |
| 15      | CS BRT  | I/O | Capacity connection terminal for RF discernment side envelope detection |
| 16      | OFTR    | O   | OFTR output terminal  |
| 17      | /NRFDET | O   | RFDET output terminal   |
| 18      | GND     | --  | Connect to GND  |
| 19      | ENV     | O   | 3TENV output terminal   |
| 20      | VREF    | O   | VREF output terminal  |
| 21      | LD OFF  | --  | APC OFF control terminal  |
| 22      | VDET    | O   | VDET output terminal  |
| 23      | TE BPF  | I   | VDET input terminal   |
| 24      | CROSS   | O   | CROSS output terminal   |
| 25      | TE OUT  | O   | TE amp . Output terminal  |
| 26      | TE-     | I   | FE amp . Reversing input terminal                                       |
| 27      | FE OUT  | O   | FE amp . output terminal  |
| 28      | FE-     | I   | FE amp . Reversing input terminal                                       |
| 29      | FBAL    | I   | F.BAL control terminal  |
| 30      | TBAL    | I   | T.BAL control terminal  |
| 31      | PDFR    | I/O | I-V amp conversion resistance adjustment terminal                       |
| 32      | PDER    | I/O | I-V amp conversion resistance adjustment terminal                       |
| 33      | PDF     | I   | I-V amp input terminal  |
| 34      | PDE     | I   | I-V amp input terminal  |
| 35      | PD BD   | I   | I-V amp input terminal  |
| 36      | PD AC   | I   | I-V amp input terminal  |

■ MN35510(IC501):Digital servo & Digital signal processor

1. Terminal Layout



2. Block Diagram

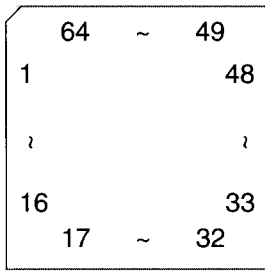


## 3. Description

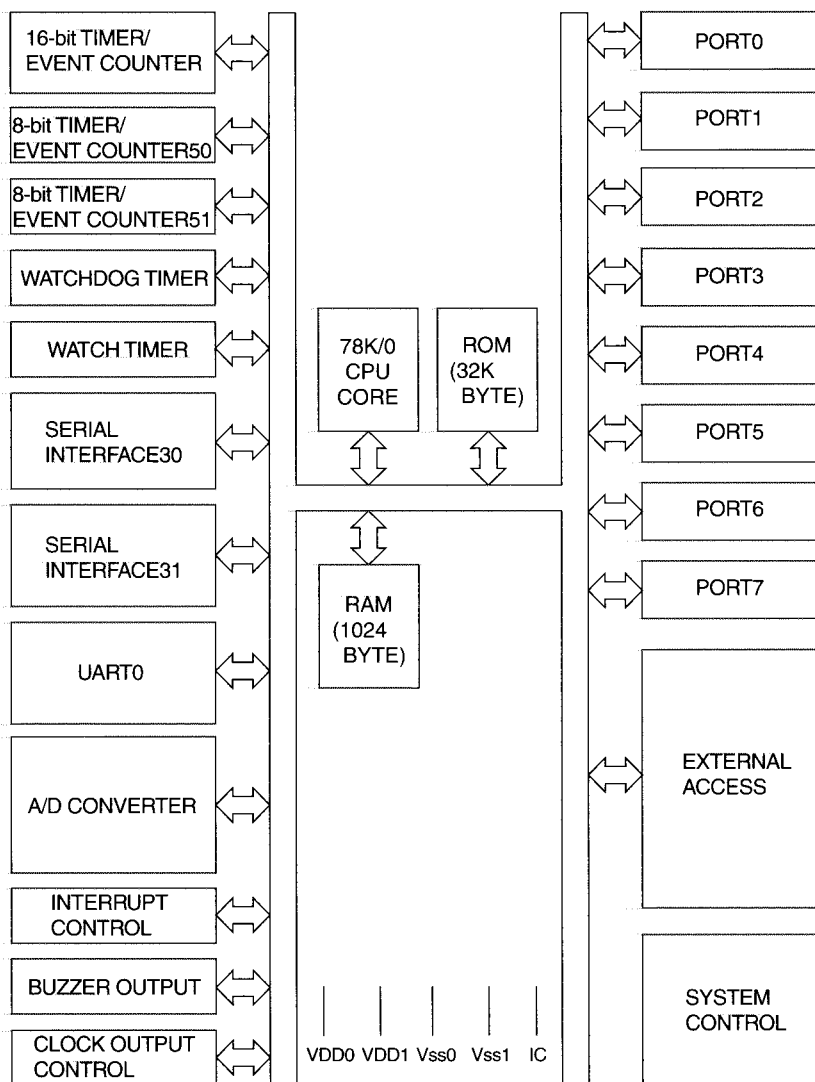
| Pin No. | symbol | I/O | Description  | Pin No. | symbol | I/O | Description                                     |
|---------|--------|-----|--|---------|--------|-----|---|
| 1       | BCLK   | O   | Not used   | 41      | TES    | O   | Tracking error shunt signal output(H:shunt)     |
| 2       | LRCK   | O   | Not used   | 42      | PLAY   | -   | Not used  |
| 3       | SRDATA | O   | Not used   | 43      | WVEL   | -   | Not used  |
| 4       | DVDD1  | -   | Power supply (Digital)   | 44      | ARF    | I   | RF signal input                                 |
| 5       | DVSS1  | -   | Connected to GND   | 45      | IREF   | I   | Reference current input pin                     |
| 6       | TX     | O   | Digital audio interface output   | 46      | DRF    | I   | Bias pin for DSL                                |
| 7       | MCLK   | I   | Micom command clock signal input<br>(Data is latched at signal's rising point) | 47      | DSLFL  | I/O | Loop filter pin for DSL                         |
| 8       | MDATA  | I   | Micom command data input   | 48      | PLLFL  | I/O | Loop filter pin for PLL                         |
| 9       | MLD    | I   | Micom command load signal input  | 49      | VCOF   | -   | Not used  |
| 10      | SENSE  | O   | Sence signal output  | 50      | AVDD2  | -   | Power supply(Analog)                            |
| 11      | FLOCK  | O   | Focus lock signal output Active :Low   | 51      | AVSS2  | -   | Connected to GND(Analog)                        |
| 12      | TLOCK  | O   | Tracking lock signal output Active :Low  | 52      | EFM    | -   | Not used  |
| 13      | BLKCK  | O   | sub-code - block - clock signal output   | 53      | PCK    | -   | Not used  |
| 14      | SQCK   | I   | Outside clock for sub-code Q resister input                                    | 54      | PDO    | -   | Not used  |
| 15      | SUBQ   | O   | Sub-code Q -code output  | 55      | SUBC   | -   | Not used  |
| 16      | DMUTE  | -   | Connected to GND   | 56      | SBCK   | -   | Not used  |
| 17      | STATUS | O   | Status signal<br>(CRC,CUE,CLVS,TTSTOP,ECLV,SQOK)                               | 57      | VSS    | -   | Connected to GND(for X'tal oscillation circuit) |
| 18      | RST    | I   | Reset signal input (L:Reset)   | 58      | XI     | I   | Input of 16.9344MHz X'tal oscillation circuit   |
| 19      | SMCK   | -   | Not used   | 59      | X2     | O   | Output of X'tal oscillation circuit             |
| 20      | PMCK   | -   | Not used   | 60      | VDD    | -   | Power supply(for X'tal cscillation circuit)     |
| 21      | TRV    | O   | Traverse enforced output   | 61      | BYTCK  | -   | Not used  |
| 22      | TVD    | O   | Traverse drive output  | 62      | CLDCK  | -   | Not used  |
| 23      | PC     | -   | Not used   | 63      | FLAG   | -   | Not used  |
| 24      | ECM    | O   | Spindle motor drive signal (Enforced mode output) 3-State                      | 64      | IPPLAG | -   | Not used  |
| 25      | ECS    | O   | Spindle motor drive signal (Servo error signal output)                         | 65      | FLAG   | -   | Not used  |
| 26      | KICK   | O   | Kick pulse output  | 66      | CLVS   | -   | Not used  |
| 27      | TRD    | O   | Tracking drive output  | 67      | CRC    | -   | Not used  |
| 28      | FOD    | O   | Focus drive output   | 68      | DEMPH  |     | Not used  |
| 29      | VREF   | I   | Reference voltage input pin for D/A output block (TVD,FOD,FBA,TBAL)            | 69      | RESY   | -   | Not used  |
| 30      | FBAL   | O   | Focus Balance adjust signal output   | 70      | IOSEL  | -   | pull up   |
| 31      | TBAL   | O   | Tracking Balance adjust signal output  | 71      | TEST   | -   | pull up   |
| 32      | FE     | I   | Focus error signal input(Analog input)   | 72      | AVDD1  | -   | Power supply(Digital)                           |
| 33      | TE     | I   | Tracking error signal input(Analog input)                                      | 73      | OUT L  | O   | Lch audio output                                |
| 34      | RF ENV | I   | RF envelope signal input(Analog input)   | 74      | AVSS1  | -   | Connected to GND                                |
| 35      | VDET   | I   | Vibration detect signal input(H:detect)  | 75      | OUT R  | O   | Rch audio output                                |
| 36      | OFT    | I   | Off track signal input(H:off track)  | 76      | RSEL   | -   | pull up   |
| 37      | TRCRS  | I   | Track cross signal input   | 77      | CSEL   | -   | Connected to GND                                |
| 38      | RFDET  | I   | RF detect signal input(L:detect)   | 78      | PSEL   | -   | Connected to GND                                |
| 39      | BDO    | I   | BDO input pin(L:detect)  | 79      | MSEL   | -   | Connected to GND                                |
| 40      | LDON   | O   | Laser ON signal output(H:on)   | 80      | SSEL   | -   | Pull up   |

■ UPD780024AGKA11 (IC701) : CPU

1. Pin layout



2. Block diagram



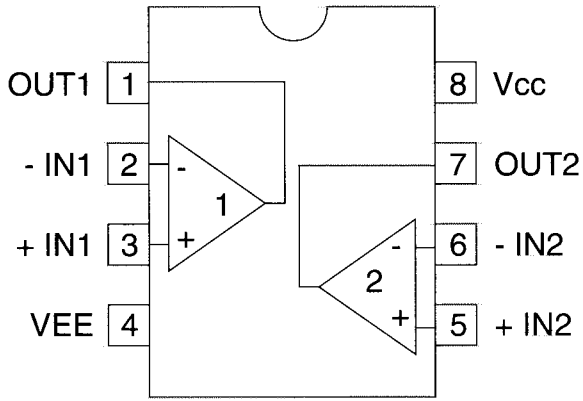


## 3. Pin function

| Pin No. | Symbol    | I/O | Function   |
|---------|-----------|-----|--|
| 1       | MT0       | O   | CD door motor control signal 0 output                      |
| 2       | MT1       | O   | CD door motor control signal 1 output                      |
| 3       | MTS       | O   | Motor speed control output (L:Normal, H:Slow)              |
| 4       | BLCTL     | O   | Back light power supply control output                     |
| 5       | AHB       | O   | AHB ON/OFF control signal output (L:ON, H:OFF)             |
| 6       | SMUTE     | O   | System mute control signal output                          |
| 7       | TUST      | O   | Tuner control strove output                                |
| 8       | CDLED     | O   | CD LED control signal output (L:OFF, H:ON)                 |
| 9       | VSS0      | -   | Ground at port section                                     |
| 10      | VDD0      | -   | Power supply at port section                               |
| 11      | MPX       | I   | Stereo indicator control signal input (L:Stereo)           |
| 12      | RDSDI     | I   | RDS data input   |
| 13      | DRMUTE    | O   | Driver mute output   |
| 14      | SCD       | I   | Voltage detection for safety of CD                         |
| 15      | TUDATA(I) | I   | Tuner control data input                                   |
| 16      | TUDATA(O) | O   | Tuner control data output                                  |
| 17      | TUCK      | O   | Tuner control clock output                                 |
| 18      | SUBQ      | I   | CD control Q code input                                    |
| 19      | XRST      | O   | CD control reset signal output                             |
| 20      | SQCK      | O   | CD control Q code clock signal output                      |
| 21      | MLD       | O   | CD control command load signal output                      |
| 22      | MDATA     | O   | CD control command data signal output                      |
| 23      | MCLK      | O   | CD control command clock signal output                     |
| 24      | VDD1      | -   | Power supply without port section                          |
| 25      | AVSS      | -   | Ground of A/D converter                                    |
| 26      | STAT      | I   | CD control status signal input                             |
| 27      | REST      | I   | CD rest switch detection signal input                      |
| 28      | KEY1      | I   | Main body top section tact switch detection signal input   |
| 29      | KEY2      | I   | Main body top section tact switch detection signal input   |
| 30      | KEY3      | I   | Main body front section tact switch detection signal input |
| 31      | SAFETY    | I   | Voltage detection for safety                               |
| 32      | LDCK      | I   | CD door motor lock detection signal input                  |
| 33      | VERSION   | I   | Version detection  |
| 34      | AVREF     | I   | Reference voltage input for A/D converter                  |
| 35      | AVDD      | -   | Analog power supply for A/D converter                      |
| 36      | RESET     | I   | System reset signal input                                  |
| 37      | XT2       | -   | Sub clock  |
| 38      | XT1       | I   | Sub clock signal input 32.768kHz                           |
| 39      | IC        | I   | Connect to VSS0 or VSS1                                    |
| 40      | X2        | -   | Main clock   |
| 41      | X1        | I   | Main clock signal input 4.19MHz                            |
| 42      | VSS1      | -   | Ground without port section                                |
| 43      | REM       | I   | Remote controller signal input                             |
| 44      | RDSCK     | I   | RDS clock signal input                                     |
| 45      | XKILL     | O   | Sub clock OSC control signal output                        |
| 46      | BEAT      | O   | Main clock shift control signal output                     |
| 47      | BUP       | I   | Back up detection signal input                             |
| 48      | +BCTL     | O   | Power supply control at back up operating                  |
| 49      | VDATA     | O   | BD3861FS (VOL & FUNC IC) control data signal output        |
| 50      | VCLK      | O   | BD3861FS (VOL & FUNC IC) control clock signal output       |
| 51      | DOOR1     | I   | Cd door position detection switch input                    |
| 52      | DOOR2     | I   | CD door position detection switch input                    |
| 53      | DOOR3     | I   | CD door position detection switch input                    |
| 54      | LOMUTE    | O   | LINE OUT muting control signal output                      |
| 55      | RS        | O   | LCD driver control resistor select signal output           |
| 56      | E         | O   | LCD driver control enable signal output                    |
| 57      | D84       | O   | LCD driver control data bus signal output                  |
| 58      | D85       | O   | LCD driver control data bus signal output                  |
| 59      | D86       | O   | LCD driver control data bus signal output                  |
| 60      | D87       | O   | LCD driver control data bus signal output                  |
| 61      | DIMMER    | O   | Back light DIMMER control signal output                    |
| 62      | POUT      | O   | Power supply control signal output for amp section         |
| 63      | FTU       | O   | Power supply control signal output for TUNER function      |
| 64      | FCD       | O   | Power supply control signal output for CD function         |

■ **BA15218F-W (IC102) : Dual ope. amp.**

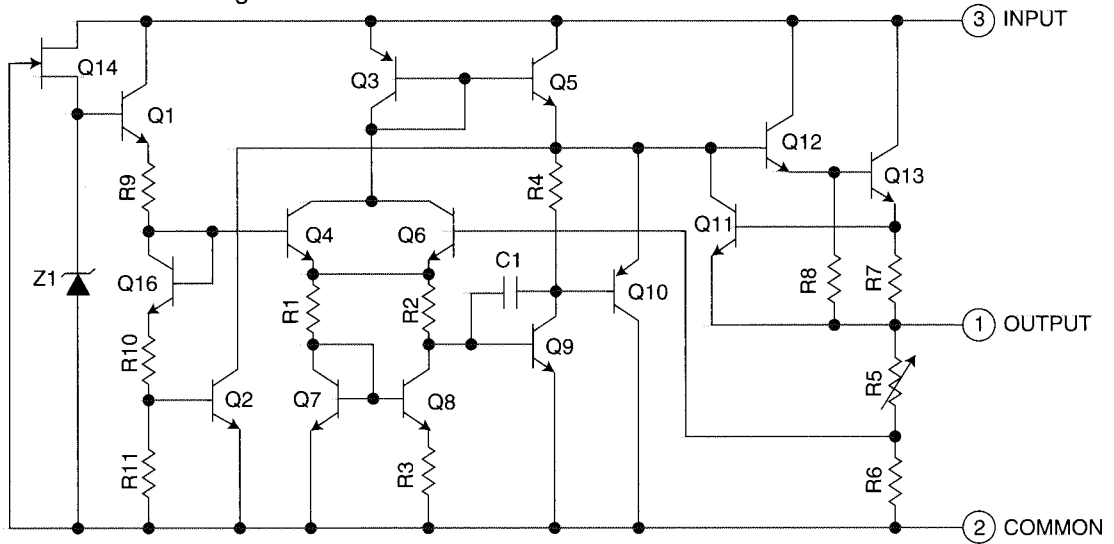
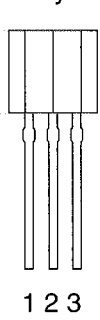
1. Pin layout & Block diagram



■ **KIA78S06P-T (IC702) : Regulator**

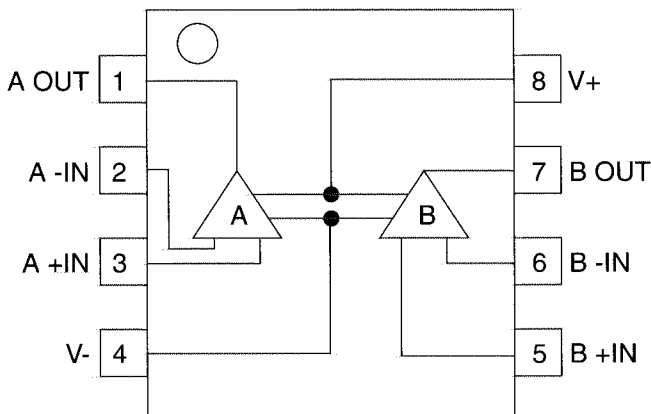
1. Pin layout

2. Block diagram



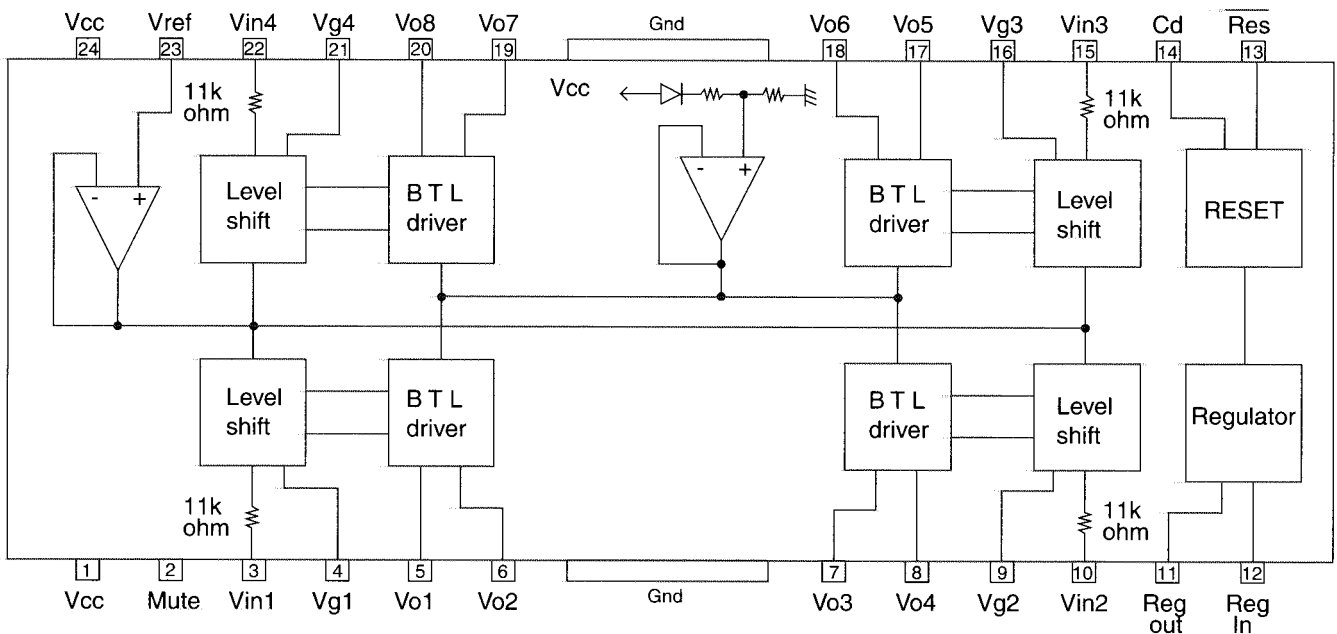
■ **NJM4580D-D (IC101) : Dual ope. amp.**

1. Pin layout & Block diagram



■ LA6541-X (IC602) : Servo driver

1. Pin Layout & Block Diagram



2. Pin functions

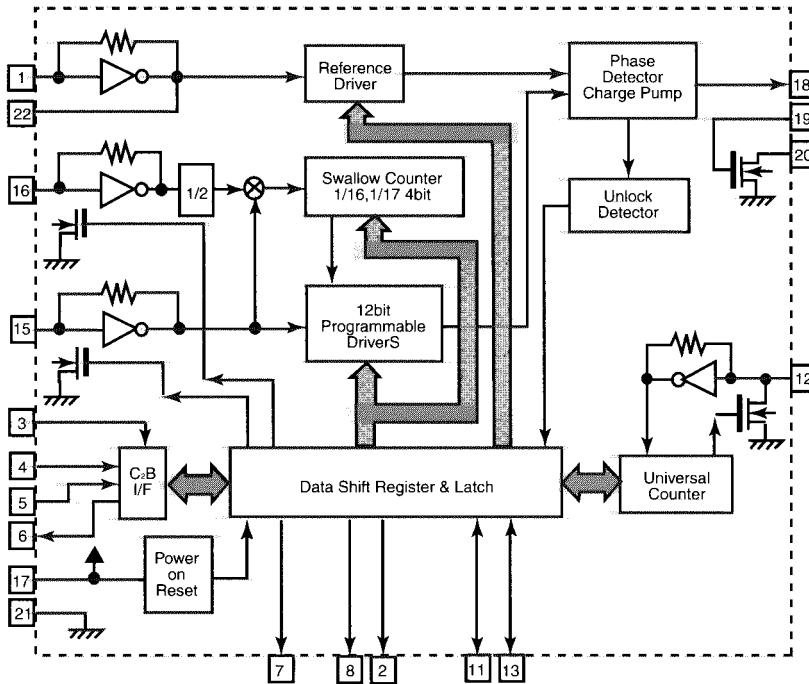
| Pin No. | Symbol  | Function   |
|---------|---------|--|
| 1       | Vcc     | Power supply (Shorted to pin 24)                                       |
| 2       | Mute    | All BTL amplifier outputs ON/OFF                                       |
| 3       | Vin1    | BTL AMP 1 input pin  |
| 4       | Vg1     | BTL AMP 1 input pin (For gain adjustment)                              |
| 5       | Vo1     | BTL AMP 1 input pin (Non inverting side)                               |
| 6       | Vo2     | BTL AMP 1 input pin (Inverting side)                                   |
| 7       | Vo3     | BTL AMP 2 input pin (Inverting side)                                   |
| 8       | Vo4     | BTL AMP 2 input pin (Non inverting side)                               |
| 9       | Vg2     | BTL AMP 2 input pin (For gain adjustment)                              |
| 10      | Vin2    | BTL AMP 2 input pin  |
| 11      | Reg Out | External transistor collector (PNP) connection. 5V power supply output |
| 12      | Reg In  | External transistor (PNP) base connection                              |
| 13      | Res     | Reset output   |
| 14      | Cd      | Reset output delay time setting (Capacitor connected externally)       |
| 15      | Vin3    | BTL AMP 3 input pin  |
| 16      | Vg3     | BTL AMP 3 input pin (For gain adjustment)                              |
| 17      | Vo5     | BTL AMP 3 output pin (Non inverting side)                              |
| 18      | Vo6     | BTL AMP 3 output pin (Inverting side)                                  |
| 19      | Vo7     | BTL AMP 4 output pin (Inverting side)                                  |
| 20      | Vo8     | BTL AMP 4 output pin (Non inverting side)                              |
| 21      | Vg4     | BTL AMP 4 output pin (For gain adjustment)                             |
| 22      | Vin4    | BTL AMP 4 output pin   |
| 23      | Vref    | Level shift circuit's reference voltage application                    |
| 24      | Vcc     | Power supply (Shorted to pin 1)  |

■ LC72136N (IC2) : PLL frequency synthesizer

1. Pin layout

|           |    |    |        |
|-----------|----|----|--------|
| XT        | 1  | 22 | XT     |
| FM/AM     | 2  | 21 | GND    |
| CE        | 3  | 20 | LPFOUT |
| DI        | 4  | 19 | LPFIN  |
| CLOCK     | 5  | 18 | PD     |
| DO        | 6  | 17 | VCC    |
| FM/ST/VCO | 7  | 16 | FMIN   |
| AM/FM     | 8  | 15 | AMIN   |
|           | 9  | 14 |        |
|           | 10 | 13 | IFCONT |
| SDIN      | 11 | 12 | IFIN   |

2. Block diagram

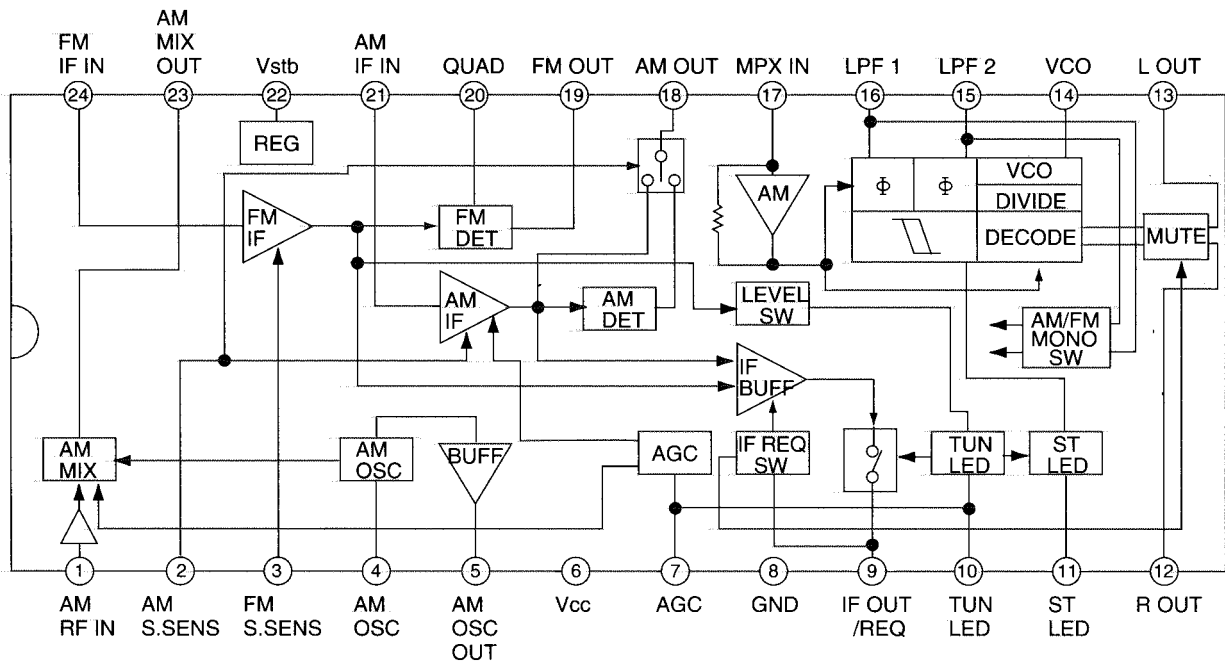


3. Pin function

| Pin No. | Symbol    | I/O | Function   | Pin No. | Symbol | I/O | Function  |
|---------|-----------|-----|--|---------|--------|-----|---|
| 1       | XT        | I   | X'tal oscillator connect (75kHz)                           | 12      | IFIN   | I   | IF counter signal input   |
| 2       | FM/AM     | O   | LOW:FM mode  | 13      | IFCONT | O   | IF signal output  |
| 3       | CE        | I   | When data output/input for 4pin(input) and 6pin(output): H | 14      |        | -   | Not use   |
| 4       | DI        | I   | Input for receive the serial data from controller          | 15      | AMIN   | I   | AM Local OSC signal output  |
| 5       | CLOCK     | I   | Sync signal input use                                      | 16      | FMIN   | I   | FM Local OSC signal input   |
| 6       | DO        | O   | Data output for Controller Output port                     | 17      | VCC    | -   | Power supply(VDD=4.5-5.5V)<br>When power ON:Reset circuit move  |
| 7       | FM/ST/VCO | O   | "Low": MW mode   | 18      | PD     | O   | PLL charge pump output(H: Local OSC frequency Height than Reference frequency.<br>L: Low Agreement: Height impedance) |
| 8       | AM/FM     | O   | Open state after the power on reset                        | 19      | LPFIN  | I   | Input for active lowpassfilter of PLL   |
| 9       | LW        | I/O | Input/output port  | 20      | LPFOUT | O   | Output for active lowpassfilter of PLL  |
| 10      | MW        | I/O | Input/output port  | 21      | GND    | -   | Connected to GND  |
| 11      | SDIN      | I/O | Data input/output  | 22      | XT     | I   | X'tal oscillator(75KHz)   |

■ TA2057N (IC1) : FM/AM IF AMP & Detector

1. Block Diagrams

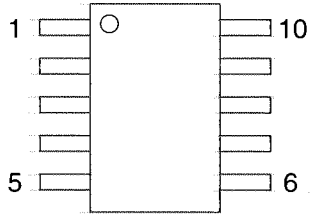


2. Pin Function

| Pin No. | I/O | Symbol     | Function                                       | Pin No. | I/O | Symbol     | Function  |
|---------|-----|------------|--|---------|-----|------------|---|
| 1       | I   | AM RF      | AMRF signal input                              | 13      | O   | Lch OUT    | Output Lch  |
| 2       |     | AM S.SENS  |  | 14      | O   | VCO        | Voltage controlled terminal                           |
| 3       |     | FM S.SENS  |  | 15      | O   | LPF2       | When voltage of terminal is MONO at "H" and ST at "L" |
| 4       | -   | AM OSC     | AM local oscillation circuit                   | 16      | O   | LPF1       | When voltage of terminal is AM at "H" and FM at "L"   |
| 5       | O   | AM OSC OUT | AM local oscillation signal output             | 17      | I   | MPX IN     | Multi plex signal input                               |
| 6       | -   | VCC        | Power supply                                   | 18      | O   | AM OUT     | AM detection signal output                            |
| 7       | I   | AGC        | AGC voltage input terminal                     | 19      | O   | FM OUT     | FM detection signal output                            |
| 8       | -   | GND        | Connect to GND                                 | 20      | I   | FM QUAD    | Bypass to FMIF  |
| 9       | O   | IF OUT     | IF REQ signal output to IC2                    | 21      | I   | AM IF IN   | Input of AMIF signal                                  |
| 10      | O   | TU IND     | Indicator drive output when tuning             | 22      | -   | Vst        | Fixed voltage output terminal                         |
| 11      | O   | ST IND     | Stereo indicator output<br>"H"mono . "L"stereo | 23      | O   | AM MIX OUT | Output terminal for AM mixer                          |
| 12      | O   | Rch OUT    | Output Rch                                     | 24      | I   | FM IF IN   | Input of FMIF signal                                  |

■ TA8409F-W (IC108) : Bridge driver

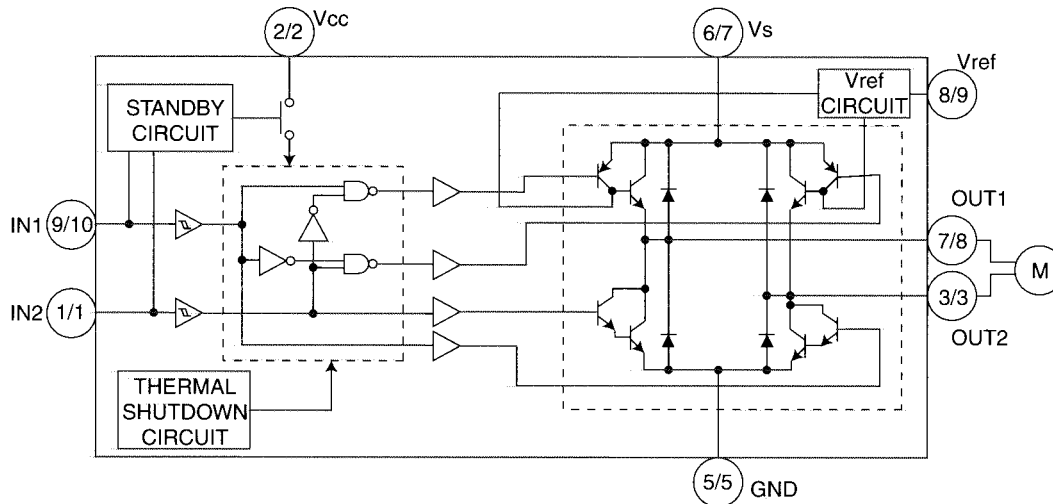
1. Pin layout



2. Pin function

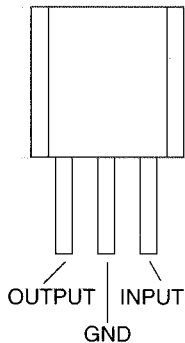
| Pin No. | SYMBOL | FUNCTION                                       |
|---------|--------|--|
| 1       | IN2    | INput terminal                                 |
| 2       | Vcc    | Supply voltage terminal for logic              |
| 3       | OUT2   | Output terminal                                |
| 4       | NC     | Non connection                                 |
| 5       | GND    | GND terminal                                   |
| 6       | NC     | Non connection                                 |
| 7       | Vs     | Supply voltage terminal for motor driver       |
| 8       | OUT1   | Output terminal                                |
| 9       | Vref   | Reference voltage terminal for control circuit |
| 10      | IN1    | INput terminal                                 |

3. Block diagram

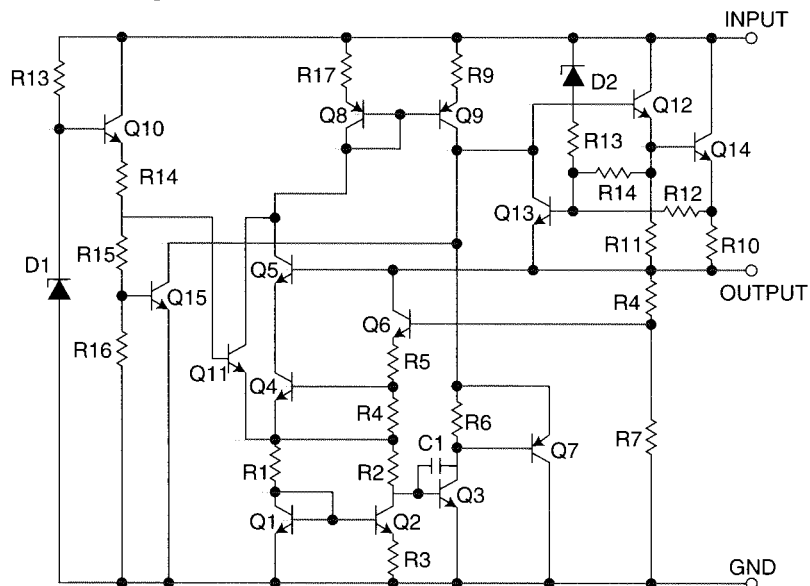


■ UPD78L5J-T (IC191) : Regulator

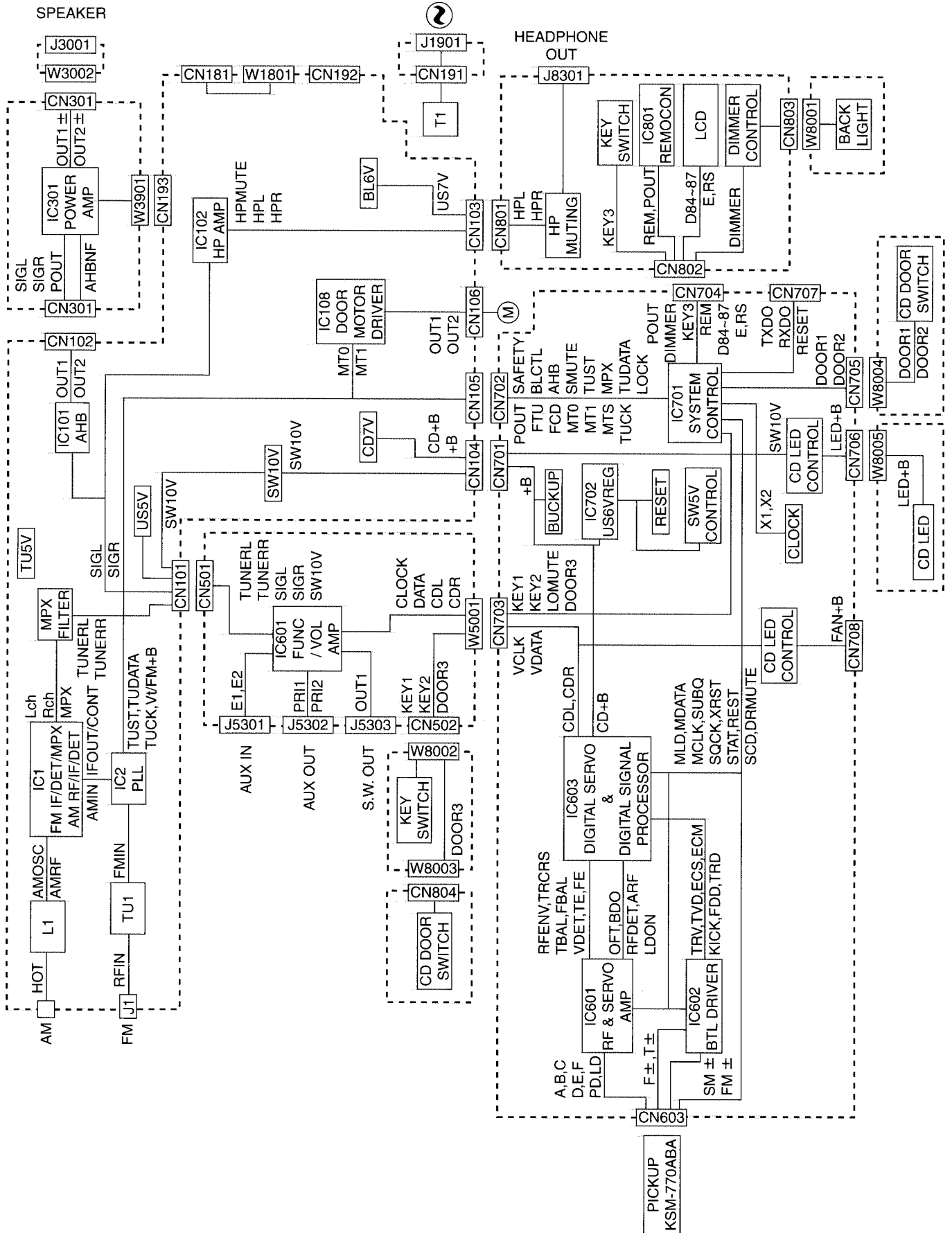
1. Pin layout



2. Block diagram



# Block diagram



FS-SD5/FS-SD7/FS-SD9

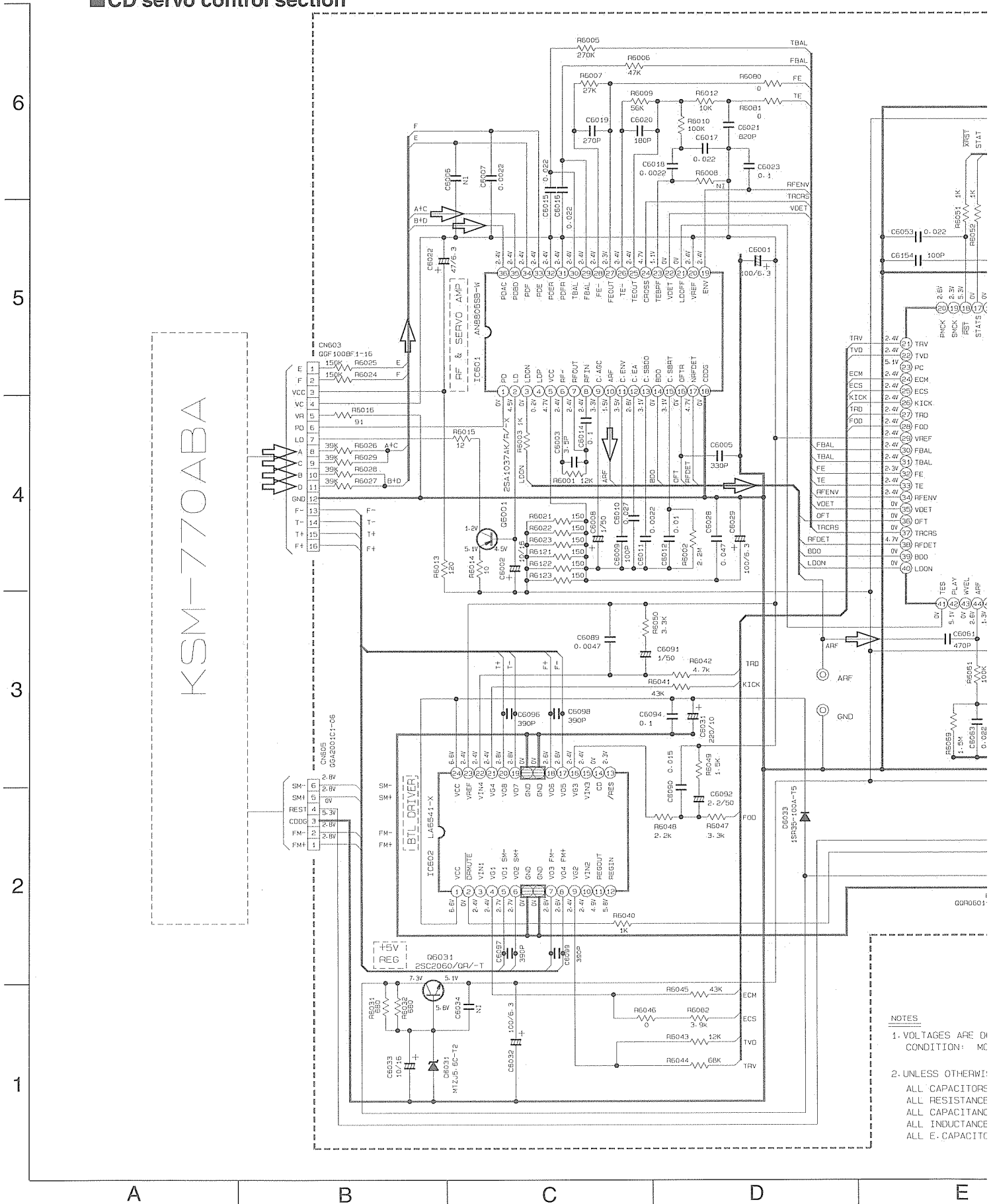
<<MEMO>>

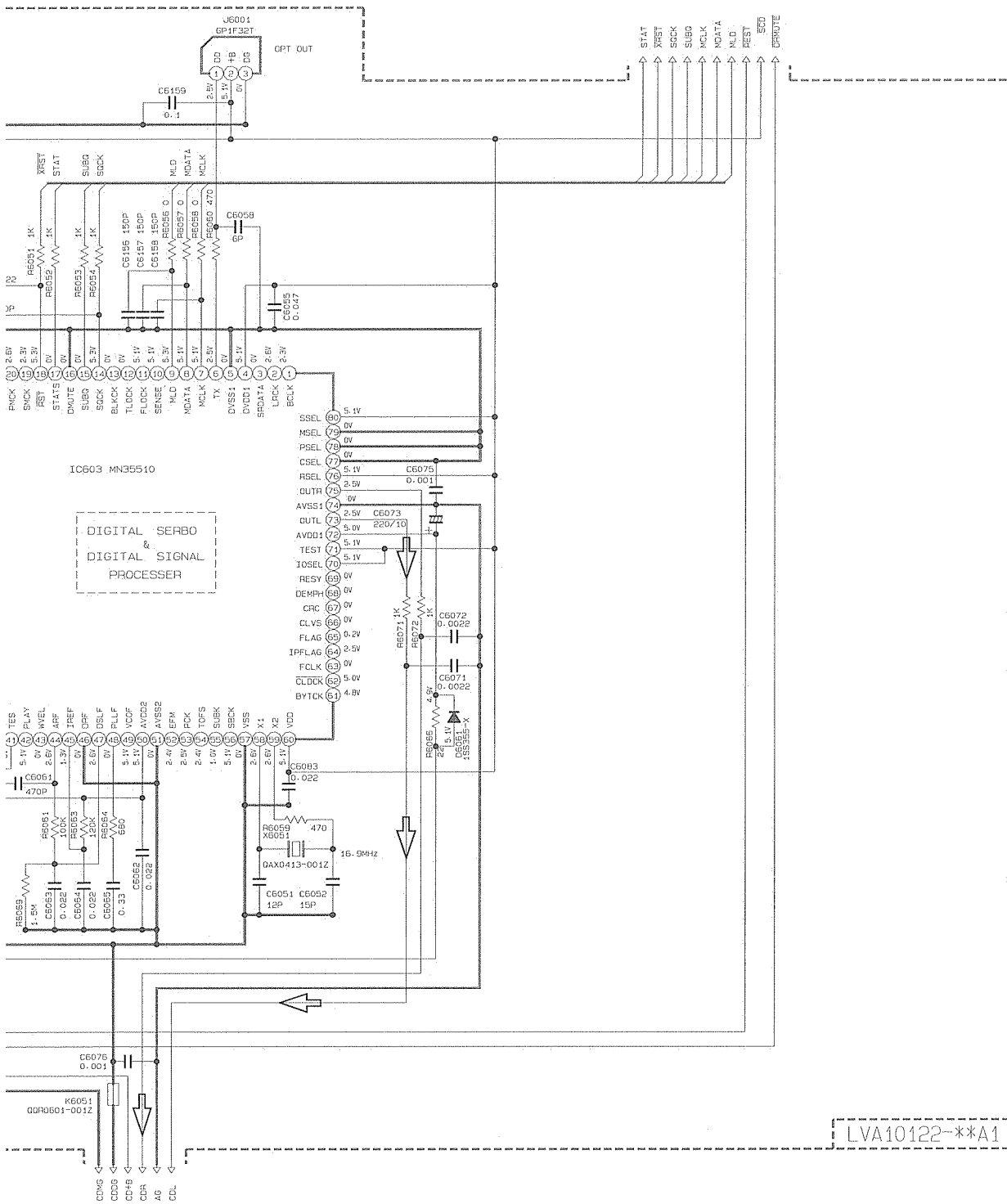




# Standard schematic diagrams

## CD servo control section





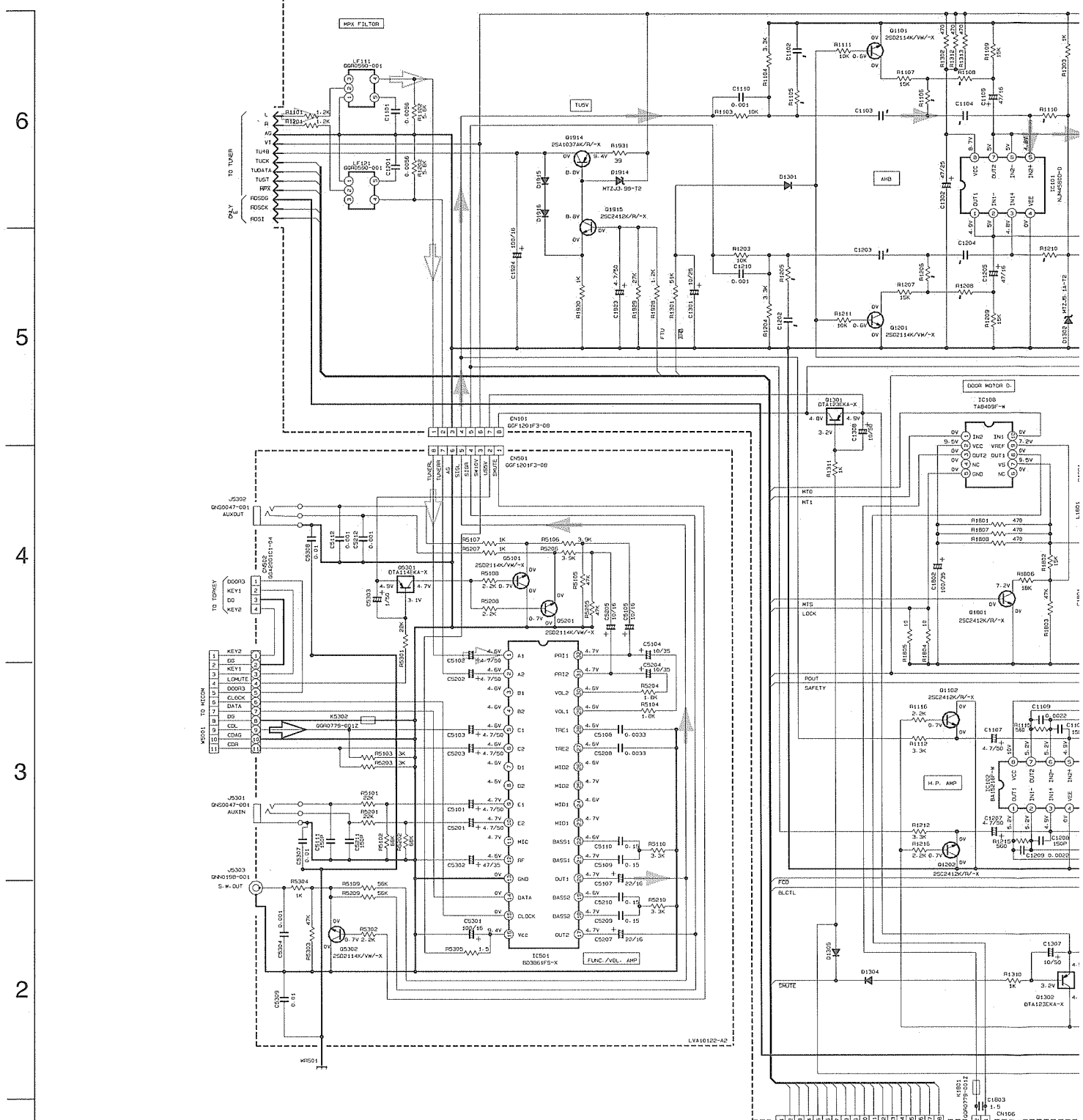
RES ARE DC-MEASURED WITH A DIGITAL VOLT METER  
 TION: MODE : STOP

⇒ CD SIGNAL

OTHERWISE SPECIFIED.  
 CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR.  
 RESISTANCE VALUES ARE IN OHM (Ω).  
 CAPACITANCE VALUES ARE IN P (pF).  
 INDUCTANCE VALUES ARE IN HENRY (H).  
 CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).

E F G H I

Power supply & Main circuit section



- NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION --- CD STOP MODE
  2. UNLESS OTHERWISE SPECIFIED RESISTORS ARE 1/8W ±5% CARBON RESISTOR. ALL RESISTANCE VALUES ARE IN OHMS(+). ALL CAPACITORS ARE CERAMIC CAPACITOR OR NYLAR CAPACITOR. ALL CAPACITANCE VALUES ARE IN PICO(F). ALL INDUCTANCE VALUES ARE IN \*Hm=Hm\*. ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (F)/RATED VOLTAGE (V). ALL DIODES ARE 1S5133
  3. \*MARKS ARE B/E/EN/EE/EE/UB VERSION ONLY OTHER VERSIONS ARE OPEN OR SHORT

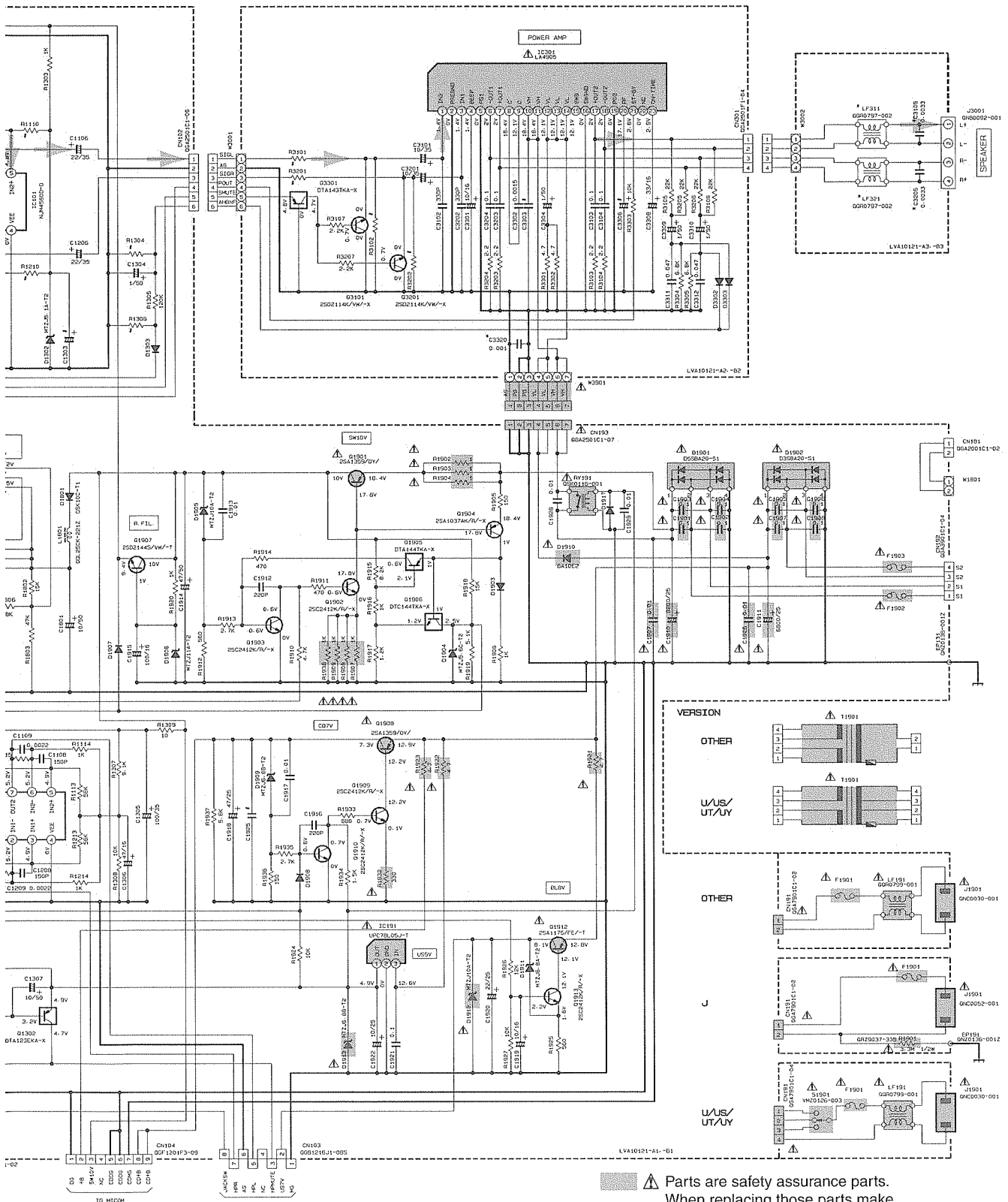
TABLE 1 DIGITAL TRANSISTOR

|                  |                 |                  |                 |
|------------------|-----------------|------------------|-----------------|
| DTA122KA<br>2.2K | DTA114KA<br>10K | DTA143KA<br>4.7K | DTA144KA<br>47K |
| DTA144KA<br>47K  |                 |                  |                 |

#Parts

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      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|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-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| R100 | R101 | R102 | R103 | R104 | R105 | R106 | R107 | R108 | R109 | R110 | R111 | R112 | R113 | R114 | R115 | R116 | R117 | R118 | R119 | R120 | R121 | R122 | R123 | R124 | R125 | R126 | R127 | R128 | R129 | R130 | R131 | R132 | R133 | R134 | R135 | R136 | R137 | R138 | R139 | R140 | R141 | R142 | R143 | R144 | R145 | R146 | R147 | R148 | R149 | R150 | R151 | R152 | R153 | R154 | R155 | R156 | R157 | R158 | R159 | R160 | R161 | R162 | R163 | R164 | R165 | R166 | R167 | R168 | R169 | R170 | R171 | R172 | R173 | R174 | R175 | R176 | R177 | R178 | R179 | R180 | R181 | R182 | R183 | R184 | R185 | R186 | R187 | R188 | R189 | R190 | R191 | R192 | R193 | R194 | R195 | R196 | R197 | R198 | R199 | R200 | R201 | R202 | R203 | R204 | R205 | R206 | R207 | R208 | R209 | R210 | R211 | R212 | R213 | R214 | R215 | R216 | R217 | R218 | R219 | R220 | R221 | R222 | R223 | R224 | R225 | R226 | R227 | R228 | R229 | R230 | R231 | R232 | R233 | R234 | R235 | R236 | R237 | R238 | R239 | R240 | R241 | R242 | R243 | R244 | R245 | R246 | R247 | R248 | R249 | R250 | R251 | R252 | R253 | R254 | R255 | R256 | R257 | R258 | R259 | R260 | R261 | R262 | R263 | R264 | R265 | R266 | R267 | R268 | R269 | R270 | R271 | R272 | R273 | R274 | R275 | R276 | R277 | R278 | R279 | R280 | R281 | R282 | R283 | R284 | R285 | R286 | R287 | R288 | R289 | R290 | R291 | R292 | R293 | R294 | R295 | R296 | R297 | R298 | R299 | R300 | R301 | R302 | R303 | R304 | R305 | R306 | R307 | R308 | R309 | R310 | R311 | R312 | R313 | R314 | R315 | R316 | R317 | R318 | R319 | R320 | R321 | R322 | R323 | R324 | R325 | R326 | R327 | R328 | R329 | R330 | R331 | R332 | R333 | R334 | R335 | R336 | R337 | R338 | R339 | R340 | R341 | R342 | R343 | R344 | R345 | R346 | R347 | R348 | R349 | R350 | R351 | R352 | R353 | R354 | R355 | R356 | R357 | R358 | R359 | R360 | R361 | R362 | R363 | R364 | R365 | R366 | R367 | R368 | R369 | R370 | R371 | R372 | R373 | R374 | R375 | R376 | R377 | R378 | R379 | R380 | R381 | R382 | R383 | R384 | R385 | R386 | R387 | R388 | R389 | R390 | R391 | R392 | R393 | R394 | R395 | R396 | R397 | R398 | R399 | R400 | R401 | R402 | R403 | R404 | R405 | R406 | R407 | R408 | R409 | R410 | R411 | R412 | R413 | R414 | R415 | R416 | R417 | R418 | R419 | R420 | R421 | R422 | R423 | R424 | R425 | R426 | R427 | R428 | R429 | R430 | R431 | R432 | R433 | R434 | R435 | R436 | R437 | R438 | R439 | R440 | R441 | R442 | R443 | R444 | R445 | R446 | R447 | R448 | R449 | R450 | R451 | R452 | R453 | R454 | R455 | R456 | R457 | R458 | R459 | R460 | R461 | R462 | R463 | R464 | R465 | R466 | R467 | R468 | R469 | R470 | R471 | R472 | R473 | R474 | R475 | R476 | R477 | R478 | R479 | R480 | R481 | R482 | R483 | R484 | R485 | R486 | R487 | R488 | R489 | R490 | R491 | R492 | R493 | R494 | R495 | R496 | R497 | R498 | R499 | R500 | R501 | R502 | R503 | R504 | R505 | R506 | R507 | R508 | R509 | R510 | R511 | R512 | R513 | R514 | R515 | R516 | R517 | R518 | R519 | R520 | R521 | R522 | R523 | R524 | R525 | R526 | R527 | R528 | R529 | R530 | R531 | R532 | R533 | R534 | R535 | R536 | R537 | R538 | R539 | R540 | R541 | R542 | R543 | R544 | R545 | R546 | R547 | R548 | R549 | R550 | R551 | R552 | R553 | R554 | R555 | R556 | R557 | R558 | R559 | R560 | R561 | R562 | R563 | R564 | R565 | R566 | R567 | R568 | R569 | R570 | R571 | R572 | R573 | R574 | R575 | R576 | R577 | R578 | R579 | R580 | R581 | R582 | R583 | R584 | R585 | R586 | R587 | R588 | R589 | R590 | R591 | R592 | R593 | R594 | R595 | R596 | R597 | R598 | R599 | R600 | R601 | R602 | R603 | R604 | R605 | R606 | R607 | R608 | R609 | R610 | R611 | R612 | R613 | R614 | R615 | R616 | R617 | R618 | R619 | R620 | R621 | R622 | R623 | R624 | R625 | R626 | R627 | R628 | R629 | R630 | R631 | R632 | R633 | R634 | R635 | R636 | R637 | R638 | R639 | R640 | R641 | R642 | R643 | R644 | R645 | R646 | R647 | R648 | R649 | R650 | R651 | R652 | R653 | R654 | R655 | R656 | R657 | R658 | R659 | R660 | R661 | R662 | R663 | R664 | R665 | R666 | R667 | R668 | R669 | R670 | R671 | R672 | R673 | R674 | R675 | R676 | R677 | R678 | R679 | R680 | R681 | R682 | R683 | R684 | R685 | R686 | R687 | R688 | R689 | R690 | R691 | R692 | R693 | R694 | R695 | R696 | R697 | R698 | R699 | R700 | R701 | R702 | R703 | R704 | R705 | R706 | R707 | R708 | R709 | R710 | R711 | R712 | R713 | R714 | R715 | R716 | R717 | R718 | R719 | R720 | R721 | R722 | R723 | R724 | R725 | R726 | R727 | R728 | R729 | R730 | R731 | R732 | R733 | R734 | R735 | R736 | R737 | R738 | R739 | R740 | R741 | R742 | R743 | R744 | R745 | R746 | R747 | R748 | R749 | R750 | R751 | R752 | R753 | R754 | R755 | R756 | R757 | R758 | R759 | R760 | R761 | R762 | R763 | R764 | R765 | R766 | R767 | R768 | R769 | R770 | R771 | R772 | R773 | R774 | R775 | R776 | R777 | R778 | R779 | R780 | R781 | R782 | R783 | R784 | R785 | R786 | R787 | R788 | R789 | R790 | R791 | R792 | R793 | R794 | R795 | R796 | R797 | R798 | R799 | R800 | R801 | R802 | R803 | R804 | R805 | R806 | R807 | R808 | R809 | R810 | R811 | R812 | R813 | R814 | R815 | R816 | R817 | R818 | R819 | R820 | R821 | R822 | R823 | R824 | R825 | R826 | R827 | R828 | R829 | R830 | R831 | R832 | R833 | R834 | R835 | R836 | R837 | R838 | R839 | R840 | R841 | R842 | R843 | R844 | R845 | R846 | R847 | R848 | R849 | R850 | R851 | R852 | R853 | R854 | R855 | R856 | R857 | R858 | R859 | R860 | R861 | R862 | R863 | R864 | R865 | R866 | R867 | R868 | R869 | R870 | R871 | R872 | R873 | R874 | R875 | R876 | R877 | R878 | R879 | R880 | R881 | R882 | R883 | R884 | R885 | R886 | R887 | R888 | R889 | R890 | R891 | R892 | R893 | R894 | R895 | R896 | R897 | R898 | R899 | R900 | R901 | R902 | R903 | R904 | R905 | R906 | R907 | R908 | R909 | R910 | R911 | R912 | R913 | R914 | R915 | R916 | R917 | R918 | R919 | R920 | R921 | R922 | R923 | R924 | R925 | R926 | R927 | R928 | R929 | R930 | R931 | R932 | R933 | R934 | R935 | R936 | R937 | R938 | R939 | R940 | R941 | R942 | R943 | R944 | R945 | R946 | R947 | R948 | R949 | R950 | R951 | R952 | R953 | R954 | R955 | R956 | R957 | R958 | R959 | R960 | R961 | R962 | R963 | R964 | R965 | R966 | R967 | R968 | R969 | R970 | R971 | R972 | R973 | R974 | R975 | R976 | R977 | R978 | R979 | R980 | R981 | R982 | R983 | R984 | R985 | R986 | R987 | R988 | R989 | R990 | R991 | R992 | R993 | R994 | R995 | R996 | R997 | R998 | R999 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-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# FS-SD5/FS-SD7/FS-SD9



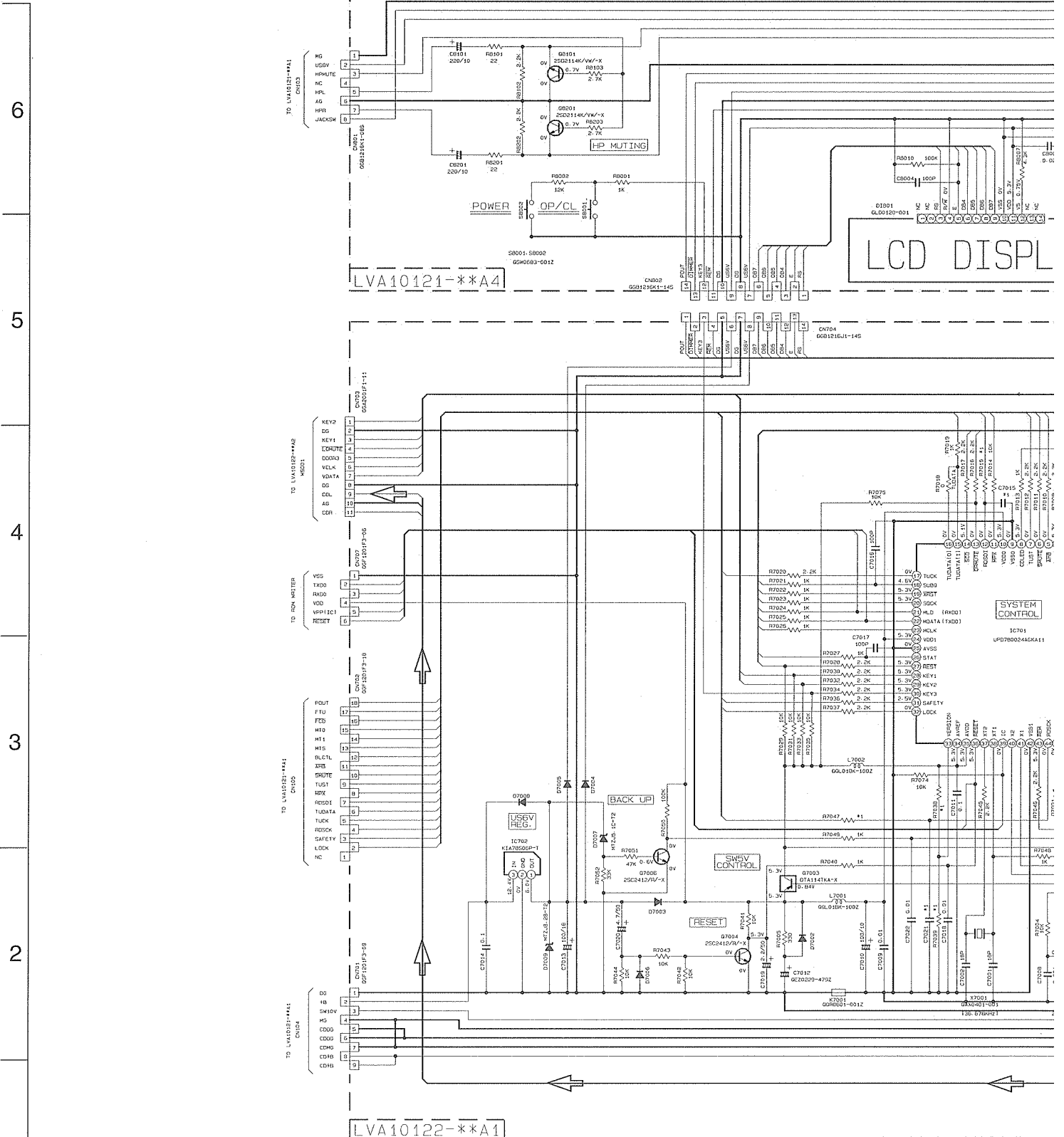
▲ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

- ▶ TUNER SIGNAL
- ▶ CD SIGNAL
- ▶ MAIN SIGNAL

|    |                |                |       |       |        |       |
|----|----------------|----------------|-------|-------|--------|-------|
| 08 | R3101<br>R3201 | R3102<br>R5502 | C1303 | C3303 | C3505  | C1505 |
| K  | 5.6K           | 6.0K           | 22/25 | 0.01  | 100/25 | 0.01  |
| K  | 4.3K           | 10K            | 47/25 | 0.1   | 47/25  | 0.022 |
| ▶  | ▶              | ▶              | ▶     | ▶     | ▶      | ▶     |

|                    | T1901       | F1901          | F1902          | F1903           |
|--------------------|-------------|----------------|----------------|-----------------|
| J                  | 0910205-002 | 09F51E2-183-J1 | 09F51E1-080-J1 | 09F51U1-480-J1  |
| B/E/EN<br>E/W/E/L  | 0910205-003 | 09F51E2-190-J1 | 09F51E2-003-J1 | 09F51U1-3815-J1 |
| U/S/CA/AD<br>UT/UY | 0910205-004 | 09F51E2-190-J1 | ▶              | ▶               |
| A                  | 0910205-005 | 09F51E2-190-J1 | ▶              | ▶               |
| U/P/UP             | 0910205-006 | ▶              | ▶              | ▶               |

# System control section



LVA1022-\*\*A1

- NOTES**
- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION: CD STOP AT AC SUPPLY VOL: 16 BASS: 0 AH-B ON DIMMER: OFF
  - UNLESS OTHERWISE SPECIFIED - RESISTORS ARE 1/10W ±5% MG RESISTOR. ALL RESISTANCE VALUES ARE IN OHMS (Ω). ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR. ALL CAPACITANCE VALUES ARE IN nF (nPF). ALL INDUCTANCE VALUES ARE IN μH (μHF). ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF/RATED VOLTAGE (V)). ALL DIODES ARE 1SS133-12

\*1

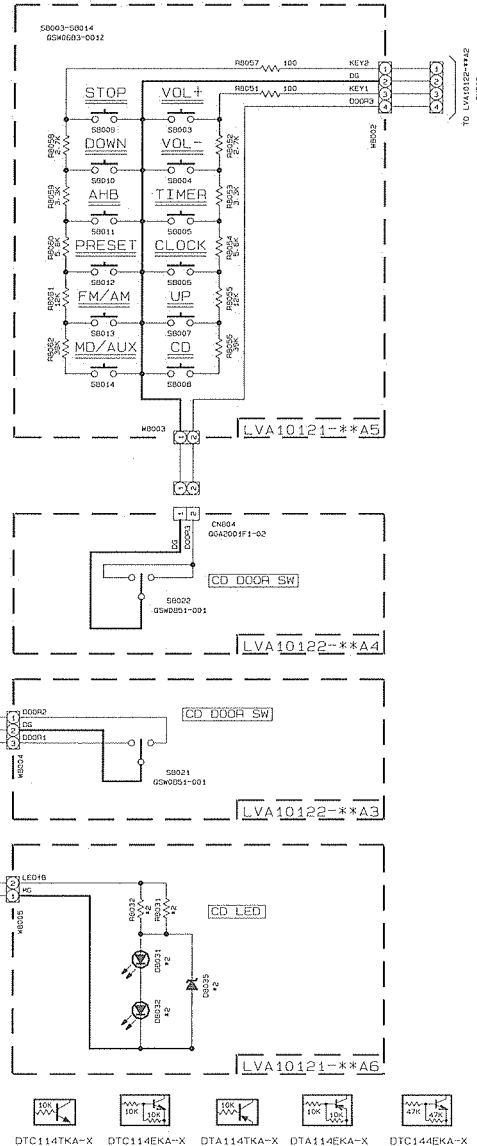
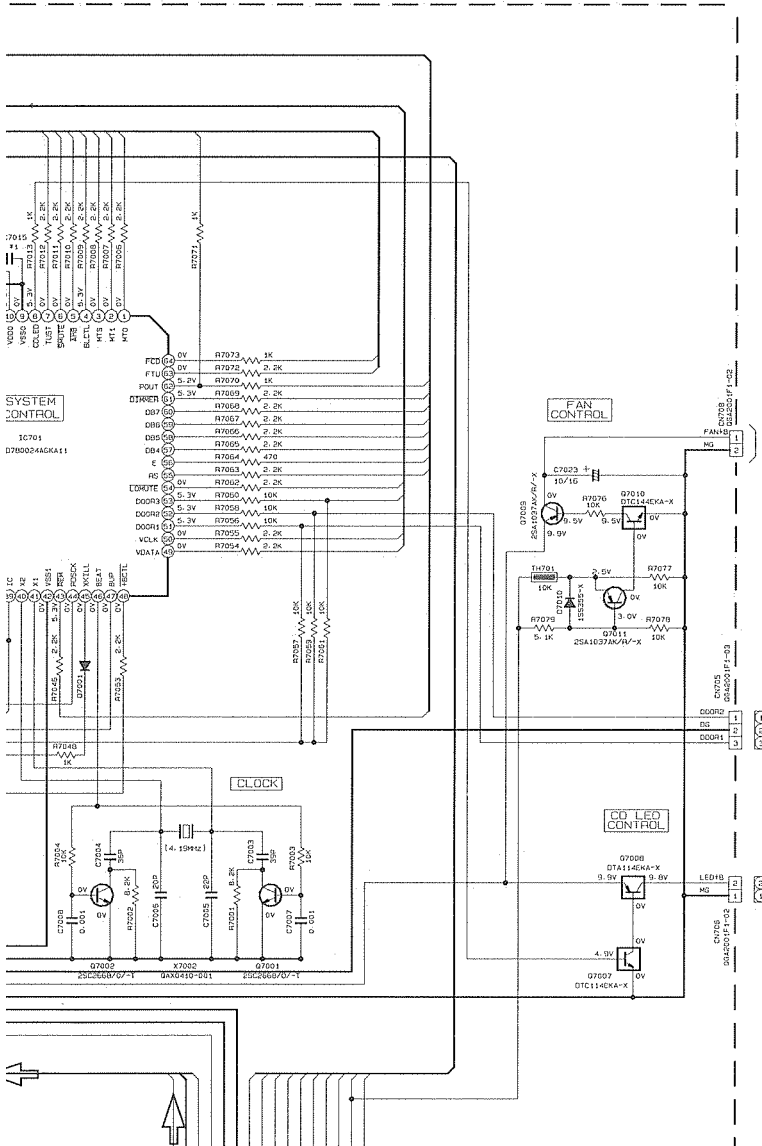
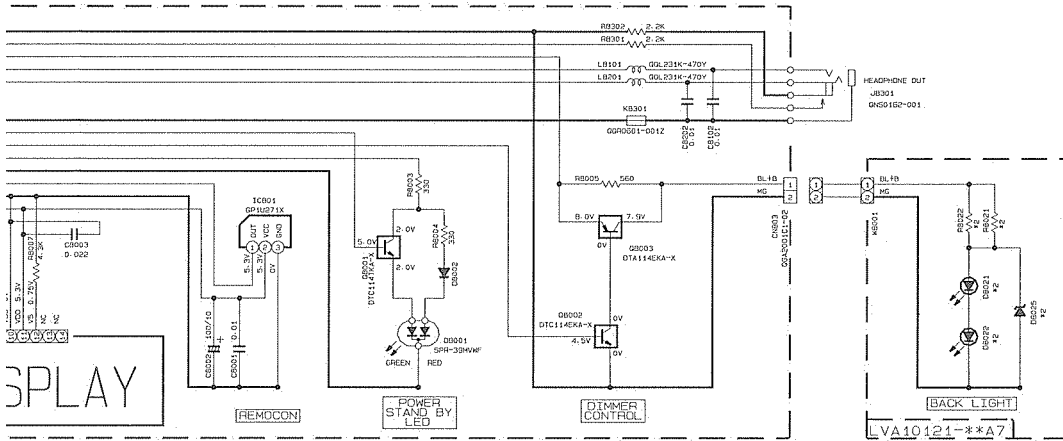
|       | U/S/U/P/U/F | UY  | J   | EF   | A   | B/E/EN/EV/AB |
|-------|-------------|-----|-----|------|-----|--------------|
| R703B | 27K         | 82K | 47K | 15K  | 15K | 10K          |
| R7039 | 5.6K        | 27K | 33K | 15K  | 20K | -            |
| R7015 | -           | -   | -   | 1K   | -   | 1K           |
| C7015 | -           | -   | -   | 100P | -   | 100P         |
| R7047 | -           | -   | -   | 1K   | -   | 1K           |
| C7021 | -           | -   | -   | 100P | -   | 100P         |

\*2

|              | FS-S05(R1/2(R) | FS-S |
|--------------|----------------|------|
| D8021, D8022 | SELU1E500M     | TLVH |
| D8025        | MTZJ10C-12     | -    |
| R8021, R8022 | 100            | Ω    |
| D8031, D8032 | SELU1E568M     | TLVH |
| D8035        | MA3100/M-X     | Ω    |
| R8031, R8032 | 430            | Ω    |

6  
5  
4  
3  
2  
1

A B C D E



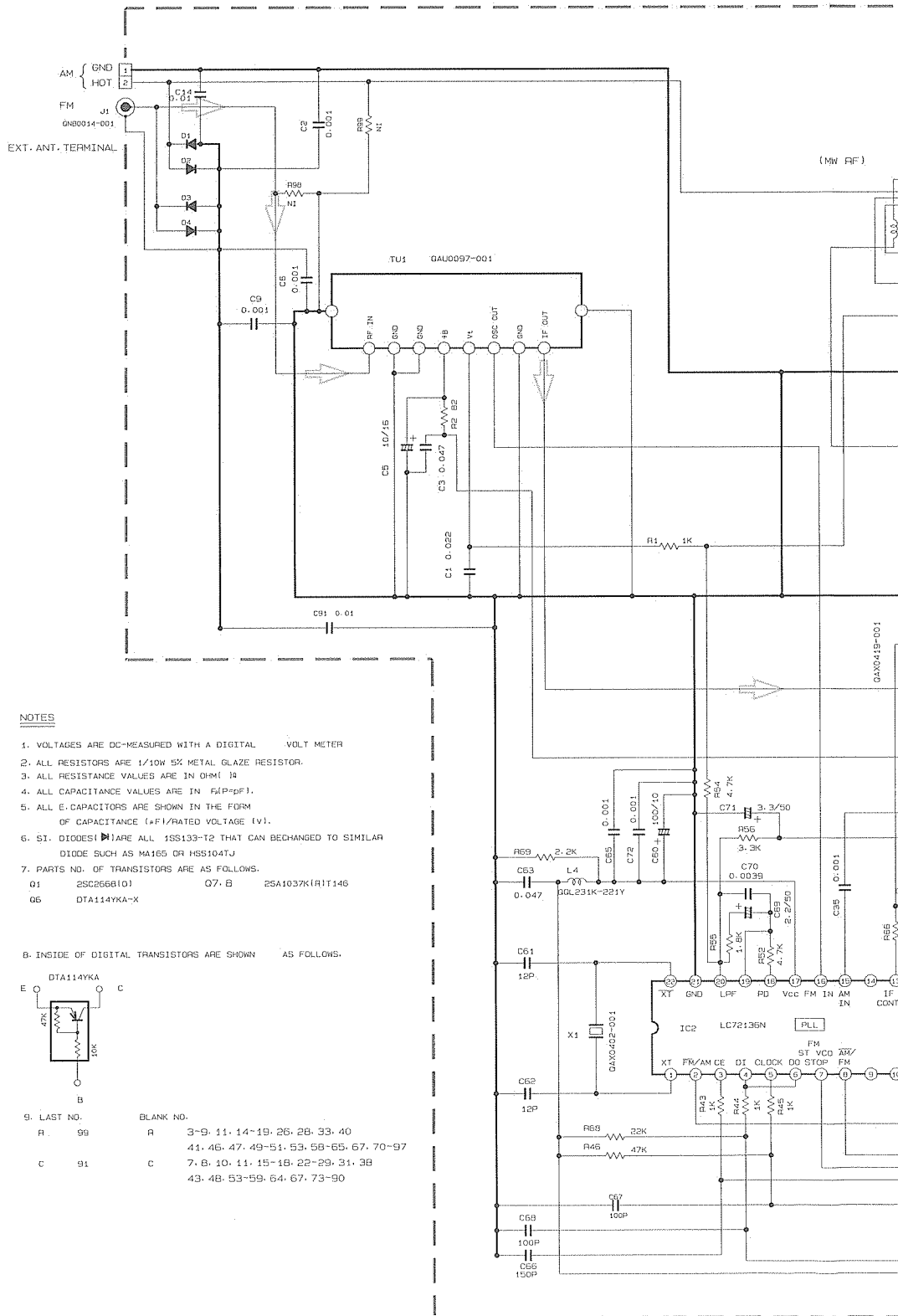
|      |           |
|------|-----------|
| Z(n) | FS-SD9(n) |
| CX   | TLYH156P  |
| T2   | 390       |
| BM   | TLYH156P  |
| ←X   | 560       |

TO CD SECTION

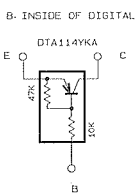
➔ CD SIGNAL

E F G H I

Tuner section



- NOTES
- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
  - ALL RESISTORS ARE 1/10W 5% METAL GLAZE RESISTOR.
  - ALL RESISTANCE VALUES ARE IN OHM (Ω)
  - ALL CAPACITANCE VALUES ARE IN PPF (P)
  - ALL E. CAPACITORS ARE SHOWN IN FORM OF CAPACITANCE (PF/RATED VOLTAGE (V)).
  - DIODES ARE ALL 1SS133-T2 THAT CAN BECHANGED TO SIMILAR DIODE SUCH AS MA165 OR HS5104TJ
  - PARTS NO. OF TRANSISTORS ARE AS FOLLOWS.  
 Q1 2SC2668(10) Q7. B 2SA1037K(IR1T146  
 Q6 DTA114YKA-X

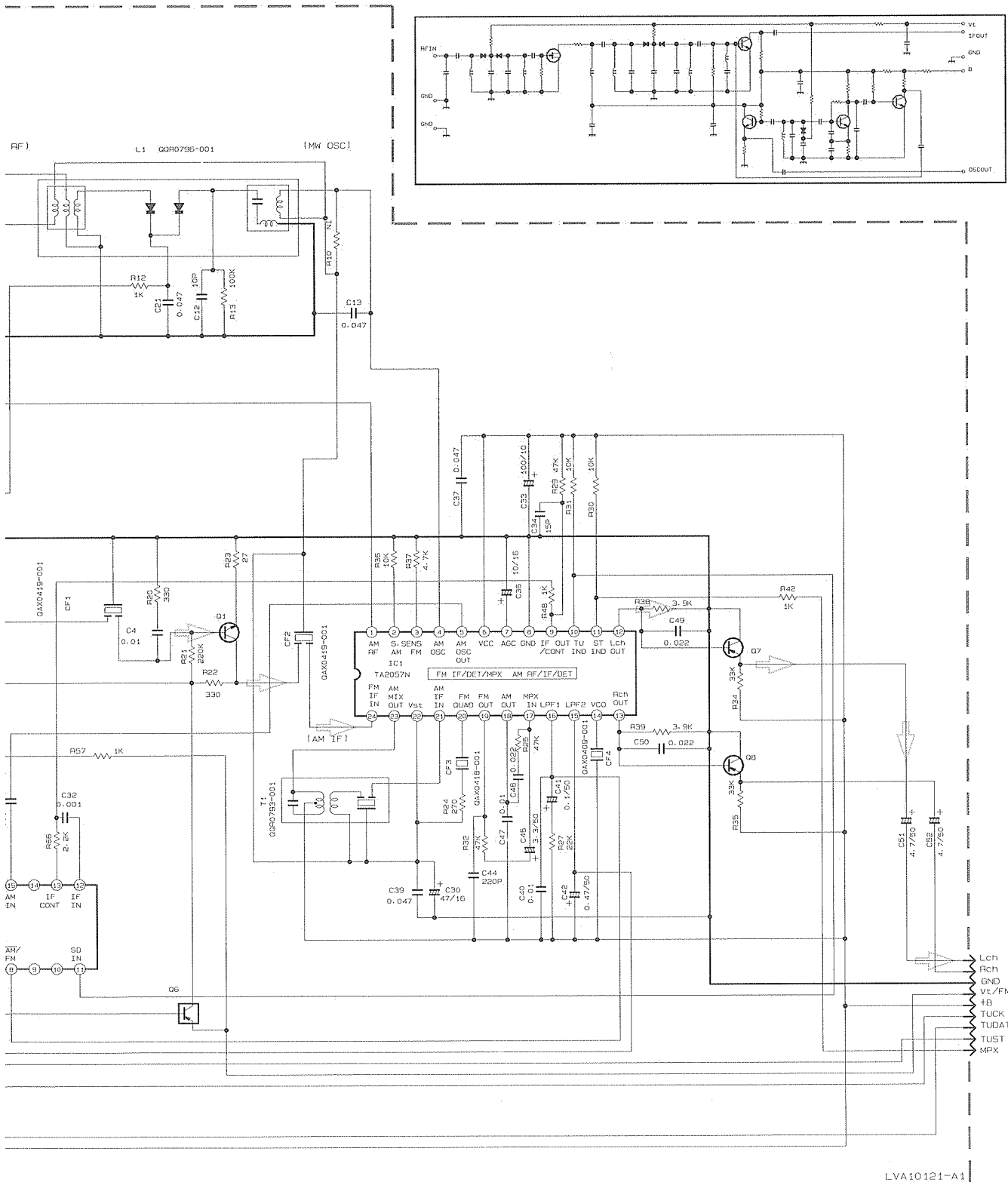


9. LAST NO. BLANK NO.  
 R. 99 R 3-9, 11, 14-19, 26, 28, 33, 40  
 41, 46, 47, 49-51, 53, 58-65, 67, 70-97  
 C. 91 C 7-8, 10, 11, 15-18, 22-29, 31, 38  
 43, 48, 53-59, 64, 67, 73-90

| CONDITION | PIN NO.        | 1   | 2   | 3 | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18  | 19  | 20  | 21  | 22  | 23  | 24  |
|-----------|----------------|-----|-----|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| IC1       | FM NO SIGNAL   | 2.0 | 0.5 | 0 | 2.0 | 5.1 | 5.1 | 0   | 0   | 0.3 | 5.1 | 5.1 | 1.1 | 1.1 | 4.4 | 3.7 | 3.7 | 1.4 | 0   | 1.3 | 1.1 | 2.0 | 2.0 | 5.1 | 2.0 |
|           | FM 60dB STEREO | 2.0 | 0.5 | 0 | 2.0 | 5.1 | 5.1 | 1.1 | 0   | 0.3 | 0   | 0   | 1.1 | 1.1 | 4.3 | 4.1 | 3.7 | 1.4 | 0   | 1.4 | 1.1 | 2.0 | 2.0 | 5.1 | 2.0 |
| IC2       | AM NO SIGNAL   | 2.0 | 0.5 | 0 | 2.0 | 5.1 | 5.1 | 0   | 0   | 0.3 | 5.1 | 5.1 | 1.1 | 1.1 | 4.5 | 0.1 | 0   | 1.4 | 1.4 | 1.5 | 1.6 | 2.0 | 2.0 | 5.1 | 2.0 |
|           | FM NO SIGNAL   | 2.4 | 0   | 0 | 1.1 | 5.0 | 1.1 | 3.7 | 3.7 | 0   | 0   | 5.1 | 0   | 0   | 0   | 0   | 2.6 | 5.1 | 1.0 | 1.0 | 3.7 | 0   | 2.7 |     |     |



# FS-SD5/FS-SD7/FS-SD9



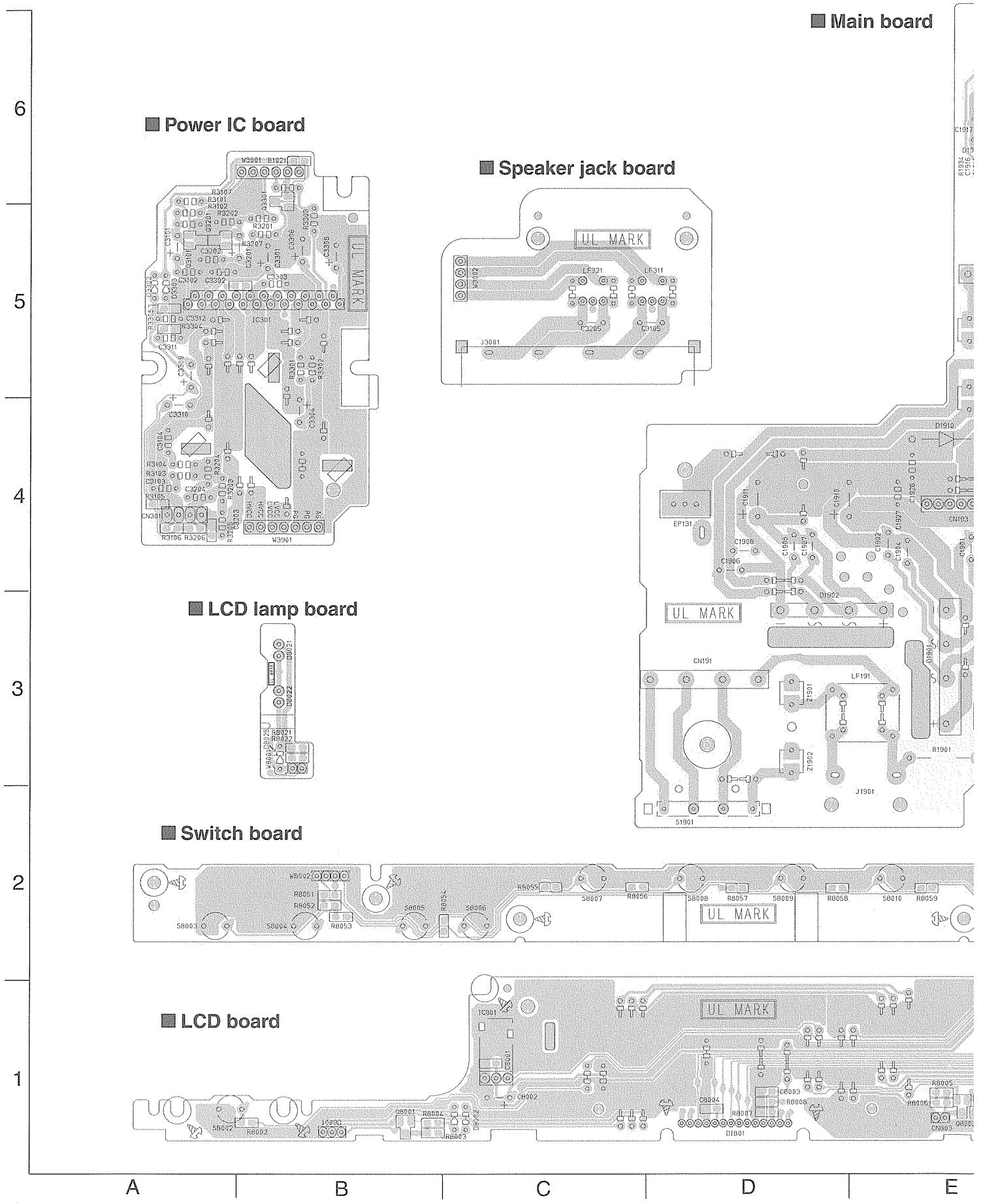
LVA10121-A1

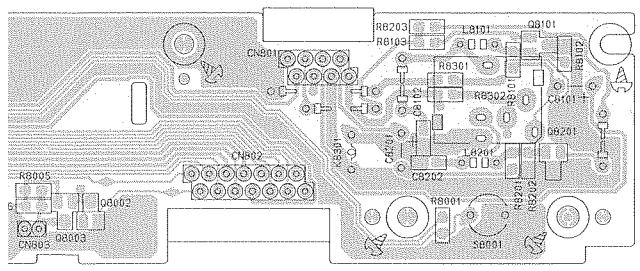
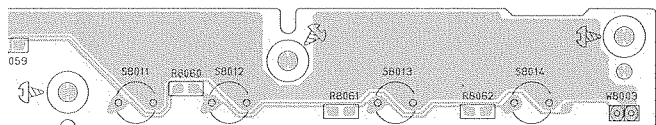
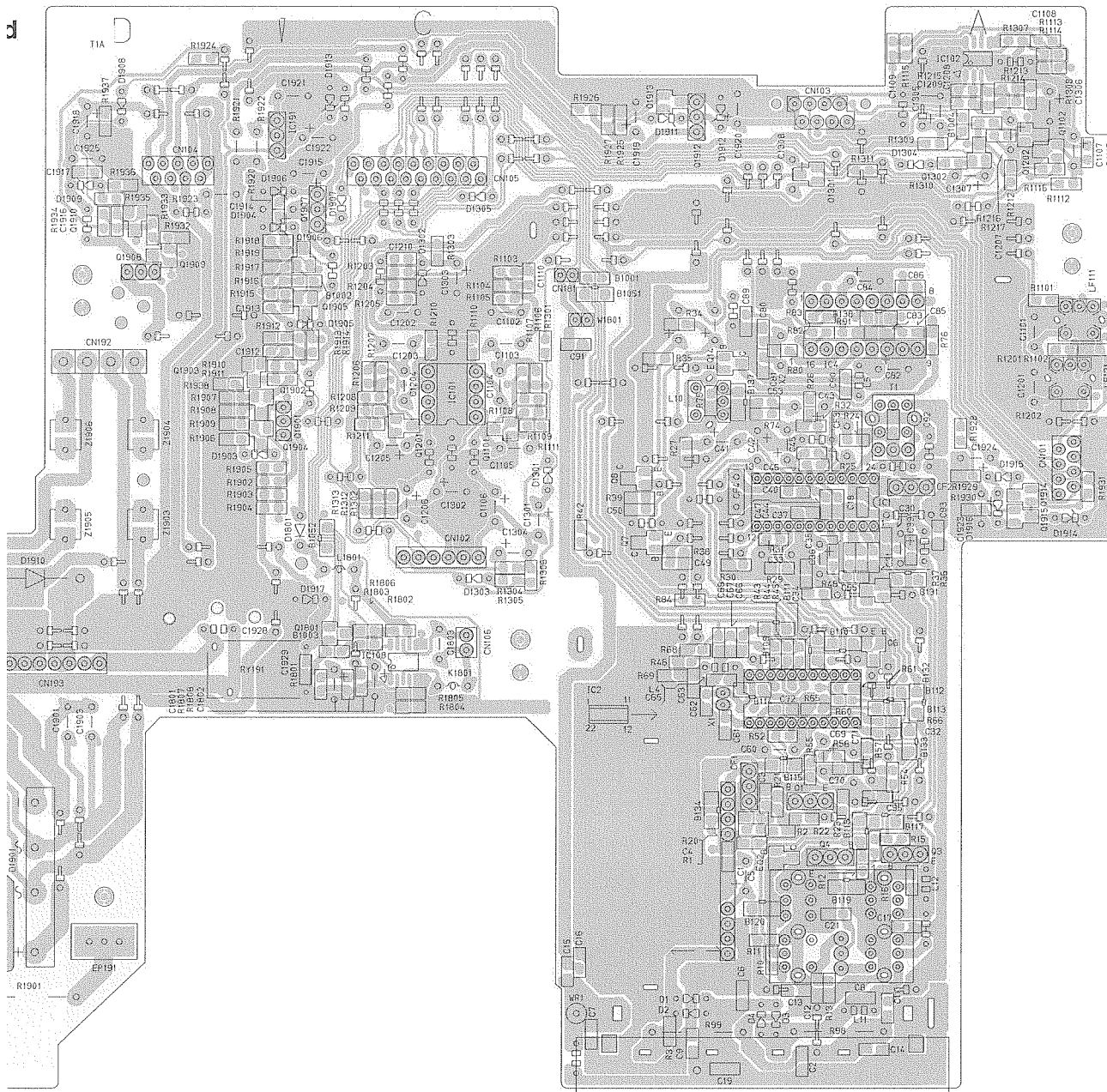
| Tr. NO. | Q1 |     | Q6  |     | Q7  |     | Q8  |   |     |     |   |     |
|---------|----|-----|-----|-----|-----|-----|-----|---|-----|-----|---|-----|
|         | E  | C   | B   | E   | C   | B   | E   | C | B   |     |   |     |
| 2.0     | 0  | 7.5 | 0.7 | 0.8 | 0.8 | 0   | 1.0 | 0 | 1.1 | 1.6 | 0 | 1.1 |
| 2.0     | 0  | 0   | 0   | 0.8 | 0   | 0.7 | 1.0 | 0 | 1.1 | 1.6 | 0 | 1.1 |
| 2.0     |    |     |     |     |     |     |     |   |     |     |   |     |

➤ TUNER SIGNAL

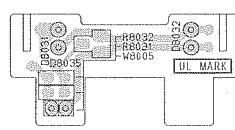
TO FUNCTION

# Printed circuit boards





■ Lamp board



E

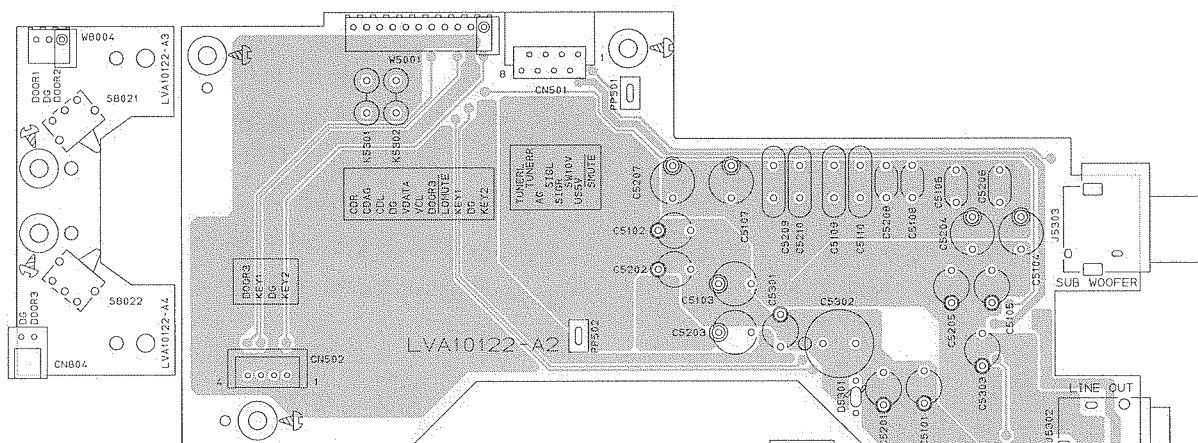
F

G

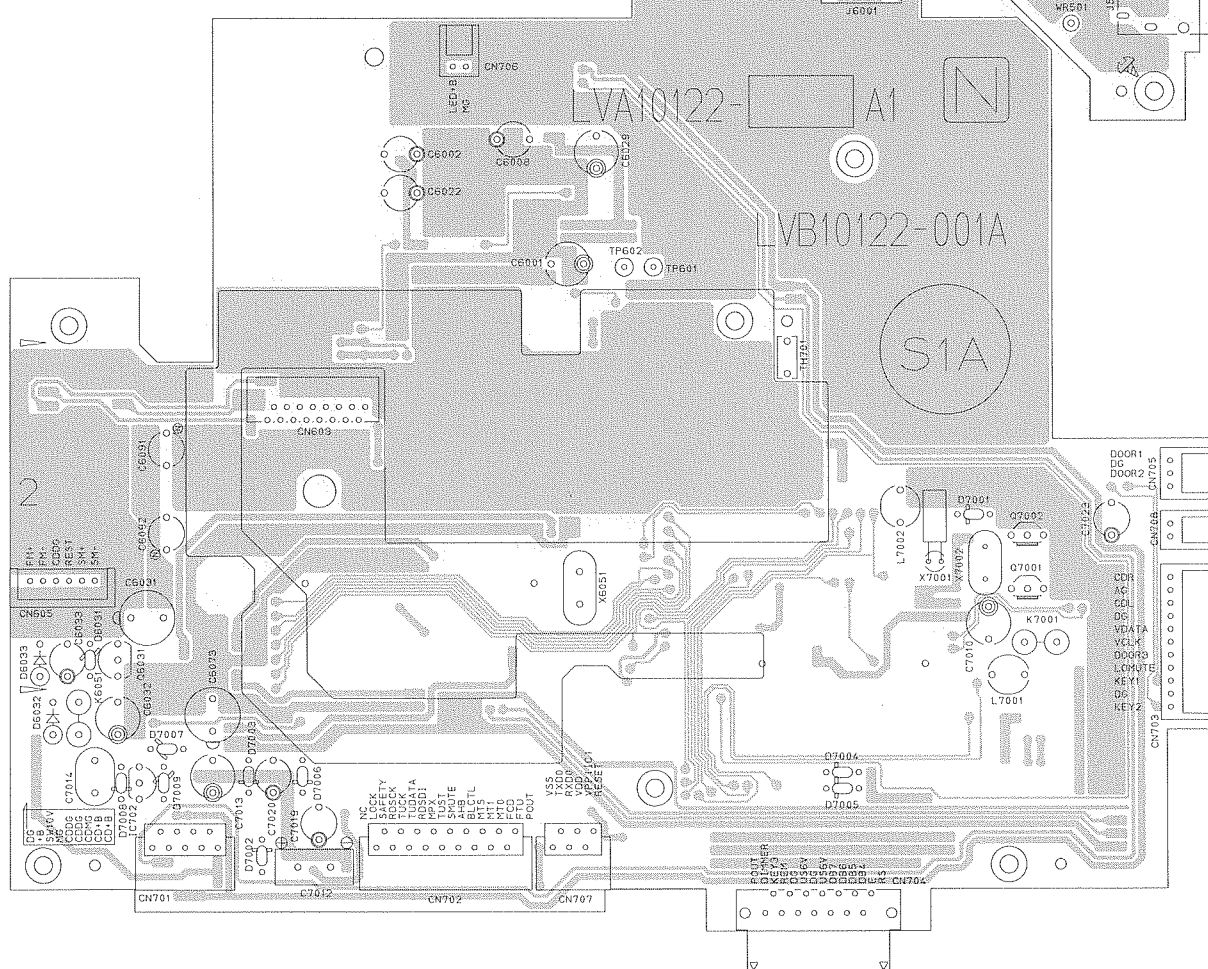
H

I

■ Line board (foward side)

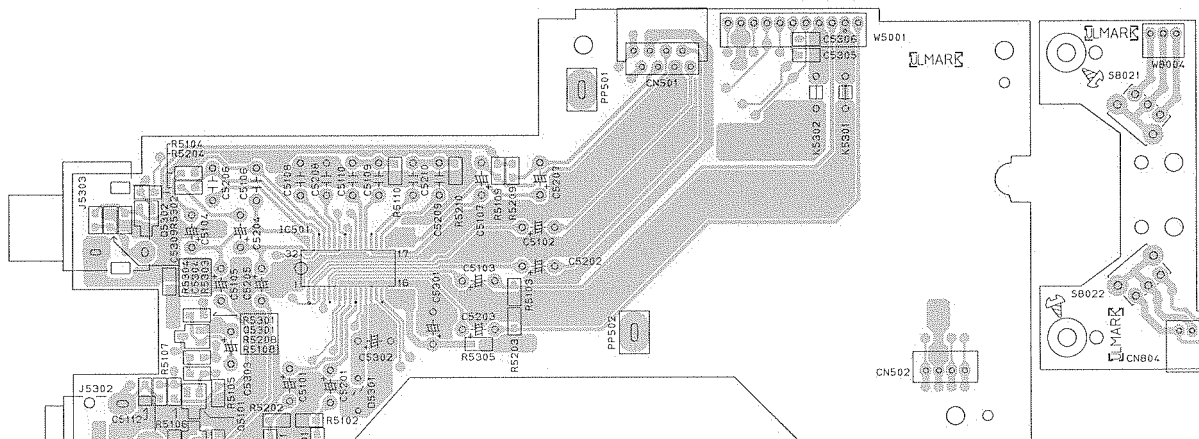


■ CD servo board (foward side)

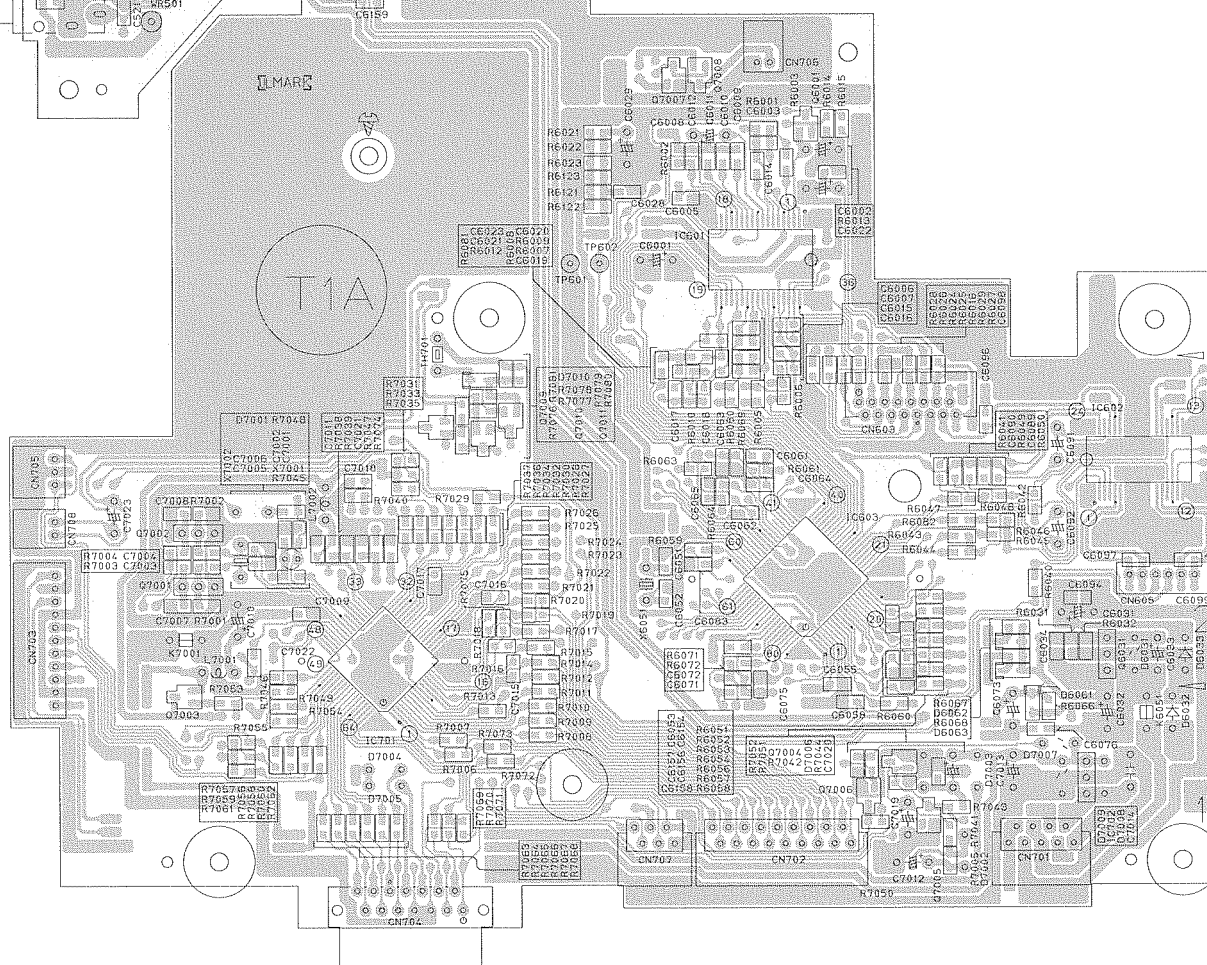


A B C D E

■ Line board (reverse side)



■ CD servo board (reverse side)



E

F

G

H

I



# PARTS LIST

[FS-SD5]  
[FS-SD7]  
[FS-SD9]

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

## Area Suffix

J ..... U.S.A

### - Contents -

|  |      |
|--|------|
| Exploded view of general assembly and parts list ..... | 3- 2 |
| Electrical parts list .....                            | 3- 5 |
| Packing materials and accessories parts list .....     | 3-12 |



■ Parts list (General assembly)

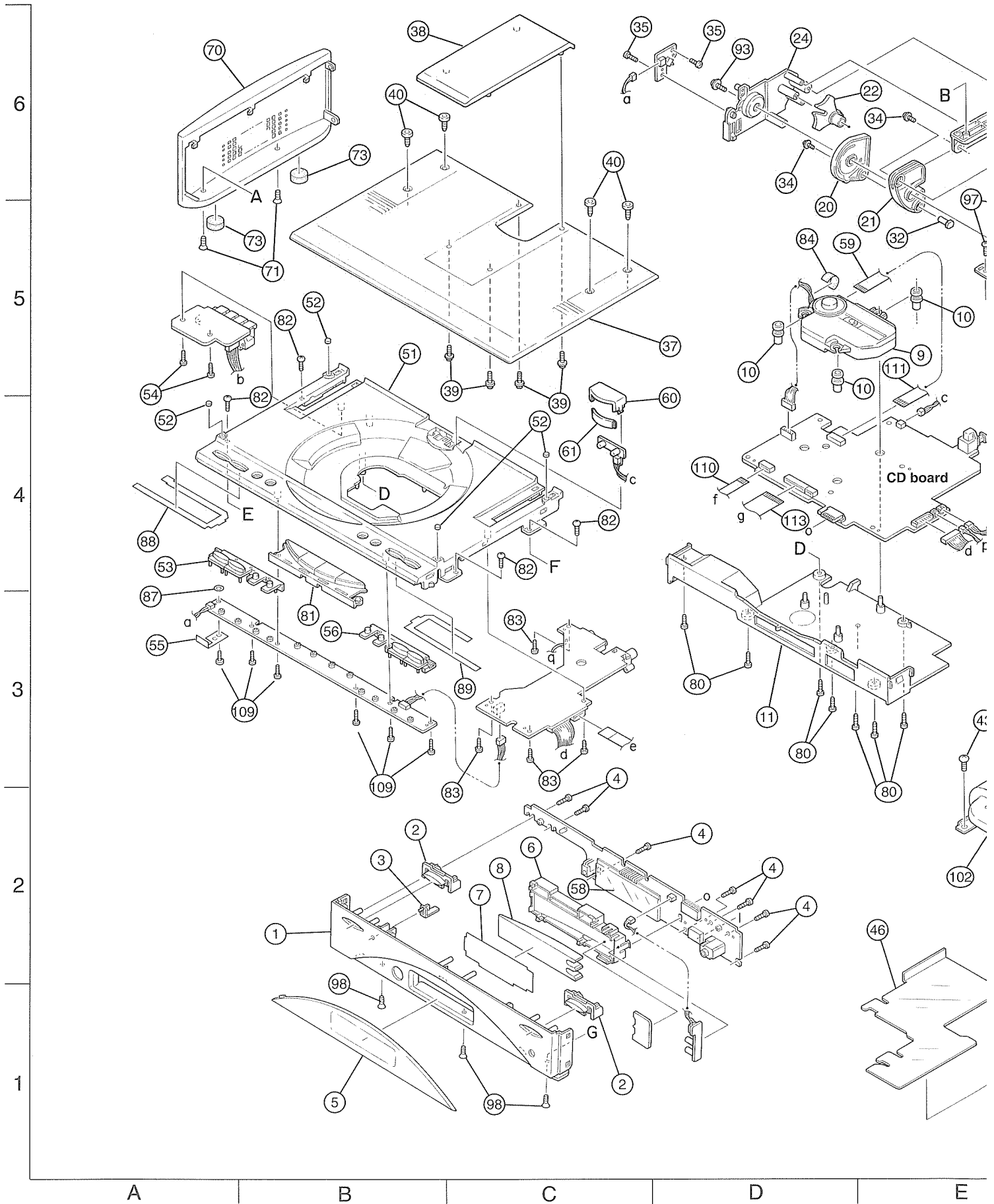
Block No. M1MM

| △ | Item | Parts number | Parts name     | Q'ty | Description     | Area |
|---|------|--------------|----------------|------|-----------------|------|
|   | 1    | LV10325-004A | FRONT PANEL    | 1    | FS-SD9          |      |
|   |      | LV10325-002A | FRONT PANEL    | 1    | FS-SD5/SD7      |      |
|   | 2    | LV31677-001A | PUSH BUTTON 1  | 2    | ABS/PLATING     |      |
|   | 3    | LV41520-001A | INDICATOR      | 1    | STANDBY LED     |      |
|   | 4    | QYSDSF2608Z  | SCREW          | 7    | FRONT+SW PWB+BT |      |
|   | 5    | LV31678-004A | LENS           | 1    | FS-SD9          |      |
|   |      | LV31678-002A | LENS           | 1    | FS-SD5/SD7      |      |
|   | 6    | LV31679-001A | LCD CASE       | 1    | ABS             |      |
|   | 7    | LV41519-001A | SHEET          | 1    | LCD FILTER      |      |
|   | 8    | LV31680-001A | REFLECTOR      | 1    | PMMA/MILKY      |      |
|   | 9    | KSM-770ABA   | CD MECHA       | 1    | CD MECHA        |      |
|   | 10   | LV40770-002A | INSULATOR      | 3    |                 |      |
|   | 11   | LV10326-001A | CD CHASSIS     | 1    | MIPS            |      |
|   | 12   | LV31687-001A | MOTOR BASE     | 1    | ABS             |      |
|   | 13   | LV41522-001A | WORM GEAR      | 1    | POM             |      |
|   | 14   | LV41523-001A | WORM WHEEL     | 1    | POM             |      |
|   | 15   | LV41536-001A | PULLEY         | 1    | POM             |      |
|   | 16   | LV41598-001A | BELT           | 1    |                 |      |
|   | 17   | QAR0100-001  | DC MOTOR       | 1    |                 |      |
|   | 18   | QYSPSP3004Z  | SCREW          | 2    | DC MOTOR+M.BASE |      |
|   | 19   | LV31688-001A | WHEEL STOPPER  | 1    | ABS             |      |
|   | 20   | LV31691-001A | G.WHEEL(L)     | 1    | POM             |      |
|   | 21   | LV31690-002A | ARM            | 2    | FS-SD9          |      |
|   |      | LV31690-001A | ARM            | 1    | FS-SD5/SD7      |      |
|   | 22   | LV31693-001A | G.GEAR(L)      | 1    | PBT             |      |
|   | 23   | LV31695-001A | ARM GEAR       | 1    | FS-SD5/SD7      |      |
|   |      | LV31695-002A | ARM GEAR(L)    | 1    | FS-SD9          |      |
|   | 24   | LV31697-002A | GEAR BASE(L)   | 1    |                 |      |
|   | 25   | LV31692-001A | G.WHEEL(R)     | 1    | POM             |      |
|   | 26   | LV31694-001A | G.GEAR(R)      | 1    | PBT             |      |
|   | 27   | LV31696-002A | ARM GEAR(R)    | 1    | FS-SD9          |      |
|   |      | LV31696-001A | ARM GEAR       | 1    | FS-SD5/SD7      |      |
|   | 28   | LV31698-002A | GEAR BASE(R)   | 1    |                 |      |
|   | 29   | LV32127-001A | GEAR BKT(L)    | 1    |                 |      |
|   | 30   | LV32128-001A | GEAR BKT(R)    | 1    |                 |      |
|   | 31   | LV41525-001A | SHAFT 2        | 4    | SUS             |      |
|   | 32   | LV41526-001A | SHAFT 3        | 2    | SUS             |      |
|   | 33   | LV31701-001A | DOOR BASE      | 2    | FS-SD5/SD7      |      |
|   |      | LV31701-002A | DOOR BASE      | 2    | FS-SD9          |      |
|   | 34   | QYSPSPG2605N | SCREW          | 6    | DOOR BASE+ARM   |      |
|   | 35   | QYSDSF2606Z  | SCREW          | 4    | SW.PWB+G.BASE   |      |
|   | 36   | QYSDSF2606Z  | SCREW          | 6    | G.BKT+G.BASE    |      |
|   | 37   | LV10328-004A | CD DOOR        | 1    | FS-SD9          |      |
|   |      | LV10328-003A | CD DOOR        | 1    | FS-SD7          |      |
|   | 38   | LV31702-002A | DOOR COVER     | 1    | FS-SD5          |      |
|   |      | LV31702-004A | DOOR COVER     | 1    | FS-SD7          |      |
|   |      | LV31702-006A | DOOR COVER     | 1    | FS-SD9          |      |
|   | 39   | LV41758-001A | CUSTOM SCREW   | 4    | D.C.BKT+D.COVER |      |
|   | 40   | LV41587-001A | SPECIAL SCREW  | 4    | CD DOOR+D.BASE  |      |
|   | 41   | LV10329-001A | BOTTOM CHASSIS | 1    | EGC T1.0        |      |
|   | 42   | LV30064-068A | SPACER         | 1    | BOTTOM          |      |
|   | 43   | QYSBST4006Z  | T.SCREW        | 4    | BOTTOM.C+TRANS  |      |

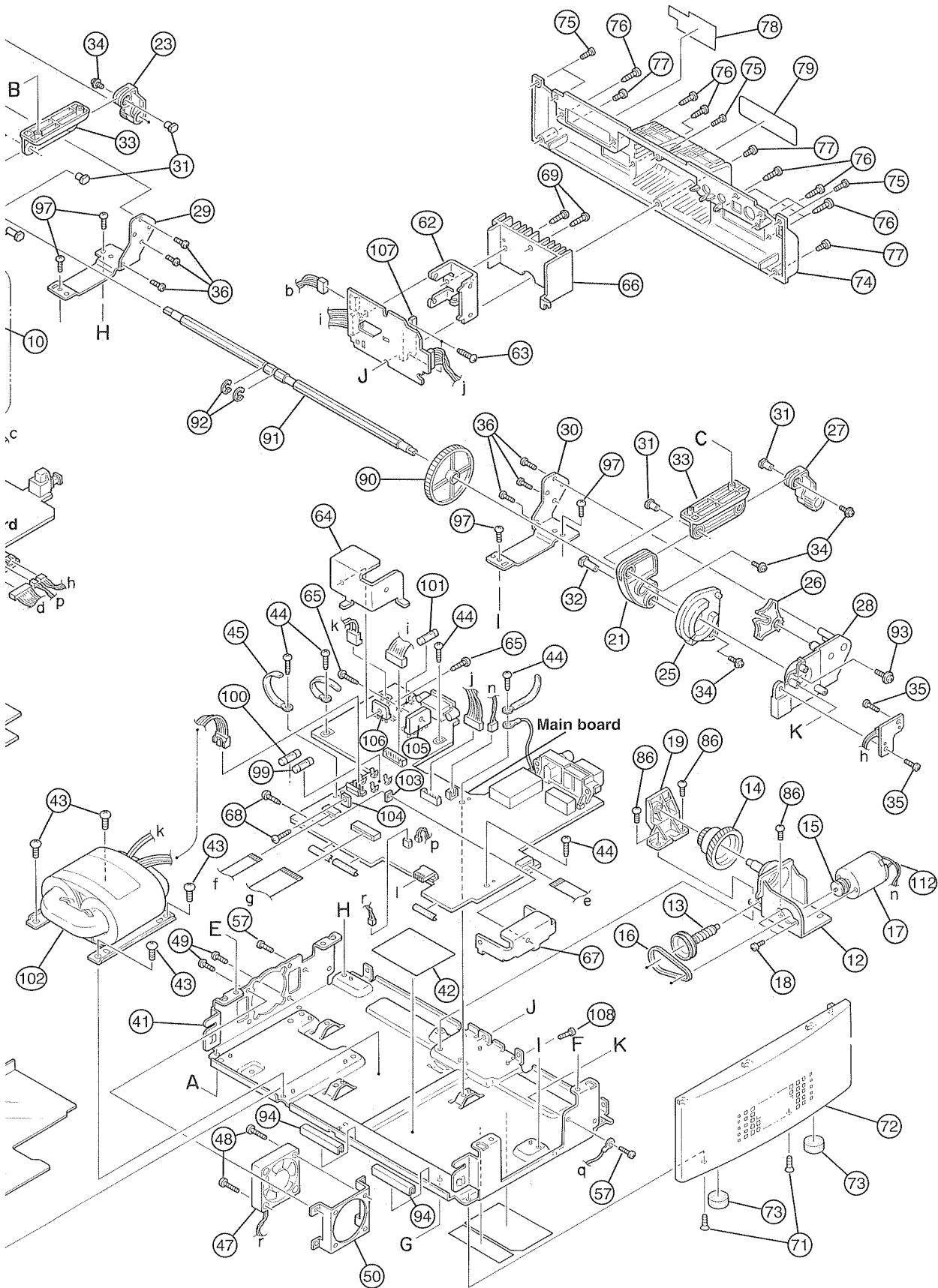




# Exploded view of general assembly and parts list



Block No. M 1 M M



E      F      G      H      I

## ■ Parts list (General assembly)

Block No. M1MM

| △ | Item | Parts number  | Parts name      | Q'ty | Description     | Area |
|---|------|---------------|-----------------|------|-----------------|------|
|   | 44   | QYSBST3006Z   | T.SCREW         | 5    | BOTTOM+MAIN PWB |      |
|   | 45   | VKZ4001-110   | WIRE HOLDER     | 1    |                 |      |
|   | 46   | LV31901-001A  | BURRER          | 1    | BETW.AC&BTM     |      |
|   | 47   | QAR0148-001   | FAN MOTOR       | 1    |                 |      |
|   | 48   | QYSPST3012Z   | T.SCREW         | 2    | FAN+F.BKT       |      |
|   | 49   | QYSBST3006Z   | T.SCREW         | 2    | F.BKT+BOTTOM    |      |
|   | 50   | LV41799-001A  | FAN BRACKET     | 1    |                 |      |
|   | 51   | LV10327-004A  | TOP PANEL       | 1    | FS-SD9          |      |
|   |      | LV10327-002A  | TOP PANEL       | 1    | FS-SD5/SD7      |      |
|   | 52   | LV41821-001A  | FELT            | 1    | FS-SD5/SD7      |      |
|   |      | LV41821-002A  | FELT            | 4    | FS-SD9          |      |
|   | 53   | LV31681-001A  | PUSH BUTTON 3   | 1    | ABS/PLATING     |      |
|   | 54   | QYSDSF2608Z   | SCREW           | 2    | P.BTN3+PWB+TOP  |      |
|   | 55   | LV41828-001A  | PROTECTOR       | 1    | FOR TOP         |      |
|   | 56   | LV31682-001A  | PUSH BUTTON 2   | 1    | ABS/PLATINGR    |      |
|   | 57   | QYSDSF2608Z   | SCREW           | 2    |                 |      |
|   | 58   | QLD0120-001   | L.C.DISPL.PANEL | 1    |                 |      |
|   | 59   | QUQ610-1607BJ | FLAT WIRE       | 1    |                 |      |
|   | 60   | LV31686-002A  | LED BOX         | 1    | FS-SD9          |      |
|   |      | LV31686-001A  | LED BOX         | 1    | FS-SD5/SD7      |      |
|   | 61   | LV41521-001A  | LED COVER       | 1    | ABS             |      |
|   | 62   | LV31704-001A  | IC HOLDER       | 1    | AL T2           |      |
|   | 63   | QYSBSF3010Z   | SCREW           | 2    | IC+IC HOLDER    |      |
|   | 64   | LV31849-001A  | HEAT SINK2      | 1    | AL T2           |      |
|   | 65   | QYSBSF3010Z   | SCREW           | 2    | DIODE+H.SINK2   |      |
|   | 66   | LV31705-002A  | HEAT SINK       | 1    | AL              |      |
|   | 67   | LV31850-001A  | HEAT SINK3      | 1    | AL T2           |      |
|   | 68   | QYSBSF3010Z   | SCREW           | 2    | TR+H.SINK3      |      |
|   | 69   | QYSBSF3008Z   | SCREW           | 2    | IC HOLDER+H.SIN |      |
|   | 70   | LV10330-001A  | SIDE PANEL(L)   | 1    | FS-SD5/SD7      |      |
|   |      | LV10330-002A  | SIDE PANEL(L)   | 1    | FS-SD9          |      |
|   | 71   | QYSSST3006Z   | SCREW           | 4    | S.PANEL+BOTTOM  |      |
|   | 72   | LV10331-002A  | SIDE PANEL(R)   | 1    | FS-SD9          |      |
|   |      | LV10331-001A  | SIDE PANEL(R)   | 1    | FS-SD5/SD7      |      |
|   | 73   | LV41832-001A  | FOOT            | 4    | SIDE PANEL      |      |
|   | 74   | LV10332-005A  | REAR PANEL      | 1    | FS-SD9          |      |
|   |      | LV10332-002A  | REAR PANEL      | 1    | FS-SD5/SD7      |      |
|   | 75   | QYSDSF2608N   | SCREW           | 5    | REAR+TOP        |      |
|   | 76   | QYSDSG3008N   | T.SCREW         | 7    | REAR+JACK       |      |
|   | 77   | QYSDSG3008N   | T.SCREW         | 3    | REAR+BOTTOM     |      |
| △ | 78   | LV32005-011A  | NAME PLATE      | 1    | FS-SD9          |      |
|   |      | LV31706-011A  | NAME PLATE      | 1    | FS-SD5          |      |
|   |      | LV32004-011A  | NAME PLATE      | 1    | FS-SD7          |      |
|   | 79   | LV41772-001A  | CAUTION LABEL   | 1    | REAR PANEL      |      |
|   | 80   | QYSDSF2608Z   | SCREW           | 7    | CD CHASSIS+TOP  |      |
|   | 81   | LV31683-001A  | FUNC BTN ASSY   | 1    | FS-SD5/SD7      |      |
|   |      | LV31683-002A  | FUNC BTN ASSY   | 1    | FS-SD9          |      |
|   | 82   | QYSBST3006Z   | T.SCREW         | 4    |                 |      |
|   | 83   | QYSDSF2606Z   | SCREW           | 4    | JACK PWB+TOP    |      |
|   | 84   | LV30064-008A  | SPACER          | 1    |                 |      |
|   | 86   | QYSBST3006Z   | T.SCREW         | 3    | MOTER.B+BOTTOM. |      |
|   | 87   | LV30226-015A  | SPACER          | 1    |                 |      |

FS-SD5/FS-SD7/FS-SD9

■ Parts list(General assembly)

Block No. M1MM

| △ | Item | Parts number   | Parts name     | Q'ty | Description     | Area |
|---|------|----------------|----------------|------|-----------------|------|
|   | 88   | LV41826-001A   | SHIELD(A)      | 1    |                 |      |
|   | 89   | LV41827-001A   | SHIELD(R)      | 1    |                 |      |
|   | 90   | LV41524-001A   | MAIN GEAR      | 1    | POM             |      |
|   | 91   | LV31689-001A   | SHAFT 1        | 1    | SUS             |      |
|   | 92   | QYREE6000X     | E RING         | 2    |                 |      |
|   | 93   | QYSPSPG3006Z   | SCREW          | 2    | SAFT 1+G.BASE   |      |
|   | 94   | LV30064-075A   | SPACER         | 2    | BOTTOM          |      |
|   | 97   | QYSBST3006Z    | T.SCREW        | 4    | BOTTOM.C+TOP    |      |
|   | 98   | QYSSST3006Z    | SCREW          | 3    | BOTTOM+FRONT.P  |      |
| △ | 99   | QMF51U1-8R0-J1 | FUSE           | 1    | F1902           |      |
| △ | 100  | QMF51U1-4R0-J1 | FUSE           | 1    | F1903           |      |
| △ | 101  | QMF51N2-1R0-J1 | FUSE           | 1    | F1901           |      |
| △ | 102  | QQT0286-002    | POWER TRANS    | 1    | T1901           |      |
|   | 103  | QUB220-08A4DM  | TRANSISTOR     | 1    | Q1901           |      |
| △ | 104  | QUB220-08A4DM  | TRANSISTOR     | 1    | Q1908           |      |
| △ | 105  | D5SBA20-S1     | SI DIODE       | 1    | D1901           |      |
| △ | 106  | D3SB20-S1      | SI DIOSE       | 1    | D1902           |      |
| △ | 107  | LA4905         | IC             | 1    | IC301           |      |
|   | 108  | QYSBST3006Z    | T.SCREW        | 1    | BOTTOM.C+AMP PW |      |
|   | 109  | QYSDSF2608Z    | SCREW          | 7    |                 |      |
|   | 110  | QUQB12-0905DJ  | FLAT WIRE      | 1    |                 |      |
|   | 111  | QUQB12-0806CJ  | FLAT WIRE      | 1    |                 |      |
|   | 112  | WJM0133-001A   | CONN.WIRE ASSY | 1    |                 |      |
|   | 113  | QUQB12-1805DJ  | FLAT WIRE      | 1    |                 |      |
|   |      | QUQ412-1805DJ  | FLAT WIRE      | 1    |                 |      |



■ Electrical parts list (Main board)

Block No.01

| △ | Item  | Parts number  | Parts name      | Remarks       | Area | △ | Item    | Parts number | Parts name      | Remarks    | Area |
|---|-------|---------------|-----------------|---------------|------|---|---------|--------------|-----------------|------------|------|
|   | C 1   | NCB21HK-223X  | C CAPACITOR     |               |      |   | C1104   | QFVJ1HJ-563Z | M.M.CAP.IM      | FS-SD9     |      |
|   | C 2   | NCB21HK-102X  | C CAPACITOR     |               |      |   | C1104   | QFN31HJ-563Z | MYLAR CAPACITOR | FS-SD7     |      |
|   | C 3   | NCB21EK-473X  | C CAPACITOR     |               |      |   | C1105   | QTE1C06-476Z | E CAPACITOR     | AHB        |      |
|   | C 4   | NCB21HK-103X  | C CAPACITOR     |               |      |   | C1106   | QTE1V06-226Z | E CAPACITOR     | AHB        |      |
|   | C 5   | QEK41CM-106   | E.CAPA I.M      | 10MF 20% 16V  |      |   | C1107   | QETN1HM-475Z | E CAPACITOR     | HP         |      |
|   | C 6   | NCB21HK-102X  | C CAPACITOR     |               |      |   | C1108   | NCS21HJ-151X | C CAPACITOR     | HP         |      |
|   | C 9   | NCB21HK-102X  | C CAPACITOR     |               |      |   | C1109   | NCS21HJ-222X | C CAPACITOR     | HP         |      |
|   | C 12  | NDU21HJ-100X  | C CAPACITOR     |               |      |   | C1110   | NCS21HJ-102X | C CAPACITOR     |            |      |
|   | C 13  | NCB21EK-473X  | C CAPACITOR     |               |      |   | C1201   | QFN31HJ-562Z | M CAPACITOR     | MPX        |      |
|   | C 14  | NCB21HK-103X  | C CAPACITOR     |               |      |   | C1202   | QFVJ1HJ-154Z | CAPACITOR       | FS-SD5     |      |
|   | C 21  | NCB21EK-473X  | C CAPACITOR     |               |      |   | C1202   | QFVJ1HJ-224Z | CAPACITOR       | FS-SD7/SD9 |      |
|   | C 30  | QEK41CM-476   | E.CAPACITOR     | 47MF 20% 16V  |      |   | C1203   | QFN31HJ-563Z | MYLAR CAPACIROE | FS-SD7     |      |
|   | C 32  | NCB21HK-102X  | C CAPACITOR     |               |      |   | C1203   | QFVJ1HJ-563Z | M.M.CAP.IM      | FS-SD9     |      |
|   | C 33  | QEK41AM-107Z  | E.CAPACITOR     | 100MF 20% 10V |      |   | C1203   | QFN31HJ-823Z | M.M.CAP.IM      | FS-SD5     |      |
|   | C 34  | NCS21HJ-150X  | C CAPACITOR     |               |      |   | C1204   | QFN31HJ-823Z | M.M.CAP.IM      | FS-SD5     |      |
|   | C 35  | NCB21HK-102X  | C CAPACITOR     |               |      |   | C1204   | QFVJ1HJ-563Z | M.M.CAP.IM      | FS-SD9     |      |
|   | C 36  | QEK41CM-106   | E.CAPA I.M      | 10MF 20% 16V  |      |   | C1204   | QFN31HJ-563Z | MYLAR CAPACITOR | FS-SD7     |      |
|   | C 37  | NCB21EK-473X  | C CAPACITOR     |               |      |   | C1205   | QTE1C06-476Z | E CAPACITOR     | AHB        |      |
|   | C 39  | NCB21EK-473X  | C CAPACITOR     |               |      |   | C1206   | QTE1V06-226Z | E CAPACITOR     | AHB        |      |
|   | C 40  | NCB21HK-103X  | C CAPACITOR     |               |      |   | C1207   | QETN1HM-475Z | E CAPACITOR     | HP         |      |
|   | C 41  | QEK41HM-104Z  | E.CAPA I.M      | .10MF 20% 50V |      |   | C1208   | NCS21HJ-151X | C CAPACITOR     | HP         |      |
|   | C 42  | QEK41HM-474   | E.CAPA I.M      | .47MF 20% 50V |      |   | C1209   | NCS21HJ-222X | C CAPACITOR     | HP         |      |
|   | C 44  | NCS21HJ-221X  | C CAPACITOR     |               |      |   | C1210   | NCS21HJ-102X | C CAPACITOR     |            |      |
|   | C 45  | QEK41HM-335Z  | E.CAPA I.M      | 3.3MF 20% 50V |      |   | C1301   | QETN1EM-106Z | E CAPACITOR     | AHB        |      |
|   | C 46  | NCB21HK-223X  | C CAPACITOR     |               |      |   | C1302   | QETN1EM-476Z | E CAPACITOR     | AHB        |      |
|   | C 47  | NCB21HK-103X  | C CAPACITOR     |               |      |   | C1303   | QTE1V06-226Z | E CAPACITOR     | FS-SD5/SD7 |      |
|   | C 49  | NCB21HK-223X  | C CAPACITOR     |               |      |   | C1303   | QTE1E06-476Z | AL E.CAPACITOR  | FS-SD9     |      |
|   | C 50  | NCB21HK-223X  | C CAPACITOR     |               |      |   | C1304   | QETN1HM-105Z | E CAPACITOR     | AHB        |      |
|   | C 51  | QETN1HM-475Z  | E CAPACITOR     | 4.7MF 20% 50V |      |   | C1305   | QETN1VM-107Z | E CAPACITOR     | HP         |      |
|   | C 52  | QETN1HM-475Z  | E CAPACITOR     | 4.7MF 20% 50V |      |   | C1306   | QETN1CM-476Z | E CAPACITOR     | HP         |      |
|   | C 60  | QEK41AM-107Z  | E.CAPACITOR     | 100MF 20% 10V |      |   | C1307   | QETN1HM-106Z | E CAPACITOR     | HP.MUTE.D  |      |
|   | C 61  | NCS21HJ-120X  | C CAPACITOR     |               |      |   | C1308   | QETN1HM-106Z | E CAPACITOR     | S.MUTE.D   |      |
|   | C 62  | NCS21HJ-120X  | C CAPACITOR     |               |      |   | C1801   | QETN1HM-106Z | E CAPACITOR     | M.DRIVE    |      |
|   | C 63  | NCB21EK-473X  | C CAPACITOR     |               |      |   | C1802   | QETN1VM-107Z | E CAPACITOR     | M.DRIVE    |      |
|   | C 65  | NCB21HK-102X  | C CAPACITOR     |               |      |   | C1803   | QCZ0205-155Z | ML C CAPACITOR  | M.DRIVE    |      |
|   | C 66  | NCS21HJ-151X  | C CAPACITOR     |               |      |   | △ C1901 | QFVJ1HJ-104Z | TF CAPACITOR    | HV         |      |
|   | C 67  | NCS21HJ-101X  | C CAPACITOR     |               |      |   | △ C1902 | QFVJ1HJ-104Z | TF CAPACITOR    | HV         |      |
|   | C 68  | NCS21HJ-101X  | C CAPACITOR     |               |      |   | △ C1903 | QFVJ1HJ-104Z | TF CAPACITOR    | HV         |      |
|   | C 69  | QEK41HM-225Z  | E.CAPA I.M      | 2.2MF 20% 50V |      |   | △ C1904 | QFVJ1HJ-104Z | TF CAPACITOR    | HV         |      |
|   | C 70  | NCB21HK-392X  | C CAPACITOR     |               |      |   | △ C1905 | QFVJ1HJ-104Z | TF CAPACITOR    | LV         |      |
|   | C 71  | QEK41HM-335Z  | E.CAPA I.M      | 3.3MF 20% 50V |      |   | △ C1906 | QFVJ1HJ-104Z | TF CAPACITOR    | LV         |      |
|   | C 72  | NCB21HK-102X  | C CAPACITOR     |               |      |   | △ C1907 | QFVJ1HJ-104Z | TF CAPACITOR    | LV         |      |
|   | C 91  | NCB21HK-103X  | C CAPACITOR     |               |      |   | △ C1908 | QFVJ1HJ-104Z | TF CAPACITOR    | LV         |      |
|   | CF 1  | QAX0419-001Z  | C FILTER        | FM IF         |      |   | △ C1910 | QETM1EM-828  | E CAPACITOR     | HV         |      |
|   | CF 2  | QAX0419-001Z  | C FILTER        | FM IF         |      |   | △ C1911 | QETM1EM-688  | E CAPACITOR     | LV         |      |
|   | CF 3  | QAX0418-001Z  | C FILTER        |               |      |   | △ C1912 | NCS21HJ-221X | C CAPACITOR     | SW10       |      |
|   | CF 4  | QAX0409-001   | CERA LOCK       |               |      |   | C1913   | NCB21HK-103X | C CAPACITOR     | SW10       |      |
|   | CN101 | QGF1201F3-08  | CONNECTOR       | TO.FUNC.      |      |   | C1914   | QETN1HM-476Z | E CAPACITOR     | SW10       |      |
|   | CN102 | QGA2501C1-06  | 6P CONNECTOR    | TO.PO.        |      |   | C1915   | QETN1CM-107Z | E CAPACITOR     | L.FIL      |      |
|   | CN103 | QGB1216J1-08S | CONNECTOR       | TO.FRONT      |      |   | C1916   | NCS21HJ-221X | C CAPACITOR     | CD6.5      |      |
|   | CN104 | QGF1201F3-09  | CONNECTOR       | TO.MICOM      |      |   | C1917   | NCB21HK-103X | C CAPACITOR     | CD6.5      |      |
|   | CN105 | QGF1201F3-18  | CONNECTOR       | TO.MICOM      |      |   | C1918   | QTE1E06-476Z | E CAPACITOR     | CD6.5      |      |
|   | CN106 | QGA2501C1-02  | 2P CONNECTOR    | TO.MOTOR      |      |   | C1919   | QETN1CM-106Z | E CAPACITOR     | BL7        |      |
|   | CN181 | QGA2001C1-02  | PLUG ASSY       |               |      |   | C1920   | QETN1EM-226Z | E CAPACITOR     | BL7        |      |
| △ | CN191 | QGA7901C1-02  | CONNECTOR       | PRI.          |      |   | C1921   | QFVJ1HJ-104Z | TF CAPACITOR    | US5        |      |
|   | CN192 | QGA3901C1-04  | 4P CONNECTOR    | SEC.          |      |   | C1922   | QETN1EM-106Z | E CAPACITOR     | US5        |      |
| △ | CN193 | QGA2501C1-07  | 7P CONNECTOR    | TO.PO.        |      |   | C1923   | QETN1HM-475Z | E CAPACITOR     | TU5        |      |
|   | CN301 | QGA2501F1-04  | CONNECTOR       | FROM SP.JACK  |      |   | C1924   | QETN1CM-107Z | E CAPACITOR     | TU5        |      |
|   | CN801 | QGB1216K1-08S | CONNECTOR       | TO AMP/TUNER  |      |   | C1925   | QFN31HJ-103Z | PP CAPACITOR    | FS-SD5/SD7 |      |
|   | CN802 | QGB1216K1-14S | CONNECTOR       | TO MICON/CD   |      |   | C1925   | QFZ0160-223Z | PP CAPACITOR    | FS-SD9     |      |
|   | CN803 | QGA2001C1-02  | PLUG ASSY       | TO BACK LIGHT |      |   | △ C1926 | QFN31HJ-103Z | MYLAR CAPACITOR | FS-SD5/SD7 |      |
|   | C1101 | QFN31HJ-562Z  | M CAPACITOR     | MPX           |      |   | △ C1926 | QCB1HK-103Y  | C CAPACITOR     | FS-SD9     |      |
|   | C1102 | QFVJ1HJ-154Z  | CAPACITOR       | FS-SD5        |      |   | △ C1927 | QCB1HK-103Y  | C CAPACITOR     | HV         |      |
|   | C1102 | QFVJ1HJ-224Z  | CAPACITOR       | FS-SD7/SD9    |      |   | C1928   | QCB1HK-103Y  | C CAPACITOR     | RY         |      |
|   | C1103 | QFN31HJ-563Z  | MYLAR CAPACIROE | FS-SD7        |      |   | C1929   | NCB21HK-103X | C CAPACITOR     | RY         |      |
|   | C1103 | QFVJ1HJ-563Z  | M.M.CAP         | FS-SD9        |      |   | C3101   | QTE1V06-106Z | E CAPACITOR     | IN         |      |
|   | C1103 | QFN31HJ-823Z  | M.M.CAP.IM      | FS-SD5        |      |   | C3102   | QCB1HK-331Y  | C CAPACITOR     | IN         |      |
|   | C1104 | QFN31HJ-823Z  | M.M.CAP.IM      | FS-SD5        |      |   | C3103   | QCB1HK-104Y  | TF CAPACITOR    | OUT        |      |

FS-SD5/FS-SD7/FS-SD9

■ Electrical parts list (Main board)

Block No.01

| △ | Item  | Parts number | Parts name   | Remarks       | Area |
|---|-------|--------------|--------------|---------------|------|
|   | C3104 | QCBB1HK-104Y | TF CAPACITOR | OUT           |      |
|   | C3201 | QTE1V06-106Z | E CAPACITOR  | IN            |      |
|   | C3202 | QCBB1HK-331Y | C CAPACITOR  | IN            |      |
|   | C3203 | QCBB1HK-104Y | TF CAPACITOR | OUT           |      |
|   | C3204 | QCBB1HK-104Y | TF CAPACITOR | OUT           |      |
|   | C3301 | QETN1CM-106Z | E CAPACITOR  | BEEP          |      |
|   | C3302 | NCS21HJ-152X | C CAPACITOR  |               |      |
|   | C3303 | QCBB1HK-104Y | TF CAPACITOR | FS-SD9        |      |
|   | C3303 | QCBB1HK-103Y | TF CAPACITOR | FS-SD5/SD7    |      |
|   | C3304 | QETN1HM-105Z | E CAPACITOR  | 1.0MF 20% 50V |      |
|   | C3306 | QTE1E06-476Z | E CAPACITOR  | FS-SD9        |      |
|   | C3306 | QTE1V28-107Z | E CAPACITOR  | FS-SD5/SD7    |      |
|   | C3308 | QETN1CM-336Z | E CAPACITOR  | ON.TIME       |      |
|   | C3309 | QETN1HM-105Z | E CAPACITOR  | AHB NF        |      |
|   | C3310 | QETN1HM-105Z | E CAPACITOR  | AHB NF        |      |
|   | C3311 | QCBB1HK-473Y | C CAPACITOR  | AHB NF        |      |
|   | C3312 | QCBB1HK-473Y | C CAPACITOR  | AHB NF        |      |
|   | C8001 | NCB21HK-103X | C CAPACITOR  |               |      |
|   | C8002 | QER41AM-107  | E CAPACITOR  | 100MF 20% 10V |      |
|   | C8003 | NCB21HK-223X | C CAPACITOR  |               |      |
|   | C8004 | NCS21HJ-101X | C CAPACITOR  |               |      |
|   | C8101 | QER41AM-227  | E.CAPA. I.M  | 220MF 20% 10V |      |
|   | C8102 | NCB21HK-103X | C CAPACITOR  |               |      |
|   | C8201 | QER41AM-227  | E.CAPA. I.M  | 220MF 20% 10V |      |
|   | C8202 | NCB21HK-103X | C CAPACITOR  |               |      |
|   | D 1   | 1SS133-T2    | SI DIODE     |               |      |
|   | D 2   | 1SS133-T2    | SI DIODE     |               |      |
|   | D 3   | 1SS133-T2    | SI DIODE     |               |      |
|   | D 4   | 1SS133-T2    | SI DIODE     |               |      |
|   | D1801 | QLD0120-001  | LCD          |               |      |
|   | D1301 | 1SS133-T2    | SI DIODE     | AHB           |      |
|   | D1302 | MTZJ5.1A-T2  | ZENER DIODE  | AHB           |      |
|   | D1303 | 1SS133-T2    | SI DIODE     | AHB           |      |
|   | D1304 | 1SS133-T2    | SI DIODE     | HP.MUTE       |      |
|   | D1305 | 1SS133-T2    | SI DIODE     | S.MUTE        |      |
|   | D1801 | DSK10C-T1    | DIODE        | M.DRIV        |      |
|   | D1903 | 1SS133-T2    | SI DIODE     | SW10          |      |
|   | D1904 | MTZJ5.6C-T2  | ZENER DIODE  | SW10          |      |
|   | D1905 | MTZJ10A-T2   | ZENER DIODE  | SW10          |      |
|   | D1906 | MTZJ11A-T2   | Z.DIODE I.M  | L.FIL         |      |
|   | D1907 | 1SS133-T2    | SI DIODE     | L.FIL         |      |
|   | D1908 | 1SS133-T2    | SI DIODE     | CD6.5         |      |
|   | D1909 | MTZJ6.8B-T2  | NER DIODE    | CD6.5         |      |
|   | D1910 | 6A10E2       | SI DIODE     | LV            |      |
|   | D1911 | MTZJ6.8A-T2  | ZENER DIODE  | BL8           |      |
|   | D1912 | MTZJ10A-T2   | ZENER DIODE  | BL8           |      |
|   | D1913 | MTZJ6.8B-T2  | NER DIODE    | US5V          |      |
|   | D1914 | MTZJ3.9B-T2  | Z DIODE IM   | TU5           |      |
|   | D1915 | 1SS133-T2    | SI DIODE     | TU5           |      |
|   | D1916 | 1SS133-T2    | SI DIODE     | TU5           |      |
|   | D1917 | 1SS133-T2    | SI DIODE     | RY            |      |
|   | D3302 | 1SS133-T2    | SI DIODE     | AHB NF        |      |
|   | D3303 | 1SS133-T2    | SI DIODE     | AHB NF        |      |
|   | D8001 | SPR-39MVWF   | LED          | POWER/STANDBY |      |
|   | D8002 | 1SS133-T2    | SI DIODE     |               |      |
|   | D8021 | TLYH156P/ST/ | LED          | FS-SD9        |      |
|   | D8021 | SELU1E50CM   | LED          | FS-SD5/SD7    |      |
|   | D8022 | SELU1E50CM   | LED          | FS-SD5/SD7    |      |
|   | D8022 | TLYH156P/ST/ | LED          | FS-SD9        |      |
|   | D8025 | MTZJ10C-T2   | ZENER DIODE  | FS-SD5/SD7    |      |
|   | D8031 | TLYH156P/ST/ | LED          | FS-SD9        |      |
|   | D8031 | SELU1E56BM   | LED          | FS-SD5/SD7    |      |
|   | D8032 | SELU1E56BM   | L.E.D        | FS-SD5/SD7    |      |
|   | D8032 | TLYH156P/ST/ | LED          | FS-SD9        |      |
|   | D8035 | MA3100/M-X   | ZENER DIODE  | FS-SD5/SD7    |      |
|   | EP131 | QNZ0136-001Z | EARTH PLATE  |               |      |
|   | EP191 | QNZ0136-001Z | EARTH PLATE  | J.ONLY        |      |
|   | IC 1  | TA2057N      | IC           |               |      |

| △ | Item    | Parts number   | Parts name      | Remarks        | Area |
|---|---------|----------------|-----------------|----------------|------|
|   | IC 2    | LC72136N       | IC              |                |      |
|   | IC101   | NUM4580DD      | IC              | AHB            |      |
|   | IC102   | BA15218F-XE    | IC              | HP             |      |
|   | IC108   | TA8409F-W      | IC              | M.DRIVE        |      |
|   | △ IC191 | UPC78L05J-T    | I C             | US5            |      |
|   | IC801   | GP1U271X       | RM RECIVER      |                |      |
|   | J 1     | QNB0014-001    | ANT TERMINAL    | AM/FM ANT COAX |      |
|   | △ J1901 | QNC0052-001    | AC INLET        |                |      |
|   | J3001   | QNB0092-001    | SPK TERMINAL    |                |      |
|   | J8301   | QNS0162-001    | JACK            | HP.JACK        |      |
|   | K1801   | QQR0779-001Z   | INDUCTOR        |                |      |
|   | K8301   | QQR0601-001Z   | FERRITE BEADS   |                |      |
|   | L 1     | QQR0796-001    | COIL BLOCK      | MW RF/OSC      |      |
|   | L 4     | QQL231K-221Y   | INDUCTOR        |                |      |
|   | LF111   | QQR0590-001    | FILTER          | MPX.FILTER     |      |
|   | LF121   | QQR0590-001    | FILTER          | MPX.FILTER     |      |
|   | L1801   | QQL25CK-221Z   | INDUCTOR        | M.DRIVER       |      |
|   | L8101   | QQL231K-470Y   | INDUCTOR        |                |      |
|   | L8201   | QQL231K-470Y   | INDUCTOR        |                |      |
|   | PP101   | QZW0038-001    | WIRE CLAMP      |                |      |
|   | PP102   | QZW0038-001    | WIRE CLAMP      |                |      |
|   | PP103   | QZW0038-001    | WIRE CLAMP      |                |      |
|   | PP104   | QZW0038-001    | WIRE CLAMP      |                |      |
|   | Q 1     | 2SC2668/O-T    | TRANSISTOR      |                |      |
|   | Q 6     | DTA114YKA-X    | TRANSISTOR      |                |      |
|   | Q 7     | 2SA1037AK/R/-X | TRANSISTOR      |                |      |
|   | Q 8     | 2SA1037AK/R/-X | TRANSISTOR      |                |      |
|   | Q1101   | 2SD2114K/VW/-X | CHIP TR.C.M     | AHB            |      |
|   | Q1102   | 2SC2412K/R/-X  | TRANSISTOR      | HP.MUTE        |      |
|   | Q1201   | 2SD2114K/VW/-X | CHIP TR.C.M     | AHB            |      |
|   | Q1202   | 2SC2412K/R/-X  | TRANSISTOR      | HP.MUTE        |      |
|   | Q1301   | DTA123EKA-X    | DIGITAL.TR      | S.MUTE.D       |      |
|   | Q1302   | DTA123EKA-X    | DIGITAL.TR      | HP.MUTE.D      |      |
|   | Q1801   | 2SC2412K/R/-X  | TRANSISTOR      | M.DRIV         |      |
|   | △ Q1901 | 2SA1359/OY/    | TRANSISTOR      | SW10           |      |
|   | Q1902   | 2SC2412K/R/-X  | TRANSISTOR      | SW10           |      |
|   | Q1903   | 2SC2412K/R/-X  | TRANSISTOR      | SW10           |      |
|   | Q1904   | 2SA1037AK/R/-X | TRANSISTOR      | SW10           |      |
|   | Q1905   | DTA144TKA-X    | TRANSISTOR      | SW10           |      |
|   | Q1906   | DTC144TKA-X    | TRANSISTOR      | SW10           |      |
|   | Q1907   | 2SD2144S/VW/-T | TRANSISTOR      | L.FIL          |      |
|   | Q1909   | 2SC2412K/R/-X  | TRANSISTOR      | CD6.5          |      |
|   | Q1910   | 2SC2412K/R/-X  | TRANSISTOR      | CD6.5          |      |
|   | △ Q1912 | 2SA1175/FE-T   | TRANSISTOR      | BL7            |      |
|   | Q1913   | 2SC2412K/R/-X  | TRANSISTOR      | BL7            |      |
|   | Q1914   | 2SA1037AK/R/-X | TRANSISTOR      | TU5            |      |
|   | Q1915   | 2SC2412K/R/-X  | TRANSISTOR      | TU5            |      |
|   | Q3101   | 2SD2114K/VW/-X | CHIP TR.C.M     | S.MUTE         |      |
|   | Q3201   | 2SD2114K/VW/-X | CHIP TR.C.M     | S.MUTE         |      |
|   | Q3301   | DTA143TKA-X    | TRANSISTOR      | S.MUTE BUFF    |      |
|   | Q8001   | DTC114TKA-X    | TRANSISTOR      |                |      |
|   | Q8002   | DTC114EKA-X    | TR              |                |      |
|   | Q8003   | DTA114EKA-X    | DIGITAL.TRANSIS |                |      |
|   | Q8101   | 2SD2114K/VW/-X | CHIP TR.C.M     |                |      |
|   | Q8201   | 2SD2114K/VW/-X | CHIP TR.C.M     |                |      |
|   | R 1     | NRSA02J-102X   | MG RESISTOR     |                |      |
|   | R 2     | NRSA02J-820X   | MG RESISTOR     |                |      |
|   | R 12    | NRSA02J-102X   | MG RESISTOR     |                |      |
|   | R 13    | NRSA02J-104X   | MG RESISTOR     |                |      |
|   | R 20    | NRSA02J-331X   | MG RESISTOR     |                |      |
|   | R 21    | NRSA02J-224X   | MG RESISTOR     |                |      |
|   | R 22    | NRSA02J-331X   | MG RESISTOR     |                |      |
|   | R 23    | NRSA02J-270X   | MG RESISTOR     |                |      |
|   | R 24    | NRSA02J-271X   | MG RESISTOR     |                |      |
|   | R 25    | NRSA02J-473X   | MG RESISTOR     |                |      |
|   | R 27    | NRSA02J-223X   | MG RESISTOR     |                |      |
|   | R 29    | NRSA02J-473X   | MG RESISTOR     |                |      |
|   | R 30    | NRSA02J-103X   | MG RESISTOR     |                |      |



■ Electrical parts list (Main board)

Block No.01

| △ | Item  | Parts number | Parts name   | Remarks    | Area | △ | Item    | Parts number | Parts name      | Remarks    | Area |
|---|-------|--------------|--------------|------------|------|---|---------|--------------|-----------------|------------|------|
|   | R 31  | NRSA02J-103X | MG RESISTOR  |            |      |   | R1305   | NRSA02J-124X | MG RESISTOR     | AHB        |      |
|   | R 32  | NRSA02J-473X | MG RESISTOR  |            |      |   | R1306   | NRSA02J-563X | MG RESISTOR     | FS-SD7/SD9 |      |
|   | R 34  | NRSA02J-333X | MG RESISTOR  |            |      |   | R1306   | NRSA02J-513X | MG RESISTOR     | FS-SD5     |      |
|   | R 35  | NRSA02J-333X | MG RESISTOR  |            |      |   | R1307   | NRSA02J-912X | MG RESISTOR     | HP         |      |
|   | R 36  | NRSA02J-103X | MG RESISTOR  |            |      |   | R1308   | NRSA02J-103X | MG RESISTOR     | HP         |      |
|   | R 37  | NRSA02J-472X | MG RESISTOR  |            |      |   | R1309   | NRSA02J-100X | MG RESISTOR     | HP         |      |
|   | R 38  | NRSA02J-392X | MG RESISTOR  |            |      |   | R1310   | NRSA02J-102X | MG RESISTOR     | HP.MUTE.D  |      |
|   | R 39  | NRSA02J-392X | MG RESISTOR  |            |      |   | R1311   | NRSA02J-102X | MG RESISTOR     | S.MUTE.D   |      |
|   | R 42  | NRSA02J-102X | MG RESISTOR  |            |      |   | R1312   | NRSA02J-471X | MG RESISTOR     |            |      |
|   | R 43  | NRSA02J-102X | MG RESISTOR  |            |      |   | R1313   | NRSA02J-471X | MG RESISTOR     |            |      |
|   | R 44  | NRSA02J-102X | MG RESISTOR  |            |      |   | R1801   | NRSA02J-471X | MG RESISTOR     | M.DRIVER   |      |
|   | R 45  | NRSA02J-102X | MG RESISTOR  |            |      |   | R1802   | NRSA02J-153X | MG RESISTOR     | M.DRIVER   |      |
|   | R 46  | NRSA02J-473X | MG RESISTOR  |            |      |   | R1803   | NRSA02J-473X | MG RESISTOR     | M.DRIVER   |      |
|   | R 48  | NRSA02J-102X | MG RESISTOR  |            |      |   | R1804   | NRSA02J-100X | MG RESISTOR     | M.DRIVER   |      |
|   | R 52  | NRSA02J-472X | MG RESISTOR  |            |      |   | R1805   | NRSA02J-100X | MG RESISTOR     | M.DRIVER   |      |
|   | R 54  | NRSA02J-472X | MG RESISTOR  |            |      |   | R1806   | NRSA02J-183X | MG RESISTOR     | M.DRIVER   |      |
|   | R 55  | NRSA02J-182X | MG RESISTOR  |            |      |   | R1807   | NRSA02J-471X | MG RESISTOR     |            |      |
|   | R 56  | NRSA02J-332X | MG RESISTOR  |            |      |   | R1808   | NRSA02J-471X | MG RESISTOR     |            |      |
|   | R 57  | NRSA02J-102X | MG RESISTOR  |            |      |   | △ R1901 | QRZ9037-335  | COMP RESISTOR   | J.ONLY     |      |
|   | R 66  | NRSA02J-222X | MG RESISTOR  |            |      |   | △ R1902 | NRSA02J-1R0X | MG RESISTOR     | SW10       |      |
|   | R 68  | NRSA02J-223X | MG RESISTOR  |            |      |   | △ R1903 | NRSA02J-1R0X | MG RESISTOR     | SW10       |      |
|   | R 69  | NRSA02J-222X | MG RESISTOR  |            |      |   | △ R1904 | NRSA02J-1R0X | MG RESISTOR     | SW10       |      |
| △ | RY191 | QSK0116-001  | RELAY        | VH         |      |   | R1905   | NRSA02J-151X | MG RESISTOR     | SW10       |      |
|   | R1101 | NRSA02J-122X | MG RESISTOR  | TU         |      |   | R1906   | NRSA02J-102X | MG RESISTOR     | SW10       |      |
|   | R1102 | NRSA02J-562X | MG RESISTOR  | TU         |      |   | △ R1907 | NRSA02J-102X | MG RESISTOR     | SW10       |      |
|   | R1103 | NRSA02J-103X | MG RESISTOR  | AHB        |      |   | △ R1908 | NRSA02J-102X | MG RESISTOR     | SW10       |      |
|   | R1104 | NRSA02J-332X | MG RESISTOR  | LPF        |      |   | △ R1909 | NRSA02J-102X | MG RESISTOR     | SW10       |      |
|   | R1105 | NRSA02J-392X | MG RESISTOR  | FS-SD5     |      |   | R1910   | NRSA02J-472X | MG RESISTOR     | SW10       |      |
|   | R1105 | NRSA02J-272X | MG RESISTOR  | FS-SD7/SD9 |      |   | R1911   | NRSA02J-471X | MG RESISTOR     | SW10       |      |
|   | R1106 | NRSA02J-392X | MG RESISTOR  | FS-SD7/SD9 |      |   | R1912   | NRSA02J-561X | MG RESISTOR     | SW10       |      |
|   | R1106 | NRSA02J-152X | M.G.RESISTOR | FS-SD5     |      |   | R1913   | NRSA02J-272X | MG RESISTOR     | SW10       |      |
|   | R1107 | NRSA02J-153X | MG RESISTOR  | AHB        |      |   | R1914   | NRSA02J-471X | MG RESISTOR     | SW10       |      |
|   | R1108 | NRSA02J-432X | MG RESISTOR  | FS-SD7/SD9 |      |   | R1915   | NRSA02J-822X | MG RESISTOR     | SW10       |      |
|   | R1108 | NRSA02J-302X | MG RESISTOR  | FS-SD5     |      |   | R1916   | NRSA02J-102X | MG RESISTOR     | SW10       |      |
|   | R1109 | NRSA02J-153X | MG RESISTOR  | AHB        |      |   | R1917   | NRSA02J-122X | MG RESISTOR     | SW10       |      |
|   | R1110 | NRSA02J-224X | MG RESISTOR  | FS-SD7/SD9 |      |   | R1918   | NRSA02J-153X | MG RESISTOR     | SW10       |      |
|   | R1110 | NRSA02J-184X | MG RESISTOR  | FS-SD5     |      |   | R1919   | NRSA02J-512X | MG RESISTOR     | SW10       |      |
|   | R1111 | NRSA02J-103X | MG RESISTOR  | AHB        |      |   | R1920   | NRSA02J-102X | MG RESISTOR     | R.FIL      |      |
|   | R1112 | NRSA02J-332X | MG RESISTOR  | HP         |      |   | △ R1921 | QRZ9006-4R7X | F RESISTOR      | BL7        |      |
|   | R1113 | NRSA02J-563X | MG RESISTOR  | HP         |      |   | △ R1922 | QRZ9006-4R7X | F RESISTOR      | USSV       |      |
|   | R1114 | NRSA02J-102X | MG RESISTOR  | HP         |      |   | △ R1923 | QRZ9006-4R7X | F RESISTOR      | TO.MICOM+B |      |
|   | R1115 | NRSA02J-561X | MG RESISTOR  | HP         |      |   | R1924   | NRSA02J-103X | MG RESISTOR     | CD6.5      |      |
|   | R1116 | NRSA02J-222X | MG RESISTOR  | HP.MUTE    |      |   | R1925   | NRSA02J-561X | MG RESISTOR     | BL7        |      |
|   | R1201 | NRSA02J-122X | MG RESISTOR  | TU         |      |   | R1926   | NRSA02J-123X | MG RESISTOR     | BL7        |      |
|   | R1202 | NRSA02J-562X | MG RESISTOR  | TU         |      |   | R1927   | NRSA02J-103X | MG RESISTOR     | BL7        |      |
|   | R1203 | NRSA02J-103X | MG RESISTOR  | AHB        |      |   | R1928   | NRSA02J-122X | MG RESISTOR     | TU5        |      |
|   | R1204 | NRSA02J-332X | MG RESISTOR  | LPF        |      |   | R1929   | NRSA02J-273X | MG RESISTOR     | TU5        |      |
|   | R1205 | NRSA02J-272X | MG RESISTOR  | FS-SD7/SD9 |      |   | R1930   | NRSA02J-102X | MG RESISTOR     | TU5        |      |
|   | R1205 | NRSA02J-392X | MG RESISTOR  | FS-SD5     |      |   | R1931   | NRSA02J-390X | MG RESISTOR     | TU5        |      |
|   | R1206 | NRSA02J-392X | MG RESISTOR  | FS-SD7/SD9 |      |   | △ R1932 | NRSA02J-331X | MG RESISTOR     | CD6.5      |      |
|   | R1206 | NRSA02J-152X | M.G.RESISTOR | FS-SD5     |      |   | R1933   | NRSA02J-681X | MG RESISTOR     | CD6.5      |      |
|   | R1207 | NRSA02J-153X | MG RESISTOR  | AHB        |      |   | R1934   | NRSA02J-152X | MG RESISTOR     | CD6.5      |      |
|   | R1208 | NRSA02J-302X | MG RESISTOR  | FS-SD5     |      |   | R1935   | NRSA02J-272X | MG RESISTOR     | CD6.5      |      |
|   | R1208 | NRSA02J-432X | MG RESISTOR  | FS-SD7/SD9 |      |   | R1936   | NRSA02J-151X | MG RESISTOR     | CD6.5      |      |
|   | R1209 | NRSA02J-153X | MG RESISTOR  | AHB        |      |   | R1937   | NRSA02J-562X | MG RESISTOR     | CD REG     |      |
|   | R1210 | NRSA02J-224X | MG RESISTOR  | FS-SD7/SD9 |      |   | △ R1938 | NRSA02J-102X | MG RESISTOR     | SW10       |      |
|   | R1210 | NRSA02J-184X | MG RESISTOR  | FS-SD5     |      |   | R3101   | QRE141J-562  | CARBON RESISTOR | FS-SD5     |      |
|   | R1211 | NRSA02J-103X | MG RESISTOR  | AHB        |      |   | R3101   | QRE141J-432Y | C RESISTOR      | FS-SD7/SD9 |      |
|   | R1212 | NRSA02J-332X | MG RESISTOR  | HP         |      |   | R3102   | QRE141J-682Y | C RESISTOR      | FS-SD5     |      |
|   | R1213 | NRSA02J-563X | MG RESISTOR  | HP         |      |   | R3102   | QRE141J-103Y | C RESISTOR      | FS-SD7/SD9 |      |
|   | R1214 | NRSA02J-102X | MG RESISTOR  | HP         |      |   | R3103   | QRE141J-2R2Y | C RESISTOR      | OUT        |      |
|   | R1215 | NRSA02J-561X | MG RESISTOR  | HP         |      |   | R3104   | QRE141J-2R2Y | C RESISTOR      | OUT        |      |
|   | R1216 | NRSA02J-222X | MG RESISTOR  | HP.MUTE    |      |   | R3105   | NRSA02J-223X | MG RESISTOR     | AHB NF     |      |
|   | R1301 | NRSA02J-513X | MG RESISTOR  | AHB        |      |   | R3106   | NRSA02J-223X | MG RESISTOR     | AHB NF     |      |
|   | R1302 | NRSA02J-471X | MG RESISTOR  | AHB        |      |   | R3107   | QRE141J-222Y | C RESISTOR      | S.MUTE     |      |
|   | R1303 | NRSA02J-102X | MG RESISTOR  | AHB        |      |   | R3201   | QRE141J-562  | CARBON RESISTOR | FS-SD5     |      |
|   | R1304 | NRSA02J-224X | MG RESISTOR  | FS-SD7/SD9 |      |   | R3201   | QRE141J-432Y | C RESISTOR      | FS-SD7/SD9 |      |
|   | R1304 | NRSA02J-154X | MG RESISTOR  | FS-SD5     |      |   | R3202   | QRE141J-682Y | C RESISTOR      | FS-SD5     |      |

FS-SD5/FS-SD7/FS-SD9

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| △ | Item  | Parts number | Parts name  | Remarks      | Area |
|---|-------|--------------|-------------|--------------|------|
|   | R3202 | QRE141J-103Y | C RESISTOR  | FS-SD7/SD9   |      |
|   | R3203 | QRE141J-2R2Y | C RESISTOR  | OUT          |      |
|   | R3204 | QRE141J-2R2Y | C RESISTOR  | OUT          |      |
|   | R3205 | NRSA02J-223X | MG RESISTOR | AHB NF       |      |
|   | R3206 | NRSA02J-223X | MG RESISTOR | AHB NF       |      |
|   | R3207 | QRE141J-222Y | C RESISTOR  | S.MUTE       |      |
|   | R3301 | QRE141J-4R7Y | C RESISTOR  | 4.7 5% 1/4W  |      |
|   | R3302 | QRE141J-4R7Y | C RESISTOR  | 4.7 5% 1/4W  |      |
|   | R3303 | QRE141J-103Y | C RESISTOR  | ST.BY        |      |
|   | R3304 | NRSA02J-682X | MG RESISTOR | AHB NF       |      |
|   | R3305 | NRSA02J-682X | MG RESISTOR | AHB NF       |      |
|   | R8001 | NRSA02J-102X | MG RESISTOR |              |      |
|   | R8002 | NRSA02J-123X | MG RESISTOR |              |      |
|   | R8003 | NRSA02J-331X | MG RESISTOR |              |      |
|   | R8004 | NRSA02J-331X | MG RESISTOR |              |      |
|   | R8005 | NRSA02J-561X | MG RESISTOR |              |      |
|   | R8007 | NRSA02J-432X | MG RESISTOR |              |      |
|   | R8010 | QRE141J-104Y | C RESISTOR  | 100K 5% 1/4W |      |
|   | R8021 | NRSA02J-101X | MG RESISTOR | FS-SD5/SD7   |      |
|   | R8021 | NRSA02J-391X | MG RESISTOR | FS-SD9       |      |
|   | R8022 | NRSA02J-391X | MG RESISTOR | FS-SD9       |      |
|   | R8022 | NRSA02J-101X | MG RESISTOR | FS-SD5/SD7   |      |
|   | R8031 | NRSA02J-431X | MG RESISTOR | FS-SD5/SD7   |      |
|   | R8031 | NRSA02J-561X | MG RESISTOR | FS-SD9       |      |
|   | R8032 | NRSA02J-561X | MG RESISTOR | FS-SD9       |      |
|   | R8032 | NRSA02J-431X | MG RESISTOR | FS-SD5/SD7   |      |
|   | R8051 | NRSA02J-101X | MG RESISTOR |              |      |
|   | R8052 | NRSA02J-272X | MG RESISTOR |              |      |
|   | R8053 | NRSA02J-332X | MG RESISTOR |              |      |
|   | R8054 | NRSA02J-562X | MG RESISTOR |              |      |
|   | R8055 | NRSA02J-123X | MG RESISTOR |              |      |
|   | R8056 | NRSA02J-393X | MG RESISTOR |              |      |
|   | R8057 | NRSA02J-101X | MG RESISTOR |              |      |
|   | R8058 | NRSA02J-272X | MG RESISTOR |              |      |
|   | R8059 | NRSA02J-332X | MG RESISTOR |              |      |
|   | R8060 | NRSA02J-562X | MG RESISTOR |              |      |
|   | R8061 | NRSA02J-123X | MG RESISTOR |              |      |
|   | R8062 | NRSA02J-393X | MG RESISTOR |              |      |
|   | R8101 | NRSA02J-220X | MG RESISTOR |              |      |
|   | R8102 | NRSA02J-222X | MG RESISTOR |              |      |
|   | R8103 | NRSA02J-272X | MG RESISTOR |              |      |
|   | R8201 | NRSA02J-220X | MG RESISTOR |              |      |
|   | R8202 | NRSA02J-222X | MG RESISTOR |              |      |
|   | R8203 | NRSA02J-272X | MG RESISTOR |              |      |
|   | R8301 | NRSA02J-222X | MG RESISTOR |              |      |
|   | R8302 | NRSA02J-222X | MG RESISTOR |              |      |
|   | S8001 | QSW0683-001Z | PUSH SWITCH | OP/CL        |      |
|   | S8002 | QSW0683-001Z | PUSH SWITCH | POWER        |      |
|   | S8003 | QSW0683-001Z | PUSH SWITCH | VOL+         |      |
|   | S8004 | QSW0683-001Z | PUSH SWITCH | VOL-         |      |
|   | S8005 | QSW0683-001Z | PUSH SWITCH | TIMER        |      |
|   | S8006 | QSW0683-001Z | PUSH SWITCH | CLOCK        |      |
|   | S8007 | QSW0683-001Z | PUSH SWITCH | UP           |      |
|   | S8008 | QSW0683-001Z | PUSH SWITCH | CD           |      |
|   | S8009 | QSW0683-001Z | PUSH SWITCH | STOP         |      |
|   | S8010 | QSW0683-001Z | PUSH SWITCH | DOWN         |      |
|   | S8011 | QSW0683-001Z | PUSH SWITCH | AHB          |      |
|   | S8012 | QSW0683-001Z | PUSH SWITCH | PRESET TU    |      |
|   | S8013 | QSW0683-001Z | PUSH SWITCH | TUNER        |      |
|   | S8014 | QSW0683-001Z | PUSH SWITCH | AUX          |      |
|   | T 1   | QQR0793-001  | IFT         |              |      |
|   | TU 1  | QAU0097-001  | FRONT END   | FM TU        |      |
|   | X 1   | QAX0402-001  | CRYSTAL     |              |      |
| △ | Z1901 | QNG0020-001Z | FUSE CLIP   | FOR F1901    |      |
| △ | Z1902 | QNG0020-001Z | FUSE CLIP   | FOR F1901    |      |
| △ | Z1903 | QNG0020-001Z | FUSE CLIP   | FOR F1902    |      |
| △ | Z1904 | QNG0020-001Z | FUSE CLIP   | FOR F1902    |      |
| △ | Z1905 | QNG0020-001Z | FUSE CLIP   | FOR F1903    |      |

■ Electrical parts list (CD board)

Block No.02

| ▲ | Item  | Parts number  | Parts name      | Remarks        | Area | ▲ | Item  | Parts number    | Parts name    | Remarks       | Area |
|---|-------|---------------|-----------------|----------------|------|---|-------|-----------------|---------------|---------------|------|
|   | CN501 | QGF1201F3-08  | CONNECTOR       | TO MAIN        |      |   | C6053 | NCB21HK-223X    | C CAPACITOR   |               |      |
|   | CN502 | QGA2001C1-04  | 4P PLUG ASSY    | TO TOPKEY      |      |   | C6055 | NCB21EK-473X    | C CAPACITOR   |               |      |
|   | CN603 | QGF1008F1-16  | 16PIN CONNECTOR |                |      |   | C6058 | NCS21HJ-6R0X    | C CAPACITOR   |               |      |
|   | CN605 | QGA2001C1-06  | 6P PLUG ASSY    |                |      |   | C6061 | NCS21HJ-471X    | C CAPACITOR   |               |      |
|   | CN701 | QGF1201F3-09  | CONNECTOR       | TO AMP/TUNER   |      |   | C6062 | NCB21HK-223X    | C CAPACITOR   |               |      |
|   | CN702 | QGF1201F3-18  | CONNECTOR       | TO AMP/TUNER   |      |   | C6063 | NCB21HK-223X    | C CAPACITOR   |               |      |
|   | CN703 | QGA2001F1-11  | 11P CN RIG      | TO FUNCTION    |      |   | C6064 | NCB21HK-223X    | C CAPACITOR   |               |      |
|   | CN704 | QGB1216J1-14S | CONNECTOR       | TO LCD         |      |   | C6065 | NCB21CK-334X    | C CAPACITOR   |               |      |
|   | CN705 | QGA2001F1-03  | CONNECTOR       | TO CD DOOR DT1 |      |   | C6071 | NCB21HK-222X    | C CAPACITOR   |               |      |
|   | CN706 | QGA2001F1-02  | 2P CONNECTOR    | TO DISC LED    |      |   | C6072 | NCB21HK-222X    | C CAPACITOR   |               |      |
|   | CN708 | QGA2001F1-02  | 2P CONNECTOR    |                |      |   | C6073 | QEKC1AM-227Z    | E.CAPA 1.M    | 220MF 20% 10V |      |
|   | CN804 | QGA2001F1-02  | 2P CONNECTOR    |                |      |   | C6075 | NCB21HK-102X    | C CAPACITOR   |               |      |
|   | C5101 | QETN1HM-475Z  | E CAPACITOR     | LINE IN        |      |   | C6076 | NCB21HK-102X    | C CAPACITOR   |               |      |
|   | C5102 | QETN1HM-475Z  | E CAPACITOR     | TU IN          |      |   | C6083 | NCB21HK-223X    | C CAPACITOR   |               |      |
|   | C5103 | QTE1H06-475Z  | E CAPACITOR     | CD IN          |      |   | C6089 | NCB21HK-472X    | C CAPACITOR   |               |      |
|   | C5104 | QTE1V06-106Z  | E CAPACITOR     | FUC.OUT        |      |   | C6090 | NCB21HK-153X    | C CAPACITOR   |               |      |
|   | C5105 | QETN1CM-106Z  | E CAPACITOR     | LINE OUT       |      |   | C6091 | QENC1HM-105Z    | NP E.CAPA 1.M | 1.0MF 20% 50V |      |
|   | C5107 | QTE1C06-226Z  | E CAPACITOR     | VOL OUT        |      |   | C6092 | QENC1HM-225Z    | NP E.CAPA 1.M | 2.2MF 20% 50V |      |
|   | C5108 | QFN31HJ-332Z  | M CAPACITOR     | TRE.           |      |   | C6094 | NCB21EK-104X    | C CAPACITOR   |               |      |
|   | C5109 | QFVJ1HJ-154Z  | TF CAPACITOR    | BASS           |      |   | C6096 | NCS21HJ-391X    | C CAPACITOR   |               |      |
|   | C5110 | QFVJ1HJ-154Z  | TF CAPACITOR    | BASS           |      |   | C6097 | NCS21HJ-391X    | C CAPACITOR   |               |      |
|   | C5111 | NCS21HJ-151X  | C CAPACITOR     | LINE IN        |      |   | C6098 | NCS21HJ-391X    | C CAPACITOR   |               |      |
|   | C5112 | NCB21HK-102X  | C CAPACITOR     | LINE OUT       |      |   | C6099 | NCS21HJ-391X    | C CAPACITOR   |               |      |
|   | C5201 | QETN1HM-475Z  | E CAPACITOR     | LINE IN        |      |   | C6154 | NCS21HJ-101X    | C CAPACITOR   |               |      |
|   | C5202 | QETN1HM-475Z  | E CAPACITOR     | TU IN          |      |   | C6156 | NCS21HJ-151X    | C CAPACITOR   |               |      |
|   | C5203 | QTE1H06-475Z  | E CAPACITOR     | CD IN          |      |   | C6157 | NCS21HJ-151X    | C CAPACITOR   |               |      |
|   | C5204 | QTE1V06-106Z  | E CAPACITOR     | FUC.OUT        |      |   | C6158 | NCS21HJ-151X    | C CAPACITOR   |               |      |
|   | C5205 | QETN1CM-106Z  | E CAPACITOR     | LINE OUT       |      |   | C6159 | NCB21EK-104X    | C CAPACITOR   |               |      |
|   | C5207 | QTE1C06-226Z  | E CAPACITOR     | VOL OUT        |      |   | C7001 | NCS21HJ-180X    | C CAPACITOR   |               |      |
|   | C5208 | QFN31HJ-332Z  | M CAPACITOR     | TRE.           |      |   | C7002 | NCS21HJ-180X    | C CAPACITOR   |               |      |
|   | C5209 | QFVJ1HJ-154Z  | TF CAPACITOR    | BASS           |      |   | C7003 | NCS21HJ-390X    | C CAPACITOR   |               |      |
|   | C5210 | QFVJ1HJ-154Z  | TF CAPACITOR    | BASS           |      |   | C7004 | NCS21HJ-360X    | C CAPACITOR   |               |      |
|   | C5211 | NCS21HJ-151X  | C CAPACITOR     | LINE IN        |      |   | C7005 | NCS21HJ-220X    | C CAPACITOR   |               |      |
|   | C5212 | NCB21HK-102X  | C CAPACITOR     | LINE OUT       |      |   | C7006 | NCS21HJ-200X    | C CAPACITOR   |               |      |
|   | C5301 | QETN1CM-107Z  | E CAPACITOR     | VCC            |      |   | C7007 | NCB21HK-102X    | C CAPACITOR   |               |      |
|   | C5302 | QTE1V06-476Z  | E CAPACITOR     | 1/2VCC         |      |   | C7008 | NCB21HK-102X    | C CAPACITOR   |               |      |
|   | C5303 | QETN1HM-105Z  | E CAPACITOR     | L/O MUTE.D     |      |   | C7009 | NCB21HK-103X    | C CAPACITOR   |               |      |
|   | C5304 | NCB21HK-102X  | C CAPACITOR     | S.W.OUT        |      |   | C7010 | QEKC1AM-107Z    | E.CAPACITOR   | 100MF 20% 10V |      |
|   | C5307 | NCB21HK-103X  | C CAPACITOR     |                |      |   | C7011 | NCF21HZ-104X    | C CAPACITOR   |               |      |
|   | C5308 | NCB21HK-103X  | C CAPACITOR     |                |      |   | C7012 | QEZ0229-479Z    | EDL.CAPACITOR | 47000MF       |      |
|   | C5309 | NCB21HK-103X  | C CAPACITOR     |                |      |   | C7013 | QEKC1CM-107Z    | E.CAPACITOR   | 100MF 20% 16V |      |
|   | C6001 | QEKC0JM-107Z  | E.CAPA 1.M      | 100MF 20% 6.3V |      |   | C7014 | QFN31HJ-104Z    | M CAPACITOR   | .10MF 5% 50V  |      |
|   | C6002 | QEK41CM-106   | E.CAPA 1.M      | 10MF 20% 16V   |      |   | C7016 | NCS21HJ-101X    | C CAPACITOR   |               |      |
|   | C6003 | NDC21HJ-3R5X  | C CAPACITOR     | x-f-.TDK       |      |   | C7018 | NCB21HK-103X    | C CAPACITOR   |               |      |
|   | C6005 | NCS21HJ-331X  | C CAPACITOR     |                |      |   | C7019 | QEKC1HM-225Z    | E.CAPA 1.M    | 2.2MF 20% 50V |      |
|   | C6007 | NCB21HK-222X  | C CAPACITOR     |                |      |   | C7020 | QEKC1HM-475Z    | E.CAPACITOR   | 4.7MF 20% 50V |      |
|   | C6008 | QEKC1HM-105Z  | E.CAPACITOR     | 1.0MF 20% 50V  |      |   | C7022 | NCB21HK-103X    | C CAPACITOR   |               |      |
|   | C6009 | NCS21HJ-101X  | C CAPACITOR     |                |      |   | C7023 | QEK41CM-106     | E.CAPA 1.M    | 10MF 20% 16V  |      |
|   | C6010 | NCB21HK-273X  | C CAPACITOR     |                |      |   | D6031 | MTZJ5.6C-T2     | ZENER DIODE   |               |      |
|   | C6011 | NCB21HK-222X  | C CAPACITOR     |                |      |   | D6033 | 1SR35-100A-T5   | SI DIODE      |               |      |
|   | C6012 | NCB21HK-103X  | C CAPACITOR     |                |      |   | D6061 | 1SS355-X        | DIODE         |               |      |
|   | C6014 | NCB21EK-104X  | C CAPACITOR     |                |      |   | D7001 | 1SS133-T2       | SI DIODE      |               |      |
|   | C6015 | NCB21HK-223X  | C CAPACITOR     |                |      |   | D7002 | 1SS133-T2       | SI DIODE      |               |      |
|   | C6016 | NCB21HK-223X  | C CAPACITOR     |                |      |   | D7003 | 1SS133-T2       | SI DIODE      |               |      |
|   | C6017 | NCB21HK-223X  | C CAPACITOR     |                |      |   | D7004 | 1SS133-T2       | SI DIODE      |               |      |
|   | C6018 | NCB21HK-222X  | C CAPACITOR     |                |      |   | D7005 | 1SS133-T2       | SI DIODE      |               |      |
|   | C6019 | NCS21HJ-271X  | C CAPACITOR     |                |      |   | D7006 | 1SS133-T2       | SI DIODE      |               |      |
|   | C6020 | NCS21HJ-181X  | C CAPACITOR     |                |      |   | D7007 | MTZJ5.1C-T2     | ZENER DIODE   |               |      |
|   | C6021 | NCS21HJ-821X  | C CAPACITOR     |                |      |   | D7008 | 1SS133-T2       | SI DIODE      |               |      |
|   | C6022 | QEKC0JM-476Z  | E.CAPACITOR     | 47MF 20% 6.3V  |      |   | D7009 | MTZJ8.2B-T2     | DIODE         |               |      |
|   | C6023 | NCB21EK-104X  | C CAPACITOR     |                |      |   | D7010 | 1SS355-X        | DIODE         |               |      |
|   | C6028 | NCB21EK-473X  | C CAPACITOR     |                |      |   | IC501 | BD3861FS-X      | IC            | FUNC/VOL      |      |
|   | C6029 | QEKC0JM-107Z  | E.CAPA 1.M      | 100MF 20% 6.3V |      |   | IC601 | AN8806SB-W      | IC            |               |      |
|   | C6031 | QEKC1AM-227Z  | E.CAPA 1.M      | 220MF 20% 10V  |      |   | IC602 | LA6541-X        | IC            |               |      |
|   | C6032 | QEKC0JM-107Z  | E.CAPA 1.M      | 100MF 20% 6.3V |      |   | IC603 | MN35510         | IC            |               |      |
|   | C6033 | QEK41CM-106   | E.CAPA 1.M      | 10MF 20% 16V   |      |   | IC701 | UPD780024AGKA11 | IC(MCU)       |               |      |
|   | C6051 | NDC21HJ-120X  | C CAPACITOR     |                |      |   | IC702 | KIA78S06P-T     | IC            |               |      |
|   | C6052 | NDC21HJ-150X  | C CAPACITOR     |                |      |   | J5301 | QNS0047-001     | JACK          | LINE IN       |      |

FS-SD5/FS-SD7/FS-SD9

■ Electrical parts list (CD board)

Block No.02

| △ | Item  | Parts number   | Parts name      | Remarks    | Area |
|---|-------|----------------|-----------------|------------|------|
|   | J5302 | QNS0047-001    | JACK            | LINE OUT   |      |
|   | J5303 | QNN0198-001    | 1PIN PINJ BLACK | S.W. OUT   |      |
|   | J6001 | GP1F32T        | OPTICAL JACK    |            |      |
|   | K5302 | QQR0779-001Z   | INDUCTOR        | DG         |      |
|   | K6051 | QQR0601-001Z   | FERRITE BEADS   |            |      |
|   | K7001 | QQR0601-001Z   | FERRITE BEADS   |            |      |
|   | L7001 | QQL01BK-100Z   | INDUCTOR        |            |      |
|   | L7002 | QQL01BK-100Z   | INDUCTOR        |            |      |
|   | PP501 | QZW0038-001    | WIRE CLAMP      |            |      |
|   | Q5101 | 2SD2114K/VW/-X | CHIP TR.C.M     | L/O MUTE   |      |
|   | Q5201 | 2SD2114K/VW/-X | CHIP TR.C.M     | L/O MUTE   |      |
|   | Q5301 | DTA114EKA-X    | DIGITAL.TRANSIS | L/O MUTE.D |      |
|   | Q5302 | 2SD2114K/VW/-X | CHIP TR.C.M     | S.W.MUTE   |      |
|   | Q6001 | 2SA1037AK/R/-X | TRANSISTOR      |            |      |
|   | Q6031 | 2SC2060/QR/-T  | TRANSISTOR      |            |      |
|   | Q7001 | 2SC2668/O/-T   | TRANSISTOR      |            |      |
|   | Q7002 | 2SC2668/O/-T   | TRANSISTOR      |            |      |
|   | Q7003 | DTA114TKA-X    | DIGITAL.TR      |            |      |
|   | Q7004 | 2SC2412K/R/-X  | TRANSISTOR      |            |      |
|   | Q7006 | 2SC2412K/R/-X  | TRANSISTOR      |            |      |
|   | Q7007 | DTC114EKA-X    | TR              |            |      |
|   | Q7008 | DTA114EKA-X    | DIGITAL.TRANSIS |            |      |
|   | Q7009 | 2SA1037AK/R/-X | TRANSISTOR      |            |      |
|   | Q7010 | DTC144EKA-X    | TRANSISTOR      |            |      |
|   | Q7011 | 2SA1037AK/R/-X | TRANSISTOR      |            |      |
|   | R5101 | NRSA02J-223X   | MG RESISTOR     | LINE IN    |      |
|   | R5102 | NRSA02J-683X   | MG RESISTOR     | LINE IN    |      |
|   | R5103 | NRSA02J-302X   | MG RESISTOR     | CD IN      |      |
|   | R5104 | NRSA02J-182X   | MG RESISTOR     | FUC.OUT    |      |
|   | R5105 | NRSA02J-473X   | MG RESISTOR     | LINE OUT   |      |
|   | R5106 | NRSA02J-392X   | MG RESISTOR     | LINE OUT   |      |
|   | R5107 | NRSA02J-102X   | MG RESISTOR     | LINE OUT   |      |
|   | R5108 | NRSA02J-222X   | MG RESISTOR     | L/O MUTE   |      |
|   | R5109 | NRSA02J-563X   | MG RESISTOR     | S.W.OUT    |      |
|   | R5110 | NRSA02J-332X   | MG RESISTOR     | BASS       |      |
|   | R5201 | NRSA02J-223X   | MG RESISTOR     | LINE IN    |      |
|   | R5202 | NRSA02J-683X   | MG RESISTOR     | LINE IN    |      |
|   | R5203 | NRSA02J-302X   | MG RESISTOR     | CD IN      |      |
|   | R5204 | NRSA02J-182X   | MG RESISTOR     | FUC.OUT    |      |
|   | R5205 | NRSA02J-473X   | MG RESISTOR     | LINE OUT   |      |
|   | R5206 | NRSA02J-392X   | MG RESISTOR     | LINE OUT   |      |
|   | R5207 | NRSA02J-102X   | MG RESISTOR     | LINE OUT   |      |
|   | R5208 | NRSA02J-222X   | MG RESISTOR     | L/O MUTE   |      |
|   | R5209 | NRSA02J-563X   | MG RESISTOR     | S.W.OUT    |      |
|   | R5210 | NRSA02J-332X   | MG RESISTOR     | BASS       |      |
|   | R5301 | NRSA02J-223X   | MG RESISTOR     | L/O MUTE D |      |
|   | R5302 | NRSA02J-222X   | MG RESISTOR     | S.W.MUTE   |      |
|   | R5303 | NRSA02J-473X   | MG RESISTOR     | S.W.OUT    |      |
|   | R5304 | NRSA02J-102X   | MG RESISTOR     | S.W.OUT    |      |
|   | R5305 | NRSA02J-1R5X   | MG RESISTOR     | VCC        |      |
|   | R6001 | NRSA02J-123X   | MG RESISTOR     |            |      |
|   | R6002 | NRSA02J-225X   | MG RESISTOR     |            |      |
|   | R6003 | NRSA02J-102X   | MG RESISTOR     |            |      |
|   | R6005 | NRSA02J-274X   | MG RESISTOR     |            |      |
|   | R6006 | NRSA02J-473X   | MG RESISTOR     |            |      |
|   | R6007 | NRSA02J-273X   | MG RESISTOR     |            |      |
|   | R6009 | NRSA02J-563X   | MG RESISTOR     |            |      |
|   | R6010 | NRSA02J-104X   | MG RESISTOR     |            |      |
|   | R6012 | NRSA02J-103X   | MG RESISTOR     |            |      |
|   | R6013 | NRSA02J-121X   | MG RESISTOR     |            |      |
|   | R6014 | NRSA02J-100X   | MG RESISTOR     |            |      |
|   | R6015 | NRSA02J-120X   | MG RESISTOR     |            |      |
|   | R6016 | NRSA02J-910X   | MG RESISTOR     |            |      |
|   | R6021 | NRSA02J-151X   | MG RESISTOR     |            |      |
|   | R6022 | NRSA02J-151X   | MG RESISTOR     |            |      |
|   | R6023 | NRSA02J-151X   | MG RESISTOR     |            |      |
|   | R6024 | NRSA02J-154X   | MG RESISTOR     |            |      |
|   | R6025 | NRSA02J-154X   | MG RESISTOR     |            |      |

| △ | Item  | Parts number | Parts name  | Remarks | Area |
|---|-------|--------------|-------------|---------|------|
|   | R6026 | NRSA02J-393X | MG RESISTOR |         |      |
|   | R6027 | NRSA02J-393X | MG RESISTOR |         |      |
|   | R6028 | NRSA02J-393X | MG RESISTOR |         |      |
|   | R6029 | NRSA02J-393X | MG RESISTOR |         |      |
|   | R6031 | NRSA02J-681X | MG RESISTOR |         |      |
|   | R6032 | NRSA02J-681X | MG RESISTOR |         |      |
|   | R6040 | NRSA02J-102X | MG RESISTOR |         |      |
|   | R6041 | NRSA02J-433X | MG RESISTOR |         |      |
|   | R6042 | NRSA02J-472X | MG RESISTOR |         |      |
|   | R6043 | NRSA02J-123X | MG RESISTOR |         |      |
|   | R6044 | NRSA02J-683X | MG RESISTOR |         |      |
|   | R6045 | NRSA02J-433X | MG RESISTOR |         |      |
|   | R6046 | NRSA02J-0R0X | MG RESISTOR |         |      |
|   | R6047 | NRSA02J-332X | MG RESISTOR |         |      |
|   | R6048 | NRSA02J-222X | MG RESISTOR |         |      |
|   | R6049 | NRSA02J-152X | MG RESISTOR |         |      |
|   | R6050 | NRSA02J-332X | MG RESISTOR |         |      |
|   | R6051 | NRSA02J-102X | MG RESISTOR |         |      |
|   | R6052 | NRSA02J-102X | MG RESISTOR |         |      |
|   | R6053 | NRSA02J-102X | MG RESISTOR |         |      |
|   | R6054 | NRSA02J-102X | MG RESISTOR |         |      |
|   | R6056 | NRSA02J-0R0X | MG RESISTOR |         |      |
|   | R6057 | NRSA02J-0R0X | MG RESISTOR |         |      |
|   | R6058 | NRSA02J-0R0X | MG RESISTOR |         |      |
|   | R6059 | NRSA02J-471X | MG RESISTOR |         |      |
|   | R6060 | NRSA02J-471X | MG RESISTOR |         |      |
|   | R6061 | NRSA02J-104X | MG RESISTOR |         |      |
|   | R6063 | NRSA02J-124X | MG RESISTOR |         |      |
|   | R6064 | NRSA02J-681X | MG RESISTOR |         |      |
|   | R6066 | NRSA02J-220X | MG RESISTOR |         |      |
|   | R6067 | NRSA02J-0R0X | MG RESISTOR |         |      |
|   | R6068 | NRSA02J-0R0X | MG RESISTOR |         |      |
|   | R6069 | NRSA02J-155X | MG RESISTOR |         |      |
|   | R6071 | NRSA02J-102X | MG RESISTOR |         |      |
|   | R6072 | NRSA02J-102X | MG RESISTOR |         |      |
|   | R6080 | NRSA02J-0R0X | MG RESISTOR |         |      |
|   | R6081 | NRSA02J-0R0X | MG RESISTOR |         |      |
|   | R6082 | NRSA02J-392X | MG RESISTOR |         |      |
|   | R6121 | NRSA02J-151X | MG RESISTOR |         |      |
|   | R6122 | NRSA02J-151X | MG RESISTOR |         |      |
|   | R6123 | NRSA02J-151X | MG RESISTOR |         |      |
|   | R7001 | NRSA02J-822X | MG RESISTOR |         |      |
|   | R7002 | NRSA02J-822X | MG RESISTOR |         |      |
|   | R7003 | NRSA02J-103X | MG RESISTOR |         |      |
|   | R7004 | NRSA02J-103X | MG RESISTOR |         |      |
|   | R7005 | NRSA02J-331X | MG RESISTOR |         |      |
|   | R7006 | NRSA02J-222X | MG RESISTOR |         |      |
|   | R7007 | NRSA02J-222X | MG RESISTOR |         |      |
|   | R7008 | NRSA02J-222X | MG RESISTOR |         |      |
|   | R7009 | NRSA02J-222X | MG RESISTOR |         |      |
|   | R7010 | NRSA02J-222X | MG RESISTOR |         |      |
|   | R7011 | NRSA02J-222X | MG RESISTOR |         |      |
|   | R7012 | NRSA02J-222X | MG RESISTOR |         |      |
|   | R7013 | NRSA02J-102X | MG RESISTOR |         |      |
|   | R7014 | NRSA02J-103X | MG RESISTOR |         |      |
|   | R7016 | NRSA02J-222X | MG RESISTOR |         |      |
|   | R7017 | NRSA02J-222X | MG RESISTOR |         |      |
|   | R7018 | NRSA02J-0R0X | MG RESISTOR |         |      |
|   | R7019 | NRSA02J-102X | MG RESISTOR |         |      |
|   | R7020 | NRSA02J-222X | MG RESISTOR |         |      |
|   | R7021 | NRSA02J-102X | MG RESISTOR |         |      |
|   | R7022 | NRSA02J-102X | MG RESISTOR |         |      |
|   | R7023 | NRSA02J-102X | MG RESISTOR |         |      |
|   | R7024 | NRSA02J-102X | MG RESISTOR |         |      |
|   | R7025 | NRSA02J-102X | MG RESISTOR |         |      |
|   | R7026 | NRSA02J-102X | MG RESISTOR |         |      |
|   | R7027 | NRSA02J-102X | MG RESISTOR |         |      |
|   | R7028 | NRSA02J-222X | MG RESISTOR |         |      |

■ Electrical parts list (CD board)

Block No.02

| ▲ | Item  | Parts number  | Parts name      | Remarks         | Area |
|---|-------|---------------|-----------------|-----------------|------|
|   | R7029 | NRSA02J-103X  | MG RESISTOR     |                 |      |
|   | R7030 | NRSA02J-222X  | MG RESISTOR     |                 |      |
|   | R7031 | NRSA02J-103X  | MG RESISTOR     |                 |      |
|   | R7032 | NRSA02J-222X  | MG RESISTOR     |                 |      |
|   | R7033 | NRSA02J-103X  | MG RESISTOR     |                 |      |
|   | R7034 | NRSA02J-222X  | MG RESISTOR     |                 |      |
|   | R7035 | NRSA02J-103X  | MG RESISTOR     |                 |      |
|   | R7036 | NRSA02J-222X  | MG RESISTOR     |                 |      |
|   | R7037 | NRSA02J-222X  | MG RESISTOR     |                 |      |
|   | R7038 | NRSA02J-473X  | MG RESISTOR     | VERSION         |      |
|   | R7039 | NRSA02J-333X  | MG RESISTOR     | VERSION         |      |
|   | R7040 | NRSA02J-102X  | MG RESISTOR     |                 |      |
|   | R7041 | NRSA02J-103X  | MG RESISTOR     |                 |      |
|   | R7042 | NRSA02J-103X  | MG RESISTOR     |                 |      |
|   | R7043 | NRSA02J-103X  | MG RESISTOR     |                 |      |
|   | R7044 | NRSA02J-103X  | MG RESISTOR     |                 |      |
|   | R7045 | NRSA02J-222X  | MG RESISTOR     |                 |      |
|   | R7046 | NRSA02J-222X  | MG RESISTOR     |                 |      |
|   | R7048 | NRSA02J-102X  | MG RESISTOR     |                 |      |
|   | R7049 | NRSA02J-102X  | MG RESISTOR     |                 |      |
|   | R7050 | NRSA02J-104X  | MG RESISTOR     |                 |      |
|   | R7051 | NRSA02J-473X  | MG RESISTOR     |                 |      |
|   | R7052 | NRSA02J-333X  | MG RESISTOR     |                 |      |
|   | R7053 | NRSA02J-222X  | MG RESISTOR     |                 |      |
|   | R7054 | NRSA02J-222X  | MG RESISTOR     |                 |      |
|   | R7055 | NRSA02J-222X  | MG RESISTOR     |                 |      |
|   | R7056 | NRSA02J-103X  | MG RESISTOR     |                 |      |
|   | R7057 | NRSA02J-103X  | MG RESISTOR     |                 |      |
|   | R7058 | NRSA02J-103X  | MG RESISTOR     |                 |      |
|   | R7059 | NRSA02J-103X  | MG RESISTOR     |                 |      |
|   | R7060 | NRSA02J-103X  | MG RESISTOR     |                 |      |
|   | R7061 | NRSA02J-103X  | MG RESISTOR     |                 |      |
|   | R7062 | NRSA02J-222X  | MG RESISTOR     |                 |      |
|   | R7063 | NRSA02J-222X  | MG RESISTOR     |                 |      |
|   | R7064 | NRSA02J-471X  | MG RESISTOR     |                 |      |
|   | R7065 | NRSA02J-222X  | MG RESISTOR     |                 |      |
|   | R7066 | NRSA02J-222X  | MG RESISTOR     |                 |      |
|   | R7067 | NRSA02J-222X  | MG RESISTOR     |                 |      |
|   | R7068 | NRSA02J-222X  | MG RESISTOR     |                 |      |
|   | R7069 | NRSA02J-222X  | MG RESISTOR     |                 |      |
|   | R7070 | NRSA02J-102X  | MG RESISTOR     |                 |      |
|   | R7071 | NRSA02J-102X  | MG RESISTOR     |                 |      |
|   | R7072 | NRSA02J-222X  | MG RESISTOR     |                 |      |
|   | R7073 | NRSA02J-102X  | MG RESISTOR     |                 |      |
|   | R7074 | NRSA02J-103X  | MG RESISTOR     |                 |      |
|   | R7075 | NRSA02J-103X  | MG RESISTOR     |                 |      |
|   | R7076 | NRSA02J-103X  | MG RESISTOR     |                 |      |
|   | R7077 | NRSA02J-103X  | MG RESISTOR     |                 |      |
|   | R7078 | NRSA02J-103X  | MG RESISTOR     |                 |      |
|   | R7079 | NRSA02J-512X  | MG RESISTOR     |                 |      |
|   | SP603 | VYH7653-001   | IC HOLDER       | IC603 IC-HOLDER |      |
|   | SP701 | VYH7653-002   | IC HOLDER       |                 |      |
|   | S8021 | QSW0851-001   | DETECT SWITCH   |                 |      |
|   | S8022 | QSW0851-001   | DETECT SWITCH   |                 |      |
|   | TH701 | QAD0015-103Z  | THERMISTOR      |                 |      |
|   | WR 1  | QUB220-07HPDM | SIN TWIST WIRE  | ANT GND - BOTTO |      |
|   | WR501 | QUB220-15HPDM | SIN TWIST WIRE  | FUNCTION - BOTT |      |
|   | W1801 | QJK021-021502 | SIN CR C-B WIRE | MAIN - MICOM    |      |
|   | W3001 | QJK002-061201 | SIN CR C-B WIRE | POWER - MAIN    |      |
|   | W3002 | QJK019-040704 | SIN CR C-B WIRE | SPK - POWER     |      |
| ▲ | W3901 | QJK019-072002 | SIN CR C-B WIRE | POWER - MAIN    |      |
|   | W5001 | QJK018-110501 | SIN CR C-B WIRE | FUNCTION - MICO |      |
|   | W8001 | QJK018-020502 | SIN CR C-B WIRE | LCD BACKLIGHT - |      |
|   | W8002 | QJK018-040504 | SIN CR C-B WIRE | TOPKEY - FUNCTI |      |
|   | W8003 | QJK018-021202 | SIN CR C-B WIRE | TOPKEY - DOOR D |      |
|   | W8004 | QJK018-030503 | SIN CR C-B WIRE | DOOR DT1 - MICO |      |
|   | W8005 | QJK018-020502 | SIN CR C-B WIRE | DISC LED - MICO |      |
|   | X6051 | QAX0413-001Z  | CRYSTAL         |                 |      |

| ▲ | Item  | Parts number | Parts name | Remarks | Area |
|---|-------|--------------|------------|---------|------|
|   | X7001 | QAX0401-001  | CRYSTAL    |         |      |
|   | X7002 | QAX0410-001  | CERA LOCK  |         |      |

# Packing materials and accessories parts list

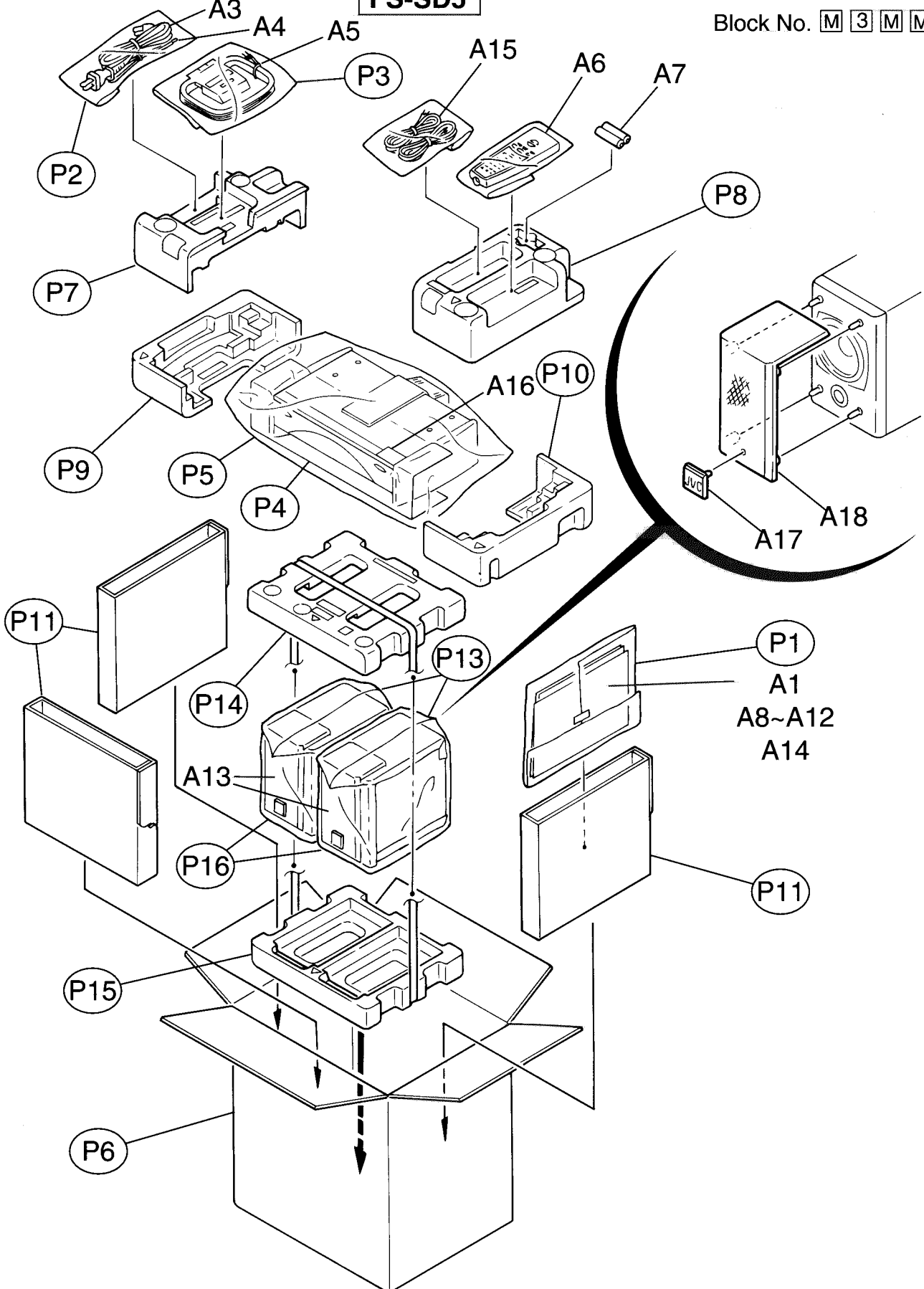
**FS-SD5**

Block No. 

|   |   |   |   |
|---|---|---|---|
| M | 2 | M | M |
|---|---|---|---|

Block No. 

|   |   |   |   |
|---|---|---|---|
| M | 3 | M | M |
|---|---|---|---|

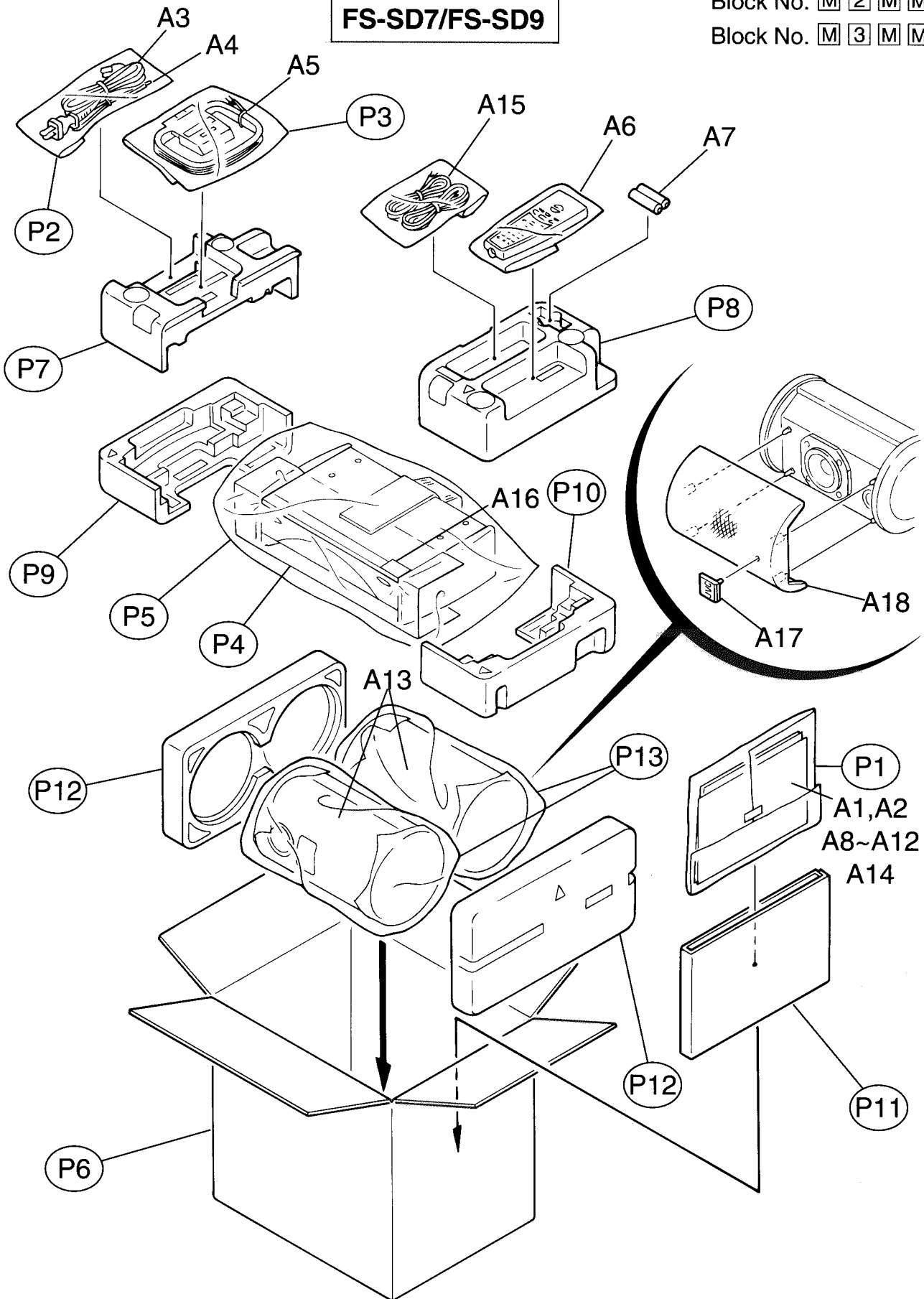


# Packing materials and accessories parts list

**FS-SD7/FS-SD9**

Block No. **M 2 M M**

Block No. **M 3 M M**



FS-SD5/FS-SD7/FS-SD9

■ Packing parts list

Block No. M2MM

| △ | Item | Parts number | Parts name      | Q'ty | Description | Area |
|---|------|--------------|-----------------|------|-------------|------|
|   | P 1  | QPA02503503P | POLY BAG        | 1    | FOR INST    |      |
|   | P 2  | QPA01503503  | POLY BAG        | 1    | FOR P.CORD  |      |
|   | P 3  | QPA01702503P | POLY BAG        | 1    | FOR AM ANT. |      |
|   | P 4  | VPK3001-012  | SHEET           | 1    |             |      |
|   | P 5  | QPC04504515P | POLY BAG        | 1    | FOR SET     |      |
|   | P 6  | LV32008-006A | CARTON          | 1    | FS-SD9      |      |
|   |      | LV31707-002A | CARTON          | 1    | FS-SD5      |      |
|   |      | LV32008-002A | CARTON          | 1    | FS-SD7      |      |
|   | P 7  | LV20760-001A | CUSHION TOP(L)  | 1    | TOP (L)     |      |
|   | P 8  | LV20760-002A | CUSHION TOP(R)  | 1    | TOP (R)     |      |
|   |      | LV30189-001A | LABEL(w--)      | 1    |             |      |
|   | P 9  | LV20761-001A | CUSHION BTM (L) | 1    | BOTTOM (L)  |      |
|   | P 10 | LV20761-002A | CUSHION BTM (R) | 1    | BOTTOM (R)  |      |
|   | P 11 | LV32009-001A | CARTON SPACER   | 1    | FS-SD7/SD9  |      |
|   |      | LV31789-001A | CARTON SPACER   | 3    | FS-SD5      |      |
|   | P 12 | SD7-KF-00-01 | CUSHION         | 2    | FS-SD7/SD9  |      |
|   | P 13 | SD7-KO-00-01 | POLY BAG        | 2    | FS-SD7/SD9  |      |
|   |      | SD5-KO-00-01 | POLY BAG        | 2    | FS-SD5      |      |
|   | P 14 | SD5-KF-01-01 | CUSHION TOP     | 1    | FS-SD5      |      |
|   | P 15 | SD5-KF-02-01 | CUSHION BTM     | 1    | FS-SD5      |      |

■ Accessories list

Block No. M3MM

| △ | Item | Parts number   | Parts name      | Q'ty | Description     | Area |
|---|------|----------------|-----------------|------|-----------------|------|
|   | A 1  | LVT0418-001A   | INST BOOK       | 1    |                 |      |
|   | A 2  | LV41811-001A   | FOOT ASSY       | 1    | FS-SD7/SD9      |      |
| △ | A 3  | QMPE090-183-JD | POWER CORD      | 1    |                 |      |
|   | A 4  | EWP503-001C    | ANT.WIRE        | 1    | FM ANT          |      |
|   | A 5  | QAL0014-001    | AM LOOP ANT     | 1    | AM ANT          |      |
|   | A 6  | RM-SFSSD7J     | REMOCON UNIT    | 1    | FS-SD5/SD7      |      |
|   |      | RM-SFSSD9J     | REMOCON UNIT    | 1    | FS-SD9          |      |
|   | A 7  | R6SPTT/2STS    | BATTERY         | 2    | FOR REMOCON     |      |
|   | A 8  | BT-51018-2     | WARRANTY CARD   | 1    |                 |      |
|   | A 9  | BT-51020-2     | J=REGIST CARD   | 1    |                 |      |
|   | A 10 | BT-20044G      | WARRANTY CARD   | 1    |                 |      |
|   | A 11 | BT-52004-1     | WARRANTY CARD   | 1    |                 |      |
|   | A 12 | BT-20071B      | JVC CENTER LIST | 1    |                 |      |
|   | A 13 | FSSD9J-SPBOX   | SPEAKER         | 2    | FS-SD9          |      |
|   |      | FSSD7J-SPBOK   | SPEAKER         | 2    | FS-SD7          |      |
|   |      | FSSD5J-SPBOK   | SPEAKER         | 2    | FS-SD5          |      |
|   | A 14 | LV41831-001A   | CAUTION SHEET   | 1    |                 |      |
|   | A 15 | VMP0133-101    | SP.CORD SET UL  | 1    | SPEAKER CORD OF |      |
|   | A 16 | LV41819-001A   | CD CAUTION      | 1    |                 |      |
|   | A 17 | SD5-SJ-01-01   | MARK            | 1    | FS-SD5          |      |
|   |      | SD7-SJ-01-01   | MARK            | 1    | FS-SD7/SD9      |      |
|   | A 18 | SD7-BK-00-01   | SPEAKER NET     | 2    | FS-SD7/SD9      |      |
|   |      | SD5-BK-00-01   | SPEAKER NET     | 2    | FS-SD5          |      |



<<MEMO>>

**FS-SD5/FS-SD7/FS-SD9**

**JVC**

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