

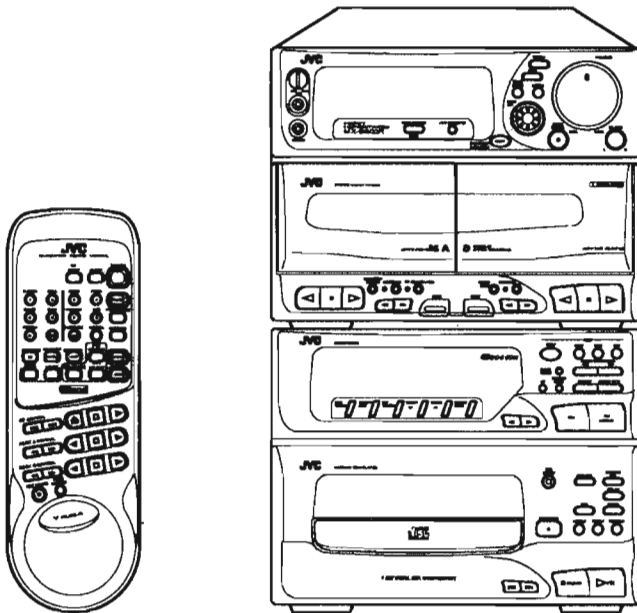
# JVC

## SERVICE MANUAL

### COMPACT COMPONENT SYSTEM

# CA-S600R

(Unit No. DX-S600R / XT-S600R)



Pickup	OPTIMA-6
CD signal processor / CD servo LSI	MN66271RAM AN88065B

#### Area Suffix

EF	.....	Continental Europe
EN	.....	Scandinavia
G	.....	Germany
GI	.....	Italy

COMPACT  
**disc**  
DIGITAL AUDIO

Note : DX-S600R is needed for the power supply when servicing XT-S600R .

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## Safety Precautions

1. The 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.).

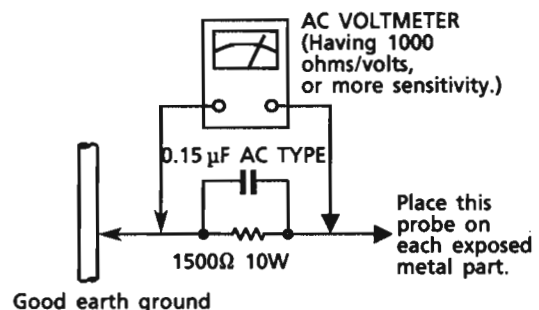
- Alternate check method

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 $\Omega$  10 W 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. Any voltage measured 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.

## Important for Laser Products

1. **CLASS 1 LASER PRODUCT**
2. **DANGER** : Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. **CAUTION** : There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.
4. **CAUTION** : The compact disc player uses invisible laser radiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.
5. **CAUTION** : If safety switches malfunction, the laser is able to function.
6. **CAUTION** : Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
7. **CAUTION** : The compact disc player provides a laser diode of wavelength 780-790nm and optical output power typical 3mW at the laser diode.

**WARNING** : Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

**VARO** : Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

**ADVARSEL** : Usynlig laserstrålning ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

**ADVARSEL** : Usynlig laserstrålning ved åbning, når sikkerhedsbryteren er avslott. unngå utsettelse for stråling.

### REPRODUCTION AND POSITION OF LABELS

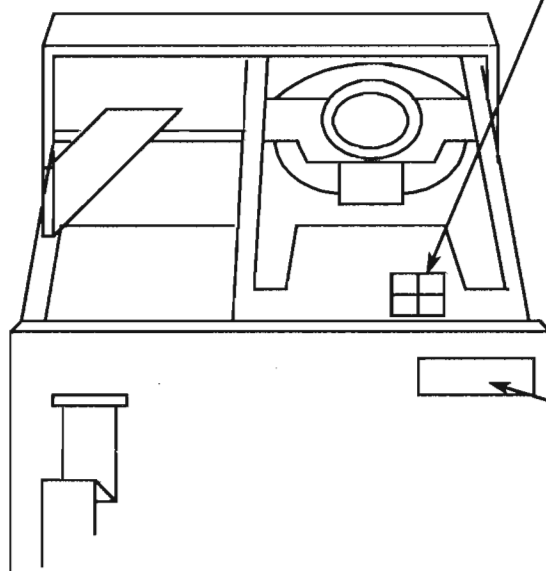
#### WARNING LABEL

**DANGER**: invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM. (e)

**WARNING**: Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen. (s)

**ADVARSEL**: Usynlig laserstrålning ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling. (d)

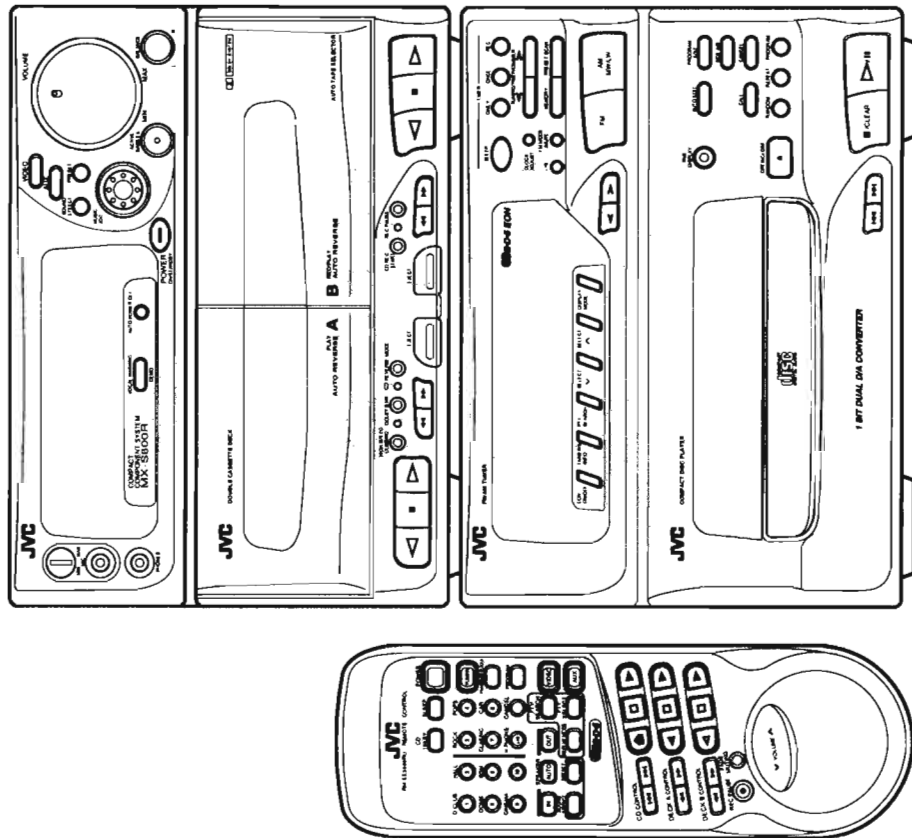
**VARO**: Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen. (f)



**CLASS 1  
LASER PRODUCT**

#### CLASSIFICATION LABEL

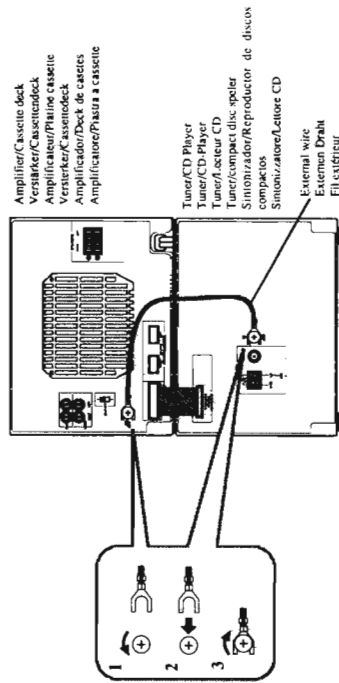
**Control Panel and Remote—Illustrations**  
**Bedienfeld und Fernbedienung—Abbildungen**  
**Panneau des commandes et télécommande—Illustrations**  
**Bedieningspaneel en afstandsbediening —Afbeldingen**  
**Ilustraciones del panel de control y del contrador remoto**  
**Pannelo comandi e telecomando—Illustrazioni**



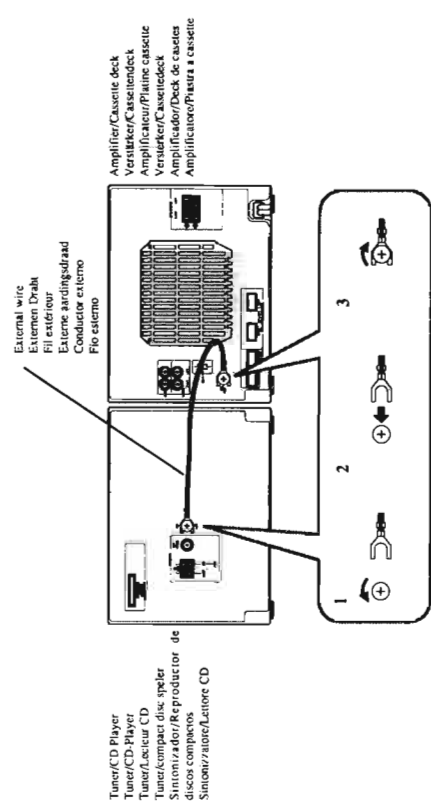
**Connecting the External Wire**  
**Anschließen des externen Draht**  
**Connexion du fil extérieur**  
**Aansluiten van de externe aardingsdraad**  
**Connexión del conductor externo**  
**Collegamento del filo esterno**

Connect the external wire (supplied) as illustrated below to prevent malfunction of the Unit.  
 Schließen Sie den externen Draht (mitgeliefert) an, wie in der Abbildung unter gezeigt, um Fehlfunktionen der Anlage zu vermeiden.  
 Connecter le fil extérieur (fourni) comme montré ci-dessous pour éviter un mauvais fonctionnement de l'appareil.  
 Sluit de externe aardingsdraad (bijgeleverde) aan zoals afgebeeld, om storing in de werking van het apparaat te voorkomen.  
 Conecte el conductor externo (suministrado) como se muestra en la ilustración siguiente a fin de evitar el mal funcionamiento de la unidad.  
 Collegare il filo esterno (in dotazione) come mostrato qui sotto per prevenire problemi di funzionamento dell'apparecchio.

Layout-1/Layout 1/Disposition 1/Disposizione 1/Uscita 1



Layout-2/Layout 2/Disposition 2/Disposizione 2/Uscita 2



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## Features

Here are some of the things that make your CA-S600R powerful and easy to use.

- To get such great sound from such a compact package the CA-S600R has preprogrammed sound effects like **D. (Dance)**, **CLUB**, **HAIL**, **DOPE**, **BGM**, **ROCK**, **POPS**, **CLASSIC**, **CAR**, and **H.PHONE** so you don't have to be a sound engineer to get great effects. **ACTIVEBASSEX. (extension)** works to maintain the richness and fullness of the sound when the volume level is getting lower.
- The controls and operations have been redesigned to make them very easy to use so you can spend your time listening to music.
  - With the **One Touch Operation** feature of **JVC's COMPUPLAY**, you can turn on the CA-S600R and start the radio, the cassette deck, or the CD player with a single touch.
  - **Four timers**, **Daily**, **Once**, **REC. (Recording)**, and **Sleep Timers** are extremely easy to set so you can really use them.
  - The **Display area** is large and clear. It's organized so you can tell at a glance what's happening because functions light up as you use them, and think to tell you they are ready.
  - **Auto Edit** figures out how to arrange CD tracks on a tape. When you are recording a tape from a CD, the selections aren't cut off if the tape ends before the selection does.
  - **Programmed Edit** allows you to arrange CD tracks on a tape in your desired order.
  - **A home-use RDS tuner** offers most of the RDS services. These services include the display of station names and program types, and scanning stations by programming.
  - **Now use conventional tapes and CDs for Singing-Along** with the voice canceller system. With an optional microphone, you can replace the lead singer's voice on your favourite songs with your own.

Great Sound

Easy Operation



## How This Manual Is Organized

- This is a special manual, designed to accommodate several languages. To keep the size from becoming too great, yet still give you a top quality instruction manual, we have incorporated some special features:
- The manual mainly explains operations using the buttons and controls on the main Unit. If operation using the buttons and controls on the Remote is different from that using the main Unit, it is then explained.
  - Basic information that is the same for many different functions is grouped in one place, and not repeated in each procedure. For instance, in the section on playing a CD, we do not repeat the information about setting the volume and the sound conditioning, which are talked about in the Common Operations section.
  - Names of buttons, controls and functions that light up on the display panel are written in all Capital letters like this: **POWER**.
  - The column on the left of the page is a special place to make it easier to find just what you want to know about, with little headlines announcing what each part of the page is about. Sometimes illustrations and helpful hints are placed here also.

**IMPORTANT!** Special features for a special Manual.

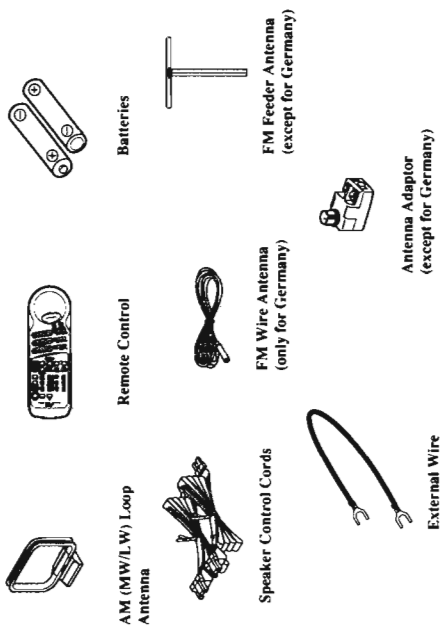
## IMPORTANT CAUTIONS

1. **Installation of the Unit**
  - Select a place which is level, dry and neither too hot nor too cold (between 5°C and 35°C).
  - Leave sufficient distance between the Unit and your TV.
  - Keep the speakers away from TV to avoid interference with TV.
  - Do not use the Unit in a place subject to vibrations.
2. **Power cord**
  - Do not handle the power cord with wet hands!
  - The small amount of the power (1.3 watts) is always consumed as long as the power cord is connected to the wall outlet.
  - When unplugging from the wall outlet, always pull the plug, not the power cord.
3. **Malfunctions, etc.**
  - There are no user serviceable parts inside. If anything goes wrong, unplug the power cord and consult your dealer.
  - Do not insert any metallic object into the Unit.

## Getting Started Right

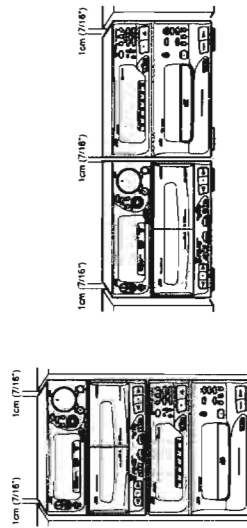
### Inside the packing box...

Of course you have already opened your CA-S600R carton, since you are reading this manual. Although the Unit is quite sturdy, you may want to save the packing to re-pack your CA-S600R in case you are moving it some distance. Check to be sure you have all of the following things, which are supplied with the CA-S600R:



### Where can you put it?

You can place the CA-S600R in many different kinds of locations to suit your needs, just observe the cautions on page 2: keep away from moisture and heat; leave some space between the Unit and its surroundings, more than 1 cm at the sides of the console and 10 cm at the back.



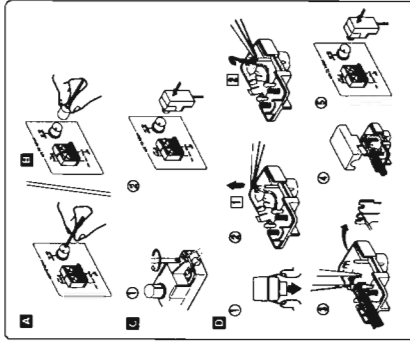
NEVER place the tuner/CD section on the amp/cassette deck section. If you do, the ventilation holes of the amp/cassette deck section will not work.  
NEVER place the tuner/CD section to the left of the amp/cassette deck section, either. If you do, noise may occur when playing back or recording tapes.

### Very little assembly required

**Set Up**  
You will need to do the following 4 things to get your CA-S600R ready to use.

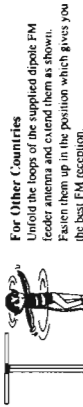
## I. Connect the AM (MW/LW) and FM Antennas

### FM Antenna Connections



- For Germany**
- Using the supplied wire antenna provided can be connected to a FM 75-ohm COAXIAL as a temporary measure.
  - Using the supplied wire antenna horizontally.
  - Using the Coaxial Type Connector (Not Supplied)
  - A 75-ohm antenna with coaxial type connector (DIN 45332) should be connected to the FM 75-ohm COAXIAL terminal.
- For Other Countries**
- Using the supplied Feeder Antenna
  - Attach the feeder antenna to the Antenna Adaptor as shown in the figure.
  - Connect the Antenna Adaptor to the FM 75-ohm COAXIAL terminal.
  - Using FM 75-ohm Antenna Cable (Not Supplied)
  - Open the claws at both sides and remove the cover.
  - Mix the conductor wire from 1 to 2, using twist/vers or similar tool (only when using coaxial cable).
  - Fix the coaxial cable and its core.
  - Put on the cover.
  - Connect the Antenna Adaptor to the FM 75-ohm COAXIAL terminal.

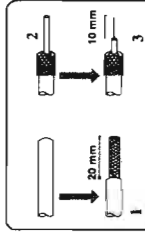
**Note:**  
Make sure the antenna conductors do not touch any other terminals, connecting cords and power cord on the system. This could cause poor reception.



**For Other Countries**  
Unfold the loops of the supplied dipole FM feeder antenna and extend them as shown. Fasten them up in the position which gives you the best FM reception.

Before attaching a 75 ohm coaxial lead (the kind of round wire going to an outside antenna), disconnect the supplied dipole inboard antenna.

If reception is poor, connect the outside antenna.

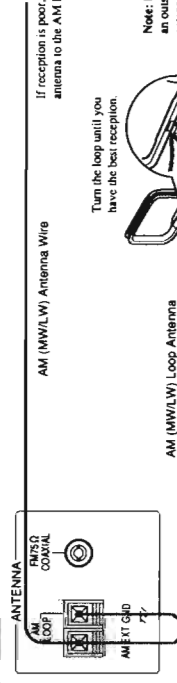


### How to Strip the 75-ohm Coaxial Cable

- Strip back the outside covering of the 75 ohm coaxial cable to expose the braided metallic mesh.
- Pull the mesh back over the cable braid.
- Strip the insulation about 10 mm back from the central wire.
- Attach to the supplied Antenna Adaptor, as shown in the diagram above.

**CAUTION:** To avoid noise, keep antennas away from metallic parts of the CA-S600R, connecting cords and the AC power cord.

### AM (MW/LW) Antenna Connections



If reception is poor, connect the outside antenna to the AM EXT terminal.

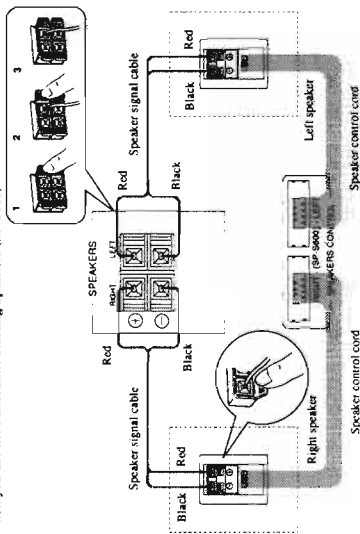
Turn the loop until you have the best reception.



**Note:** Even when connecting an outside AM (MW/LW) antenna, keep the indoor AM (MW/LW) loop connected.

Snap the tabs on the loop into the slots of the base to assemble the AM (MW/LW) loop.

**2. Connect the Speakers**  
When you use the Panoramic Shifting Speakers (NSP-S600)



For each speaker connect one end of the speaker signal cable to the speaker terminals on the back of the CA-S600R and one end to the speaker. On the back panel:

1. Press down the clasper of the terminal.
2. Insert the end of the speaker signal cable as shown (be sure to remove the insulation at the end of each wire first).
3. Release your finger from the clasper.
4. Connect the red (+) and black (-) terminals of the right side speaker to the red (+) and black (-) terminals marked RIGHT on the CA-S600R.
5. Connect the red (+) and black (-) terminals of the left side speaker to the red (+) and black (-) terminals marked LEFT on the CA-S600R.

Connect the SPEAKERS CONTROL-RIGHT and LEFT with the supplied speaker control cord.

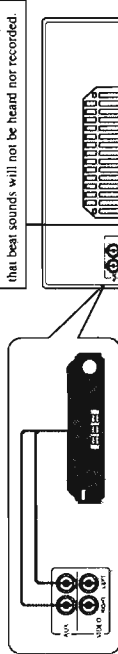
**CAUTION:** Use speakers with the same speaker impedance indicated by the speaker terminals on the back of this Unit.

**When you use your own speakers — Conventional speakers**  
Connect the speaker signal cables only as illustrated above.

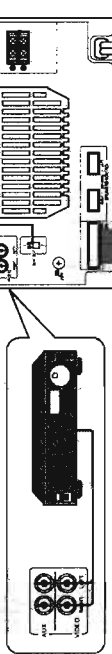
**CAUTION:** If the TV is installed near speakers, irregular colors may result. In this case, set the TV away from the speakers.

**3. Connect the System Connecting Cord and Auxiliary Equipment**

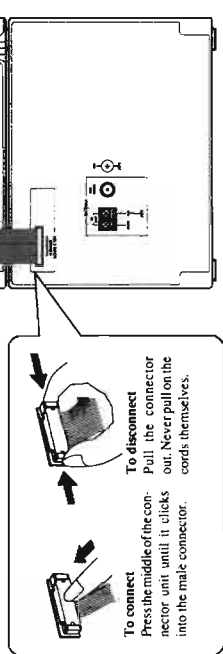
**Video disc player or other equipment**



VCR



**System Cord**

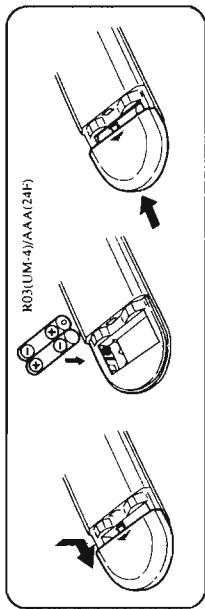


**CAUTION:** First make all connections before plugging the Unit into any AC power outlet.

Now you can plug the AC power cord into the wall outlet, and your CA-S600R is at your command!

**4. Put Batteries in the Remote Control**

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

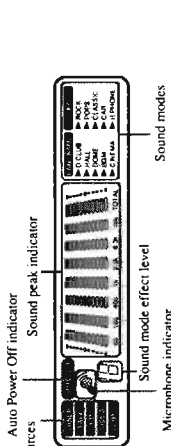


**CAUTION:** Observe Proper Handling of Batteries.

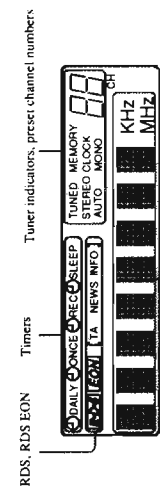
- To avoid battery leakage or explosion:
- Remove batteries when the Remote will not be used for a long time.
- When you need to replace the batteries, replace both batteries at the same time with new ones.
- Don't use an old battery together with a new one.
- Don't use different types of batteries together.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

**Displays**

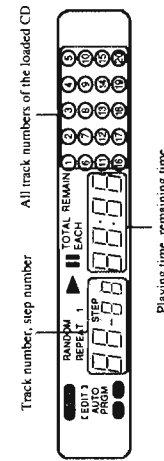
**• Amp Display**



**• Tuner Display**



**• CD Display**



## Common Operations

Here are the things that apply to all the functions of your CA-S600R. If something in a later procedure is unclear to you, check back here.

### COMPUPLAY

COMPUPLAY is JVC's feature that lets you control the most used functions of the CA-S600R with a single touch. This One Touch Operation starts playing a CD, turns on the radio or plays a tape with a single press of the play button for that function. What One Touch Operation does for you is to turn the power on, then start the function you have called for. If the Unit is not ready, such as no CD or tape in place, the Unit still comes on and then pauses so you can put in a CD or tape.

How One Touch Operation works in each case is explained in the section about that function.

### Turning the CA-S600R On

- Press POWER; the ON/STANDBY indicator goes out.
- The CA-S600R comes on ready to do whatever it was doing when the power was last shut off. So if the last thing you were doing was listening to a tape in deck B, you now are ready to listen to a tape again in deck B, or you can change to another source.
  - If you were listening to the radio last, the radio comes on playing that last station.

### Turning the CA-S600R Off

- Press POWER again; the ON/STANDBY indicator lights up and the display blanks, except for the clock indication.
- The small amount of power (1.3 watts) is always consumed even in the stand-by mode.
  - To switch off the Unit completely, unplug the AC power cord from the AC outlet. When you unplug the AC power cord, the preset stations of the Tuner will be erased in a couple of days.

### Controlling the Sound

The same set of buttons and knobs control the sound, no matter which function is producing it.

### Volume Control

Rotate clockwise to increase loudness, counterclockwise to reduce loudness.

**CAUTION:** Always set the VOLUME control to MIN before turning on a connected source such as a VCR or other equipment, or starting any other of the sound sources such as the radio, tape, or CD player. Otherwise, if the VOLUME control is turned up, the sudden blast of sound energy can permanently damage your hearing and/or ruin your speakers.

### Speaker Balance Control

If the sounds you hear from the right and left speakers are not well-balanced, you can adjust the speaker output balance with the BALANCE control.

### Special Effects Control

The CA-S600R has some preset sound effects (five preset SEA and five Panoramic Surround modes) that give you control of the way your music sounds, so you can tailor it for your room and for the quality of the source. By connecting the Panoramic Shifting Speakers, the angle of the speakers will shift in accordance with the respective Panoramic Surround mode: D (dance) CLUB, HALL, DOME, BGM, CINEMA.

### Preset SEA (Sound Effect Amplifier)

- ROCK
- POPS
- CLASSIC
- CAR
- H-PHONE

### Panoramic Surround

- D (dance) CLUB
- HALL
- DOME
- BGM
- CINEMA



### Selecting the Preset SEA and the Panoramic Surround modes

1. Turn the MUSIC JOG dial to select one of the following sound modes.
  - One of the indicators (either PANORAMIC or SEA) lights up and the sound mode you have selected is pointed with the cursor (▶) on the amp display. The sound mode you have selected comes into effect.

#### Panoramic Surround

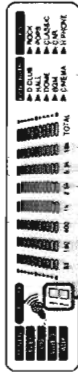
- D. CLUB Gives the throbbing bass beat.
- HALL Gives clear vocals and the feeling of a recital hall.
- DOME Gives the spacious feeling of a domed stadium.
- BGM Gives an easy listening sound with low-volume sounds drowned out.
- CINEMA Gives a movie theater feel and makes the spoken words easier to hear.

#### Preset SEA

- ROCK Increases both treble and bass sounds.
- POPS Increases the richness and fullness of the vocal sound.
- CLASSIC Adds depth and brilliance to the sound.
- CAR For recording onto car stereo tapes.
- H-PHONE For recording onto headphones stereo tapes.

#### 2. Press PRESET.

- Now, you can select the effect level.
- 3. Turn the MUSIC JOG dial to select the effect level while the equalizer curve is blinking on the display.
  - The effect level you have selected comes into effect.
  - For the Panoramic Surround modes, you can select from among 3 levels. (The speaker angle does not change.)
  - For the preset SEA modes, you can select among from 10 levels.



Effect level is shown here.

4. Press PRESET again or wait for about 10 seconds until the equalizer curve stops blinking.

### When using the Remote to select the sound mode:

1. Press PANORAMIC/SEA.
2. Press one of the Sound Effect buttons.
  - Each time you press the button, the selected sound effect turns on and off.
  - 3. Press PRESET repeatedly.
    - Each time you press the button, the effect level changes.

### To cancel sound effects

Press SOUND EFFECT so that the indicator (PANORAMIC or SEA) goes off from the display.

### Information on the Panoramic Surround modes

- Panoramic Shifting Speakers inside the cabinet will shift corresponding to the respective Panoramic Surround mode. The speakers shift automatically inward or outward to give you the dynamic sound fields.
- In the CINEMA mode, the speakers will shift inward to give a movie theater effect and make the spoken words easier to hear.
- If the TV is installed near speakers, irregular colors may result. In this case, set the TV away from the speakers.
- Normally, the speakers face directly forward.



### The Magic of



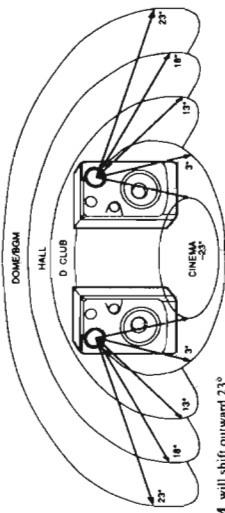
### Making it sound the way you want it to:

#### •Volume

Caution: Too LOUD!



#### •Balance



DOME/BGM will shift outward 23°  
 HALL will shift outward 18°  
 D. CLUB will shift outward 13°  
 CINEMA will shift inward 23°



**The speaker angle**

- To change the speaker angle**  
 Press IN/OUT on the Remote to change the angle (3°, 8°, 13°, 18° and 23°) regardless of the sound mode selected.
- Press IN on the Remote to shift the speakers inward.
  - Press OUT on the Remote to shift the speakers outward.
  - Press AUTO on the Remote to get back the speaker angle in accordance with the Panoramic Surround mode selected.
  - In the CINEMA mode, if the Remote is used to shift the speakers, the Panoramic Surround mode will change from CINEMA to the previously selected Panoramic Surround mode.
  - While the speakers are shifting their angles, sound may drop out intermittently.

**Sound Effect Demonstration**

- Sound Effect Demo Mode**  
 Since there are so many preset sound effects, you may be sometimes unable to decide which sound effect to select. In this case, you can use a very useful function – Sound Effect Demo Mode.
- While playing a CD, a tape, etc., keep pressing DEMO (the same button as VOCAL MASKING) for a few seconds. The Unit starts demonstrating 3 preset patterns of each Panoramic Surround effect and 10 preset patterns of each SEA effect for a few seconds.
  - The demo mode cannot be used with Vocal Masking. If Vocal Masking is turned on, it is canceled when you start demonstration.
  - To stop the demonstration and cancel the demo mode, press DEMO again. If you press some other buttons or turn the MUSIC JOG dial, the demonstration is stopped and demo mode is also canceled.

**Active Bass Extension**

- Active Bass Extension**  
 This feature is designed and incorporated to reinforce the bass sound, depending on the volume level to maintain the richness and fullness of the bass. It works only when the volume level is low.
- Press ACTIVE BASS EX. (extension) to use this effect so that the LED lights up. To cancel it, press the button again.

**Vocal Masking**

- Using the Vocal Masking Function**  
 Pressing VOCAL MASKING cancels the voice part of a song so you can broadcast your own voice through a microphone in place of the lead singer. Now it sounds as if you are singing directly with the band. To cancel it, press the button again. See page 25 for a more complete discussion of this function.

**Listening with Headphones**

- A standard pair of headphones can be connected at the PHONES jack on the front panel. No sound can be heard from the speakers. **Be sure to turn down the volume before connecting or putting on headphones, as high volume can damage both the headphones and your hearing.**

**Clock Indication**

- Adjusting the Brightness of the Clock Indication**  
 In the stand-by mode (while the Unit is off), you can adjust the brightness of the clock indication. Pressing TUNING/TIMER/DIMMER > makes the clock indication brighter. Pressing TUNING/TIMER/DIMMER < makes the clock indication dimmer.
- To adjust the clock, see page 22.

**Listening to the Radio**

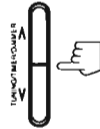
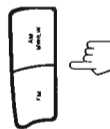
The controls for the radio are located in the Tuner section. With these controls you can browse through all the stations or use the preset function to go immediately to a particular station.

- To record from the radio, see "Recording any Sound Source to Tape," page 19.

First, we'll explain how to tune in stations, and then how to preset the ones you listen to often.



**Three ways to tune in a station**



- One Touch Radio**  
 Just press AM (MW/LW) or FM to turn on the Unit and start playing the most recent AM (MW/LW) station tuned in, or press FM to start the most recent FM station playing. If you press TUNER on the Remote instead, you can start playing the most recent station tuned in.
- You can switch from any other sound source to the radio by pressing either AM (MW/LW) or FM.

**Tuning in a Station**

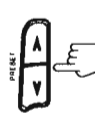
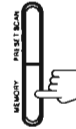
Press AM (MW/LW) or FM to turn on the radio. The tuner display shows the frequency of the station tuned to (and the frequency indication changes to the PS indication if the station tuned is an RDS FM station).

- You have three ways to select a station:
1. Press and release TUNING/TIMER/DIMMER < or > to move from station to station until you find the one you want.
- OR
2. Hold down TUNING/TIMER/DIMMER < or >, the frequency starts changing on the display. When a station is tuned in, the TUNED indicator lights up on the display and the frequency stops changing.
- OR
3. Press once and release PRESET < or > to go to the next preset station, or hold PRESET < or > to cycle through the preset stations; release the button when the preset station you want shows on the display. (This method is possible after presetting stations by yourself.)

You can also use the Remote to tune in preset stations:

- To tune preset stations with the Remote:
  1. Press TUNER so that you can receive the most recent station tuned in.
  2. Select the station by entering the preset channel number in the 10 key pad of the Remote. The display shows the channel number and frequency.

**How to preset AM (MW/LW) and FM radio stations**



**Presetting Stations**

- Once a station is assigned to a channel number, the station can be quickly tuned either from the Remote using the 10 key pad or the CA-S600R itself using PRESET <, >, or +10 to call up the channel number.
- You can preset a total of 40 stations, either AM (MW/LW) or FM.
  - Preset stations may be erased when power is cut off to the Unit, as when it is unplugged from the AC outlet or a power failure occurs. If the preset stations are lost, simply set the stations again using the following procedure:

**To preset radio stations:**

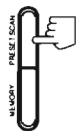
1. Tune in the station you want to set.
2. Press MEMORY.
  - On the tuner display, the MEMORY indicator lights up and "..." will blink for 5 seconds. During these 5 seconds while "... " is blinking you can assign a channel number to the station and enter it into the memory.
3. Select a channel number by pressing PRESET <, >, or +10 until you find the channel number you want. For example, to select 21, press +10 twice and PRESET > twice. To select 19, press +10 twice and PRESET < once.
4. Press MEMORY again.
  - "MEMORY" appears in the display and the station is assigned to the channel number.

**To cancel the preset stations:**

Storing a new station on a used number erases the previously stored one.

**Scanning through Preset Stations**

You can scan through your preset radio stations, stopping at any station you want to listen to.

1. Press **PRESET SCAN**.  

  - The Unit scans your preset stations, starting with the frequency being received, and moving upward.
  - Each preset station is received for a few seconds, with the channel number blinking.
2. If you want to listen to one of the preset stations, press **PRESET SCAN** again while the channel number is blinking.  
 If you do not stop at any station, the Unit will scan through the preset stations once, then return to the station tuned before scanning started.

**Receiving in Stereo or Monaural**

When an FM stereo broadcast is hard to receive or noisy:

- Press **FM MODE/MUTE** so that the **MONO** indicator lights up on the tuner display. Reception will improve, although you will lose the stereo effect. In this state, you will hear some noise while tuning into a station.
- To restore stereo effect, press **FM MODE/MUTE** again so that the **AUTO** indicator lights up on the display.  
 In this state, when a program is broadcast in stereo, you will hear stereo sound; when in monaural, you will hear monaural sound. Furthermore, in this state, you won't hear noise while tuning into stations.

**Using the RDS (Radio Data System) to Receive FM Stations**

RDS allows FM stations to send additional signals along with their regular program signals. For example, the stations send their station names, and information about what type of program they broadcast, such as sports or music, etc.

When tuned to an FM station which provides the RDS service, the RDS indicator lights up.

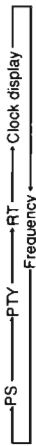
- With the **CA-S600R**, you can receive the following types of RDS signals.
- PS (Program Service):** shows station names commonly known
- PTY (Program Type):** shows types of broadcast programs
- RT (Radio Text):** shows text messages the station sends

**What Information Can RDS Provide?**

You can see the RDS signals the station sends on the display.

To show the RDS signals on the display:

- Press **DISPLAY MODE** while listening to an FM station.
- Each time you press the button, the display changes to show you the following information:



- PS (Program Service):**  
While searching, "PS" appears and then the station names will be displayed. "NO PS" appears if no signal is sent.
- PTY (Program Type):**  
While searching, "PTY" appears and then the type of the broadcast program will be displayed. "NO PTY" appears if no signal is sent.
- RT (Radio Text):**  
While searching, "RT" appears and then text messages the station sends will be displayed. "NO RT" appears if no signal is sent.
- Clock display:**  
Current time shown in hours, minutes and seconds (non-RDS service)
- Station Frequency:**  
Station frequency (non-RDS service)


**Notes:**

- If searching finishes at once, "PS", "PTY", and "RT" will not appear on the display.
- If you press **DISPLAY MODE** while listening to an AM (MW/LW) station, the display only shows station frequency and the current time.
- RDS is not available in AM (MW/LW) broadcasts.

**Searching the Program by PTY Codes**

One of the advantages of the RDS service is that you can locate a particular kind of program by specifying the PTY codes.

To search a program using the PTY codes:

1. Press **PTY SEARCH**.  

  - The display alternates between "PTY" and "SELECT".
2. Press **SELECT** or **▲** (or **PTY SELECT** on the Remote) within 4 seconds to select a PTY code.  
 The display gives you the PTY codes described below.
3. Press **PTY SEARCH** within 4 seconds again.  
 While searching, the display alternates between "SEARCH" and the selected PTY code.  
 The **CA-S600R** searches 40 preset channels, stops when it finds the one you have selected, and tunes in that station.

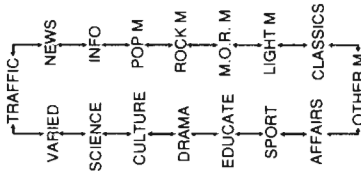
To continue searching after the first stop, press **PTY SEARCH** again while the indications on the display blink. If no program is found, "NOT FOUND" appears for a while and then the previous indications will resume in the display.

To stop searching any time during the process

Using any tuner operating buttons and controls will stop searching.

**Descriptions of the PTY codes**

- TRAFFIC:** Traffic information
- NEWS:** News
- INFO:** Programs on medical service, weather forecast, etc.
- POP M:** Pop music
- ROCK M:** Rock music
- M.O.R. M:** Middle-of-the-road music (usually called "easy listening")
- LIGHT M:** Light music
- CLASSICS:** Classics
- OTHER M:** Other music
- AFFAIRS:** Topical program expanding on the current news or affairs
- SPORT:** Sports events
- EDUCATE:** Educational programs
- DRAMA:** Radio plays
- CULTURE:** Programs on national or regional culture
- SCIENCE:** Programs on natural sciences and technology
- VARIED:** Other programs like comedies or ceremonies
- NONE:** Undefined (this cannot be searched.)



**When an emergency broadcast (ALARM signal) is sent from an FM station**

The **CA-S600R** automatically tunes in the station except in the following cases:

- When you are listening to the source other than FM.
- When you are listening to non-RDS FM stations.
- When the power to the **CA-S600R** is turned off.

While receiving an emergency broadcast, "ALARM" appears on the display.

## Listening to a Compact Disc

Here are the basic things you need to know to play a CD and locate the different selections on it. Each selection is called a track, so when we are talking about locating a track, we are also talking about how you find a certain song or performance.

### Basics of Using the CD Player

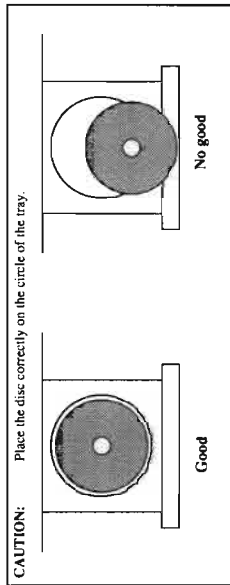
The quickest way to start a CD is with One Touch Operation:

- Press Play/Pause >|| on the CD player or Play > in CD CONTROL on the Remote.
- If a CD is already loaded, the Unit automatically turns on and starts to play it from track 1.
- If no CD is loaded, the CD tray opens, and you can put in a CD, printed side up, press Play/Pause >|| and the tray closes and the CD starts playing.
- If you press <= OPEN/CLOSE, the Unit automatically turns on and the CD tray comes out.

### To Load, Play, and Stop a CD

1. Press <= OPEN /CLOSE.
2. Put a CD, printed side up, into the tray.
  - When using an 8 cm CD, place it on the inner circle of the tray.

**CAUTION:** Place the disc correctly on the circle of the tray.



3. If you want to listen to the CD now, press Play/Pause >||.
  - The CD tray closes automatically.
  - The CD display shows the track being played and the length of time since it started.
4. To stop the CD, press <= CLEAR. When you start again, the CD begins with track 1.
5. To pause the play, press Play/Pause >|| while the CD is playing so when you press Play/Pause >|| again the CD starts just where you left off.
6. To remove a CD, press <= OPEN/CLOSE, take the CD out, and press <= OPEN/CLOSE again to close the tray. Keep the tray closed except during loading and unloading to protect the mechanism from dust and damage.

### Checking the Playing Time and the Remaining Time

When you close the tray with a CD on it by pressing <= OPEN/CLOSE, the CD display shows the total playing time of the CD. When you start playing, then, the display shows the elapsed playing time.

If you want to change the information on the CD display, press TIME DISPLAY.

- Each time you press TIME DISPLAY, the display changes to show the following:

→ EACH → EACH REMAIN → TOTAL → TOTAL REMAIN →

**EACH:** Elapsed time of the currently playing track  
**EACH REMAIN:** Remaining time of the currently playing track  
**TOTAL:** Total playing time of the disc  
**TOTAL REMAIN:** Remaining time of the disc



### CD display information



### Switching to a Broadcast Program of Your Choice Temporarily

Another convenient RDS service is called "EON (Enhanced Other Network)."

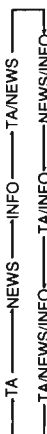
This allows the CA-S600R to switch temporarily to a broadcast program of your choice *except the following cases*:

- When you are listening to the source other than FM.
- When you are listening to non-RDS FM stations.
- When the power to the CA-S600R is turned off.

#### To select the program type

Press TA/NEWS/INFO.

Each time you press the button, the display changes to show the following:



**TA:** Traffic Announcement

**NEWS:** News

**INFO:** Programs on medical service, weather forecast, etc.

#### To use the EON function

Press EON ON/OFF.

The EON indicator lights up on the display, and the CA-S600R enters EON standby mode.

**CASE 1** If there is no station broadcasting the program you have selected  
 The CA-S600R keeps the current station tuned in.

When a station starts broadcasting the program you have selected (while searching the station, "WAITING" appears on the display), the CA-S600R automatically switches to the station. The EON indicator starts blinking.

When the program is over, the CA-S600R goes back to the currently selected station, but still remains in EON standby mode.

**CASE 2** If there is a station broadcasting the program you have selected  
 The CA-S600R tunes in the program (while searching the station, "WAITING" appears on the display). The EON indicator starts blinking.

When the program is over, the CA-S600R goes back to the currently selected station, but still remains in EON standby mode.

#### To stop listening to the program selected by EON

Press EON ON/OFF again so that the EON indicator goes off on the display. The CA-S600R enters EON off mode and goes back to the currently selected station.

Each time you press the button, the EON mode alternates between standby mode and off mode.

#### Notes:

- In EON standby mode, if you change the source other than FM, EON standby mode is canceled temporarily.
- The CA-S600R goes back to EON standby mode again when you change the source to FM.
- While listening to a program tuned in by the EON function, you can only use POWER, EON ON/OFF, and DISPLAY MODE.
- When the CA-S600R is turned off, the EON function is also turned off.
- When a timer starts operating while the EON function is operating, the EON function is canceled, and the source selected by the timer will be played.

**CAUTION:** When the FM station alternates intermittently between the one tuned in by the EON function and the currently selected one ("WAITING" and "NOT FOUND" appear alternately on the display), press EON ON/OFF to cancel the EON function (the EON indicator goes off from the display). This is not the malfunction of the CA-S600R.



CD

Find track



How to Find the Track or a Particular Point You Want

- Each time you press briefly and release **⏪** or **⏩** on the Unit, the track changes by one.
  - Press and release **⏪** to go ahead one track at a time.
  - Press and release **⏩** to go back one track at a time.
- Holding down **⏪** or **⏩** on the Unit will fast forward or fast reverse the CD so you can quickly find the particular part of a track you want to listen to.
- Holding down **⏪** or **⏩** on the CD CONTROL section of the Remote allows you to change tracks continuously.

Using the Remote to find a track

Locating a Track with the Remote Directly

- Using the 10 key pad on the Remote allows you to go directly to the beginning of any track.
1. Press CD 10KEY.
  2. Enter the number of the track you want using the 10 key pad.
  3. Example: for track 5, press 5. For track 15, press +10 then 5. For track 20, press +10, then 10.
  4. As long as a CD is loaded and the Unit is on, as soon as you enter the number of the track you want, it will start to play.

With programming, you can play back tracks in any order

Programming the Playing Order of the Tracks

In addition to the high quality sound which makes the CD such a good way to listen to music, you can change the order in which the tracks play.

Random Play

- Press RANDOM on the CD player before you start playing.
- The tracks will play in no special order.
  - When all of the tracks have been played, the CD stops.
  - Press REPEAT before or during random play to instruct the CA S600R to continue with a different random track selection after the last selection is played.
  - To cancel random play, press **■**/CLEAR.

Program with the Remote

You can arrange the tracks to play in any order you like with the Program function. The Remote is very useful for this because you can select tracks by number with the 10key pad. See "How to Use the Remote Control," page 27, if you need more information about its use. You can also use the main Unit.

- The PROGRAM button does not function in the following cases:
  - While the total playing time is displayed after closing the tray.
  - During high speed dubbing.

How to program: just 5 easy steps

- To program the CD track order from the Remotes, follow this procedure:
1. Press PROGRAM.
  2. Press CD 10KEY.
  3. Press the number of the first track you want to hear, then the number of the second track, and so on until you have entered all the track numbers you want to play.
  - Refer to the section "How to Use the Remote Control" on page 27 if you have questions about how to enter numbers above 10.
  - Your program can include up to 32 tracks, and you can repeat tracks if you wish.
  4. Press Play/Pause **▷||** to start the program—the first track you programmed will start to play, followed by the next one you entered, until all the selected tracks are played.
  5. To stop the CD during Programmed Play, press Stop **■**. To cancel the program, press PROGRAM.

Programming from the front panel

- To program the CD from the main Unit, follow this procedure
1. Press PROGRAM.
  2. Press **⏪** or **⏩** to locate the track you want to start with.
  3. Press PROGRAM to store the selected track.
  4. Repeat steps 2 and 3 until you have entered all the tracks you want to program.
  5. Press Play/Pause **▷||** and the Unit will begin playing the tracks in the order you programmed them.
  6. To stop the CD during Programmed Play, press **■**/CLEAR. To cancel the program, press **■**/CLEAR again.

Programming Hints



- A few hints to make programming easier**
- Before you start playing, you can do the following:
- If you want to change the entire program, press **■**/CLEAR on the main Unit or PROGRAM on the Remote, and then you can start over.
  - If you want to erase the last selection, press CANCEL. Each time you press CANCEL, the last selection in the program will be erased.
  - To erase a particular selection in the program, press CALL, repeatedly until the selection you want to erase is displayed and starts blinking, and then press CANCEL.
  - To view the order of the tracks in your program, press CALL, repeatedly to display the order of the tracks. Each time you press CALL, the next selection in your program is displayed.
  - To add a track to your program, just press CD 10KEY and the number you want to add using the Remote. (This is also possible during play.)

Repeat a selection or the whole CD



- Repeating a Selection or the Entire Disc**
- You can have either the program or the individual selection currently playing repeat as many times as you like by pressing REPEAT.
- Each time you press REPEAT, it cycles from Off, which turns the REPEAT indication out on the display, to REPEAT which will repeat all tracks in order or according to the program you have set, and REPEAT 1 which will repeat the currently playing track. To cancel Repeat, just press REPEAT until the REPEAT or REPEAT 1 indicator on the display goes off.
  - Repeat Play will not be able to work, if Auto Power OFF is on.

Listening to a Tape

The cassette deck allows you to play, record and dub audio tapes.

- To record or dub, see Recording page 18.
- With Automatic Tape Type Detection, you can listen to type I or II tapes without changing any settings.
- Most tape are now recorded with the Dolby NR, so first check which type of the Dolby NR system is used on the tape. Only the Dolby B NR is incorporated into CA-S600R.



**One Touch Play**  
By pressing either Play Forward **▷** / Play Reverse **◁** the power will come on, and if a tape is in the deck, it will start to play. If no tape is loaded, the Unit will come on and wait for further instructions.

Playback Procedure

- Regular Play**  
When power is already on, you can use this basic procedure:
1. Press EJECT for the deck you want to use.
  2. When the cassette carrier opens, put the cassette in, with the exposed part of the tape down toward the base of the CA-S600R.
    - If the cassette carrier does not open, turn the Unit off, then back on again and press EJECT.
  3. Close the carrier gently.
  4. Press DOLBY B NR to set the Dolby\* B NR if the tape is recorded with Dolby B NR.
  - The LED next to the button lights up.
  5. Press Play Forward **▷** to play the front side, or Play Reverse **◁** to play the reverse side.
  6. To stop playing, press Stop **■**. To remove the tape, press EJECT.

\* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Fast Left and Fast Right

- While the tape is stopped, press Fast Left **◀** and the tape will wind rapidly onto the left side of the cassette without playing.
- While the tape is stopped, press Fast Right **▶** and the tape will wind rapidly onto the right side of the cassette without playing.

**CAUTION:** The use of C:120 (120 minutes jam around) or thinner tape is not recommended, since characteristic deterioration may occur and these tape easily jam in the pinch and the capstan.

**Finding the place you want:**  
**Music Scan**

**Music Scan Control**

- When the power is on, the glowing LED shows the direction the tape was last moving. When the LED is blinking slowly, the tape is playing in the direction of the arrow. Now comes the risky part: when the LED is blinking rapidly, the tape can be moving either the direction the arrow points, or the opposite direction, *depending on whether you pushed Fast Right* *or Fast Left* . The tape will be going at high speed in the direction of the arrows of the button you pushed. The direction of the arrow with the rapidly blinking LED shows which way the tape will start playing when the fast search is done. Put in a tape and try it out.
- The Scan function works by detecting a 4-second blank at the beginning of each selection, so it won't work well if your tape has:
  - No blank at the beginning of a track.
  - Noise (often caused by much use or poor quality dubbing) which fills the blank with.
  - Long very soft passages or pauses in a selection. The scan will detect these instead of the 4-second blanks. If this happens, just go ahead and scan again until you reach the selection you want.
- Music scan only works on one tape at a time.
- If you use Music Scan on deck A, while dubbing on deck B, recording will stop.

**Scan Forward.....**

**Scan Forward**

- With the tape playing, to find the beginning of the next selection, press **Fast Right** *or Fast Left* pointing the same direction as the arrow with the slowly blinking LED.
- The tape will fast forward to the next selection and begin playing it.
- Scan Back**
- With the tape playing, to find the beginning of the selection now playing, press **Fast Right** *or Fast Left* pointing the opposite direction to the arrow with the slowly blinking LED.
- The tape will fast reverse to the beginning of the piece and start playing it again.

**.....Scan Back**

**More Useful Things to Know:**

- **Reverse Mode**
- **Continuous Play**
- **Dolby NR**

**Listening to a VCR or Other Equipment through your CA-S600R**

**Advantages in Connecting a VCR or Other Equipment**



By playing the sound from a VCR or other equipment through the CA-S600R, you can often dramatically improve the quality, and gain control over how the music or program sounds. Once the connected equipment is playing through the CA-S600R, you can apply the sound effects, make recordings, or listen with the headphones. Here are the steps to take:

1. Make a connection between the VCR or other equipment as shown on page 5.
2. Press **VIDEO** or **AUX** either on the Unit or Remote.
- The Unit is turned on and **VIDEO** or **AUX** lights up on the amp display.
3. Switch on the connected equipment and start it playing.
4. Set the Unit's volume to its lowest setting. Use **FADE-MUTTING** on the Remote, or turn the **VOLUME** control all the way counterclockwise.
5. To cancel the **VIDEO** or **AUX** setting, change the source by starting any one of the CA-S600R's built-in sound sources, such as the radio or CD player.

**Recording**

Recording onto cassette tape from any of the sound sources is easy and the CA-S600R does most of the work. Just have a tape in deck B, have the source ready, make one or two settings, and you're ready to record.

For each source the procedure is a little different and now we'll explain just what to do for each one. If you forget, just come back to the section which has the specific procedures you need. But first, here are a few things to make your recordings better.

**Things to Know before You Start Recording**

- It may be unlawful to record or playback copyrighted material without the consent of the copyright owner.
- Press **DOLBY B NR** (noise reduction) to reduce tape hiss.
- The recording level, which is the volume at which the new tape is being made, is automatically set correctly, so it is not affected by the **VOLUME** control on the CA-S600R. Thus, you can adjust the sound you are actually listening to without changing the recording. If you don't want to listen to the sound, you can turn the **VOLUME** control all the way down, or press **FADE-MUTTING** on the Remote.
- Cassettes have a special feature so you won't accidentally record over a tape you want to save. Two small tabs on the back, one for side A and one for side B, can be removed to prevent erasure or re-recording. To record on a cassette with the tabs removed, you must cover the holes with tape first. However, when a Type II tape is used, only cover part of the hole as shown below, since the other part of the hole is used to detect the tape type.



- When recording, you can use the sound effects to condition the music as it is recorded. But when recording using **Auto Edit** or **Programmed Edit**, once recording has started, these settings cannot be changed. When recording from tape deck A to deck B, the sound effects cannot be used, because the signal doesn't go through the amplifier first. This method gives you the highest quality dubbed tapes.
- Type I and type II tapes can be used for recording.

**CAUTION:** If recordings you make have excessive noise or static, the Unit may be too close to a TV which was on during the recording. Either turn off the TV or increase the distance between the TV and the CA-S600R.

**Standard Recording**

This is the basic method for recording any source. The CA-S600R also has special ways for recording CD to tape, and tape to tape, which save you time and effort, as well as give you some special effects. However, when you need to add a selection to a tape you have made, or are combining selections from several sources on one tape, use the method we describe here; just substitute the source you want, such as a tape in deck A, or CD, or radio in this procedure.

**Standard Recording: Any Source to Tape**

**Source to Tape: Step by Step**

- Recording any Sound Source to Tape**  
Follow these steps to record from any sound source onto a tape in deck B.
1. Press **POWER** so the LED on the VOLUME control glows.
    - When you want to record on both sides of the tape, press **REVERSE MODE** to on and be sure to start recording from the front side (A). If you start recording from the reverse side (B), the deck stops after recording from the front side (A), without going to the front side (A), even if the Reverse Mode is on.
  2. Put the cassette you are making into deck B.
  3. Press **REC PAUSE**.
    - The LED lights up.
  4. Prepare the source, for example, tuning in a radio station, loading a CD, turning on a connected VCR, etc.
  5. When you want to start recording, press either **Play Forward** to record on the front side (A), or **Play Reverse** to record on the reverse side (B).
    - To pause recording any time during the process, press **REC PAUSE** again, then press **Play Forward** or **Play Reverse** to start recording again.
    - To stop recording any time during the process, press **Stop** on deck B.

**CD to Tape: Introduction**

- CD to Tape Recording**  
There are three ways except the standard method to record from CD to tape.
- **CD Direct** — Everything on the CD goes onto the tape in the order it is on the CD or according to an order you have set in a program.
  - **Auto Edit** — Your CA-S600R figures out which selections to put on which side of the tape, so a selection isn't cut off before it's finished when the tape runs out.
  - **Programmed Edit** — You can decide the selections to be recorded in your desired order.

**CD Direct Recording: Step by Step**

This is the easiest way of recording a CD. Everything on the CD goes onto the tape in the order it is on the CD or according to an order you have set in a program. To make a program, see page 15.

1. Put the cassette in deck B.
  - Press **REVERSE MODE** so that the LED next to it lights up if you want to record on both sides of the cassette.
2. Load the CD into the CD Player.
  - If the CD is already loaded, be sure the power is on.
3. Set the sound effects you want now, since the sound environment cannot be changed once recording starts.
4. Now press **CD REC START** on the cassette deck. The FADE indicator lights up on the CD display.
  - Deck B begins to record, and soon the CD begins to play. At the end of the tape, the CA-S600R automatically goes back to the beginning of the last selection and re-records it, this time gently fading out at the end. If you select the Reverse Mode, the reverse side (B) starts with the last selection on the front side (A) and will be faded out at the end again. (A 10 second blank is created on the beginning of the reverse side (B).)
  - To stop recording any time during the process, press either **Stop** on deck B or **CLEAR** (when you press **CLEAR** you can make a 4 second blank at the end of the recording). Pressing **OPEN/CLOSE** will also stop recording.

**CAUTION:** and **REPEAT** will work during CD Direct Recording.

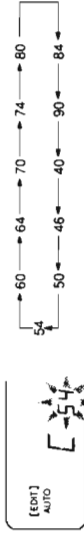
**Auto Edit, CD to Tape: Introduction**

**Recording a CD onto a Tape Using Auto Edit**  
Using Auto Edit, you can arrange the CD tracks to fit the tape, so a selection isn't cut off when the tape runs out first. Auto Edit is one of the best ways to copy all of a CD onto a tape. The selection of which tracks go on which side is based on the lengths of the tracks and the length of the tape. The CA-S600R can figure out most of what it needs to know, but you will have to tell it the tape size you are using if your tape is a different size than the one picked by the program. Follow this procedure to record a CD using Auto Edit.

**Auto Edit, CD to Tape: Step by Step**

1. Put the cassette in deck B.
  - Press **REVERSE MODE** so that the LED next to it lights up if you want to record on both sides of the cassette.

2. Load the CD into the CD Player.
  - If the CD is already loaded, be sure the power is on and the source is CD. If the last selected source is tuner, the Unit will not recognize the loaded CD when turning on the Unit by pressing **POWER**.
3. Set the sound effects you want now, since the sound environment cannot be changed once recording starts.
4. Press **CLEAR**.
  - This cancels the previous edit or program setting.
5. Press **AUTO EDIT** on the CD player so that "EDIT[AUTO]" appears in the display. The system tells you the minimum standard tape length to use.
  - You can select a different length of tape, depending on the actual size of the tape you are using, from 11 possibilities programmed into the CA-S600R: 40, 46, 50, 54, 60, 64, 70, 74, 80, 84, 90. Cycle through these choices by pressing **AUTO EDIT** repeatedly until you find the length closest to your tape's actual length.



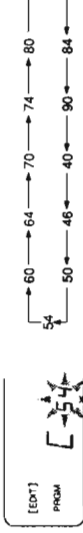
6. Press **SIDE A/B**, and the display shows which tracks will go on side A and which on side B. Each time you press **SIDE A/B** the display switches between A and B.
7. Now press **CD REC START** on the cassette deck. The FADE indicator lights up on the CD display.
  - The tape automatically rewinds to the beginning of the front side (A), a 10 second blank is created, and the CD begins to play and be recorded. (A 10 second blank is also created on the beginning of the reverse side (B).)
  - If you use a tape shorter than the total playing time of the CD, the last recorded selection will be fading out at the both ends of the tape.
  - To stop recording any time during the process, press either **Stop** on deck B or **CLEAR** (when you press **CLEAR** you can make a 4 second blank at the end of the recording). But remember: after you stop, if you restart, the tape will rewind and start recording the CD from the beginning. Pressing **OPEN/CLOSE** will also stop recording.

**Programmed Edit, CD to Tape: Introduction**

**Recording a CD onto a Tape Using Programmed Edit**  
Using Programmed Edit, you can decide for yourself the selections to be recorded in your desired order. First, you will have to tell the Unit the tape size you are using if your tape is a different size than the one picked by the Unit. Then, you can make your program as you wish.

**Programmed Edit, CD to Tape: Step by Step**

- Follow this procedure to record a CD using Programmed Edit.
1. Put the cassette in deck B.
    - Press **REVERSE MODE** so that the LED next to it lights up if you want to record on both sides of the cassette.
  2. Load the CD into the CD Player.
    - If the CD is already loaded, be sure the power is on and the source is CD. If the last selected source is tuner, the Unit will not recognize the loaded CD when turning on the Unit by pressing **POWER**.
  3. Set the sound effects you want now, since the sound environment cannot be changed once recording starts.
  4. Press **CLEAR**.
    - This cancels the previous edit or program setting.
  5. Press **PROGRAM EDIT** on the CD player so that "EDIT[PRGM]" appears in the display. The system tells you the minimum standard tape length to use.
    - You can select a different length of tape, depending on the actual size of the tape you are using, from 11 possibilities programmed into the CA-S600R: 40, 46, 50, 54, 60, 64, 70, 74, 80, 84, 90. Cycle through these choices by pressing **PROGRAM EDIT** repeatedly until you find the length closest to your tape's actual length.



6. Press **SIDE A/B**.  
Now the tape size is determined and you can make a program for side A. (See page 15.)
7. After making a program for side A, press **SIDE A/B** again so you can make another program for side B. (See page 15.)

## How to Use the Timers and Set the Clock

The timers let you control recording and playing functions automatically. Four types of timers are available:

- **Recording Timer**—Unattended recording of radio broadcasts that works only once
- **Once Timer**—The Unit comes on playing a source at a particular time only once.
- **Daily Timer**—The Unit comes on playing a source at a particular time everyday.
- **Sleep Timer**—Fall asleep and have your CA-S600R turn off automatically after a certain length of time.

And furthermore you have:

- **Auto Power Off**—Automatically turns off the Unit when the CD or tape finishes.

- Four Timers:**
- Recording
  - Once
  - Daily
  - Sleep

### Clock Setting

The timers depend on the clock. If the clock is right, the timers will work like you expect, but if the time is incorrect on the clock then the timers will also be incorrect.

**Special Notice:** The clock must be set, or the timers cannot be set! So, let's set the clock first.

1. Press **CLOCK ADJUST**.
2. Set the hours by pressing **TUNING/TIMER/DIMMER <** or **>**.
  - Pressing **>** increases the hour, and pressing **<** decreases it.
3. Press **MEMORY**.
4. Set the minutes by pressing **TUNING/TIMER/DIMMER <** or **>**.
  - Pressing **>** increases the minute, and pressing **<** decreases it.
5. Press **MEMORY** again.
  - The clock is set and starts from zero second.

**CAUTION:** If there is a power failure, the clock loses its setting, the tuner display shows "0:00" and it must be reset.

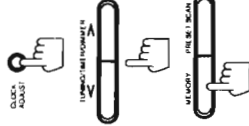
### Setting the Recording Timer

With the Recording Timer you can make a tape of a radio broadcast automatically whether or not you are there to start the CA-S600R. For the timer to work correctly, you need to make sure that the tape you want to record onto must be in deck B when you want to record.

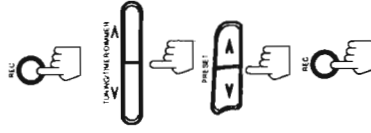
1. Press **REC** to tell the Unit which timer you are going to set.
  - The REC indicator blinks on the display.
2. Set the time you want the sound source to come on and the tape in deck B to start recording.
  - Use **TUNING/TIMER/DIMMER <** or **>** and **MEMORY** just like setting the clock. See instructions above.
3. Set the time you want the sound source to shut off and the tape in deck B to stop recording.
  - Use **TUNING/TIMER/DIMMER <** or **>** and **MEMORY** just like setting the clock. See instructions above.
4. Select the station with **PRESET <** or **>**.
5. Press **REC** again, and the Unit will memorize the setting.
  - Now the CA-S600R is set to turn on and record the selected station.
  - The volume level during timer recording will be automatically set to minimum.
  - Notice that the REC indicator is lit up on the display whenever the Timer is set.
6. To cancel the Timer setting, press **REC** again; the REC indicator on the display goes off.
  - To check the timer contents, press **REC** once or twice so that the REC indicator blinks, and then press **REC** again.

**CAUTION:** If you use the Sleep Timer during timer recording, the setting will be canceled though recording continues. In this case, recording will stop when the tape comes to its end or when the Sleep Timer shuts off the Unit.

**IMPORTANT!**  
Set your clock!



**Recording when you're not there**



8. Now press **CD REC START** on the cassette deck. The FADE indicator lights up in the CD display.
  - The tape automatically rewinds to the beginning of the front side (A), a 10-second blank is created, and the CD begins to play and be recorded. (A 10-second blank is also created on the beginning of the reverse side (B).)
  - If the playing time of the program for one side is longer than the length of one tape side, the last recorded selection will be fading out at the end of the tape side.
  - To stop recording any time during the process, press either **Stop** or **CLEAR** (when you press **CLEAR**, you can make a 4-second blank at the end of the recording). But remember, after you stop, if you restart, the tape will rewind and start recording the CD from the beginning. Pressing **OPEN/CLOSE** will also stop recording.

**NOTE:** Using Auto Edit and Programmed Edit, you can program up to 16 tracks for each side of the tape, and cannot program a track the number of which on the disc is greater than 31.

### Tape to Tape Recording (Dubbing)

Recording from one tape to another is called dubbing. You can dub at regular speed for highest quality, or at high speed with a slight loss in sound quality. With high speed it takes only about one-half the time to copy a tape.

- To dub both sides of a tape, start from side A for both deck A and B, and press **REVERSE MODE** so that the LED next to it lights up.

### How to Copy a Tape With Regular Speed Dubbing

1. Put the cassette you want to copy *from* into deck A for playback.
2. Put the cassette you want to copy *onto* into deck B for recording.
  - Anything already on the cassette in deck B will be erased as the new sound from deck A is copied onto it.
3. Press **REC PAUSE**.
4. Press the **Play Forward** (or **Play Reverse**) on deck A.
  - Deck A starts playing and you are set to start recording deck A to deck B.
5. Press the **Play Forward** (or **Play Reverse**) on deck B.
  - Recording starts, deck A playing and deck B recording.

### High Speed Dubbing

Although the quality of the dubbed tape is a little less, high speed dubbing is a very convenient way to record from one tape to another.

1. Put the cassette you want to copy *from* into deck A, and the cassette to be copied *onto* in deck B.
  - Press **HIGH SPEED DUBBING** on the tape deck.
  - Both decks start, deck A playing and deck B recording.
- The sound you hear is strange because it is much faster than usual, and you may not want to listen to it. Turn down the **VOLUME** control or press **FADE MUTING** on the Remote.
- When using high speed dubbing, you can also listen to another source such as the radio or the CD player, just as if you weren't dubbing. However, to listen to the CD using **Programmed Play**, you need to make a **program before starting high speed dubbing**.
- During high speed dubbing, if you listen to a CD with **Auto Power Off** turned on, the whole Unit, including the cassette decks, may turn off when the CD ends.

### Recording selections from several different tapes

When you want to take selections from several different tapes and combine them on one tape during high speed dubbing, follow these steps:

1. Press **Stop** on deck A.
- This causes deck A to stop, so you can change tapes, and deck B makes a 4-second blank and pauses.
2. Change the tape in deck A.
3. Press **HIGH SPEED DUBBING** to start deck A playing and deck B recording again.

### Important dubbing information

- **Dolby NR** is inactive in dubbing mode regardless of the setting of the **DOLBY B NR**. The dubbed tape automatically contains the same processing as the source tape. The LED next to the **DOLBY B NR** button goes off automatically.
- It is preferable that the tape type (Type I or II) you record from be the same as the tape type you record onto.
- During regular speed dubbing you can only listen to the source tape. If you don't want to hear it, turn down the **VOLUME** control or press **FADE MUTING** on the Remote. Only the sound you hear will be affected; the recording level is controlled automatically.
- You cannot dub using the preset **SEA** and **Panoramic Surround** modes.

**Tape to Tape Dubbing Introduction**

**Regular Speed Dubbing, Step by Step**



**High Speed Dubbing, Step by Step**



**Setting the Once/Daily Timers**

With these timers you can play the sound source at the specified time without recording them. The Once Timer works only once, while the Daily Timer executes the timer operation at the specified time every day.

1. Press **ONCE** or **DAILY** to tell the Unit which timer you are going to set.
  - The corresponding indicator (**ONCE** or **DAILY**) blinks in the display.
2. Set the time you want the sound source to come on.
  - Use **TUNING/TIMER/DIMMER < or >** and **MEMORY** just like setting the clock.
3. Set the time you want the sound source to shut off.
  - Use **TUNING/TIMER/DIMMER < or >** and **MEMORY** just like setting the clock.
4. Select the sound source with **TUNING/TIMER/DIMMER < or >** and **MEMORY** to store it.
  - Each time you press **TUNING/TIMER/DIMMER < or >**, the Unit gives you one of the following settings:

Display	What it means
<b>TUNER</b>	Plays an FM or AM (MW/LW) broadcast
<b>CD</b>	Plays a CD from the beginning
<b>TAPE</b>	Plays a tape

- When you select **TUNER** as the source, you need to designate a preset station by pressing **PRESET < or >**.
- When you select **CD** as the source, you can designate the first track to play from the first 20 tracks on the disk by pressing **PRESET < or >**. (Once you have designated the first track to play, it is memorized and shown in the display when you set the timer.)
- Set the volume level with **TUNING/TIMER/DIMMER < or >**.
- Each time you press **TUNING/TIMER/DIMMER < or >**, the Unit gives you one of the following settings:

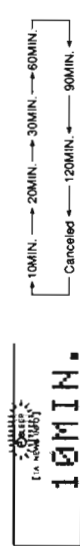
Display	What it means
<b>VOLUME . .</b>	Volume set to the level used before shut the power off.
<b>VOLUME 1</b>	Volume barely on.
<b>VOLUME 2</b>	Volume at about a 1/4 turn of the volume control
<b>VOLUME 3</b>	Volume at about a 3/8 turn of the volume control

6. Press **ONCE** or **DAILY** again, and the Unit will memorize the setting.
  - Notice that the **ONCE** or **DAILY** indicator is lit up on the display whenever the Timer is set.
7. To cancel the Timer setting, press **ONCE** or **DAILY** again; the corresponding indicator on the display goes off.
  - To check the timer contents, press **ONCE** or **DAILY** once or twice so that the **ONCE** or **DAILY** indicator flashes, and then press **ONCE** or **DAILY** again.

**Sleep Timer**

Use the Sleep Timer to turn the Unit off after a certain number of minutes when it is playing. Using this timer, you can fall asleep to music and know your CA-S600R will turn off by itself rather than play all night.

- You can only set the Sleep Timer when the CA-S600R is on and a source is playing.
- To set the Sleep Timer follow this procedure:
1. With the CA-S600R on and a source playing, press **SLEEP**.
    - The **SLEEP** indicator on the tuner display starts blinking.
  2. Set the length of time you want the source to play before shutting off.
    - Each time you press **SLEEP** while the **SLEEP** indicator is blinking, it changes the number of minutes shown on the display in this sequence:



- When the number of minutes you want is shown on the display, just wait 5 seconds until the indicator stops blinking, but remains lit. The Unit is now set to turn off after the number of minutes you set.
3. To cancel the Sleep Timer, press **POWER** to turn off the Unit.

**Checking the Remaining Time**

After setting the Sleep Timer, you can check the time remaining until the Unit shuts off. Pressing **SLEEP** shows you the remaining time on the display for 5 seconds. Then the display returns to the radio frequency display. However, if you press **SLEEP** about 10 seconds before the Sleep Timer shuts off the Unit (during these 10 seconds, the **SLEEP** indicator is blinking), the Sleep Timer will be canceled.

**Turning off the CA-S600R Automatically**

When playing either a tape or a CD, Auto Power Off will shut the Unit off when the tape or CD comes to the end. Auto Power Off is very useful for shutting off the CA-S600R at night.

- To use Auto Power Off:
- Press **AUTO POWER OFF** on the Remote.
  - If the **AUTO OFF** indicator on the amp display is on, Auto Power Off is on, and the Unit will automatically turn off when the tape or CD finishes.
  - If the **AUTO OFF** indicator is off, Auto Power Off is also off.

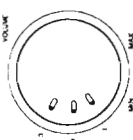
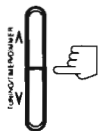
**Important information on using Auto Power Off**

- CD Repeat Play** cannot be used with Auto Power Off. If you do so, Repeat Play will be canceled so that Auto Power Off will be able to work.
- If you press **AUTO POWER OFF** while the tape is playing:
  - If Reverse Mode is off (the Reverse Mode LED is not lit), the Unit turns off when the currently playing side finishes.
  - If Reverse Mode is on (the Reverse Mode LED is lit), the Unit plays the side currently playing, reverses and plays the other side, then shuts off.

**Timer Priority**

Since each timer can be set independently, you may have wondered what happens if the settings overlap. Here are the priorities for each timer.

- The Recording Timer will have priority over any other timers.
- If the Recording, Once, and Daily Timers have the same starting time, the timer will work for only one of the three settings according to the following priority:
  - Recording Timer > Once Timer > Daily Timer
- If the Once and Daily Timers are set within the same time range, each timer will come on at the time you have set. If another timer is already on, that timer will be shut off when the second timer starts.
- If the Sleep Timer has been set while another timer is operating, the other timer operation will be canceled the earlier ending time will have priority.
- If a timer operation begins during Auto Power Off, the timer operation will have priority.
- If Auto Power Off is used during a timer operation, Auto Power Off will have priority.



**Sleep Timer: turns the Unit off automatically at a set time**



## Singing Along

### What is Vocal Masking?

When you press VOCAL MASKING, the lead vocal is reduced, and you can replace it by singing into the microphone as the music plays. No microphone is supplied with the CA-S600R, so you can select your own from the many kinds available.

### Singing-Along Procedure



### How to Sing Along with Vocal Masking

1. Turn the MIC volume control all the way counterclockwise to the MIN position.
2. Attach the microphone (not supplied) by plugging it into the MIC jack in the amplifier section.
3. Start the source—CD, Tape, connected VCR, or other equipment.
4. Press VOCAL MASKING.
5. The Microphone indicator on the amp display lights up.
6. Now adjust the volume of the source with the main VOLUME control, and the volume of your voice with the MIC volume control as you sing into the microphone.
7. To cancel Vocal Masking, press VOCAL MASKING again.

### Recording a Singing-Along Session



### Recording Your Singing-Along

You cannot record your singing-along when the main source is a tape in deck A.

1. Put the cassette you want to record onto in deck B.
2. Press REC PAUSE—see Recording, page 18, if you need more information about tape recording.
3. Follow the above procedure: "How to Sing Along with Vocal Masking."
4. Press Play Forward▷ (or Play Reverse◁) on deck B, and deck B will start recording the source together with your voice in place of the lead vocal.

### Important Information about Vocal Masking

- Vocal Masking cannot be used with the Panoramic Surround modes.
- If you press VOCAL MASKING while the Panoramic Surround mode is on, the Panoramic Surround mode is canceled.
- If you select one of the Panoramic Surround modes while Vocal Masking is on, Vocal Masking is canceled.
- Since the radio signal is not as reliable as signals coming from a tape or CD, you may not always get satisfactory results using the radio as a source for Vocal Masking.
- Some tapes and CDs are better sources for singing along than others.
- Monaural sources are not suitable for Vocal Masking.
- On sources with duets, strong echoes, a chorus, or with only a few instruments, the singer's voice may not be completely reduced.
- Poorly dubbed tapes may not work well for Vocal Masking.
- Karaoke (multiplex) discs and tapes are not used for Vocal Masking.

## Recording from the Microphone

You can use the microphone for two kinds of recording:

- **Mixing**—Sound going into the microphone is mixed with sound sent to the tape in deck B from some other source, such as the CD, or radio.
- **Regular recording**—Only sound picked up by the microphone is recorded.

### Two ways of recording with the microphone

### Special techniques for using the microphone



### Mixing

1. Put the cassette you want to record onto in deck B.
2. Connect the microphone to the MIC jack.
3. Set deck B to recording pause mode by pressing REC PAUSE.
4. Start the source (radio, CD, VIDEO or AUX) and set the VOLUME control.
5. Adjust the microphone volume with the MIC volume control.
6. When you are ready to record, press Play Forward▷ (or Play Reverse◁) on deck B, and both sounds from the microphone and from the playing source will be recorded.

### Regular Microphone Recording

This is possible only when no source is playing.

1. Put the cassette you want to record onto in deck B.
2. Connect the microphone to the MIC jack.
3. Set deck B to recording pause mode by pressing REC PAUSE.
4. Adjust the volume of the microphone with the MIC volume control.
5. Now when you press Play Forward▷ (or Play Reverse◁) on deck B, whatever sounds the microphone picks up will be recorded.

### Important Information for using the microphone

- You may have to experiment some to see just where to set the MIC volume control to get the best recorded sound.
- To prevent howling and squealing when using the microphone, adjust the MIC volume control and the VOLUME control, and try not to point the microphone at the speakers.
- When you are not using the microphone, keep the MIC volume control set to MIN. It is best to disconnect the microphone when you will not be using it for a while.

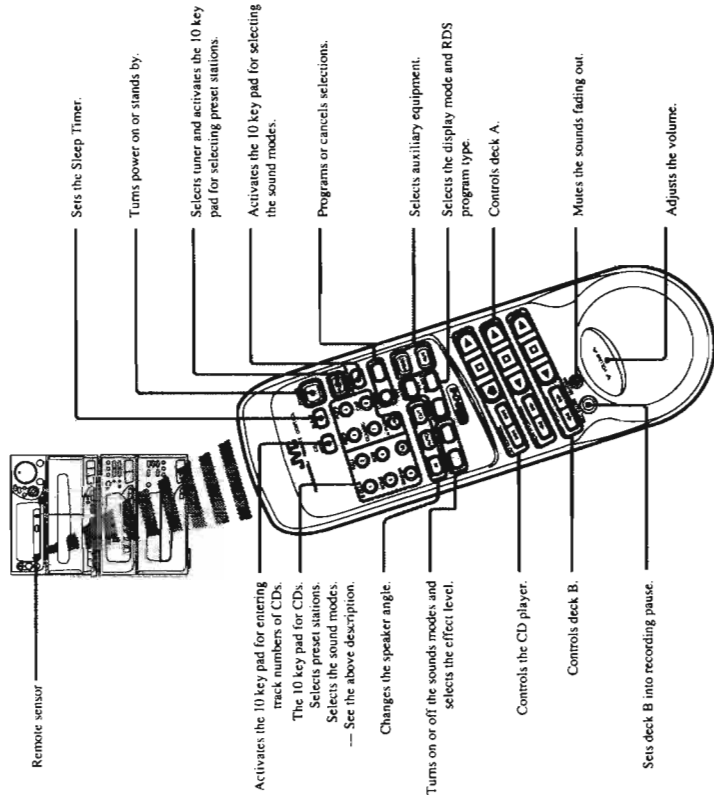
## How to Use the Remote Control

The Remote Control makes it easy to control many of the functions of the CA-S600R from a distance of up to 7 m away. Most of the buttons on the Remote Control do just what the ones on the front of the CA-S600R do, and they are explained in the manual. A few functions are available only by using the Remote Control, and those are described below.

### Using the 10 Key Pad

The 10 key pad is used to specify a CD track, the number you have assigned to a preset radio station, or a sound effect. To enter a number using the 10 key pad, follow these steps:

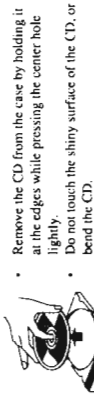
- Before using 10 key pad, check to see whether the 10 key pad is functioning to operate the CD player, tuner, or amplifier. This depends on which button on the Remote you have pressed before using 10 key pad.
- To select preset stations, press TUNER first.
- To select preset sound modes, press PANORAMIC/SEA button first.
- To select CD tracks, press CD 10KEY first.
- For numbers between 1 and 10, just press the button with the number you want.
- For numbers from 11 to 20, first press the +10 key, then the one's digit of the number you want—to get 15, first press +10, then 5. For 20, press +10 and 10.
- For numbers from 21 to 30, press the +10 key twice; then press the one's digit—to get 25, press +10 +10 and 5. For 30, press +10 +10 and 10.
- For numbers from 31 and 40, follow the same procedure, only press the +10 key three times, then the one's digit—to get 32, press +10 +10 +10 and 2.



## Care and Maintenance—General Notes

### Compact Discs

Handle your compact discs, cassette tapes, and cassette deck carefully, and they will last a long time.



- Remove the CD from the case by holding it at the edges while pressing the center hole lightly.
- Do not touch the shiny surface of the CD, or bend the CD.



- Place the CD into the open tray with the label facing up.



- 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, benzene, etc.) to clean a CD.

### Moisture Condensation

Moisture may condense on the lens inside the Unit in the following cases:

- After starting the heating in the room
- In a damp room
- If the Unit is brought directly from a cold to a warm place.

Should this occur, the Unit may malfunction. In this case, leave the Unit turned on for a few hours until the moisture evaporates, unplug the AC power cord, and then plug it in again.

In general, you will have the best performance by keeping your tapes, CDs, and the mechanism clean.

- Store tapes and CDs in their cases, and keep them in cabinets or on shelves.
- Keep the tape deck tape carriers and the CD tray closed when not in use.

### Cassette Tapes



- If the tape is loose in its cassette, take up the slack by inserting a pencil in one of the reels and rotating.
- If the tape is loose it may get stretched, cut, or caught in the cassette.



- Do not touch the tape surface.

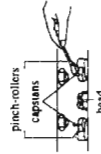


- Do not store the tape:
  - In dusty places
  - In direct sunlight or heat
  - In moist areas
  - On a TV or speaker
  - Near a magnet

### Cassette Deck

- If the heads, capstans, and pinch-rollers of the cassette deck become dirty, the following will occur:
  - Impaired sound quality
  - Discontinuous sound
  - Fading
  - Incomplete erasure
  - Difficulty recording

- Clean the heads, capstans, and pinch-rollers using a cotton swab moistened with alcohol.



- If the heads become magnetized, they will produce noise or loose high frequencies.

- To demagnetize the heads, turn off the system, and use a head demagnetizer (available at electronics and record shops).

**Specifications**

Amplifier/Cassette Deck Section	DX-S600R
<b>Amplifier</b>	
Output Power (IEC 768-3/DIN)	AC 230 V ~, 50 Hz
40 watts per channel, min. RMS, both channels driven, into 6 ohms at 1 kHz with no more than 0.5% total harmonic distortion.	130 watts
Input Sensitivity/Impedance (1 kHz)	13 watts (in standby mode)
VIDEO	300 mV/47 kohms
AUX	300 mV/47 kohms
MIC	2 mV/10 kohms
Speaker terminals	6 ohms
Speakers	
<b>Cassette Deck</b>	
Frequency response	30 - 16,000 Hz
CrO <sub>2</sub> (Type II):	30 - 15,000 Hz
Normal (Type I):	0.09% (WRMS)/0.25% (DIN)
Wow and Flutter	
Dimensions (Approx.)	245 x 183 x 343.5 mm (w/h/d) (9 <sup>7</sup> / <sub>16</sub> x 7 <sup>1</sup> / <sub>8</sub> x 13 <sup>7</sup> / <sub>16</sub> in.)
Mass (Approx.)	5.9 kg (13 lbs)
<b>Tuner/CD Section</b>	<b>XT-S600R</b>
<b>Tuner</b>	
FM Tuner	
Tuning Range	87.5 - 108.0 MHz
AW (MWLW) Tuner	
MW Tuning Range	522 - 1,629 kHz
LW Tuning Range	144 - 288 kHz
<b>Compact Disc Player</b>	
Dynamic Range (1 kHz)	96 dB
Signal-to-Noise Ratio	102 dB
Wow and Flutter	Unmeasurable
Dimensions (Approx.)	245 x 183 x 309 mm (w/h/d) (9 <sup>7</sup> / <sub>16</sub> x 7 <sup>1</sup> / <sub>8</sub> x 12 <sup>1</sup> / <sub>16</sub> in.) (Maximum depth 453 mm (17 <sup>7</sup> / <sub>16</sub> in.) with the CD tray open)
Mass (Approx.)	2.7 kg (6 lbs)

Design and specifications are subject to change without notice.

**Troubleshooting**

- If you are having a problem with your CA-S600R, check this list for a possible solution before calling for service.
- If you cannot solve the problem from the hints given here, or the Unit 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.	Check all connections and make corrections. (See pages 4 and 5.)
Impossible to record.	Cassette record protect tabs are removed.	Cover holes on back edge of cassette with tape.
Hard to listen to broadcasts because of noise.	The antenna is disconnected. The loop antenna is too close to the system antenna. The feeder/wire antenna is not properly extended and positioned.	Reconnect the antenna securely. Change the position and direction of the loop antenna. Extend feeder/wire antenna at the best reception position.
The CD sound is discontinuous. Unable to operate the Remote.	The CD is scratched or dirty. The path between the Remote and the sensor on the Unit is blocked. The batteries are discharged.	Clean or replace the CD. (See page 28.) Remove the obstruction. Replace the batteries.
The CD tray cannot be operated.	The main AC power cord is not plugged in.	Plug in the AC power plug.
The CD does not play.	The CD is upside down.	Put the CD in with the label side up.
Operations are disabled.	The built-in microprocessor may malfunction due to external electrical interference.	Unplug the system then plug it back in.
The cassette carrier cannot be opened.	The system was turned off because the timer was operated while the tape was running.	Turn on the system.
The FM station tuned alternates between the currently selected one and another when using the EON function.	An incorrect EON signal is being sent.	Press EON ON/OFF so that the EON indicator goes off.

CA-S600R

# DX-S600R

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# Description of ICs

## ■ MN171202J5K (IC950) : System Controller

### Terminal Layout

VDD	1	64	OSC1
S1	2	63	OSC2
S2	3	62	Vss
S3	4	61	X2
S4	5	60	X1
S5	6	59	LSP UP
S6	7	58	LSP DOWN
S7	8	57	JOG IN2
S8	9	56	JOG IN1
S9	10	55	ACO
S10	11	54	SPK
S11	12	53	TUNER RESET
S12	13	52	DECK RESET
S13	14	51	STBY IND.
RSPDOWN	15	50	S.MUTE
RSPUP	16	49	DECK INH
VOL DOWN	17	48	DCS OUT
VPP	18	47	DCS IN
VOL UP	19	46	INH
1G (KO0)	20	45	RM IN
2G (KO1)	21	44	PRT IN
3G (KO2)	22	43	RST
4G (KO3)	23	42	S.OUT
5G	24	41	S.STB
6G	25	40	SCK
7G	26	39	LATCH
8G	27	38	DATA OUT
9G	28	37	DATA IN
10G	29	36	D STB
11G	30	35	CS0
ABX IND	31	34	KI1
VOL IND	32	33	KI0

### Key Matrix

	KEY IN 0 (Pin 33)	KEY IN 1 (Pin 34)
KEY OUT 0 (Pin 20)	AUTO P.OFF	VOCAL MASKING /DEMO
KEY OUT 1 (Pin 21)	ABX	STANDBY
KEY OUT 2 (Pin 22)	SOUND EFFECT	SEA CONTROL
KEY OUT 3 (Pin 23)	VIDEO	AUX

### Terminal Description

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	VDD	--	Power supply	33	KEY IN 0	I	Key matrix input
2	S1	O	FL segment control	34	KEY IN 1	I	Key matrix input
3	S2	O	FL segment control	35	CS0	O	Chip select output
4	S3	O	FL segment control	36	D STB	O	Strobe signal for IC461
5	S4	O	FL segment control	37	DATA IN	I	Data input from IC461
6	S5	O	FL segment control	38	DATA OUT	O	Data output to IC461
7	S6	O	FL segment control	39	LATCH	O	Latch signal for IC802
8	S7	O	FL segment control	40	SCK	O	Clock for IC801, 802, 881, 882
9	S8	O	FL segment control	41	S.STB	O	Strobe signal for IC801, 881, 882
10	S9	O	FL segment control	42	S.OUT	O	Data for IC801, 802, 881, 882
11	S10	O	FL segment control	43	RST	I	System reset input
12	S11	O	FL segment control	44	PRT IN	I	Emergency detection
13	S12	O	FL segment control	45	RM IN	I	Remote control signal input
14	S13	O	FL segment control	46	INH	I	System inhibit signal input
15	RSP DOWN	O	Panorama speaker drive output (Right)	47	DCS IN	I	Compulink signal input
16	RSP UP	O	Panorama speaker drive output (Right)	48	DCS OUT	O	Compulink signal output
17	VOL DOWN	O	Volume control output	49	DECK INH	O	Inhibit signal for deck controller
18	VPP	I	Power supply for FL display	50	S.MUTE	O	Source mute
19	VOL UP	O	Volume control output	51	STBY IND.	O	Indication signal for STANDBY
20	1G (KO0)	O	FL grid control & Key matrix output	52	DECK RES.	O	Reset signal for deck controller
21	2G (KO1)	O	FL grid control & Key matrix output	53	TU. RESET	O	Tuner reset signal
22	3G (KO2)	O	FL grid control & Key matrix output	54	SPK	O	Speaker relay control
23	4G (KO3)	O	FL grid control & Key matrix output	55	ACO	O	Regulator control
24	5G	O	FL grid control	56	JOG IN1	I	Data from jog dial
25	6G	O	FL grid control	57	JOG IN2	I	Data from jog dial
26	7G	O	FL grid control	58	LSP DOWN	O	Panorama speaker drive output (Left)
27	8G	O	FL grid control	59	LSP UP	O	Panorama speaker drive output (Left)
28	9G	O	FL grid control	60	X1	--	Connected to GND
29	10G	O	FL grid control	61	X2	--	Non connection
30	11G	O	FL grid control	62	VSS	--	Connected to GND
31	ABX IND.	O	ABX indication control	63	OSC2	--	Oscillation terminal
32	VOL IND.	O	Volume indication control	64	OSC1	--	Oscillation terminal

## HD614081SE39 (IC203) : Deck controller

### Terminal Layout

NR LED	1	64	A.FWD. LED
NR LED(C)	2	63	A. REV. LED
A SPEED UP	3	62	B FWD. LED
B SPEED UP	4	61	B. REV. LED
MUSIC IN	5	60	REC LED
B.FWD.REEL MOTOR	6	59	REV. MODE
B.REV.REEL MOTOR	7	58	BIAS
B REV CAM MOTOR	8	57	NR OFF
B FWD CAM MOTOR	9	56	REC MUTE
A CAM SW-2	10	55	DCS IN
A CAM SW-1	11	54	DCS OUT
A CAM SW-0	12	53	GND
A PULSE IN	13	52	4.19MHzOSC IN
B CAM SW-2	14	51	4.19MHzOSC IN
B CAM SW-1	15	50	TO VCC
B CAM SW-0	16	49	RESET IN
B PULSE IN	17	48	KEY&SW IN-4
POWER OFF IN	18	47	KEY&SW IN-3
GND	19	46	KEY&SW IN-2
A FWD REEL MOTOR	20	45	KEY&SW IN-1
A REV REEL MOTOR	21	44	KEY OUT-4
A REV CAM MOTOR	22	43	KEY OUT-3
A FWD CAM MOTOR	23	42	KEY OUT-2
NR REC	24	41	KEY OUT-1
A MUTE	25	40	SWOUT-2
B MUTE	26	39	SWOUT-1
PLAY MUTE	27	38	HI-SPEED DUBBING
CAP.MOTOR ON	28	37	H.S.CrO2
REC	29	36	H.S. ME
FADE CTRL	30	35	H.S.NORM.
BEQ	31	34	CrO2
+5V	32	33	METAL

### Key Matrix

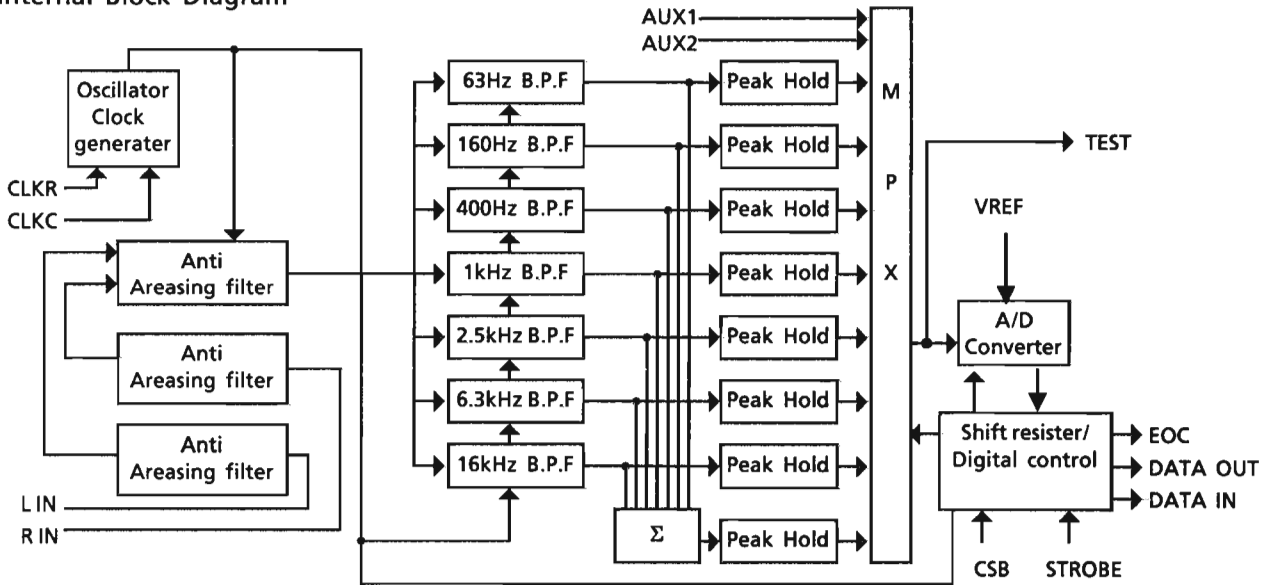
	KEY&SW 1 (Pin 45)	KEY&SW 2 (Pin 46)	KEY&SW 3 (Pin 47)	KEY&SW 4 (Pin 48)
KEY OUT 1 (Pin 41)	A ◀	A ◀◀	A ▶▶	A ▶
KEY OUT 2 (Pin 42)	B ◀	B ◀◀	B ▶▶	B ▶
KEY OUT 3 (Pin 43)	A ■	B ■	REC PAUSE	—
KEY OUT 4 (Pin 44)	A▶▶B	DOLBY	REV. MODE	CD REC
SW OUT 1 (Pin 39)	—	B CrO2	METAL	—
SW OUT 2 (Pin 40)	B PACK	REV REC	FWD REC	A PACK

### Terminal Description

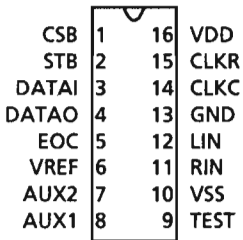
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	NR.LED	O	NR indication signal output	33	Metal	--	Not used
2	NR.LED(C)	O	Not used	34	CrO <sub>2</sub>	--	Not used
3	A.SPEED UP	O	Deck A reel speed control	35	HS-Norm.	--	Not used
4	B.SPEED UP	O	Deck B reel speed control	36	HS-Metal	--	Not used
5	MUSIC IN	I	Music scan signal input	37	HS-CrO <sub>2</sub>	--	Not used
6	B.FWD REEL	O	Deck B reel motor control (forward)	38	HI-SPEED	O	Capstan&EQ control ( Hi- speed dubbing)
7	B.REV.REEL	O	Deck B reel motor control (reverse)	39	SW OUT-1	O	Leaf switch signal output
8	B.REV.CAM	O	Deck B cam motor control (reverse)	40	SW-OUT-2	O	Leaf switch signal output
9	B.FWD.CAM	O	Deck B cam motor control (forward)	41	KEY OUT-1	O	Key matrix output
10	A.CAM SW-2	I	Cam switch signal from Deck A	42	KEY OUT-2	O	Key matrix output
11	A.CAM SW-1	I	Cam switch signal from Deck A	43	KEY OUT-3	O	Key matrix output
12	A.CAM SW-0	I	Cam switch signal from Deck A	44	KEY OUT-4	O	Key matrix output
13	A.PULSE IN	I	Deck A reel pulse input	45	KEY&IN-1	I	Key matrix & leaf switch input
14	B.CAM SW-2	I	Cam switch signal from Deck B	46	KEY&IN-2	I	Key matrix & leaf switch input
15	B.CAM SW-1	I	Cam switch signal from Deck B	47	KEY&IN-3	I	Key matrix & leaf switch input
16	B.CAM SW-0	I	Cam switch signal from Deck B	48	KEY&IN-4	I	Key matrix & leaf switch input
17	B PULSE IN	I	Deck B reel pulse input	49	RESET IN	I	Reset signal input
18	POW. OFF IN	I	Power off signal input	50	TO VCC	--	PULL UP (+5V)
19	GND	--	Ground	51	OSC	--	Clock oscillation
20	A.FWD.REEL	O	Deck A reel motor control (forward)	52	OSC	--	Clock oscillation
21	A.REV.REEL	O	Deck A reel motor control (reverse)	53	GND	--	Ground
22	A.REV.CAM	O	Deck A cam motor control (reverse)	54	DSC OUT	O	Compulink signal output
23	A.FWD.CAM	O	Deck A cam motor control (forward)	55	DCS IN	I	Compulink signal input
24	NR REC	O	REC/PLAYBACK control	56	REC.MUTE	O	Recording mute control
25	A MUTE	--	Not used	57	NR.OFF	O	NR on/off control
26	B MUTE	O	Deck A / B select signal	58	BIAS	O	Bias circuit on/off control
27	PLAY MUTE	O	This terminal is L during playback	59	REV. MODE	O	Reverse mode indication
28	CAP,MOTOR	O	Capstan motor on/off control signal	60	REC LED	O	Recording indication
29	REC	--	Not used	61	B REV.LED	O	Reverse play indication
30	FADE CONT.	O	Fade recording control	62	B.FWD LED	O	Forward play indication
31	BEQ	O	Bias current control (CrO <sub>2</sub> : H)	63	A REV.LED	O	Reverse play indication
32	+5V	--	Power supply	64	AFWD LED	O	Forward play indication

■ XR1099CP (IC461) : 7-channel graphic equalizer filter with A/D converter

Internal Block Diagram



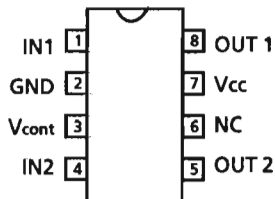
Terminal Layout



Terminal Description

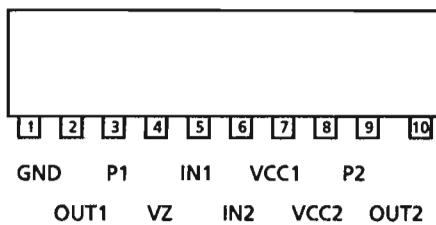
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	CSB	I	Chip select	8	TEST	-	Not used
2	STB	I	Strobe signal	10	VSS	I	-5V
3	DATAI	I	Data input	11	RIN	I	Non connection
4	DATAO	O	Data output	12	LIN	I	Sound signal input
5	EOC	O	End of conversion	13	GND	-	GND
6	VREF	I	A/D converter reference voltage	14	CLKC	-	A capacitor is connected
7	AUX2	I	Detection for panoram speaker position	15	CLKR	-	A resistor is connected
8	AUX1	I		16	VDD	-	+5V

■ LB1639-CV (IC481,482, 945) : Motor Driver



IN 1	IN 2	OUT 1	OUT 2	MOTOR
H	L	H	L	CLOCKWISE
L	H	L	H	COUNTER-CLOCKWISE
H	H	OFF	OFF	WAITING
L	L	OFF	OFF	WAITING

■ LB1641 (IC204~207) : Motor Driver

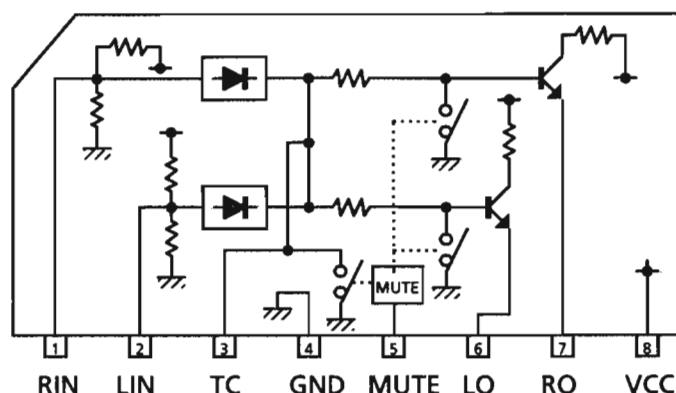


Input		Output		Mode
IN1	IN2	OUT1	OUT2	
0	0	0	0	Brake
1	0	1	0	CLOCKWISE
0	1	0	1	COUNTER-CLOCKWISE
1	1	0	0	Brake

∞ : Hi impedance



■ BA8221AN (IC353) : Automatic Level Controller



■ HA12171NT (IC304) : Dolby NR& REC equalizer

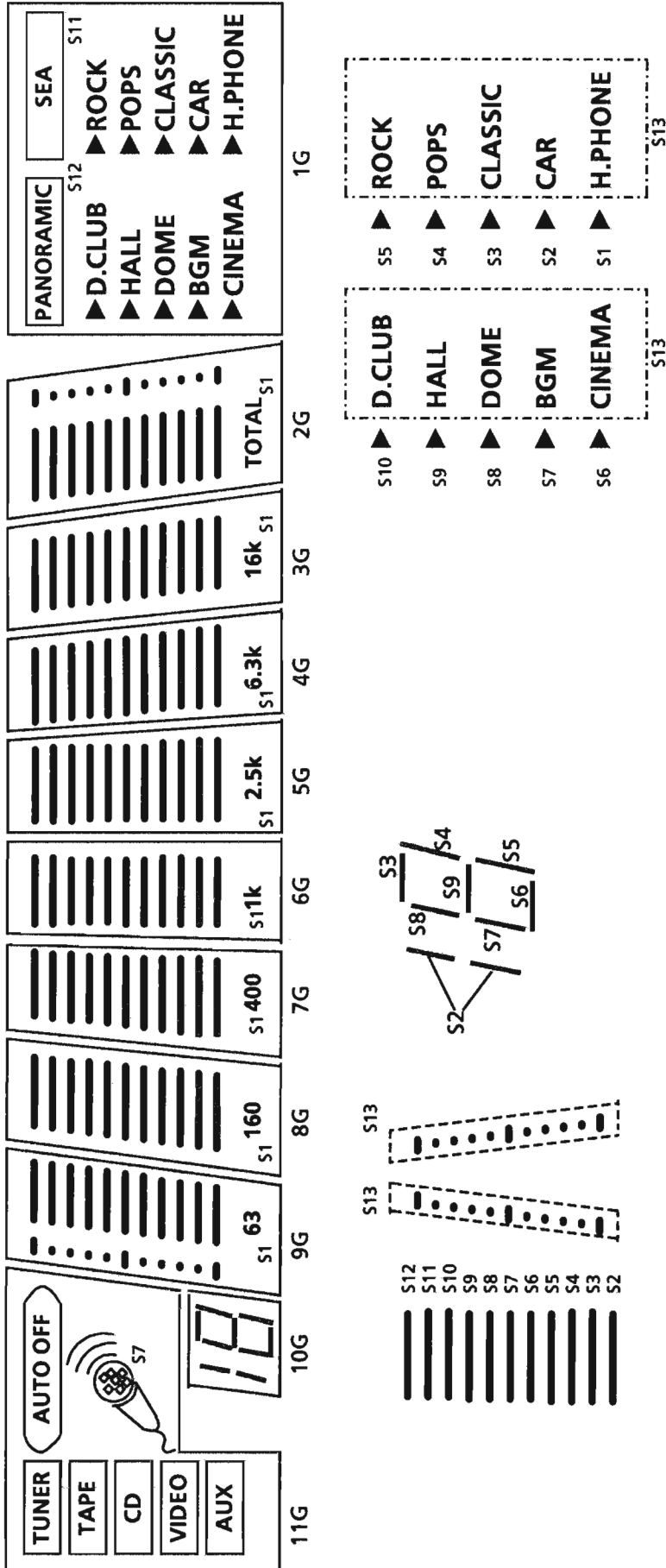
Function

- Dolby Type B NR
- REC Equalizer
- Blunk detection

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	GND	--	Ground	29	VCC	--	Power supply
2	AIN(R)	I	Deck A playback input (Rch)	30	D-GND	--	Digital GND
3	BIN(R)	I	Deck B playback input (Rch)	31	MSOUT	O	Signal for music scan
4	ABO(R)	O	Playback buffer out (Rch)	32	MS-VCC	--	Power supply
5	CIN(R)	I	70 $\mu$ Buffer input (Rch)	33	MSDET	I	Time constance setting for music scan
6	RIN(R)	I	Recording input(Rch)	34	MSIN	I	Buffer input for music scan
7	BIAS	I	Connected to -7.5V	35	MAOUT	O	Buffer out for music scan
8	PBOUT(R)	O	Playback output (Rch)	36	MS-GND	--	GND
9	DET (R)	I	NR time constance (Rch)	37	FFI	I	Feedback input for M.S.(FF,REW)
10	RECOUT(R)	O	Recording output (Rch)	38	NOI	I	Feedback input for M.S.
11	EQIN(R)	I	Input for recording equalizer (Rch)	39	VREF	--	Refference for music scan
12	BOOST(R)	I	Time constance for low boost (Rch)	40	BIASOUT	O	Recording bias control
13	EQOUT(R)	O	Equalizer output (Rch)	41	BIAS(M)	I	Bias current input for metal tape
14	PB A/B	I	Deck A/B select	42	BIAS(C)	I	Bias current input for CrO2 tape
15	A 120/70	I	Deck A playback EQ select	43	BIAS(N)	I	Bias current input for normal tape
16	PASS/DOL	I	Dolby signal path select	44	EQOUT(L)	O	Equalizer output (Lch)
17	NORM/HIGH	I	Dubbing mode select	45	BOOST(L)	I	Time constance for low boost (Lch)
18	B 120/70	I	Deck B playback EQ select	46	EQIN(L)	I	Input for recording equalizer (Lch)
19	CrO <sub>2</sub> / METAL	I	Tape select	47	RECOUT(L)	O	Recording output (Lch)
20	BIAS ON/OFF	I	Bias ON/OFF control	48	DET(L)	I	NR time constance (Lch)
21	RM ON/OFF	I	Recording mute ON/OFF control	49	PBOUT(L)	O	Playback output(Lch)
22	NR ON/OFF	I	NR ON/OFF control	50	RIP	I	Ripple filter
23	MS GAIN R/S	I	Gain for music scan control	51	RIN(L)	I	Recording input (Lch)
24	REC/PB	I	Recording / Playback select	52	CIN(L)	--	70 $\mu$ buffer input (Lch)
25	LM ON/OFF	--	Not used	53	ABO(L)	O	Playback buffer out (Lch)
26	IREF	I	Reference current input	54	BIN(L)	I	Deck B playback input (Lch)
27	GPCAL	I	GP calibration	55	AIN(L)	I	Deck A playback input (Lch)
28	RECCAL	I	Recording gain calibration	56	GND	--	GND

# Internal Connection of FL Display

■ ELU0001-191 (FL950)



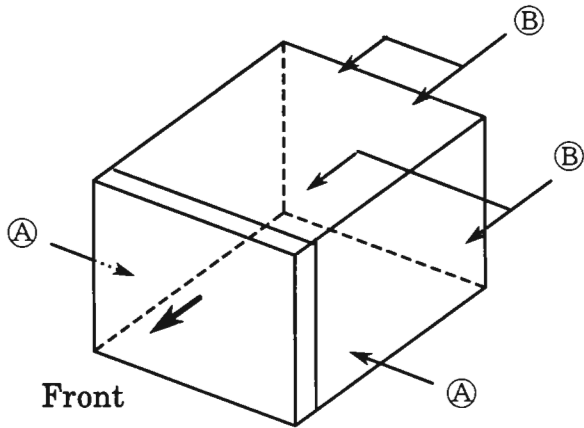
## Terminal Connection

Terminal No.	1	2	3	4	5	6	7	8	9	10	11										
Electrode	F	F	F	NP	NP	11G	10G	9G	8G	7G	6G										
Terminal No.	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Electrode	5G	4G	3G	2G	1G	NP	NP	NP	NP	NP	S15	S14	S13	S12	S11	S10	S9	S8	S7	S6	
Terminal No.												32	33	34	35	36	37	38	39	40	41
Electrode												S5	S4	S3	S2	S1	NP	NP	F	F	F

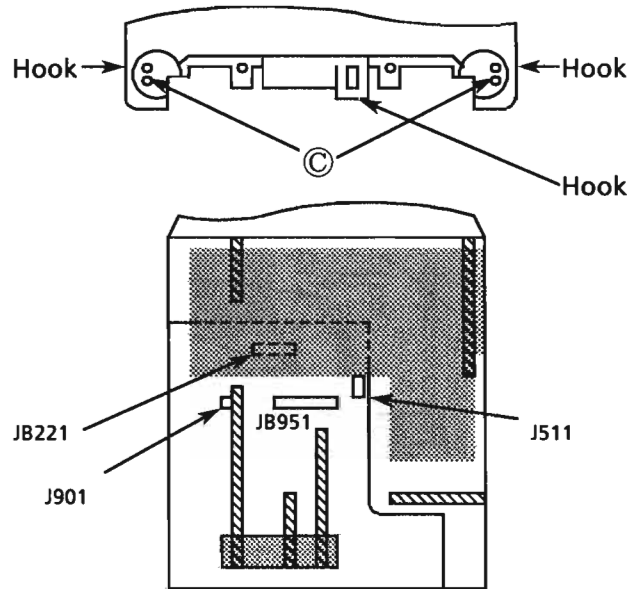
Notes F : Filament G : Grid S : Segment NP : No Pin

# Disassembly Procedures

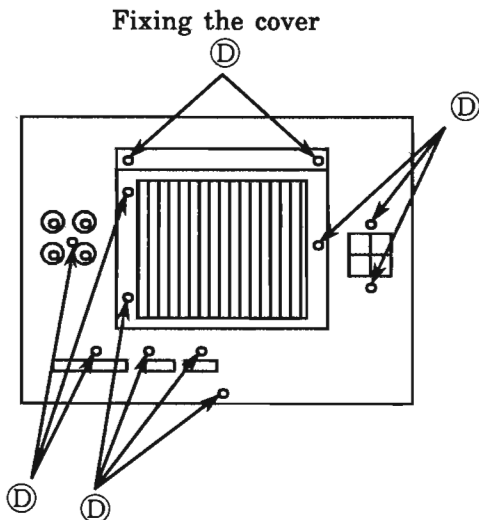
- (1) Removing the top cover
1. Remove 6 screws (A) and (B) fastening the rear and sides of the top cover to remove the cover.



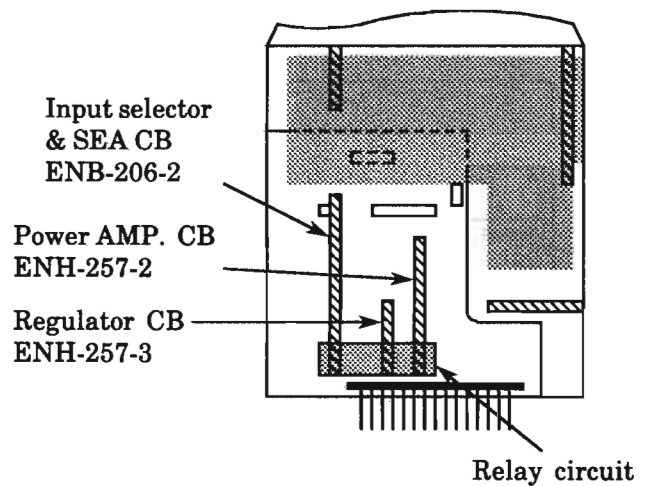
- (2) Removing the Front panel assembly
1. Remove the top cover.
  2. Disconnect the connectors JB951, JB221, J901 and J511.
  3. Remove 2 screws (C) and 3 hooks fastening the assembly with chassis to remove the assembly.



- (3) Removing the rear panel
1. Remove the top cover.
  2. Remove 2 screws (D) to remove the heat sink cover.
  3. Remove 10 screws fixing the rear panel.

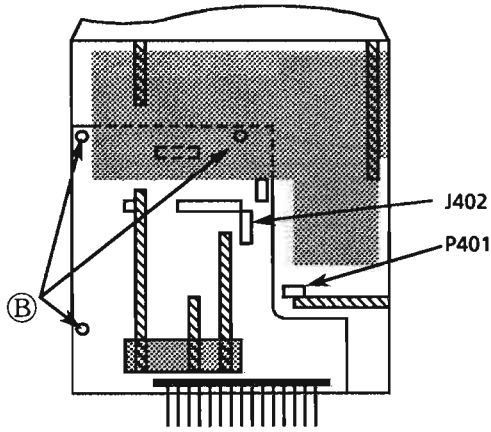


- (4) Removing the POWER IC
1. Remove the rear panel.
  2. Remove the relay circuit board.
  3. Remove the power amp. circuit board and regulator circuit board with the heat sink.
  4. Remove 2 screws (SBSG3014CC) fixing the power amp. ic.
  5. Unsolder it.

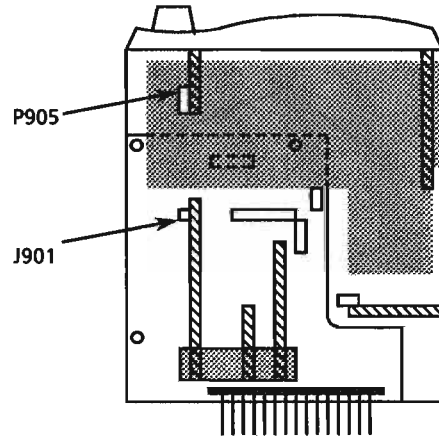


(A) .. SDGS3006M    (B) ... GBSG3008CC    (C) ... SBST3008M    (D) ... E73273-003

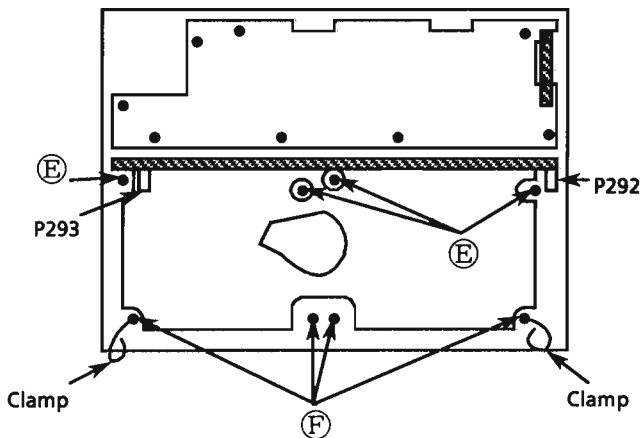
- (5) Removing the Main circuit board
1. Remove the top cover.
  2. Remove the front panel assembly.
  3. Remove the rear panel.
  4. Disconnect the flat wire J402 and the connector P401
  5. Remove 3 screws (B) to remove the circuit board.



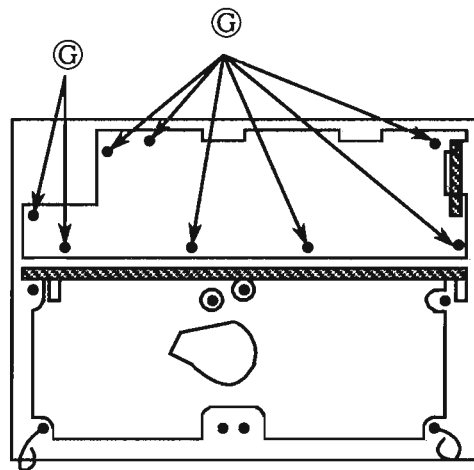
- (6) Removing the master volume circuit board
1. Disconnect the connector P905
  2. Remove the volume knob and the nut fixing the volume to remove it.
  3. Disconnect the flat wire J901.



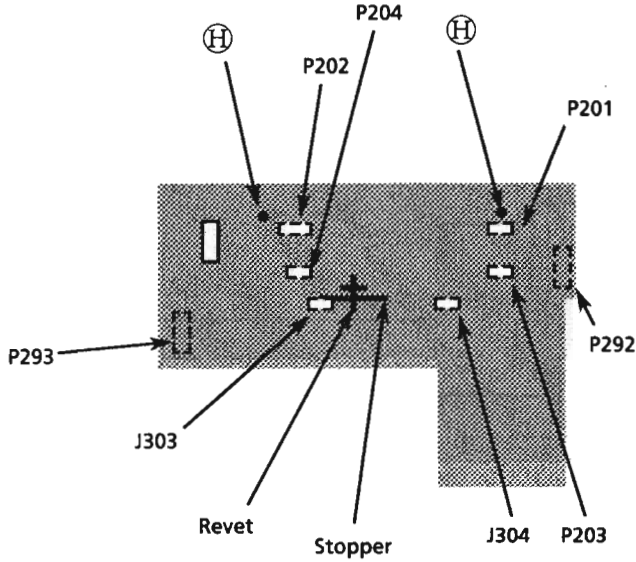
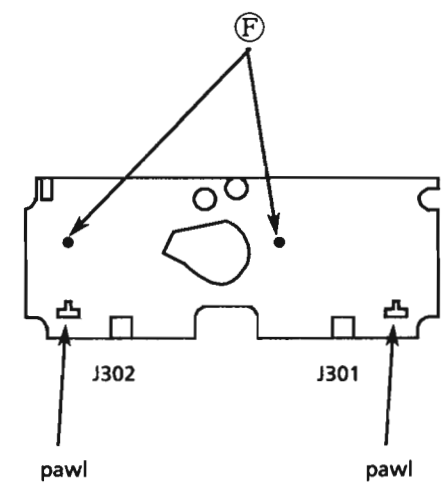
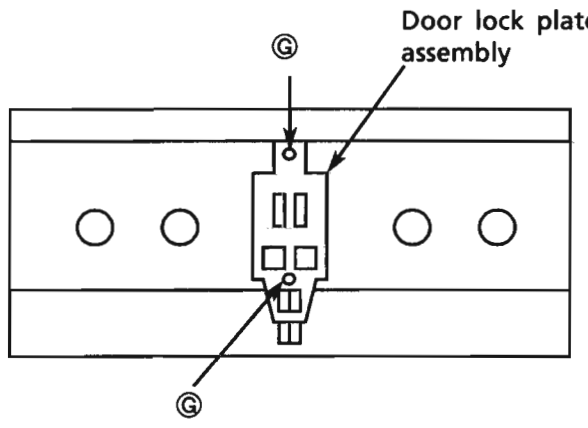
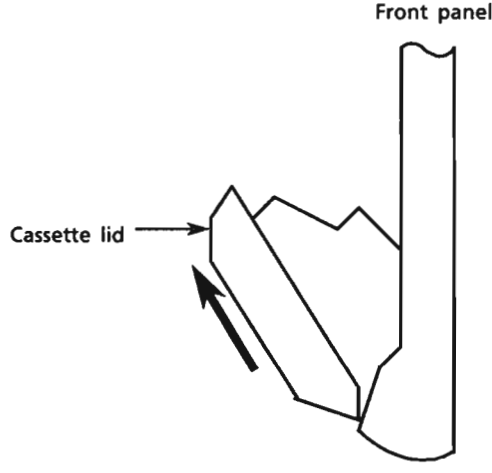
- (7) Removing the mechanism assembly
1. Remove the front panel assembly.
  2. Disconnect the connectors P292 and 293.
  3. Remove the 8 screws (E) and (F) to remove the assembly.



- (8) Removing the front circuit board
1. Remove the master volume circuit board.
  2. Remove the jog volume knob, mic. level knob and balance (echo) knob.
  3. Remove the front panel assembly.
  4. Remove the mechanism assembly.
  5. Remove 8 screws (G) to remove the front CB.

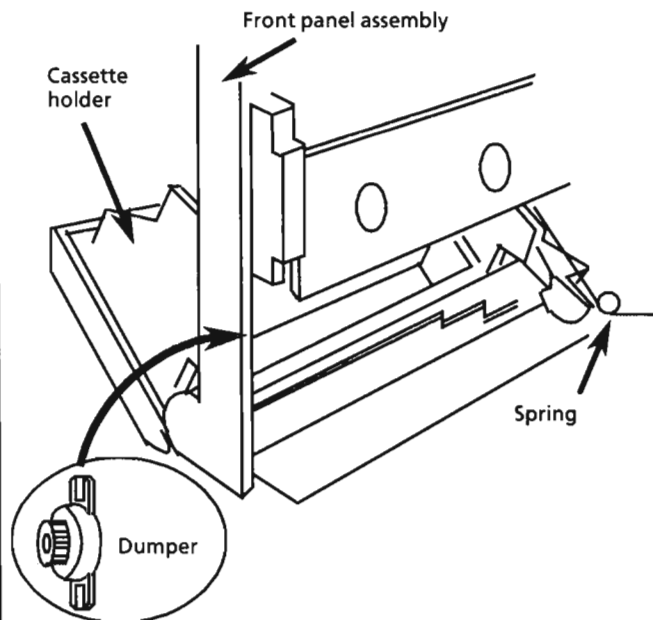


(E) .. SBSF3008Z      (F) ... SBST3006Z      (G) ... SDSF2608Z      (H) ... SPST2604Z

<p>(9) Removing the deck control circuit board</p> <ol style="list-style-type: none"> <li>1. Remove the mechanism assembly. (Refer to item 7)</li> <li>2. Remove the stopper.</li> <li>3. Remove the 2 screws (H) to remove the circuit board.</li> </ol>	<p>(10) Removing the deck audio circuit board</p> <ol style="list-style-type: none"> <li>1. Remove mechanism assembly. (Refer to item 7.)</li> <li>2. Remove the deck control circuit board. (Refer to item 9.)</li> <li>3. Disconnect J301 and J302.</li> <li>4. Remove the 2 screws (F) to remove the circuit board. (Pay attention to the pawls.)</li> </ol>
	
<p>(11) Removing the door lock plate assembly</p> <ol style="list-style-type: none"> <li>1. Remove the front panel assembly.</li> <li>2. Remove the mechanism assembly.</li> <li>3. Remove the 2 screws (G) fixing the assembly.</li> <li>4. Open the cassette doors to remove the assembly.</li> </ol>	<p>(12) Removing the cassette lids</p> <ol style="list-style-type: none"> <li>1. Push the eject button to open the cassette doors.</li> <li>2. Slide the lids up to remove them.</li> </ol>
	

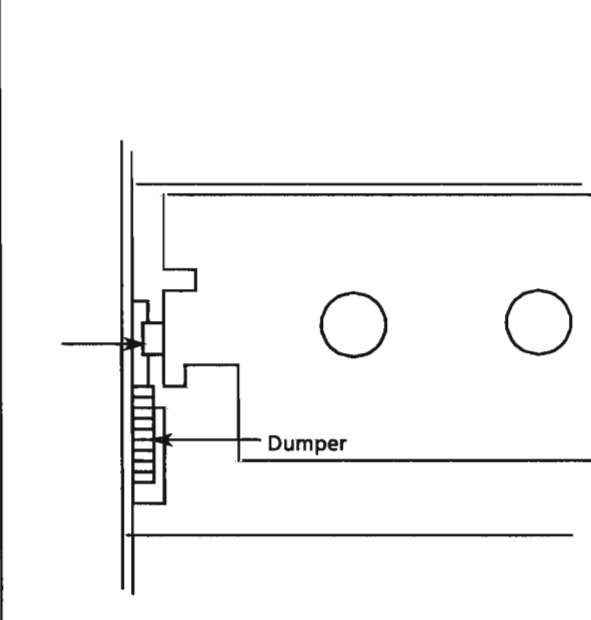
**(13) Removing the Cassette holder**

1. Remove the front panel assembly.
2. Remove the mechanism assembly.
3. Open the cassette door.
4. Remove the spring.
5. Remove the cassette holder.



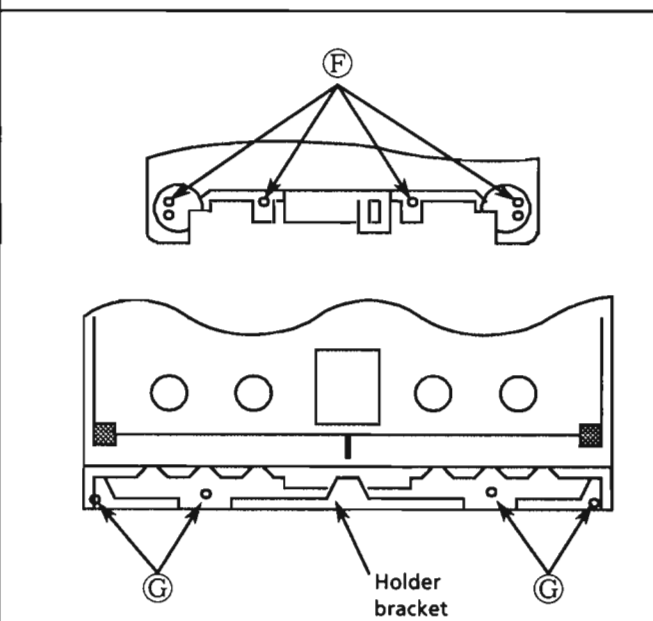
**(14) Removing the dumpers**

1. Remove the front panel assembly.
2. Remove the mechanism assembly.
3. Remove the cassette holder.
4. Remove the dumper pushing the position indicated by the arrow inside.



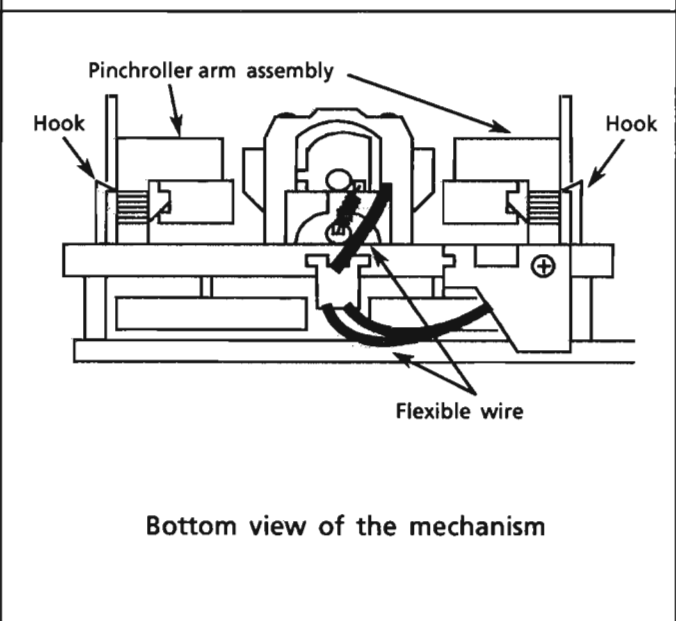
**(15) Removing the Front SW circuit board**

1. Remove the front panel assembly.
2. Remove the mechanism assembly.
3. Remove the cassette holders.
4. Remove the door lock plate assembly. (Refer to Item 11)
5. Remove the 4 screws (F) to remove the holder bracket fixing the SW circuit board.
6. Remove 4 screws (G) to remove the circuit board.



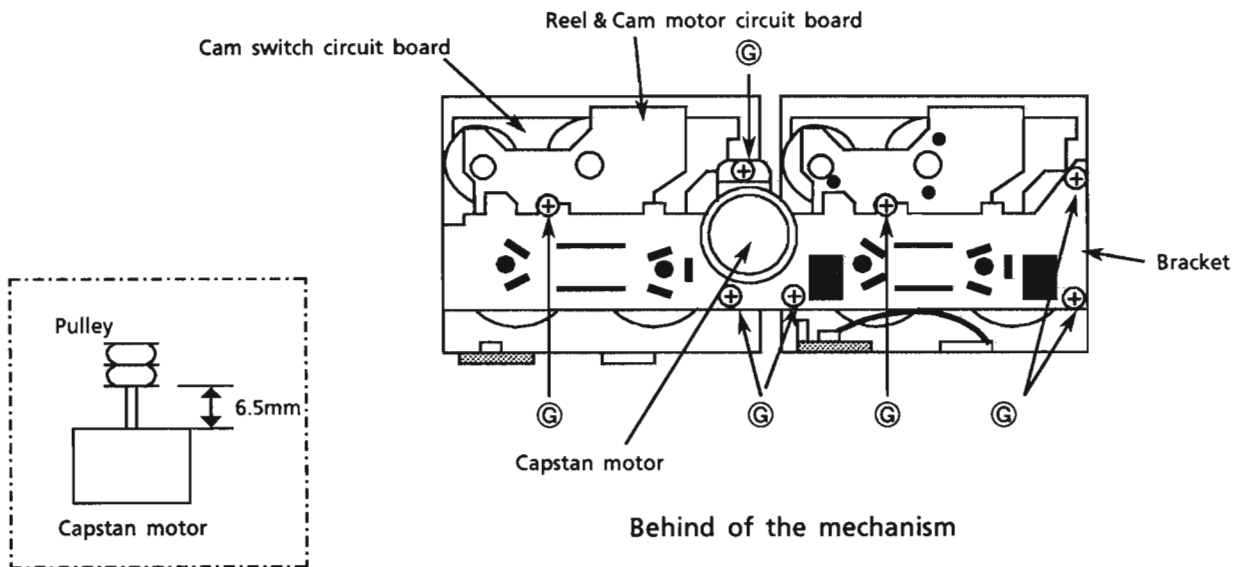
**(16) Removing the pinchroller arm assembly**

1. Remove the front panel assembly.
2. Remove the mechanism assembly.
3. Release the hook holding the assembly to remove it.

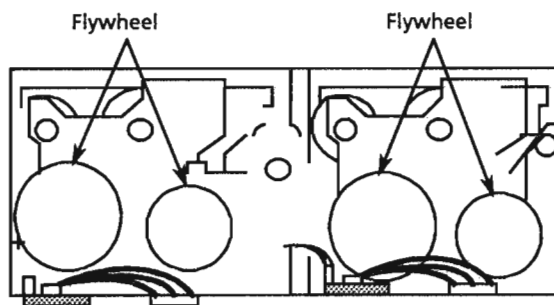


**(17) Removing the capstan motor**

1. Remove the front panel assembly. (Refer to Item 2)
2. Remove the mechanism assembly. (Refer to Item 7)
3. Remove the deck control circuit board. (Refer to Item 9)
4. Remove the deck audio circuit board. (Refer to Item 10)
5. Remove the 7 screws ③ fixing the bracket.
6. Release the hooks holding the bracket to remove the bracket with the capstan motor.
7. Remove the 2 screws fixing the motor to remove it.

**(18) Removing the Flywheels**

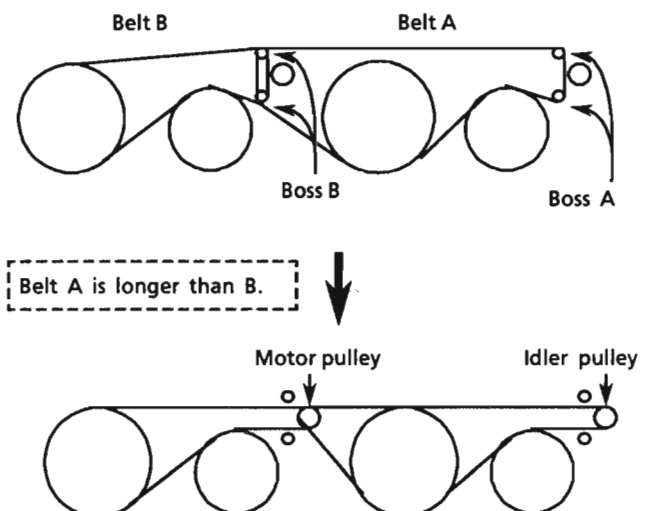
1. Remove the mechanism assembly. (Refer to Item 7)
2. Remove the deck control circuit board. (Refer to Item 9)
3. Remove the deck audio circuit board. (Refer to Item 10)
4. Remove the 7 screws ③ and release the hooks holding the bracket to remove the bracket with the capstan motor.
5. Remove the flywheel.



Behind of the mechanism

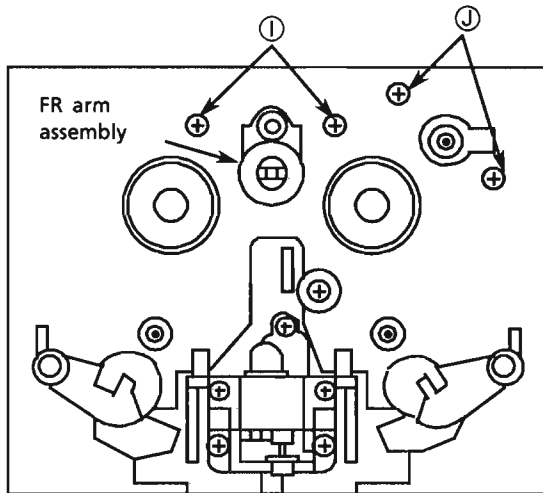
**(19) How to install the belts**

1. Install the belts as shown in the figure below.  
When putting the belts, put the belt B first.
2. Install the bracket with the capstan motor to put the belts on the pulleys.



**(20) Removing the reel & cam motor**

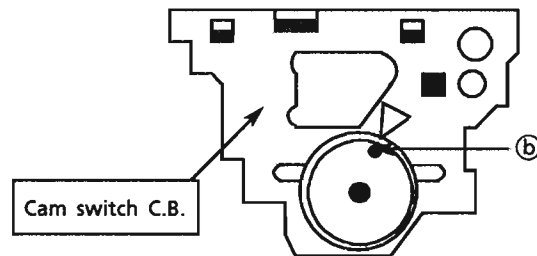
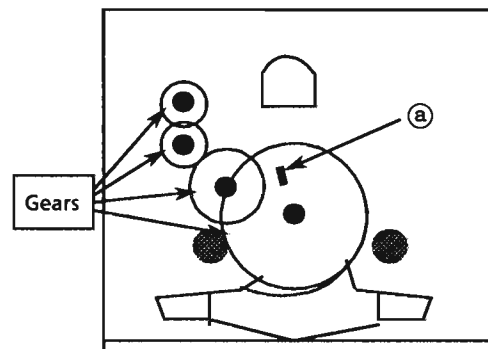
1. Remove the flywheel.  
(Refer to Item 18)
2. Remove the screws ① and ② fixing the motors to remove the reel & cam motor circuit board.
3. Unsolder the motors to remove them.



Front view of the mechanism

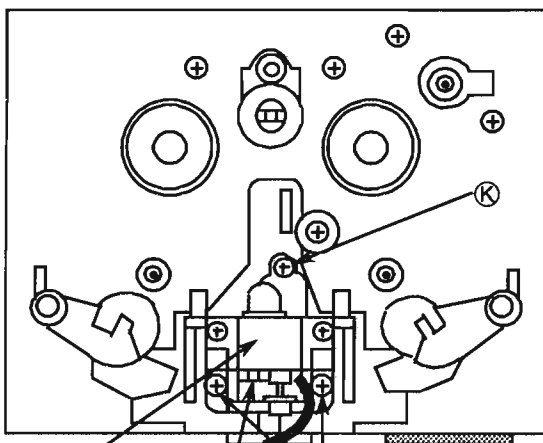
**(21) Removing the cam switch circuit board**

1. Remove the flywheel.  
(Refer to Item 18)
  2. Remove the screws ① and ② fixing the motors to remove the reel & cam motor circuit board.
  3. Release the hook holding the cam switch circuit board and remove the screw to remove it.
- ※ When installing the cam switch circuit board, assemble the circuit board so that the part ③ meets part ④.



**(22) Removing the head assembly**

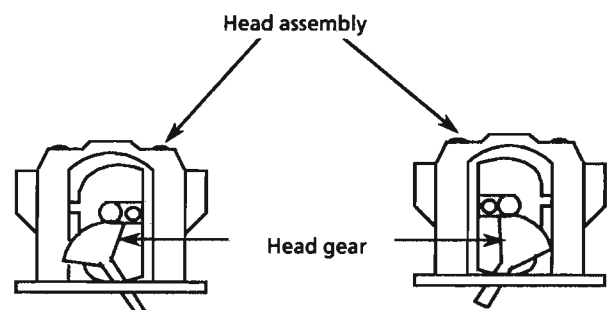
1. Remove the mechanism assembly.  
(Refer to Item 7.)
2. Disconnect the connector J302 or J301 on the deck audio circuit board. (Refer to Item 10)
3. Remove the 3 screws ⑤ fixing the head assembly to remove it.



Front view of the mechanism

**(23) Installing the head assembly**

The direction of the head is changed with the head gear. When servicing, install the head gear according to the direction of the head.



Head sets FWD mode

Head sets REV mode

① .. VKZ4705-001

② ... VKZ4705-002

⑤ ... SDST2004Z



## Adjustment Procedures (Cassette Deck)

### 1. Measuring instruments

- Audio frequency signal generator ( 0db output at the 600 ohm output terminal from 50Hz to 20KHz)
- Electronic voltmeter
- Frequency counter
- Wow & Flutter meter
- Distortion Meter with band pass filter
- Attenuator (600 ohm impedance)
- A resistor with 600Ω

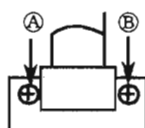
#### Standard Tape

0dBs = 0.775V

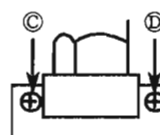
Tape No.	Frequency	Level (Wow & Flutter)	Purpose
VTT-703L	10kHz	-10dBs	Head azimuth , Frequency Response
VTT-712	3000Hz	0dBs 0.025%WRMS	Tape Speed , Wow & Flutter
VTT-724	1kHz	-4dBs	Standard Level
TMT-6447 , TMT-6448	—	—	Music Scan
AC-224	—	—	Recording standard Normal : AD
AC-712	—	—	Recording standard METAL : MA
AC-513	—	—	Recording standard CrO <sub>2</sub> : SA
TW-2111, TW-2121	—	—	Forward / reverse play torque measuring
TW-2231	—	—	Feed forward / rewind torque measuring
C-120 Tape	—	—	Confirming the tape running

### 2. Adjustment and repairing the mechanism

Item	Adjustment method	Standard value	Remarks
Head azimuth	<p>Deck A</p> <ol style="list-style-type: none"> <li>1. Connect an electronic voltmeter to the DOLBY TP (figure 3) to playback VTT-703L.</li> <li>2. Adjust screw (A) so that the indication of the voltmeter becomes maximum when PLAY (▶) is pressed.</li> <li>3. Adjust screw (B) so that the indication of the voltmeter becomes maximum when PLAY (◀) is pressed.</li> </ol> <p>Deck B</p> <ol style="list-style-type: none"> <li>4. Adjust screw (C) so that the indication of the voltmeter becomes maximum when PLAY (▶) is pressed.</li> <li>5. Adjust screw (D) so that the indication of the voltmeter becomes maximum when PLAY (◀) is pressed.</li> <li>6. After making the adjustment, apply screw lock to prevent screws (A), (B), (C) and (D) coming loose.</li> </ol>	Maximum	<ol style="list-style-type: none"> <li>1. Refer to figure 1.</li> <li>2. When the specified characteristic cannot be obtained because of head wear, excessive magnetization, etc., replace the head assembly and adjust the head azimuth. Also, perform the electric adjustment.</li> <li>3. When there is the difference of more than 3 ~ 4 dB between left and right output levels, replace the head assembly to avoid complaints.</li> </ol>
Playback torque	1. Measure the torque in the playback mode by the torqu meter.	26 ~ 62 g-cm	When the standard torque cannot be obtained, replace the FR arm assembly or motor.
Fast forward torque	1. Measure the torque in the fast forward mode by the torqu meter.	80 ~ 170 g-cm	When the standard torque cannot be obtained, replace the FR arm assembly or motor.
Rewind torque	1. Measure the torque in the rewind mode by the torqu meter.	80 ~ 170 g-cm	When the standard torque cannot be obtained, replace the FR arm assembly or motor.
Wow & flutter	<ol style="list-style-type: none"> <li>1. Connect the wow &amp; flutter meter to the DOLBY TP (figure 3) and play back VTT-712.</li> <li>2. Its reading should be within 0.2% (WTD).</li> </ol>	—	As a complaint may occur if the wow & flutter fluctuates by 0.1% even though it is allowed in the standard, repairing is required.



Deck A



Deck B

Figure 1

### 3. Electrical Adjustments (Make the following adjustments after adjusting the head azimuth.)

In principle, the adjustments should be made in the following sequence.

Set the NR switch to OFF and the BEAT CUT switch to "1".

Adjustments marked with an asterisk (\*) should always be made after the head is replaced

0dBs = 0.775V.

Item	Adjustment Method	Adjustment Location	Standard Value	Remarks
1 Tape Speed	1. Connect a frequency counter to the DOLBY TP (figure 3) and play back VTT-712. 2. Normal speed Adjustment 1) Mechanism B Play back deck B to adjust the semi-fixed resistor VR201 on ENB - 206-5. 3. High-speed confirm 1) Mechanism B Play back deck B to confirm that the standard value is obtained.	VR201	3,000 Hz $\pm 10\text{Hz}$  6,000Hz $\pm 600\text{Hz}$	Mechanism A confirming Play back deck A to confirm that the difference between deck A and deck B is within $\pm 51\text{Hz}$ .
* 2 Standard level (Playback Level)	1. Connect an electronic voltmeter to the DOLBY TP (figure 3). Play back VTT-724 (1 kHz : -4dBs) to adjust the semi-fixed resistors.	Deck A L: VR311 R: VR312  Deck B L: VR333 R: VR334	-5.5dBs (411mV)  $\pm 1\text{dB}$	1) The playback level varies when the head is replaced so should be adjusted. Use an electronic voltmeter with an impedance of 100 k $\Omega$ or more.
* 3 Playback Frequency Response	1. Connect an electronic voltmeter to the DOLBY TP (figure 3). 2. Play VTT-703L (10kHz : -10dBs) and adjust semi-fixed resistors to obtain the standard values.	Deck A L: VR303 R: VR304  Deck B L: VR323 R: VR324	-10dBs (245mV)  $\pm 3\text{dB}$	—
* 4 Recording Bias Frequency	1. Connect a frequency counter to the BIAS TP (figure 3), and perform a recording to adjust bias frequency.	L331	100 kHz $\pm 6$ kHz	Set the BEAT CUT SWITCH to "1".
* 5 Record / Play Frequency Response (Bias current)	1. Supply 1kHz and 12.5kHz with 30mV signals to AUX terminals respectively to record them. 2. Connect an electronic voltmeter to the DOLBY TP (figure 3) to confirm the recorded values. 3. If the values are not satisfied, adjust the semi-fixed resistors and record the signal again to confirm the recorded values.	L: VR355 R: VR356	0 $\pm$ 3 dB for 12.5 kHz with 1 kHz as the standard.	<b>Refer to figure 2 below.</b> 1) The recording and playback frequency response of a cassette deck are adjusted by adjusting the bias. 2) Perform the adjustment with normal tape and confirm that the values are within the range for metal tape.

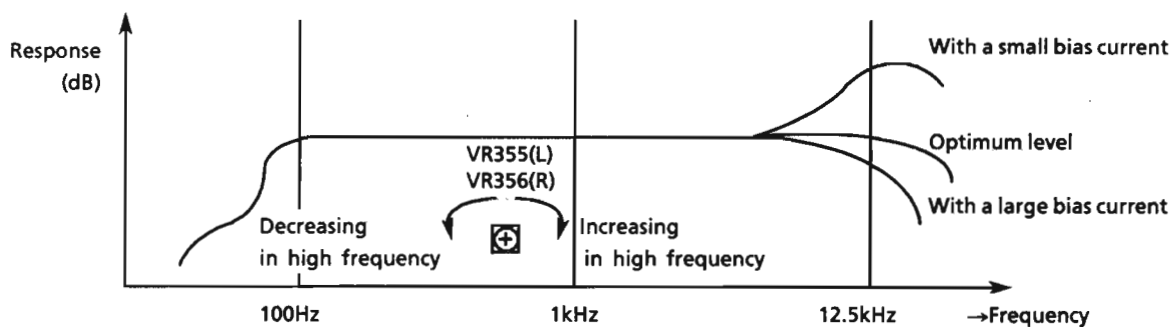


Figure 2

Item	Adjustment Method	Adjustment Location	Standard Value	Remarks
* 6 Record / Playback Sensitivity	<ol style="list-style-type: none"> <li>Input a 1 kHz ( -8.2dBs: 300mV) signal to AUX terminals and record it on the left and right channels .</li> <li>Connect an electronic voltmeter to the DOLBY TP (figure 3) to confirm the recorded values .</li> <li>If the values are not satisfied , adjust the semi-fixed resistors and record the signal again to confirm the recorded values.</li> </ol>	L : VR205 R : VR206	-5.5dBs (411mV)	Adjust with normal tape and make sure that the left / right level difference is 1.0dB or less
7 Erase ratio check	<ol style="list-style-type: none"> <li>Record a music source using the CrO<sub>2</sub> tape.</li> <li>Rewind and erase the recorded section.</li> <li>Comfirm nothing can be heard.</li> </ol>	—	—	—
9 Music Scan	<ol style="list-style-type: none"> <li>Make sure not to work the music scanning operation at the start of tape wind using TMT-6448.</li> <li>Make sure to work the music scanning operation at the end of tape wind using TMT-6447.</li> </ol>	—	—	—

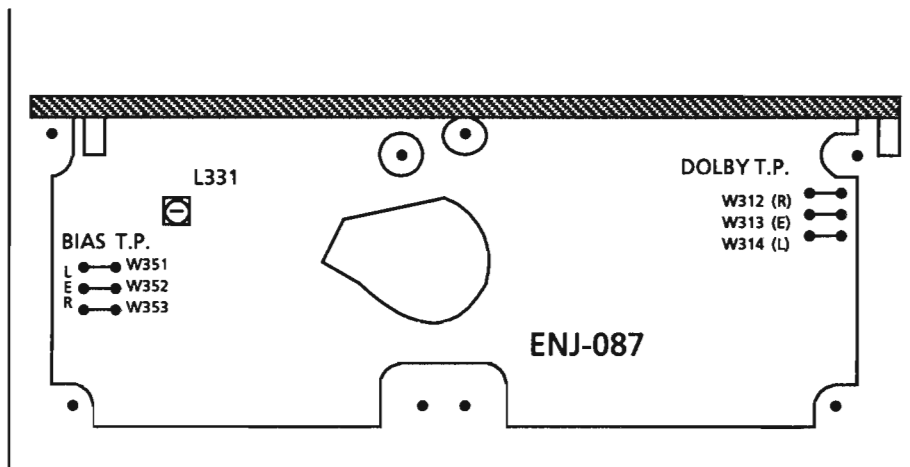


Figure 3

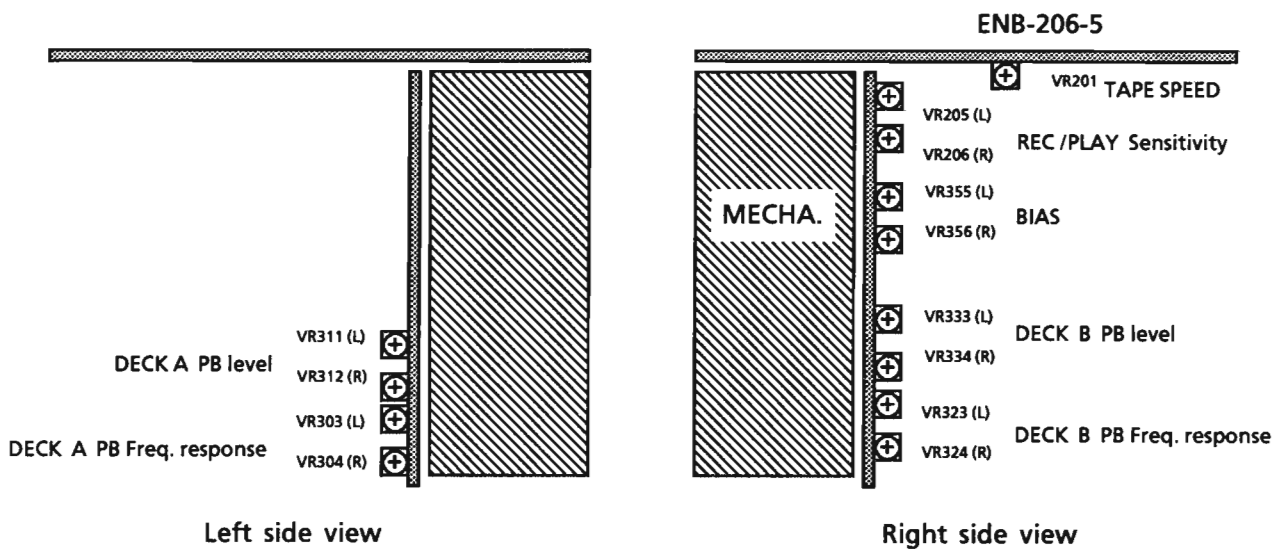
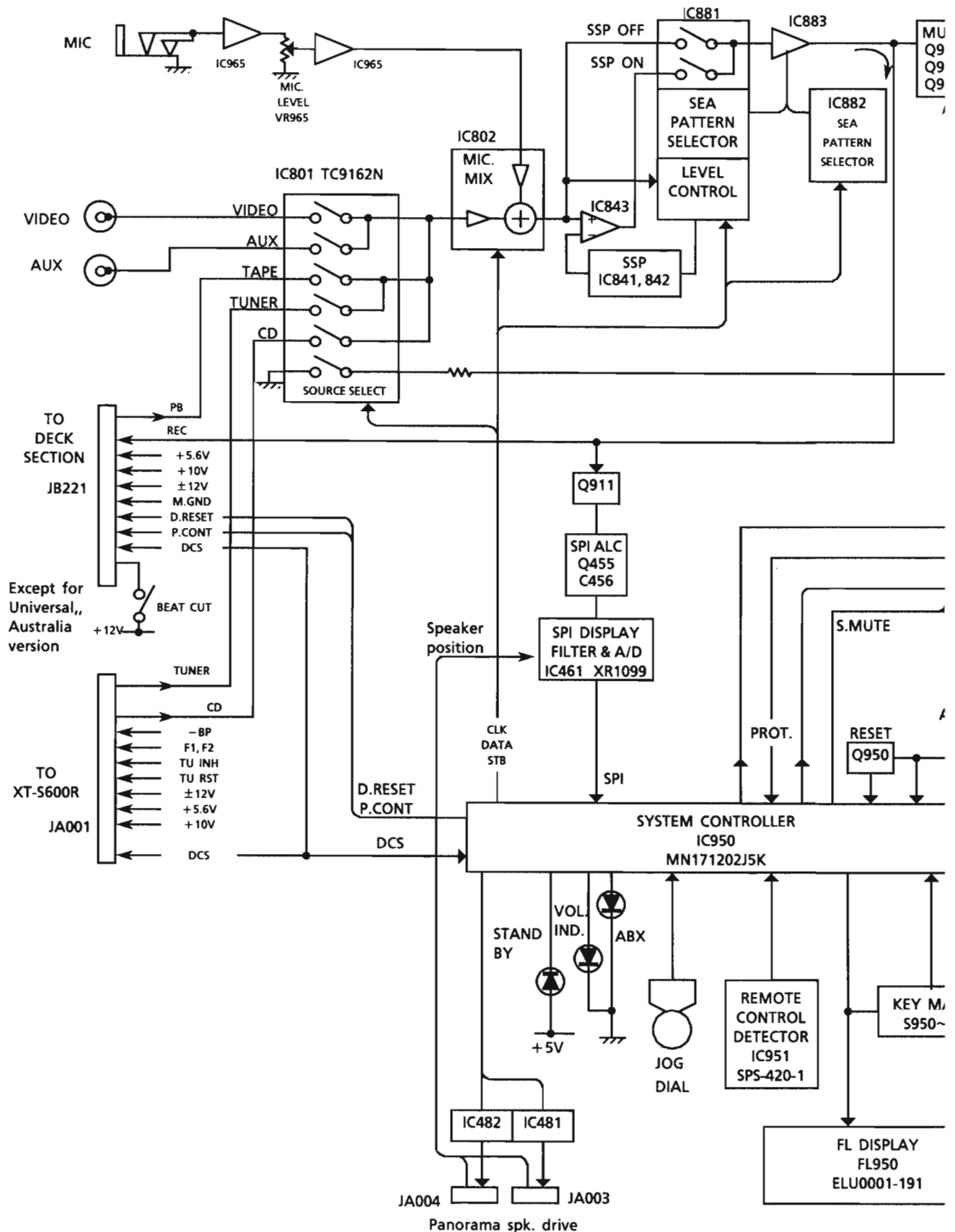


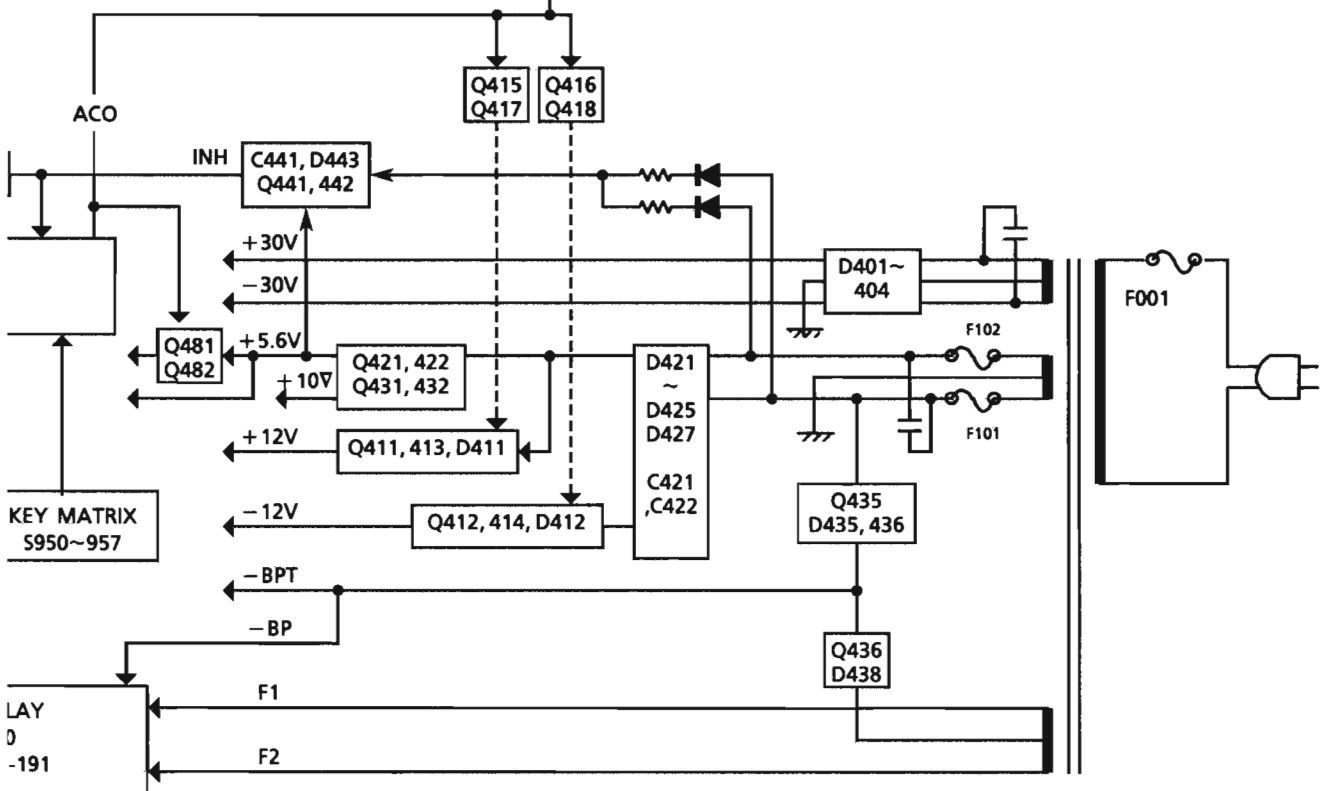
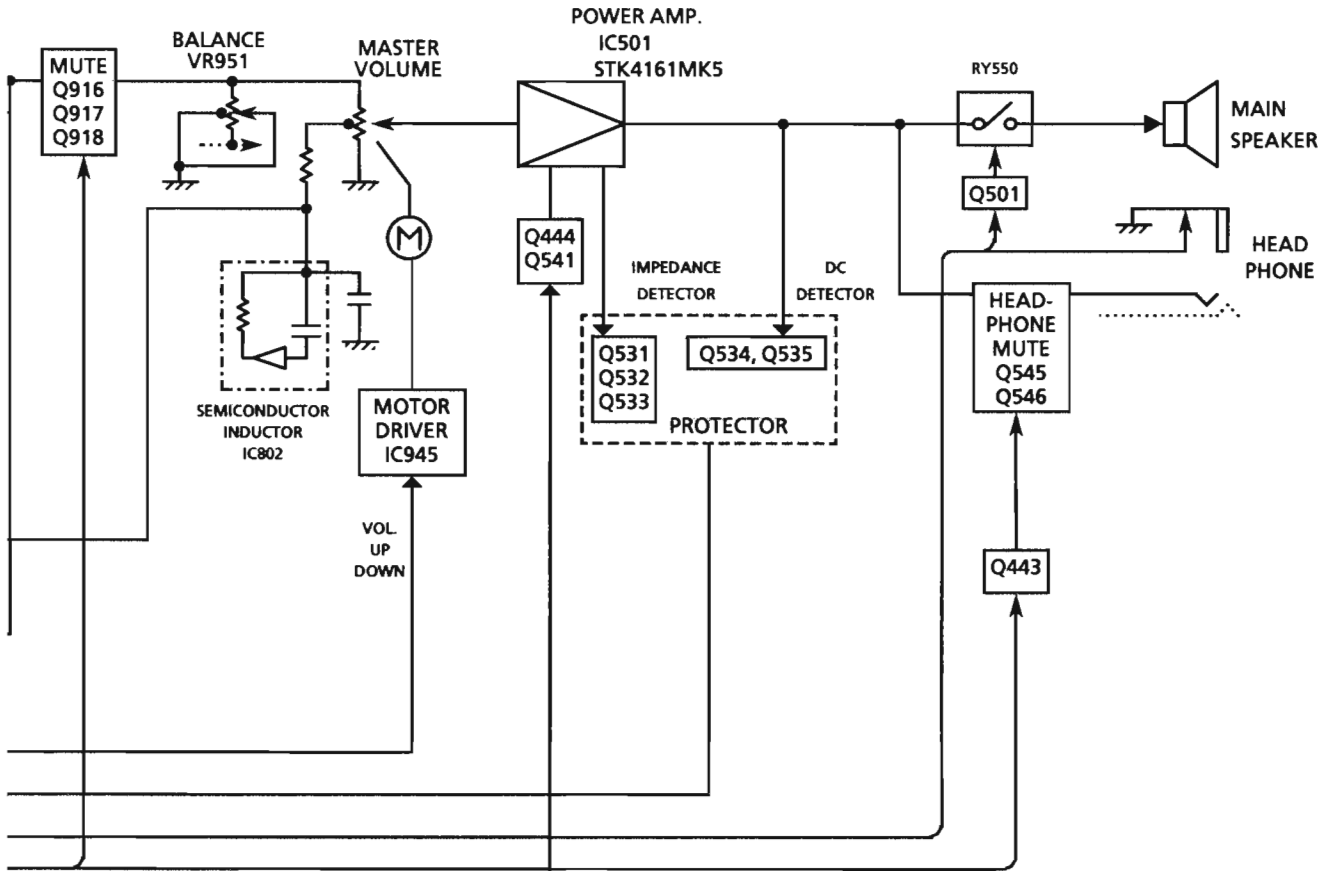
Figure 4

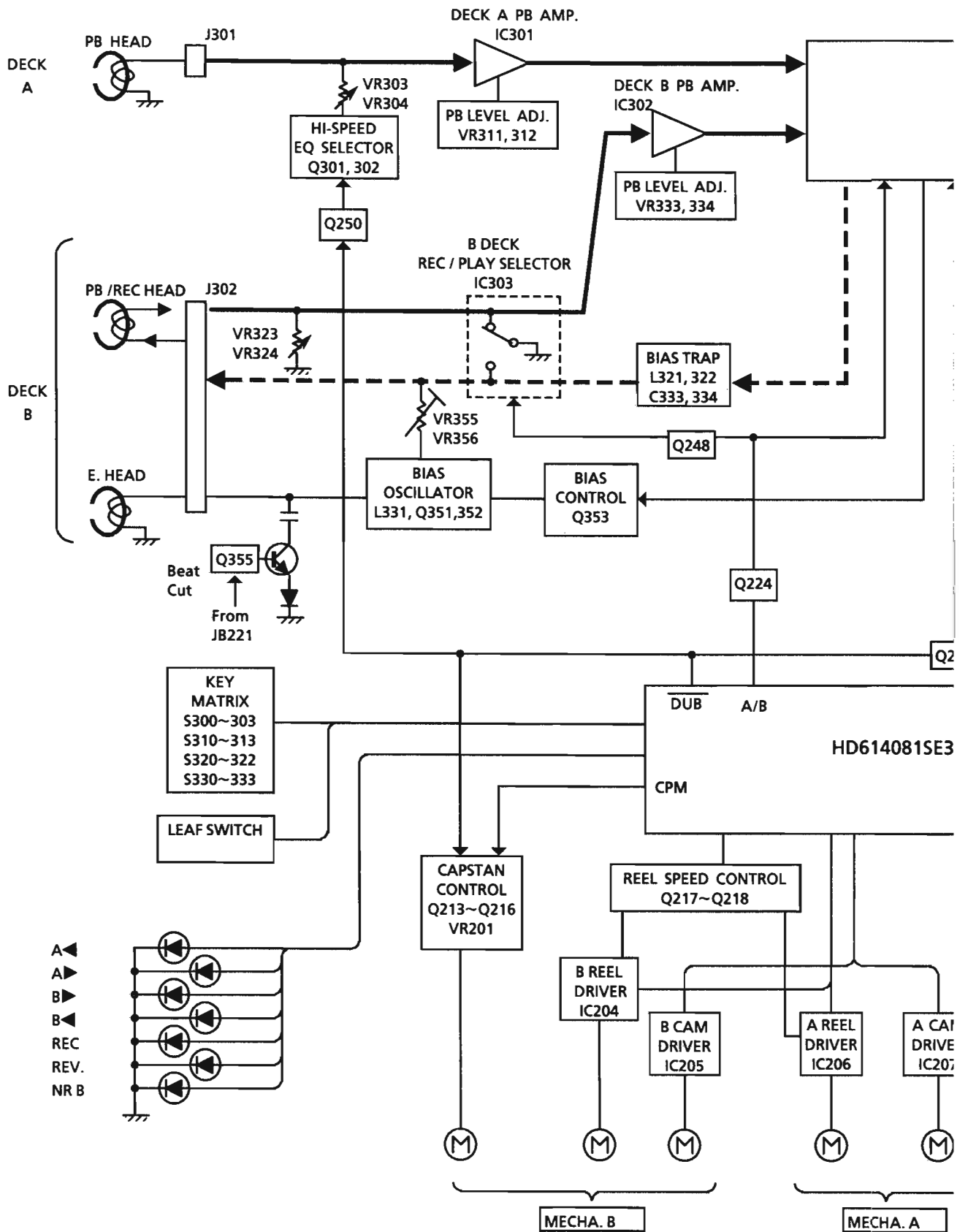
**-MEMO-**



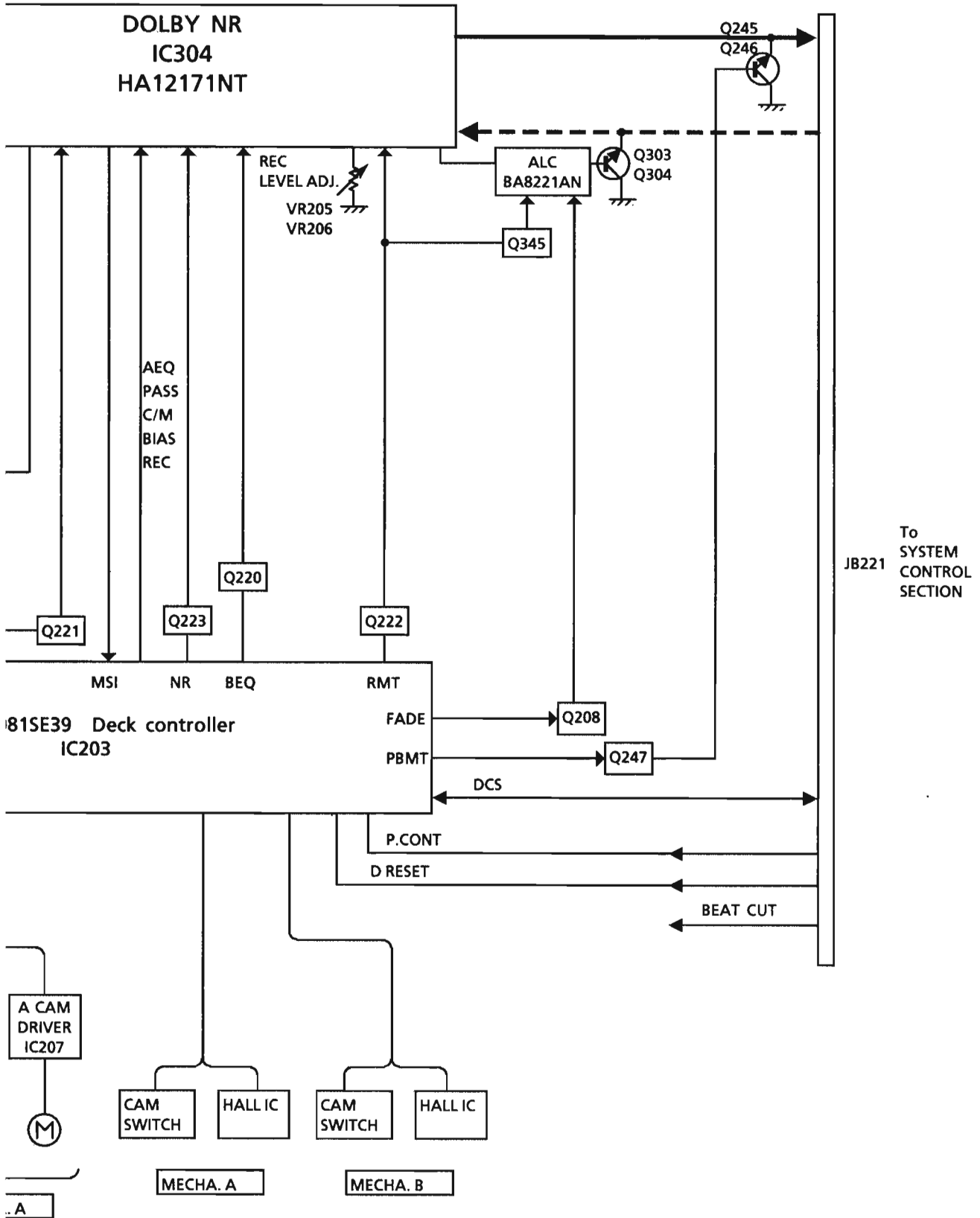
# Block Diagrams







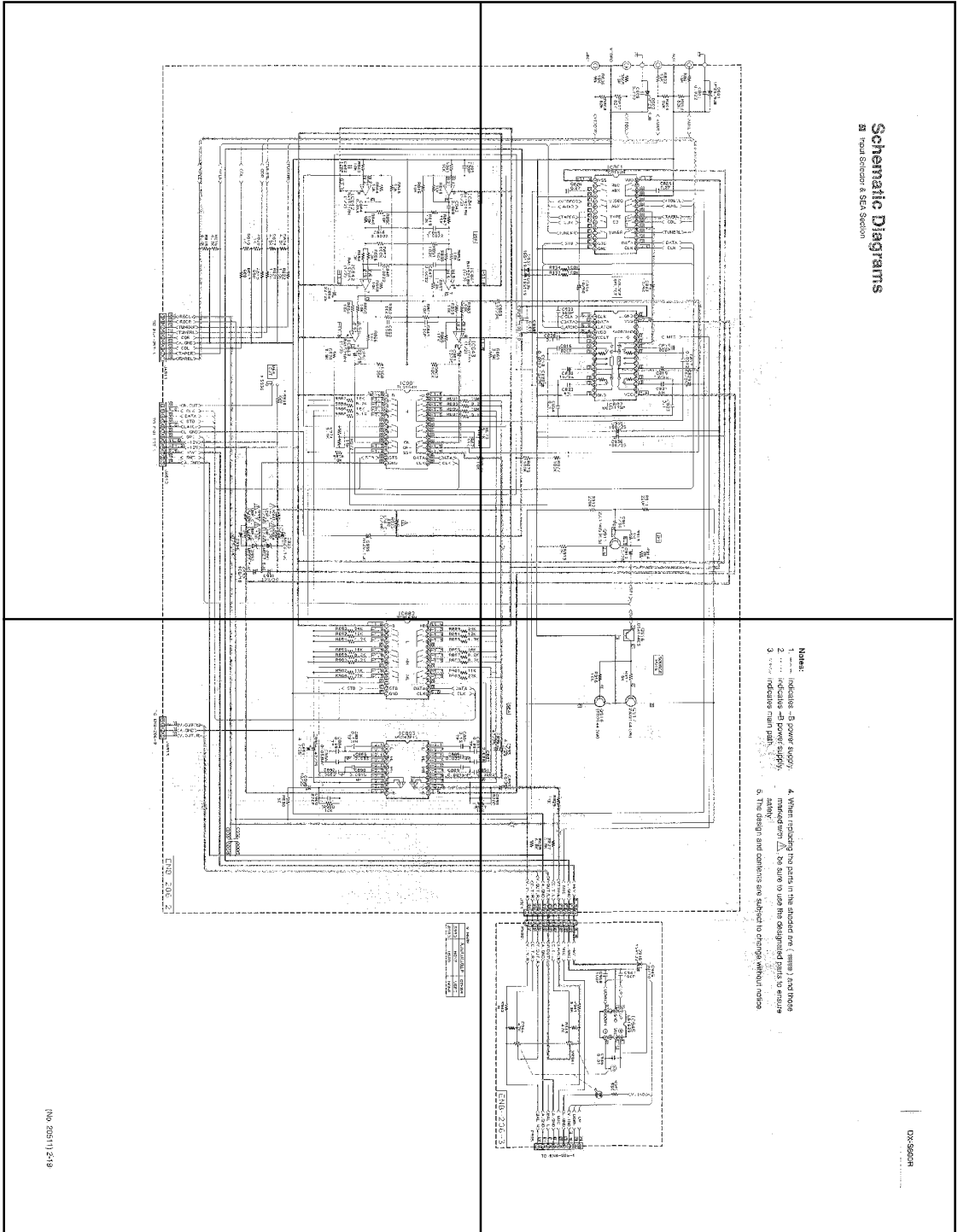






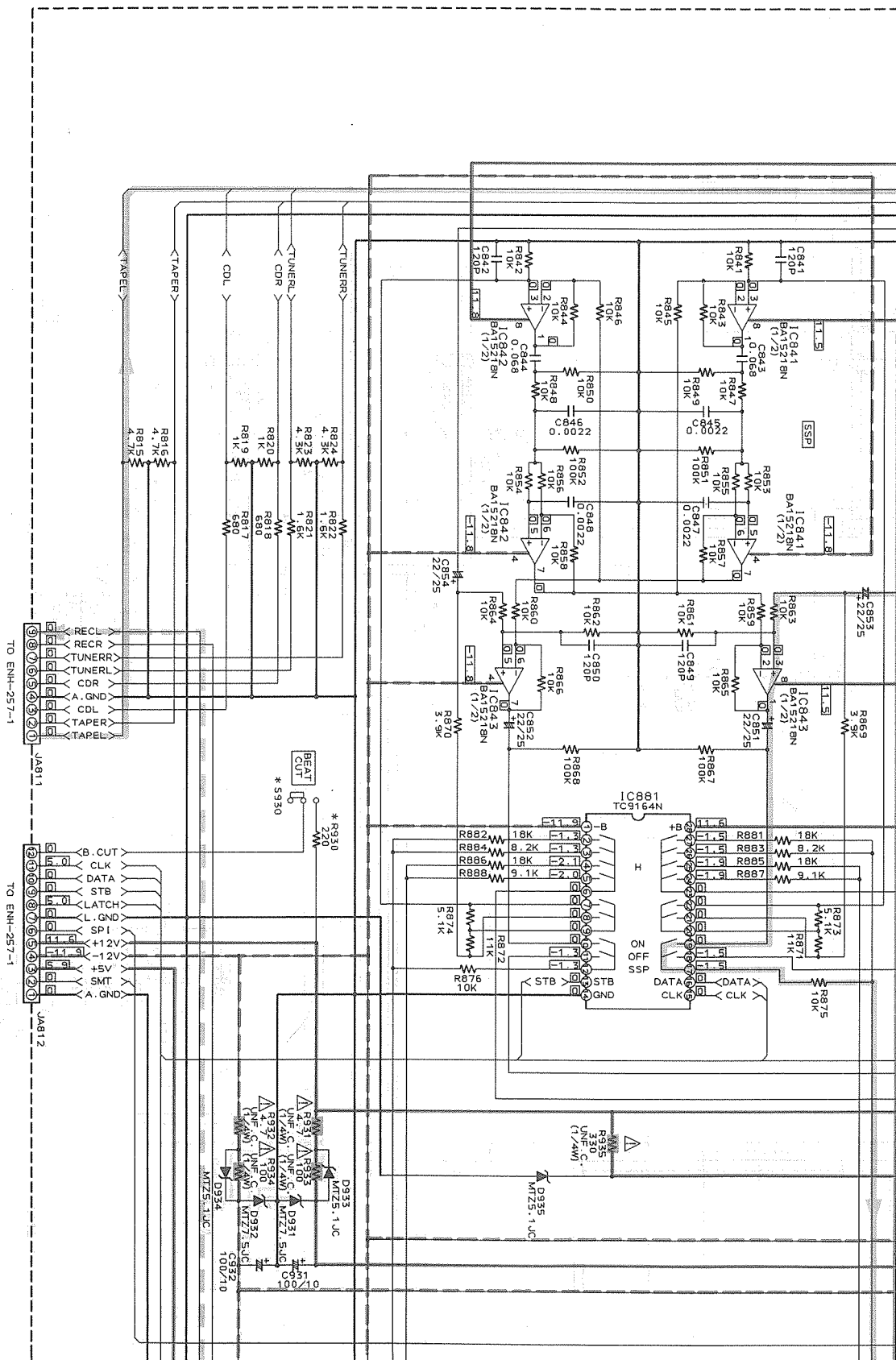
P2-19-a

P2-19-b



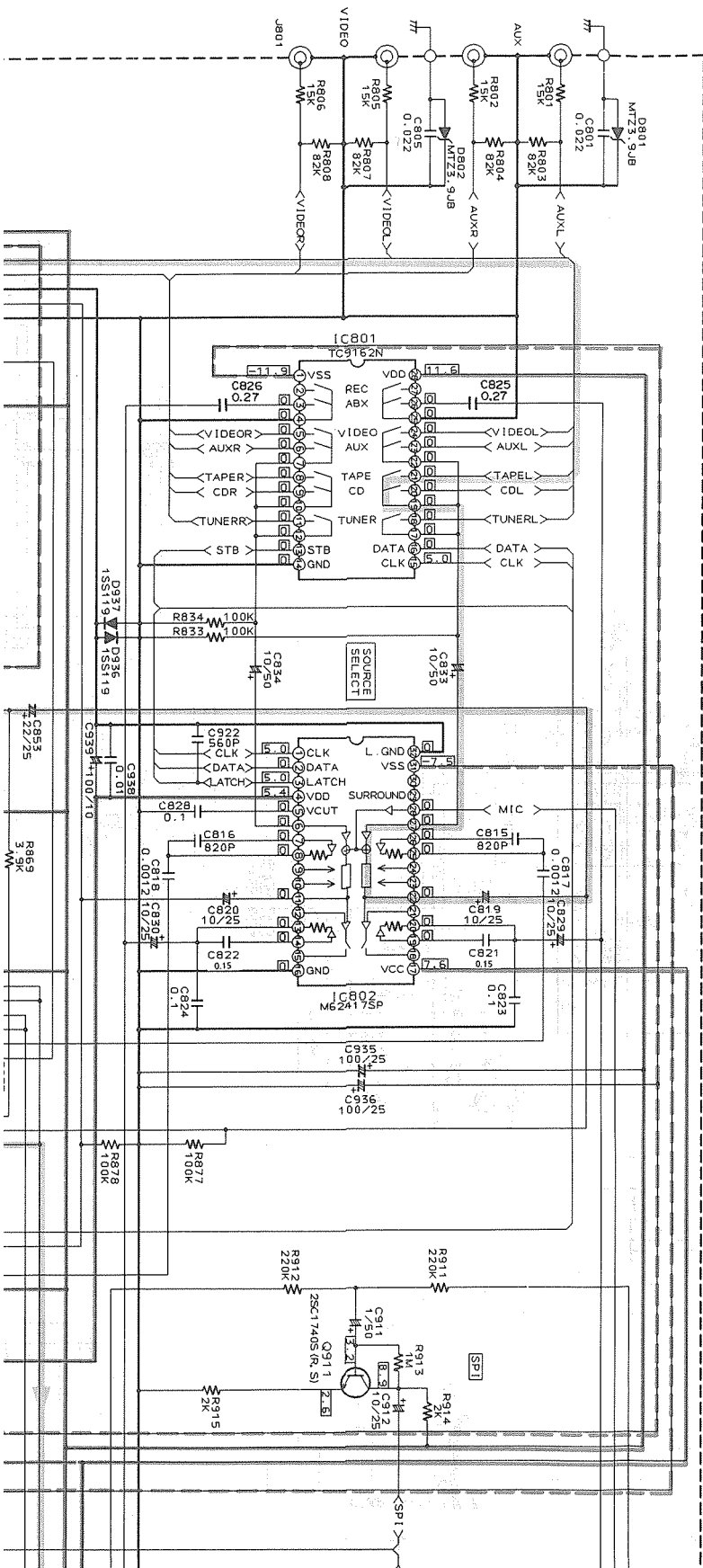
P2-19-c

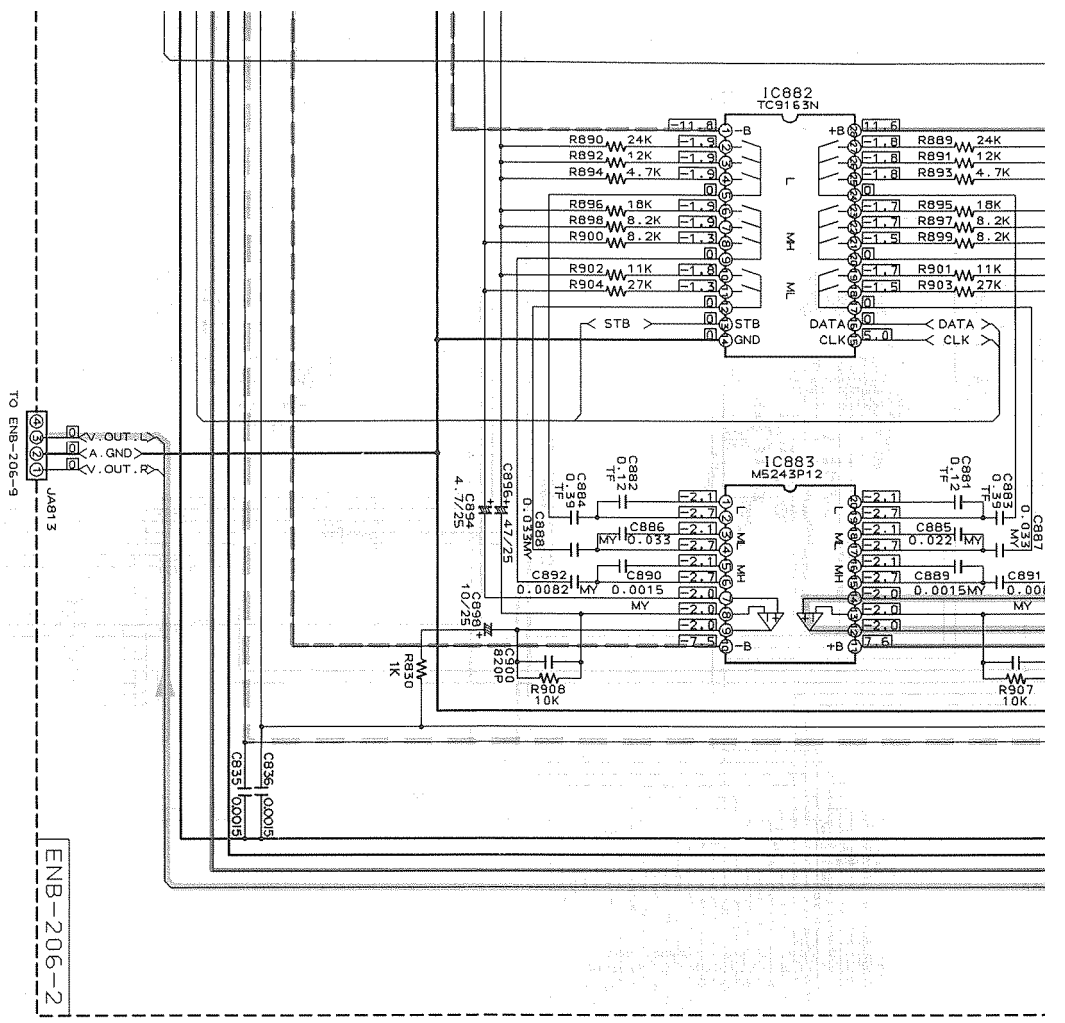
P2-19-d



# Schematic Diagrams






Input Selector & SEA Section

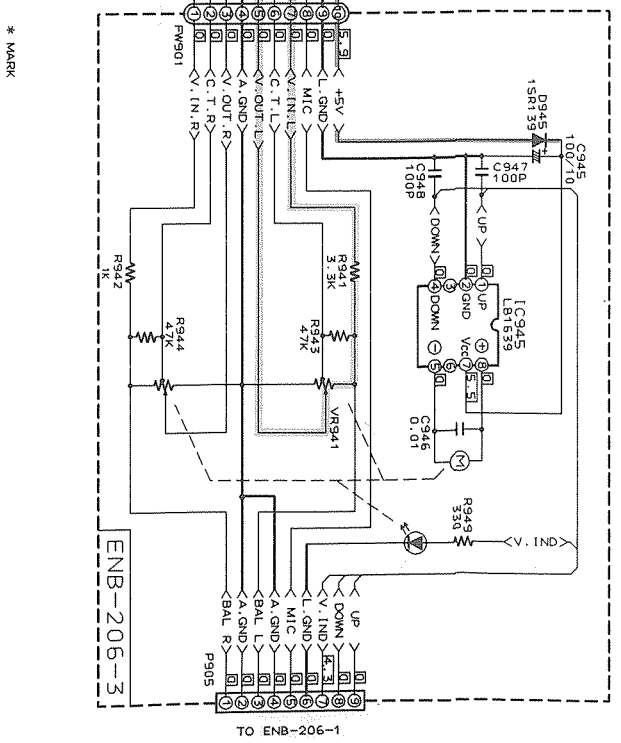
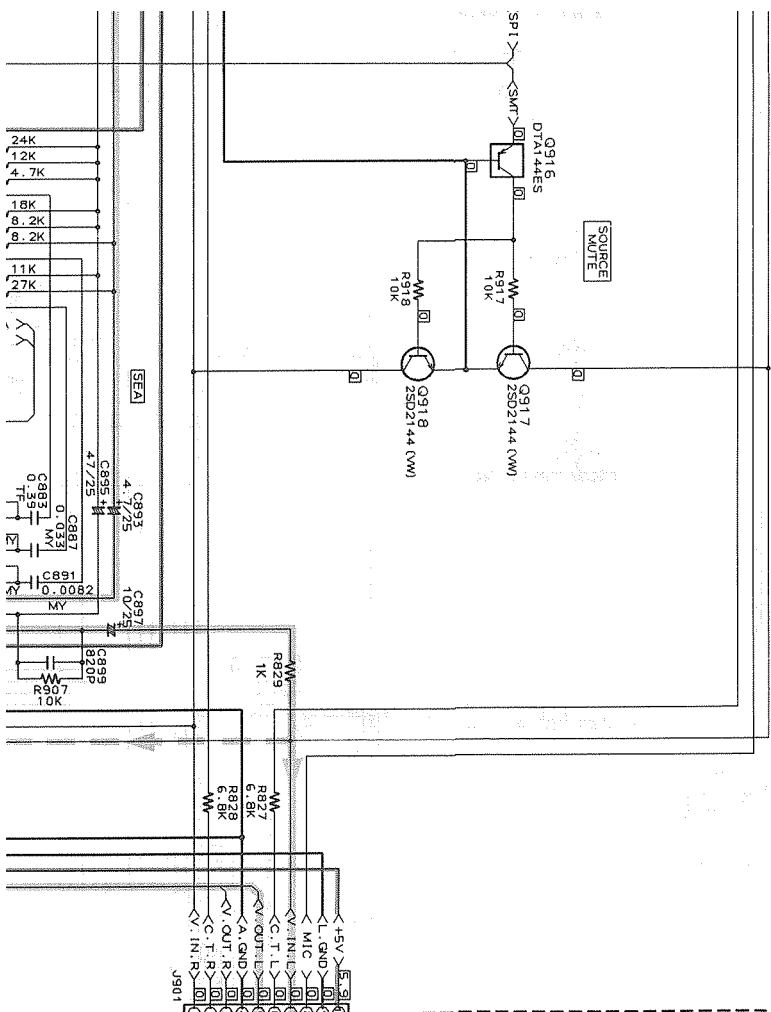




* MARK		OTHER	
S930	NONE	USED	NONE
R930	USED	NONE	NONE

(No. 20511) 2-19

- Notes:**
1.  indicates +B power supply.
  2.  indicates -B power supply.
  3.  indicates main path.
  4. When replacing the parts in the shaded are (  ) and those marked with , be sure to use the designated parts to ensure safety.
  5. The design and contents are subject to change without notice.



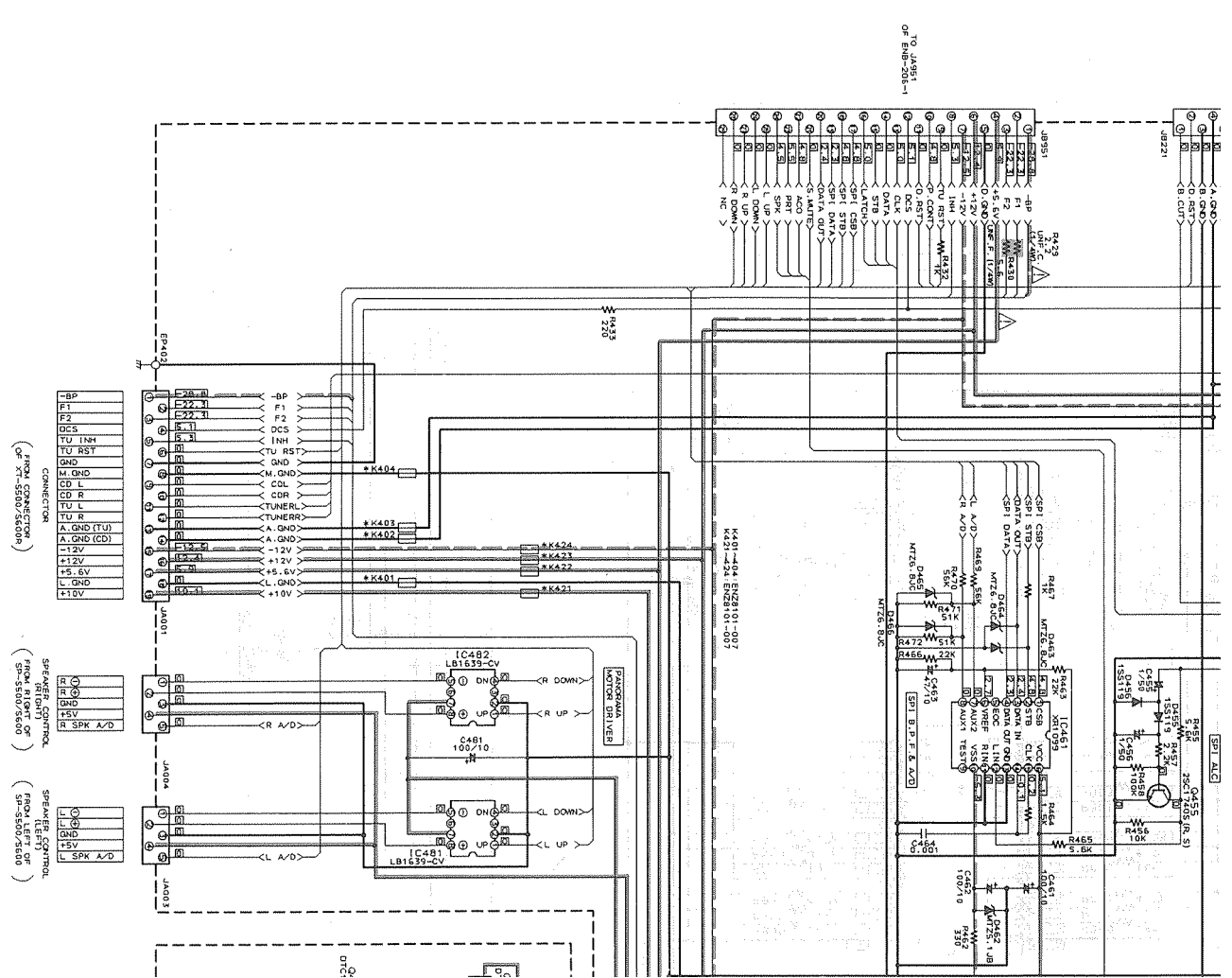
TO ENB-206-1

ENB-206-3

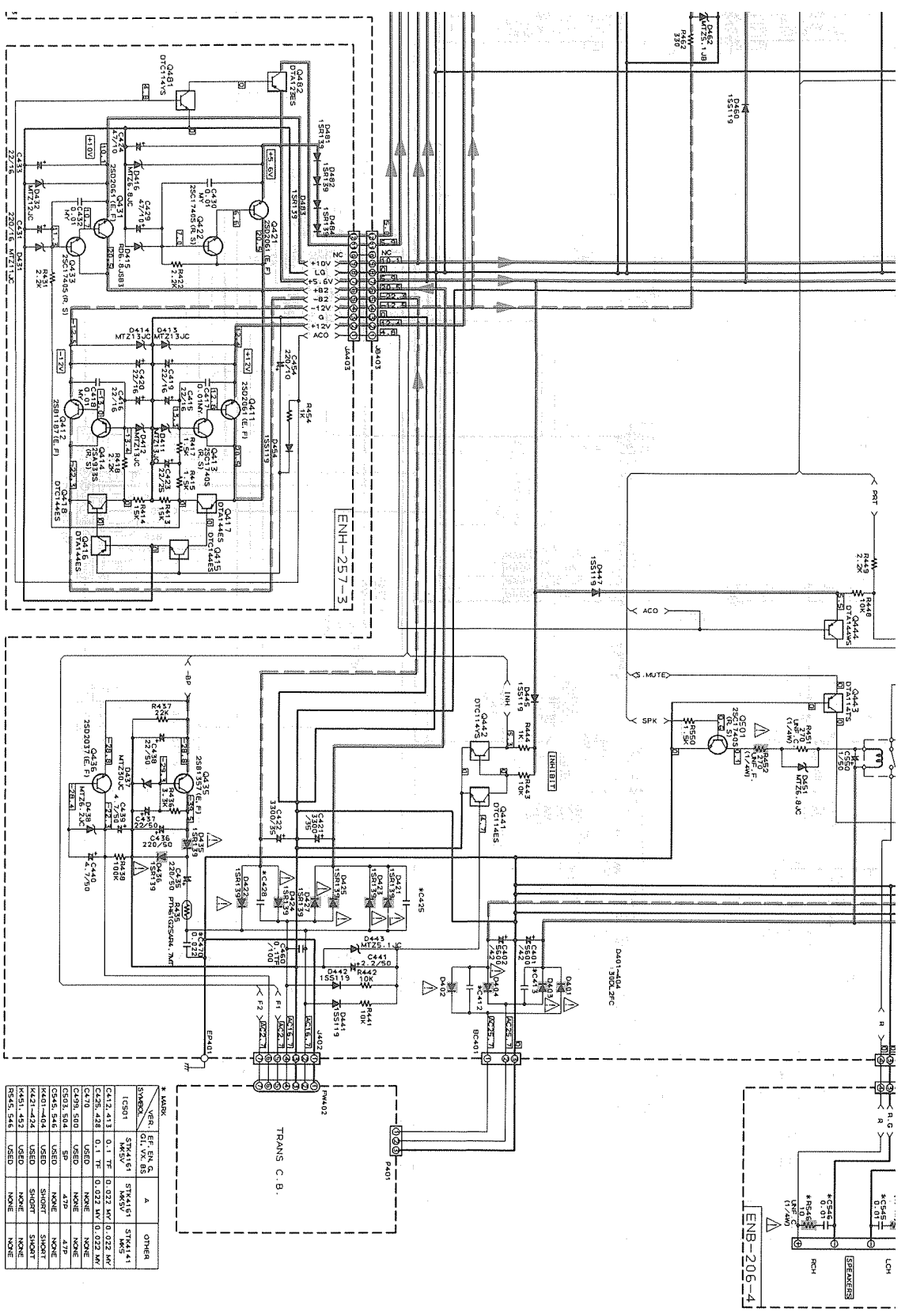










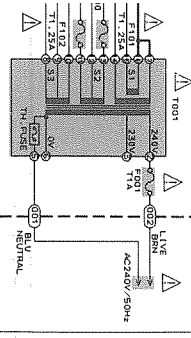


SYMBOL	REF. IN C. DIV. IN BS	A	OTHER
CA401	3TK4151	3TK4151	3TK4151
CA402	3TK4151	3TK4151	3TK4151
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CA409	3TK4151	3TK4151	3TK4151
CA410	3TK4151	3TK4151	3TK4151
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CA412	3TK4151	3TK4151	3TK4151
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CA414	3TK4151	3TK4151	3TK4151
CA415	3TK4151	3TK4151	3TK4151
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CA417	3TK4151	3TK4151	3TK4151
CA418	3TK4151	3TK4151	3TK4151
CA419	3TK4151	3TK4151	3TK4151
CA420	3TK4151	3TK4151	3TK4151
CA421	3TK4151	3TK4151	3TK4151
CA422	3TK4151	3TK4151	3TK4151
CA423	3TK4151	3TK4151	3TK4151
CA424	3TK4151	3TK4151	3TK4151
CA425	3TK4151	3TK4151	3TK4151
CA426	3TK4151	3TK4151	3TK4151
CA427	3TK4151	3TK4151	3TK4151
CA428	3TK4151	3TK4151	3TK4151
CA429	3TK4151	3TK4151	3TK4151
CA430	3TK4151	3TK4151	3TK4151
CA431	3TK4151	3TK4151	3TK4151
CA432	3TK4151	3TK4151	3TK4151
CA433	3TK4151	3TK4151	3TK4151
CA434	3TK4151	3TK4151	3TK4151
CA435	3TK4151	3TK4151	3TK4151
CA436	3TK4151	3TK4151	3TK4151
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CA450	3TK4151	3TK4151	3TK4151
CA451	3TK4151	3TK4151	3TK4151
CA452	3TK4151	3TK4151	3TK4151
CA453	3TK4151	3TK4151	3TK4151
CA454	3TK4151	3TK4151	3TK4151
CA455	3TK4151	3TK4151	3TK4151
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USTRALIA

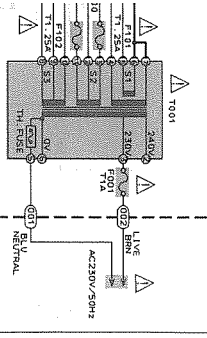
PA401

ENH-257-4

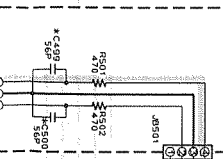


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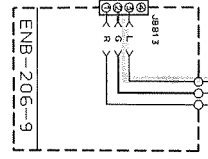
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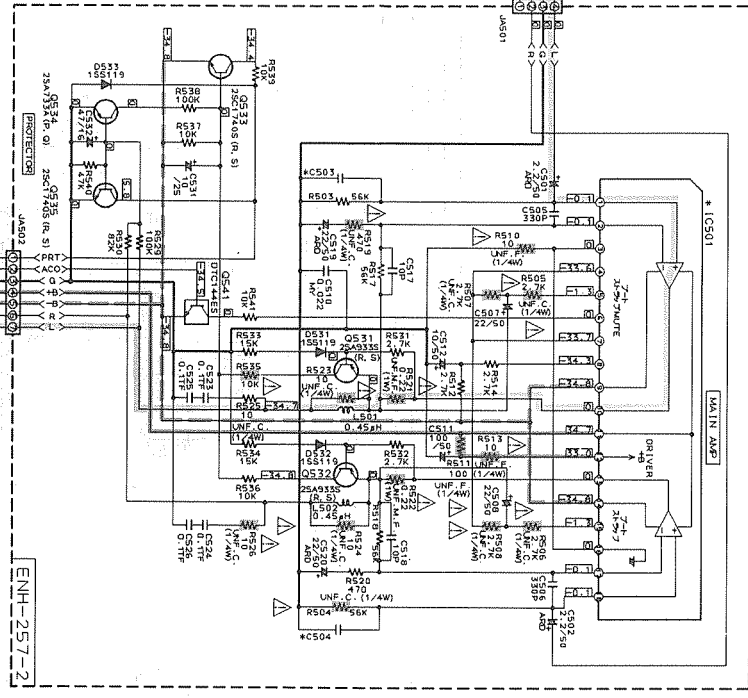
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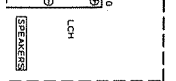
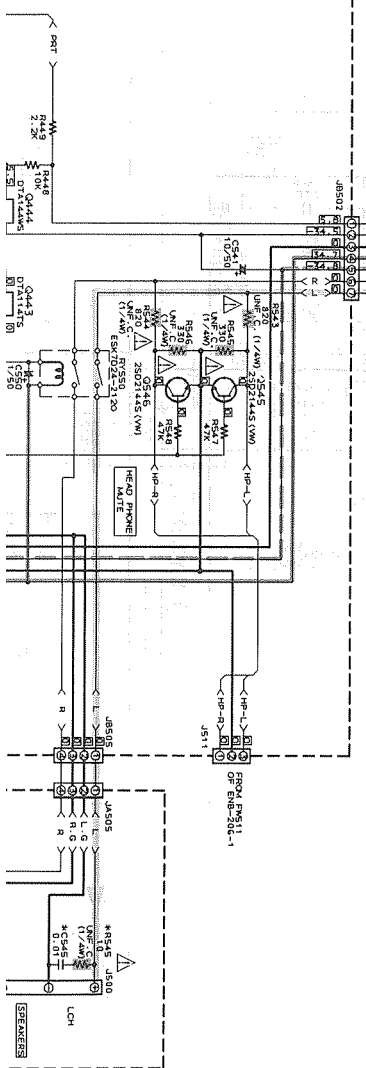
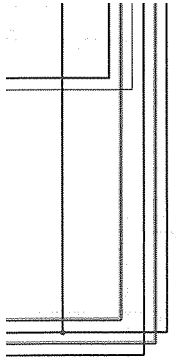
ENB-206-8



ENB-206-9



ENH-257-2



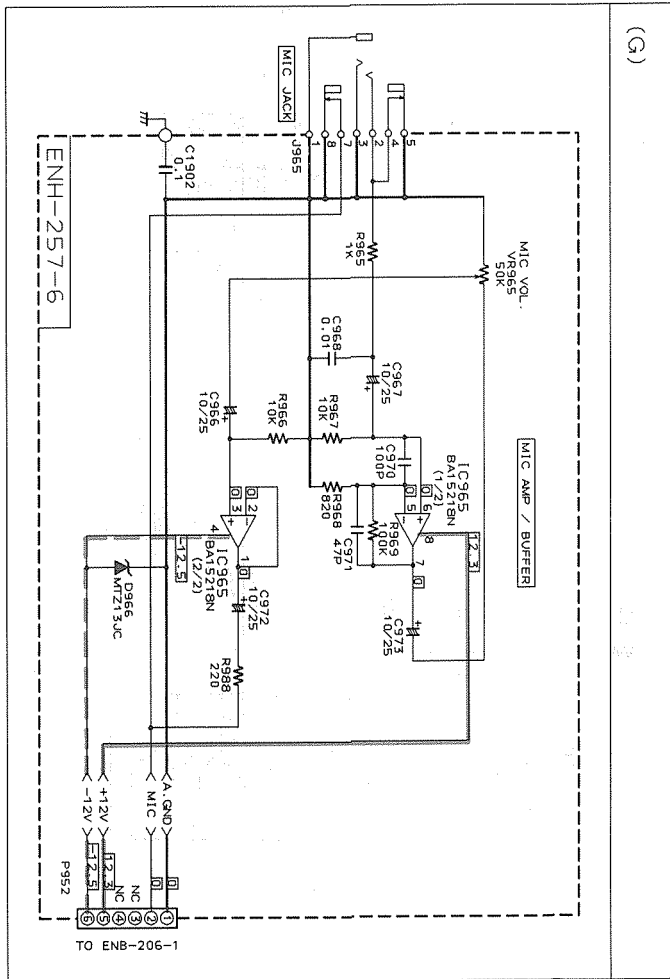




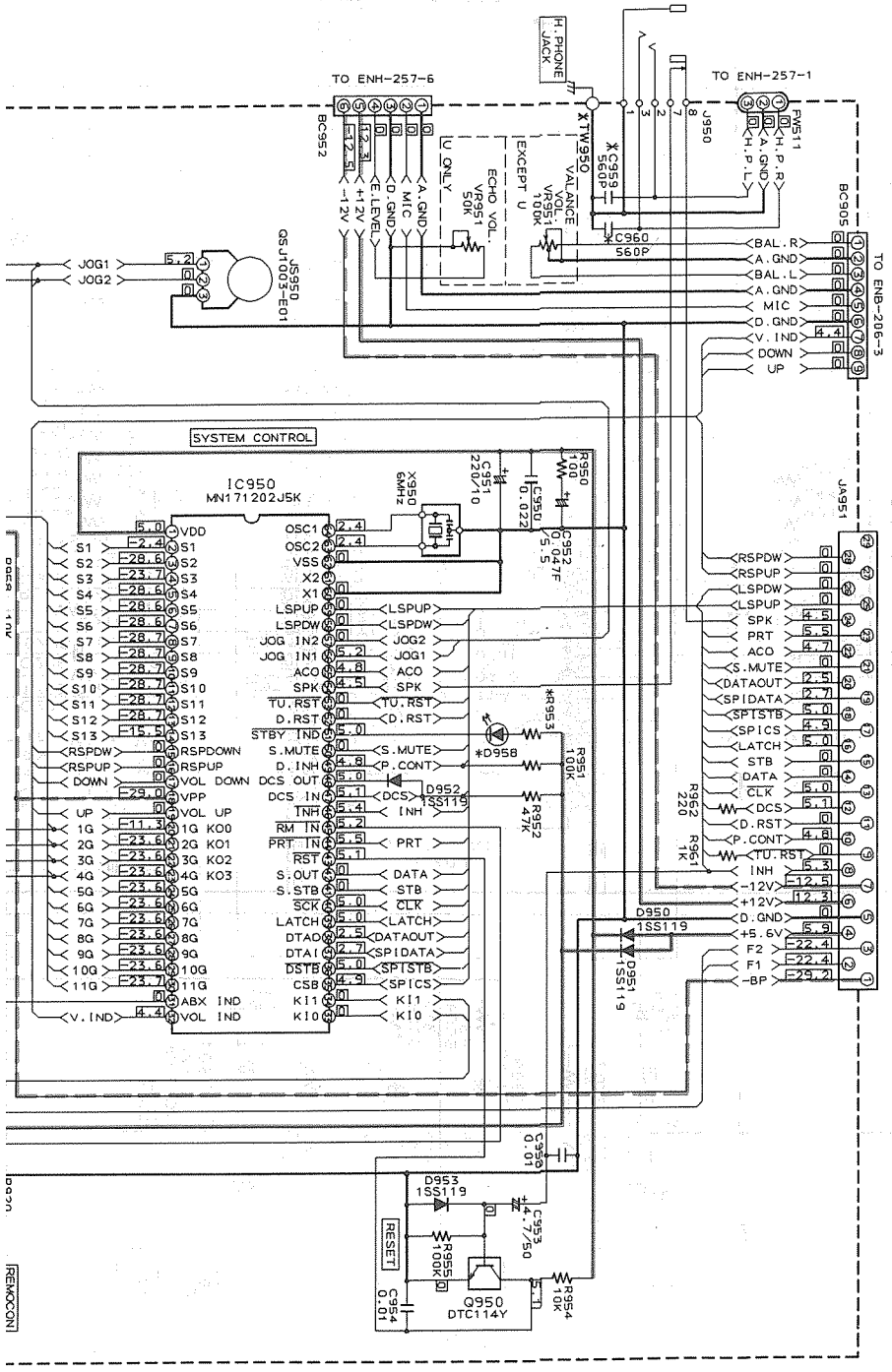
McDonald's  
2021-2022



System Control Section





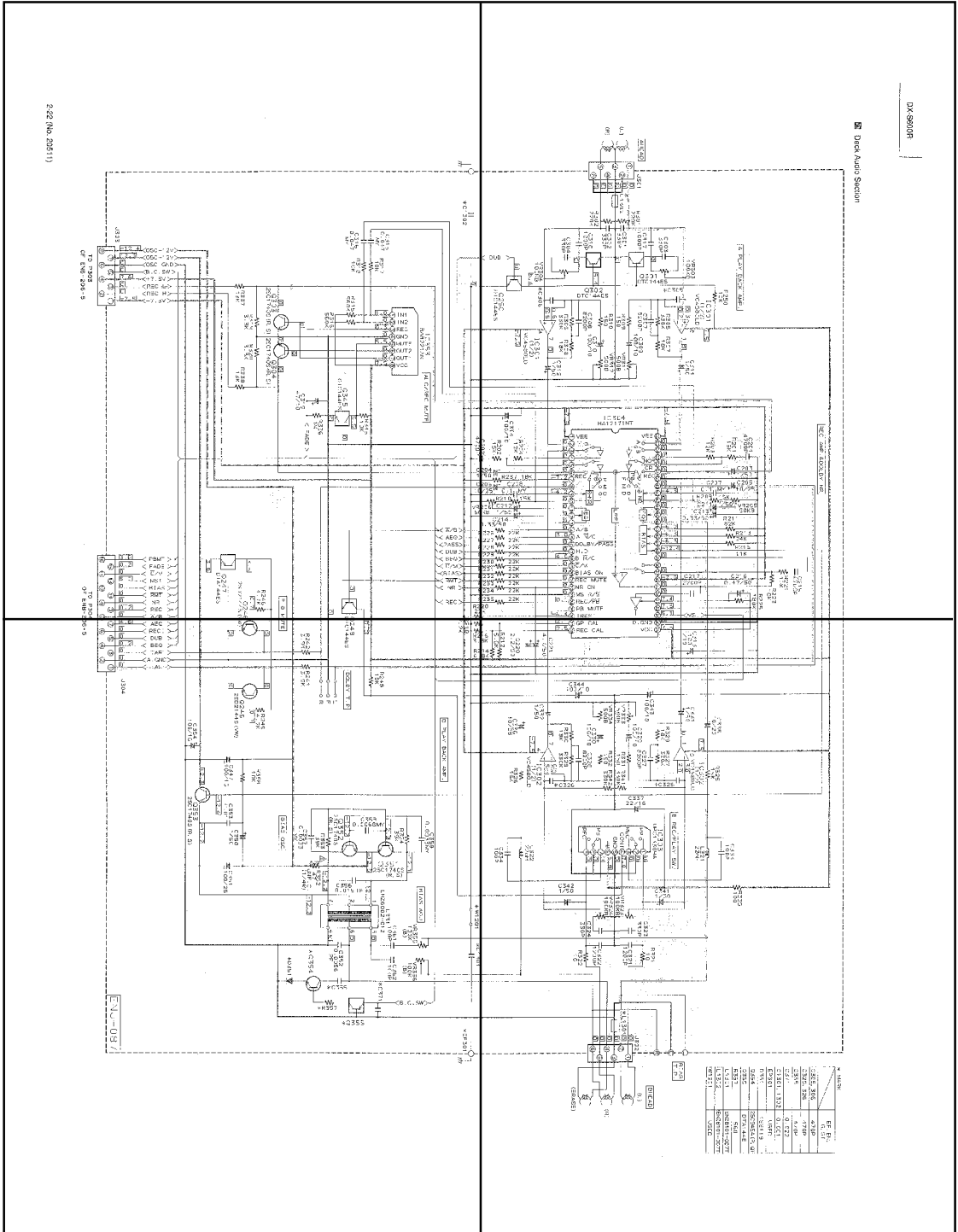


DX-S600R



P2-22-a

P2-22-b

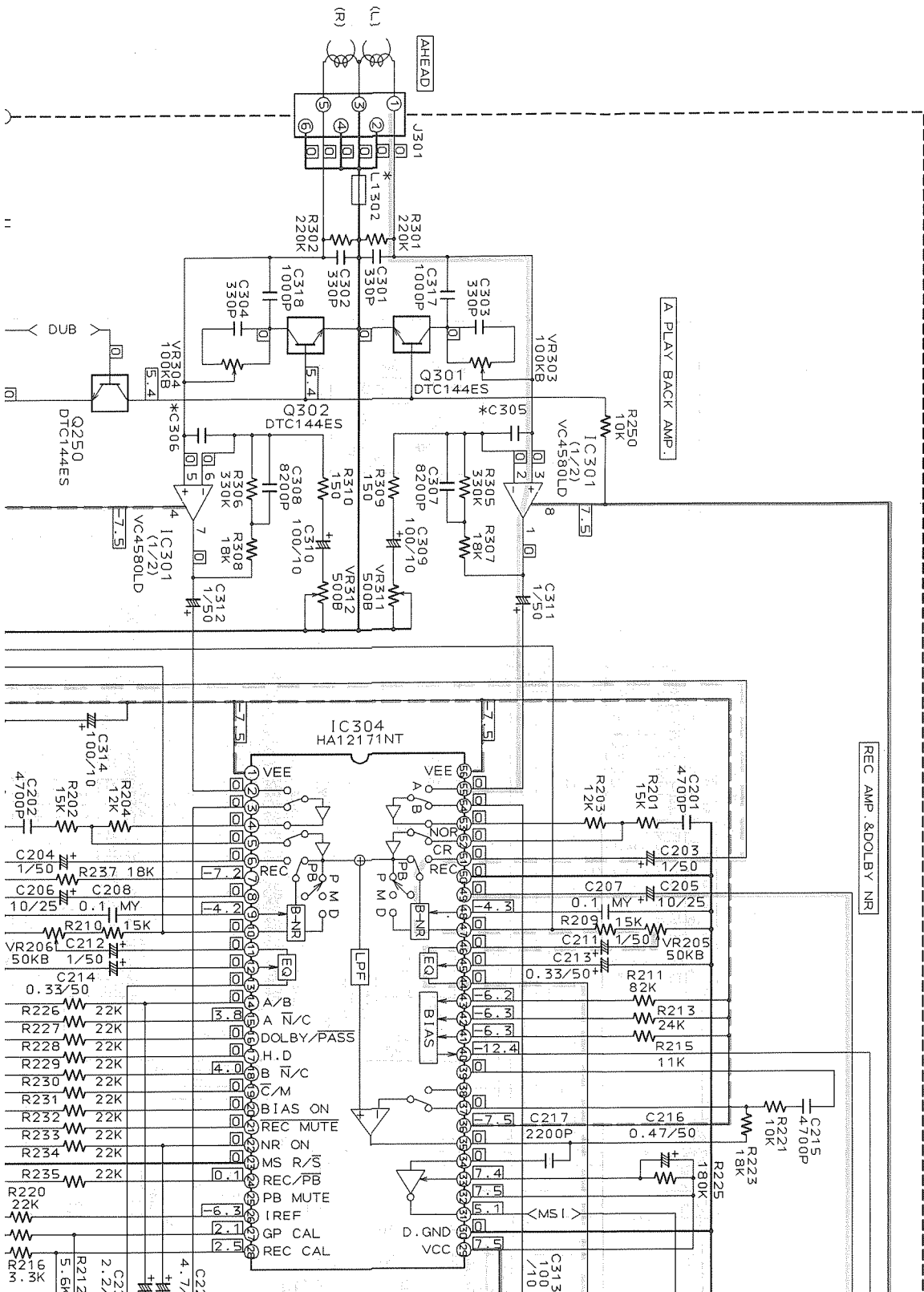


P2-22-c

P2-22-d



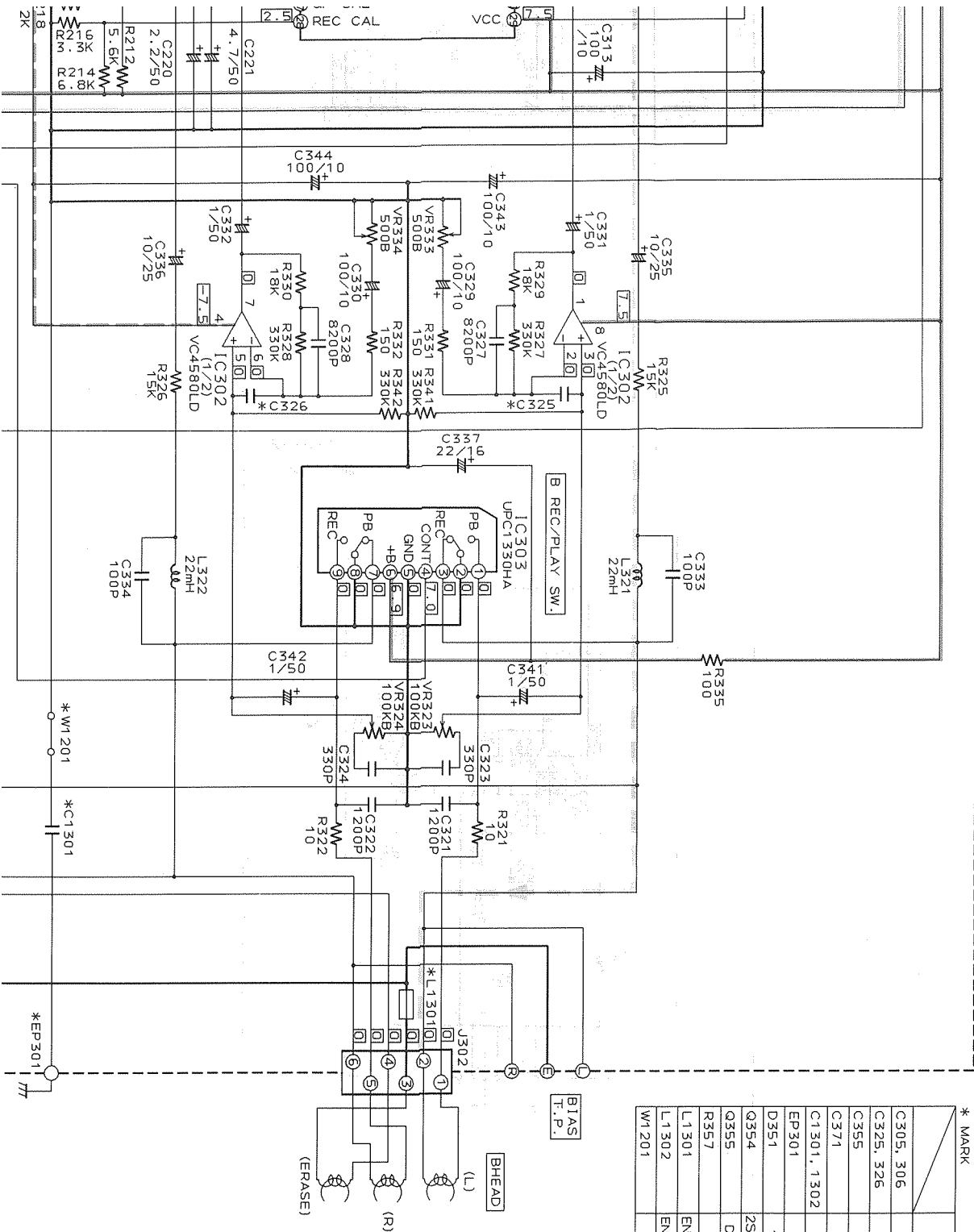
Deck Audio Section







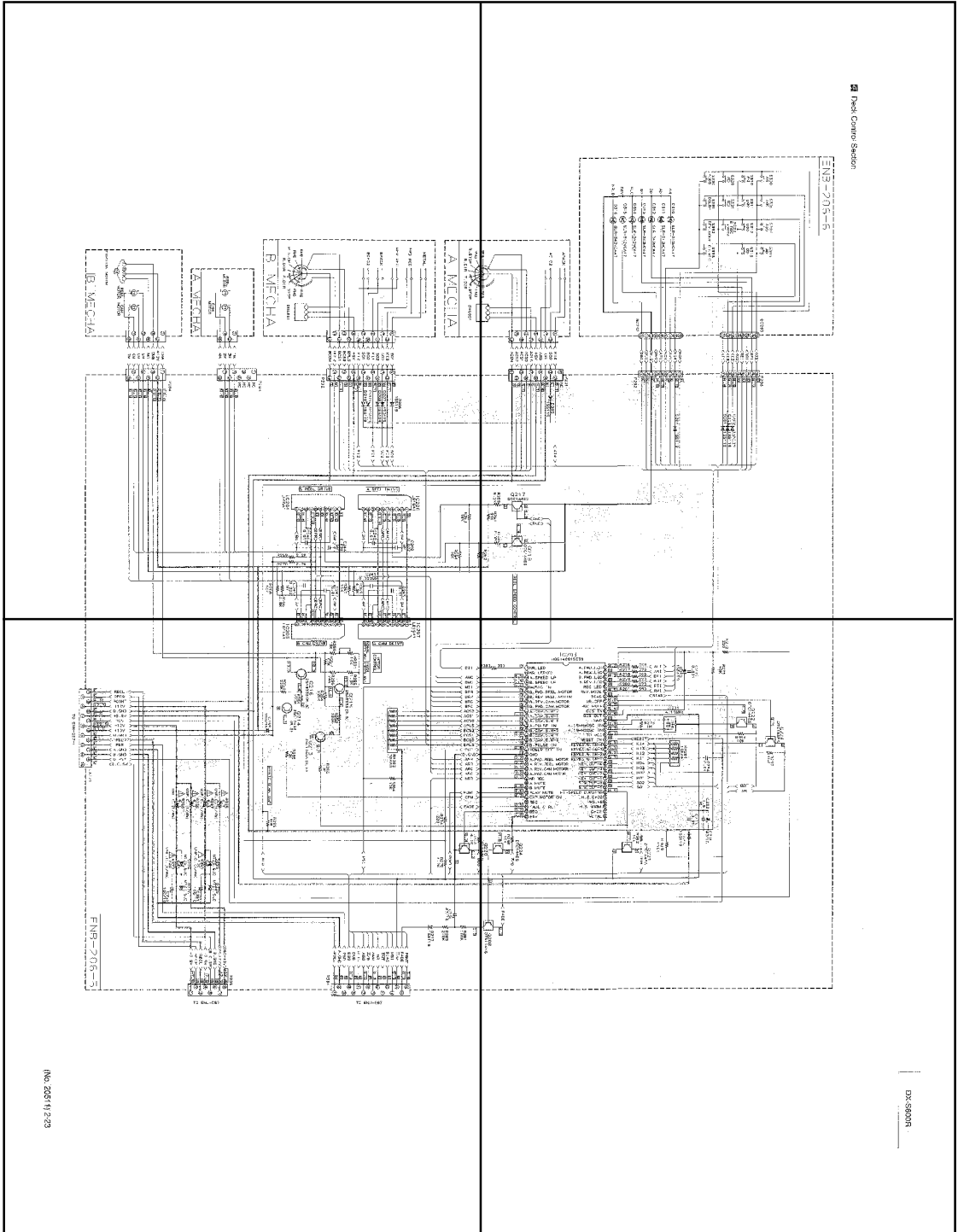
* MARK	
EF, EN, G, G1	
C305, 306	470P
C325, 326	470P
C355	470P
C371	0.022
C1301, 1302	0.001
EP301	USED
D351	1S1119
Q354	ZSC945A (P, Q)
Q355	DTA144E
R357	560
L1301	ENZ8101-007T
L1302	ENZ8101-007T
W1201	USED





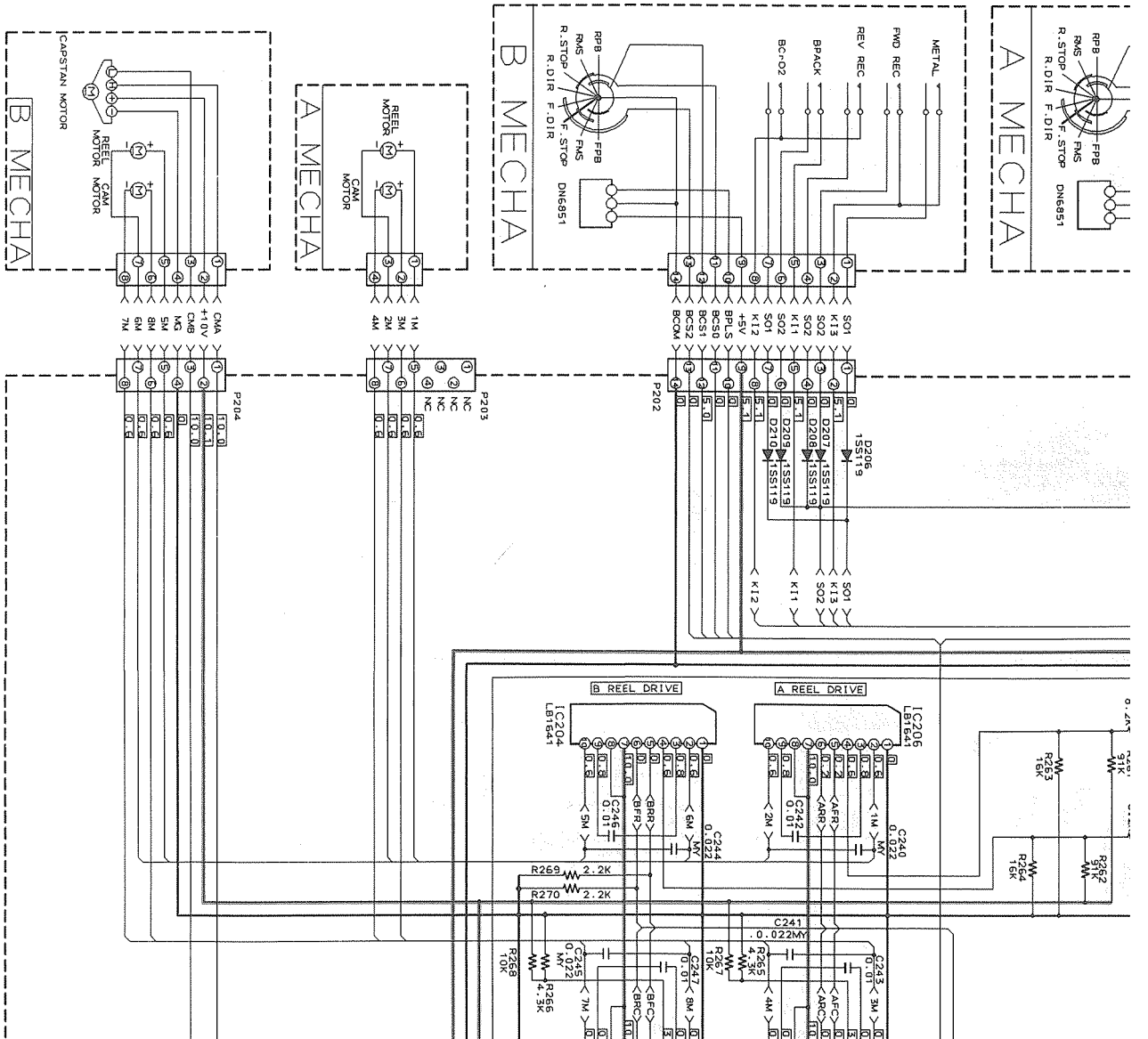
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P2-23-b

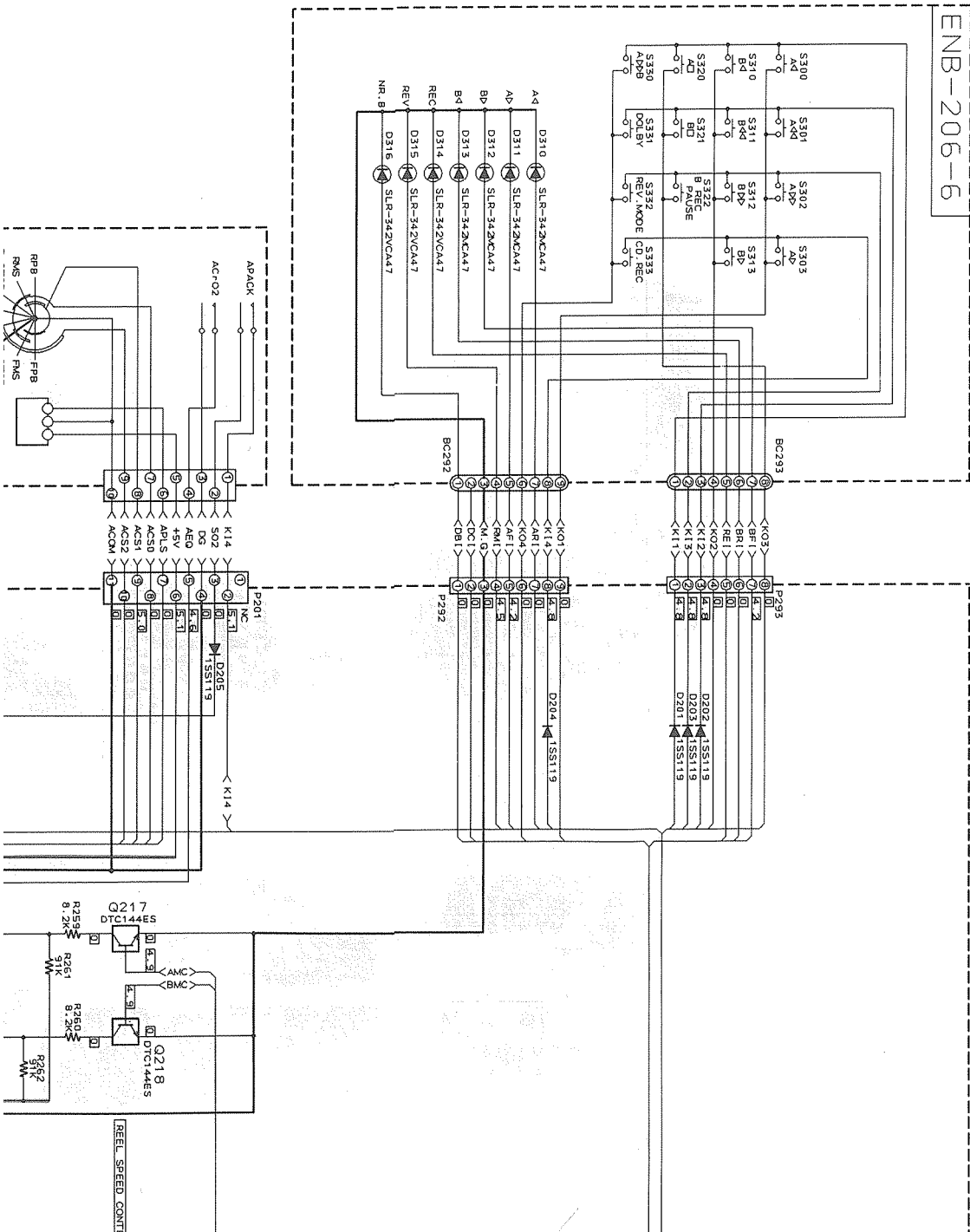


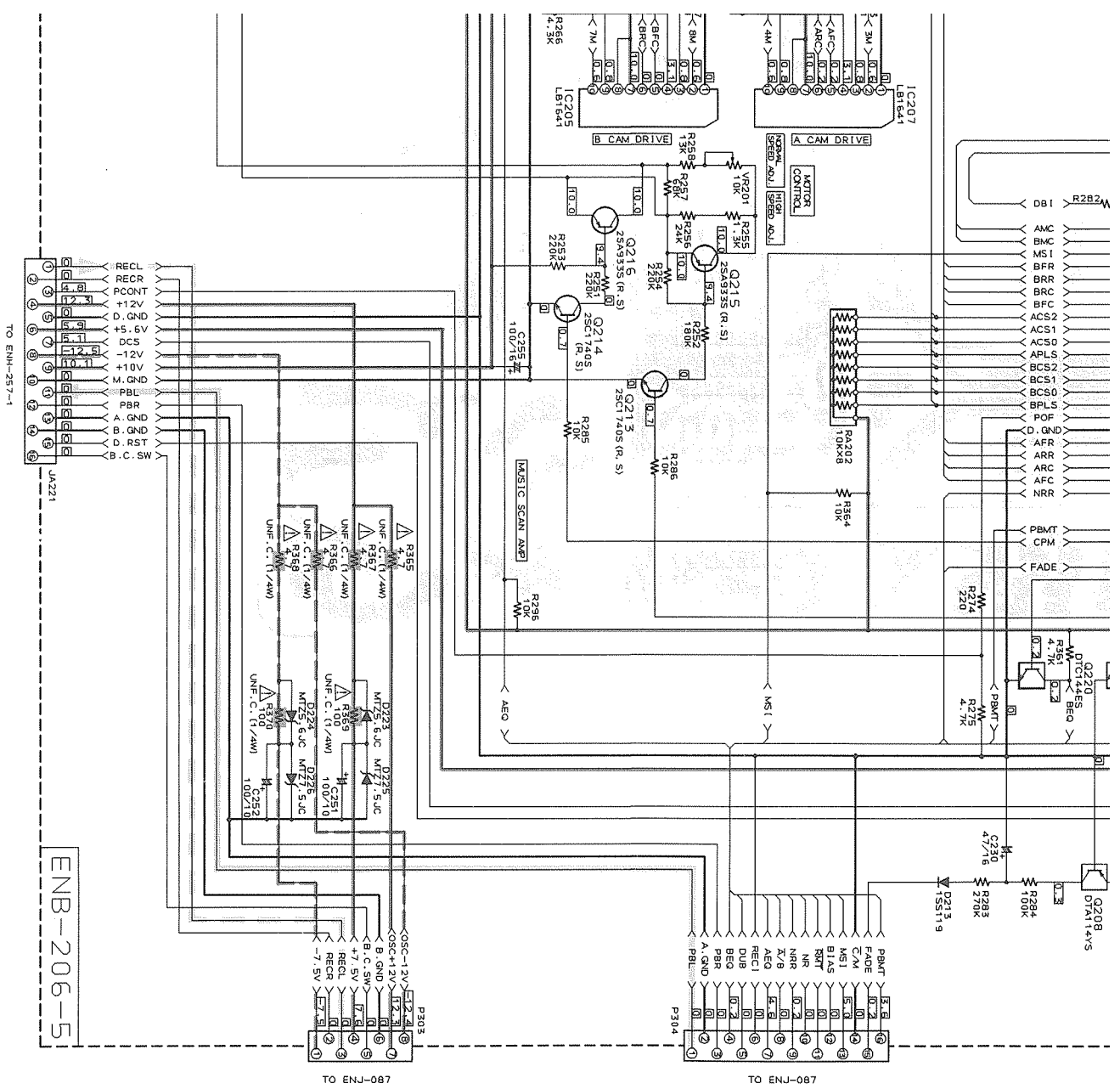
P2-23-c

P2-23-d

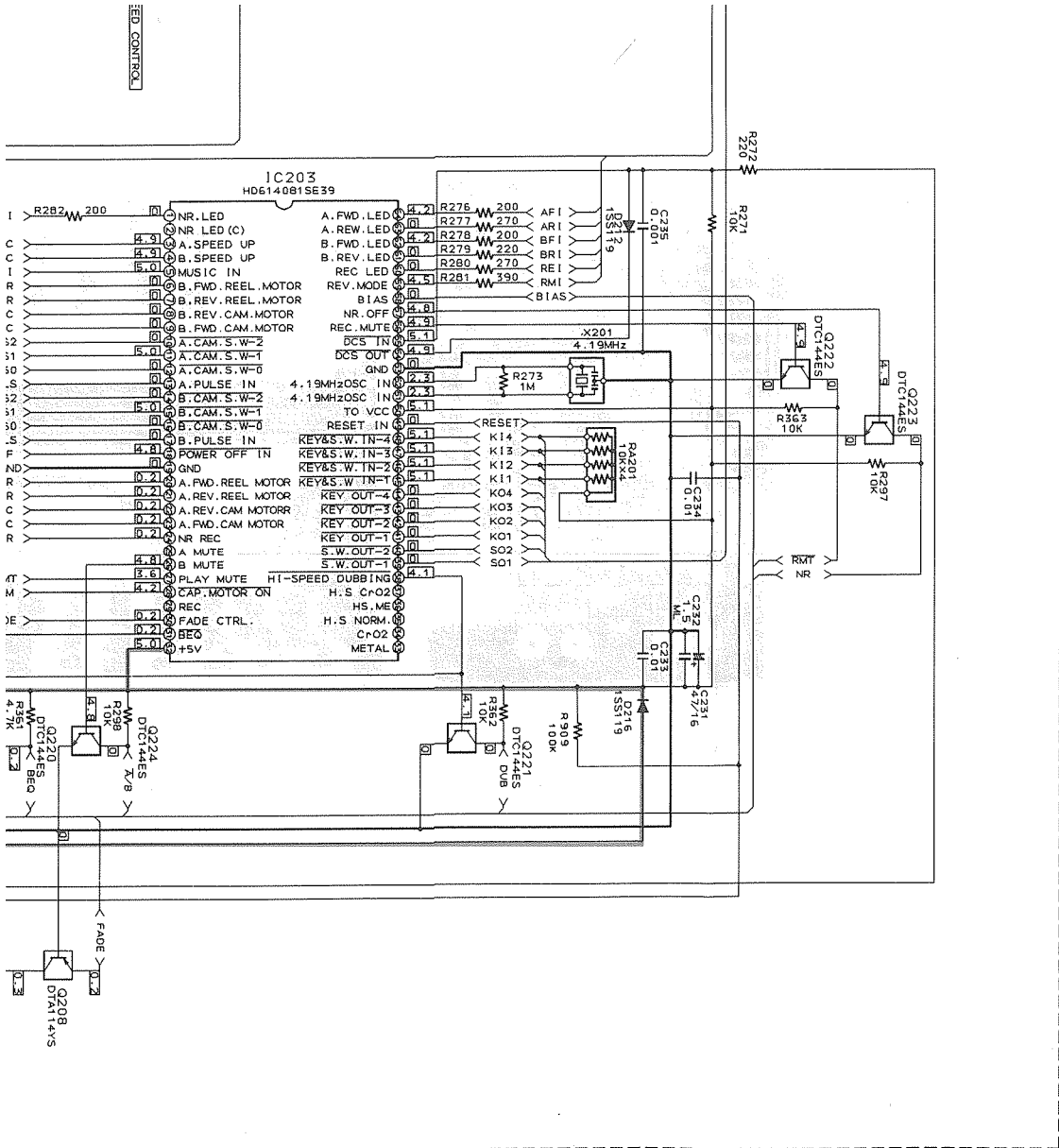


Deck Control Section





(No. 2051-1) 2-23



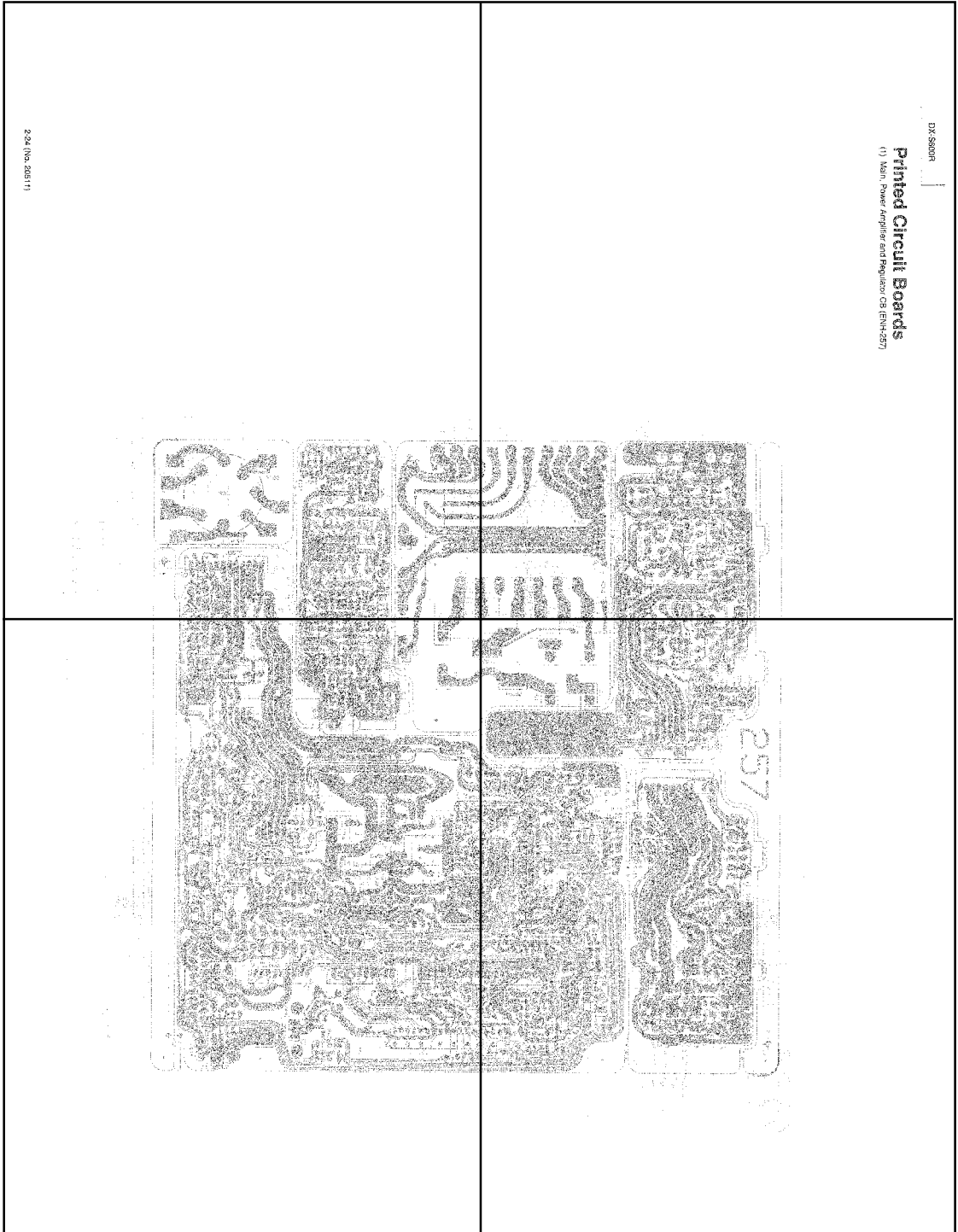
DX-S600R





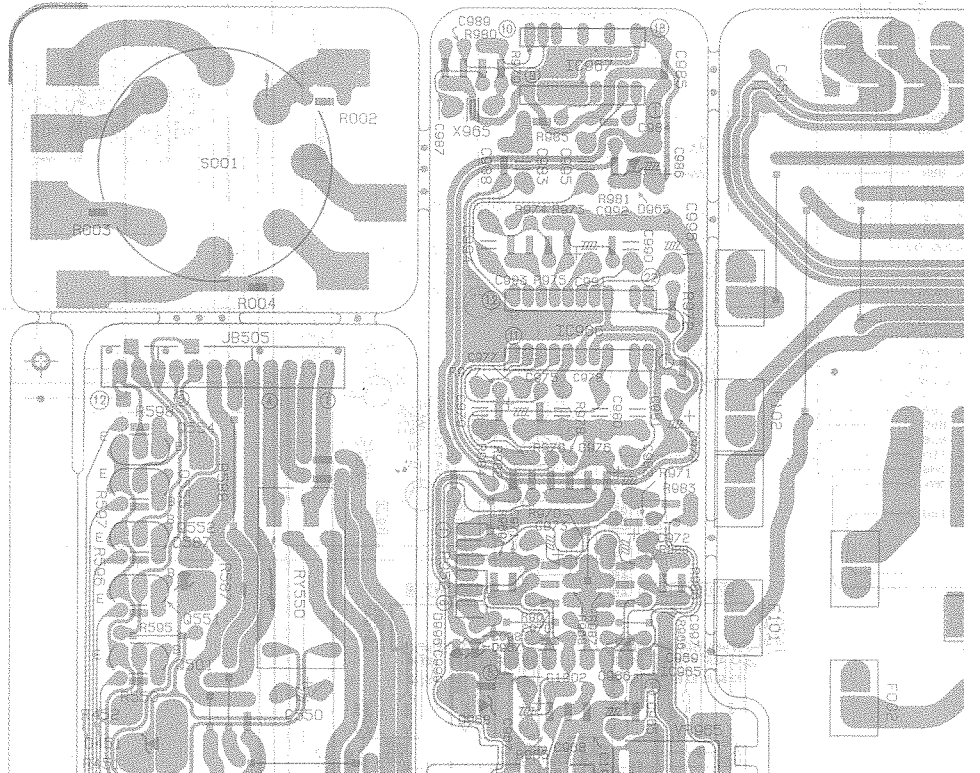
P2-24-a

P2-24-b

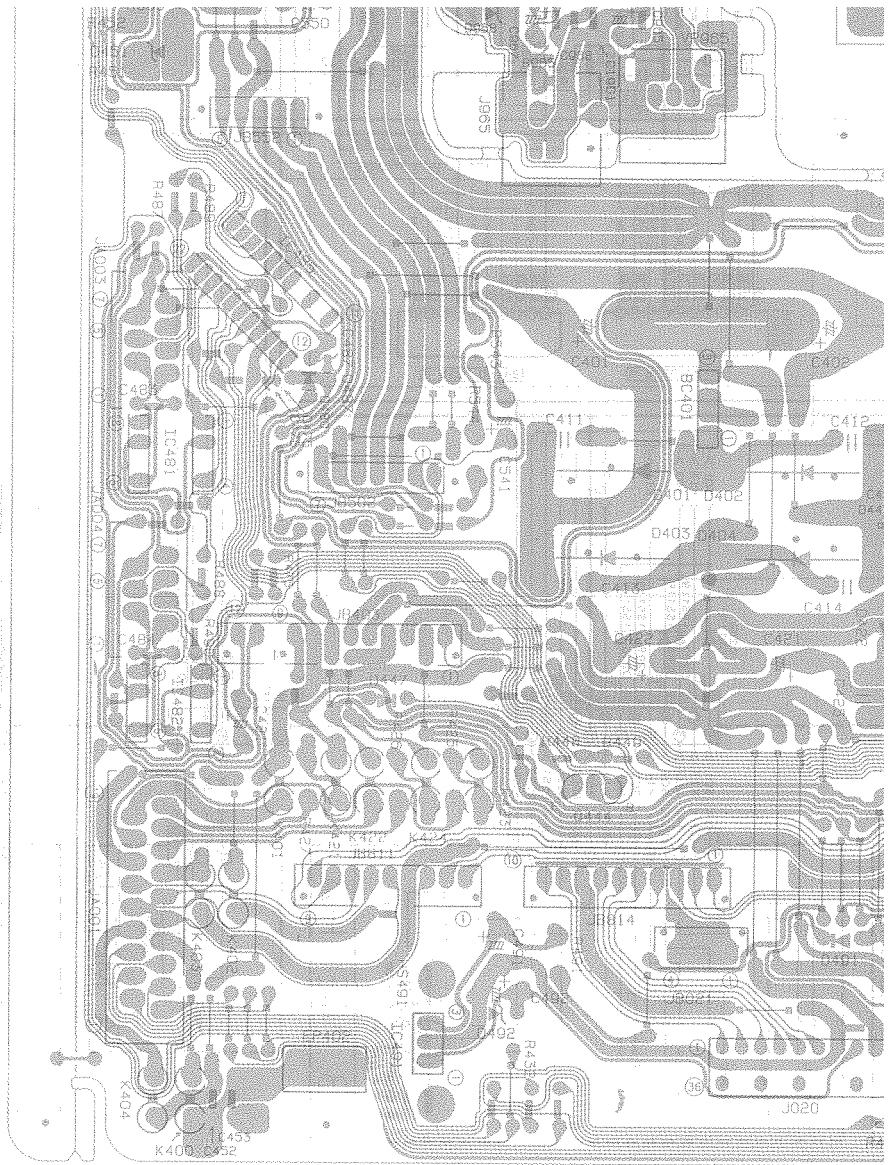


P2-24-c

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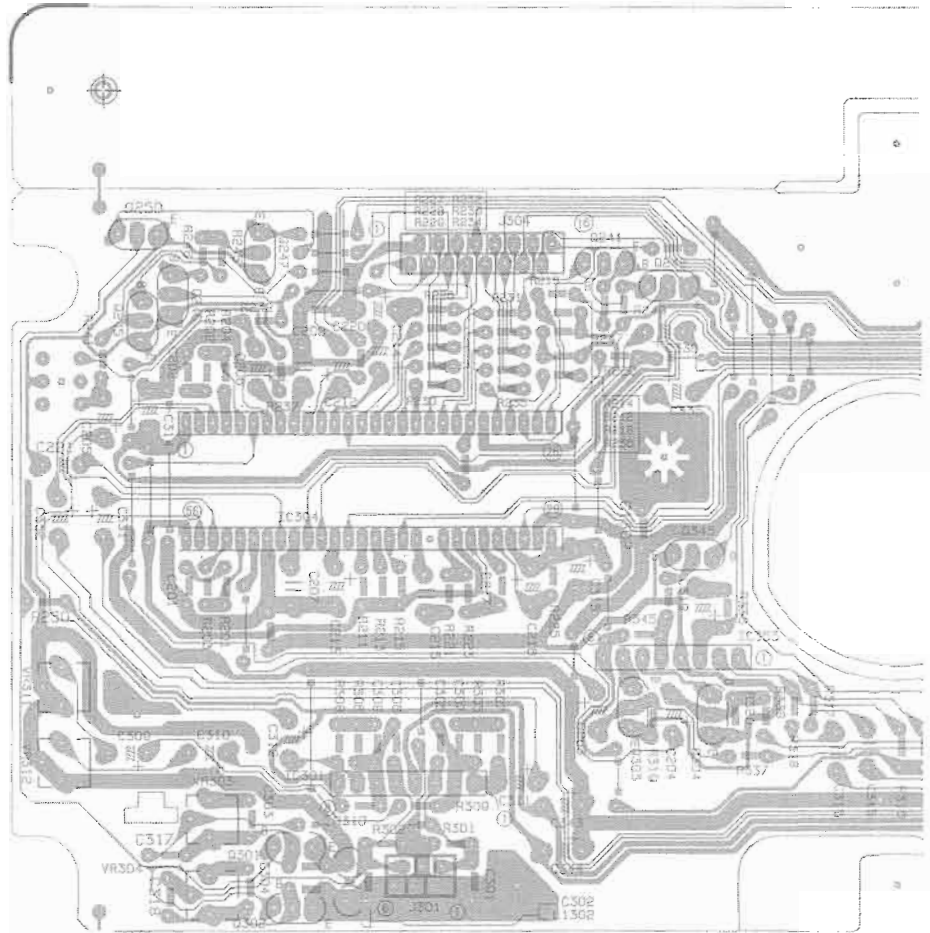


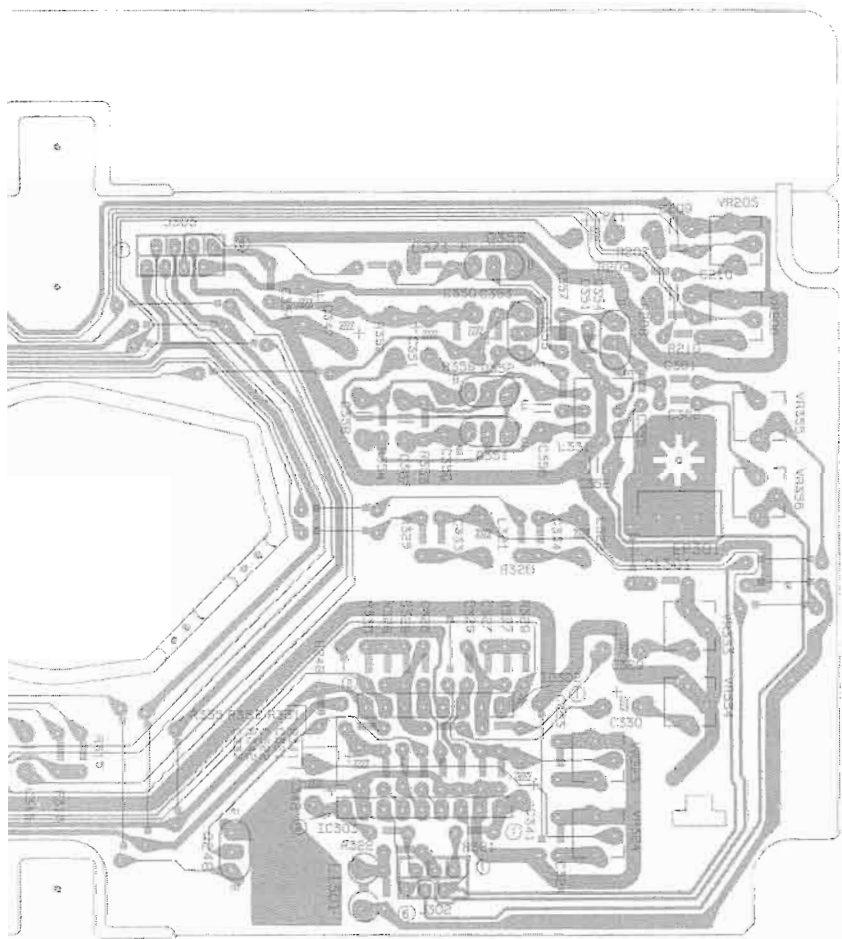




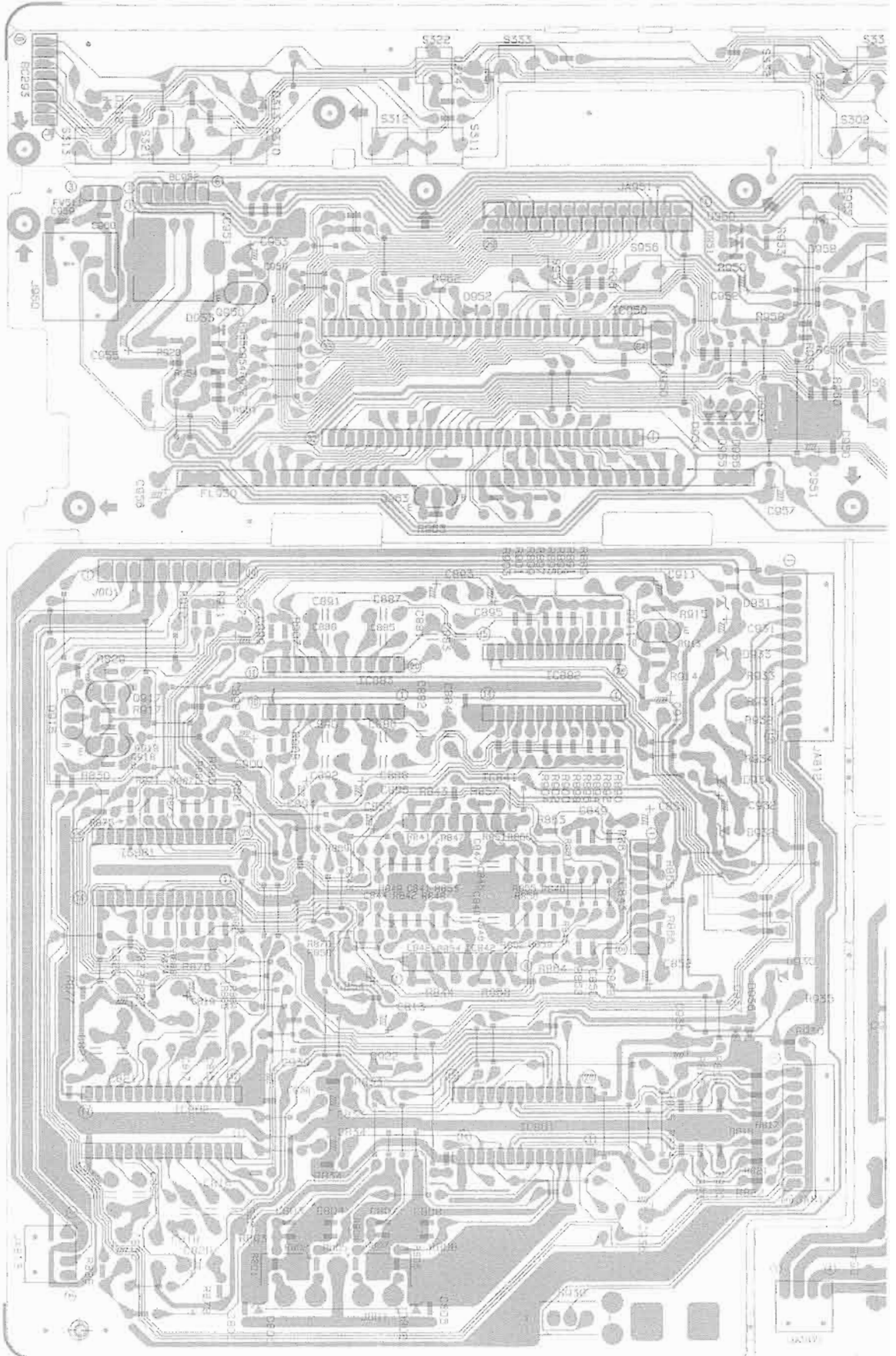


Deck Audio CB (ENJ-087)

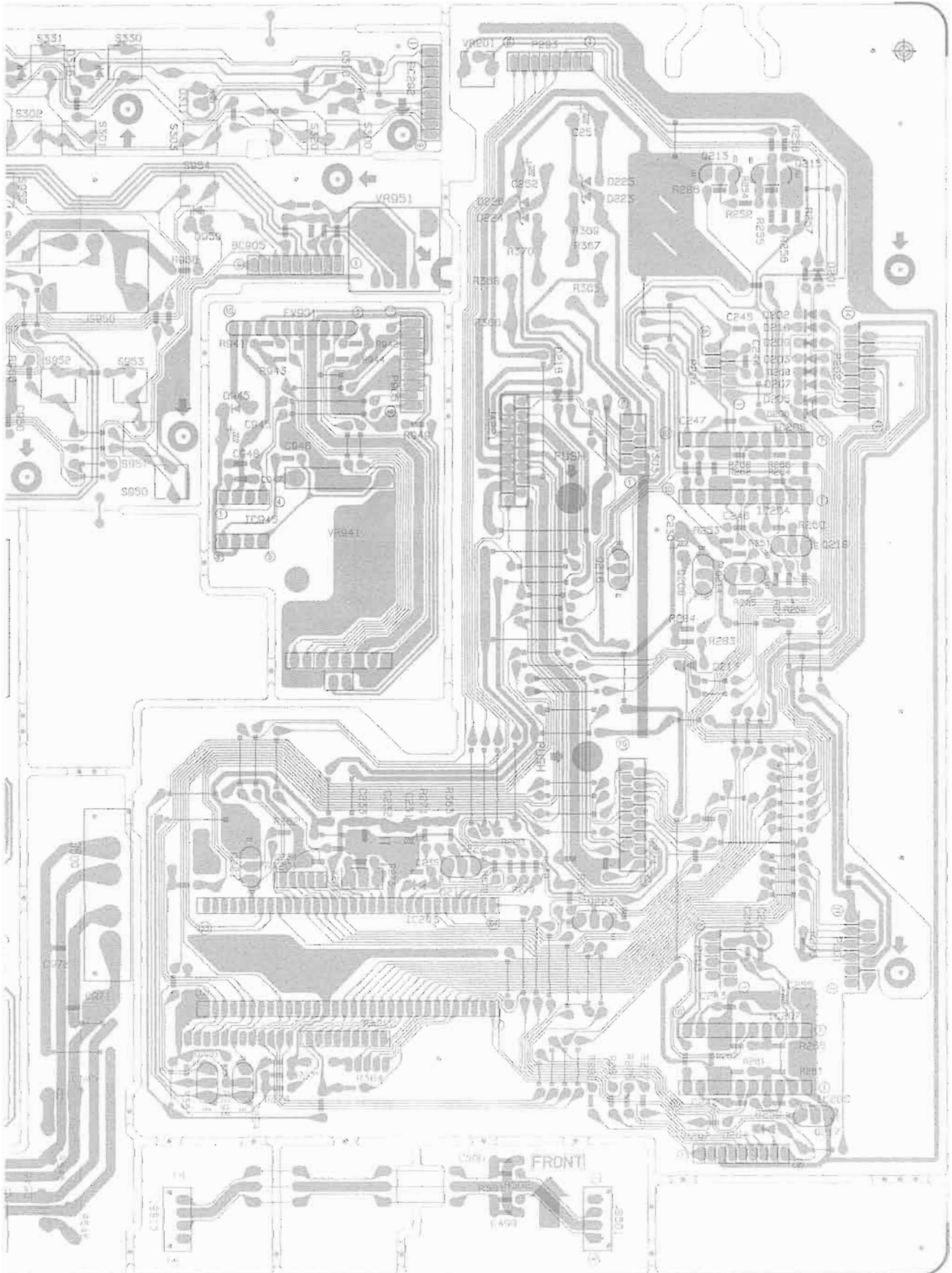




■ System, Deck controller and SEA CB (ENB-206)









# XT-S600R

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# Technical Explanation

## 1. Outline

RDS ( Radio Data System ) means the system to transmit control signal such as frequency information for tuning, traffic information and so on.

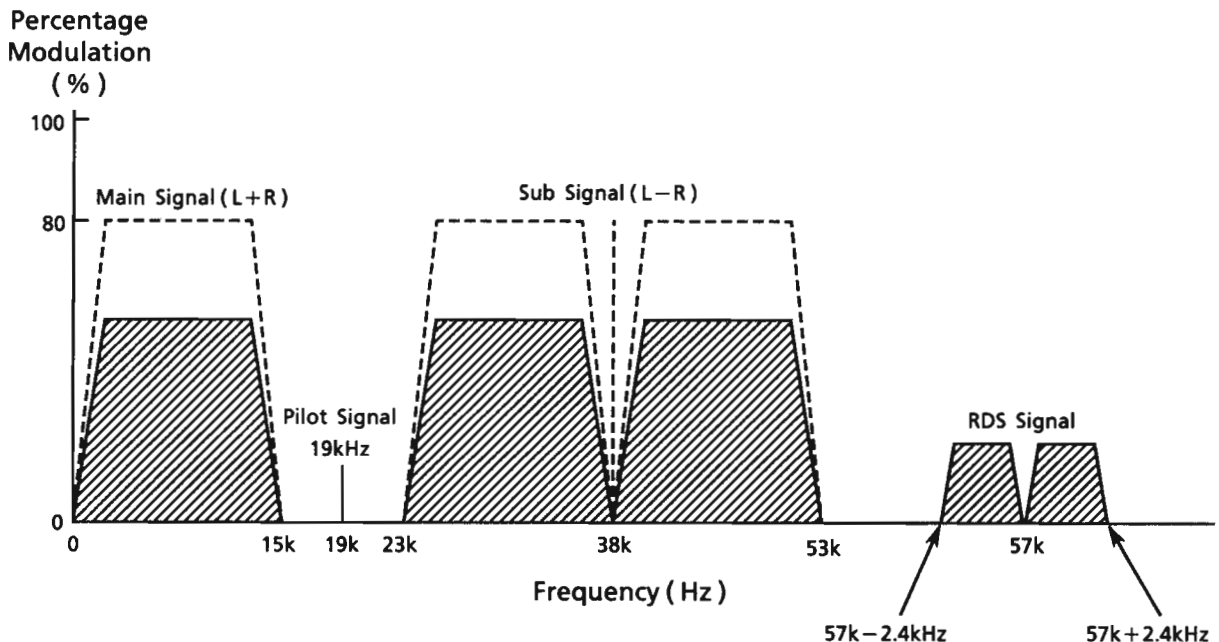
RDS signal which is DSB(Double Side Band) modulated at sub carrier frequency of 57kHz is FM modulated into main carrier signal.

Table-1 shows the details for RDS signal.

Figure 1 shows the frequency spectrum at RDS signal and stereo modulated ( composite ) signal.

[Table-1] RDS signal's Specification

	Item	Specification
Modulation Form	Sub Carrier Frequency	57kHz
	Sub Carrier Modulation Form	Duble Sideband Carrier Suppression Amplitude Modulation
	Frequency Deviation	RDS only : $\pm 2\text{kHz}$ TRI: $\pm 1.2\text{kHz}$
	Data Modulation Form	Two Phase PSK ( Phase Shift Keying )
	Data Coding Form	Differential Coding
	Occupied Bandwidth	$57\text{kHz} \pm 2.4\text{kHz} (\sqrt{100\% \text{ cosine roll off Characteristic}})$
Data Form	Bit late	1,187.5bit/s
	Error correcting	(26,16) Reduction Cyclic Code
	1 Block	26bit
	1 Group	104bit ( 4 block )
	Synchronism Form	Offset ward

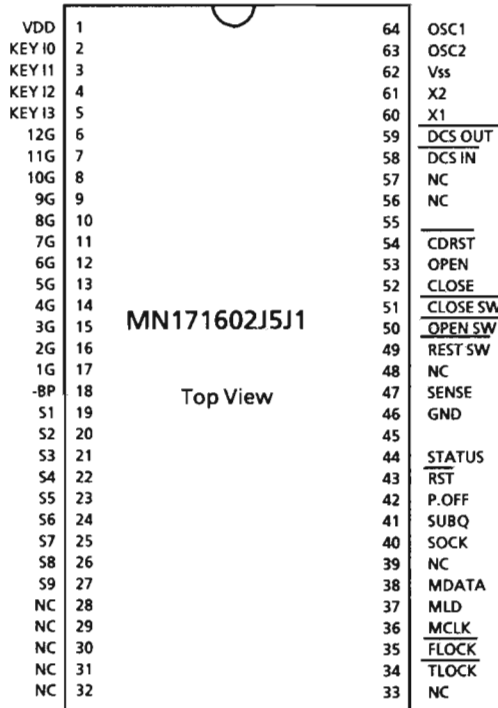


[ Fig. 1 ] Frequency Spectrum at RDS signal & Stereo modulated Signal

## Description of the ICs

### ■ MN171602J5J1 (IC701) : CD System Controller

#### 1. Terminal Layout



#### 2. Key Matrix

	KEY I 0	KEY I 1	KEY I 2	KEY I 3
G4	■/CLEAR	▶/	REPEAT	
G5	SIDE A/B	PROGRAM EDIT	AUTO EDIT	
G6	DISPLAY	▲	CANCEL	⏪
G7	RANDOM	PROGRAM	CALL	⏩

#### 3. Functions

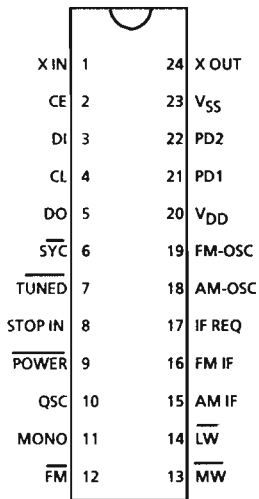
Pin NO.	symbol	I/O	Functions and operations	Pin NO.	symbol	I/O	Functions and operations
1	VDD	I	Power supply	33	NC	-	Non connection
2	KEY I0	I	Key matrix input	34	TLOCK	I	Tracking Lock with "L"
3	KEY I1	I	Key matrix input	35	FLOCK	I	Focus Lock with "L"
4	KEY I2	I	Key matrix input	36	MCLK	O	Command Clock Signal
5	KEY I3	I	Key matrix input	37	MLD	O	Command Load Signal
6	12G	O	FL grid control output	38	MDATA	O	Command Data Signal
7	11G	O	FL grid control output	39	NC	-	Non connection
8	10G	O	FL grid control output	40	SOCK	O	External clock for Sub Code Q register
9	9G	O	FL grid control output	41	SUBQ	I	Sub code Q code input
10	8G	O	FL grid control output	42	P.OFF	O	Power off signal output
11	7G	O	FL grid control output	43	RST	I	Reset signal input
12	6G	O	FL grid control output	44	STATUS	I	Status signal input
13	5G	O	FL grid control output	45		-	GND
14	4G	O	FL grid control output	46	GND	-	GND
15	3G	O	FL grid control output	47	SENSE	I	SENSE signal input
16	2G	O	FL grid control output	48	NC	-	Non connection
17	1G	O	FL grid control output	49	RESET SW	I	RESET SW active: low
18	-BP	I	FL power supply	50	OPEN SW	I	OPEN SW active: low
19	S1	O	FL segment control output	51	CLOSE SW	I	CLOSE SW active: low
20	S2	O	FL segment control output	52	CLOSE	O	CLOSE signal output
21	S3	O	FL segment control output	53	OPEN	O	OPEN signal output
22	S4	O	FL segment control output	54	CDRST	O	CD reset signal output active: low
23	S5	O	FL segment control output	55		-	Non connection
24	S6	O	FL segment control output	56	NC	-	Non connection
25	S7	O	FL segment control output	57	NC	-	Non connection
26	S8	O	FL segment control output	58	DCS IN	I	Compulink signal input
27	S9	O	FL segment control output	59	DCS OUT	O	Compulink signal output
28	NC	-	Non connection	60	X1	-	Connected to Ground
29	NC	-	Non connection	61	X2	-	Non connection
30	NC	-	Non connection	62	Vss	-	Connected to Ground
31	NC	-	Non connection	63	OSC2	O	Clock oscillation output
32	NC	-	Non connection	64	OSC1	I	Clock oscillation input

■ LC7218JMX (IC121) : PLL Synthesizer

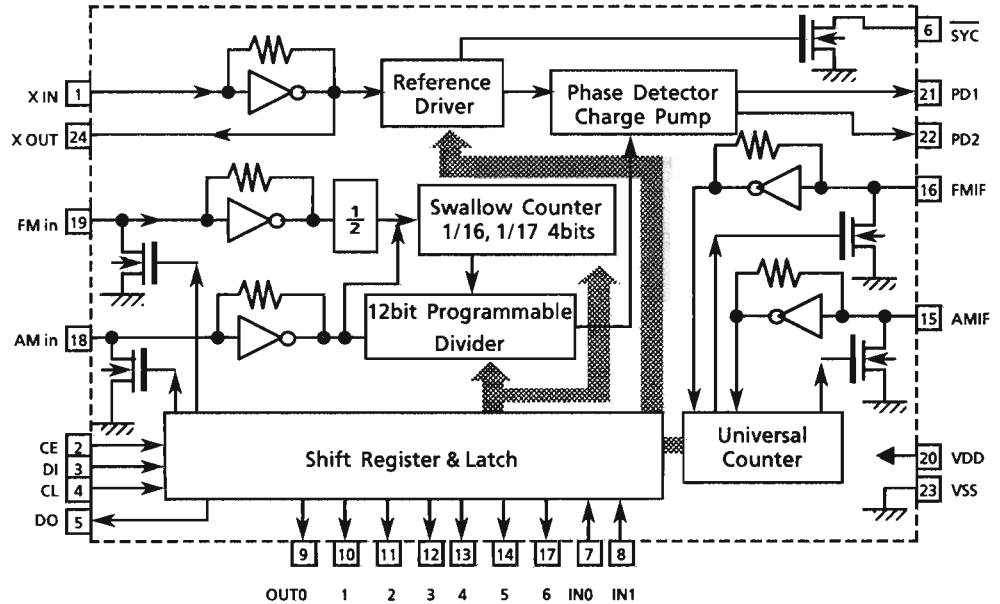
1. The main function descriptions

- (1) It makes the local oscillation frequency by the control data from IC751.
- (2) Decode the control signal and transmit the signal for receiving conditions.
- (3) For the best tuning, count the internal-frequency and transmit the data to IC751.

2. Terminal Layout



3. Block Diagram

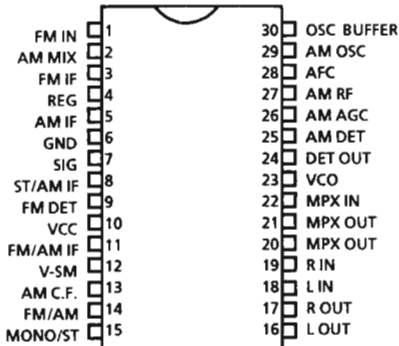


4. Functions

Pin No.	Symbol	I/O	Functions and operations
1,24	X in , X out	I/O	Crystal oscillator (7.2MHz).
2	CE	I	Fix the chip enable to "H" when inputting (DI) and outputting (DO) the serial data.
3	DI	I	Receive the control data from the controller (IC751).
4	CL	I	This clock is used to synchronize data when transmitting the data of DI and DO.
5	DO	O	Transmit the data to the controller(IC751) which is synchronized with CL.
6	SYC	-	Not used.
7	TUNED	I	Receive the tuned signal from IC751
8	STOP IN	-	Connected to ground
9	POWER	-	Non connection
10	QSC	-	Non connection
11	MONO	O	It is "H" on FM-monoaural, "L" on FM-Stereo.
12	FM	O	It is "L" on FM mode.
13	MW	O	It is "L" on MW mode.
14	LW	O	It is "L" on LW mode.
15	AM-IF	I	Universal counter input for AM-IF from IC102 (LA1836A).
16	FM-IF	I	Universal counter input for FM-IF from IC102(LA1836A).
17	IF REQ	O	Output the "IF-signal request" to IC102 when the pin-7 (tuned in) goes to "H".
18	AM OSC	I	Input the local oscillator signal of AM.
19	FM OSC	I	Input the local oscillator signal of FM.
20	V <sub>DD</sub>	-	This is a terminal of power supply.
21	PD1	O	PLL charge pump output : When the local oscillator signal frequency is higher than the reference frequency high level signals will output. When it is lower than the reference frequency, low level signals will output. When it is same as reference frequency signals, it will be floating.
22	PD2	-	Non connection
23	V <sub>SS</sub>	-	Connected to ground

■ LA1836MX (IC102) : FM AM IF AMP & detector

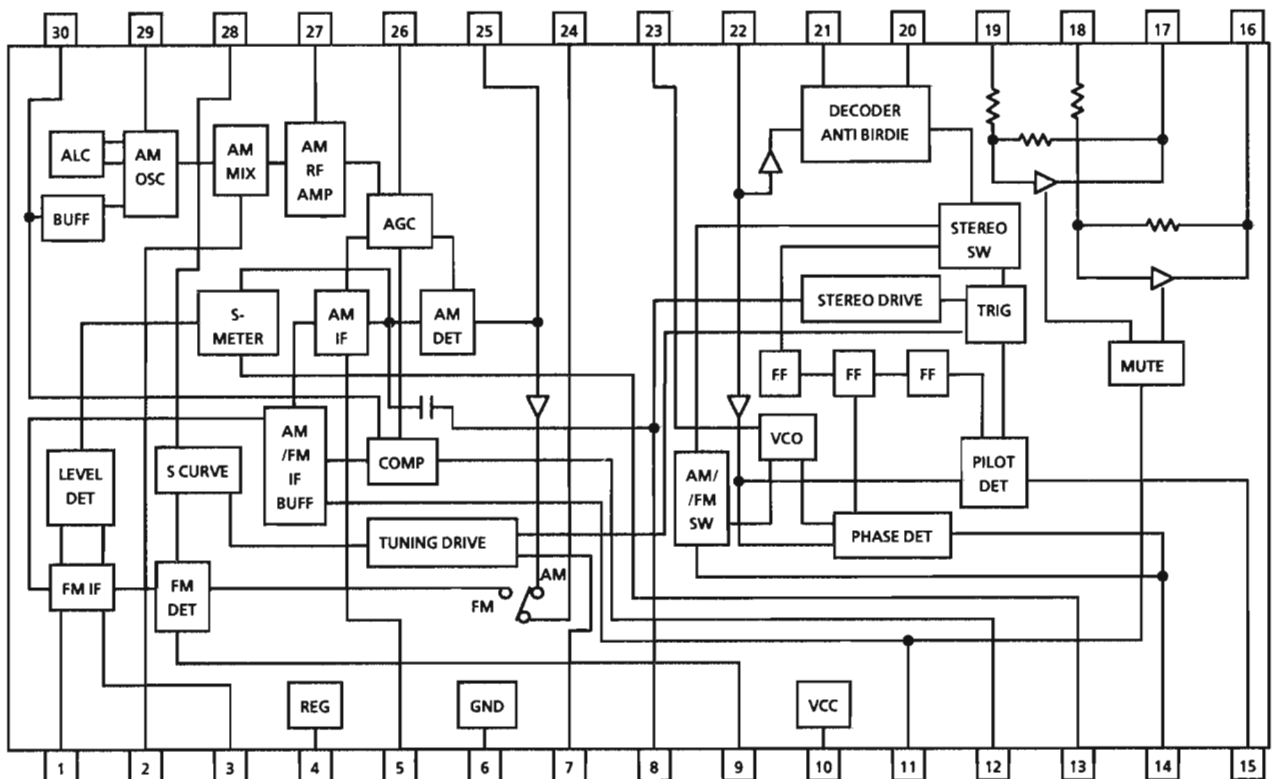
1. Terminal Layout



3. Pin Function

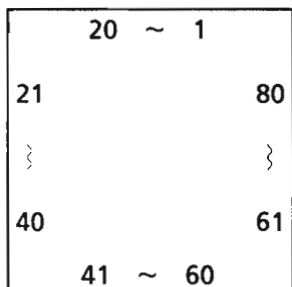
Pin No.	Symbol	I/O	Function
1	FM IN	I	FM IF Signal input
2	AM MIX	O	AM mixer output
3	FM IF	I	Bypass of FM IF
4	REG	-	Register value between pin4 and pin28 desides the frequency width of the input signal
5	AM IF	I	AM IF Signal input
6	GND	-	Ground terminal
7	SIG	O	Auto-stop drive signal output for mute and tune
8	ST/AM IF	O	Stereo indicator output Stereo : "L", Mono : "H"
9	FM DET	-	FM detect coil
10	VCC	-	Power supply
11	FM/AM IF	O	When the signal of IF REQ of IC121(LC7218MX) appears, the signal of FM/AM IF outputs.
12	VSM	O	Control output for AM tuned sensitivity
13	AM C.F.	-	AM ceramic filter
14	FM/AM	I	Change over the FM / AM input FM : "H" , AM : "L"
15	MONO/ST	O	Stereo : "H", Mono : "L"
16	L OUT	O	Left channel signal output.
17	R OUT	O	Right channel signal output
18	L IN	I	Input terminal of the Left channel post AMP
19	R IN	I	Input terminal of the Right channel post AMP
20	MPX L OUT	O	Mpx Left channel signal output
21	MPX R OUT	O	Mpx Right channel signal output
22	MPX IN	I	Mpx input terminal
23	VCO	I	Voltage controlled oscillator
24	DET OUT	O	AM/FM detection output
25	AM DET	-	AM low cut adjustment
26	AM AGC	I	AM AGC voltage input
27	AM RF	I	AM RF signal input
28	AFC	-	Voltage output for FM-AFC(automatic frequency control)
29	AM OSC	-	AM Local oscillation circuit
30	OSC BUFFER	O	AM Local oscillation Signal output

2. Block Diagram

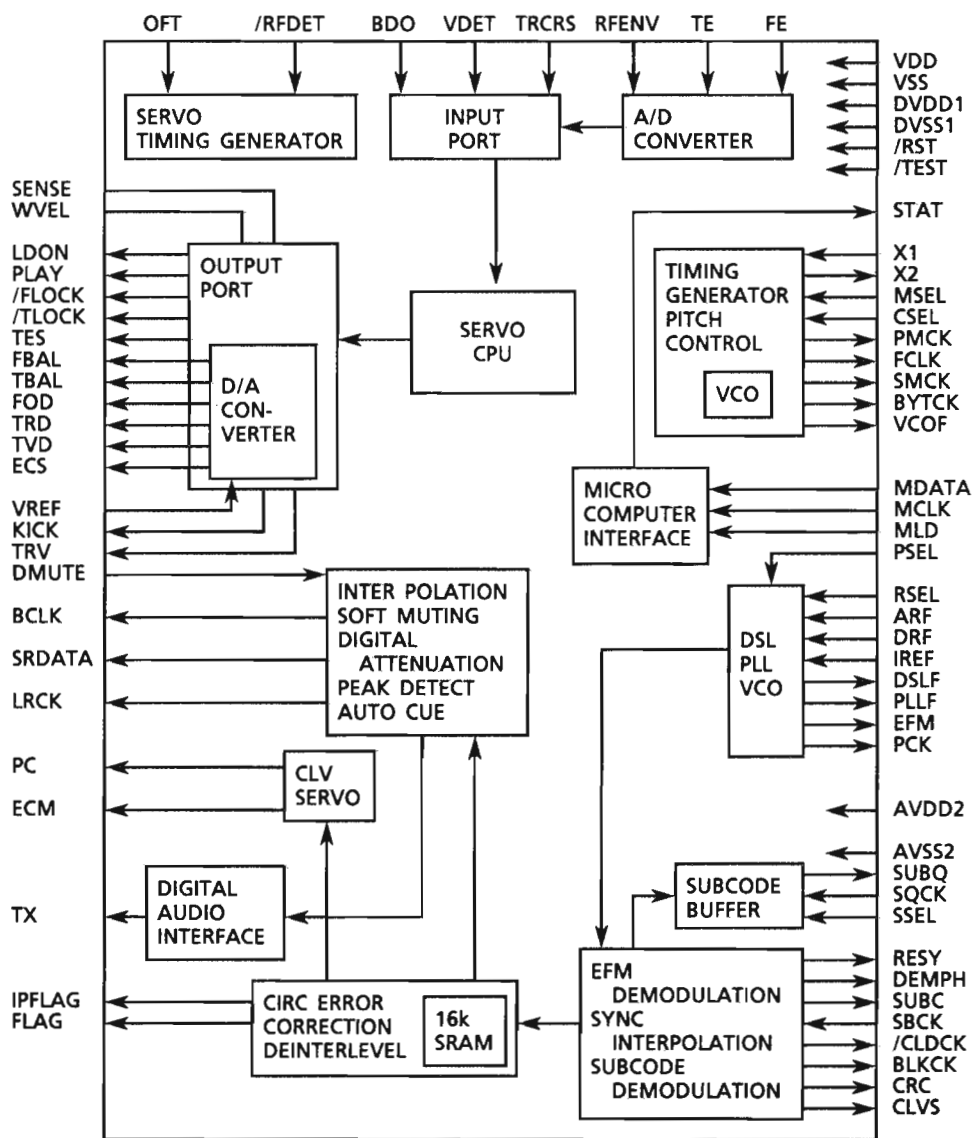


■ MN66271RAM (IC650) : Digital Servo & Digital Signal Processor

1. Terminal Layout



2. Block Diagram





## 3. Functions

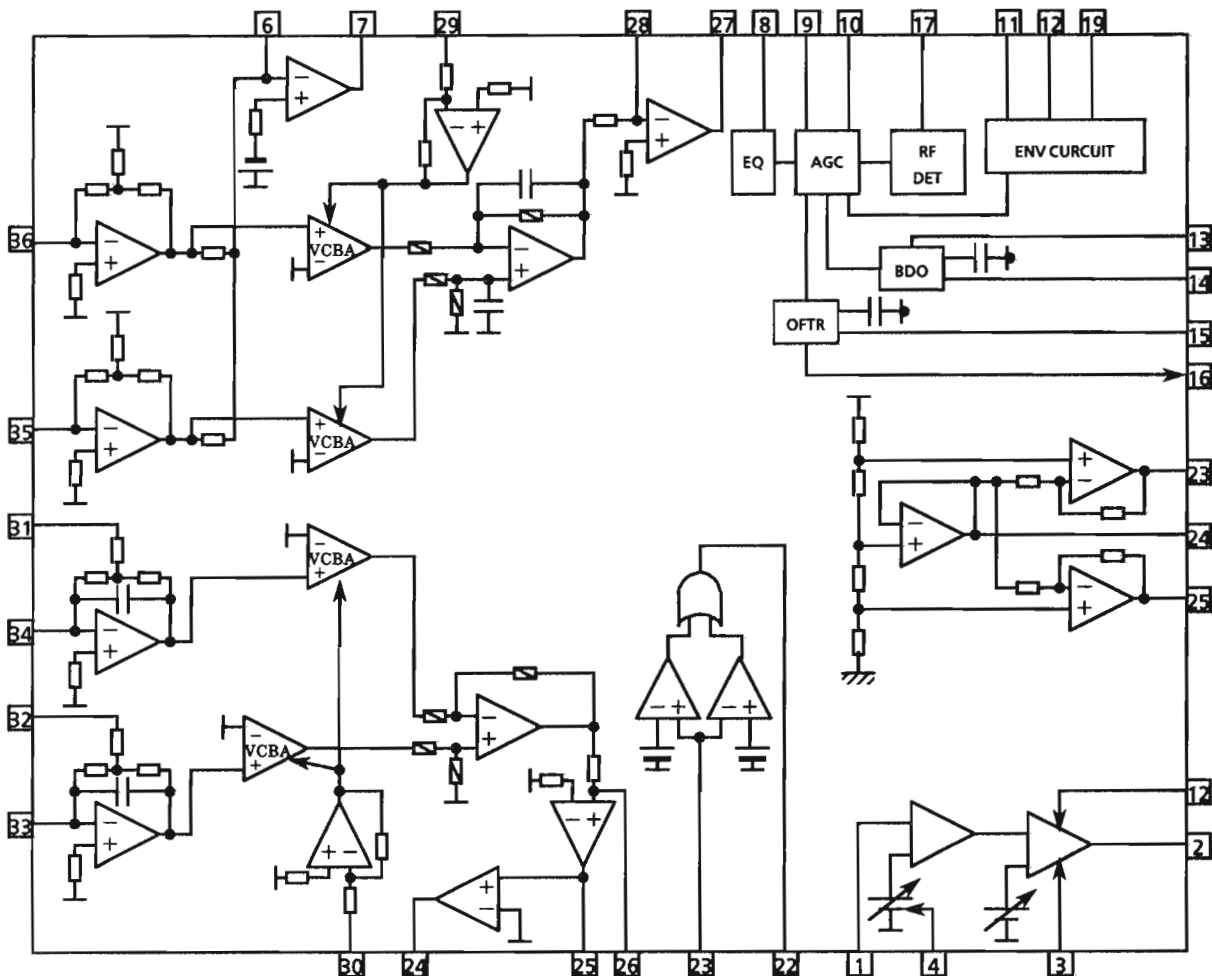
Pin No.	symbol	I/O	Functions and operations	Pin No.	symbol	I/O	Functions and operations
1	BCLK	-	Non connection	41	TES	-	
2	LRCK	-	Non connection	42	PLAY	-	Non connection
3	SRDATA	-	Non connection	43	WVEL	-	Non connection
4	DVDD1	-	Power supply for digital circuit	44	ARF	I	RF signal input
5	DVSS1	-	Connected to ground	45	IREF	I	Reference current input
6	TX	-	Non connection	46	DRF	I	Bias adjustment pin for DSL
7	MCLK	I	Command Clock signal input from IC701	47	DSLFL	I/O	Loop filter pin for DSL
8	MDATA	I	Command data signal input from IC701	48	PLLFL	I/O	Loop filter pin for PLL
9	MLD	I	Command load signal input from IC701 L : LOAD	49	VCOF	-	Non connection
10	SENSE	O	Sense signal output	50	AVDD2	-	Power supply
11	FLOCK	O	Focus clock signal output Active : low	51	AVSS2	-	Connected to ground
12	TLOCK	O	Tracking clock signal output Active : low	52	EFM	-	Non connection
13	BLKCK	-	Non connection	53	PCK	-	Non connection
14	SQCK	I	Clock signal for sub code and Q register	54	PDO	-	Non connection
15	SUBQ	O	Sub code and Q register signal output	55	SUBC	-	Non connection
16	DMUTE	I	Mute signal Connected to ground	56	SBCK	-	Connected to ground
17	STATUS	O	Status signal	57	VSS	-	Connected to ground
18	/RST	I	Reset signal input Active : low	58	X1	I	16.9344MHz X'tal oscillation circuit
19	SMCK	-	Non connection	59	X2	O	16.9344MHz X'tal oscillation circuit
20	PMCK	-	Non connection	60	VDD	-	Power supply
21	TRV	O	Traverse enforced signal output	61	BYTCK	-	Non connection
22	TVD	O	Traverse drive signal output	62	CLDCK	-	Non connection
23	PC	-	Non connection	63	FCLK	-	Non connection
24	ECM	O	Spindle motor drive signal (Enforced output) 3-State	64	IPPLAG	-	Non connection
25	ECS	O	Spindle motor drive signal (Servo signal)	65	FLAG	-	Non connection
26	KICK	O	Kick pulse output	66	CLVS	-	Non connection
27	TRD	O	Tracking drive output	67	CRC	-	Non connection
28	FOD	O	Focus drive output	68	DEMPH	-	Non connection
29	VREF	I	Reference voltage	69	RESY	-	Non connection
30	FBAL	O	Focus Balance adjustment signal output	70	RST 2	-	Connected to VDD
31	TBAL	O	Tracking Balance adjustment signal output	71	/TEST	-	Pull up (+5V)
32	FE	I	Focus error signal input	72	AVDD1	-	Power supply
33	TE	I	Tracking error signal input	73	OUT L	-	
34	RF ENV	I	RF envelope signal input	74	AVSS1	-	Connected to GND
35	VDET	I	Vibration detect signal input	75	OUT R	-	
36	OFT	I	Off track signal input	76	RSEL	-	Pull up (+5V)
37	TRCRS	I	Track cross signal input	77	CSEL	-	Connected to ground
38	/RFDET	I	RF detect signal input Active : low	78	PSEL	-	Connected to ground
39	BDO	I	Drop out signal input	79	MSEL	-	Connected to ground
40	LDON	O	Laser ON signal output	80	SSEL	-	Pull up (+5V)

■ AN8806SB (IC600) : RF & SERVO AMP

1. Terminal Layout

PD	1	36 PDAC
LD	2	35 PDBD
LDON	3	34 PDE
LDP	4	33 PDF
VCC	5	32 PDER
RF-	6	31 PDFR
RF OUT	7	30 TBAL
RF IN	8	29 FBAL
C.AGC	9	28 FE-
ARF	10	27 FE 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

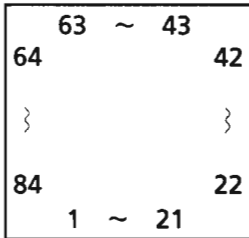


## 3. Functions

Pin No.	Symbol	I/O	Functions and operations
1	PD	--	Connected to ground
2	LD	--	Non connection
3	LD ON	--	Connected to ground
4	LDP	--	Connected to ground
5	VCC	--	Power supply
6	RF-	I	Inverse input pin for RF amp
7	RF OUT	O	RF amp output
8	RF IN	I	AGC input
9	C.AGC	I/O	Connecting pin of AGC loop filter
10	ARF	O	AGC output
11	C.ENV	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
12	C.EA	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
13	CS BDO	I/O	A capacitor is connected to detect the lower envelope of the RF signal
14	BDO	O	BDO output pin
15	CS BRT	I/O	A capacitor is connected to detect the lower envelope of the RF signal
16	OFTR	O	Of-track status signal output
17	/NRFDET	O	RF detection signal output
18	GND	--	Ground
19	ENV	O	Envelope output
20	VREF	O	Reference voltage output
21	LD OFF	--	Connect to ground
22	VDET	O	Vibration detection signal output
23	TE BPF	I	Input pin of tracking error through BPF
24	CROSS	O	Tracking error cross output
25	TE OUT	O	Tracking error signal output
26	TE-	I	Inverse input pin for tracking error amp
27	FE OUT	O	Output pin of focus error
28	FE-	I	Inverse input pin for focus error amp
29	FBAL	I	Focus balance control
30	TBAL	I	Tracking balance control
31	PDFR	I/O	E and E I-V amp gain control
32	PDER	I/O	F and E I-V amp gain control
33	PDF	I	I-V amp input
34	PDE	I	I-V amp input
35	PD BD	I	I-V amp input
36	PD AC	I	I-V amp input

■ MN172412J5L (IC751) : Tuner controller

1. Terminal Layout



2. Key Matrix

	KEY IN 1 (PIN56)	KEY IN 2 (PIN57)	KEY IN 3 (PIN58)	KEY IN 4 (PIN59)
KEY OUT 1 (PIN60)	ONCE TIMER	SLEEP	DAILY	REC
KEY OUT 2 (PIN61)	+ 10	CLOCK ADJ	FM/AM MODE	MEMORY
KEY OUT 3 (PIN62)	UP	DOWN	PRESET UP	PRESET DOWN
KEY OUT 4 (PIN63)	EON	TA/NEWS/INFO	DISPLAY MODE	PTY SEARCH
KEY OUT 5 (PIN64)	PRESET SCAN	—	—	—
KEY OUT 6 (PIN65)	PTY UP	PTY DOWN	FM	AM

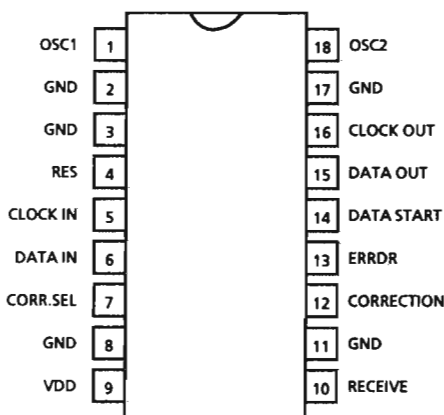
3. Pin Functions

Pin NO.	Symbol	I/O	Functions and Operations
1,2	G2~G1	O	Grid control signal
3	NC	--	Non connection
4~22	S35~S17	O	Segment control signal
23	-BP	--	Power supply for FL display
24~39	S16~S1	O	Segment control signal
40	fout	O	Frequency for the clock
41	TU DATA	O	Data for PLL synthesizer
42	IF DATA	I	Data from PLL synthesizer
43	CE	O	Chip enable signal output
44	CK	O	Clock for data transmission
45	RCK	I	Clock for RDS
46	RDATA	I	Data for RDS
47	R-RST	O	Reset for RDS
48	T-INH	I	Inhibit signal input
49	D-ST	I	RDS data start
50	TUNED	I	Indication control signal
51	STEREO	I	Indication control signal

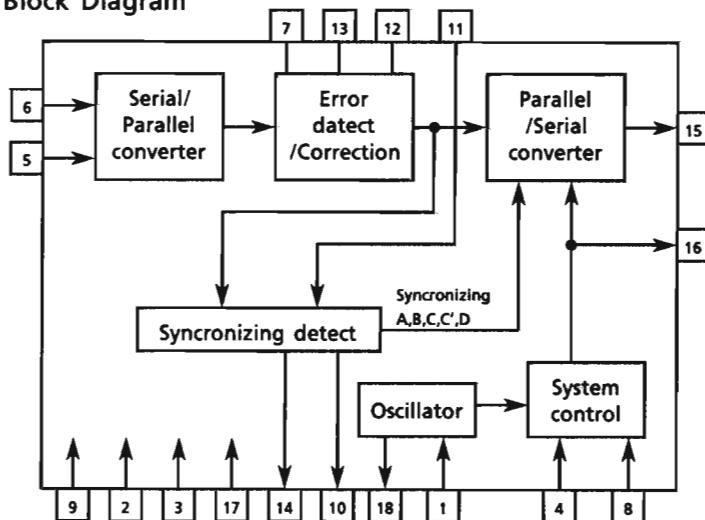
Pin NO.	Symbol	I/O	Functions and Operations
52	MUTE	O	Mute signal output
53	NC	--	Non connection
54,55	DCS OUT/IN	I/O	Compulink signal
56~59	KI1~KI4	I	Key matrix input
60~65	KO1~KO6	O	Key matrix output
66,67	NC	--	Non connection
68	RST	I	Reset signal input
69	Vss	--	Connected to GND
70	NC	--	Non connection
71	Vss	--	GND
72,73	OSC2/OSC1	--	Oscillation terminal
74	VDD	--	Power supply
75	TEST	--	Test mode terminal
76	TEST	I	Test mode terminal
77	NC	--	Non connection
78~84	G3~G9	O	Grid control signal

■ LC7073MX (IC191) : Radio Data System

1. Terminal Layout



2. Block Diagram

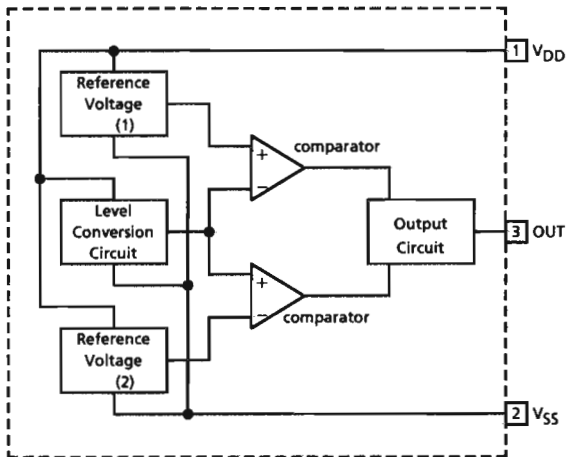


3. Pin Functions

Pin No.	Symbol	I/O	Function
1,18	OSC1,OSC2	I/O	Oscillation terminal
2,3,8,11,17	GND	--	GND
4	RES	I	Reset input
5	CLOCK IN	I	RDS clock input
6	DATA IN	I	RDS data input
7	CORR.SEL	I	Non connection
9	VDD	--	Power supply

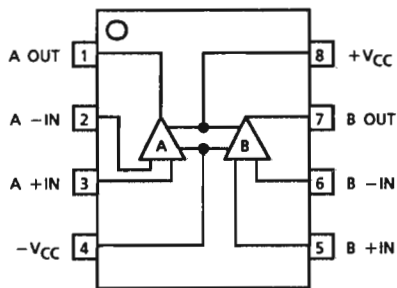
Pin No.	Symbol	I/O	Function
10	RECEIVE	--	Non connection
12	CORRECTION	--	Non connection
13	ERRDR	--	Non connection
14	DATA START	O	Data start signal for block data to output serial data.
15	DATA OUT	O	Serial data output
16	CLOCK OUT	O	Data output of serial data output

■ MN1281 (P,Q) : IC702 Reset IC

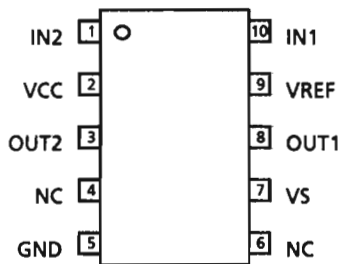


Pin No.	Pin Name	Functions
1	V <sub>DD</sub>	Power supply
2	V <sub>SS</sub>	Ground
3	OUT	Reset signal output : Low level is output when resetting : High level is output when cancelling the reset.

■ VC4580DD: IC721 DUAL OP AMP.



■ TA8409F : IC750 BTL DRIVER



INPUT		OUTPUT		MODE
IN1	IN2	OUT1	OUT2	
0	0	∞	∞	STOP
1	0	H	L	OPEN
0	1	L	H	CLOSE
1	1	L	L	BRAKE

∞: High impedance

■ SAA6579T (IC192) : Radio Data System Demodulator

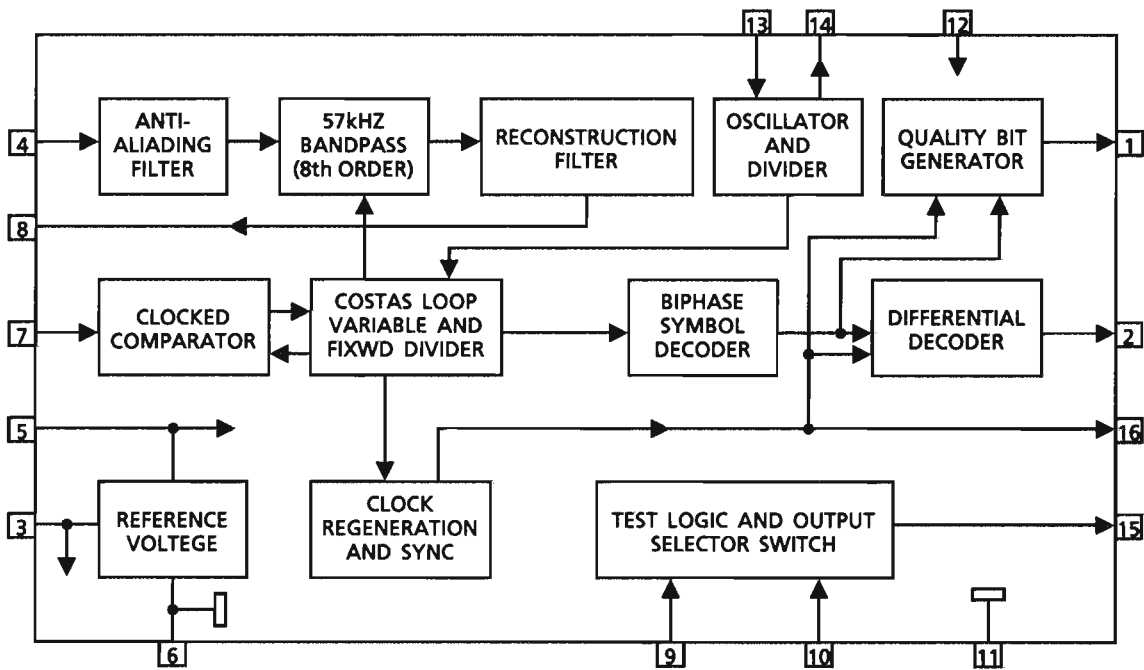
1. Terminal Layout

QUAL	1	16	RDCL
RDDA	2	15	T57
Vref	3	14	OSCO
MUX	4	13	OSCI
VDDA	5	12	VDD
GND	6	11	GND
CIN	7	10	GND
SCOUT	8	9	GND

2. Pin Function

Pin No.	Symbol	I/O	Function
1	QUAL	—	Non connection
2	RDDA	O	RDS data output
3	Vref	O	Reference voltage output
4	MUX	I	Multiplex signal input
5	VDDA	—	+5V supply voltage for analog part
6	GND	—	Ground for analog part (0V)
7	CIN	I	Subcarrier input to comparator
8	SCOUT	O	Subcarrier output of reconstruction filter
9	GND	—	Ground for digital part (0V)
10	GND	—	Ground for digital part (0V)
11	GND	—	Ground for digital part (0V)
12	VDD	—	+5V supply voltage for digital part
13	OSCI	I	Oscillator input
14	OSCO	O	Oscillator output
15	T57	—	Non connection
16	RDCL	O	RDS clock output

3. Block Diagram

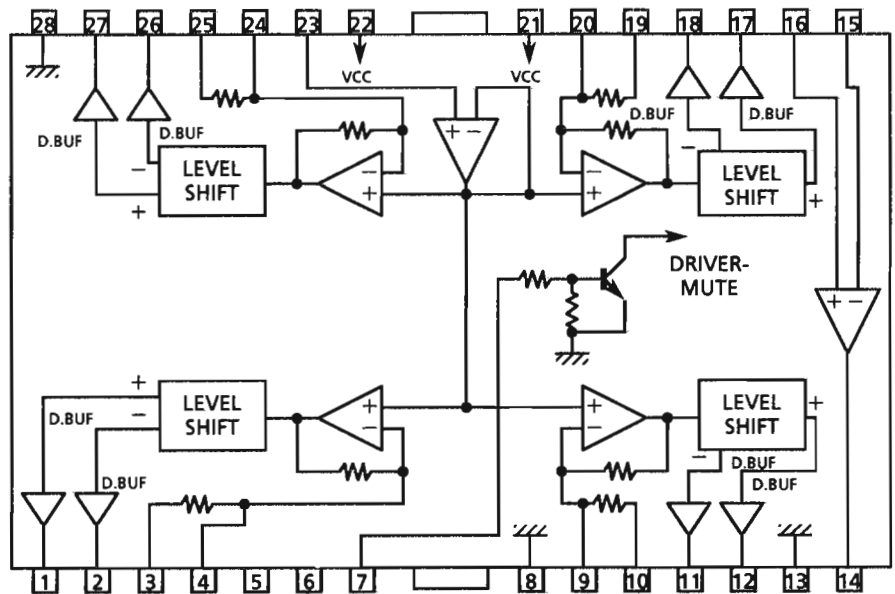


■ BA6398FP(IC700) : BTL DRIVER

1. Terminal Layout

CH1-OUT A	1	28	GND
CH1-OUT B	2	27	CH4-OUT A
CH1-IN A	3	26	CH4-OUT B
CH1-IN B	4	25	CH4-IN A
NC	5	24	CH4-IN B
NC	6	23	BIAS IN
MUTE	7	22	VCC
GND	8	21	VCC
CH2-IN B	9	20	CH3-IN B
CH2-IN A	10	19	CH3-IN A
CH2-OUT B	11	18	CH3-OUT B
CH2-OUT A	12	17	CH3-OUT A
GND	13	16	OP IN +
OP OUT	14	15	OP IN -

2. Block Diagram



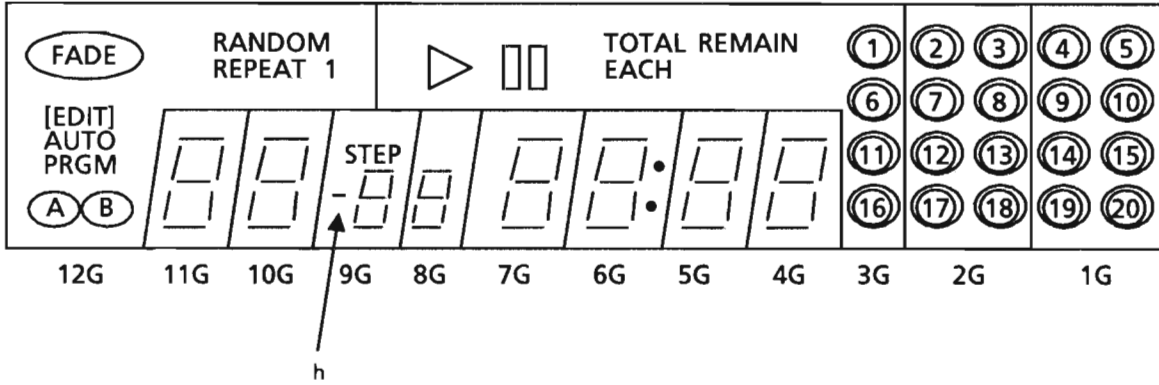
3. Description

Pin No.	Symbol	I/O	Description	Pin No.	Symbol	I/O	Description
1	CH1-OUT A	O	Focus drive output	8,13,28	GND	—	GND
2	CH1-OUT B			11	CH2-OUT B	O	Spindle motor drive output
3	CH1-IN A	I	Focus drive input	12	CH2-OUT A		
4	CH1-IN B	—	Non connection	14	OP OUT	O	OP amp output
5,6	NC						
10	CH2-IN A						
19	CH3-IN A						
24	CH4-IN B						
7	MUTE	I	Mute signal input pin	15,16	OP IN	I	OP amp input
9	CH2-IN B	I	Spindle motor drive input	17	CH3-OUT A	O	Feed motor drive output
20	CH3-IN B	I	Feed motor drive input	18	CH3-OUT B		
25	CH4-IN A	I	Tracking drive input	21,22	Vcc	—	Power supply
				23	BIAS IN	I	Input pin of Bias
				26	CH4-OUT B	O	Tracking drive output
				27	CH4-OUT A		

## Internal Connections of FL Display

### ■ ELU0001-178:(FL701)

#### 1. Grid Layout

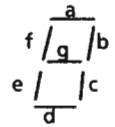


#### 2. Pin Connections

TERMINAL NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ELECTRODE	F1	F1	NP	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	NP

TERMINAL NO.	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
ELECTRODE	NP	NP	NP	NP	NP	NP	NP	S1	S2	S3	S4	S5	S6	S7	S8	S9	NP	F2	F2

(Note) F : Filament G : Grid NP : NoPin NC : No Connection P1~P9 : Anode



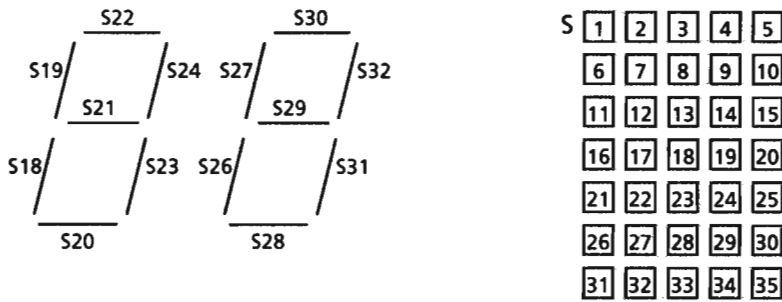
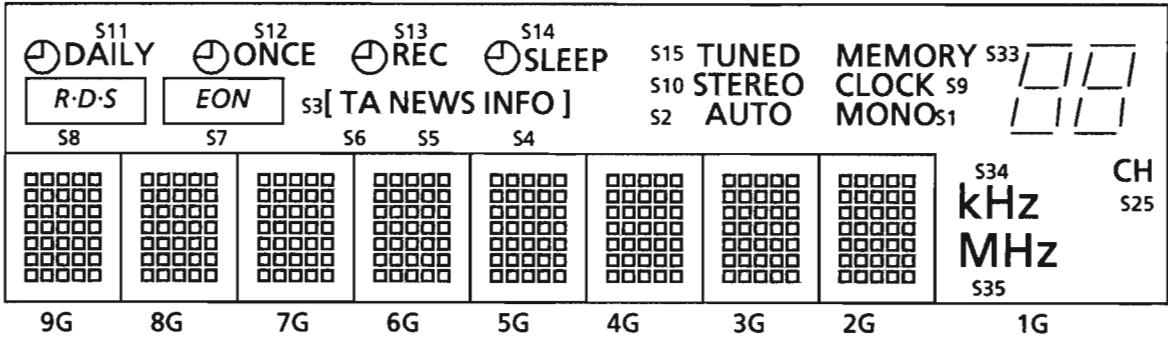
#### 3. Anode Connection Table

	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
S1	FADE	a	a	a	a	a	a	a	a	(1)	(2)	(4)
S2	[EDIT]	b	b	b	b	b	b	b	b	(6)	(7)	(9)
S3	AUTO	c	c	c	c	c	c	c	c	(11)	(12)	(14)
S4	PRGM	d	d	d	d	d	d	d	d	(16)	(17)	(19)
S5	(A)	e	e	e	e	e	e	e	e	▶	(3)	(5)
S6	(B)	f	f	f	f	f	f	f	f		(8)	(10)
S7	RANDOM	g	g	g	g	g	g	g	g	TOTAL	(13)	(15)
S8	REPEAT	---	---	STEP	---	---	••	---	---	EACH	(18)	(20)
S9	1	---	---	(-)	---	---	---	---	---	REMAIN	---	---



■ ELU0001-196 : FL751

1. Grid Layout



2. Pin Connections

LOWER

TERMINAL NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ELECTRODE	F1	F1	F1	NP	P S1	P S2	P S3	P S4	P S5	P S6	P S7	P S8	P S9	P S10	P S11	P S12
TERMINAL NO.		17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
ELECTRODE		P S13	P S14	P S15	P S16	NP	P S17	P S18	P S19	P S20	P S21	P S22	NP	F2	F2	F2

UPPER

TERMINAL NO.	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
ELECTRODE	F2	F2	F2	NP	P S23	P S24	P S25	P S26	P S27	P S28	P S29	P S30	P S31	P S32	P S33	P S34
TERMINAL NO.		48	49	50	51	52	53	54	55	56	57	58	59	60	61	62
ELECTRODE		P S35	1G	2G	3G	4G	5G	6G	7G	8G	9G	NP	NP	F1	F1	F1

Notes F : Filament G : Grid P : Anode NP : No PIN

# Disassembly Procedures

- (1) Top cover removal
  1. Remove the 2 screws holding both sides of the Top Cover and the 4 screws at the rear side.
  2. Gently spread both sides of the top cover to the outside, lift up the rear section, and remove the top cover.
- (2) CD-Tuner PCB (ENA-162& ENC-123-2) removal  
(See Fig-1 and Fig-2)
  1. Remove the Top Cover.
  2. Disconnect the connectors.  
(J721,J711,JA601,JB731,J103,J101)
  3. Remove the 4 screws (A).
  4. Remove the 2 screws (B) fixing the ENC-123-2.
- (3) CD Tray & Front Panel assembly removal  
(See Fig-3)
  1. Remove the top cover.
  2. Disconnect the connectors. (J103,J101,JB731)
  3. Remove the screw (C) for tray stopper.
  4. Insert a screwdriver through the hole (E) at the bottom and turn it clockwise to bring the tray forward.
  5. Remove the 3 screws (D).
  6. Release the hooks (E).
- (4) Front PC Board (ENC-123-1) removal  
(See Fig-4)
  1. Remove the CD Tray & Front Panel assembly.
  2. Remove the 9 screws (G) fixing the ENC-123-1.
- (5) CD Mechanism assembly removal  
(See fig-1 and Fig-2)
  1. Remove the top cover.
  2. Remove the CD-Tuner PCB (ENA-162& ENC-123-2).
  3. Remove the CD Tray.
  4. Remove the 2 screws (H) holding the clamp.
  5. Remove the 3 screws (I) holding the CD Mechanism assembly and a screw (J) fixing the CD PC board.

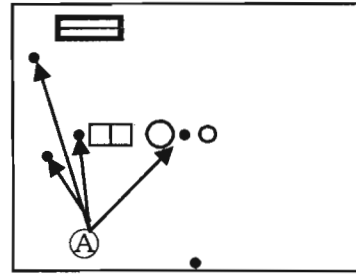


Fig.1

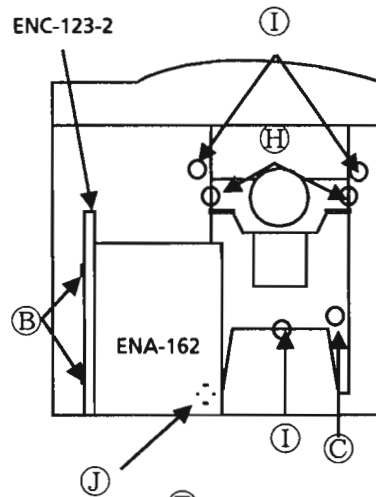


Fig.2

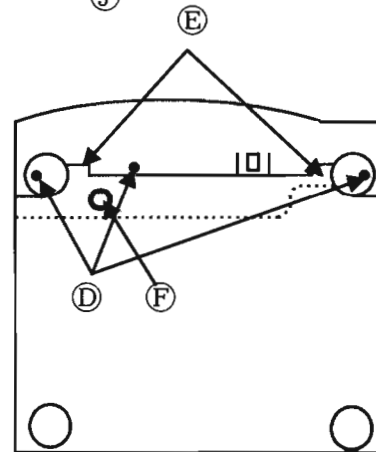


Fig.3

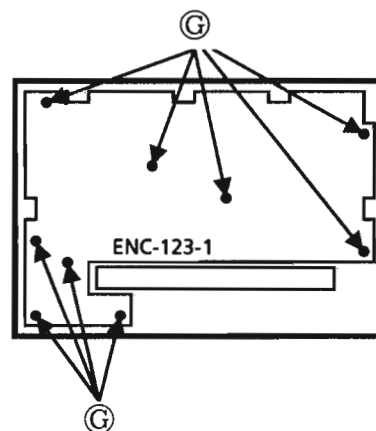


Fig.4

(6) Pickup removal

1. Remove the CD mechanism assembly.
2. Release the shaft to remove the pickup (Fig 6).

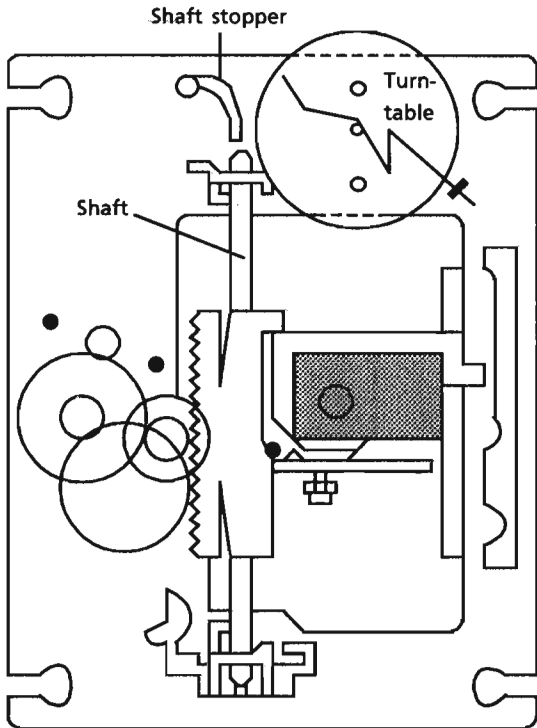


Fig.5

(6) Spindle motor removal

1. Remove the CD mechanism assembly.
2. Remove the turntable and the 2 screws holding the spindle motor.
3. Remove the screws holding the spindle and feed motor P.C. Board and unsolder them.

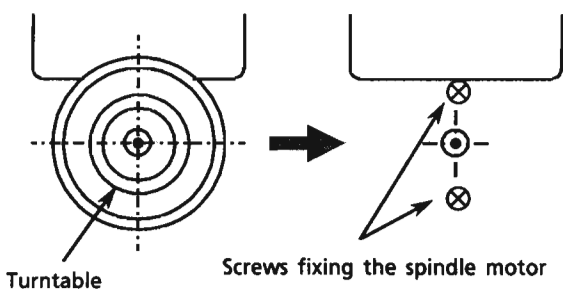


Fig-6

(7) Spindle motor installation

1. Tighten the 2 screws to the same torque.
2. Fasten the spindle and feed motor P.C. board with the screw and solder.
3. Install the turntable. When installing, press straight down at the center of the turntable until the distance from the surface of the mechanism base to the turntable is exactly  $19.4 \pm 0.1\text{mm}$ .

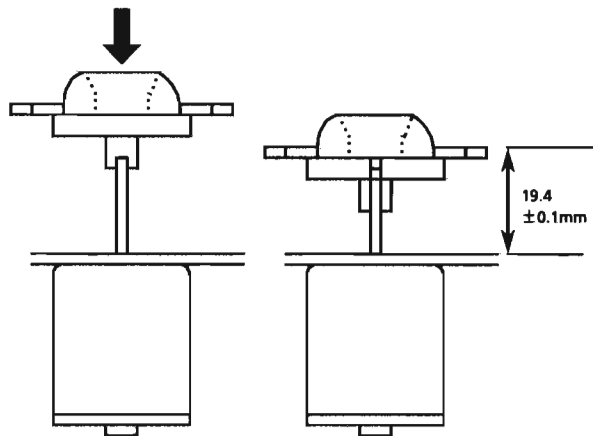


Fig 7

4. After inserting the turntable, bond the motor shaft and turntable together (at the section marked by an arrow in fig-7 on the left below).

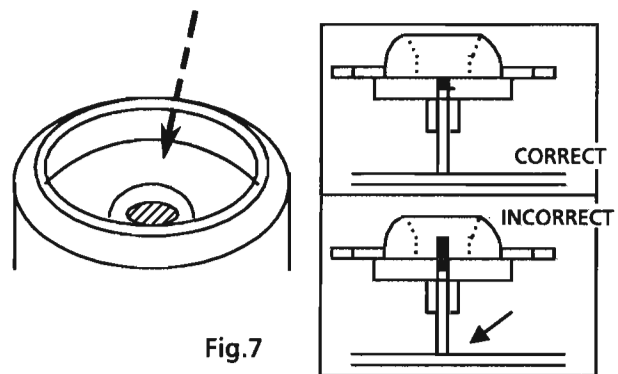
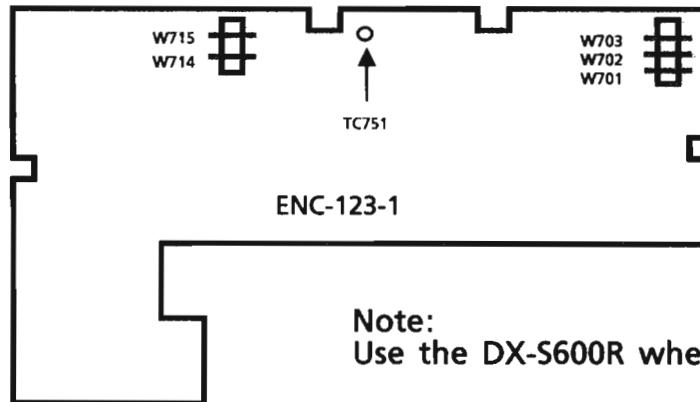


Fig.7

5. Use "LOCKTITE" #460 bonding agent, and apply as little as possible. Take care not to allow any excess bonding agent to get onto the turntable. Be extremely careful not to allow bonding agent to adhere to the motor bearings (the section marked by an allow in fig-7 on the right).

## Adjustment Procedures



Note:  
Use the DX-S600R when adjusting.

### 1. Clock frequency adjustment

- 1) Connect the W701 and the W702 before turning the AC power on.
- 2) Connect the frequency counter to the W703 and turn the AC power on. Then, you can see the no indication on the display panel.
- 3) Adjust the TC751 so that the frequency becomes  $50,000.00 \pm 0.29\text{Hz}$ .
- 4) Disconnect the jumper between W701 and W702.

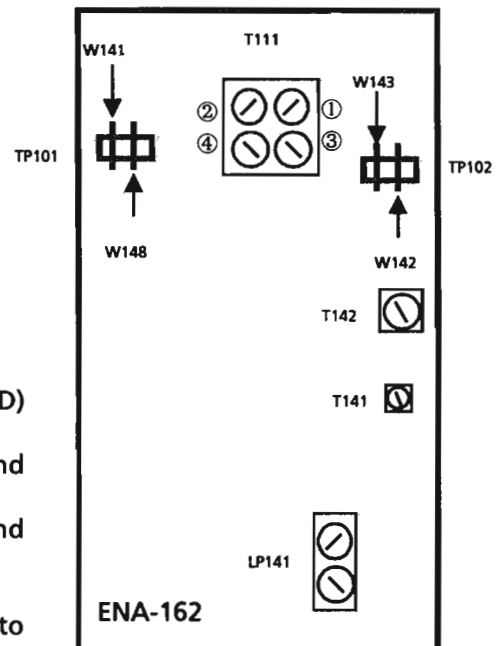
### 2. FM adjustment

#### 1) Tuning voltage

- (1) Connect the voltmeter to the W141 and W148(GND) at TP101.
- (2) Set the frequency display to the 108MHz and confirm the voltage is set to the  $8.0 \pm 2.0\text{V}$ .
- (3) Set the frequency display to the 87.5MHz and confirm the voltage is set to the  $1.6 \pm 1.0\text{V}$ .

#### 2) Center meter

- (1) Receive a FM broadcast station by using the auto stop and adjust T141 (detector coil) so that the voltage at TP102 becomes  $0 \pm 1.5\text{mV}$ .



### 3. MW adjustment

#### 1) Tuning voltage

- (1) Connect the voltmeter to the W141 and W148(GND) at TP101.
- (2) Set the frequency display to the 522KHz(531KHz) and confirm the voltage is set to the  $0.9 \pm 0.2\text{V}$  ( $1.0 \pm 0.2\text{V}$ ).
- (3) Set the frequency display to the 1629KHz(1602KHz) and confirm the voltage is set to the  $7.5 \pm 0.8\text{V}$  ( $7.2 \pm 0.7\text{V}$ ).
- (4) If its voltage exceeds the allowance, adjust the T111 ② to obtain the voltage.

#### 2) Sensitivity

- (1) Adjust the T111 ① to obtain the best receiving sensitivity on the 999KHz.

### 4. LW adjustment

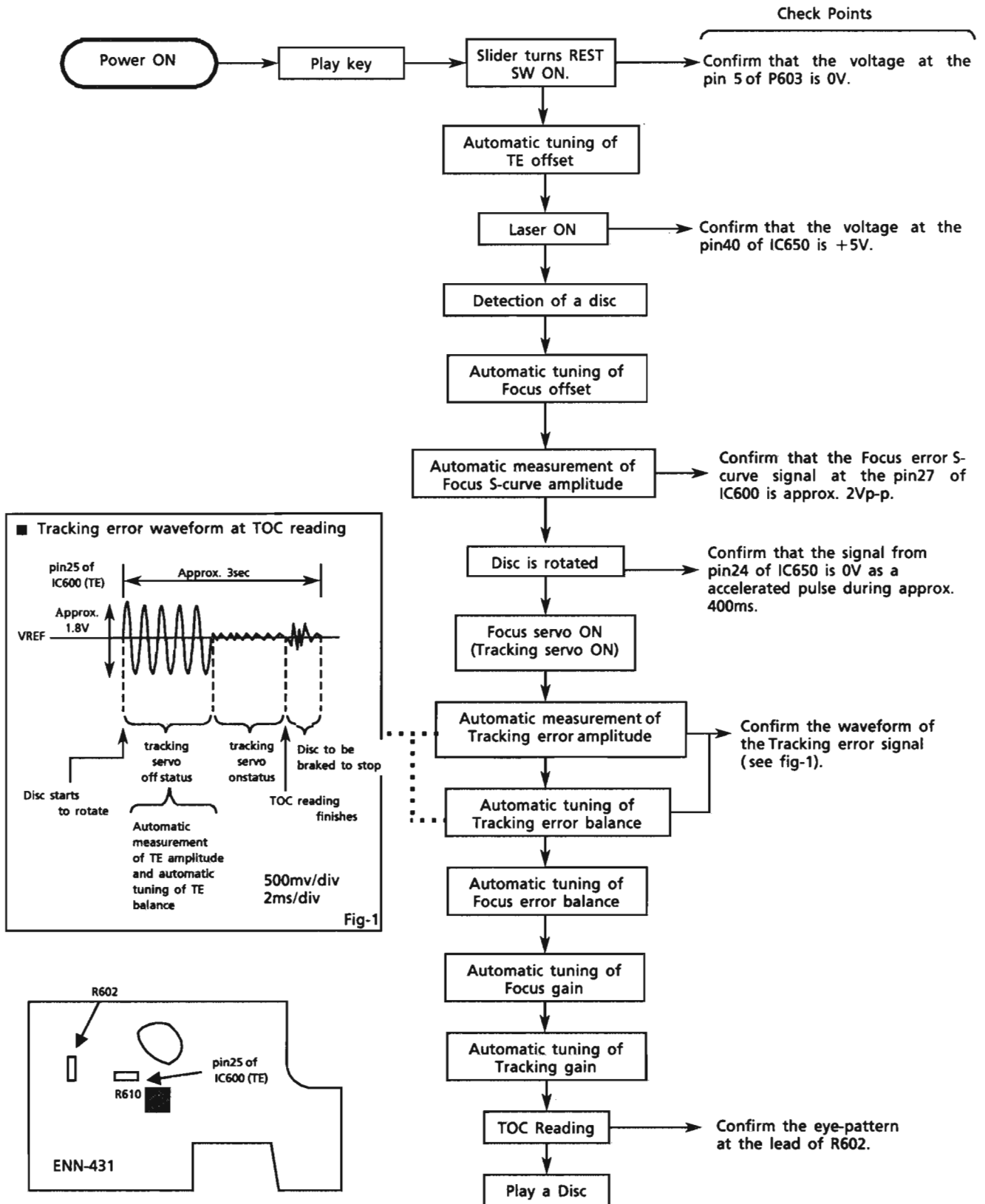
#### 1) Tuning voltage

- (1) Connect the voltmeter to the W141 and W148(GND) at TP101.
- (2) Set the frequency display to the 144KHz and confirm the voltage is set to the  $0.9 \pm 0.4\text{V}$ .
- (3) Set the frequency display to the 288KHz and confirm the voltage is set to the  $5.0 \pm 2.5\text{V}$ .
- (4) If its voltage exceeds the allowance, adjust the T111 ④ to obtain the voltage.

#### 2) Sensitivity

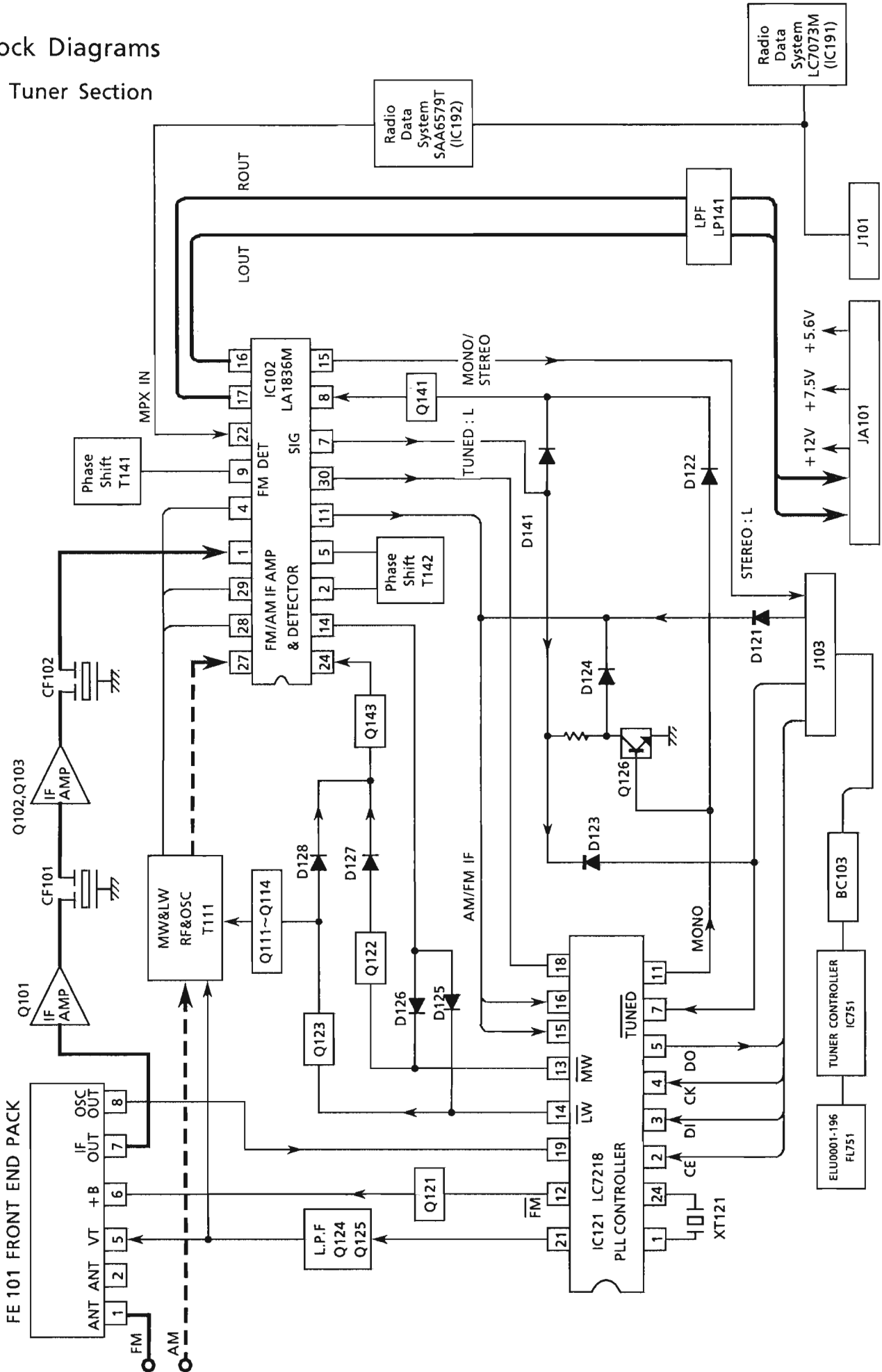
- (1) Adjust the T111 ③ to obtain the best receiving sensitivity on the 245KHz.

# Flow of Functional Operation Until TOC is Read

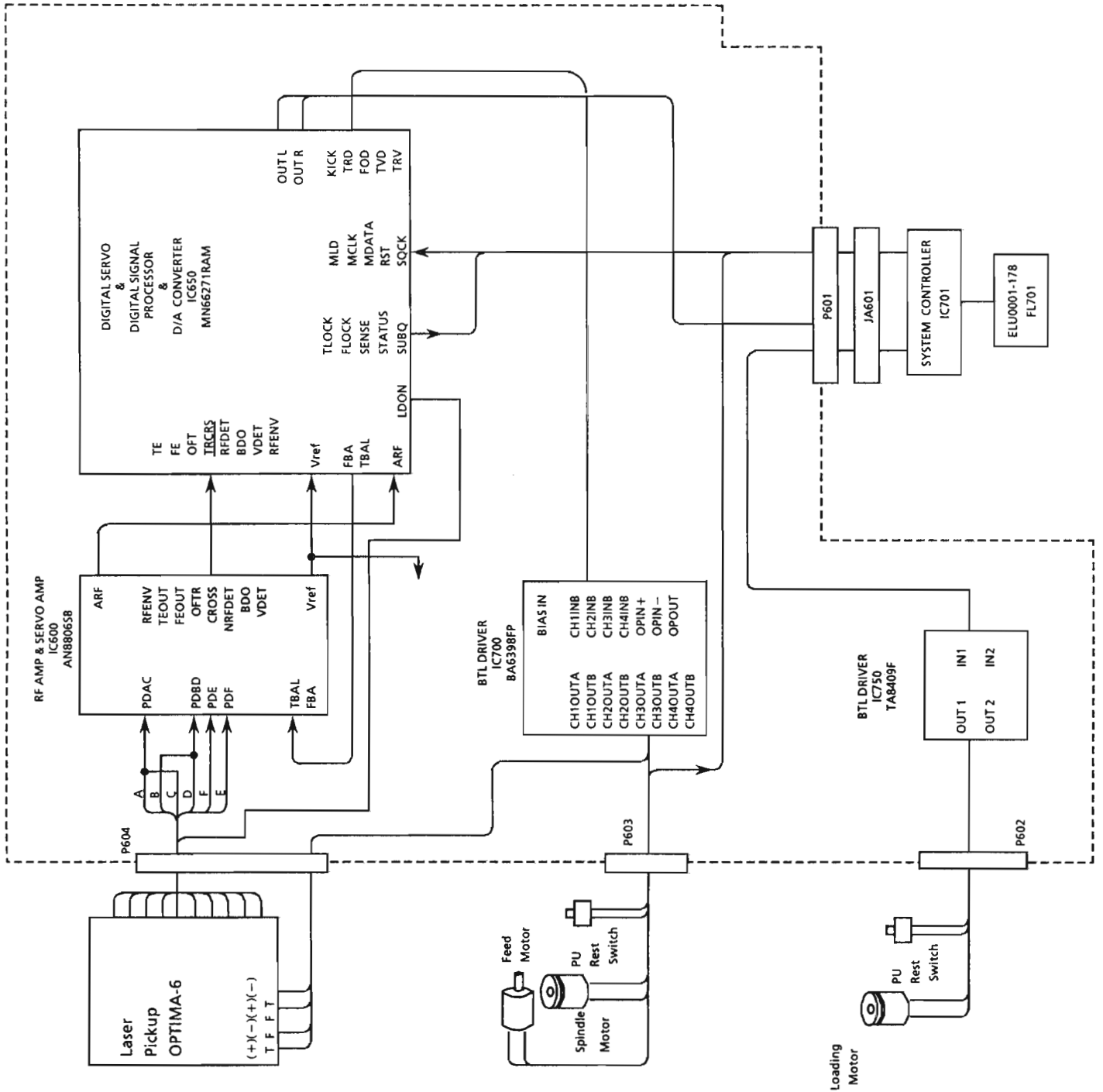


# Block Diagrams

## ■ Tuner Section




■ CD Section



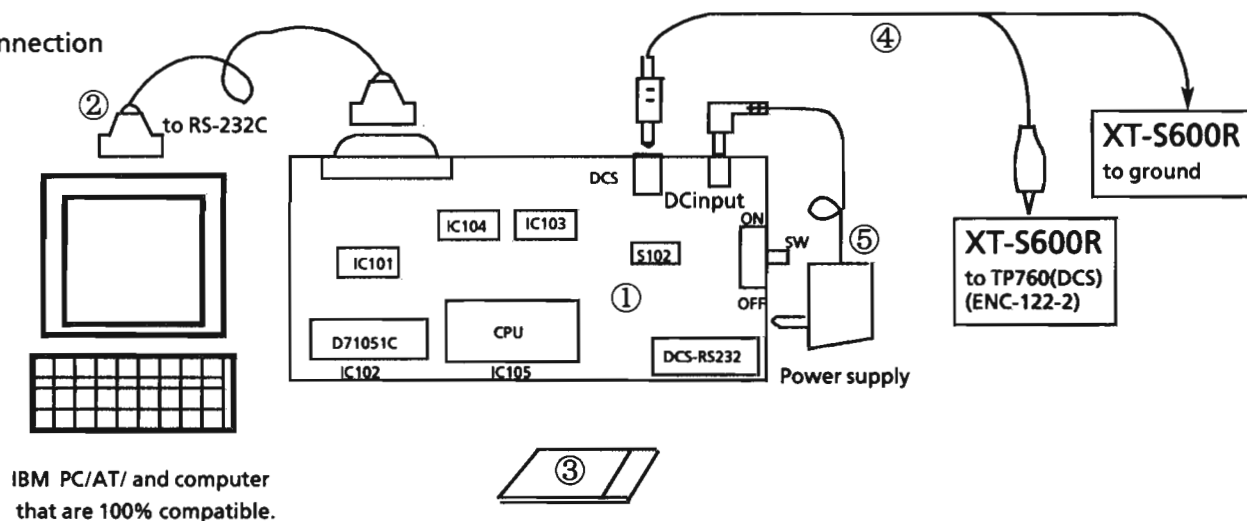
# Self-diagnosis for pickup

From DCS output, this model reads automatically adjusted data for CD so that the pickup can be judged O.K. or not. Following shows its details.

## 1. Necessary items

- ① DCS → 232C Converting board(No.EBSJ1019)
- ② 232C cord (straight)
- ③ Floppy disc for self-diagnosis (No.EBSJ1021)
- ④ DCS cord
- ⑤ Power supply DC 6.3V   
 (AA-SV11J--America/Canada) (AA-SV11Bs--the UK) (AA-SV11G--Germany)  
 (AA-SV11EF--Continental Europe) (AA-SV11U--Universal type)
- ⑥ CD (without scratches or damage)

## 2. Connection



For this diagnosis, a device driver for RS232C cord (straight type) is necessary.

(Ex.) C :%DOS MODE COM 1 : 9600 N 8 , 1

↗ adapter number(1or2)    ↘ band rate    ↗ parity    ↘ data bit    ↗ stop bit

## 3. Procedure

- ① Turn the converting board's switch on after connecting between XT-S600R and the above necessary items  
 Set S102(switching DCS positive from/to negative logic) so that GREEN can emit red(positive logic).
- ② Put a disc on the tray and close it to read TOC.  
 Do not press the play button.
- ③ Input "AUTO 01" on personal computer's keyboard and the CD's automatic adjustment value and judgment for the pickup are displayed on the screen.



4. Judgment

To judge whether pickup is O.K. or not, firstly process of automatic adjustment is checked by automatic adjustment flag. And, the value(automatic adjustment value for focus gain) displayed on the screen is used for its final judgment.

It is supposed that the pickup is defective or the signal path is faulty if the Flag1 or Flag0 indicates not "F" but a figure.  
(See the following example.)

Flag1	Flag0	Details	Supposed cause
0	0	Automatic adjustment for tracking offset is failed.	The automatic adjustment is not completed. (Trouble in circuit.)
0	1	Automatic adjustment for focus offset is failed. (Disc does not rotate.)	The lens does not move. (Power supply is not turned on. Wire is cut.)
0	3	Automatic rough adjustment for focus gain is failed.	
0	7	Automatic rough adjustment for tracking gain is failed. (The focus and tracking gain are not locked though the disc rotates.)	Laser deterioration (low RF signal output). Offset beam.
0	F	Disc rotates, focus and tracking gain are locked and automatic rough adjustment for tracking gain is also completed though automatic adjustment for tracking balance is failed.	Laser deterioration (low RF signal output). Offset beam.
1	F	Automatic adjustment for focus balance is failed. (TOC is not read though the disc rotates.)	RF signal output is low. Tracking loop is not turned on. RF jitter is too much.
3	F	Automatic rough adjustment for focus gain is failed.	
7	F	Automatic rough adjustment for tracking gain is failed.	
F	F	All automatic adjustments are completed.	

The pickup is judged defective though the Flag0 and Flag1 indicate "F" and those adjustments are completed if the adjustment value exceeds 19dB.

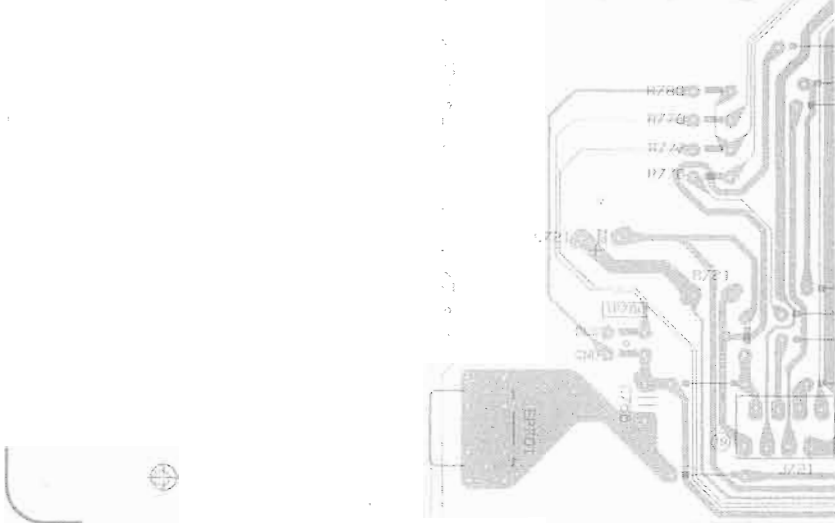
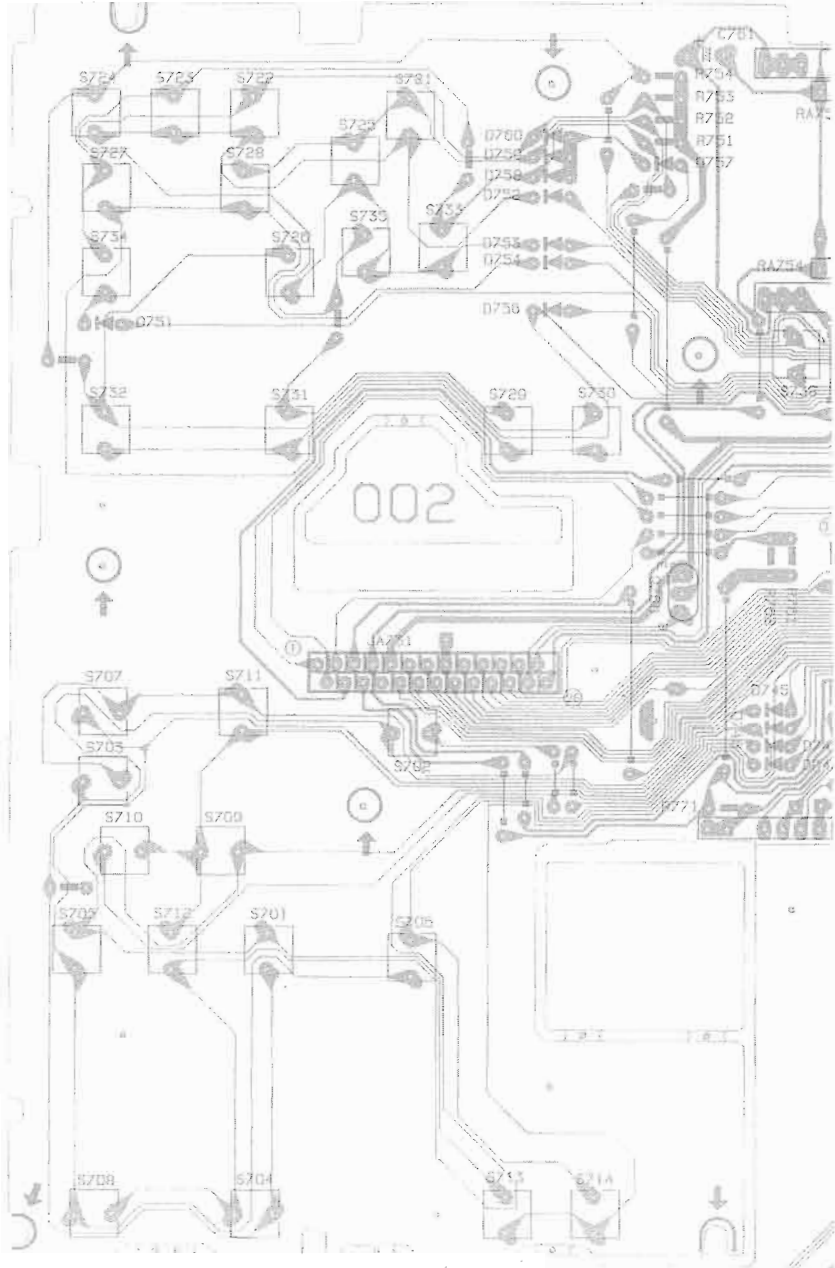
[NOTE] This value is only for XT-S600R. It can not be used for other models.

XT-S600R



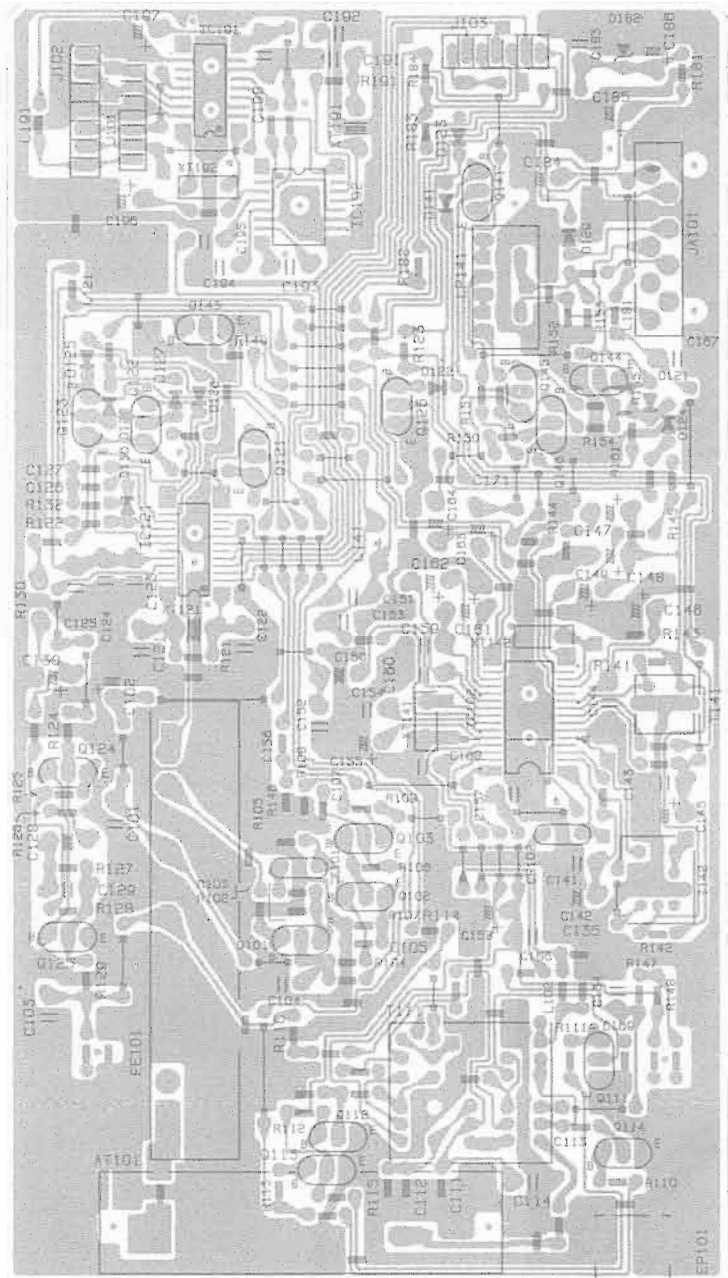
# Printed Circuit Boards

■ Display & Keymatrix P.C. Board (ENC-123)

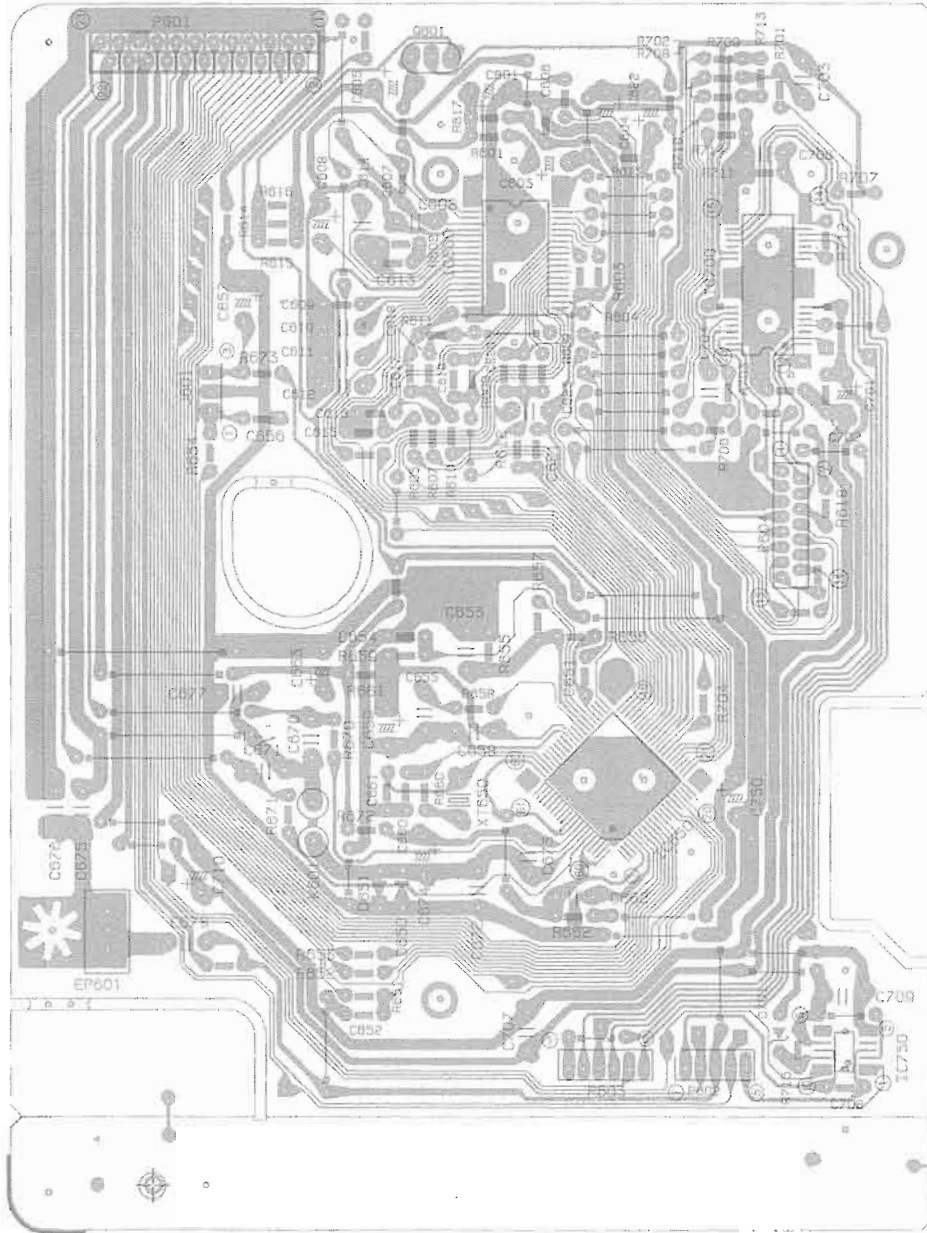




■ Tuner P.C. Board (ENA-162)

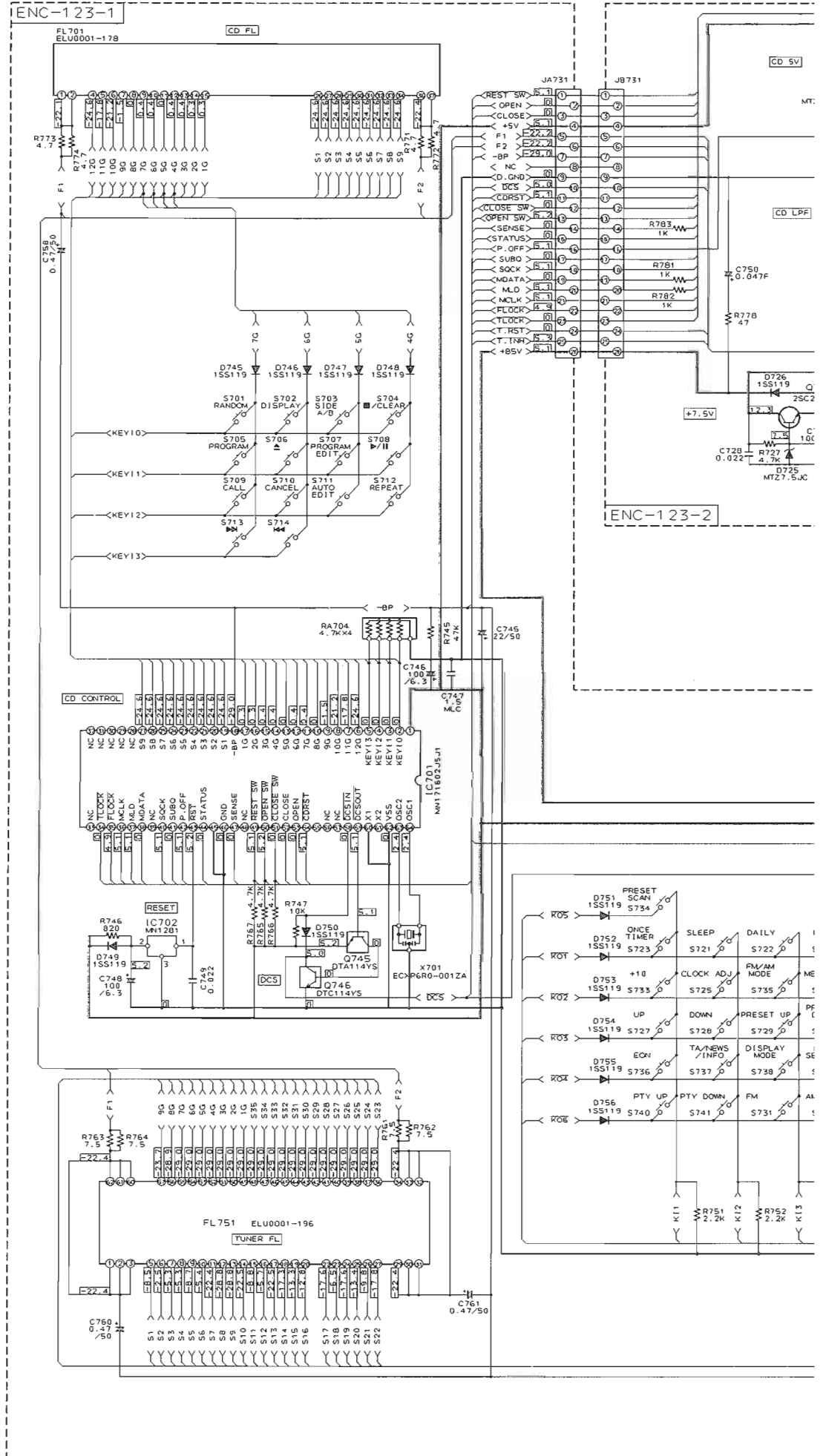


■ CD P.C. Board (ENN-431)

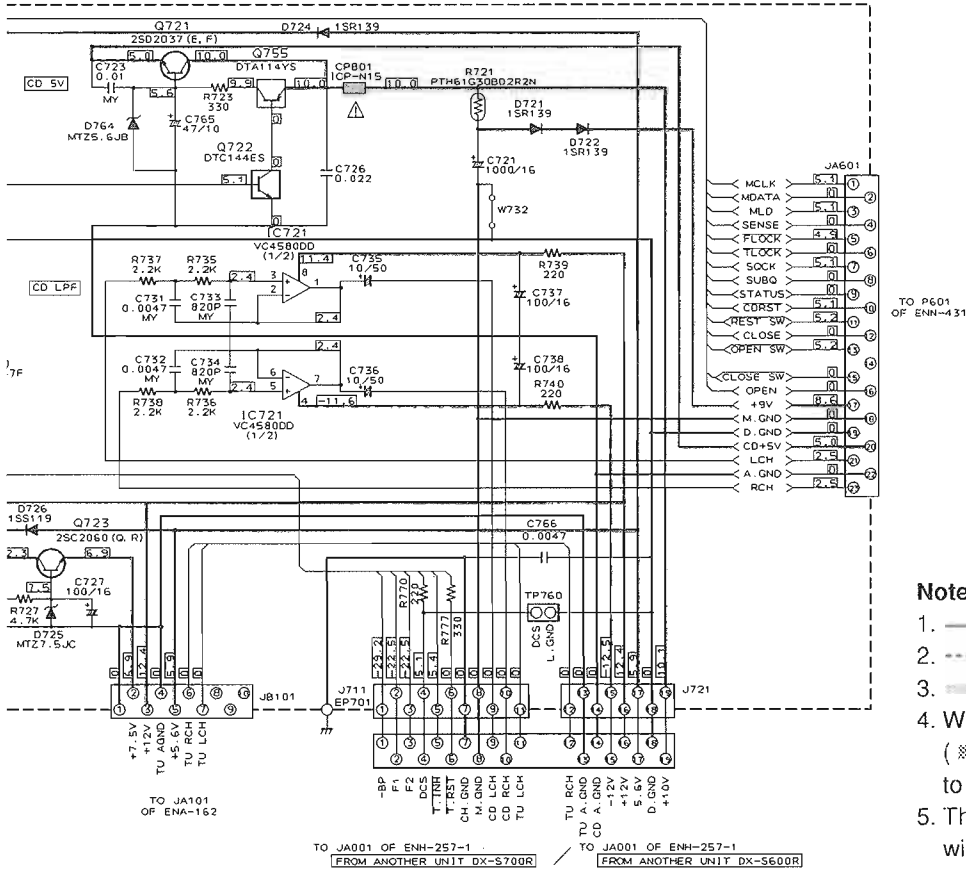


# Schematic Diagrams

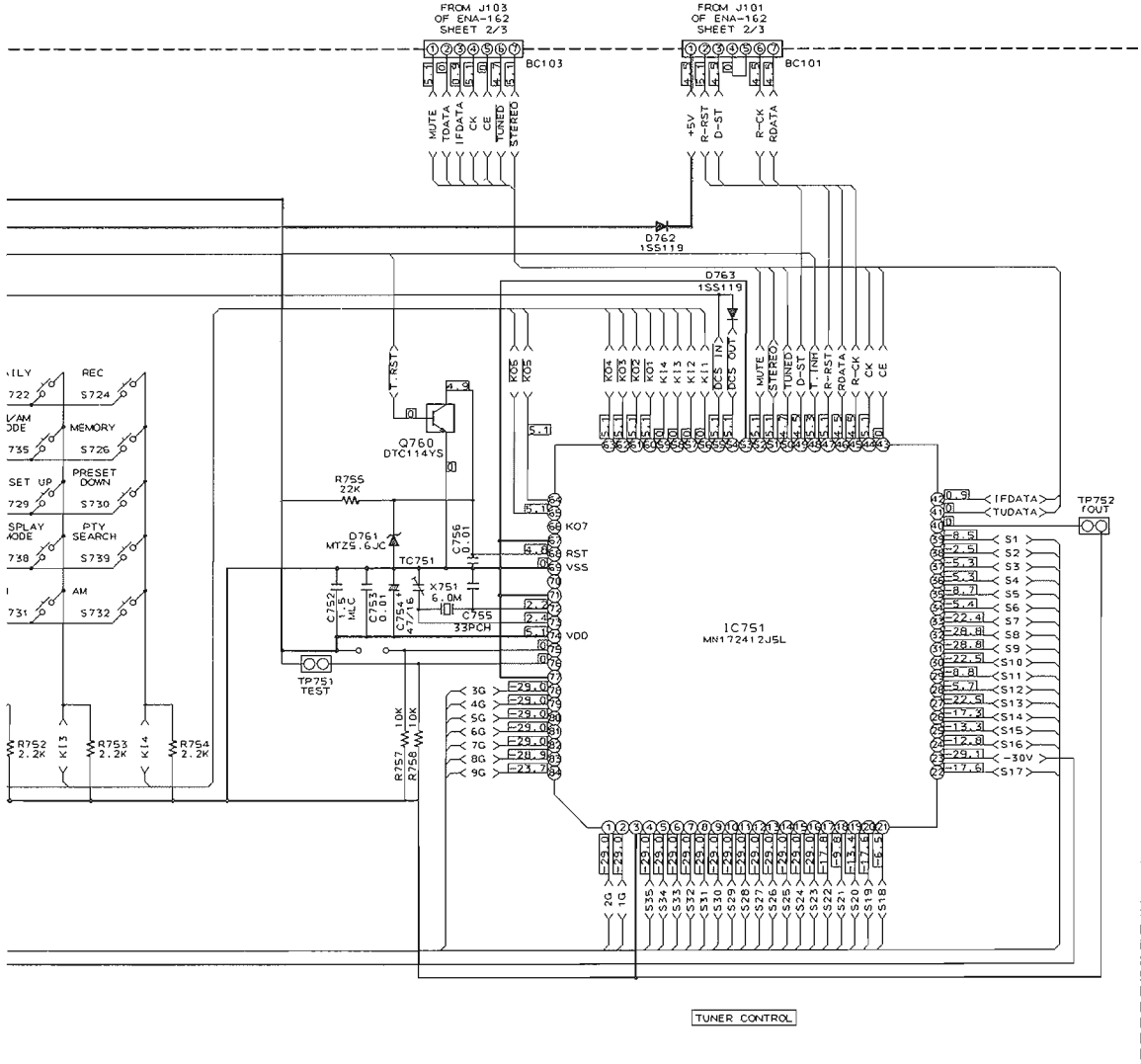
■ Display & Keymatrix Section







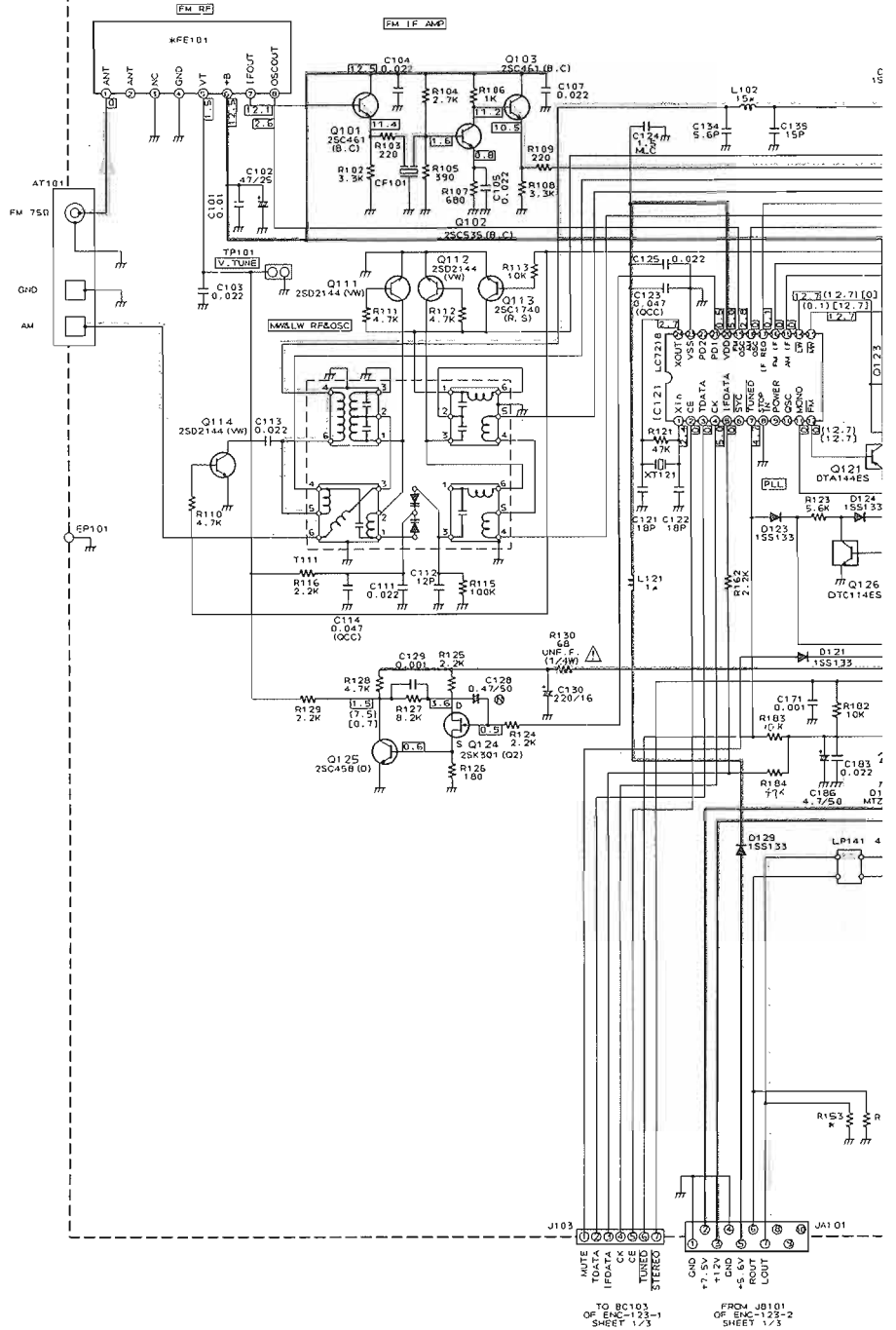
- Notes:**
1. — indicates +B power supply.
  2. - - - - indicates -B power supply.
  3. indicates main path.
  4. When replacing the parts in the shaded area ( ) and those marked with , be sure to use the designated parts to ensure safety.
  5. The design and contents are subject to change without notice.



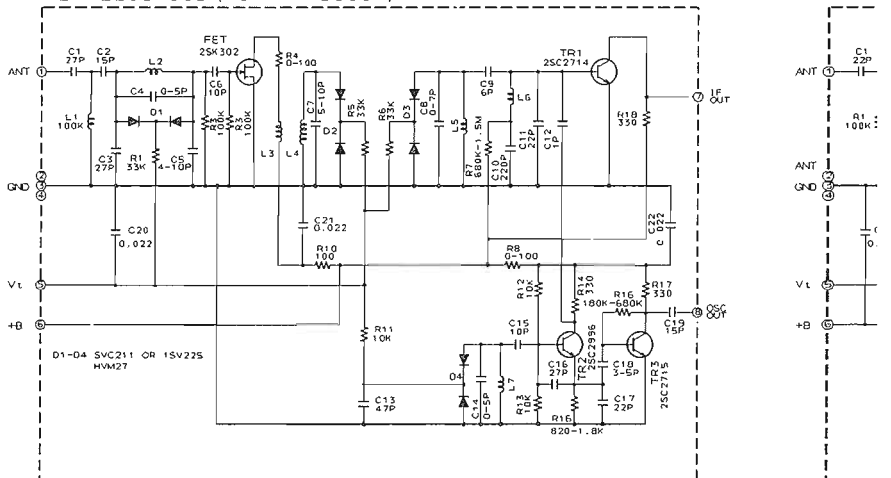
FOR BS, EN, EF, G, GI

ENA-162

Tuner Section

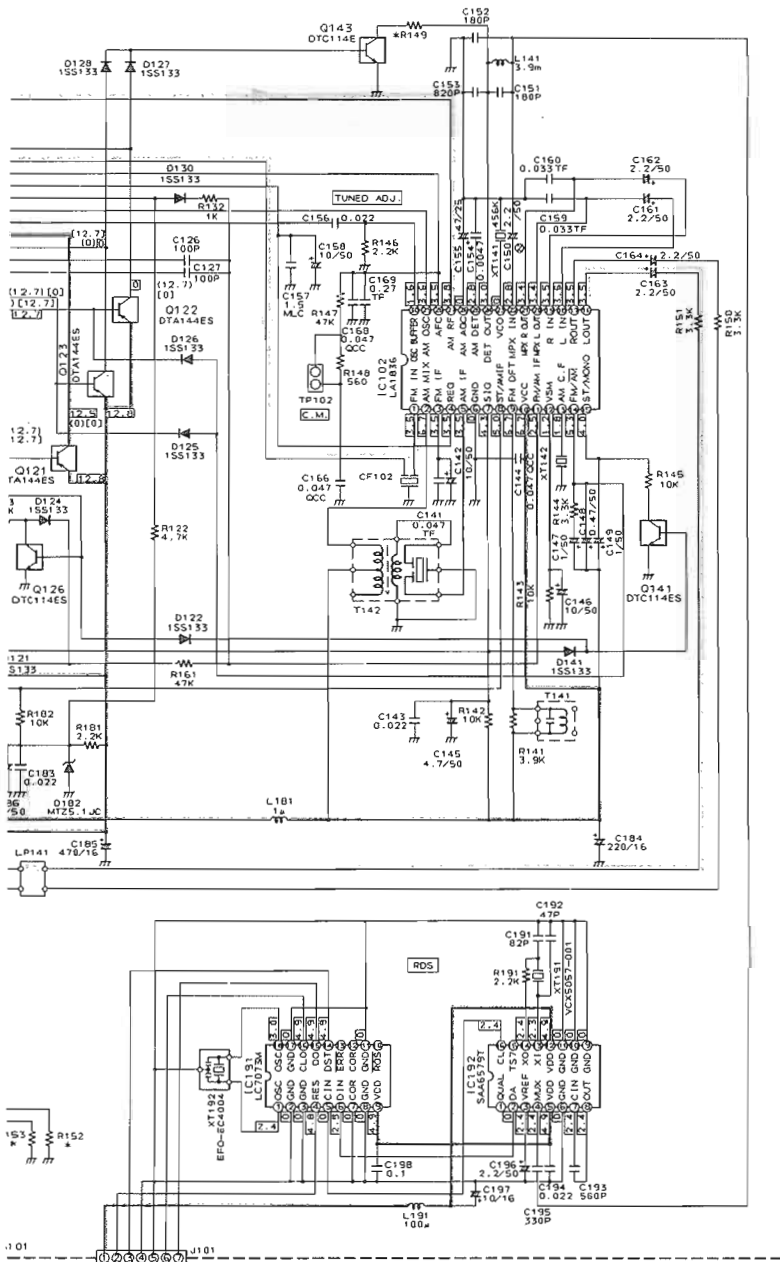


FE101  
EAF2203-005 (FOR XT-S600R)

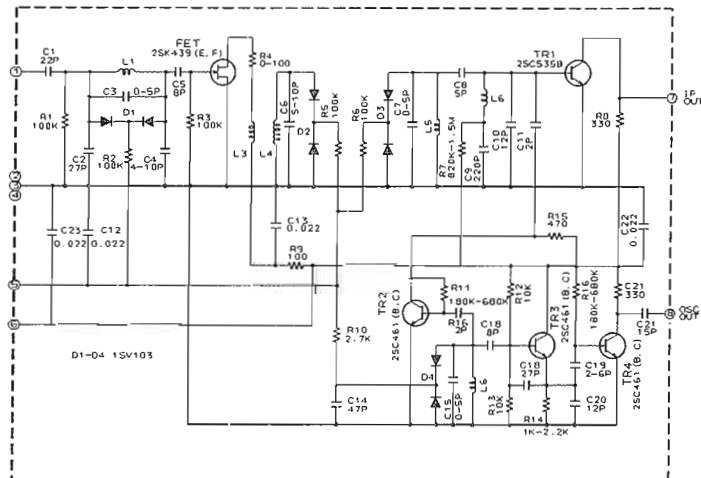


FE1  
EAF

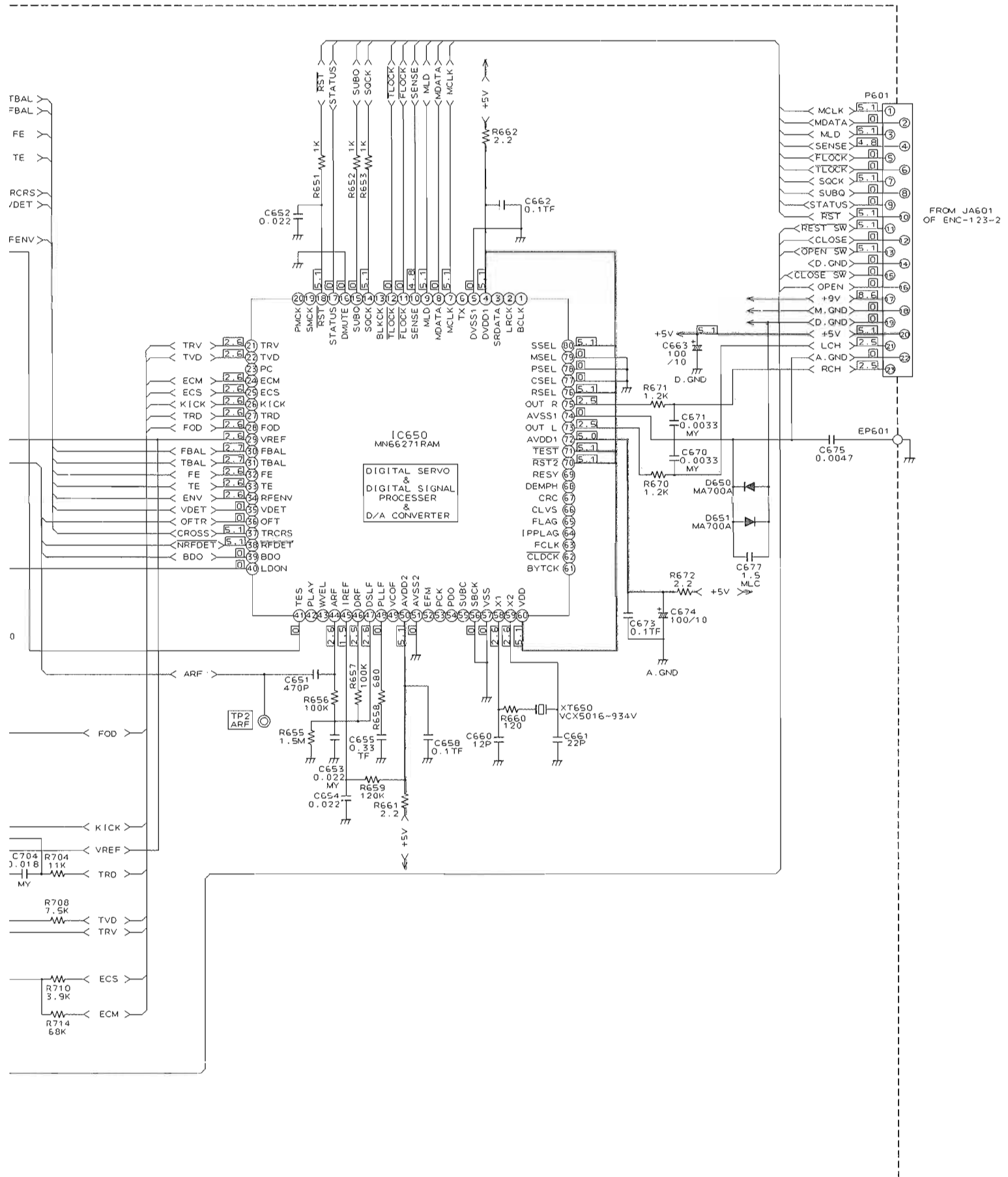
XT-S600R



FE 101  
EAF2203-003 (FOR XT-S700R)









# DX-S600R

## < Parts List >

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

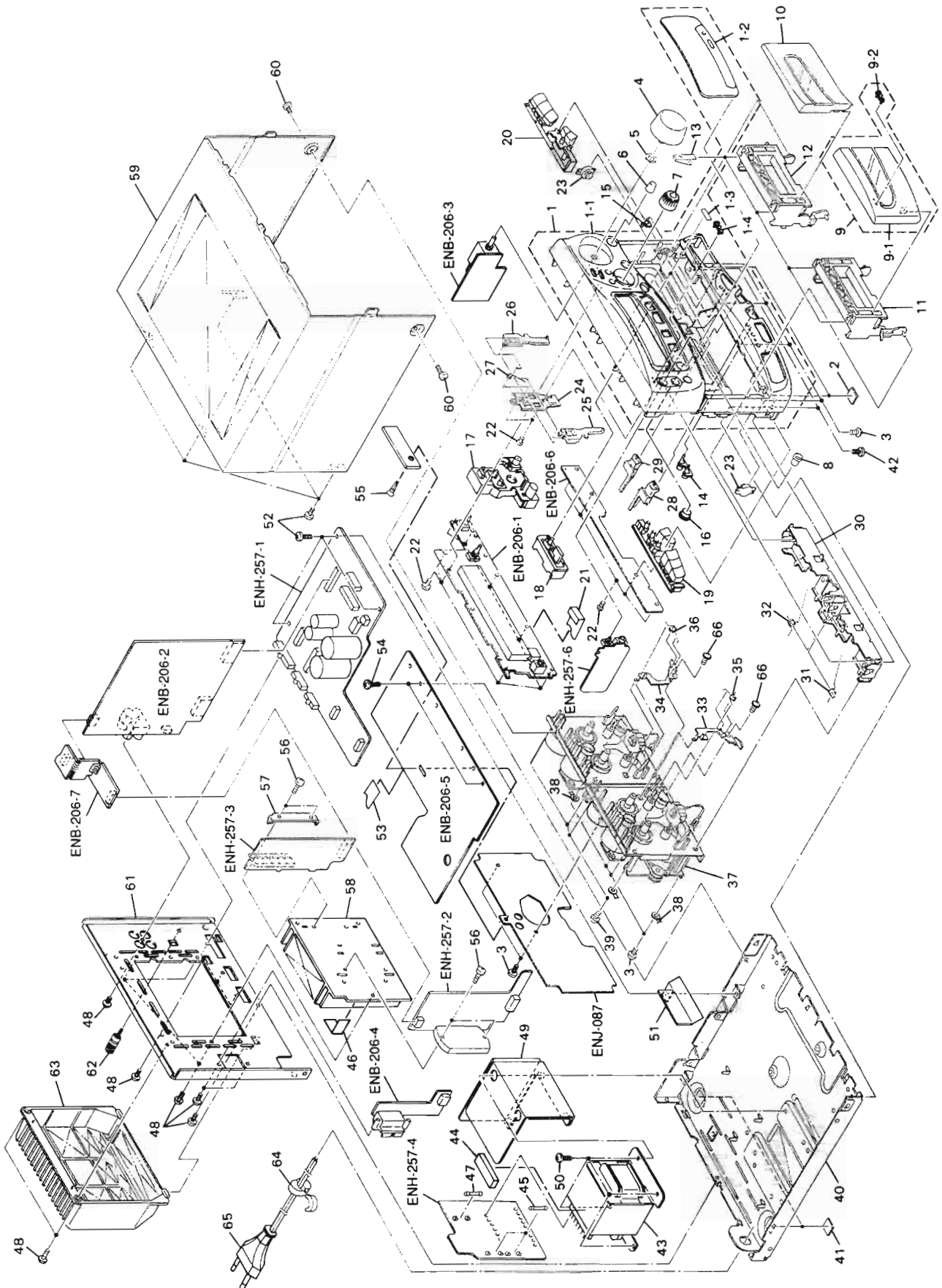
## — Contents

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■ ENJ-087 <span style="border: 1px solid black; padding: 0 2px;">B</span> Deck Audio PC Board Ass'y .....	4-16

# General Exploded View and Parts List

Symbol No. 

M	1	M	M
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## PARTS LIST

Symbol No.

M 1 M M

Item	Part Number	Part Name	Q'ty	Description	Area
1	EFP-DXS600RE(S)	FRONT PANEL ASSY	1		
1-1	E102975-002SM	FRONT PANEL	1		
1-2	E309277-003SMKP	WINDOW SCREEN	1		
1-3	E69777-003	REFLECTION PLATE	2		
1-4	E406971-221	JVC MARK	1		
2	E75896-001	SPACER	2	FRONT FOOT	
3	SBST3006Z	TAPPING SCREW	10		
4	E309083-003SS	VOLUME KNOB	1		
5	E71862-003	VOLUME NUT	1		
6	E75737-013	BALANCE KNOB	1		
7	FSXP3016-001	SELECT KNOB	1		
8	E407233-007	VOLUME KNOB	1		
9	FSJT2003-001SA	CASSETTE LID ASS'Y	1		
9-1	FSJT2003-001	CASSETTE LID	1		
9-2	E406971-221	JVC MARK	1		
10	FSJT2004-001	CASSETTE LID	1		
11	E207972-334ST	CASS HOLDER	1		
12	E207973-334ST	CASS HOLDER	1		
13	E406713-001	CASSETE SPRING	4		
14	E408305-001	INDICATOR	1	DOLBY	
15	E408306-001	INDICATOR	1	REC	
16	E408733-001SM	REMOTE LENS	1		
17	E208421-002SM	P.BUTTON ASSY	1	POWER	
18	E309281-001SM	PUSH BUTTON	1		
19	E208423-002SM	P.BUTTON ASSY	1	DECK-A	
20	E208426-002SM	P.BUTTON ASSY	1	DECK-B	
21	VWF1229-30TTB	FFC CABLE	1	FC951	
22	SDSF2608Z	SCREW	14		
23	E304434-005	DAMPER ASSY	2		
24	E308683-002	EJECT GUIDE	1		
25	E308681-002SS	EJECT LEVER	1		
26	E308682-002SS	EJECT LEVER	1		
27	E407798-002	SPRING	1		
28	E309081-002SS	EJECT BUTTON	1	DECK-A	
29	E309082-002SS	EJECT BUTTON	1	DECK-B	
30	E207974-003SS	HOLDER BRACKET	1		
31	E408058-001	HOLDER SPRING	1	DECK-A	
32	E408122-001	HOLDER SPRING	1	DECK-B	
33	E407799-001	EJECT BRACKET	1	DECK-A	
34	E407800-001	EJECT BRACKET	1	DECK-B	
35	E407801-002	SPRING	1	DECK-A	
36	E407802-002	SPRING	1	DECK-B	
37	-----	CASS MECHA.ASSY	1	See page 4-5	
38	PU49485-3	CORD CLAMP	2		
39	SBSF3008Z	TAPPING SCREW	4		
40	E102616-226SM	CHASSIS BASE	1		
41	E75896-006	FELT SPACER	2	REAR FOOT	
42	SBST3008M	TAPPING SCREW	2		
43	ETP1100-57EHJ	POWER TRANSFORMER	1		
44	E306805-145	SPACER	1	F5001	
45	QMF51E2-1R25	FUSE	2	F101,F102	
46	EXO150010H09511	FELT SPACER	1		
47	QMF51E2-1R0J1	FUSE	1	F001	

△	Item	Part Number	Part Name	Q'ty	Description	Area
	48	E73273-003	SPECIAL SCREW	12		
	49	E408630-001SM	SHIELD PLATE	1		
	50	E65389-004	SPECIAL SCREW	4		
	51	E408678-001SMKP	SHIELD PLATE	1		
	52	GBSG3008CC	TAPPING SCREW	7		
	53	VWF1216-14TTB	FFC CABLE	1	FC221	
	54	SPST2604Z	TAPPING SCREW	2		
	55	E48729-021	PLASTIC RIVET	1		
	56	SBSG3014CC	SCREW	4		
	57	E406969-001SM	LEAF SPRING	1		
	58	E309285-001SM	HEAT SINK	1		
	59	E207787-009	METAL COVER	1		
	60	SDSG3006M	TAPPING SCREW	2		
	61	E208431-019SMKP	REAR PANEL	1		
	62	E408091-001	GND TERMINAL	1		
△	63	E207356-001SM	REAR COVER	1		
△	64	QHS3876-162	CORD STOPPER	1		
	65	QMP3900-200	POWER CORD	1		
	66	SBSF3006Z	TAPPING SCREW	2		
	-	QZL1031-101	LABEL	1		EF
	-	E70028-001	APPROVAL LABEL	1		EN
	-	E75040-051	GI LABEL	1		GI
	-	E407619-045	FTZ LABEL	1		G
	-	E408450-001	CE LABEL	1		
	-	E61029-005	NUMBER LABEL	1		

## The Marks for Designated Areas

EF .... Continental Europe

EN .... Scandinavia

G ..... Germany

GI ..... Italy

No mark indicates all area.

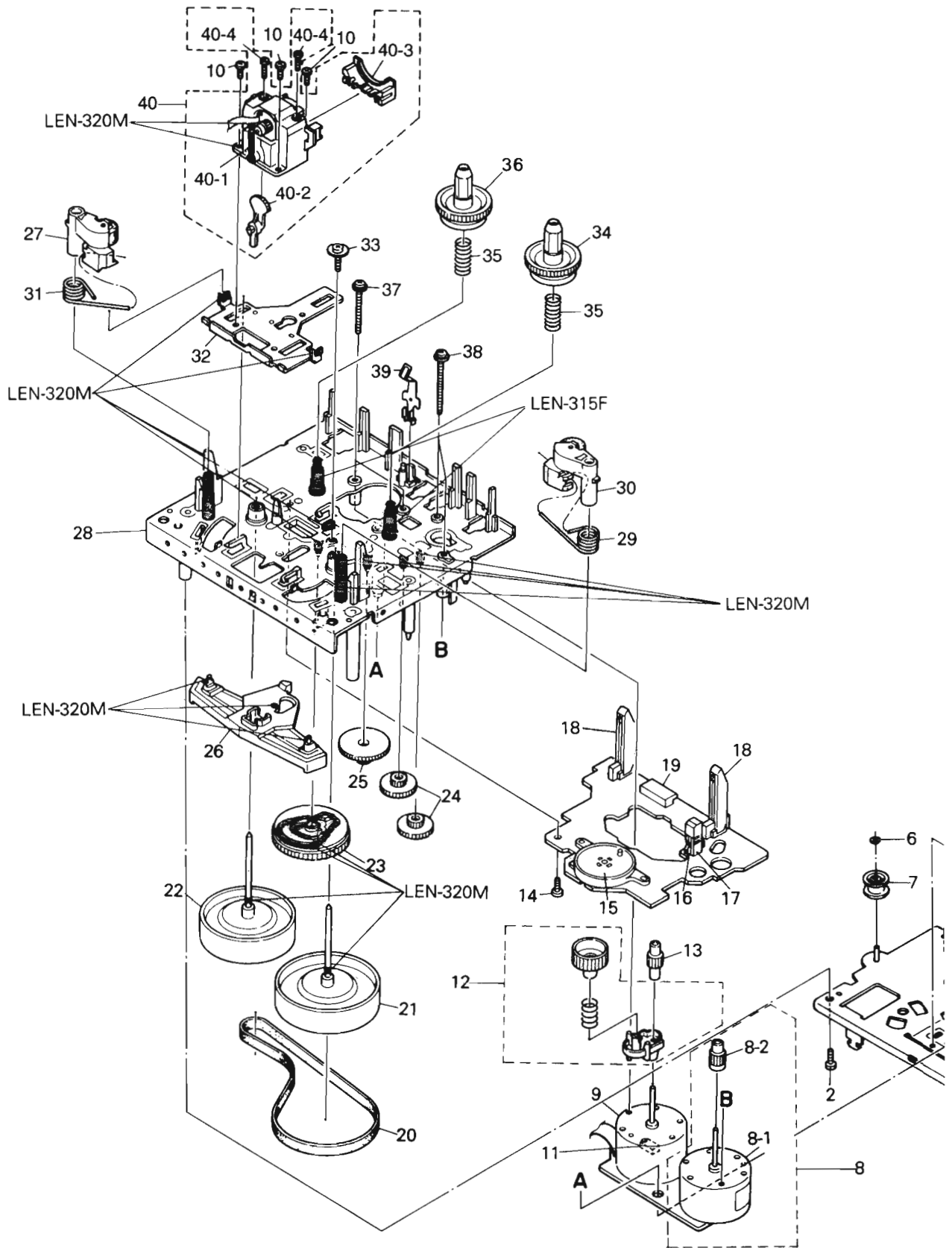


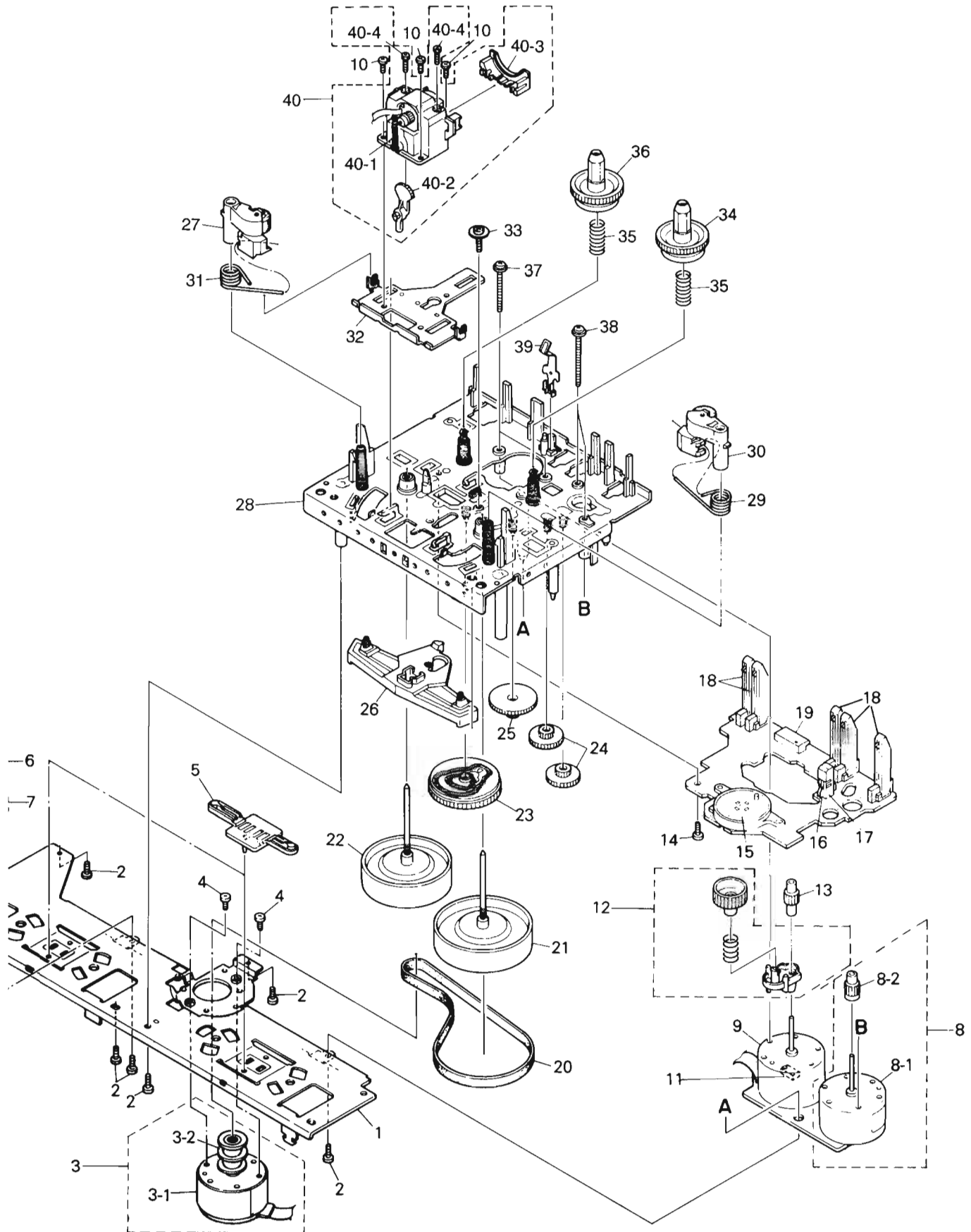
# Cassette Mechanism Ass'y and Parts List

Symbol No. 

M	2	M	M
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■ Grease Point





**Parts List (Cassette Mechanism Ass'y)**

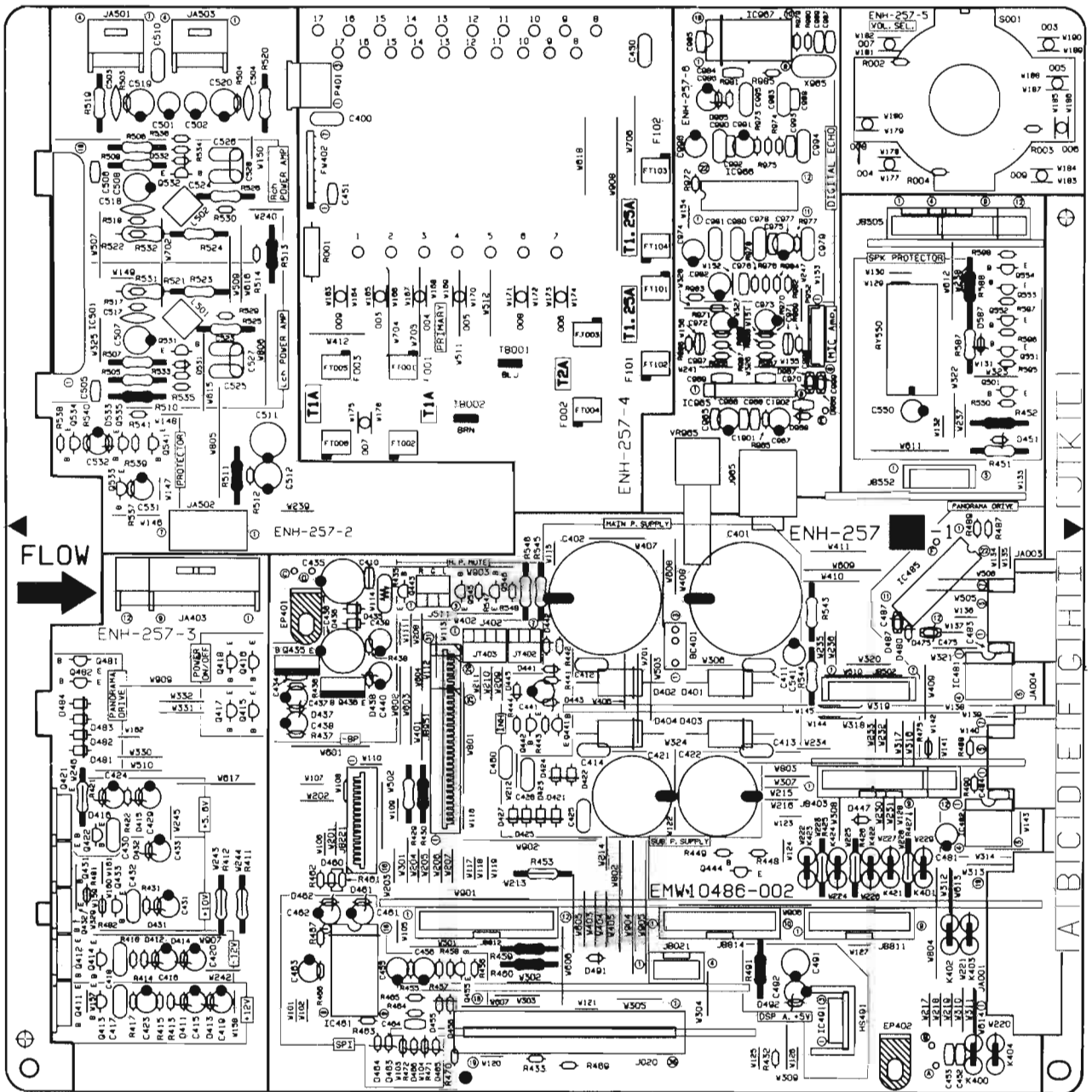
 Symbol No. 

M	2	M	M
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△	Item	Part Number	Part Name	Q'ty	Description	Area
	1	VKM3775-00AMM	FM BRACKET	1		
	2	SDSF2608Z	SCREW	7		
	3	MSI5U2LWA-SA1	DC MOTOR	1		
	3-1	MSI-5U2LWA	DC MOTOR	2		
	3-2	VKR4632-004MM	MOTOR PULLEY	2		
	4	SPSP2603Z	SCREW	2		
	5	VKS5327-005M	PLATE	2		
	6	WDL163525-4	WASHER	1		
	7	VKR4631-005MM	IDLER PULLY	1		
	8	MSN5D257A-SA1	DC MOTOR ASSY	2		
	8-1	MSN-5D257A	DC MOTOR	2		
	8-2	VKS5433-001	ACTUATOR MOTOR GEAR	2		
	9	MMN-6F4RA38	DC MOTOR	2		
	10	SDST2004Z	SCREW	6		
	11	VMC0234-R08	CONNECT TERMINAL	2		
	12	VKS5430-00CMM	F.F/REW.ARM	2		
	13	VKS5432-001	REEL MOTOR GEAR	2		
	14	SDST2612Z	SCREW	1		
	15	VKS3616-00A	CAM SWITCH	1		
	16	DN6851-HI	I.C(M)	1		
	17	VKS3630-001MM	I.C.PROTECTOR	1		
	18	HXS00220MVL0	LEAF SWITCH	7		
	19	VMC0234-R11	CONNECT TERMINAL	1	A MECHA	
		VMC0234-R14	CONNECT TERMINAL	1	B MECHA	
	20	VKB3001-064	DRIVE BELT	1	A MECHA	
		VKB3001-065	DRIVE BELT	1	B MECHA	
	21	VKF3284-00H	FLY WHEEL	2		
	22	VKF3186-00H	FLY WHEEL	2		
	23	VKS2224-002	CONTROL CAM	2		
	24	VKS5454-001	ACTUATER GEAR	4		
	25	VKS5455-001	ACTUATER GEAR	2		
	26	VKS3627-001	PINCH LEVER	2		
	27	VKP4229-00B	PINCH ROLLER	2		
	28	VKS2229-00C	CHASSIS BASE	2		
	29	VKW5045-003	PINCH ROLLER SPRING	2		
	30	VKP4227-00B	PINCH ROLLER	1		
	31	VKW5046-003	PINCH ROLLER SPRING	2		
	32	VKM3632-001	HEAD BASE	2		
	33	VKZ4708-001	SPECIAL SCREW	2		
	34	VKS5428-00B	REEL DISK	2		
	35	VKW5043-001	TENSION SPRING	4		
	36	VKS3617-002	REEL DISK	3		
	37	VKZ4705-001	SPECIAL SCREW	4		
	38	VKZ4705-002	SPECIAL SCREW	4		
	39	VKY4670-001	SPRING	2		
	40	VKS3626-00E	HEAD MOUNT	1	A MECHA	
		VKS3629-00E	HEAD MOUNT	1	B MECHA	
	40-1	MKW5063-003	HEAD SPRING	2		
	40-2	VKS3614-001	TURN GEAR	2	A MECHA	
	40-3	VKS3654-001	HEAD MOUNT COVER	2		
	40-4	VKZ4629-003	SCREW	4		

# Printed Circuit Board Ass'y and Parts List

## ■ ENH-257 □ Main, Power Amplifier & Regulator PC Board Ass'y



TRANSISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q411	2SD2061(F,G)	SI. TRANSIST ROHM	
	Q412	2SB1187(F,G)	SI. TRANSIST ROHM	
	Q413	2SC1740S(R,S)	SI. TRANSIST ROHM	
	Q414	2SA933S(RS)	SI. TRANSIST	
	Q415	DTC144ES	DIGITAL TRA ROHM	
	Q416	DTA144ES	DIGITAL TRA ROHM	
	Q417	DTA144ES	DIGITAL TRA ROHM	
	Q418	DTC144ES	DIGITAL TRA ROHM	
	Q421	2SD2061(F,G)	SI. TRANSIST ROHM	
	Q422	2SC1740S(R,S)	SI. TRANSIST ROHM	
	Q431	2SD2061(F,G)	SI. TRANSIST ROHM	
	Q433	2SC1740S(R,S)	SI. TRANSIST ROHM	
	Q435	2SB1357(E,F)	SI. TRANSIST ROHM	
	Q436	2SD2037(E,F)	SI. TRANSIST ROHM	
	Q441	DTC114ES	DIGITAL TRA ROHM	

TRANSISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q442	DTC114YS	DIGITAL TRA ROHM	
	Q443	DTA114TS	DIGITAL TRA ROHM	
	Q444	DTA144WS	DIGITAL TRA ROHM	EF
	Q444	DTA144WS	DIGITAL TRA ROHM	EN
	Q444	DTA144WS	DIGITAL TRA ROHM	G
	Q444	DTA144WS	DIGITAL TRA ROHM	GI
	Q455	2SC1740S(R,S)	SI. TRANSIST ROHM	
	Q481	DTC114YS	DIGITAL TRA ROHM	
	Q482	DTA123ES	DIODE ROHM	
	Q501	2SC1740S(R,S)	SI. TRANSIST ROHM	
	Q531	2SA933S(RS)	SI. TRANSIST	
	Q532	2SA933S(RS)	SI. TRANSIST	
	Q533	2SC1740S(R,S)	SI. TRANSIST ROHM	
	Q534	2SA733A(P,K)	SI. TRANSIST NEC	EF
	Q534	2SA733A(P,K)	SI. TRANSIST NEC	EN





## TRANSISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q534	2SA733A(P,K)	SI.TRANSIST NEC	G
	Q534	2SA733A(P,K)	SI.TRANSIST NEC	GI
	Q535	2SC1740S(R,S)	SI.TRANSIST ROHM	
	Q541	DTC144ES	DIGITAL TRA ROHM	
	Q545	2SD2144S(VW)	SI.TRANSIST ROHM	
	Q546	2SD2144S(VW)	SI.TRANSIST ROHM	

## I. C. S.

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC461	XR1099CP	I.C(MONO-AN EXAR JAPAN	
	IC481	LB1639-CV	I.C(DIGI-OT SANYO	EF
	IC481	LB1639-CV	I.C(DIGI-OT SANYO	EN
	IC481	LB1639-CV	I.C(DIGI-OT SANYO	G
	IC481	LB1639-CV	I.C(DIGI-OT SANYO	GI
	IC482	LB1639-CV	I.C(DIGI-OT SANYO	EF
	IC482	LB1639-CV	I.C(DIGI-OT SANYO	EN
	IC482	LB1639-CV	I.C(DIGI-OT SANYO	G
	IC482	LB1639-CV	I.C(DIGI-OT SANYO	GI
	IC501	STK4141MK5	I.C(HYBRID) SANYO	
	IC501	STK4161MK5V	I.C(HYBRID) SANYO	EF
	IC501	STK4161MK5V	I.C(HYBRID) SANYO	EN
	IC501	STK4161MK5V	I.C(HYBRID) SANYO	G
	IC501	STK4161MK5V	I.C(HYBRID) SANYO	GI
	IC965	BA15218N	I.C(MONO-AN ROHM	

## DIODES

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
Δ	D401	30DL2FC	SI.DIODE NIHONINTER	
Δ	D402	30DL2FC	SI.DIODE NIHONINTER	
Δ	D403	30DL2FC	SI.DIODE NIHONINTER	
Δ	D404	30DL2FC	SI.DIODE NIHONINTER	
	D411	MTZ13JC	ZENER DIODE ROHM	
	D412	MTZ13JC	ZENER DIODE ROHM	
	D413	MTZ13JC	ZENER DIODE ROHM	
	D414	MTZ13JC	ZENER DIODE ROHM	
	D415	RD6.8JSB3	ZENER DIODE NEC	
	D416	MTZ6.8JC	ZENER DIODE ROHM	
	D421	1SR139-200	SI.DIODE ROHM	
	D422	1SR139-200	SI.DIODE ROHM	
	D423	1SR139-200	SI.DIODE ROHM	
	D424	1SR139-200	SI.DIODE ROHM	
	D425	1SR139-200	SI.DIODE ROHM	
	D427	1SR139-200	SI.DIODE ROHM	
	D431	MTZ11JC	ZENER DIODE ROHM	
	D432	MTZ12JC	ZENER DIODE ROHM	
	D435	1SR139-200	SI.DIODE ROHM	
	D436	1SR139-200	SI.DIODE ROHM	
	D437	MTZ30JC	ZENER DIODE ROHM	
	D438	MTZ6.2JC	ZENER DIODE ROHM	
	D441	1SS119	SI.DIODE	
	D442	1SS119	SI.DIODE	
	D443	MTZ5.1JC	ZENER DIODE ROHM	
	D445	1SS119	SI.DIODE	
	D447	1SS119	SI.DIODE	
	D451	MTZ6.8JC	ZENER DIODE ROHM	EF
	D451	MTZ6.8JC	ZENER DIODE ROHM	EN
	D451	MTZ6.8JC	ZENER DIODE ROHM	G
	D451	MTZ6.8JC	ZENER DIODE ROHM	GI
	D451	1SS119	SI.DIODE	EF
	D454	1SS119	SI.DIODE	EN
	D454	1SS119	SI.DIODE	G
	D454	1SS119	SI.DIODE	GI
	D455	1SS119	SI.DIODE	
	D456	1SS119	SI.DIODE	
	D460	1SS119	SI.DIODE	
	D462	MTZ5.1JB	ZENER DIODE ROHM	
	D463	MTZ6.8JC	ZENER DIODE ROHM	
	D464	MTZ6.8JC	ZENER DIODE ROHM	
	D465	MTZ6.8JC	ZENER DIODE ROHM	
	D466	MTZ6.8JC	ZENER DIODE ROHM	
	D481	1SR139-200	SI.DIODE ROHM	
	D482	1SR139-200	SI.DIODE ROHM	
	D483	1SR139-200	SI.DIODE ROHM	
	D484	1SR139-200	SI.DIODE ROHM	
	D531	1SS119	SI.DIODE	
	D532	1SS119	SI.DIODE	
	D533	1SS119	SI.DIODE	
	D967	MTZ13JC	ZENER DIODE ROHM	EF
	D967	MTZ13JC	ZENER DIODE ROHM	EN
	D967	MTZ13JC	ZENER DIODE ROHM	G
	D967	MTZ13JC	ZENER DIODE ROHM	GI

Δ : SAFETY PARTS

## CAPACITORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C400	QFV82AJ-104	0.1MF 100V THIN FILM	
	C401	EEW4208-568E	5600MF E.CAPACITO	
	C402	EEW4208-568E	5600MF E.CAPACITO	
	C405	QCHB1EZ-223	0.022MF 25V CER.CAPACI	EF
	C405	QCHB1EZ-223	0.022MF 25V CER.CAPACI	EN
	C405	QCHB1EZ-223	0.022MF 25V CER.CAPACI	G
	C405	QCHB1EZ-223	0.022MF 25V CER.CAPACI	GI
	C412	QFV81HJ-104	0.1MF 50V THIN FILM	EF
	C412	QFV81HJ-104	0.1MF 50V THIN FILM	EN
	C412	QFV81HJ-104	0.1MF 50V THIN FILM	G
	C412	QFV81HJ-104	0.1MF 50V THIN FILM	GI
	C413	QFV81HJ-104	0.1MF 50V THIN FILM	EF
	C413	QFV81HJ-104	0.1MF 50V THIN FILM	EN
	C413	QFV81HJ-104	0.1MF 50V THIN FILM	G
	C413	QFV81HJ-104	0.1MF 50V THIN FILM	GI
	C415	QETC1CM-226ZM	22MF 16V E.CAPACITO	
	C416	QETC1CM-226ZM	22MF 16V E.CAPACITO	
	C417	QFLB1HJ-103	0.01MF 50V MYLAR CAPA	
	C418	QFLB1HJ-103	0.01MF 50V MYLAR CAPA	
	C419	QETC1CM-226ZM	22MF 16V E.CAPACITO	
	C420	QETC1CM-226ZM	22MF 16V E.CAPACITO	
	C421	QETB1VM-338	3300MF 35V AL E.CAPAC	
	C422	QETB1VM-338	3300MF 35V AL E.CAPAC	
	C423	QETC1EM-226ZM	22MF 25V E.CAPACITO	EF
	C423	QETC1EM-226ZM	22MF 25V E.CAPACITO	EN
	C423	QETC1EM-226ZM	22MF 25V E.CAPACITO	G
	C423	QETC1EM-226ZM	22MF 25V E.CAPACITO	GI
	C424	QETC1AM-476Z	47MF 10V AL E.CAPAC	
	C425	QFV81HJ-104	0.1MF 50V THIN FILM	EF
	C425	QFV81HJ-104	0.1MF 50V THIN FILM	EN
	C425	QFV81HJ-104	0.1MF 50V THIN FILM	G
	C425	QFV81HJ-104	0.1MF 50V THIN FILM	GI
	C428	QFV81HJ-104	0.1MF 50V THIN FILM	EF
	C428	QFV81HJ-104	0.1MF 50V THIN FILM	EN
	C428	QFV81HJ-104	0.1MF 50V THIN FILM	G
	C428	QFV81HJ-104	0.1MF 50V THIN FILM	GI
	C429	QETC1AM-476Z	47MF 10V AL E.CAPAC	
	C430	QFLB1HJ-103	0.01MF 50V MYLAR CAPA	
	C431	QETB1CM-227E	220MF 16V E.CAPACITO	EF
	C431	QETB1CM-227E	220MF 16V E.CAPACITO	EN
	C431	QETB1CM-227E	220MF 16V E.CAPACITO	G
	C431	QETB1CM-227E	220MF 16V E.CAPACITO	GI
	C432	QFLB1HJ-103	0.01MF 50V MYLAR CAPA	
	C433	QETC1CM-226ZM	22MF 16V E.CAPACITO	
	C435	QETB1HM-227	220MF 50V E.CAPACITO	
	C436	QETC1HM-107ZM	100MF 50V E.CAPACITO	EF
	C436	QETC1HM-107ZM	100MF 50V E.CAPACITO	EN
	C436	QETC1HM-107ZM	100MF 50V E.CAPACITO	G
	C436	QETC1HM-107ZM	100MF 50V E.CAPACITO	GI
	C437	QETB1HM-226E	22MF 50V E.CAPACITO	
	C438	QETB1HM-226E	22MF 50V E.CAPACITO	
	C439	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C440	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C441	QETC1HM-225ZM	2.2MF 50V E.CAPACITO	
	C454	QETC1AM-227Z	220MF 10V AL E.CAPAC	EF
	C454	QETC1AM-227Z	220MF 10V AL E.CAPAC	EN
	C454	QETC1AM-227Z	220MF 10V AL E.CAPAC	G
	C454	QETC1AM-227Z	220MF 10V AL E.CAPAC	GI
	C455	QETC1HM-105ZM	1MF 50V E.CAPACITO	
	C456	QETC1HM-105ZM	1MF 50V E.CAPACITO	
	C457	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	EF
	C457	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	EN
	C457	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	G
	C457	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	GI
	C458	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	EF
	C458	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	EN
	C458	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	G
	C458	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	GI
	C460	QFV82AJ-104	0.1MF 100V THIN FILM	
	C461	QETC1AM-107	100MF 10V E.CAPACITO	
	C462	QETC1AM-107	100MF 10V E.CAPACITO	
	C463	QETC1AM-476Z	47MF 10V AL E.CAPAC	
	C464	QCB1HK-102Y	1000PF 50V CER.CAPACI	
	C470	QCHB1EZ-223	0.022MF 25V CER.CAPACI	EF
	C470	QCHB1EZ-223	0.022MF 25V CER.CAPACI	EN
	C470	QCHB1EZ-223	0.022MF 25V CER.CAPACI	G
	C470	QCHB1EZ-223	0.022MF 25V CER.CAPACI	GI
	C481	QETC1AM-107	100MF 10V E.CAPACITO	
	C501	EET5010-225ZE	2.2MF E.CAPACITO	EF
	C501	EET5010-225ZE	2.2MF E.CAPACITO	EN
	C501	EET5010-225ZE	2.2MF E.CAPACITO	G
	C501	EET5010-225ZE	2.2MF E.CAPACITO	GI
	C502	EET5010-225ZE	2.2MF E.CAPACITO	EF
	C502	EET5010-225ZE	2.2MF E.CAPACITO	EN
	C502	EET5010-225ZE	2.2MF E.CAPACITO	G
	C502	EET5010-225ZE	2.2MF E.CAPACITO	GI
	C503	QCS21HJ-5R0	5PF 50V CER.CAPACI	EF
	C503	QCS21HJ-5R0	5PF 50V CER.CAPACI	EN
	C503	QCS21HJ-5R0	5PF 50V CER.CAPACI	G
	C503	QCS21HJ-5R0	5PF 50V CER.CAPACI	GI
	C504	QCS21HJ-5R0	5PF 50V CER.CAPACI	EF
	C504	QCS21HJ-5R0	5PF 50V CER.CAPACI	EN
	C504	QCS21HJ-5R0	5PF 50V CER.CAPACI	G
	C504	QCS21HJ-5R0	5PF 50V CER.CAPACI	GI
	C505	QCB1HK-331Y	330PF 50V CER.CAPACI	EF

CAPACITORS

RESISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	C505	QCBB1HK-331Y	330PF	50V	CER.CAPACI	EN
	C505	QCBB1HK-331Y	330PF	50V	CER.CAPACI	G
	C505	QCBB1HK-331Y	330PF	50V	CER.CAPACI	GI
	C506	QCBB1HK-331Y	330PF	50V	CER.CAPACI	EF
	C506	QCBB1HK-331Y	330PF	50V	CER.CAPACI	EN
	C506	QCBB1HK-331Y	330PF	50V	CER.CAPACI	G
	C506	QCBB1HK-331Y	330PF	50V	CER.CAPACI	GI
	C507	QETB1HM-226E	22MF	50V	E.CAPACITO	
	C508	QETB1HM-226E	22MF	50V	E.CAPACITO	
	C510	QFLB1HJ-223	0.022MF	50V	MYLAR CAPA	
	C511	QETC1HM-107ZM	100MF	50V	E.CAPACITO	EF
	C511	QETC1HM-107ZM	100MF	50V	E.CAPACITO	EN
	C511	QETC1HM-107ZM	100MF	50V	E.CAPACITO	G
	C511	QETC1HM-107ZM	100MF	50V	E.CAPACITO	GI
	C512	QETC1HM-106ZM	10MF	50V	E.CAPACITO	
	C517	QCS21HJ-100	10PF	50V	CER.CAPACI	
	C518	QCS21HJ-100	10PF	50V	CER.CAPACI	
	C519	EET5010-226ZE	22MF		E.CAPACITO	EF
	C519	EET5010-226ZE	22MF		E.CAPACITO	EN
	C519	EET5010-226ZE	22MF		E.CAPACITO	G
	C519	EET5010-226ZE	22MF		E.CAPACITO	GI
	C520	EET5010-226ZE	22MF		E.CAPACITO	EF
	C520	EET5010-226ZE	22MF		E.CAPACITO	EN
	C520	EET5010-226ZE	22MF		E.CAPACITO	G
	C520	EET5010-226ZE	22MF		E.CAPACITO	GI
	C523	QFV81HJ-104	0.1MF	50V	THIN FILM	
	C524	QFV81HJ-104	0.1MF	50V	THIN FILM	
	C525	QFV81HJ-104	0.1MF	50V	THIN FILM	
	C526	QFV81HJ-104	0.1MF	50V	THIN FILM	
	C531	QETC1EM-106ZM	10MF	25V	AL E.CAPAC	
	C532	QETC1CM-476Z	47MF	16V	AL E.CAPAC	
	C541	QETC1HM-106ZM	10MF	50V	E.CAPACITO	
	C550	QETC1HM-105ZM	1MF	50V	E.CAPACITO	
	C966	QETC1EM-106ZM	10MF	25V	AL E.CAPAC	
	C967	QETC1EM-106ZM	10MF	25V	AL E.CAPAC	
	C968	QCGB1HK-102	1000PF	50V	CER.CAPACI	
	C970	QCBB1HK-101Y	100PF	50V	CER.CAPACI	EF
	C970	QCBB1HK-101Y	100PF	50V	CER.CAPACI	EN
	C970	QCBB1HK-101Y	100PF	50V	CER.CAPACI	G
	C970	QCBB1HK-101Y	100PF	50V	CER.CAPACI	GI
	C971	QCSB1HJ-470	47PF	50V	CER.CAPACI	EF
	C971	QCSB1HJ-470	47PF	50V	CER.CAPACI	EN
	C971	QCSB1HJ-470	47PF	50V	CER.CAPACI	G
	C971	QCSB1HJ-470	47PF	50V	CER.CAPACI	GI
	C972	QETC1EM-106ZM	10MF	25V	AL E.CAPAC	
	C973	QETC1EM-106ZM	10MF	25V	AL E.CAPAC	
	C1902	QCFB1HZ-104Y	0.1MF	50V	CER.CAPACI	

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	R456	QRD161J-103	10K	1/6W	CARBON RES	
	R457	QRD161J-222	2.2K	1/6W	CARBON RES	
	R458	QRD161J-104	100K	1/6W	CARBON RES	
	R459	QRZ0077-100	10	1/4W	FUSIBLE RE	
	R460	QRZ0077-100	10	1/4W	FUSIBLE RE	
	R462	QRD161J-331	330	1/6W	CARBON RES	
	R463	QRD167J-223	22K	1/6W	CARBON RES	
	R464	QRD167J-152	1.5K	1/6W	CARBON RES	
	R465	QRD167J-562	5.6K	1/6W	CARBON RES	
	R466	QRD167J-223	22K	1/6W	CARBON RES	
	R467	QRD161J-102	1K	1/6W	CARBON RES	
	R469	QRD161J-563	56K	1/6W	CARBON RES	
	R470	QRD161J-563	56K	1/6W	CARBON RES	
	R471	QRD161J-513	51K	1/6W	CARBON RES	
	R472	QRD161J-513	51K	1/6W	CARBON RES	
	R503	QRD161J-563	56K	1/6W	CARBON RES	
	R504	QRD161J-563	56K	1/6W	CARBON RES	
	R505	QRD14CJ-272S	2.7K	1/4W	UNF.CARBON	
	R506	QRD14CJ-272S	2.7K	1/4W	UNF.CARBON	
	R507	QRD14CJ-272S	2.7K	1/4W	UNF.CARBON	
	R508	QRD14CJ-272S	2.7K	1/4W	UNF.CARBON	
	R510	QRZ0077-100	10	1/4W	FUSIBLE RE	
	R511	QRZ0077-101	100	1/4W	FUSIBLE RE	
	R512	QRD167J-272	2.7K	1/6W	CARBON RES	
	R513	QRZ0077-100	10	1/4W	FUSIBLE RE	
	R514	QRD167J-272	2.7K	1/6W	CARBON RES	
	R517	QRD161J-563	56K	1/6W	CARBON RES	
	R518	QRD161J-563	56K	1/6W	CARBON RES	
	R519	QRD14CJ-471SX	470	1/4W	UNF.CARBON	EF
	R519	QRD14CJ-471SX	470	1/4W	UNF.CARBON	EN
	R519	QRD14CJ-471SX	470	1/4W	UNF.CARBON	G
	R519	QRD14CJ-471SX	470	1/4W	UNF.CARBON	GI
	R520	QRD14CJ-471SX	470	1/4W	UNF.CARBON	EF
	R520	QRD14CJ-471SX	470	1/4W	UNF.CARBON	EN
	R520	QRD14CJ-471SX	470	1/4W	UNF.CARBON	G
	R520	QRD14CJ-471SX	470	1/4W	UNF.CARBON	GI
	R521	QRX012J-R22AM	0.22	1W	METAL FILM	
	R522	QRX012J-R22AM	0.22	1W	METAL FILM	
	R523	QRD14CJ-100SX	10	1/4W	UNF.CARBON	
	R524	QRD14CJ-100SX	10	1/4W	UNF.CARBON	
	R525	QRD14CJ-100SX	10	1/4W	UNF.CARBON	
	R526	QRD14CJ-100SX	10	1/4W	UNF.CARBON	
	R529	QRD161J-104	100K	1/6W	CARBON RES	
	R530	QRD161J-823	82K	1/6W	CARBON RES	
	R531	QRD167J-272	2.7K	1/6W	CARBON RES	
	R532	QRD167J-272	2.7K	1/6W	CARBON RES	
	R533	QRD167J-153	15K	1/6W	CARBON RES	
	R534	QRD167J-153	15K	1/6W	CARBON RES	
	R535	QRD161J-103	10K	1/6W	CARBON RES	
	R536	QRD161J-103	10K	1/6W	CARBON RES	
	R537	QRD161J-103	10K	1/6W	CARBON RES	
	R538	QRD161J-104	100K	1/6W	CARBON RES	
	R539	QRD161J-103	10K	1/6W	CARBON RES	
	R540	QRD161J-473	47K	1/6W	CARBON RES	
	R541	QRD161J-103	10K	1/6W	CARBON RES	
	R543	QRD14CJ-821SX	820	1/4W	CARBON RES	
	R544	QRD14CJ-821SX	820	1/4W	CARBON RES	
	R545	QRD14CJ-331SX	330	1/4W	UNF.CARBON	
	R546	QRD14CJ-331SX	330	1/4W	UNF.CARBON	
	R547	QRD161J-473	47K	1/6W	CARBON RES	
	R548	QRD161J-473	47K	1/6W	CARBON RES	
	R550	QRD167J-152	1.5K	1/6W	CARBON RES	
	R965	QRD161J-102	1K	1/6W	CARBON RES	
	R966	QRD161J-103	10K	1/6W	CARBON RES	EF
	R966	QRD161J-103	10K	1/6W	CARBON RES	EN
	R966	QRD161J-103	10K	1/6W	CARBON RES	G
	R966	QRD161J-103	10K	1/6W	CARBON RES	GI
	R967	QRD161J-103	10K	1/6W	CARBON RES	
	R968	QRD161J-821	820	1/6W	CARBON RES	EF
	R968	QRD161J-821	820	1/6W	CARBON RES	EN
	R968	QRD161J-821	820	1/6W	CARBON RES	G
	R968	QRD161J-821	820	1/6W	CARBON RES	GI
	R969	QRD161J-104	100K	1/6W	CARBON RES	EF
	R969	QRD161J-104	100K	1/6W	CARBON RES	EN
	R969	QRD161J-104	100K	1/6W	CARBON RES	G
	R969	QRD161J-104	100K	1/6W	CARBON RES	GI
	R988	QRD161J-221	220	1/6W	CARBON RES	
	VR965	QVA80B-E54C	50K		VARIABLE R	

Δ : SAFETY PARTS

RESISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	R413	QRD167J-153	15K	1/6W	CARBON RES	
	R414	QRD167J-153	15K	1/6W	CARBON RES	
	R415	QRD167J-152	1.5K	1/6W	CARBON RES	
	R417	QRD167J-152	1.5K	1/6W	CARBON RES	
	R418	QRD161J-222	2.2K	1/6W	CARBON RES	
	R422	QRD161J-222	2.2K	1/6W	CARBON RES	
	R429	QRD14CJ-2R2SX	2.2	1/4W	UNF.CARBON	EF
	R429	QRD14CJ-2R2SX	2.2	1/4W	UNF.CARBON	EN
	R429	QRD14CJ-2R2SX	2.2	1/4W	UNF.CARBON	G
	R429	QRD14CJ-2R2SX	2.2	1/4W	UNF.CARBON	GI
	R430	QRZ0077-5R6X	5.6	1/4W	FUSIBLE RE	EF
	R430	QRZ0077-5R6X	5.6	1/4W	FUSIBLE RE	EN
	R430	QRZ0077-5R6X	5.6	1/4W	FUSIBLE RE	G
	R430	QRZ0077-5R6X	5.6	1/4W	FUSIBLE RE	GI
	R431	QRD161J-222	2.2K	1/6W	CARBON RES	
	R432	QRD161J-102	1K	1/6W	CARBON RES	
	R433	QRD161J-221	220	1/6W	CARBON RES	
	R435	PTH61G25AR4R7M			POSITIVE T	
	R436	QRD167J-332	3.3K	1/6W	CARBON RES	
	R437	QRD167J-223	22K	1/6W	CARBON RES	
	R438	QRD161J-104	100K	1/6W	CARBON RES	
	R441	QRD161J-103	10K	1/6W	CARBON RES	
	R442	QRD161J-103	10K	1/6W	CARBON RES	
	R443	QRD161J-103	10K	1/6W	CARBON RES	
	R444	QRD161J-102	1K	1/6W	CARBON RES	
	R448	QRD161J-103	10K	1/6W	CARBON RES	
	R449	QRD161J-222	2.2K	1/6W	CARBON RES	
	R451	QRD14CJ-271S	270	1/4W	UNF.CARBON	EF
	R451	QRD14CJ-271S	270	1/4W	UNF.CARBON	EN
	R451	QRD14CJ-271S	270	1/4W	UNF.CARBON	G
	R451	QRD14CJ-271S	270	1/4W	UNF.CARBON	GI
	R452	QRZ0077-271	270	1/4W	FUSIBLE RE	EF
	R452	QRZ0077-271	270	1/4W	FUSIBLE RE	EN
	R452	QRZ0077-271	270	1/4W	FUSIBLE RE	G
	R452	QRZ0077-271	270	1/4W	FUSIBLE RE	GI
	R454	QRD161J-102	1K	1/6W	CARBON RES	EF
	R454	QRD161J-102	1K	1/6W	CARBON RES	EN
	R454	QRD161J-102	1K	1/6W	CARBON RES	G
	R454	QRD161J-102	1K	1/6W	CARBON RES	GI
	R455	QRD167J-562	5.6K	1/6W	CARBON RES	

Δ : SAFETY PARTS

OTHERS

Δ	ITEM	PART NUMBER	DESCRIPTION		AREA
		EMW10486-003	PRINTED BOA		EF
		EMW10486-003	PRINTED BOA		EN
		EMW10486-003	PRINTED BOA		G
		EMW10486-003	PRINTED BOA		GI
		EWT011-124	TERMINAL WI		EF
		EWT011-124	TERMINAL WI		EN
		EWT011-124	TERMINAL WI		G
		EWT011-124	TERMINAL WI		GI
		EWT011-170	TERMINAL WI		EF
		EWT011-170	TERMINAL WI		EN

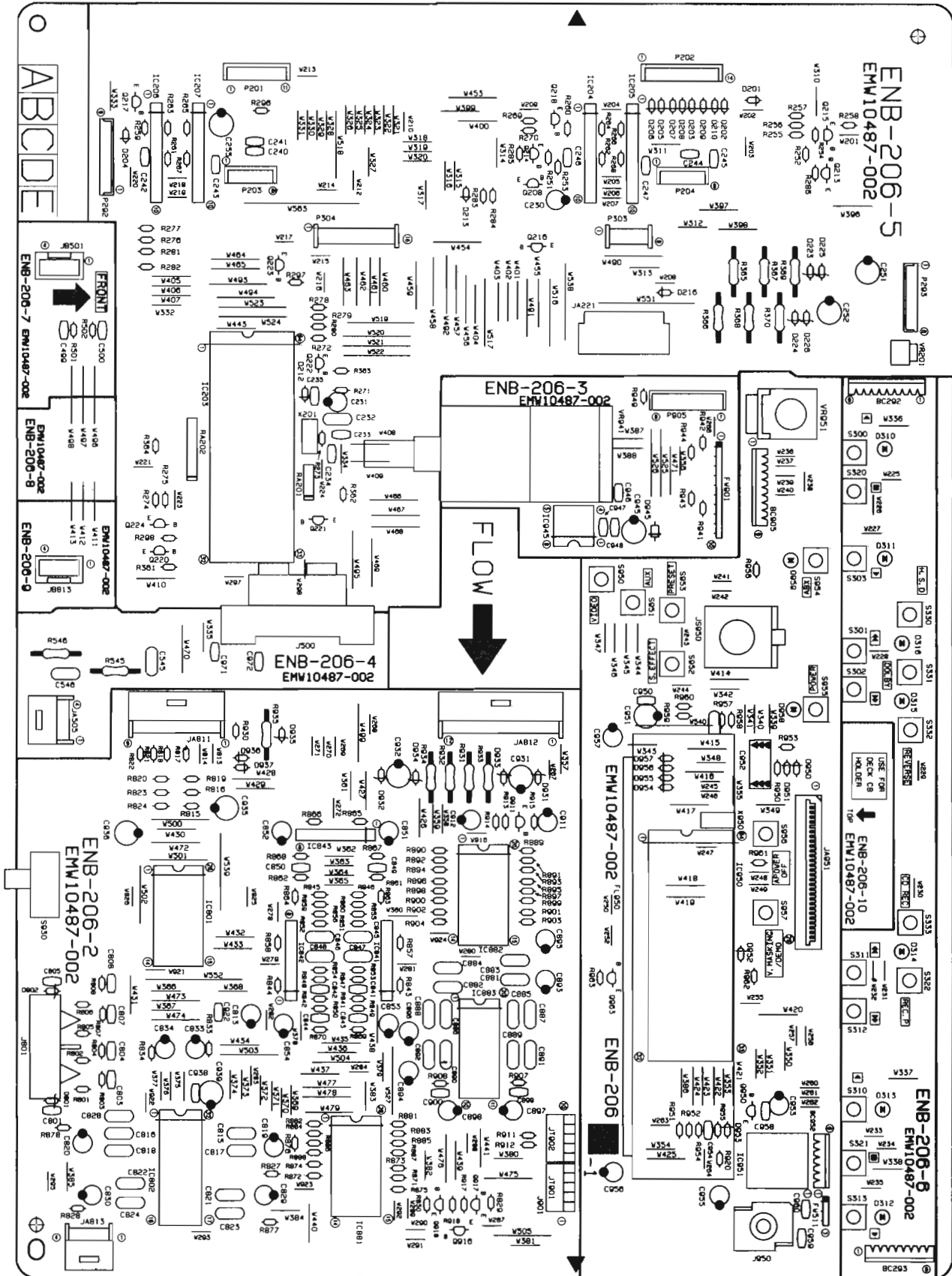
## OTHERS

△	ITEM	PART NUMBER	DESCRIPTION	AREA
		EWT011-170	TERMINAL WI	G
		EWT011-170	TERMINAL WI	GI
		E3400-431	FELT SPACER	EF
		E3400-431	FELT SPACER	EN
		E3400-431	FELT SPACER	G
		E3400-431	FELT SPACER	GI
		QWE351-068B	VINYL WIRE	EF
		QWE351-068B	VINYL WIRE	EN
		QWE351-068B	VINYL WIRE	G
		QWE351-068B	VINYL WIRE	GI
		QWE352-05DD	VINYL WIRE	EF
		QWE352-05DD	VINYL WIRE	EN
		QWE352-05DD	VINYL WIRE	G
		QWE352-05DD	VINYL WIRE	GI
	J511	EMV7122-103	CONNECT TER	
	J965	QMS3L60-E40G	HEADPHONE J	
	K401	ENZ8101-007	INDUCTOR	EF
	K401	ENZ8101-007	INDUCTOR	EN
	K401	ENZ8101-007	INDUCTOR	G
	K401	ENZ8101-007	INDUCTOR	GI
	K402	ENZ8101-007	INDUCTOR	EF
	K402	ENZ8101-007	INDUCTOR	EN
	K402	ENZ8101-007	INDUCTOR	G
	K402	ENZ8101-007	INDUCTOR	GI
	K403	ENZ8101-007	INDUCTOR	EF
	K403	ENZ8101-007	INDUCTOR	EN
	K403	ENZ8101-007	INDUCTOR	G
	K403	ENZ8101-007	INDUCTOR	GI
	K404	ENZ8101-007	INDUCTOR	EF
	K404	ENZ8101-007	INDUCTOR	EN
	K404	ENZ8101-007	INDUCTOR	G
	K404	ENZ8101-007	INDUCTOR	GI
	K421	ENZ8101-007	INDUCTOR	EF
	K421	ENZ8101-007	INDUCTOR	EN
	K421	ENZ8101-007	INDUCTOR	G
	K421	ENZ8101-007	INDUCTOR	GI
	K422	ENZ8101-007	INDUCTOR	EF
	K422	ENZ8101-007	INDUCTOR	EN
	K422	ENZ8101-007	INDUCTOR	G
	K422	ENZ8101-007	INDUCTOR	GI
	K423	ENZ8101-007	INDUCTOR	EF
	K423	ENZ8101-007	INDUCTOR	EN
	K423	ENZ8101-007	INDUCTOR	G
	K423	ENZ8101-007	INDUCTOR	GI
	K424	ENZ8101-007	INDUCTOR	EF
	K424	ENZ8101-007	INDUCTOR	EN
	K424	ENZ8101-007	INDUCTOR	G
	K424	ENZ8101-007	INDUCTOR	GI
	K451	ENZ8101-007	INDUCTOR	EF
	K451	ENZ8101-007	INDUCTOR	EN
	K451	ENZ8101-007	INDUCTOR	G
	K451	ENZ8101-007	INDUCTOR	GI
	K452	ENZ8101-007	INDUCTOR	EF
	K452	ENZ8101-007	INDUCTOR	EN
	K452	ENZ8101-007	INDUCTOR	G
	K452	ENZ8101-007	INDUCTOR	GI
	L501	EQL0011-R45J1	INDUCTOR	
	L502	EQL0011-R45J1	INDUCTOR	
	P401	EMV5133-003KR	CONNECT TER	
	P952	EMV5142-906	CONNECT TER	
	BC401	EWS243-074	SOCKET WIRE	
	EP401	EMZ4002-001Z	EARTH PLATE	
	EP402	EMZ4002-001Z	EARTH PLATE	
	FT001	VMZ0087-001Z	FUSE HOLDER	EF
	FT001	VMZ0087-001Z	FUSE HOLDER	EN
	FT001	VMZ0087-001Z	FUSE HOLDER	G
	FT001	VMZ0087-001Z	FUSE HOLDER	GI
	FT002	VMZ0087-001Z	FUSE HOLDER	EF
	FT002	VMZ0087-001Z	FUSE HOLDER	EN
	FT002	VMZ0087-001Z	FUSE HOLDER	G
	FT002	VMZ0087-001Z	FUSE HOLDER	GI
	FT101	VMZ0087-001Z	FUSE HOLDER	
	FT102	VMZ0087-001Z	FUSE HOLDER	
	FT103	VMZ0087-001Z	FUSE HOLDER	
	FT104	VMZ0087-001Z	FUSE HOLDER	
	FW402	EWR37B-13LST	FLAT WIRE A	
	JA001	EMV7127-019	CONNECT TER	
	JA003	EMV7127-005	CONNECTOR	EF
	JA003	EMV7127-005	CONNECTOR	EN
	JA003	EMV7127-005	CONNECTOR	G
	JA003	EMV7127-005	CONNECTOR	GI
	JA004	EMV7127-005	CONNECTOR	EF
	JA004	EMV7127-005	CONNECTOR	EN
	JA004	EMV7127-005	CONNECTOR	G
	JA004	EMV7127-005	CONNECTOR	GI
	JA403	EMV5163-012R	CONNECT TER	EF
	JA403	EMV5163-012R	CONNECT TER	EN
	JA403	EMV5163-012R	CONNECT TER	G
	JA403	EMV5163-012R	CONNECT TER	GI
	JA501	EMV5163-004R	CONNECT TER	
	JA502	EMV7125-007R	CONNECT TER	
	JB221	VMC0163-016	CONNECTOR	EF
	JB221	VMC0163-016	CONNECTOR	EN
	JB221	VMC0163-016	CONNECTOR	G
	JB221	VMC0163-016	CONNECTOR	GI

## OTHERS

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	JB403	EMV7163-012	CONNECT TER	EF
	JB403	EMV7163-012	CONNECT TER	EN
	JB403	EMV7163-012	CONNECT TER	G
	JB403	EMV7163-012	CONNECT TER	GI
	JB502	EMV5125-007	MALE CONNEC	
	JB505	EMV7163-004	CONNECT TER	EF
	JB505	EMV7163-004	CONNECT TER	EN
	JB505	EMV7163-004	CONNECT TER	G
	JB505	EMV7163-004	CONNECT TER	GI
	JB811	EMV7163-009	CONNECT TER	EF
	JB811	EMV7163-009	CONNECT TER	EN
	JB811	EMV7163-009	CONNECT TER	G
	JB811	EMV7163-009	CONNECT TER	GI
	JB812	EMV7163-012	CONNECT TER	EF
	JB812	EMV7163-012	CONNECT TER	EN
	JB812	EMV7163-012	CONNECT TER	G
	JB812	EMV7163-012	CONNECT TER	GI
	JB951	VMC0163-029	CONNECT TER	EF
	JB951	VMC0163-029	CONNECT TER	EN
	JB951	VMC0163-029	CONNECT TER	G
	JB951	VMC0163-029	CONNECT TER	GI
	JT402	EMV7122-103	CONNECT TER	
	JT403	EMV7122-004Z	CONNECT TER	
	RY550	ESK7D24-2120	RELAY	EF
	RY550	ESK7D24-2120	RELAY	EN
	RY550	ESK7D24-2120	RELAY	G
	RY550	ESK7D24-2120	RELAY	GI
	TB001	EMZ4001-001	TAB	
	TB002	EMZ4001-001	TAB	

# ■ ENB-206 System, Deck Controller & SEA PC Board Ass'y



## TRANSISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q208	DTA114YS	DIGITAL TRA ROHM	
	Q213	2SC1740S(R,S)	SI.TRANSIST ROHM	
	Q214	2SC1740S(R,S)	SI.TRANSIST ROHM	
	Q215	2SA933S(RS)	SI.TRANSIST	
	Q216	2SA933S(RS)	SI.TRANSIST	
	Q217	DTC144ES	DIGITAL TRA ROHM	
	Q218	DTC144ES	DIGITAL TRA ROHM	
	Q220	DTC144ES	DIGITAL TRA ROHM	
	Q221	DTC144ES	DIGITAL TRA ROHM	
	Q222	DTC144ES	DIGITAL TRA ROHM	
	Q223	DTC144ES	DIGITAL TRA ROHM	
	Q224	DTC144ES	DIGITAL TRA ROHM	
	Q911	2SC1740S(R,S)	SI.TRANSIST ROHM	
	Q916	DTA144ES	DIGITAL TRA ROHM	
	Q917	2SD2144S(VW)	SI.TRANSIST ROHM	
	Q918	2SD2144S(VW)	SI.TRANSIST ROHM	
	Q950	DTC114YS	DIGITAL TRA ROHM	
	Q963	DTC144ES	DIGITAL TRA ROHM	

## I. C. S.

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC203	HD614081SE39	I.C(MICRO-C HITACHI	EF
	IC203	HD614081SE39	I.C(MICRO-C HITACHI	EN
	IC203	HD614081SE39	I.C(MICRO-C HITACHI	G
	IC203	HD614081SE39	I.C(MICRO-C HITACHI	GI
	IC204	LB1641	I.C(DIGI-OT SANYO	EF
	IC204	LB1641	I.C(DIGI-OT SANYO	EN
	IC204	LB1641	I.C(DIGI-OT SANYO	G
	IC204	LB1641	I.C(DIGI-OT SANYO	GI
	IC205	LB1641	I.C(DIGI-OT SANYO	EF
	IC205	LB1641	I.C(DIGI-OT SANYO	EN
	IC205	LB1641	I.C(DIGI-OT SANYO	G
	IC205	LB1641	I.C(DIGI-OT SANYO	GI
	IC206	LB1641	I.C(DIGI-OT SANYO	EF
	IC206	LB1641	I.C(DIGI-OT SANYO	EN
	IC206	LB1641	I.C(DIGI-OT SANYO	G
	IC206	LB1641	I.C(DIGI-OT SANYO	GI
	IC207	LB1641	I.C(DIGI-OT SANYO	EF
	IC207	LB1641	I.C(DIGI-OT SANYO	EN
	IC207	LB1641	I.C(DIGI-OT SANYO	G
	IC207	LB1641	I.C(DIGI-OT SANYO	GI
	IC801	TC9162N	I.C(DIGI-MO TOSHIBA	
	IC802	M62417SP	I.C(M) MITSUBISHI	
	IC841	BA15218N	I.C(MONO-AN ROHM	
	IC842	BA15218N	I.C(MONO-AN ROHM	
	IC843	BA15218N	I.C(MONO-AN ROHM	
	IC881	TC9164N	I.C(DIGI-MO TOSHIBA	
	IC882	TC9163N	I.C(DIGI-MO TOSHIBA	
	IC883	M5243P12	I.C(MONO-AN MITSUBISHI	
	IC945	LB1639-CV	I.C(DIGI-OT SANYO	EF
	IC945	LB1639-CV	I.C(DIGI-OT SANYO	EN
	IC945	LB1639-CV	I.C(DIGI-OT SANYO	G
	IC945	LB1639-CV	I.C(DIGI-OT SANYO	GI
	IC950	MN171202J5K	I.C(MICRO-C MATSUSHITA	
	IC951	SPS-420-1	INFRARED DE SANYO	EF
	IC951	SPS-420-1	INFRARED DE SANYO	EN
	IC951	SPS-420-1	INFRARED DE SANYO	G
	IC951	SPS-420-1	INFRARED DE SANYO	GI

## DIODES

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D201	1SS119	SI.DIODE	
	D202	1SS119	SI.DIODE	
	D203	1SS119	SI.DIODE	
	D204	1SS119	SI.DIODE	
	D205	1SS119	SI.DIODE	
	D206	1SS119	SI.DIODE	
	D207	1SS119	SI.DIODE	
	D208	1SS119	SI.DIODE	
	D209	1SS119	SI.DIODE	
	D210	1SS119	SI.DIODE	
	D212	1SS119	SI.DIODE	
	D213	1SS119	SI.DIODE	
	D216	1SS119	SI.DIODE	
	D223	MTZ5.6JC	ZENER DIODE ROHM	
	D224	MTZ5.6JC	ZENER DIODE ROHM	
	D225	MTZ7.5JC	ZENER DIODE ROHM	
	D226	MTZ7.5JC	ZENER DIODE ROHM	
	D310	SLR-342MCA47	L.E.D. ROHM	
	D311	SLR-342MCA47	L.E.D. ROHM	
	D312	SLR-342MCA47	L.E.D. ROHM	

## DIODES

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D313	SLR-342MCA47	L.E.D. ROHM	
	D314	SLR-342VC3F	L.E.D. ROHM	
	D315	SLR-342VC3F	L.E.D. ROHM	
	D316	SLR-342VC3F	L.E.D. ROHM	
	D801	MTZ3.9JB	ZENER DIODE ROHM	
	D802	MTZ3.9JB	ZENER DIODE ROHM	
	D931	MTZ7.5JC	ZENER DIODE ROHM	
	D932	MTZ7.5JC	ZENER DIODE ROHM	
	D933	MTZ5.1JC	ZENER DIODE ROHM	
	D934	MTZ5.1JC	ZENER DIODE ROHM	
	D935	MTZ5.1JC	ZENER DIODE ROHM	
	D936	1SS119	SI.DIODE	
	D937	1SS119	SI.DIODE	
	D939	MTZ2.4JB	ZENER DIODE ROHM	EF
	D939	MTZ2.4JB	ZENER DIODE ROHM	EN
	D939	MTZ2.4JB	ZENER DIODE ROHM	G
	D939	MTZ2.4JB	ZENER DIODE ROHM	GI
	D940	MTZ2.4JB	ZENER DIODE ROHM	EF
	D940	MTZ2.4JB	ZENER DIODE ROHM	EN
	D940	MTZ2.4JB	ZENER DIODE ROHM	G
	D940	MTZ2.4JB	ZENER DIODE ROHM	GI
	D945	1SR139-200	SI.DIODE ROHM	
	D950	1SS119	SI.DIODE	
	D951	1SS119	SI.DIODE	
	D952	1SS119	SI.DIODE	
	D953	1SS119	SI.DIODE	
	D954	1SS119	SI.DIODE	
	D955	1SS119	SI.DIODE	
	D956	1SS119	SI.DIODE	
	D957	1SS119	SI.DIODE	
	D958	SLR-342VC3F	L.E.D. ROHM	EF
	D958	SLR-342VC3F	L.E.D. ROHM	EN
	D958	SLR-342VC3F	L.E.D. ROHM	G
	D958	SLR-342VC3F	L.E.D. ROHM	GI

## CAPACITORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C230	QER61CM-476Z	47MF 16V AL E.CAPAC	
	C231	QETC1CM-476Z	47MF 16V AL E.CAPAC	
	C232	QCZ0202-155	1.5MF 25V CER.RESIST	
	C233	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	
	C234	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	
	C235	QCGB1HK-102	1000PF 50V CER.CAPACI	
	C240	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C241	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C242	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	
	C243	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	
	C244	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C245	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C246	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	
	C247	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	
	C251	QETC1AM-107	100MF 10V E.CAPACITO	
	C252	QETC1AM-107	100MF 10V E.CAPACITO	
	C255	QETC1CM-107ZM	100MF 16V E.CAPACITO	
	C499	QCSB1HJ-560	56PF 50V CERAMIC	EF
	C499	QCSB1HJ-560	56PF 50V CERAMIC	EN
	C499	QCSB1HJ-560	56PF 50V CERAMIC	G
	C499	QCSB1HJ-560	56PF 50V CERAMIC	GI
	C500	QCSB1HJ-560	56PF 50V CERAMIC	EF
	C500	QCSB1HJ-560	56PF 50V CERAMIC	EN
	C500	QCSB1HJ-560	56PF 50V CERAMIC	G
	C500	QCSB1HJ-560	56PF 50V CERAMIC	GI
	C545	QFV81HJ-103	0.01MF 50V THIN FILM	EF
	C545	QFV81HJ-103	0.01MF 50V THIN FILM	EN
	C545	QFV81HJ-103	0.01MF 50V THIN FILM	G
	C545	QFV81HJ-103	0.01MF 50V THIN FILM	GI
	C546	QFV81HJ-103	0.01MF 50V THIN FILM	EF
	C546	QFV81HJ-103	0.01MF 50V THIN FILM	EN
	C546	QFV81HJ-103	0.01MF 50V THIN FILM	G
	C546	QFV81HJ-103	0.01MF 50V THIN FILM	GI
	C801	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C805	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C815	QFLB1HJ-821	820PF 50V MYLAR CAPA	
	C816	QFLB1HJ-821	820PF 50V MYLAR CAPA	
	C817	QFLB1HJ-122	1200PF 50V MYLAR CAPA	
	C818	QFLB1HJ-122	1200PF 50V MYLAR CAPA	
	C819	QETC1EM-106ZM	10MF 25V AL E.CAPAC	
	C820	QETC1EM-106ZM	10MF 25V AL E.CAPAC	
	C821	QFV81HJ-154	0.15MF 50V THIN FILM	EF
	C821	QFV81HJ-154	0.15MF 50V THIN FILM	EN
	C821	QFV81HJ-154	0.15MF 50V THIN FILM	G
	C821	QFV81HJ-154	0.15MF 50V THIN FILM	GI
	C822	QFV81HJ-154	0.15MF 50V THIN FILM	EF
	C822	QFV81HJ-154	0.15MF 50V THIN FILM	EN
	C822	QFV81HJ-154	0.15MF 50V THIN FILM	G
	C822	QFV81HJ-154	0.15MF 50V THIN FILM	GI
	C823	QFV81HJ-104	0.1MF 50V THIN FILM	
	C824	QFV81HJ-104	0.1MF 50V THIN FILM	
	C825	QFV81HJ-274	0.27MF 50V T.FILM CAP	EF
	C825	QFV81HJ-274	0.27MF 50V T.FILM CAP	EN
	C825	QFV81HJ-274	0.27MF 50V T.FILM CAP	G
	C825	QFV81HJ-274	0.27MF 50V T.FILM CAP	GI

CAPACITORS

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	C826	QFV81HJ-274	0.27MF	50V	T.FILM CAP	EF
	C826	QFV81HJ-274	0.27MF	50V	T.FILM CAP	EN
	C826	QFV81HJ-274	0.27MF	50V	T.FILM CAP	G
	C826	QFV81HJ-274	0.27MF	50V	T.FILM CAP	GI
	C828	QFLB1HJ-104	0.1MF	50V	MYLAR CAPA	
	C829	QETC1EM-1062M	10MF	25V	AL E.CAPAC	
	C830	QETC1EM-1062M	10MF	25V	AL E.CAPAC	
	C833	EET5010-1062E	10MF		E.CAPACITO	EF
	C833	EET5010-1062E	10MF		E.CAPACITO	EN
	C833	EET5010-1062E	10MF		E.CAPACITO	G
	C833	EET5010-1062E	10MF		E.CAPACITO	GI
	C834	EET5010-1062E	10MF		E.CAPACITO	EN
	C834	EET5010-1062E	10MF		E.CAPACITO	EF
	C834	EET5010-1062E	10MF		E.CAPACITO	G
	C834	EET5010-1062E	10MF		E.CAPACITO	GI
	C835	QFN81HJ-152	1500PF	50V	METAL.MYLA	EF
	C835	QFN81HJ-152	1500PF	50V	METAL.MYLA	EN
	C835	QFN81HJ-152	1500PF	50V	METAL.MYLA	G
	C835	QFN81HJ-152	1500PF	50V	METAL.MYLA	GI
	C836	QFN81HJ-152	1500PF	50V	METAL.MYLA	EF
	C836	QFN81HJ-152	1500PF	50V	METAL.MYLA	EN
	C836	QFN81HJ-152	1500PF	50V	METAL.MYLA	G
	C836	QFN81HJ-152	1500PF	50V	METAL.MYLA	GI
	C841	QCB1HK-121Y	120PF	50V	CER.CAPACI	
	C842	QCB1HK-121Y	120PF	50V	CER.CAPACI	
	C843	QFN81HJ-683	0.068MF	50V	METAL.MYLA	
	C844	QFN81HJ-683	0.068MF	50V	METAL.MYLA	
	C845	QFN81HJ-222	2200PF	50V	METAL.MYLA	
	C846	QFN81HJ-222	2200PF	50V	METAL.MYLA	
	C847	QFN81HJ-222	2200PF	50V	METAL.MYLA	
	C848	QFN81HJ-222	2200PF	50V	METAL.MYLA	
	C849	QCB1HK-121Y	120PF	50V	CER.CAPACI	
	C850	QCB1HK-121Y	120PF	50V	CER.CAPACI	
	C851	QETC1EM-2262M	22MF	25V	E.CAPACITO	
	C852	QETC1EM-2262M	22MF	25V	E.CAPACITO	
	C853	QETC1EM-2262M	22MF	25V	E.CAPACITO	
	C854	QETC1EM-2262M	22MF	25V	E.CAPACITO	
	C881	QFV71HJ-1242M	0.12MF	50V	THIN FILM	
	C882	QFV71HJ-1242M	0.12MF	50V	THIN FILM	
	C883	QFV71HJ-3942M	0.39MF	50V	THIN FILM	
	C884	QFV71HJ-3942M	0.39MF	50V	THIN FILM	
	C885	QFLB1HJ-223	0.022MF	50V	MYLAR CAPA	
	C886	QFLB1HJ-223	0.022MF	50V	MYLAR CAPA	
	C887	QFLB1HJ-333	0.033MF	50V	MYLAR CAPA	
	C888	QFLB1HJ-333	0.033MF	50V	MYLAR CAPA	
	C889	QFLB1HJ-152	1500PF	50V	MYLAR CAPA	
	C890	QFLB1HJ-152	1500PF	50V	MYLAR CAPA	
	C891	QFLB1HJ-822	8200PF	50V	MYLAR CAPA	
	C892	QFLB1HJ-822	8200PF	50V	MYLAR CAPA	
	C893	QETB1HM-475E	4.7MF	50V	E.CAPACITO	
	C894	QETB1HM-475E	4.7MF	50V	E.CAPACITO	
	C895	QETC1EM-4762M	47MF	25V	E.CAPACITO	
	C896	QETC1EM-4762M	47MF	25V	E.CAPACITO	
	C897	QETC1EM-1062M	10MF	25V	AL E.CAPAC	
	C898	QETC1EM-1062M	10MF	25V	AL E.CAPAC	
	C899	QCB1HK-821	820PF	50V	CER.CAPACI	
	C900	QCB1HK-821	820PF	50V	CER.CAPACI	
	C911	QETC1EM-1052M	1MF	50V	E.CAPACITO	
	C912	QETC1EM-1062M	10MF	25V	AL E.CAPAC	
	C922	QCB1HK-561Y	560PF	50V	CER.CAPACI	
	C931	QETC1AM-107	100MF	10V	E.CAPACITO	
	C932	QETC1AM-107	100MF	10V	E.CAPACITO	
	C935	QETC1EM-107Z	100MF	25V	AL E.CAPAC	
	C936	QETC1EM-107Z	100MF	25V	AL E.CAPAC	
	C938	QCVB1CM-103Y	0.01MF	16V	CER.CAPACI	
	C939	QETC1AM-107	100MF	10V	E.CAPACITO	
	C945	QETC1AM-107	100MF	10V	E.CAPACITO	
	C946	QCVB1CM-103Y	0.01MF	16V	CER.CAPACI	
	C947	QCB1HK-101Y	100PF	50V	CER.CAPACI	
	C948	QCB1HK-101Y	100PF	50V	CER.CAPACI	
	C950	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	
	C951	QETC1AM-227Z	220MF	10V	AL E.CAPAC	
	C952	QEAD0HZ-479A	47000MF		E.CAPACITO	
	C953	QER61HM-4752M	4.7MF	50V	AL E.CAPAC	
	C954	QCVB1CM-103Y	0.01MF	16V	CER.CAPACI	
	C955	QEK61CM-1072N	100MF	16V	E.CAPACITO	
	C956	QETC1EM-1062M	10MF	50V	E.CAPACITO	
	C957	QETC1EM-1062M	10MF	50V	E.CAPACITO	
	C958	QCVB1CM-103Y	0.01MF	16V	CER.CAPACI	
	C959	QCB1HK-561Y	560PF	50V	CER.CAPACI	EF
	C959	QCB1HK-561Y	560PF	50V	CER.CAPACI	G
	C959	QCB1HK-561Y	560PF	50V	CER.CAPACI	GI
	C960	QCY41HK-561	560PF	50V	CER.CAPACI	EN
	C960	QCY41HK-561	560PF	50V	CER.CAPACI	G
	C960	QCY41HK-561	560PF	50V	CER.CAPACI	GI

RESISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	R251	QRD161J-224	220K	1/6W	CARBON RES	
	R252	QRD161J-184	180K	1/6W	CARBON RES	
	R253	QRD161J-224	220K	1/6W	CARBON RES	
	R254	QRD161J-224	220K	1/6W	CARBON RES	
	R255	QRD161J-132	1.3K	1/6W	CARBON RES	
	R256	QRD161J-243	24K	1/6W	CARBON RES	
	R257	QRD161J-683	68K	1/6W	CARBON RES	
	R258	QRD161J-133Y	13K	1/6W	CARBON RES	
	R259	QRD167J-822	8.2K	1/6W	CARBON RES	
	R260	QRD167J-822	8.2K	1/6W	CARBON RES	
	R261	QRD161J-913	91K	1/6W	CARBON RES	
	R262	QRD161J-913	91K	1/6W	CARBON RES	
	R263	QRD161J-163	16K	1/6W	CARBON RES	
	R264	QRD161J-163	16K	1/6W	CARBON RES	
	R265	QRD161J-432	4.3K	1/6W	CARBON RES	
	R266	QRD161J-432	4.3K	1/6W	CARBON RES	
	R267	QRD161J-103	10K	1/6W	CARBON RES	
	R268	QRD161J-103	10K	1/6W	CARBON RES	
	R269	QRD161J-222	2.2K	1/6W	CARBON RES	
	R270	QRD161J-222	2.2K	1/6W	CARBON RES	
	R271	QRD161J-103	10K	1/6W	CARBON RES	
	R272	QRD161J-221	220	1/6W	CARBON RES	
	R273	QRD161J-105	1M	1/6W	CARBON RES	
	R274	QRD161J-221	220	1/6W	CARBON RES	
	R275	QRD161J-472	4.7K	1/6W	CARBON RES	
	R276	QRD161J-201	200	1/6W	CARBON RES	
	R277	QRD161J-271	270	1/6W	CARBON RES	
	R278	QRD161J-201	200	1/6W	CARBON RES	
	R279	QRD161J-221	220	1/6W	CARBON RES	
	R280	QRD161J-271	270	1/6W	CARBON RES	
	R281	QRD161J-391	390	1/6W	CARBON RES	
	R282	QRD161J-201	200	1/6W	CARBON RES	
	R283	QRD161J-274	270K	1/6W	CARBON RES	
	R284	QRD161J-104	100K	1/6W	CARBON RES	
	R285	QRD161J-103	10K	1/6W	CARBON RES	
	R286	QRD161J-103	10K	1/6W	CARBON RES	
	R296	QRD161J-103	10K	1/6W	CARBON RES	
	R297	QRD161J-103	10K	1/6W	CARBON RES	
	R298	QRD161J-103	10K	1/6W	CARBON RES	
	R361	QRD161J-472	4.7K	1/6W	CARBON RES	
	R362	QRD161J-103	10K	1/6W	CARBON RES	
	R363	QRD161J-103	10K	1/6W	CARBON RES	
	R364	QRD161J-103	10K	1/6W	CARBON RES	
Δ	R365	QRD14CJ-4R7S	4.7	1/4W	UNF.CARBON	
Δ	R366	QRD14CJ-4R7S	4.7	1/4W	UNF.CARBON	
Δ	R367	QRD14CJ-4R7S	4.7	1/4W	UNF.CARBON	
Δ	R368	QRD14CJ-4R7S	4.7	1/4W	UNF.CARBON	
Δ	R369	QRD14CJ-101S	100	1/4W	UNF.CARBON	
Δ	R370	QRD14CJ-101S	100	1/4W	UNF.CARBON	
	R501	QRD161J-471	470	1/6W	CARBON RES	
	R502	QRD161J-471	470	1/6W	CARBON RES	
Δ	R545	QRD14CJ-100SX	10	1/4W	UNF.CARBON	EF
Δ	R545	QRD14CJ-100SX	10	1/4W	UNF.CARBON	EN
Δ	R545	QRD14CJ-100SX	10	1/4W	UNF.CARBON	G
Δ	R545	QRD14CJ-100SX	10	1/4W	UNF.CARBON	GI
Δ	R546	QRD14CJ-100SX	10	1/4W	UNF.CARBON	EF
Δ	R546	QRD14CJ-100SX	10	1/4W	UNF.CARBON	EN
Δ	R546	QRD14CJ-100SX	10	1/4W	UNF.CARBON	G
Δ	R546	QRD14CJ-100SX	10	1/4W	UNF.CARBON	GI
	R801	QRD167J-153	15K	1/6W	CARBON RES	
	R802	QRD167J-153	15K	1/6W	CARBON RES	
	R803	QRD161J-823	82K	1/6W	CARBON RES	
	R804	QRD161J-823	82K	1/6W	CARBON RES	
	R805	QRD167J-153	15K	1/6W	CARBON RES	
	R806	QRD167J-153	15K	1/6W	CARBON RES	
	R807	QRD161J-823	82K	1/6W	CARBON RES	
	R808	QRD161J-823	82K	1/6W	CARBON RES	
	R815	QRD161J-472	4.7K	1/6W	CARBON RES	
	R816	QRD161J-472	4.7K	1/6W	CARBON RES	
	R817	QRD161J-681	680	1/6W	CARBON RES	
	R818	QRD161J-681	680	1/6W	CARBON RES	
	R819	QRD161J-102	1K	1/6W	CARBON RES	
	R820	QRD161J-102	1K	1/6W	CARBON RES	
	R821	QRD161J-162	1.6K	1/6W	CARBON RES	
	R822	QRD161J-162	1.6K	1/6W	CARBON RES	
	R823	QRD161J-432	4.3K	1/6W	CARBON RES	
	R824	QRD161J-432	4.3K	1/6W	CARBON RES	
	R827	QRD167J-682	6.8K	1/6W	CARBON RES	
	R828	QRD167J-682	6.8K	1/6W	CARBON RES	
	R829	QRD161J-102	1K	1/6W	CARBON RES	
	R830	QRD161J-102	1K	1/6W	CARBON RES	
	R833	QRD161J-104	100K	1/6W	CARBON RES	
	R834	QRD161J-104	100K	1/6W	CARBON RES	
	R841	QRD161J-103	10K	1/6W	CARBON RES	
	R842	QRD161J-103	10K	1/6W	CARBON RES	
	R843	QRD161J-103	10K	1/6W	CARBON RES	
	R844	QRD161J-103	10K	1/6W	CARBON RES	
	R845	QRD161J-103	10K	1/6W	CARBON RES	
	R846	QRD161J-103	10K	1/6W	CARBON RES	
	R847	QRD161J-103	10K	1/6W	CARBON RES	
	R848	QRD161J-103	10K	1/6W	CARBON RES	
	R849	QRD161J-103	10K	1/6W	CARBON RES	
	R850	QRD161J-103	10K	1/6W	CARBON RES	
	R851	QRD161J-104	100K	1/6W	CARBON RES	
	R852	QRD161J-104	100K	1/6W	CARBON RES	

RESISTORS

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	R853	QRD161J-103	10K	1/6W	CARBON RES	
	R854	QRD161J-103	10K	1/6W	CARBON RES	
	R855	QRD161J-103	10K	1/6W	CARBON RES	
	R856	QRD161J-103	10K	1/6W	CARBON RES	
	R857	QRD161J-103	10K	1/6W	CARBON RES	
	R858	QRD161J-103	10K	1/6W	CARBON RES	
	R859	QRD161J-103	10K	1/6W	CARBON RES	
	R860	QRD161J-103	10K	1/6W	CARBON RES	
	R861	QRD161J-103	10K	1/6W	CARBON RES	
	R862	QRD161J-103	10K	1/6W	CARBON RES	
	R863	QRD161J-103	10K	1/6W	CARBON RES	
	R864	QRD161J-103	10K	1/6W	CARBON RES	
	R865	QRD161J-103	10K	1/6W	CARBON RES	
	R866	QRD161J-103	10K	1/6W	CARBON RES	
	R867	QRD161J-104	100K	1/6W	CARBON RES	
	R868	QRD161J-104	100K	1/6W	CARBON RES	
	R869	QRD161J-392	3.9K	1/6W	CARBON RES	
	R870	QRD161J-392	3.9K	1/6W	CARBON RES	
	R871	QRD167J-113	11K	1/6W	CARBON RES	
	R872	QRD167J-113	11K	1/6W	CARBON RES	
	R873	QRD161J-512	5.1K	1/6W	CARBON RES	
	R874	QRD161J-512	5.1K	1/6W	CARBON RES	
	R875	QRD161J-103	10K	1/6W	CARBON RES	
	R876	QRD161J-103	10K	1/6W	CARBON RES	
	R877	QRD161J-104	100K	1/6W	CARBON RES	
	R878	QRD161J-104	100K	1/6W	CARBON RES	
	R881	QRD161J-183	18K	1/6W	CARBON RES	
	R882	QRD161J-183	18K	1/6W	CARBON RES	
	R883	QRD167J-822	8.2K	1/6W	CARBON RES	
	R884	QRD167J-822	8.2K	1/6W	CARBON RES	
	R885	QRD161J-183	18K	1/6W	CARBON RES	
	R886	QRD161J-183	18K	1/6W	CARBON RES	
	R887	QRD161J-912	9.1K	1/6W	CARBON RES	
	R888	QRD161J-912	9.1K	1/6W	CARBON RES	
	R889	QRD161J-243	24K	1/6W	CARBON RES	
	R890	QRD161J-243	24K	1/6W	CARBON RES	
	R891	QRD161J-123	12K	1/6W	CARBON RES	
	R892	QRD161J-123	12K	1/6W	CARBON RES	
	R893	QRD161J-472	4.7K	1/6W	CARBON RES	
	R894	QRD161J-472	4.7K	1/6W	CARBON RES	
	R895	QRD161J-183	18K	1/6W	CARBON RES	
	R896	QRD161J-183	18K	1/6W	CARBON RES	
	R897	QRD167J-822	8.2K	1/6W	CARBON RES	
	R898	QRD167J-822	8.2K	1/6W	CARBON RES	
	R899	QRD167J-822	8.2K	1/6W	CARBON RES	
	R900	QRD167J-822	8.2K	1/6W	CARBON RES	
	R901	QRD167J-113	11K	1/6W	CARBON RES	
	R902	QRD167J-113	11K	1/6W	CARBON RES	
	R903	QRD161J-273	27K	1/6W	CARBON RES	
	R904	QRD161J-273	27K	1/6W	CARBON RES	
	R907	QRD161J-103	10K	1/6W	CARBON RES	
	R908	QRD161J-103	10K	1/6W	CARBON RES	
	R911	QRD161J-224	220K	1/6W	CARBON RES	
	R912	QRD161J-224	220K	1/6W	CARBON RES	
	R913	QRD161J-105	1M	1/6W	CARBON RES	
	R914	QRD161J-202	2K	1/6W	CARBON RES	
	R915	QRD161J-202	2K	1/6W	CARBON RES	
	R917	QRD161J-103	10K	1/6W	CARBON RES	
	R918	QRD161J-103	10K	1/6W	CARBON RES	
	R920	QRD161J-101	100	1/6W	CARBON RES	
	R930	QRD161J-221	220	1/6W	CARBON RES	
△	R931	QRD14CJ-4R7S	4.7	1/4W	UNF. CARBON	
△	R932	QRD14CJ-4R7S	4.7	1/4W	UNF. CARBON	
△	R933	QRD14CJ-101S	100	1/4W	UNF. CARBON	
△	R934	QRD14CJ-101S	100	1/4W	UNF. CARBON	
	R935	QRD14CJ-331SX	330	1/4W	UNF. CARBON	
	R941	QRD161J-102	1K	1/6W	CARBON RES	EF
	R941	QRD161J-102	1K	1/6W	CARBON RES	EN
	R941	QRD161J-102	1K	1/6W	CARBON RES	G
	R941	QRD161J-102	1K	1/6W	CARBON RES	GI
	R942	QRD161J-102	1K	1/6W	CARBON RES	EF
	R942	QRD161J-102	1K	1/6W	CARBON RES	EN
	R942	QRD161J-102	1K	1/6W	CARBON RES	G
	R942	QRD161J-102	1K	1/6W	CARBON RES	GI
	R943	QRD161J-473	47K	1/6W	CARBON RES	
	R944	QRD161J-473	47K	1/6W	CARBON RES	
	R949	QRD161J-331	330	1/6W	CARBON RES	
	R950	QRD161J-101	100	1/6W	CARBON RES	
	R951	QRD161J-104	100K	1/6W	CARBON RES	
	R952	QRD161J-473	47K	1/6W	CARBON RES	
	R953	QRD161J-221	220	1/6W	CARBON RES	EF
	R953	QRD161J-221	220	1/6W	CARBON RES	EN
	R953	QRD161J-221	220	1/6W	CARBON RES	G
	R953	QRD161J-221	220	1/6W	CARBON RES	GI
	R954	QRD161J-103	10K	1/6W	CARBON RES	
	R955	QRD161J-104	100K	1/6W	CARBON RES	
	R956	QRD161J-271	270	1/6W	CARBON RES	
	R957	QRD161J-103	10K	1/6W	CARBON RES	
	R958	QRD161J-103	10K	1/6W	CARBON RES	
	R959	QRD161J-473	47K	1/6W	CARBON RES	
	R960	QRD161J-473	47K	1/6W	CARBON RES	
	R961	QRD161J-102	1K	1/6W	CARBON RES	
	R962	QRD161J-221	220	1/6W	CARBON RES	
	R963	QRD161J-104	100K	1/6W	CARBON RES	
	RA201	QRB049J-103	10K	1/10W	RESISTOR	

△ : SAFETY PARTS

RESISTORS

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	RA202	QRB089J-103	10K	1/10W	NETWORK RE	
	VR201	QVPA603-103A	10K		TRIMMER RE	
	VR941	QVDB71B-E15CJ3	100K		VARIABLE R	
	VR951	QVGA81W-E15B	100K		VARIABLE R	EF
	VR951	QVGA81W-E15B	100K		VARIABLE R	EN
	VR951	QVGA81W-E15B	100K		VARIABLE R	G
	VR951	QVGA81W-E15B	100K		VARIABLE R	GI

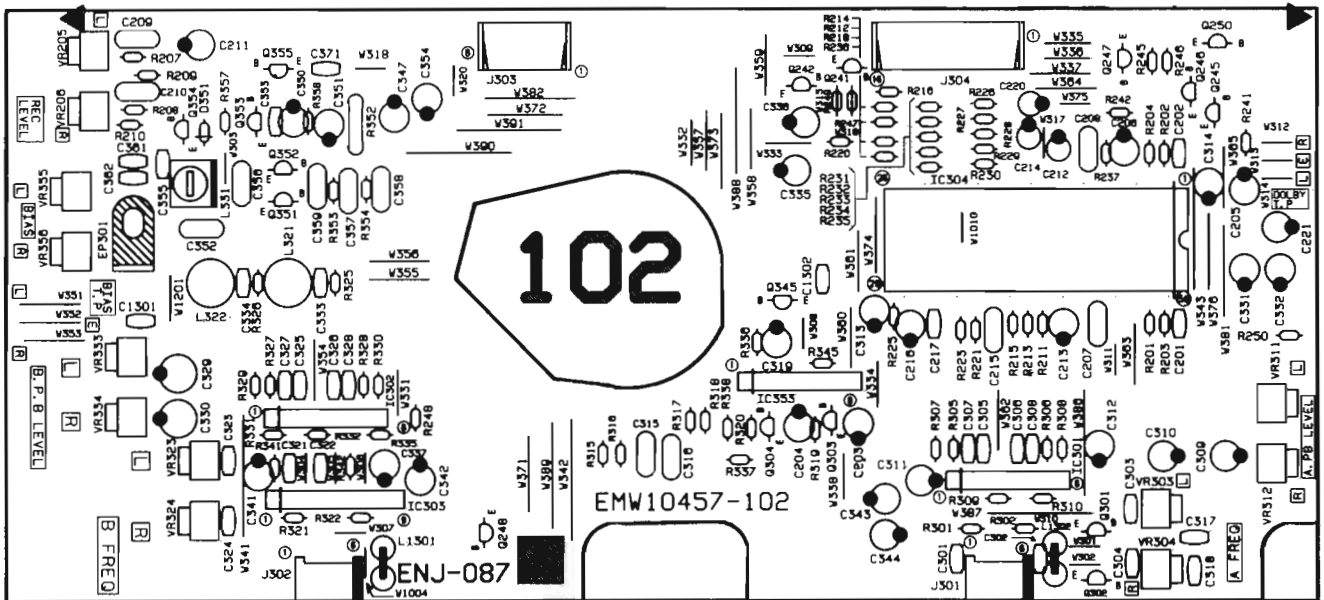
OTHERS

△	ITEM	PART NUMBER	DESCRIPTION			AREA
		EMW10487-002			PRINTED BOA	EF
		EMW10487-002			PRINTED BOA	EN
		EMW10487-002			PRINTED BOA	G
		EMW10487-002			PRINTED BOA	GI
	J500	EMB10TV-401AS			SPEAKER TER	
	J801	EMN00TV-414AJ2			4P PIN JACK	EF
	J801	EMN00TV-414AJ2			4P PIN JACK	EN
	J801	EMN00TV-414AJ2			4P PIN JACK	G
	J801	EMN00TV-414AJ2			4P PIN JACK	GI
	J950	QMS3R81-EEOS			HEADPHONE J	
	P201	VMC0234-P11			CONNECT TER	
	P202	VMC0234-P14			CONNECT TER	
	P203	VMC0234-P08			CONNECT TER	
	P204	VMC0234-P08			CONNECT TER	
	P292	EMV5142-909			CONNECT TER	
	P293	EMV5142-908			CONNECT TER	
	P303	VMC0314-S08			CONNECT TER	EF
	P303	VMC0314-S08			CONNECT TER	EN
	P303	VMC0314-S08			CONNECT TER	G
	P303	VMC0314-S08			CONNECT TER	GI
	P304	VMC0314-S16			CONNECT TER	EF
	P304	VMC0314-S16			CONNECT TER	EN
	P304	VMC0314-S16			CONNECT TER	G
	P304	VMC0314-S16			CONNECT TER	GI
	P905	EMV5142-909			CONNECT TER	
	S300	ESP0001-023M			TACT SWITCH	B▶
	S301	ESP0001-023M			TACT SWITCH	B▶▶
	S302	ESP0001-023M			TACT SWITCH	B◀◀
	S303	ESP0001-023M			TACT SWITCH	B◀
	S310	ESP0001-023M			TACT SWITCH	A▶
	S311	ESP0001-023M			TACT SWITCH	A▶▶
	S312	ESP0001-023M			TACT SWITCH	A◀◀
	S313	ESP0001-023M			TACT SWITCH	A◀
	S320	ESP0001-023M			TACT SWITCH	B◀
	S321	ESP0001-023M			TACT SWITCH	A■
	S322	ESP0001-023M			TACT SWITCH	B REC.PAUSE
	S330	ESP0001-023M			TACT SWITCH	A▶ B
	S331	ESP0001-023M			TACT SWITCH	DOLBY
	S332	ESP0001-023M			TACT SWITCH	REV.MODE
	S333	ESP0001-023M			TACT SWITCH	CD.REC
	S930	QSS7A12-E01			SLIDE SWITC	BEAT CUT
	S930	QSS7A12-E01			SLIDE SWITC	BEAT CUT
	S930	QSS7A12-E01			SLIDE SWITC	BEAT CUT
	S930	QSS7A12-E01			SLIDE SWITC	BEAT CUT
	S930	QSS7A12-E01			SLIDE SWITC	BEAT CUT
	S950	ESP0001-023M			TACT SWITCH	VIDEO
	S951	ESP0001-023M			TACT SWITCH	AUX
	S952	ESP0001-023M			TACT SWITCH	SOUND EFFECT
	S953	ESP0001-023M			TACT SWITCH	SEA CONTROL
	S954	ESP0001-023M			TACT SWITCH	ABX
	S955	ESP0001-023M			TACT SWITCH	STAND BY
	S956	ESP0001-023M			TACT SWITCH	AUTO POWER OFF
	S957	ESP0001-023M			TACT SWITCH	VOCAL MASKING/DEMO
	X201	ECX0004-194KM			CERAMIC RES	
	X950	ECXP6R0-0012A			CRYSTAL	
	BC292	EWS329-A919J			SOCKET WIRE	
	BC293	EWS328-A924J			SOCKET WIRE	
	BC905	EWS329-A913			SOCKET WIRE	
	BC952	EWS326-A913			SOCKET WIRE	
	BK950	E309283-0015M			FL HOLDER	
	FL950	ELU0001-191			FLUORESCENT	
	FS835	E3400-431			FELT SPACER	EF
	FS835	E3400-431			FELT SPACER	EN
	FS835	E3400-431			FELT SPACER	G
	FS835	E3400-431			FELT SPACER	GI
	FS836	E3400-431			FELT SPACER	EF
	FS836	E3400-431			FELT SPACER	EN
	FS836	E3400-431			FELT SPACER	G
	FS836	E3400-431			FELT SPACER	GI
	FS950	E306805-014			FELT SPACER	
	FS960	E3400-431			FELT SPACER	EF
	FS960	E3400-431			FELT SPACER	EN
	FS960	E3400-431			FELT SPACER	G
	FS960	E3400-431			FELT SPACER	GI
	FW511	EWR33B-30LST			FLAT WIRE A	
	FW901	EWR3AB-13LST			FLAT WIRE A	
	JA221	VMC0161-R16			CONNECT TER	EF
	JA221	VMC0161-R16			CONNECT TER	EN
	JA221	VMC0161-R16			CONNECT TER	G
	JA221	VMC0161-R16			CONNECT TER	GI
	JA505	EMV5163-004R			CONNECT TER	

OTHERS

ITEM	PART NUMBER	DESCRIPTION	AREA
JA811	EMV5163-009R	CONNECT TER	EF
JA811	EMV5163-009R	CONNECT TER	EN
JA811	EMV5163-009R	CONNECT TER	G
JA811	EMV5163-009R	CONNECT TER	GI
JA812	EMV5163-012R	CONNECT TER	EF
JA812	EMV5163-012R	CONNECT TER	EN
JA812	EMV5163-012R	CONNECT TER	G
JA812	EMV5163-012R	CONNECT TER	GI
JA813	EMV5163-004R	CONNECT TER	
JA951	VMC0163-029	CONNECT TER	EF
JA951	VMC0163-029	CONNECT TER	EN
JA951	VMC0163-029	CONNECT TER	G
JA951	VMC0163-029	CONNECT TER	GI
JB501	EMV7163-004	CONNECT TER	
JB813	EMV7163-004	CONNECT TER	
JS950	Q5J1003-E01	PUSH SWITCH	
JT901	EMV7122-005	MALE CONNec	
JT902	EMV7122-005	MALE CONNec	
TW950	EWT011-171	TERMINAL WI	EF
TW950	EWT011-171	TERMINAL WI	EN
TW950	EWT011-171	TERMINAL WI	G
TW950	EWT011-171	TERMINAL WI	GI

ENJ-087 B Deck Audio PC Board Ass'y



TRANSISTORS

ITEM	PART NUMBER	DESCRIPTION	AREA
Q245	2SD2144S(VW)	SI. TRANSIST ROHM	
Q246	2SD2144S(VW)	SI. TRANSIST ROHM	
Q247	DTA144ES	DIGITAL TRA ROHM	
Q248	DTC144ES	DIGITAL TRA ROHM	
Q250	DTC144ES	DIGITAL TRA ROHM	
Q301	DTC144ES	DIGITAL TRA ROHM	
Q302	DTC144ES	DIGITAL TRA ROHM	
Q303	2SC1740S(R,S)	SI. TRANSIST ROHM	
Q304	2SC1740S(R,S)	SI. TRANSIST ROHM	
Q345	DTC144ES	DIGITAL TRA ROHM	
Q351	2SC1740S(R,S)	SI. TRANSIST ROHM	
Q352	2SC1740S(R,S)	SI. TRANSIST ROHM	
Q353	2SC1740S(R,S)	SI. TRANSIST ROHM	
Q354	2SC945A	SI. TRANSIST NEC	EF
Q354	2SC945A	SI. TRANSIST NEC	EN
Q354	2SC945A	SI. TRANSIST NEC	G
Q354	2SC945A	SI. TRANSIST NEC	GI
Q355	DTA144ES	DIGITAL TRA ROHM	EF
Q355	DTA144ES	DIGITAL TRA ROHM	EN
Q355	DTA144ES	DIGITAL TRA ROHM	G
Q355	DTA144ES	DIGITAL TRA ROHM	GI

I. C. S.

ITEM	PART NUMBER	DESCRIPTION	AREA
IC301	VC4580LD	I.C MONO-AN DAINICHI	
IC302	VC4580LD	I.C MONO-AN DAINICHI	
IC303	UPC1330HA	I.C MONO-AN NEC	EF
IC303	UPC1330HA	I.C MONO-AN NEC	EN
IC303	UPC1330HA	I.C MONO-AN NEC	G
IC303	UPC1330HA	I.C MONO-AN NEC	GI
IC304	HA12171NT	I.C MONO-AN HITACHI	
IC353	BA8221AN	I.C MONO-AN ROHM	

DIODES

ITEM	PART NUMBER	DESCRIPTION	AREA
D351	1SS119	SI. DIODE	EF
D351	1SS119	SI. DIODE	EN
D351	1SS119	SI. DIODE	G
D351	1SS119	SI. DIODE	GI



CAPACITORS

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	C201	QCXB1CM-472Y	4700PF	16V	CER.CAPACI	
	C202	QCXB1CM-472Y	4700PF	16V	CER.CAPACI	
	C203	QETC1HM-105ZM	1MF	50V	E.CAPACITO	
	C204	QETC1HM-105ZM	1MF	50V	E.CAPACITO	
	C205	QETC1EM-106ZM	10MF	25V	AL E.CAPAC	
	C206	QETC1EM-106ZM	10MF	25V	AL E.CAPAC	
	C207	QFV81HJ-104	0.1MF	50V	THIN FILM	
	C208	QFV81HJ-104	0.1MF	50V	THIN FILM	
	C211	QETC1HM-105ZM	1MF	50V	E.CAPACITO	
	C212	QEK61HM-105G	1MF	50V	AL E.CAPAC	
	C213	QER61HM-334Z	0.33MF	50V	AL E.CAPAC	
	C214	QER61HM-334Z	0.33MF	50V	AL E.CAPAC	
	C215	QFLB1HJ-472	4700PF	50V	MYLAR CAPA	
	C216	QETC1HM-474Z	0.47MF	50V	AL E.CAPAC	
	C217	QCXB1CM-222Y	2200PF	16V	CER.CAPACI	
	C220	QEK61HM-225G	2.2MF	50V	AL E.CAPAC	
	C221	QETB1HM-475E	4.7MF	50V	E.CAPACITO	
	C301	QCB1HK-331Y	330PF	50V	CER.CAPACI	
	C302	QCB1HK-331Y	330PF	50V	CER.CAPACI	
	C303	QCB1HK-331Y	330PF	50V	CER.CAPACI	
	C304	QCB1HK-331Y	330PF	50V	CER.CAPACI	
	C305	QCB1HK-471Y	470PF	50V	CER.CAPACI	EF
	C305	QCB1HK-471Y	470PF	50V	CER.CAPACI	EN
	C305	QCB1HK-471Y	470PF	50V	CER.CAPACI	G
	C305	QCB1HK-471Y	470PF	50V	CER.CAPACI	GI
	C305	QCB1HK-471Y	470PF	50V	CER.CAPACI	EF
	C306	QCB1HK-471Y	470PF	50V	CER.CAPACI	EN
	C306	QCB1HK-471Y	470PF	50V	CER.CAPACI	G
	C306	QCB1HK-471Y	470PF	50V	CER.CAPACI	GI
	C307	QCVB1CM-822Y	8200PF	16V	CER.CAPACI	
	C308	QCVB1CM-822Y	8200PF	16V	CER.CAPACI	
	C309	QETC1AM-107	100MF	10V	E.CAPACITO	
	C310	QETC1AM-107	100MF	10V	E.CAPACITO	
	C311	QETC1HM-105ZM	1MF	50V	E.CAPACITO	
	C312	QETC1HM-105ZM	1MF	50V	E.CAPACITO	
	C313	QETC1AM-107	100MF	10V	E.CAPACITO	
	C314	QETC1AM-107	100MF	10V	E.CAPACITO	
	C315	QFV81HJ-473	0.047MF	50V	THIN FILM	
	C316	QFV81HJ-473	0.047MF	50V	THIN FILM	
	C317	QCB1HK-102	1000PF	50V	CER.CAPACI	
	C318	QCB1HK-102	1000PF	50V	CER.CAPACI	
	C319	QETC1AM-476Z	47MF	10V	AL E.CAPAC	
	C321	QCXB1CM-122	1200PF	16V	POLYPROPY.	
	C322	QCXB1CM-122	1200PF	16V	POLYPROPY.	
	C323	QCB1HK-331Y	330PF	50V	CER.CAPACI	
	C324	QCB1HK-331Y	330PF	50V	CER.CAPACI	
	C325	QCB1HK-471Y	470PF	50V	CER.CAPACI	EF
	C325	QCB1HK-471Y	470PF	50V	CER.CAPACI	EN
	C325	QCB1HK-471Y	470PF	50V	CER.CAPACI	G
	C325	QCB1HK-471Y	470PF	50V	CER.CAPACI	GI
	C326	QCB1HK-471Y	470PF	50V	CER.CAPACI	EF
	C326	QCB1HK-471Y	470PF	50V	CER.CAPACI	EN
	C326	QCB1HK-471Y	470PF	50V	CER.CAPACI	G
	C326	QCB1HK-471Y	470PF	50V	CER.CAPACI	GI
	C327	QCVB1CM-822Y	8200PF	16V	CER.CAPACI	
	C328	QCVB1CM-822Y	8200PF	16V	CER.CAPACI	
	C329	QEK61CM-107ZN	100MF	16V	E.CAPACITO	
	C330	QEK61CM-107ZN	100MF	16V	E.CAPACITO	
	C331	QETC1HM-105ZM	1MF	50V	E.CAPACITO	
	C332	QETC1HM-105ZM	1MF	50V	E.CAPACITO	
	C333	QCB1HK-101Y	100PF	50V	CER.CAPACI	
	C334	QCB1HK-101Y	100PF	50V	CER.CAPACI	
	C335	QETC1EM-106ZM	10MF	25V	AL E.CAPAC	
	C336	QETC1EM-106ZM	10MF	25V	AL E.CAPAC	
	C337	QEK61CM-226ZM	22MF	16V	E.CAPACITO	
	C341	QER61HM-105GZJ2	1MF	50V	ELECTRO	
	C342	QER61HM-105GZJ2	1MF	50V	ELECTRO	
	C343	QETC1AM-107	100MF	10V	E.CAPACITO	
	C344	QETC1AM-107	100MF	10V	E.CAPACITO	
	C347	QETC1CM-226ZM	22MF	16V	E.CAPACITO	EF
	C347	QETC1CM-226ZM	22MF	16V	E.CAPACITO	EN
	C347	QETC1CM-226ZM	22MF	16V	E.CAPACITO	G
	C347	QETC1CM-226ZM	22MF	16V	E.CAPACITO	GI
	C350	QETC1HM-105ZM	1MF	50V	E.CAPACITO	
	C351	QETC1EM-476ZM	47MF	25V	E.CAPACITO	EF
	C351	QETC1EM-476ZM	47MF	25V	E.CAPACITO	EN
	C351	QETC1EM-476ZM	47MF	25V	E.CAPACITO	G
	C351	QETC1EM-476ZM	47MF	25V	E.CAPACITO	GI
	C352	QFP31HG-562	5600PF	50V	POLYPROPY.	
	C353	QCVB1CM-103Y	0.01MF	16V	CER.CAPACI	
	C354	QETC1CM-226ZM	22MF	16V	E.CAPACITO	EF
	C354	QETC1CM-226ZM	22MF	16V	E.CAPACITO	EN
	C354	QETC1CM-226ZM	22MF	16V	E.CAPACITO	G
	C354	QETC1CM-226ZM	22MF	16V	E.CAPACITO	GI
	C355	QCB1HK-471Y	470PF	50V	CER.CAPACI	EF
	C355	QCB1HK-471Y	470PF	50V	CER.CAPACI	EN
	C355	QCB1HK-471Y	470PF	50V	CER.CAPACI	G
	C355	QCB1HK-471Y	470PF	50V	CER.CAPACI	GI
	C356	QFLB1HJ-153	0.015MF	50V	MYLAR CAPA	
	C357	QFLB1HJ-332	3300PF	50V	MYLAR CAPA	
	C358	QFLB1HJ-332	3300PF	50V	MYLAR CAPA	
	C359	QFLB1HJ-682	6800PF	50V	MYLAR CAPA	
	C361	QCB1HK-101Y	100PF	50V	CER.CAPACI	
	C362	QCB1HK-101Y	100PF	50V	CER.CAPACI	
	C371	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	EF

CAPACITORS

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	C371	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	EN
	C371	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	G
	C371	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	GI
	C1301	QCB1HK-102Y	1000PF	50V	CER.CAPACI	EF
	C1301	QCB1HK-102Y	1000PF	50V	CER.CAPACI	EN
	C1301	QCB1HK-102Y	1000PF	50V	CER.CAPACI	G
	C1301	QCB1HK-102Y	1000PF	50V	CER.CAPACI	GI
	C1302	QCB1HK-102Y	1000PF	50V	CER.CAPACI	EF
	C1302	QCB1HK-102Y	1000PF	50V	CER.CAPACI	EN
	C1302	QCB1HK-102Y	1000PF	50V	CER.CAPACI	G
	C1302	QCB1HK-102Y	1000PF	50V	CER.CAPACI	GI
	C1351	QCF21HP-103A	0.01MF	50V	CER.CAPACI	EF
	C1351	QCF21HP-103A	0.01MF	50V	CER.CAPACI	EN
	C1351	QCF21HP-103A	0.01MF	50V	CER.CAPACI	G
	C1351	QCF21HP-103A	0.01MF	50V	CER.CAPACI	GI

RESISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	R201	QRD167J-153	15K	1/6W	CARBON RES	
	R202	QRD167J-153	15K	1/6W	CARBON RES	
	R203	QRD161J-123	12K	1/6W	CARBON RES	
	R204	QRD161J-123	12K	1/6W	CARBON RES	
	R209	QRD167J-153	15K	1/6W	CARBON RES	
	R210	QRD167J-153	15K	1/6W	CARBON RES	
	R211	QRD161J-823	82K	1/6W	CARBON RES	
	R212	QRD167J-562	5.6K	1/6W	CARBON RES	
	R213	QRD161J-243	24K	1/6W	CARBON RES	
	R214	QRD167J-682	6.8K	1/6W	CARBON RES	
	R215	QRD167J-113	11K	1/6W	CARBON RES	
	R216	QRD167J-332	3.3K	1/6W	CARBON RES	
	R218	QRD161J-222	2.2K	1/6W	CARBON RES	
	R220	QRD167J-223	22K	1/6W	CARBON RES	
	R221	QRD161J-103	10K	1/6W	CARBON RES	
	R223	QRD161J-183	18K	1/6W	CARBON RES	
	R225	QRD161J-184	180K	1/6W	CARBON RES	
	R226	QRD167J-223	22K	1/6W	CARBON RES	
	R227	QRD167J-223	22K	1/6W	CARBON RES	
	R228	QRD167J-223	22K	1/6W	CARBON RES	
	R229	QRD167J-223	22K	1/6W	CARBON RES	
	R230	QRD167J-223	22K	1/6W	CARBON RES	
	R231	QRD167J-223	22K	1/6W	CARBON RES	
	R232	QRD167J-223	22K	1/6W	CARBON RES	
	R233	QRD167J-223	22K	1/6W	CARBON RES	
	R234	QRD167J-223	22K	1/6W	CARBON RES	
	R235	QRD167J-223	22K	1/6W	CARBON RES	
	R237	QRD161J-183	18K	1/6W	CARBON RES	
	R241	QRD161J-392	3.9K	1/6W	CARBON RES	
	R242	QRD161J-392	3.9K	1/6W	CARBON RES	
	R245	QRD161J-472	4.7K	1/6W	CARBON RES	
	R246	QRD161J-472	4.7K	1/6W	CARBON RES	
	R248	QRD161J-103	10K	1/6W	CARBON RES	
	R250	QRD161J-103	10K	1/6W	CARBON RES	
	R301	QRD161J-224	220K	1/6W	CARBON RES	
	R302	QRD161J-224	220K	1/6W	CARBON RES	
	R305	QRD167J-334	330K	1/6W	CARBON RES	
	R306	QRD167J-334	330K	1/6W	CARBON RES	
	R307	QRD161J-183	18K	1/6W	CARBON RES	
	R308	QRD161J-183	18K	1/6W	CARBON RES	
	R309	QRD167J-151	150	1/6W	CARBON RES	
	R310	QRD167J-151	150	1/6W	CARBON RES	
	R315	QRD161J-564	560K	1/6W	CARBON RES	
	R316	QRD161J-564	560K	1/6W	CARBON RES	
	R317	QRD161J-103	10K	1/6W	CARBON RES	
	R318	QRD161J-103	10K	1/6W	CARBON RES	
	R319	QRD167J-332	3.3K	1/6W	CARBON RES	
	R320	QRD167J-332	3.3K	1/6W	CARBON RES	
	R321	QRD161J-100	10	1/6W	CARBON RES	
	R322	QRD161J-100	10	1/6W	CARBON RES	
	R325	QRD167J-153	15K	1/6W	CARBON RES	
	R326	QRD167J-153	15K	1/6W	CARBON RES	
	R327	QRD167J-334	330K	1/6W	CARBON RES	
	R328	QRD167J-334	330K	1/6W	CARBON RES	
	R329	QRD161J-183	18K	1/6W	CARBON RES	
	R330	QRD161J-183	18K	1/6W	CARBON RES	
	R331	QRD167J-151	150	1/6W	CARBON RES	
	R332	QRD167J-151	150	1/6W	CARBON RES	
	R335	QRD161J-101	100	1/6W	CARBON RES	
	R336	QRD161J-105	1M	1/6W	CARBON RES	
	R337	QRD161J-133Y	13K	1/6W	CARBON RES	
	R338	QRD161J-133Y	13K	1/6W	CARBON RES	
	R341	QRD167J-334	330K	1/6W	CARBON RES	
	R342	QRD167J-334	330K	1/6W	CARBON RES	
	R345	QRD161J-103	10K	1/6W	CARBON RES	
	Δ R352	QRD14CJ-470SX	47	1/4W	UNF. CARBON	
	R353	QRD161J-393	39K	1/6W	CARBON RES	
	R354	QRD161J-393	39K	1/6W	CARBON RES	
	R357	QRD161J-561	560	1/6W	CARBON RES	EF
	R357	QRD161J-561	560	1/6W	CARBON RES	EN
	R357	QRD161J-561	560	1/6W	CARBON RES	G
	R358	QRD161J-103	10K	1/6W	CARBON RES	GI
	VR205	QVPA603-503A	50K		VARIABLE R	
	VR206	QVPA603-503A	50K		VARIABLE R	

Δ SAFETY PARTS

## RESISTORS

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	VR303	QVPA603-104A	100K TRIMMER RE	
	VR304	QVPA603-104A	100K TRIMMER RE	
	VR311	QVPA603-501A	500 TRIMMER RE	
	VR312	QVPA603-501A	500 TRIMMER RE	
	VR323	QVPA603-104A	100K TRIMMER RE	
	VR324	QVPA603-104A	100K TRIMMER RE	
	VR333	QVPA603-501A	500 TRIMMER RE	
	VR334	QVPA603-501A	500 TRIMMER RE	
	VR355	QVPA603-104A	100K TRIMMER RE	
	VR356	QVPA603-104A	100K TRIMMER RE	

## OTHERS

△	ITEM	PART NUMBER	DESCRIPTION	AREA
		EMW10457-102A	CIR BOARD	
		E3400-431	FELT SPACER	EF
		E3400-431	FELT SPACER	EN
		E3400-431	FELT SPACER	G
		E3400-431	FELT SPACER	GI
	J301	EMV7155-106R	CONNECT TER	
	J302	EMV7155-106R	CONNECT TER	
	J303	EMV5132-008R	CONNECT TER	EF
	J303	EMV5132-008R	CONNECT TER	EN
	J303	EMV5132-008R	CONNECT TER	G
	J303	EMV5132-008R	CONNECT TER	GI
	J304	EMV5132-016R	CONNECT TER	EF
	J304	EMV5132-016R	CONNECT TER	EN
	J304	EMV5132-016R	CONNECT TER	G
	J304	EMV5132-016R	CONNECT TER	GI
	L321	EQL2106-223	INDUCTOR	
	L322	EQL2106-223	INDUCTOR	
	L331	ENZ6002-012	OSCILLATOR	
	EP301	EMZ4002-001Z	EARTH PLATE	EF
	EP301	EMZ4002-001Z	EARTH PLATE	EN
	EP301	EMZ4002-001Z	EARTH PLATE	G
	EP301	EMZ4002-001Z	EARTH PLATE	GI
	L1301	ENZ8101-007	INDUCTOR	EF
	L1301	ENZ8101-007	INDUCTOR	EN
	L1301	ENZ8101-007	INDUCTOR	G
	L1301	ENZ8101-007	INDUCTOR	GI
	L1302	ENZ8101-007	INDUCTOR	EF
	L1302	ENZ8101-007	INDUCTOR	EN
	L1302	ENZ8101-007	INDUCTOR	G
	L1302	ENZ8101-007	INDUCTOR	GI

# XT-S600R

## < PARTS LIST >

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

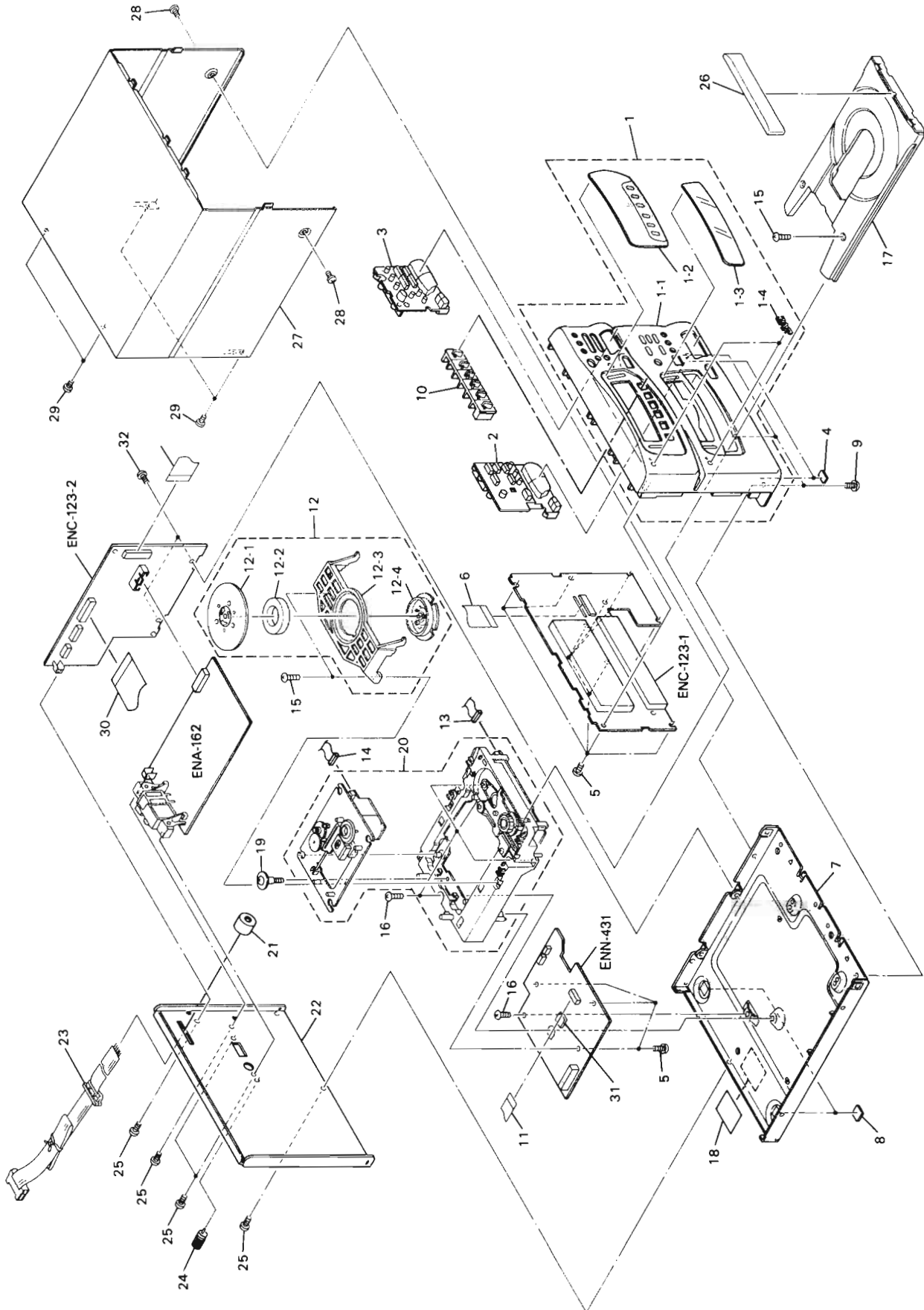
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■ ENA-162 <b>A</b> Tuner PC Board Ass'y .....	5 - 10

# General Exploded View and Parts List

Symbol No. 

M	3	M	M
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■ Parts List

Symbol No.

M	3	M	M
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△	Item	Part Number	Part Name	Q'ty	Description	Area
	1	EFP-XTS600RE(S)	FRONT PANEL ASS'Y	1		
	1-1	E102972-222SF	FRONT PANEL	1		
	1-2	E208408-001	WINDOW SCREEN	1		
	1-3	E208415-001SM	WINDOW SCREEN	1		
	1-4	E406971-221	JVC MARK	2		
	2	E208413-001SM	PUSH BUTTON	1	CD	
	3	E208410-002SMKP	PUSH BUTTON	1	TUNER	
	4	E75896-001	SPACER	2	FRONT FOOT	
	5	SDSF2608Z	SCREW	12		
	6	VWF1226-16TTB	FFC CABLE	1	FC731	
	7	E102974-001SM	CHASSIS BASE	1		
	8	E75896-006	FELT SPACER	2	REAR FOOT	
	9	SBSG3006M	TAPPING SCREW	3		
	10	E208433-001	PUSH BUTTON	1	RDS	
	11	EWR115M-08BB	FFC CABLE	1		
	12	E306837-005	CLAMPER ASSY	1		
	12-1	E306836-223SS	YOKE PLATE	1		
	12-2	E74897-002	C.D MAGNET	1		
	12-3	E26756-331SF	CLAMPER BASE	1		
	12-4	E306835-221SS	CD CLAMPER	1		
	13	EWS265-B412	SOCKET WIRE ASSY	1	5PIN	
	14	EWS266-B410	SOCKET WIRE ASSY	1	6PIN	
	15	SBSF3008Z	TAPPING SCREW	3		
	16	SBST3006Z	TAPPING SCREW	4		
	17	E102358-002SF	CD TRAY	1		
	18	E406507-001	CAUTION LABEL	1		
	19	E406293-001	SPECIAL SCREW	1		
	20	-----	CD MECHA UN	1	SEE PAGE 5-4	
	21	ENZ8104-005	NOISE FILTER	1	FB001	
	22	E208419-003SM	REAR PANEL	1		
	23	EWP902-046	FLAT WIRE ASSY	1	SC001	
	24	E408091-001	GND TERMINAL	1		
	25	E73273-003	SPECIAL SCREW	5		
	26	E208417-001SM	CD FITTING	1		
	27	E207787-011	METAL COVER	1		
	28	SDSG3006M	TAPPING SCREW	2		
	29	GBSG3008CC	TAPPING SCREW	6		
	30	VWF1223-30TTB	FFC CABLE	1	FC601	
	31	E75896-001	SPACER	1		
	32	SBSG3008CC	TAPPING SCREW	2		
	-	E70891-001	CLASS 1 LABEL	1		
	-	E61029-005	NUMBER LABEL	1		

The Marks for Designated Areas

EF .... Continental Europe

EN .... Scandinavia

G ..... Germany

GI ..... Italy

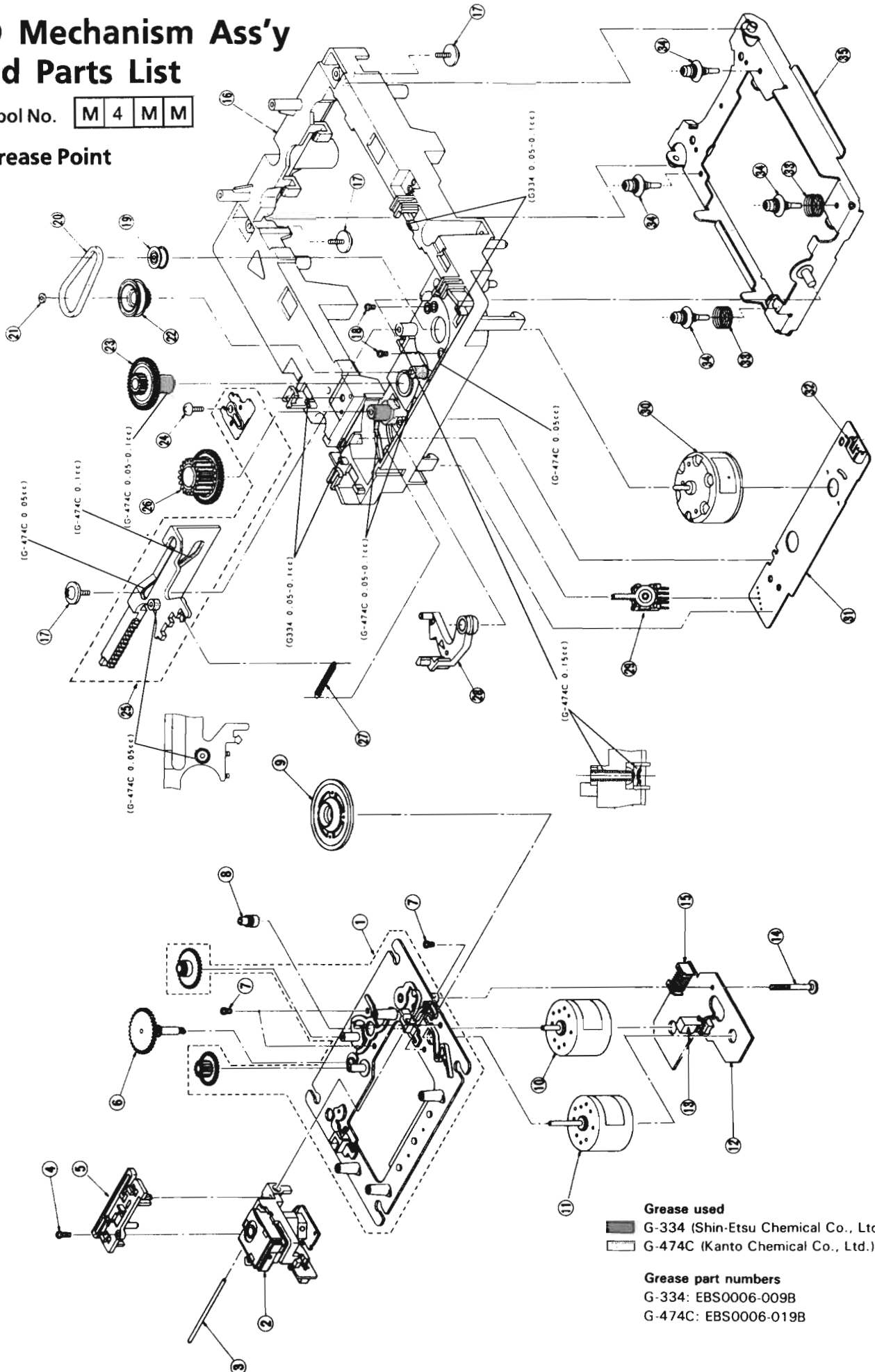
No mark indicates all area.

# CD Mechanism Ass'y and Parts List

Symbol No. 

M	4	M	M
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■ Grease Point



**Grease used**

- G-334 (Shin-Etsu Chemical Co., Ltd.)
- G-474C (Kanto Chemical Co., Ltd.)

**Grease part numbers**

- G-334: EBS0006-009B
- G-474C: EBS0006-019B

■ Parts List (CD Mechanism Ass'y)

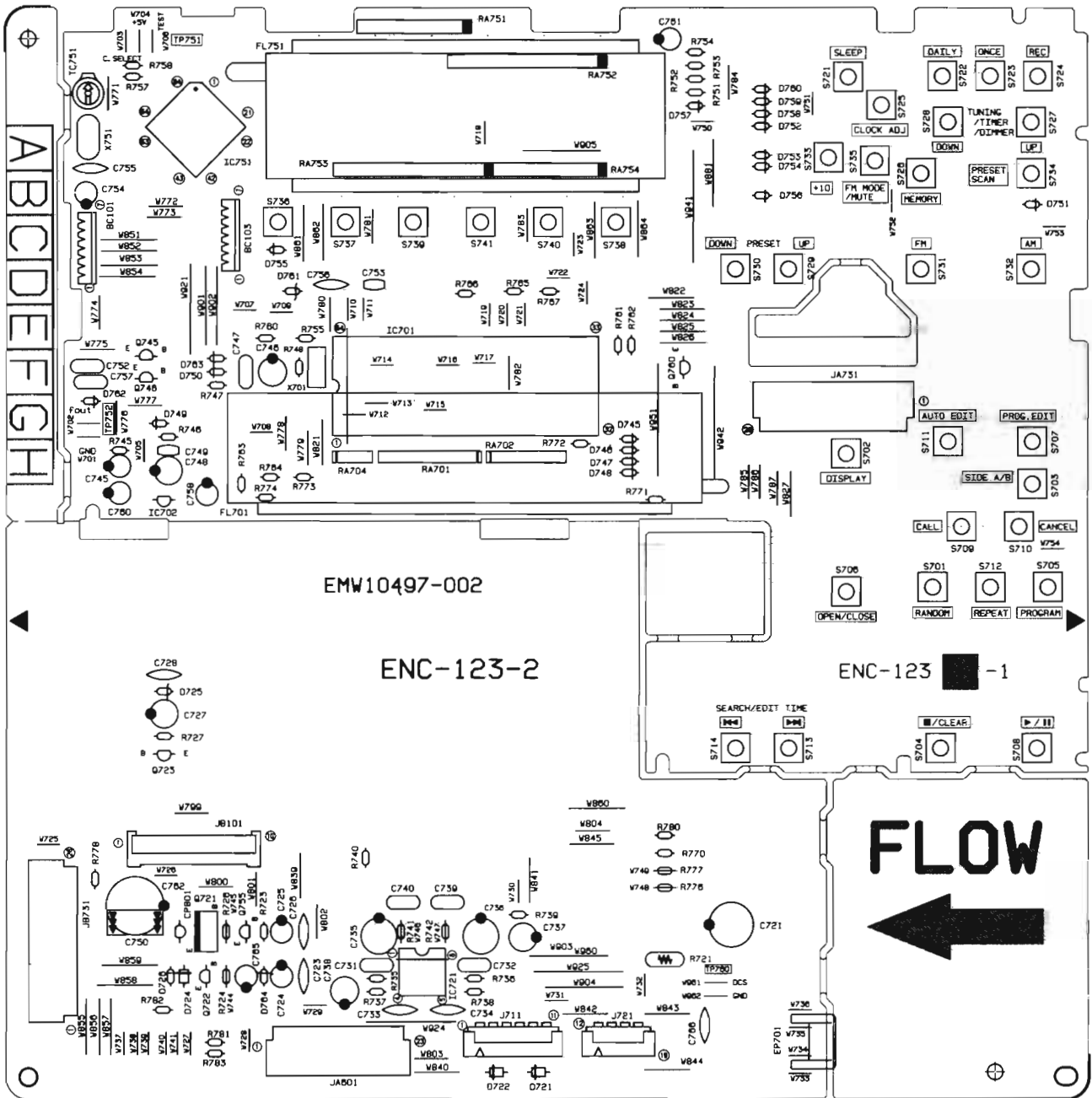
Symbol No.

M	4	M	M
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△	Item	Part Number	Part Name	Q'ty	Description	Area
	1	E102501-221SS	CD MECHA BASE A	1		
	2	OPTIMA-6S	OPTICAL PICK-UP	1		
	3	E407782-001	GUIDE SHAFT	1		
	4	SDSF2006Z	SCREW	1		
	5	E307746-001	CD RACK	1		
	6	E307745-221SS	CAM GEAR	1		
	7	SDSP2003N	SCREW	4		
	8	E406750-221SS	PINION GEAR	1		
	9	E75807-302	TURNTABLE	1		
	10	MDN-4RA3ETA-1	FEED MOTOR	1		
	11	E406783-001	DC MOTOR	1		
	12	EMW10190-001(S)	PRINTED BOARD	1		
	13	EBS1100-005	LEAF SWITCH	1		
	14	E75832-001	SPECIAL SCREW	1		
	15	EMV5109-006B	CONNECT TERMINAL	1	6PIN	
	16	E102357-221	LOADING BASE	1		
	17	E65923-003	TAPPING SCREW	3		
	18	SPSK2640Z	SCREW	2		
	19	E75984-001	MOTOR PULLEY	1		
	20	E75950-002	REEL BELT	1		
	21	E72024-001	SPEED NUT	1		
	22	E75985-001	DRIVE GEAR	1		
	23	E75986-002	REEL GEAR	1		
	24	SBSF3008Z	TAPPING SCREW	1		
	25	E307252-221	CAM ASSY	1		
	26	E75987-001	REEL GEAR	1		
	27	E75989-001	SPRING	1		
	28	E307162-221	ACTION LEVER	1		
	29	ESS1200-002	LEVER SWITCH	1		
	30	MMN-6F1LB8K	DC MOTOR	1		
	31	EMW10095-003A	PRINTED BOARD	1		
	32	EMV5109-005B	CONNECT TERMINAL	1	5PIN	
	33	E406871-001	SPRING	2		
	34	E406294-002	INSULATOR	4		
	35	E307179-222	LOADING BASE	1		

# Printed Circuit Board Ass'y and Parts List

## ■ ENC-123 A Display & KEY Matrix PC Board Ass'y



### TRANSISTORS

ITEM	PART NUMBER	DESCRIPTION	AREA
Q721	2SD2037(E,F)	SI. TRANSIST ROHM	
Q722	DTC144ES	DIGITAL TRA ROHM	
Q723	2SC2060(Q,R)	SI. TRANSIST ROHM	
Q745	DTA114YS	DIGITAL TRA ROHM	
Q746	DTC114YS	DIGITAL TRA ROHM	
Q755	DTA114YS	DIGITAL TRA ROHM	
Q760	DTC114YS	DIGITAL TRA ROHM	

### I. C. S.

ITEM	PART NUMBER	DESCRIPTION	AREA
IC701	MN171602J5J1	I.C.(MICRO-C MATSUSHITA	EF
IC701	MN171602J5J1	I.C.(MICRO-C MATSUSHITA	EN
IC701	MN171602J5J1	I.C.(MICRO-C MATSUSHITA	G
IC701	MN171602J5J1	I.C.(MICRO-C MATSUSHITA	GI
IC702	MN1281(P,Q)	I.C.(DIGI-MO MATSUSHITA	
IC721	VC4580DD	I.C.(MONO-AN DAINICHI	
IC751	MN172412J5L	I.C.	EF
IC751	MN172412J5L	I.C.	EN
IC751	MN172412J5L	I.C.	G
IC751	MN172412J5L	I.C.	GI



DIODES

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D721	1SR139-200	SI.DIODE ROHM	
	D722	1SR139-200	SI.DIODE ROHM	
	D724	1SR139-200	SI.DIODE ROHM	
	D725	MTZ7.5JC	ZENER DIODE ROHM	
	D726	1SS119	SI.DIODE	
	D745	1SS119	SI.DIODE	
	D746	1SS119	SI.DIODE	
	D747	1SS119	SI.DIODE	
	D748	1SS119	SI.DIODE	
	D749	1SS119	SI.DIODE	
	D750	1SS119	SI.DIODE	
	D751	1SS119	SI.DIODE	EF
	D751	1SS119	SI.DIODE	EN
	D751	1SS119	SI.DIODE	G
	D751	1SS119	SI.DIODE	GI
	D752	1SS119	SI.DIODE	EF
	D752	1SS119	SI.DIODE	EN
	D752	1SS119	SI.DIODE	G
	D752	1SS119	SI.DIODE	GI
	D753	1SS119	SI.DIODE	EF
	D753	1SS119	SI.DIODE	EN
	D753	1SS119	SI.DIODE	G
	D753	1SS119	SI.DIODE	GI
	D754	1SS119	SI.DIODE	EF
	D754	1SS119	SI.DIODE	EN
	D754	1SS119	SI.DIODE	G
	D754	1SS119	SI.DIODE	GI
	D755	1SS119	SI.DIODE	EF
	D755	1SS119	SI.DIODE	EN
	D755	1SS119	SI.DIODE	G
	D755	1SS119	SI.DIODE	GI
	D756	1SS119	SI.DIODE	EF
	D756	1SS119	SI.DIODE	EN
	D756	1SS119	SI.DIODE	G
	D756	1SS119	SI.DIODE	GI
	D757	1SS119	SI.DIODE	EF
	D761	MTZ5.6JC	ZENER DIODE ROHM	
	D762	1SS119	SI.DIODE	
	D763	1SS119	SI.DIODE	
	D764	MTZ5.6JB	ZENER DIODE ROHM	

CAPACITORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C721	QETB1CM-108N	1000MF 16V E.CAPACITO	EF
	C721	QETB1CM-108N	1000MF 16V E.CAPACITO	EN
	C721	QETB1CM-108N	1000MF 16V E.CAPACITO	G
	C721	QETB1CM-108N	1000MF 16V E.CAPACITO	GI
	C723	QFLC1HJ-103ZM	0.01MF 50V METAL.MYLA	
	C726	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C727	QETB1CM-107	100MF 16V AL E.CAPAC	
	C728	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C731	QFN81HJ-472	4700PF 50V MYLAR CAPA	
	C732	QFN81HJ-472	4700PF 50V MYLAR CAPA	
	C733	QFN81HJ-821	820PF 50V MYLAR CAPA	EF
	C733	QFN81HJ-821	820PF 50V MYLAR CAPA	EN
	C733	QFN81HJ-821	820PF 50V MYLAR CAPA	G
	C733	QFN81HJ-821	820PF 50V MYLAR CAPA	GI
	C734	QFN81HJ-821	820PF 50V MYLAR CAPA	EF
	C734	QFN81HJ-821	820PF 50V MYLAR CAPA	EN
	C734	QFN81HJ-821	820PF 50V MYLAR CAPA	G
	C734	QFN81HJ-821	820PF 50V MYLAR CAPA	GI
	C735	EET5010-106ZE	10MF E.CAPACITO	
	C736	EET5010-106ZE	10MF E.CAPACITO	
	C737	QETB1CM-107	100MF 16V AL E.CAPAC	
	C738	QETB1CM-107	100MF 16V AL E.CAPAC	
	C745	QETB1HM-226E	22MF 50V E.CAPACITO	
	C746	QETCOJM-107ZM	100MF 6.3V AL E.CAPAC	
	C747	QCZ0205-155	1.5MF 25V C.CAPACITO	
	C748	QETCOJM-107ZM	100MF 6.3V AL E.CAPAC	
	C749	QCHB1EZ-225	0.022MF 25V CER.CAPACI	
	C750	QEAD0H2-479A	47000MF E.CAPACITO	
	C752	QCZ0205-155	1.5MF 25V C.CAPACITO	
	C753	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	
	C754	QERS1CM-476	47MF 16V AL E.CAPAC	
	C755	QCT25CH-330Z	33PF 50V CER.CAPACI	
	C756	QCF31HP-103Z	0.01MF 50V CER.CAPACI	EF
	C756	QCF31HP-103Z	0.01MF 50V CER.CAPACI	EN
	C756	QCF31HP-103Z	0.01MF 50V CER.CAPACI	G
	C756	QCF31HP-103Z	0.01MF 50V CER.CAPACI	GI
	C758	QETB1HM-474	0.47MF 50V ELECTRO	
	C760	QETB1HM-474	0.47MF 50V ELECTRO	
	C761	QETB1HM-474	0.47MF 50V ELECTRO	
	C765	QETB1AM-476	47MF 10V E.CAPACITO	
	C766	QCY31HK-472Z	4700PF 50V CER.CAPACI	EF
	C766	QCY31HK-472Z	4700PF 50V CER.CAPACI	EN
	C766	QCY31HK-472Z	4700PF 50V CER.CAPACI	G
	C766	QCY31HK-472Z	4700PF 50V CER.CAPACI	GI

RESISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R721	PTH61G30BD2R2N	FUSIBLE RE	EF
	R721	PTH61G30BD2R2N	FUSIBLE RE	EN
	R721	PTH61G30BD2R2N	FUSIBLE RE	G
	R721	PTH61G30BD2R2N	FUSIBLE RE	GI
	R723	QRD161J-331	330 1/6W CARBON RES	
	R727	QRD161J-472	4.7K 1/6W CARBON RES	
	R735	QRD161J-222	2.2K 1/6W CARBON RES	
	R736	QRD161J-222	2.2K 1/6W CARBON RES	
	R737	QRD161J-222	2.2K 1/6W CARBON RES	
	R738	QRD161J-222	2.2K 1/6W CARBON RES	
	R739	QRD161J-221	220 1/6W CARBON RES	
	R740	QRD161J-221	220 1/6W CARBON RES	
	R745	QRD161J-473	47K 1/6W CARBON RES	
	R746	QRD161J-821	820 1/6W CARBON RES	
	R747	QRD161J-103	10K 1/6W CARBON RES	
	R751	QRD161J-222	2.2K 1/6W CARBON RES	
	R752	QRD161J-222	2.2K 1/6W CARBON RES	
	R753	QRD161J-222	2.2K 1/6W CARBON RES	
	R754	QRD161J-222	2.2K 1/6W CARBON RES	
	R755	QRD167J-223	22K 1/6W CARBON RES	
	R757	QRD161J-103	10K 1/6W CARBON RES	
	R758	QRD161J-103	10K 1/6W CARBON RES	
	R761	QRD161J-7R5Y	7.5 1/6W CARBON	
	R762	QRD161J-7R5Y	7.5 1/6W CARBON	
	R763	QRD161J-7R5Y	7.5 1/6W CARBON	
	R764	QRD161J-7R5Y	7.5 1/6W CARBON	
	R765	QRD161J-472	4.7K 1/6W CARBON RES	
	R766	QRD161J-472	4.7K 1/6W CARBON RES	
	R767	QRD161J-472	4.7K 1/6W CARBON RES	
	R770	QRD161J-221	220 1/6W CARBON RES	
	R771	QRD167J-4R7	4.7 1/6W CARBON RES	
	R772	QRD167J-4R7	4.7 1/6W CARBON RES	
	R773	QRD167J-4R7	4.7 1/6W CARBON RES	
	R774	QRD167J-4R7	4.7 1/6W CARBON RES	
	R777	QRD161J-331	330 1/6W CARBON RES	EF
	R777	QRD161J-331	330 1/6W CARBON RES	EN
	R777	QRD161J-331	330 1/6W CARBON RES	G
	R777	QRD161J-331	330 1/6W CARBON RES	GI
	R778	QRD161J-470	47 1/6W CARBON RES	
	R781	QRD161J-102	1K 1/6W CARBON RES	EF
	R781	QRD161J-102	1K 1/6W CARBON RES	EN
	R781	QRD161J-102	1K 1/6W CARBON RES	G
	R781	QRD161J-102	1K 1/6W CARBON RES	GI
	R782	QRD161J-102	1K 1/6W CARBON RES	EF
	R782	QRD161J-102	1K 1/6W CARBON RES	EN
	R782	QRD161J-102	1K 1/6W CARBON RES	G
	R782	QRD161J-102	1K 1/6W CARBON RES	GI
	R783	QRD161J-102	1K 1/6W CARBON RES	EF
	R783	QRD161J-102	1K 1/6W CARBON RES	EN
	R783	QRD161J-102	1K 1/6W CARBON RES	G
	R783	QRD161J-102	1K 1/6W CARBON RES	GI
	RA704	QRB049J-472	4.7K 1/10W NETWORK RE	

Δ : SAFETY PARTS

OTHERS

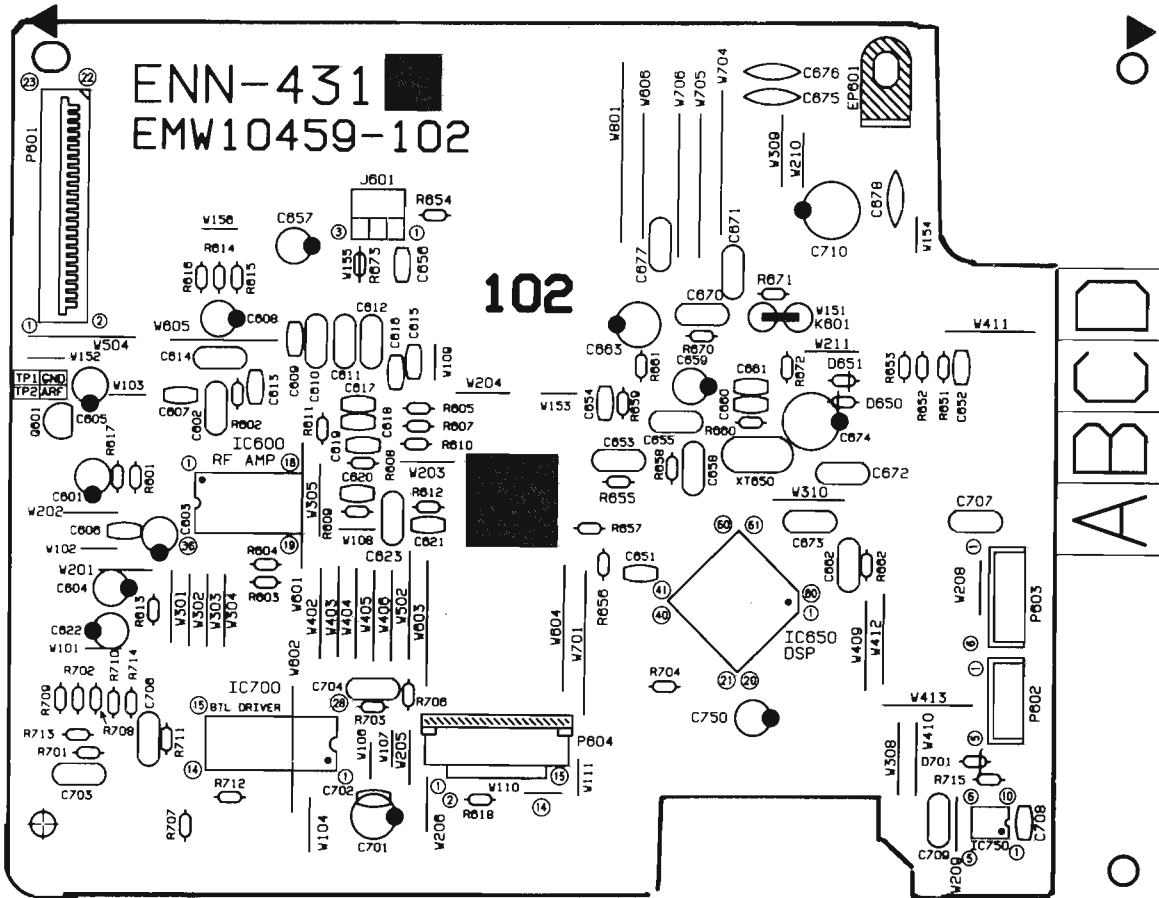
Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
		EMW10497-002	CIR.BOARD	EF
		EMW10497-002	CIR.BOARD	EN
		EMW10497-002	CIR.BOARD	G
		EMW10497-002	CIR.BOARD	GI
	J711	EMV7141-011	CONNECT TER	
	J721	EMV7141-008M	CONNECT TER	
	S701	ESPO001-023M	TACT SWITCH RANDOM	
	S702	ESPO001-023M	TACT SWITCH DISPLAY	
	S703	ESPO001-023M	TACT SWITCH SIDE	
	S704	ESPO001-023M	TACT SWITCH  / CLEAR	
	S705	ESPO001-023M	TACT SWITCH PROGRAM	
	S706	ESPO001-023M	TACT SWITCH	
	S707	ESPO001-023M	TACT SWITCH PROGRAM EDIT	
	S708	ESPO001-023M	TACT SWITCH  /	
	S709	ESPO001-023M	TACT SWITCH CALL	
	S710	ESPO001-023M	TACT SWITCH CANCEL	
	S711	ESPO001-023M	TACT SWITCH AUTO EDIT	
	S712	ESPO001-023M	TACT SWITCH REPEAT	
	S713	ESPO001-023M	TACT SWITCH	
	S714	ESPO001-023M	TACT SWITCH	
	S721	ESPO001-023M	TACT SWITCH SLEEP	
	S722	ESPO001-023M	TACT SWITCH DAILY	
	S723	ESPO001-023M	TACT SWITCH REC	
	S724	ESPO001-023M	TACT SWITCH ONCE TIMER	
	S725	ESPO001-023M	TACT SWITCH CLOCK ADJ.	
	S726	ESPO001-023M	TACT SWITCH MEMORY	
	S727	ESPO001-023M	TACT SWITCH UP	
	S728	ESPO001-023M	TACT SWITCH DOWN	
	S729	ESPO001-023M	TACT SWITCH PRESET UP	
	S730	ESPO001-023M	TACT SWITCH PRESET DOWN	
	S731	ESPO001-023M	TACT SWITCH FM	
	S732	ESPO001-023M	TACT SWITCH AM	
	S733	ESPO001-023M	TACT SWITCH +10	
	S734	ESPO001-023M	TACT SWITCH PRESET SCAN	
	S735	ESPO001-023M	TACT SWITCH FM/AM MODE	

OTHERS

ITEM	PART NUMBER	DESCRIPTION	AREA
S736	ESP0001-023M	TACT SWITCH EON	
S737	ESP0001-023M	TACT SWITCH TA/NEWS/INFO	
S738	ESP0001-023M	TACT SWITCH DISPLAY MODE	
S739	ESP0001-023M	TACT SWITCH PTY SEARCH	
S740	ESP0001-023M	TACT SWITCH PTY UP	
S741	ESP0001-023M	TACT SWITCH PTY DOWN	
X701	ECXP6R0-001ZA	CRYSTAL	
X751	ECX0006-000KNJ	CRYSTAL	
BC101	EWS297-1125	SOCKET WIRE	
BC103	EWS267-A430	SOCKET WIRE	EF
BC103	EWS267-A430	SOCKET WIRE	EN
BC103	EWS267-A430	SOCKET WIRE	CG
BC103	EWS267-A430	SOCKET WIRE	GI
BK701	E309276-001SM	FL HOLDER	
CP801	ICP-N15	I.C.PROTECT	
EP701	E70225-001	EARTH PLATE	
FL701	ELU0001-178	FLUORESCENT	
FL751	ELU0001-196	FL TUBE	
FS701	E306805-014	FELT SPACER	
JA601	VMC0161-R23	CONNECT TER	
JA731	VMC0161-R26	CONNECT TER	
JB101	EMV5140-010	VOLUME SOCK	
JB731	VMC0161-R26	CONNECT TER	
TC751	ENZ1003-015	TRIMMER CAP	

▲ : SAFETY PARTS

■ ENN-431 A CD PC Board Ass'y



TRANSISTORS

ITEM	PART NUMBER	DESCRIPTION	AREA
Q601	2SA950(O,Y)	SI.TRANSIST TOSHIBA	

I. C. S.

ITEM	PART NUMBER	DESCRIPTION	AREA
IC600	AN8806SB	I.C.(M) MATSUSHITA	
IC650	MN66271RAM	I.C.(M) MATSUSHITA	
IC700	BA6398FPX	I.C.(MONO-AN ROHM	
IC750	TA8409FTP1	I.C.(MONO-AN TOSHIBA	

DIODES

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D650	MA700	SI.DIODE MATSUSHITA	
	D651	MA700	SI.DIODE MATSUSHITA	
	D701	MTZ6.2JB	ZENER DIODE ROHM	

CAPACITORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C601	QERS0JM-476	47MF 6.3V AL E.CAPAC	
	C602	QC20202-155	1.5MF 25V CER.RESIST	
	C604	QETB1AM-107	100MF 10V AL E.CAPAC	
	C605	QERS1EM-106	10MF 25V E.CAPACITO	
	C606	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C607	QCSB1HJ-680	68PF 50V CER.CAPACI	
	C608	QETB1HM-105	1MF 50V AL E.CAPAC	
	C609	QCB1HK-101Y	100PF 50V CER.CAPACI	
	C610	QFLC1HJ-273ZM	0.027MF 50V METAL.MYLA	
	C611	QFLC1HJ-472ZM	4700PF 50V METAL.MYLA	
	C612	QFLC1HJ-332ZM	3300PF 50V METAL.MYLA	
	C613	QCT30CH-3R3Y	3.3PF 50V CER.CAPACI	
	C614	QFVB1HJ-104	0.1MF 50V THIN FILM	
	C615	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C616	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C617	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C618	QCXB1CM-222Y	2200PF 16V CER.CAPACI	
	C619	QCB1HK-271Y	270PF 50V CER.CAPACI	
	C620	QCSB1HJ-470Y	47PF 50V CER.CAPACI	
	C621	QCGB1HK-821	820PF 50V CER.CAPACI	
	C622	QETB1AM-476	47MF 10V E.CAPACITO	
	C623	EFH001J-104	METAL.MYLA	
	C651	QCB1HK-471Y	470PF 50V CER.CAPACI	
	C652	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C653	QFLC1HJ-223ZM	0.022MF 50V METAL.MYLA	
	C654	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C655	QFV71HJ-334ZM	0.33MF 50V THIN FILM	
	C658	QFVB1HJ-104	0.1MF 50V THIN FILM	
	C660	QCT30CH-120Y	12PF 50V CER.CAPACI	
	C661	QCT30CH-120Y	12PF 50V CER.CAPACI	
	C662	QFVB1HJ-104	0.1MF 50V THIN FILM	
	C663	QETB1AM-107	100MF 10V AL E.CAPAC	
	C670	QFN31HJ-332Z	3300PF 50V MYLAR CAPA	
	C671	QFN31HJ-332Z	3300PF 50V MYLAR CAPA	
	C673	QFVB1HJ-104	0.1MF 50V THIN FILM	
	C674	EETB0JM-477E	470MF 6.3V E.CAPACITO	
	C675	QCY31HK-472Z	4700PF 50V CER.CAPACI	EF
	C675	QCY31HK-472Z	4700PF 50V CER.CAPACI	EN
	C675	QCY31HK-472Z	4700PF 50V CER.CAPACI	G
	C675	QCY31HK-472Z	4700PF 50V CER.CAPACI	GI
	C677	QC20202-155	1.5MF 25V CER.RESIST	
	C701	QETB1AM-107	100MF 10V AL E.CAPAC	
	C702	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C703	QFLC1HJ-273ZM	0.027MF 50V METAL.MYLA	
	C704	QFLC1HJ-183ZM	0.018MF 50V METAL.MYLA	
	C706	QFLC1HJ-273ZM	0.027MF 50V METAL.MYLA	
	C707	QFVB1HJ-104	0.1MF 50V THIN FILM	
	C708	QCHB1EZ-223	0.022MF 25V CER.CAPACI	

RESISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R602	QRD161J-123	12K 1/6W CARBON RES	
	R605	QRD167J-134	130K 1/6W CARBON RES	
	R607	QRD161J-913	91K 1/6W CARBON RES	
	R608	QRD161J-273	27K 1/6W CARBON RES	
	R609	QRD161J-114	110K 1/6W CARBON RES	
	R610	QRD167J-154	150K 1/6W CARBON RES	
	R611	QRD161J-394	390K 1/6W CARBON RES	
	R612	QRD161J-103	10K 1/6W CARBON RES	
	R613	QRD167J-121	120 1/6W CARBON RES	
	R614	QRD161J-470	47 1/6W CARBON RES	
	R615	QRD161J-470	47 1/6W CARBON RES	
	R616	QRD161J-470	47 1/6W CARBON RES	
	R617	QRD161J-2R2	2.2 1/6W CARBON RES	
	R618	QRD161J-910Y	91 1/6W CARBON RES	
	R651	QRD161J-102	1K 1/6W CARBON RES	
	R652	QRD161J-102	1K 1/6W CARBON RES	
	R653	QRD161J-102	1K 1/6W CARBON RES	
	R655	QRD167J-155	1.5M 1/6W CARBON RES	
	R656	QRD161J-104	100K 1/6W CARBON RES	
	R657	QRD161J-104	100K 1/6W CARBON RES	
	R658	QRD161J-681	680 1/6W CARBON RES	
	R659	QRD161J-124	120K 1/6W CARBON RES	
	R660	QRD167J-121	120 1/6W CARBON RES	
	R661	QRD161J-2R2	2.2 1/6W CARBON RES	
	R662	QRD161J-2R2	2.2 1/6W CARBON RES	
	R670	QRD161J-122	1.2K 1/6W CARBON RES	
	R671	QRD161J-122	1.2K 1/6W CARBON RES	
	R672	QRD161J-221	220 1/6W CARBON RES	
	R701	QRD161J-821	820 1/6W CARBON RES	
	R702	QRD167J-562	5.6K 1/6W CARBON RES	

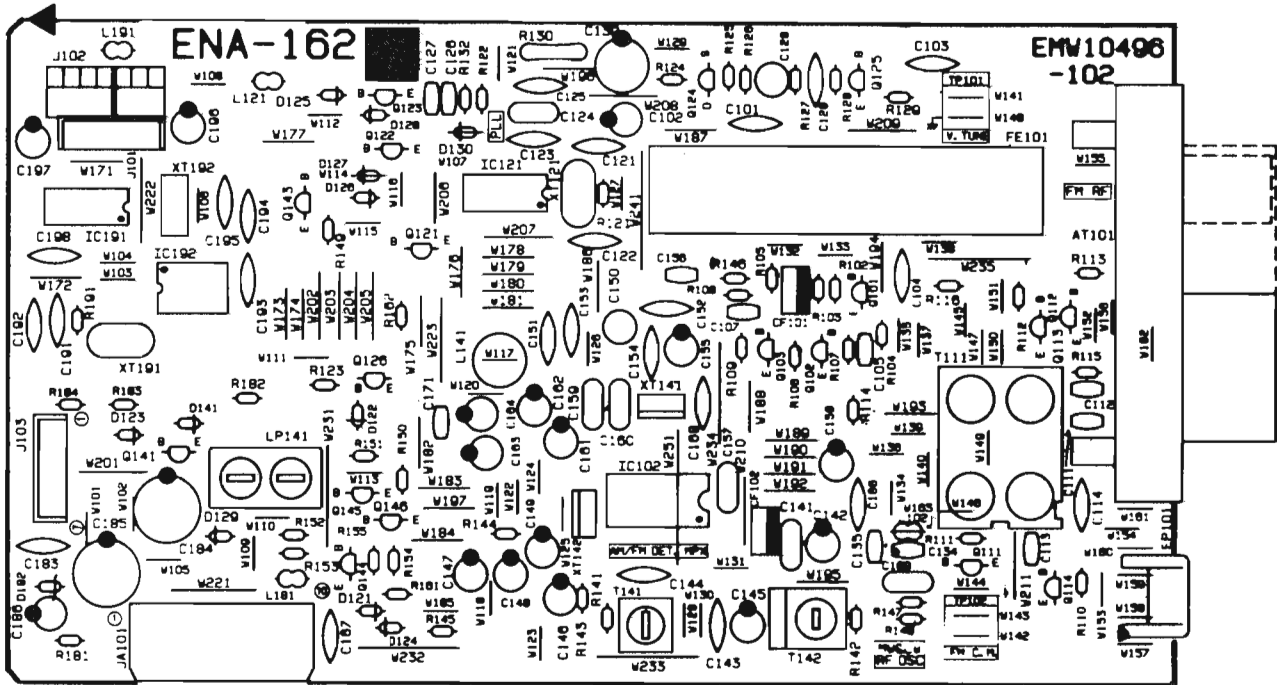
RESISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R703	QRD161J-112	1.1K 1/6W CARBON RES	
	R704	QRD167J-113	11K 1/6W CARBON RES	
	R706	QRD161J-124	120K 1/6W CARBON RES	
	R707	QRD167J-332	3.3K 1/6W CARBON RES	
	R708	QRD161J-752	7.5K 1/6W CARBON RES	
	R709	QRD167J-223	22K 1/6W CARBON RES	
	R710	QRD161J-103	10K 1/6W CARBON RES	EF
	R710	QRD161J-103	10K 1/6W CARBON RES	EN
	R710	QRD161J-103	10K 1/6W CARBON RES	G
	R710	QRD161J-103	10K 1/6W CARBON RES	GI
	R711	QRD167J-153	15K 1/6W CARBON RES	
	R712	QRD161J-752	7.5K 1/6W CARBON RES	
	R713	QRD167J-751	750 1/6W CARBON RES	
	R714	QRD161J-433	43K 1/6W CARBON RES	
	R715	QRD161J-471	470 1/6W CARBON RES	

OTHERS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
		EMW10459-102A	PRINTED BOA	EF
		EMW10459-102A	PRINTED BOA	EN
		EMW10459-102A	PRINTED BOA	G
		EMW10459-102A	PRINTED BOA	GI
	P601	EMV7123-023	MALE CONNEC	
	P602	EMV5109-005A	MALE CONNEC	
	P603	EMV5109-006A	CONNECT TER	
	P604	EMV7144-015R	CONNECT TER	
	EP601	EMZ4002-001Z	EARTH PLATE	EF
	EP601	EMZ4002-001Z	EARTH PLATE	EN
	EP601	EMZ4002-001Z	EARTH PLATE	G
	EP601	EMZ4002-001Z	EARTH PLATE	GI
	XT650	VCX5016-934V	CRYSTAL	

■ ENA-162 Tuner PC Board Ass'y



TRANSISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q101	2SC461	SI. TRANSIST	
	Q102	2SC535	SI. TRANSIST HITACHI	
	Q103	2SC461	SI. TRANSIST	
	Q111	2SD2144S(VW)	SI. TRANSIST ROHM	
	Q112	2SD2144S(VW)	SI. TRANSIST ROHM	
	Q113	2SC1740S(R,S)	SI. TRANSIST ROHM	
	Q114	2SD2144S(VW)	SI. TRANSIST ROHM	
	Q121	DTA144ES	DIGITAL TRA ROHM	
	Q122	DTA144ES	DIGITAL TRA ROHM	
	Q123	DTA144ES	DIGITAL TRA ROHM	
	Q124	2SK301(P,Q)	F. E. T.	
	Q125	2SC458(C,D)	SI. TRANSIST HITACHI	
	Q126	DTC114ES	DIGITAL TRA ROHM	
	Q141	DTC114ES	DIGITAL TRA ROHM	
	Q143	DTC114ES	DIGITAL TRA ROHM	

I. C. S.

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC102	LA1836MX	I. C(MONO-AN SANYO	
	IC121	LC7218JMX	I. C(DIGI-MO SANYO	
	IC191	LC7073MX	I. C.	
	IC192	SAA6579TX	I. C.	

DIODES

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D121	1SS133	SI. DIODE ROHM	
	D122	1SS133	SI. DIODE ROHM	
	D123	1SS133	SI. DIODE ROHM	
	D124	1SS133	SI. DIODE ROHM	
	D125	1SS133	SI. DIODE ROHM	
	D126	1SS133	SI. DIODE ROHM	
	D127	1SS133	SI. DIODE ROHM	
	D128	1SS133	SI. DIODE ROHM	
	D129	1SS133	SI. DIODE ROHM	
	D130	1SS133	SI. DIODE ROHM	
	D141	1SS133	SI. DIODE ROHM	
	D182	MTZ5.1JC	ZENER DIODE ROHM	

CAPACITORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C101	QCF31HP-103Z	0.01MF 50V CER. CAPACI	
	C102	QETB1EM-476	47MF 25V AL E. CAPAC	EF
	C102	QETB1EM-476	47MF 25V AL E. CAPAC	EN
	C102	QETB1EM-476	47MF 25V AL E. CAPAC	G
	C102	QETB1EM-476	47MF 25V AL E. CAPAC	GI
	C103	QCF21HP-223A	0.022MF 50V CER. CAPACI	
	C104	QCF21HP-223A	0.022MF 50V CER. CAPACI	
	C105	QCHB1EZ-223	0.022MF 25V CER. CAPACI	
	C107	QCHB1EZ-223	0.022MF 25V CER. CAPACI	
	C111	QCHB1EZ-223	0.022MF 25V CER. CAPACI	
	C112	QCT30CH-120Y	12PF 50V CER. CAPACI	
	C113	QCHB1EZ-223	0.022MF 25V CER. CAPACI	
	C114	QCC31EM-473ZV	0.047MF 25V CER. CAPACI	
	C121	QCS21HJ-180A	18PF 50V CER. CAPACI	
	C122	QCS21HJ-180A	18PF 50V CER. CAPACI	
	C123	QCC31EM-473ZV	0.047MF 25V CER. CAPACI	
	C124	QCZ0202-155	1.5MF 25V CER. RESIST	
	C125	QCF21HP-223A	0.022MF 50V CER. CAPACI	
	C126	QCCB1HK-101Y	100PF 50V CER. CAPACI	
	C127	QCCB1HK-101Y	100PF 50V CER. CAPACI	
	C128	QENB1HM-474	0.47MF 50V NP E. CAPAC	
	C129	QCY31HK-102Z	1000PF 50V CER. CAPACI	
	C130	QETB1CM-227	220MF 16V AL E. CAPAC	
	C134	QCSB1HK-5R6Y	5.6PF 50V CERAMIC	
	C135	QCSB1HJ-150Y	15PF 50V CERAMIC	
	C141	QFLC1HJ-473ZM	0.047MF 50V METAL MYLA	
	C142	QETB1HM-106	10MF 50V E. CAPACITO	
	C143	QCF21HP-223A	0.022MF 50V CER. CAPACI	
	C144	QCC31EM-473ZV	0.047MF 25V CER. CAPACI	
	C145	QETB1HM-475E	4.7MF 50V E. CAPACITO	
	C146	QETB1HM-106	10MF 50V E. CAPACITO	
	C147	QETB1HM-105	1MF 50V AL E. CAPAC	
	C148	QETB1HM-474	0.47MF 50V ELECTRO	
	C149	QETB1HM-105	1MF 50V AL E. CAPAC	
	C150	QETC1HM-225ZM	2.2MF 50V AL E. CAPAC	
	C151	QCS21HJ-181A	180PF 50V CER. CAPACI	
	C152	QCS21HJ-181A	180PF 50V CER. CAPACI	
	C153	QCY31HK-821Z	820PF 50V CER. CAPACI	
	C154	QCY31HK-472Z	4700PF 50V CER. CAPACI	
	C155	QETB1EM-476	47MF 25V AL E. CAPAC	
	C156	QCHB1EZ-223	0.022MF 25V CER. CAPACI	
	C157	QCZ0202-155	1.5MF 25V CER. RESIST	
	C158	QETB1HM-106	10MF 50V E. CAPACITO	
	C159	QFLC1HJ-333ZM	0.033MF 50V MYLAR CAPA	EF
	C159	QFLC1HJ-333ZM	0.033MF 50V MYLAR CAPA	EN
	C159	QFLC1HJ-333ZM	0.033MF 50V MYLAR CAPA	G
	C159	QFLC1HJ-333ZM	0.033MF 50V MYLAR CAPA	GI
	C160	QFLC1HJ-333ZM	0.033MF 50V MYLAR CAPA	EF
	C160	QFLC1HJ-333ZM	0.033MF 50V MYLAR CAPA	EN
	C160	QFLC1HJ-333ZM	0.033MF 50V MYLAR CAPA	G
	C160	QFLC1HJ-333ZM	0.033MF 50V MYLAR CAPA	GI
	C161	QETB1HM-225	2.2MF 50V AL E. CAPAC	
	C162	QETB1HM-225	2.2MF 50V AL E. CAPAC	
	C163	QETB1HM-225	2.2MF 50V AL E. CAPAC	
	C164	QETB1HM-225	2.2MF 50V AL E. CAPAC	

CAPACITORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C166	QCC31EM-473ZV	0.047MF 25V CER.CAPACI	
	C168	QCC31EM-473ZV	0.047MF 25V CER.CAPACI	
	C169	QFV81HJ-274	0.27MF 50V T.FILM CAP	EF
	C169	QFV81HJ-274	0.27MF 50V T.FILM CAP	EN
	C169	QFV81HJ-274	0.27MF 50V T.FILM CAP	G
	C169	QFV81HJ-274	0.27MF 50V T.FILM CAP	GI
	C171	QCGB1HK-102	1000PF 50V CER.CAPACI	
	C171	QCGB1HK-102	1000PF 50V CER.CAPACI	EF
	C171	QCGB1HK-102	1000PF 50V CER.CAPACI	EN
	C171	QCGB1HK-102	1000PF 50V CER.CAPACI	G
	C171	QCGB1HK-102	1000PF 50V CER.CAPACI	GI
	C183	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C184	QETB1CM-227	220MF 16V AL E.CAPAC	
	C185	QETB1CM-477M	470MF 16V E.CAPACITO	
	C186	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C191	QCS31HJ-820Z	82PF 50V CER.CAPACI	
	C192	QCS31HJ-470Z	47PF 50V CER.CAPACI	
	C193	QCS31HJ-561Z	560PF 50V CER.CAPACI	
	C194	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C195	QCS31HJ-331Z	330PF 50V CER.CAPACI	
	C196	QETB1HM-225	2.2MF 50V AL E.CAPAC	
	C197	QETB1HM-106	10MF 50V E.CAPACITO	
	C198	QCC31EM-104ZV	0.1MF 25V CER.CAPACI	

RESISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R102	QRD167J-332	3.3K 1/6W CARBON RES	
	R103	QRD161J-221	220 1/6W CARBON RES	
	R104	QRD167J-272	2.7K 1/6W CARBON RES	
	R105	QRD161J-391	390 1/6W CARBON RES	
	R106	QRD161J-102	1K 1/6W CARBON RES	
	R107	QRD161J-681	680 1/6W CARBON RES	
	R108	QRD167J-332	3.3K 1/6W CARBON RES	
	R109	QRD161J-221	220 1/6W CARBON RES	
	R110	QRD161J-472	4.7K 1/6W CARBON RES	
	R111	QRD161J-472	4.7K 1/6W CARBON RES	
	R112	QRD161J-472	4.7K 1/6W CARBON RES	
	R113	QRD161J-103	10K 1/6W CARBON RES	
	R114	QRD161J-103	10K 1/6W CARBON RES	
	R115	QRD161J-104	100K 1/6W CARBON RES	
	R116	QRD161J-222	2.2K 1/6W CARBON RES	
	R121	QRD161J-473	47K 1/6W CARBON RES	
	R122	QRD161J-472	4.7K 1/6W CARBON RES	
	R123	QRD167J-562	5.6K 1/6W CARBON RES	
	R124	QRD161J-222	2.2K 1/6W CARBON RES	
	R125	QRD161J-222	2.2K 1/6W CARBON RES	
	R126	QRD161J-181	180 1/6W CARBON RES	
	R127	QRD167J-822	8.2K 1/6W CARBON RES	
	R128	QRD161J-472	4.7K 1/6W CARBON RES	
	R129	QRD161J-222	2.2K 1/6W CARBON RES	
	R130	QRZ0077-680	68 1/4W FUSIBLE RE	
	R132	QRD161J-102	1K 1/6W CARBON RES	
	R141	QRD161J-392	3.9K 1/6W CARBON RES	
	R142	QRD161J-103	10K 1/6W CARBON RES	
	R143	QRD161J-103	10K 1/6W CARBON RES	
	R144	QRD167J-332	3.3K 1/6W CARBON RES	
	R145	QRD161J-103	10K 1/6W CARBON RES	
	R146	QRD161J-222	2.2K 1/6W CARBON RES	
	R147	QRD161J-473	47K 1/6W CARBON RES	
	R148	QRD161J-561	560 1/6W CARBON RES	
	R149	QRD161J-103	10K 1/6W CARBON RES	EF
	R149	QRD161J-103	10K 1/6W CARBON RES	EN
	R149	QRD161J-103	10K 1/6W CARBON RES	G
	R149	QRD161J-103	10K 1/6W CARBON RES	GI
	R150	QRD167J-332	3.3K 1/6W CARBON RES	
	R151	QRD167J-332	3.3K 1/6W CARBON RES	
	R152	QRD167J-822	8.2K 1/6W CARBON RES	EF
	R152	QRD167J-822	8.2K 1/6W CARBON RES	EN
	R152	QRD167J-822	8.2K 1/6W CARBON RES	G
	R152	QRD167J-822	8.2K 1/6W CARBON RES	GI
	R153	QRD167J-822	8.2K 1/6W CARBON RES	EF
	R153	QRD167J-822	8.2K 1/6W CARBON RES	EN
	R153	QRD167J-822	8.2K 1/6W CARBON RES	G
	R153	QRD167J-822	8.2K 1/6W CARBON RES	GI
	R161	QRD161J-473	47K 1/6W CARBON RES	
	R162	QRD161J-222	2.2K 1/6W CARBON RES	
	R181	QRD161J-222	2.2K 1/6W CARBON RES	
	R182	QRD161J-103	10K 1/6W CARBON RES	
	R183	QRD161J-103	10K 1/6W CARBON RES	
	R184	QRD161J-473	47K 1/6W CARBON RES	EF
	R184	QRD161J-473	47K 1/6W CARBON RES	EN
	R184	QRD161J-473	47K 1/6W CARBON RES	G
	R184	QRD161J-473	47K 1/6W CARBON RES	GI
	R191	QRD161J-222	2.2K 1/6W CARBON RES	

OTHERS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
		E308963-001	SHIELD BRAC	
		EMW10496-102A	CIR.BOARD	EF
		E3400-431	FELT SPACER	EF
		QWE351-10BB	VINYL WIRE	EF
		EMW10496-102A	CIR.BOARD	EN
		E3400-431	FELT SPACER	EN
		QWE351-10BB	VINYL WIRE	EN
		EMW10496-102A	CIR.BOARD	G
		E3400-431	FELT SPACER	G
		QWE351-10BB	VINYL WIRE	G
		EMW10496-102A	CIR.BOARD	GI
		E3400-431	FELT SPACER	GI
		QWE351-10BB	VINYL WIRE	GI
	J101	EMV5109-007A	MALE CONNEX	
	J103	EMV5109-007A	MALE CONNEX	
	L102	EQL4004-150	INDUCTOR	
	L121	EQL4004-1R0	INDUCTOR	
	L141	EQL2108-392	INDUCTOR	
	L181	EQL4004-1R0	INDUCTOR	
	L191	EQL4004-101	INDUCTOR	
	T111	EQR7121-006	RF COIL	EF
	T111	EQR7121-006	RF COIL	EN
	T111	EQR7121-006	RF COIL	G
	T111	EQR7121-006	RF COIL	GI
	T141	EQT2140-021	I.F.TRANSFO	
	T142	ECB1560-010	CERAMIC FIL	
	AT101	EMB41YV-302K	ANTENNA TER	
	CF101	ECB2118-007R	CERAMIC FIL	
	CF102	ECB2118-007R	CERAMIC FIL	
	EP101	E70225-001	EARTH PLATE	
	FE101	EAF2203-005	FRONT END	
	JA101	EMV7140-L10R	PIN CONNECT	
	LP141	EQF0101-002	LOWPASS FIL	
	XT121	ECX0007-200KWJ1	CRYSTAL	
	XT141	ECXPR46-001A	CRYSTAL	
	XT142	ECB1001-002	CERAMIC FIL	
	XT191	VCX5057-001	CRYSTAL	
	XT192	EFO-EC4004T4	CERAMIC RES	

**-MEMO-**

# Accessories List

Symbol No.

M	5	M	M
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Item	Part Number	Part Name	Q'ty	Description	Area
1	E30580-2217A	INSTRUCTION BOOK	1		EF
	E30580-2217A	INSTRUCTION BOOK	1		GI
	E30580-2217A	INSTRUCTION BOOK	1		G
	E30580-2218A	INSTRUCTION BOOK	1		EN
2	RM-SES600RU	WIRE-LESS REMOTE CONTROL	1		
3	R03BPA-2ST	DRY CELL	2		
4	EQB4001-015	LOOP ANTENNA	1		
5	E03614-004	FM FEEDER ANTENNA	1		EF
5	E03614-004	FM FEEDER ANTENNA	1		EN
	E03614-004	FM FEEDER ANTENNA	1		GI
6	E67007-001	ANTENNA WIRE	1		G
	EWP902-044	FLAT WIRE ASSY	2		
	EWPZ01-006	EARTH WIRE	1		
	EMZ2001-014	ADAPTOR PLUG	1		
	BT-20134	WARRANTY CARD	1		G
10	QPGA025-03505	POLY BAG	1		

### The Marks for Designated Areas

EF .... Continental Europe

EN .... Scandinavia

GI ..... Italy

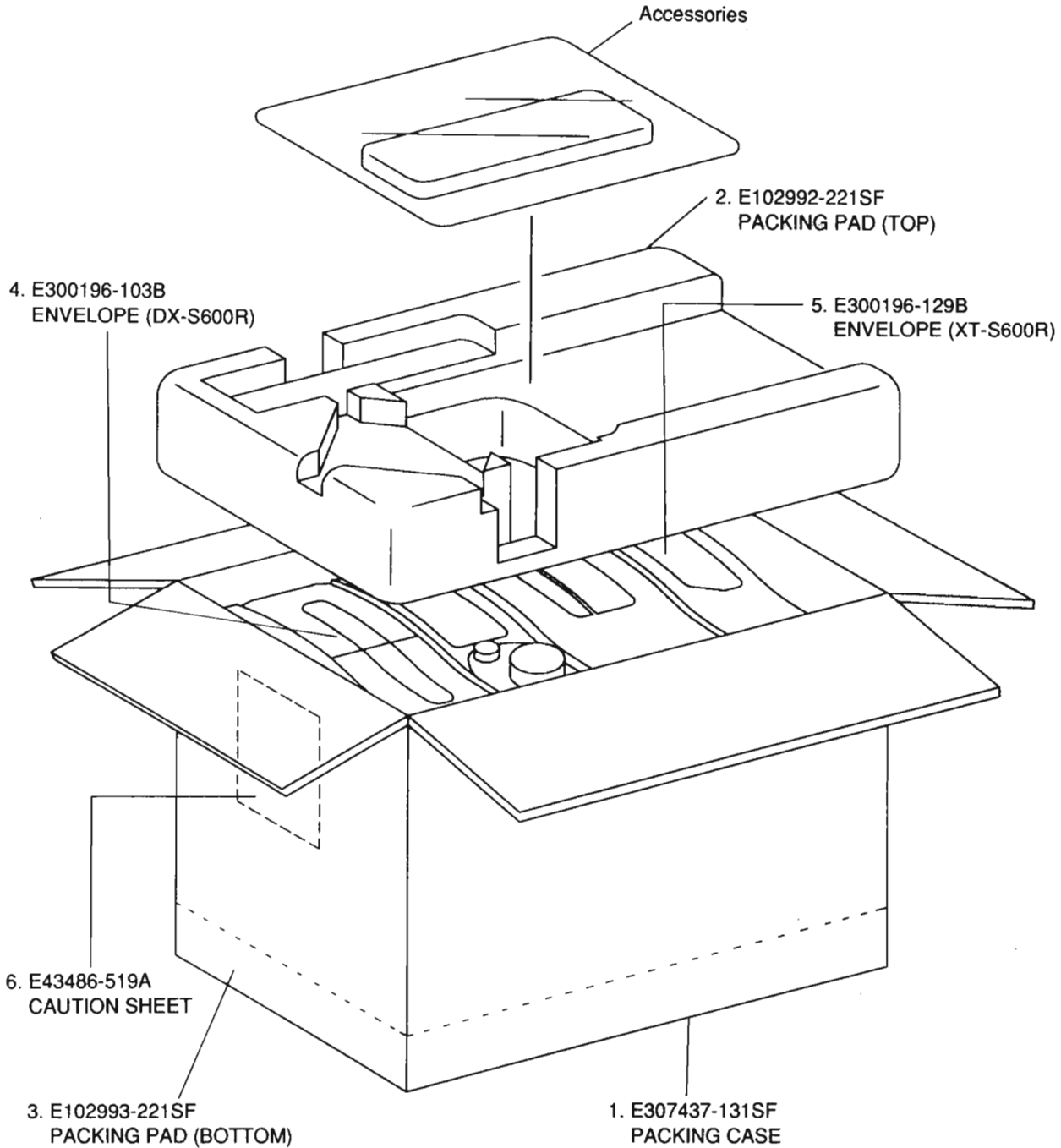
G ..... Germany

No mark indicates all area.

# Packing Materials and Part Numbers

Symbol No. 

M	6	M	M
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The Marks for Designated Areas							
A ....	Australia	BS ....	the U.K.	EF ...	Continental Europe	EN .....	Scandinavia
G ....	Germany	GI .....	Italy	U ....	Universal Type	US ...	Singapore
UT ...	Taiwan	VX ....	East Europe	UB ...	Hong kong	No mark indicates all area.	





CA-S600R

**JVC**

VICTOR COMPANY OF JAPAN, LIMITED  
AUDIO PRODUCTS DIVISION 1644, SHIMOTSURUMA, YAMATO-SHI, KANAGAWA-KEN, 242, JAPAN