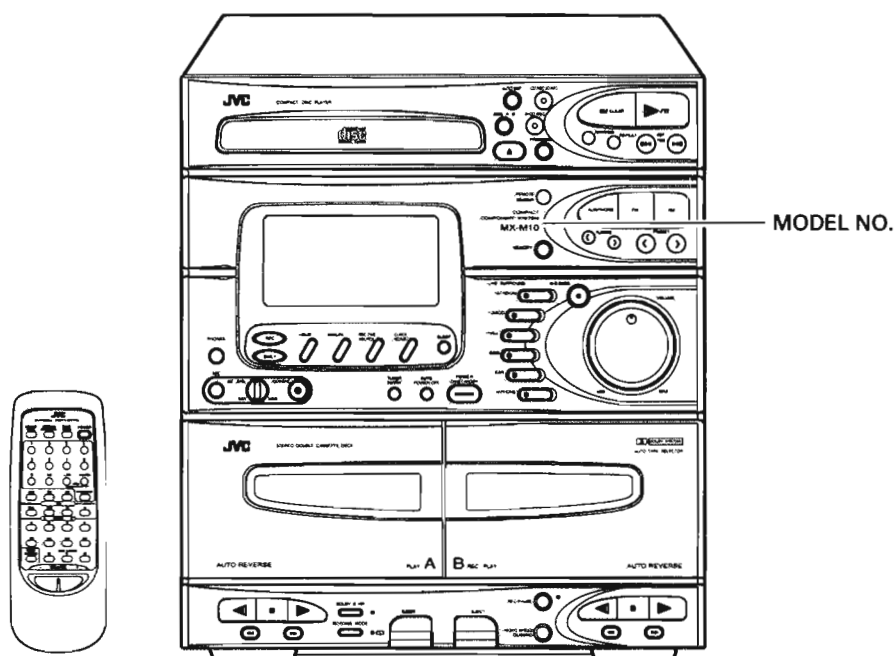


# JVC

## SERVICE MANUAL

### STEREO RECEIVER

# CA-MXM10BK



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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.).

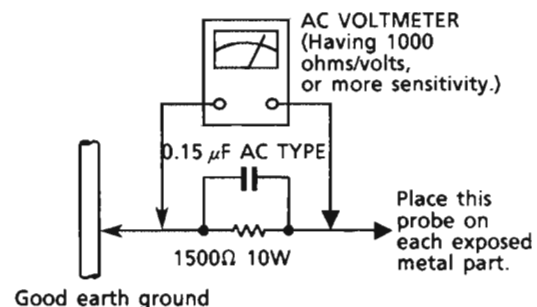
- Alternate check method

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.

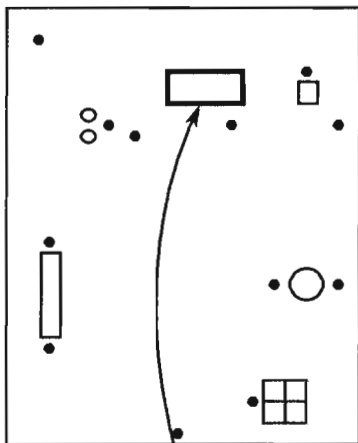
**VARNING** : Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

**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.

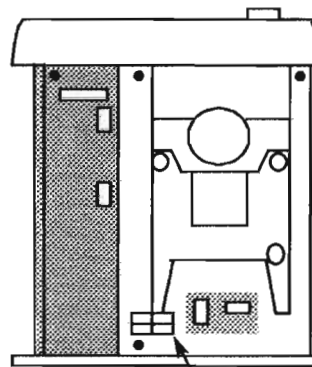
**ADVARSEL** : Usynlig laserstrålning ved åbning, når sikkerhedsbryteren er avslott. unngå utsettelse for stråling.

### REPRODUCTION AND POSITION OF LABELS



**CLASS 1  
LASER PRODUCT**

**CLASSIFICATION LABEL**  
(Except for the U. S. A. and Canada)



**WARNING LABEL**  
(Except for the U. S. A.)

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

**VARNING**: 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)

# Instruction Book

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## Features

Here are some of the things that make your CA-MXM10BK powerful and easy to use.

### Great sound

- To get such **great sound** from such a compact package the CA-MXM10BK has:
  - Pre-programmed live surround effects like **STADIUM**, **DISCO**, **HALL** as well as SEA effect like **BGM**, **CAR**, **H. PHONE** so you don't have to be a sound engineer to get great effects.

### Easy operation



- 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 new **COMPUPLAY** you can turn on the CA-MXM10BK and start the radio, the tape deck, or the CD player with a single touch.
  - Four timers, **REC Timer**, **DAILY Timer**, **SLEEP Timer** and **AUTO POWER OFF** are extremely easy to set so you can really use them.
  - The **Display** 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 blink to tell you they are ready. It gives you some important messages like "NO DISC," "NO TAPE" and some others.
  - **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.

### Sing along

- You can use conventional tapes and CDs for **Karaoke** with the voice canceller system. With an optional microphone, you can replace the lead singer's voice on your favourite songs with your own.
  - **Digital Echo** applied to your voice through the microphone gives you a professional sound.

### Preset radio stations

- Anywhere in Japan, with the **Area Guide** you can automatically set the AM and FM stations available in your part of Japan by entering your Japanese telephone area code.

## 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.
- Do not use the Unit in a place subject to vibrations.

### 2. Power cord

- Do not handle the power cord with wet hands!
- When unplugging from the wall outlet, always pull the plug, not the power cord.

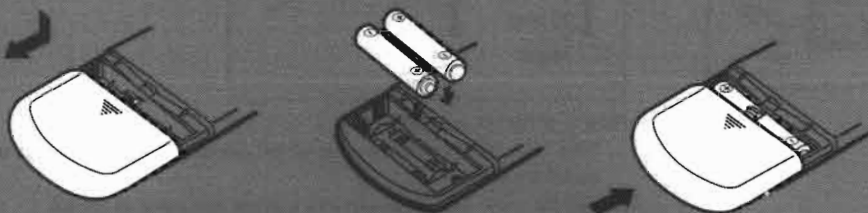
### 3. Malfunctions, etc.

- 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.

## How to Put Batteries in the Remote Control

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

R03(UM-4)/AAA(24F)



### CAUTIONS: Observe Proper Handling of Batteries.

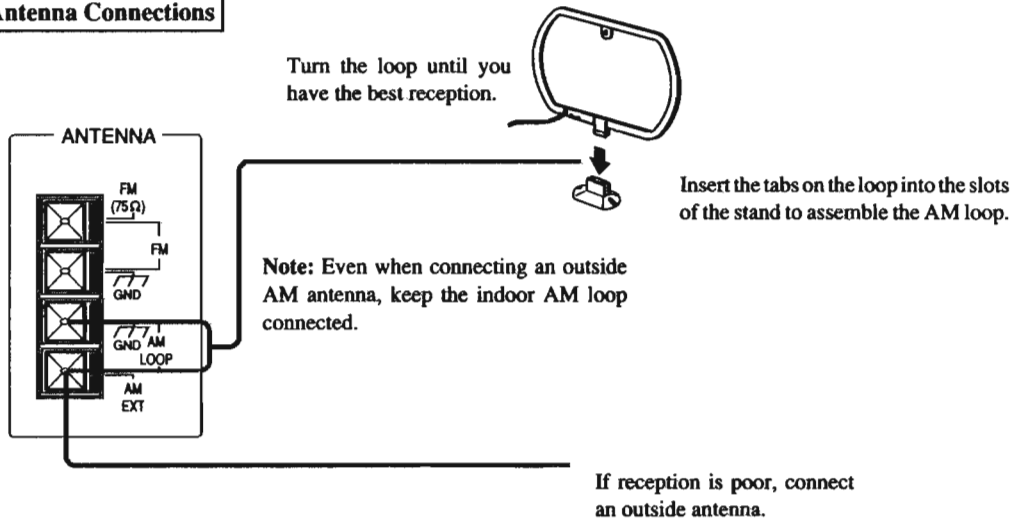
To avoid battery leakage or explosion:

- 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.

## Connection Diagrams and Instructions

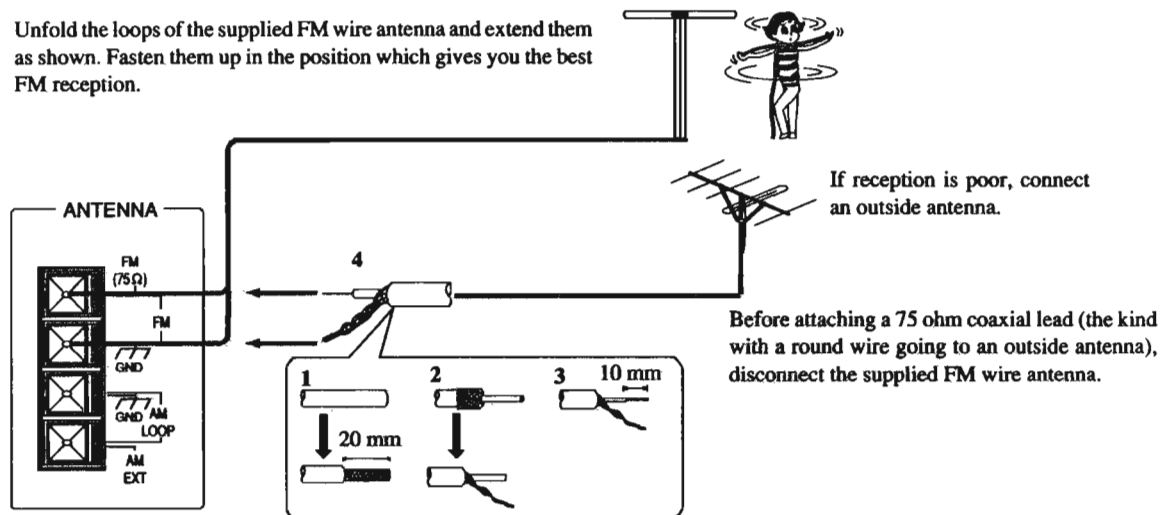
### Connecting the AM and FM Antennas

#### AM Antenna Connections



#### FM Antenna Connections

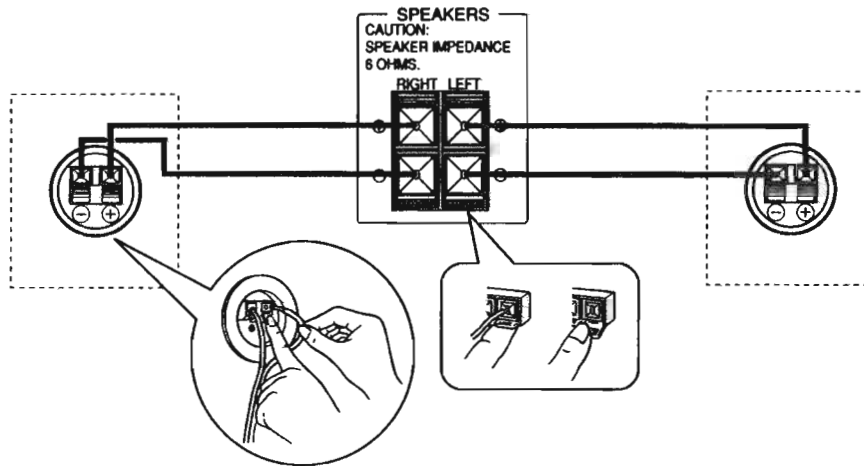
Unfold the loops of the supplied FM wire antenna and extend them as shown. Fasten them up in the position which gives you the best FM reception.



#### How to strip the coaxial cable:

1. Strip back the outside covering of the coaxial 75 ohm FM cable to expose the braided metallic mesh.
2. Pull the mesh back and twist into a single connector as shown.
3. Strip the insulation about 10 mm back from the central wire.
4. Attach to the antenna block on the rear panel, as shown in the diagram above.

## Connecting the Speakers



For each speaker connect one end of the speaker wire to the speaker terminals on the rear of the CA-MXM10BK and one end to the speaker. On the rear panel:

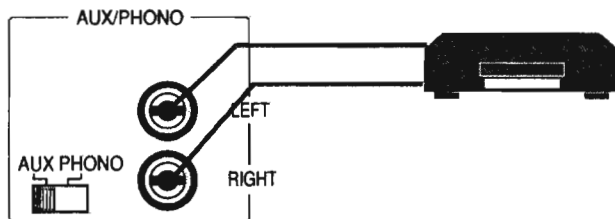
1. Open each terminal.
2. Insert the end of the speaker wire as shown (be sure to remove the insulation at the end of each wire first).
3. Close the terminals to clamp the speaker wires firmly in place.
4. Connect the red (+) and black (-) terminals of the right side speaker to the red (+) and black (-) terminals marked RIGHT on the CA-MXM10BK.  
Connect the red (+) and black (-) terminals of the left side speaker to the red (+) and black (-) terminals marked LEFT on the CA-MXM10BK.

**IMPORTANT:** Match the polarity of the speaker terminals with the polarity of the terminals on the CA-MXM10BK, red (+) to red (+) and black (-) to black (-). Check your speakers for correct impedance: 6 ohm speakers only.

## Connecting Auxiliary Equipment

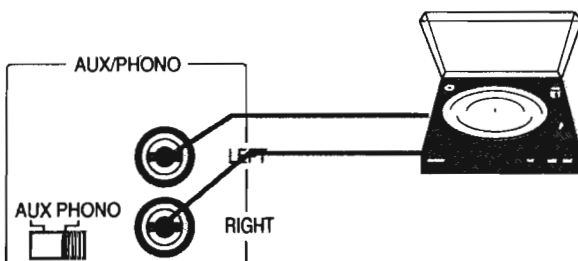
### VTR

Set the input selector to AUX.

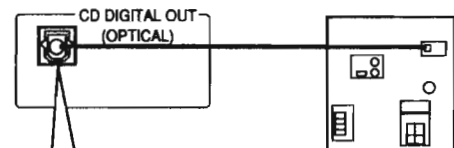


### Turntable

- Set the input selector to PHONO.
- Use MM-cartridge-type turntables only.



### MD or DAT (with an optical input)



Before connecting a MD or a DAT, remove the protective plug from the terminal.



**CAUTION:** DO NOT connect optional equipment or set the input selector while the power is on.

## Read Me First

**How to get the most for your money by using this manual.**

The Engineers at JVC have made the CA-MXM10BK very easy to use, and if you are experienced using audio equipment, you can figure out how to use some of the CA-MXM10BK controls by yourself. However, we have built some new features into this model, which you can learn about easily from the manual.


If you are a new user or just want a review, this manual explains how to use the CA-MXM10BK and take advantage of its features for playing and recording music, as well as other sounds. One way to use this manual is to read it through now and refer back to it when you need to refresh your skills for some special operation. Of course you can just look up the topics, such as recording a CD, that you want to do, but remember that you may need to refer to other parts of the manual for some of the instruction: for instance, in explaining how to record a CD, we assume you already know how to load a CD. That's why we recommend that you read the manual through once before starting. We've made it short, and easy to follow.

However, before you proceed, please read the IMPORTANT CAUTIONS on page 2 and the set-up directions on the next page.

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

### 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:

- A fold-out page to look at while you read the instructions shows the front controls of the CA-MXM10BK and the Remote Control. Some procedures have the illustrations of which control to use right with them, and for some you will need to look at the fold-out for the illustration.
- 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 function names that light up on the display panel are written in all capital letters like this: POWER.
- When we are talking about the Function, rather than the BUTTON or DISPLAY, then we just capitalize the first letter of the words.
- The  alerts you to important information or how to solve special problems that may occur when using the CA-MXM10BK.

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.

Basically we use three kinds of information to help you understand and use the CA-MXM10BK:

- Information about what you can do (such as record a CD or preset a radio station) and how the Unit is designed to make doing this activity easy.
- Procedures, usually numbered in the order you do the steps, to guide you in exactly what to do to accomplish something, such as tune a radio station or record a tape.
- Information you need to know to make decisions about which functions of the CA-MXM10BK to use for particular tasks (such as when to use the Dolby NR system to reduce hiss noise) and special hints to make your work go smoothly, like reminding you to set the sound effects before starting the CD to tape recording, since they cannot be changed once recording begins without starting completely over.

## Getting Started Right

**Inside the packing box....**

### Unpacking

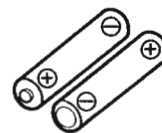
Of course you have already opened your CA-MXM10BK carton, since you are reading this manual. Although the Unit is quite sturdy, you may want to save the packing to re-pack your CA-MXM10BK in case you are moving it some distance. Check to be sure you have all of the following things, which are supplied with the CA-MXM10BK:



AM Loop Antenna



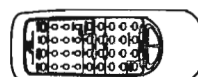
FM Antenna



Batteries



AM Antenna Stand



Remote Control



AC plug adaptor



Where can you put it?

### Location

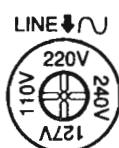
You can place the CA-MXM10BK in many different kinds of locations to suit your needs; just observe the IMPORTANT CAUTIONS on page 2: keep away from moisture and heat; leave some space between the Unit and its surroundings more than 10 cm at the back.

Very little assembly required

### Set Up

You will need to do the following 5 things to get your CA-MXM10BK ready to use.

1. Set the VOLTAGE SELECTOR switch.
2. Connect the Antennas.
3. Connect the Speakers.
4. Put Batteries in the Remote Control.
5. Connect Other Sound Sources.



Please look at the diagrams on pages 3 and 4 to do these things.

#### 1. Set the VOLTAGE SELECTOR Switch

To avoid damaging the CA-MXM10BK, set the voltage before plugging in the Unit.

- Set the correct voltage for your area with the VOLTAGE SELECTOR switch on the rear panel of the CA-MXM10BK. Use a screwdriver to rotate the switch so the number the arrow is pointing at is the same as the voltage where you are plugging in the Unit.

#### 2. Connect the Antennas

Follow the diagrams on page 3. Here's what you need to know:

- For AM reception you must connect the supplied loop antenna. If reception is poor, connect an outside antenna, but leave the loop antenna in place—the AM will not work correctly without it.
- For FM reception, connect the supplied FM wire antenna. However, if you use an outdoor antenna, disconnect the supplied wire antenna first.
- To avoid noise, keep antennas away from metallic parts of the CA-MXM10BK, connecting cords and the AC power cord.

#### 3. Connect the Speakers

Basically, you look at the diagrams on page 4 and follow the instructions there. Be sure to match the polarity of the speaker terminals with the polarity of terminals on the CA-MXM10BK.

#### 4. Put Batteries in the Remote

Pay close attention to getting the batteries in correctly—we've made it very easy, just match the + and - marks on the batteries with the + and - markings on the Remote. See page 2 for instructions

**CAUTION:** Handle batteries with care. See page 2 for proper use of batteries.

#### 5. Connect Other Sound Sources

You can use a VTR or a turntable and connect an MD (mini disc) or DAT with an optical input terminal with the CA-MXM10BK.

- To use a VTR with the CA-MXM10BK, set the input selector (AUX/PHONO) near the AUX/PHONO jacks to AUX. Then connect the VTR using an audio connecting cable (not supplied).
- To use a turntable with the CA-MXM10BK, set the input selector (AUX/PHONO) near the AUX/PHONO jacks to PHONO. Then connect the turntable using an audio connecting cable (not supplied).
- For digital recording of CDs, you can connect an MD or a DAT with an optical input terminal to the CD DIGITAL OUT (OPTICAL) terminal using an optical cable (not supplied).

**CAUTION:** DO NOT connect optional equipment or set the input selector while the power is on.

Now you can plug the AC power cord into the wall socket, and your CA-MXM10BK is at your command!

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

Read on and find out how to use the many features built into your Unit...

## Common Operations

Here are the things that apply to all the functions of your CA-MXM10BK. If something in a procedure is unclear to you, check back here.

The Magic of



### COMPUPLAY

COMPUPLAY is JVC's new feature that lets you control the most used functions of the CA-MXM10BK with a single touch. This One Touch Operation starts playing a CD, turns on the radio, plays a tape, etc. 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 gives you a message on the display 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-MXM10BK On

Press **POWER**: the display comes on and the green indicator on **POWER** lights up.

- The CA-MXM10BK 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-MXM10BK Off

Press **POWER** again. The green indicator on **POWER** goes out and the display blanks, except for the clock display.

- A small amount of power (13 watts) is always consumed even though the power is turned off.
- To switch off the Unit completely, unplug the AC power cord from the AC outlet. When you unplug the AC power cord, the clock will be reset right away, while the tuner preset stations will be erased in a few days.



Making it sound the way *You* want it to:

### Controlling the Sound

The same set of buttons and knobs control the sound, no matter which function is producing it. Here we will briefly explain how these controls work, and how you can use them to increase your enjoyment of the music.

•Volume

#### Volume Control

Rotate clockwise to increase loudness, counter-clockwise to reduce loudness. Be sure to read the caution at the end of this section about high sound levels damaging your hearing or your equipment.

#### Sound Modes

The CA-MXM10BK has some preset sound effects 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. We can give you some idea of how each one affects the music, but the only way to really tell is try them yourself.

You can use only one effect at a time selecting from the **LIVE SURROUND** and **SEA** effects. Feel free to experiment!

**To get an effect**, press a preset button so that the indicator on the button lights up.

**To cancel the effect**, press the button again, or press another preset button to select another effect.

•STADIUM  
•DISCO  
•HALL

#### LIVE SURROUND effects

With these effects, the sound coming from only two speakers approaches the quality of sound from four speakers.

•**STADIUM** — Adds clarity and spreads the sound, like in an outdoor stadium.

•**DISCO** — Increase resonance and bass.

•**HALL** — Adds depth and brilliance to the sound, like in a concert hall.

BGM  
CAR  
H. PHONE

#### Preset SEA (Sound Effect Amplifier) effects

Adjustments of frequency range levels have been preset as three SEA effects.

**BGM** — Used as a background music.

**CAR** — Used for recording tapes to listen to in a car.

**H. PHONE** — Used for recording tapes to listen to with headphones.

☞ On the Remote, you can't find buttons for these preset sound effects. By pressing **SOUND MODE** on the Remote, you can cycle through the effects one after the other.

Things to remember about using preset effects:

- Set a preset effect before you start recording with **CD Direct** or **Auto Edit**, because once recording starts, the preset effect cannot be changed without stopping recording, and often having to start over. If you need different effects for each selection, use the standard recording features described on page 13, rather than **CD Direct** or **Auto Edit**.
- Each of the preset effects changes the sound in a different way by changing which parts of the sound are increased or reduced. To see how each part of the sound will be changed, watch the display just as you select an effect when music is playing. For a short while, the display shows the pattern of enhancement for that effect.

**AI S. BASS Effect**

The richness and fullness of the sound is maintained regardless of how high or low you set the VOLUME control.

**To get the effect**, press AI S. BASS so that the indicator on the button lights up.

**To cancel the effect**, press the button again so that the indicator goes off.

**Using the Tuner Entry Function**

With Tuner Entry on, the Unit automatically shifts to the most recently played radio station when tape or CD play is over.

**To get the function**, press TUNER ENTRY so that "TUNER ENTRY" appears on the display.

**To cancel the function**, press the button again so that "TUNER ENTRY" disappears.

In the following situations, even if Tuner Entry is on, it will not take effect:

- When you intentionally stop the CD player or tape deck by pressing ■/CLEAR on the CD player or ■ on the tape deck.
- After the CD player or tape deck stops playing while Auto Power Off (see page 18) is on.
- When the tape deck is in Reverse Mode (see page 12).

TUNER ENTRY

**Listening with Headphones**

A pair of headphones can be connected to the PHONES jack on the front panel. **Be sure to turn down the volume before connecting or putting on headphones, as high volume can damage both the headphones and your hearing.**

**The Display and The Indicators****The Display and the Indicators—Two Very Useful Hints**

- The display tells you many useful things about what your Unit is doing. Watch it as you give instructions to the CA-MXM10BK by pressing buttons. It also gives you some messages like "NO DISC," "NO TAPE," "PUSH! CD REC," and some others to show you what to do next.
- Some of the controls have a small light, called an indicator, right next to or even right on the button or knob itself. The light comes on when the function is on, and goes off when it is not in use.

Caution:  
Too LOUD!

**CAUTION:** Always set the VOLUME control to MIN before turning on a connected source such as a VTR or turntable, 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.

**Listening to the Radio**

You can listen to both AM and FM. The tuner built into the CA-MXM10BK can also receive stereo AM broadcasts, which are available in some countries.

- Before listening to the radio, check that both the AM and FM antennas are firmly connected.
- To listen to the radio after CD or tape play, see "Using the Tuner Entry Function," above.

**Setting the AM Tuner Interval Spacing**

Some countries space AM stations 9 kHz apart, and some countries use 10 kHz spacing. Europe, the U.K., Australia, and some other areas use 9 kHz spacing, while Canada, the United States, and some other Western Hemisphere countries use 10 kHz spacing.

- When shipped, the CA-MXM10BK is set to 9 kHz spacing.
- To select the 10 kHz interval, be sure the power is off, but the Unit is plugged into the wall socket. Hold down PRESET > and press POWER. Now the 10 kHz interval is selected
- To change back from 10 kHz to 9 kHz, be sure the power is off, but the Unit is plugged into the wall socket. Hold down PRESET < and press POWER, and the CA-MXM10BK is now set for 9 kHz spacing.

**One Touch Radio**

Just press AM to turn on the Unit and start playing the most recent AM station tuned in, or press FM to start the most recent FM station tuned in.

- You can switch from any other sound source to the radio by pressing either AM or FM.

**COMPUPLAY**  
Radio

### Tuning in a Station

Press AM or FM to turn on the radio. The display shows the station frequency (or station name) tuned to.

#### Three ways to tune in a station

#### Three ways to select a station

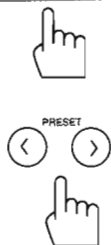
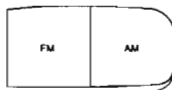
1. Press TUNING < or > repeatedly to move from frequency to frequency until you find the one you want.  
OR
2. Hold down TUNING < or >, the frequency starts changing on the display. When a station is tuned in, "TUNED" lights up on the display and the frequency stops changing.  
OR
3. Press once and release 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 only after presetting stations.)

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

To tune preselected stations with the Remote:

1. Press FM or AM depending on which band you want.
2. Select the station by entering the preset channel number in the 10 key pad of the Remote.

#### How to preset AM 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 of the Remote or the CA-MXM10BK itself using PRESET < or > to call up the channel number.

- You can preset 10 stations each for AM and FM.
- Preset stations may be erased when power is cut off to the Unit for a few days, as when it is unplugged from the AC outlet. If this happens, simply set the stations again using the following procedure.

#### To preset radio stations

1. Tune in the station you want to set using TUNING < or >.
2. Press MEMORY.  
On the display "MEMORY" will blink for 8 seconds.  
 During these 8 seconds while "MEMORY" 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 > until you find the channel number you want.
4. Press MEMORY and the station will be assigned to the channel number showing on the display.  
 If a station has been previously stored using the same channel number, it will be erased and the newly selected station will be stored.

#### Area Guide Preset finds the stations in your area for you

**Area Guide Preset (Available only in Japan)**  
The CA-MXM10BK comes with a built-in program to preset the AM and FM stations anywhere in Japan. This function is only supported in areas with Japanese telephone area codes. Tables of area codes and the preset stations for each are in the back of the manual.

**\*Area Guide Preset functions only when the CA-MXM10BK is set to 9 kHz frequency spacing.**

You use this program by entering your Japanese telephone area code with the Remote using the following procedure:

1. Press AM or FM on the Remote.
2. Press AREA GUIDE—0. "TEL 0" appears on the display.
3. Enter your telephone area code using the 10 key pad. You don't need to enter the first 0 which your area code starts with, since pressing AREA GUIDE—0 takes care of the first 0.
4. Press AREA GUIDE—SET.  
 The AM stations which were set at the factory for this area code will now be displayed and set.  
 As soon as the AM stations are set, the Unit enters the FM preset mode, and automatically sets the FM stations in your area. You can change them using the procedure under "Presetting Stations."

Wait until the entire procedure is finished ("MEMORY" goes off and the FM station name selected last appears on the display and the radio is tuned to this last FM station) before doing anything else with the CA-MXM10BK, or you may have to shut the Unit off, and start over.

**To delete the station names**

1. Press AREA GUIDE—0. "TEL 0" appears on the display.
2. Press AREA GUIDE—SET. "NAME CUT" appears on the display and the station names are all deleted and the station frequencies appear instead.

**To restore the station names**  
You need to do the Area Guide Preset again.

## Receiving in Stereo or Mono



The CA-MXM10BK can receive broadcasts in either stereo or mono, including a new stereo AM available in some countries. When "AUTO" lights up on the display, the CA-MXM10BK automatically receives broadcasts in the mode they are transmitted. Usually, leaving the CA-MXM10BK in Auto Mode, with "AUTO" lit on the display, gives you the best reception.

However, due to distance or interference, reception of a stereo station may be poor.

To improve reception in cases like this, press STEREO AUTO/MONO on the Remote so that "AUTO" on the display goes off. Although you lose the stereo effect, reception may improve.

- You have to set Auto Mode separately for AM and FM.

To restore automatic stereo or mono detection, press STEREO AUTO/MONO so that "AUTO" lights up.

## Listening to a Compact Disc



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

- Press ▷/|| on the CD player or ► 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 Unit automatically turns on and the CD tray opens. This is the exactly same as what happens if you press ▲ instead of ▷/||.

### Basics of Using the CD Player

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.

**How to use the CD player: from the most basic to advanced**

#### To Play a CD

1. Press ▲.
2. Put a CD, printed side up, into the tray.
3. If you want to listen to the CD now, press ▷/|| (or ► on the Remote).

The display shows the track being played and the length of time since it started.

To stop the CD, press ■/CLEAR (or ■ on the Remote). When you start again, the CD begins with track 1.

To pause the play, press ▷/|| while the CD is playing so when you press ▷/|| again (or ► on the Remote) the CD starts just where you left off.

To remove a CD, press ▲, take the CD out, and press ▲ again to close the tray. Keep the tray closed except during loading and unloading to protect the mechanism from dust and damage.

**How to find a track**

#### How to Find the Track or a Particular Point You Want

Each time you press briefly and release EDIT TIME ◀◀ or ▶▶ (◀◀ or ▶▶ on the Remote) the track changes by one.

- Press and release EDIT TIME ▶▶ (or ▶▶ on the Remote) to go ahead one track at a time.
- Press and release EDIT TIME ◀◀ (or ◀◀ on the Remote) to go back one track at a time.
- Holding down EDIT TIME ◀◀ or ▶▶ will fast forward or fast reverse the CD so you can quickly find the particular part of a track you want to listen to. Fast forward and fast reverse are only possible by using the buttons on the Unit when the CD is not playing.
- Holding down ◀◀ or ▶▶ on the Remote allows you to change the tracks continuously. (By using the buttons on the Unit, it is only possible when the CD is not playing.)

**Using the Remote to find a track**

#### Locating a Track with the Remote

Using the 10 key pad on the Remote allows you to go directly to the beginning of any track.

1. Press ►.
2. Enter the number of the track you want using the 10 key pad. The selected track will start to play.
  - Example: for track 5, press 5. For track 15, press +10 then 5. For track 20, press +10, then 10.

**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

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

Before starting a CD, press RANDOM on the CD player.

When all of the tracks have been played, the CD shuts off.

- Press REPEAT before or during random play to instruct the CA-MXM10BK to continue with a different random track selection after the last selection is played.

To cancel random play, press ■/CLEAR (or ■ on the Remote).



## CA-MXM10BK

### Program with the Remote

#### How to program: just 3 easy steps



### Programmed Play

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 10 key pad. See "How to Use the Remote Control," page 20, if you need more information about its use. You can also use the main Unit.

#### To program the CD tracks order from the Remote

1. Press PROGRAM.
2. 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 20 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.
3. Press ► 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.

#### To program the CD from the Unit

1. Press PROGRAM.
2. Press EDIT TIME ◀◀ 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 ▷/■ and the Unit will begin playing the tracks in the order you programmed them.

To stop the CD during programmed play, press ■ on the Remote or ■/CLEAR on the Unit.

To cancel the program, press PROGRAM on the Remote or ■/CLEAR on the Unit while the CD is off.

### Programming Hints

#### A few hints to make programming easier

- To add a track to your program, enter the track numbers you add with the 10 key pad. Any tracks you add will appear at the end of the current program.
- If you want to change the number of a track you just entered, press CANCEL on the Remote, and enter another number. (When the display shows the total program time, press CANCEL twice to remove the last selection entered.)
- If you want to change the entire program, press ■/CLEAR on the Unit while the CD is off, and then you can start over.
- To check the order of the tracks in your program when it's playing, press ◀◀ or ▶▶ on the Remote in stop mode to display the order of the tracks. Each time you press ▶▶ the next selection in your program is displayed. (Press ◀◀ for the previous selections.)

### 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 function-off, which turns "REPEAT" out on the display, to "REPEAT" which will repeat all tracks in order or according to the program you have set, and then to "REPEAT 1" which will repeat the currently playing track.

To cancel repeat mode, press REPEAT until the "REPEAT" or "REPEAT 1" goes off on the display.

## Listening to a Tape

### Listen to a tape: How to use your tape deck

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

- Most of tapes are now recorded with the Dolby NR system, so first check which type of the Dolby NR system is used on the tape. Only the Dolby B NR is incorporated into the CA-MXM10BK.
- With Automatic Tape Type Detection, you can listen to type I, II, or IV tapes without changing any settings.
- To record or dub, see Recording on page 13.



### Playback Procedure

### One Touch Play

By pressing either ▷ or ◀ on either deck A or B (► or ◀ on the Remote), 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.

### Regular Play

When the 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-MXM10BK.
  - 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 ▷ to play the front side, or ◀ to play the reverse side. The arrow indicator on the pressed button starts blinking and tape play starts.

To stop playing, press ■.

To remove the tape, press EJECT.

**Fast Left and Fast Right**

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

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

To find the beginning of a music track during play, use the Music Scan function. Music Scan searches for blank portions that usually separate tracks, then plays the next song.

- If you are recording on deck B or put deck B in recording pause mode, Music Scan will not work on deck A.

**Scan Back****To find the beginning of the current song**


Press ◀◀ or ▶▶ during play.

- Make sure that you press ◀◀ or ▶▶ in the opposite direction as tape play. Searching stops automatically at the beginning of the current song, and the current song starts automatically.

**Scan Forward****To find the beginning of the next song**

Press ◀◀ or ▶▶ during play.

- Make sure that you press ◀◀ or ▶▶ in the same direction to tape play. Searching stops automatically at the beginning of the next song, and the next song starts automatically.

 The Music Scan works by detecting a 4-second long 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 noise.
- Long very soft passages or pauses in a selection. The scan will detect these instead of the 4-second long blanks. If this happens, just go ahead and scan again until you reach the selection you want.

**More Useful Things to Know:****•Reverse Mode****•Continuous Play****•Dolby****Useful Other Features Using the Tape Deck**

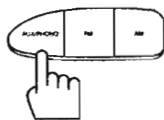
- Use **Reverse Mode** to make the tape automatically reverse at the end of a side and start playing the other side. Press REVERSE MODE to change from Reverse Mode on (the indicator is lit) to Reverse Mode off, or from off, to on.
- Continuous Play:** When a tape finishes playing, the Unit always checks to see if a tape is in the other deck. If one is there, it automatically starts playing it while rewinding the first tape. This Continuous Play happens regardless of which deck starts first.
  - With the Reverse Mode on, the other tape will start playing when both sides of the first tape have been played. As long as the REVERSE MODE indicator is lit, the tapes will continue to play in the above sequence.
  - With the Reverse Mode off, the tape will play to the end of the current side, switch to the other deck and start playing a tape there while rewinding the first tape. Then when one side of the tape in the other deck is over, the first deck starts playing the same side again. The tapes will continue to play in the above sequence.
- Press DOLBY B NR to switch **Dolby Noise Reduction** on (the indicator lights up) or off (the indicator goes off). If a tape is recorded with Dolby B NR, playing it back with the Dolby NR on will reduce tape noise and improve the clarity of the sound.

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

**Listening to an Optional VTR or Turntable****Advantages in Connecting a VTR or turntable**

By playing the sound from a VTR or turntable through the CA-MXM10BK, 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-MXM10BK, you can apply the sound effects, make recordings, or listen with the headphones.

- First make sure that the connection between optional equipment and the CA-MXM10BK has been done correctly and that the setting of the input selector (AUX/PHONO) is correct on the rear panel.



1. Set the Unit's volume to MIN.
2. Press AUX on either the Remote or the Unit. "AUX" lights up on the display.
3. Start playing the connected equipment. The sound from the connected source is now played through the CA-MXM10BK.
4. Adjust the volume level.

**To cancel the AUX setting**

Change the source by starting any one of the CA-MXM10BK's built in sound sources, such as the radio or CD player.

## Recording

### What can you record?

- Tapes
- Radio
- CDs
- Microphone
- Connected source

Recording onto cassette tape from any of the sound sources is easy and the CA-MXM10BK 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:

#### Reduce hiss— Dolby NR

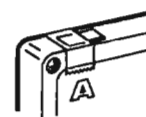
- Press DOLBY B NR — the indicator lights up — to reduce tape hiss, **except** when dubbing tapes since Dolby NR is inactive in dubbing mode regardless of the setting of DOLBY B NR. The dubbed tape automatically contains the same processing as the source tape.

#### Recording level

- 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-MXM10BK. Thus, you can adjust the sound you are actually listening to without changing the recording.

#### Erasure protection

- Two small tabs on the back, one for side A and one for side B, can be removed to prevent accidental erasure or re-recording. To record on a cassette with the tabs removed, you must cover the holes with adhesive tape first. However, when a Type II tape is used, only cover part of the hole as shown, since the other part of the hole is used to detect the tape type.



#### Recording sound mode

- When recording, you can select the sound effects with the preset sound effect buttons to condition the music as it is recorded. But when recording using Auto Edit or CD Direct, 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.

#### Usable tape type

- Type I and type II tapes can be used for recording. While type IV tapes can be played, type IV tapes cannot be used for recording on the CA-MXM10BK.

**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-MXM10BK.

### Standard recording: Any source to tape

#### Standard Recording

This is the basic method for recording any source. The CA-MXM10BK 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. You can also record from the microphone or an auxiliary source with this procedure.

### Source to tape: Step by step

#### To Record Any Sound Source to Tape

Follow these steps to record from any sound source onto a tape in deck B.

1. Insert a blank or erasable tape into deck B.
2. Press REC PAUSE.  
The REC PAUSE indicator lights up.
3. Press REVERSE MODE if you want to record on both sides of the tape.  
The REVERSE MODE indicator lights up.
4. Prepare the source, for example, tuning in a radio station, loading a CD, turning on a connected VTR or turntable.
5. Press either > to record on side A, or < to record on side B of the tape, on deck B.



### CD to tape recording: Introduction

## CD to Tape Recording

There are three ways to record from CD to tape:

- Standard Recording** described on the previous page.
- CD Direct Recording** — 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 Recording** — Your CA-MXM10BK 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.

### CD Direct Recording: Step by step

## CD Direct Recording

1. Insert a blank or erasable cassette in deck B.
  - If you want to record on both sides of the tape, press REVERSE MODE on the tape deck so that the REVERSE MODE indicator lights up.
2. Load a CD into the tray and press  $\blacktriangle$  to close the tray.
3. Set the sound mode if you want, since the sound mode cannot be changed once recording starts.
4. **To record on the tape from its beginning**, press CD REC START on the CD player.
 

The Unit will automatically rewind the tape to the beginning of side A, create a 10 second blank, turn on the CD and start recording.

**To record on the tape from any portion of tape rather than its beginning**, press +CD REC on the CD player. Without rewinding the tape and creating a 10 second blank, the Unit turns on the CD and starts recording.

  - The +CD REC button is convenient for recording from many CDs.

At the end of the tape, the CA-MXM10BK automatically goes back to the beginning of the last selection and re-records it, this time gently fading out at the end. If you selected the Reverse Mode, side B starts with the last selection on side A. (A 10 second blank is also created on the beginning of side B.)

When the tape is finished, the Unit shuts off the CD and the tape deck.

### To stop any time during the recording process

Press  $\blacksquare$  on deck B.

### Auto Edit Recording: Introduction

## Auto Edit Recording

Using Auto Edit, you can record the CD tracks to fit the tape, so a selection isn't cut off. Auto Edit is one of the best ways to copy all of a CD onto a tape.

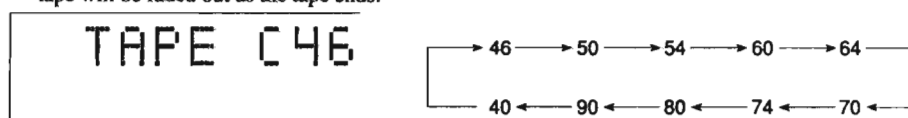
Auto Edit programs the CD tracks in the numerical order. To prevent the end of the last track on side A from being cut off, the last track on side A is selected to fit on the remaining tape length.

### Auto Edit Recording: Step by step

1. Insert a blank or erasable cassette in deck B.
  - If you want to record on both sides of the tape, press REVERSE MODE on the tape deck so that the REVERSE MODE indicator lights up.
2. Load a CD into the tray and press  $\blacktriangle$  to close the tray.
3. Set the sound mode if you want, since the sound mode cannot be changed once recording starts.
4. Press AUTO EDIT on the CD player.
 

"EDIT" appears on the display and then the minimum standard tape length to use for this CD appears.

  - You can select a different length of tape, depending on the actual size of the tape you are using, from ten possibilities programmed into the CA-MXM10BK: 40, 46, 50, 54, 60, 64, 70, 74, 80, 90. Cycle through these choices using EDIT TIME  $\blacktriangleleft\blacktriangleleft$  or  $\blacktriangleright\blacktriangleright$  ( $\blacktriangleleft\blacktriangleleft$  or  $\blacktriangleright\blacktriangleright$  on the Remote) until you find the length closest to your tape's actual length.
    - If you pick a tape length shorter than the total playing time of the CD, the last tracks on both sides of the tape will be faded out as the tape ends.



5. Press SIDE A/B.
 

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.
6. Press CD REC START on the CD player.
 

The Unit will automatically rewind the tape to the beginning of side A, create a 10 second blank, turn on the CD and start recording. (A 10 second blank is also created on the beginning of side B.)

### To stop any time during the recording process

Press  $\blacksquare$  on deck B.



**Tape to tape  
dubbing:  
Introduction**

**Tape to Tape Recording (Dubbing)**

Recording from one tape to another is called dubbing.

You can dub at regular speed for the best possible quality, or with a slight loss in sound quality you can dub at high speed. 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 deck B, and press REVERSE MODE so that the REVERSE MODE indicator lights up.
- It is preferable that the type of tape (Normal or CrO<sub>2</sub>) you record *from* be the same as the type you record *onto*.

**Regular speed  
dubbing:  
Step by step**

**Regular Speed Dubbing**

1. Insert a source cassette you want to copy *from* into deck A for playback.
2. Insert a blank or erasable cassette you want to copy *onto* into deck B for recording.
3. Press REC PAUSE on deck B.
4. Press ▷ (or ◁) on deck B.

Recording starts.

- To advance the leader tape, start recording first and wait about 10 seconds before starting the deck A.

5. Press ▷ (or ◁) on deck A.  
Deck A starts playing.

**To stop any time during the dubbing process**

Press ■ on both deck A and deck B.

**High speed  
dubbing:  
Step by step**

**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. Insert a source cassette you want to copy *from* into deck A, and a blank or erasable cassette to be copied *onto* in deck B.
2. For each deck, select the side (A or B) to start with.  
To change the side, press ◁ or ▷ and then quickly press ■ on the same deck.  
 The tape will travel in the direction of the lit arrow indicator on the ◁ or ▷ button for each deck.
3. Press HIGH SPEED DUBBING on the tape deck.  
Both decks start, deck A playing and deck B recording.

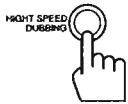
**To stop any time during the dubbing process**

Press ■ on deck B.

**To record selections from several different tapes during high speed dubbing**

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 ■ on deck A.  
 This causes deck A to stop, so you can change tapes, and deck B makes a 4 second blank and pauses.  
• If you don't want to make a 4 second blank, press REC PAUSE before pressing ■ on deck A.
2. Change the tape in deck A.
3. Press HIGH SPEED DUBBING to start deck A playing and deck B recording again.  
 The sound you hear is strange because it is much faster than usual, and you may not want to listen to it. Turn it down with the VOLUME control, or press FADE MUTING on the Remote.  
 You can also listen to another source such as the radio or the CD player, just as if you weren't dubbing.



- ☞ Dolby NR is inactive in dubbing mode regardless of the setting of DOLBY B NR. The dubbed tape automatically contains the same processing as the source tape.
- ☞ You cannot dub using the sound modes such as STADIUM, DISCO, HALL, etc.
- ☞ During high speed dubbing, if you listen to a CD with Auto Power Off turned on, the whole Unit, including the tape decks, may turn off when the CD ends. It will interrupt the dubbing.

## How to Set the Clock and Use the Timers

The timers let you control recording and playing functions automatically. With the CA-MXM10BK they are particularly easy to set and use. Four types of timers are available:

- REC (Recording) Timer**—unattended recording of radio broadcasts. You can set the starting time and recording duration.
- DAILY Timer**—Wake up to music from any source.
- SLEEP Timer**—Fall asleep and have your CA-MXM10BK turn off automatically after a certain length of time.
- AUTO POWER OFF**—Automatically turns off the Unit when the CD or tape finishes.


### 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.

**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 hour by pressing **HOUR**.  
Each time you press it, the hour advances by one. Hold the button down, and the clock will advance continuously as long as **HOUR** is held down.
3. Set the minutes by pressing **MINUTE**.  
Each time you press **MINUTE** the minutes advance by one. Hold the button down, and the minutes advance in ten minute increments as long as **MINUTE** is held down.
4. Press **CLOCK ADJUST** again and the clock is set and starts from zero seconds.

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

### Setting the REC (Recording) Timer

With the Recording Timer you can make a tape of a radio broadcast automatically whether or not you are there. For the timer to work correctly, you need to make sure of the following in addition to setting the time for the radio and tape recorder to come on:

- You can set the Recording Timer whether the Unit is on or off.
- The tape you want to record onto must be in deck B.
- The radio station whose program you want to tape must be the last one played before timer comes on.

#### Follow this procedure to set the Recording Timer

1. Press **REC** so that "REC TIMER" blinks on the display. As long as it is blinking, you can continue with the setting process.
  - If you wait too long, and it stops before you are done, just press **REC** twice and start over.
2. Set the time you want the radio to come on and the tape in deck B to start recording.
  - Press **HOUR** to set the hour and **MINUTE** to set the minute.
3. Press **REC TIME/SOURCE** to set the length of time for the recording.
  - Each time you press this button, the duration increases by one minute. If you hold the button down, it will advance in ten minute increments up to 120 minutes, which is the maximum time you can set.
  - At the end of the set length of time the radio and deck B will shut off.
    - If you set no time, but leave the display showing —:—, the CA-MXM10BK will not shut off, but keep playing until you shut it off.
4. Press **REC** again, or wait eight seconds. "TIMER OK" appears for a while, then "REC TIMER" lights up on the display.  
The Unit will memorize the setting. When the set time comes, the CA-MXM10BK turns on and records the last station tuned when the Unit was last turned off.
  - If you press any button while the Recording Timer is being activated, the recording will stop.

#### Before the set time comes

- Check that tape direction is correct. This is important especially when Reverse Mode is off.
- Set Reverse Mode on if you want to record on both sides of the tape.
- Select the sound mode if you want to record with one of the sound mode (STADIUM, DISCO, HALL, etc.).
- Set the **VOLUME** control to **MIN** so that no sound comes out from speakers when the recording timer switches on the CA-MXM10BK. This is important especially if you will be out during the recording.

#### To change the Recording Timer setting

Press **REC** twice ("REC TIMER" reappears) and make any changes you want.

#### To cancel the Recording Timer setting

Press **REC** button again so that "REC TIMER" goes off on the display.

**Wake up to music with the DAILY Timer**



**Setting the DAILY Timer**

With this timer you can wake up to music from a CD, tape or your favourite radio program.

- You can set the DAILY Timer whether the Unit is on or off.

**Follow this procedure to set the DAILY Timer**

1. Press DAILY so that "DAILY TIMER" blinks on the display.
2. Set the time you want the Unit to turn on.
  - Press HOUR to set the hour and MINUTE to set the minute.
3. Press REC TIME/SOURCE to set the source.
  - Each time you press this button, the display shows one of the four possible sources: CD, TAPE, FM or AM. Leave the one you want lit.
    - If you select AM or FM as the source, the last played station is the one which comes on at the set time.
    - If the CD is the source, you can designate the starting track up to the 99th track by using EDIT TIME (◀◀ or ▶▶) (◀◀◀ or ▶▶▶ on the Remote).
4. Press DAILY again, or wait eight seconds. "TIMER OK" appears for a while, then "DAILY TIMER" lights up on the display.
 

The Unit will memorize the setting.

When the set time comes, the CA-MXM10BK turns on ("DAILY" appears on the display), plays the source you have selected for 60 minutes, and then the Unit turns off.

  - If you press any button while the DAILY Timer is being activated, the Unit will not turn off automatically after 60 minutes.

**Before turning off the Unit**

- If the source is tape:
  - Check that the tape transport direction is correct. This is important especially when Reverse Mode is off.
  - Deck A has priority, so if tapes are in both deck, the tape in deck A plays first.
  - Set Reverse Mode on if you want play both sides of the tape.
- Select the sound mode if you want to listen using a sound mode (STADIUM, DISCO, HALL, etc.).
- Set the volume to an appropriate level.

**To change the DAILY Timer setting**

Press DAILY twice ("DAILY" reappears) and make any changes you want.

**To cancel the DAILY Timer setting**

Press DAILY button again so that "DAILY TIMER" goes off on the display.

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



**Setting the SLEEP Timer**

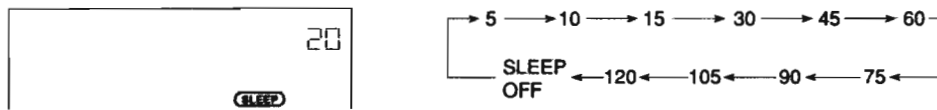
Use the SLEEP timer to turn the Unit off after a certain number of minutes when it is playing. Using this timer, you can fall asleep to music.

- You can only set the SLEEP Timer when the CA-MXM10BK is on and a source is playing.

**Follow this procedure to set the SLEEP Timer**

With the CA-MXM10BK on and a source playing, press SLEEP. "SLEEP" starts blinking on the display.

- Each time you press SLEEP while "SLEEP" is blinking, it changes the number of minutes shown on the display in this sequence:



When the number of minutes you want shows on the display, just wait 8 seconds until "TIMER OK" appears and "SLEEP" stops blinking, but remains lit.

The Unit will now turn off after the number of minutes you set.

**To change the SLEEP Timer setting**

Press SLEEP until the number of minutes you want appears on the display.

**To cancel the SLEEP Timer setting**

Press SLEEP until "SLEEP" goes off on the display. Turning off the Unit also cancels the SLEEP Timer.

## Timer Priority

Since each timer can be set independently, you may have wondered what happens if the settings overlap: for instance, suppose you set the Recording Timer to record a broadcast from 1 am to 1:30 am, and then you set the sleep timer at midnight to run until 2 am. Will you still get your radio program recorded? Here are the priorities for each timer:

- The Recording Timer always has priority. This means that:
  - If another timer is set to come on during a time the Recording Timer is operating, the other timer just won't come on at all, so you will always get the entire program on tape.
  - If the Recording Timer is set to come on while another timer is being activated, the other timer will shut off 10 seconds before the Recording Timer is set to turn on, and the Recording Timer will then take over.
- The SLEEP Timer has priority over the DAILY Timer. This is important because if you set the SLEEP Timer to start before and then end after the DAILY Timer would start, the DAILY Timer doesn't come on. So if you want your alarm to go off as scheduled, be sure the SLEEP Timer shuts off before the DAILY Timer is to turn on the Unit.

**Auto Power Off:  
turns off your CA-  
MXM10BK  
automatically**



## Turning Off the CA-MXM10BK 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. Although Auto Power Off is very useful for shutting off the CA-MXM10BK at night, you can also use it if you think you might forget to turn the Unit off when leaving the house or your room at other times of day.

### To use Auto Power Off:

Press AUTO POWER OFF so that "AUTO POWER OFF" lights up on the display.

### To cancel Auto Power Off:

Press AUTO POWER OFF again so that "AUTO POWER OFF" disappears on the display.

### Important information on using Auto Power Off

- Even if the Tuner Entry function is on, Auto Power Off will not switch at the end of the CD or tape to the radio as is usual with Tuner Entry on. Instead, Auto Power Off shuts everything off.
- If you press AUTO POWER OFF while the CD is playing in repeat mode ("REPEAT" or "REPEAT 1" lights on the display), repeat mode will be canceled and Auto Power Off will be able to work.
- If you press REPEAT to set the CD player in repeat mode while Auto Power Off is on ("AUTO POWER OFF" lights on the display), Auto Power Off will be canceled even though "AUTO POWER OFF" remains lit on the display.
- If you press AUTO POWER OFF while the tape is playing:
  - If Reverse Mode is off (the REVERSE MODE indicator is not lit), the Unit turns off when the currently playing side finishes
  - If Reverse Mode is on (the REVERSE MODE indicator lights up), the Unit plays the side currently playing, reverses and plays the other side, then shuts off.

## Karaoke (Sing Along)

**What is Karaoke?**

Have you ever wished you could sing with a real band, in place of the lead singer? The KARAOKE voice canceller button lets you use regular tapes, CDs or records as sources of sing-along music. When you press KARAOKE, 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-MXM10BK, so you can select your own from the many kinds available. Remember: the sound quality is greatly affected by the quality of the microphone.

**Sing along  
procedure**

### Singing Along with Karaoke

1. Turn the MIC LEVEL control all the way counterclockwise to MIN.
2. Attach the microphone (not supplied) by plugging it into the MIC jack on the front panel.
3. Start the source—CD, tape, connected VTR, turntable.
4. Press KARAOKE so that the KARAOKE indicator lights up.
5. Adjust the volume of the source with the main VOLUME control, and the volume of your voice with the MIC LEVEL control as you sing into the microphone.

**Recording a  
Karaoke session**

### Recording Karaoke

You can record a Karaoke session under certain conditions.

- You cannot record Karaoke when the main source is a tape in deck A.

Here's the procedure for recording Karaoke:

1. Insert a blank or erasable cassette you want to record onto in deck B.
2. Press REC PAUSE so that the REC PAUSE indicator lights up on the display.
  - See Recording, page 13 if you need more information about tape recording.
3. Follow the above procedure "Singing Along with Karaoke."
4. Press ▷ (or ◁) on deck B, and deck B will start recording the source together with your voice in place of the lead vocal.

## Digital Echo for Professional Sounding Karaoke

By pressing ECHO LEVEL on the Remote, you can change the amount of echo in your voice by 3 steps.

- Each time you press the button, the echo level changes and the CA-MXM10BK shows the level difference on the display.



### Important information on Karaoke

- Because 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 Karaoke.
- Some tapes and CDs are better sources for Karaoke than others.
  - Mono sources are not suitable for Karaoke.
  - 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 Karaoke.

## Recording from the Microphone

Two ways of recording with the microphone

You can use the microphone for two kinds of recording:

- Microphone 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.

### Microphone Mixing

1. Insert a blank or erasable cassette you want to record onto in deck B.
  2. Connect the microphone to the MIC jack.
  3. Press REC PAUSE so that the REC PAUSE indicator lights up.
  4. Start the source (radio, CD, VTR or turntable) and set the VOLUME control.
  5. Adjust the microphone volume with the MIC LEVEL control.
  6. Press ▷ (or ◁) on deck B, and speak or sing into the microphone.
- Both sound from the microphone and from the playing source is recorded.

### Regular Microphone Recording

1. Insert a blank or erasable cassette you want to record onto in deck B.
  2. Connect the microphone to the MIC jack.
  3. Press REC PAUSE so that the REC PAUSE indicator lights up.
  4. Press ▷/|| on the CD player and then press ■/CLEAR to stop the CD player.
  5. Adjust the volume of the microphone with the MIC LEVEL control.
  6. Press ▷ (or ◁) on deck B
- Whatever sounds the microphone picks up are recorded.

### IMPORTANT!

- ⚠ To prevent howling and squealing when using the microphone, adjust the MIC LEVEL 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 LEVEL control set to MIN. It is best to disconnect the microphone when you will not be using it.

## How to Use the Remote Control

The Remote Control makes it easy to control many of the functions of the CA-MXM10BK from a distance of up to 6 m away. You do need to point the remote sensor at the CA-MXM10BK front panel.

- Most of the buttons on the Remote Control do just what the ones on the CA-MXM10BK do.
- A few functions are available only by using the Remote Control, and those are described below.
- The buttons whose names or marks are printed in green can be used for the One Touch Operation. (See page 9.)

### Using the 10 Key Pad

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

- Before using the 10 key pad, make sure which the 10 key pad functions for, the CD player or tuner. This is depends on which button on the Remote you have pressed before 10 key pad. For example, if you press AM or FM before 10 key pad, it can select a preset station. If you press PROGRAM or ► for the CD player, it can select a CD track.
- 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 to 32, 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.

**STEREO AUTO/MONO**  
Select stereo or mono radio reception, see page 10.

**SOUND MODE**  
Select the sound modes (STADIUM, DISCO, HALL, etc.).

**10 key pad**  
Sselect a track or preset stations.

**AUX**  
Switch to connected equipment as source.

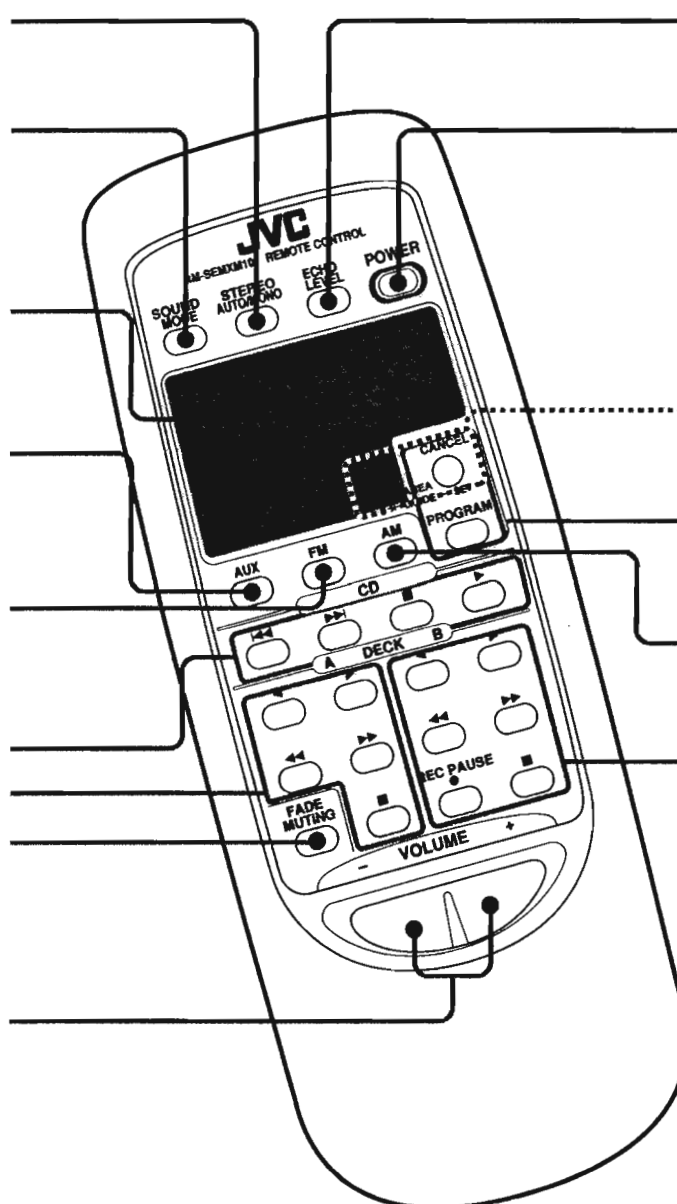
**FM**  
Switch to FM Radio as source.

**Controls for CD Player**

**Controls for deck B**

**FADE MUTING**  
Turns the VOLUME control counterclockwise for about four seconds.

**VOLUME**  
+: Volume up  
-: Volume down



**ECHO LEVEL**  
Adjust the echo level. See page 19.

**POWER**  
Turn power on or off.

**AREA GUIDE**  
See page 9.

**PROGRAM CANCEL**

**AM**  
Switch to AM Radio as source.

**Controls for deck A**

## Troubleshooting

- If you are having a problem with your CA-MXM10BK, 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 3 and 4.)
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 AM loop antenna is too close to the Unit. The FM wire antenna is not properly extended and positioned.	Re-connect the antenna securely. Change the position and direction of the AM loop antenna. Extend FM wire antenna to the best reception position.
The CD sound is discontinuous.	The CD is scratched or dirty.	Clean or replace the CD.
Unable to operate the Remote.	The path between the Remote and the sensor on the Unit is blocked. The batteries are discharged.	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 Unit then plug it back in.
The cassette carrier cannot be opened.	The Unit was turned off because the timer was operated while the tape was running.	Turn on the Unit.

## Specifications

### Amplifier

Output Power (IEC 268-3)

37 watts per channel, min. RMS, both channels driven into 6 ohms at 1 kHz with no more than 5% total harmonic distortion.

### Input Sensitivity/Impedance (1 kHz)

#### AUX/PHONO (selectable)

AUX	300mV/50 kohms
PHONO	3mV/50 kohms
MIC	3.5 mV/10 kohms
Speaker terminals	6 ohms

### Speaker

#### Speaker system

3-way speaker system
165 x 265 x 245 mm (W/H/D)
(6 <sup>1</sup> / <sub>2</sub> X 10 <sup>1</sup> / <sub>2</sub> X 9 <sup>11</sup> / <sub>16</sub> inches)
2.5 kg (5.8 lbs)

#### Weight

### Tape Deck

#### Frequency response

CrO <sub>2</sub> :	30 — 16000 Hz
Normal:	30 — 15000 Hz

Wow and Flutter 0.09% (WRMS)

### General

#### Power Requirements

AC 110/127/220/240 V<sup>~</sup>, adjustable with the voltage selector, 50/60 Hz

#### Power Consumption

117 Watts

#### Dimensions

245 x 265 x 311 mm (W/H/D)  
(9<sup>3</sup>/<sub>4</sub> X 10<sup>1</sup>/<sub>2</sub> X 12<sup>1</sup>/<sub>4</sub> inches)

#### Weight

7.2 kg (15.9 lbs)

### Tuner

#### FM Tuner

Tuning Range 76 — 108.0 MHz

#### AM Tuner

Tuning Range MW: 522 — 1629 kHz (at 9 kHz channel space)  
530 — 1600 kHz (at 10 kHz channel space)

### Supplied Accessories

- FM wire antenna (1)
- AM loop antenna (1)
- AM antenna stand (1)
- AC plug adaptor (1)
- Remote control (1)
- Batteries R03(UM-4)/AAA(24F) (2)

The following items are included in the speaker carton  
Speaker cords (2)

### Compact Disc Player

Dynamic Range 90 dB  
Wow and Flutter Unmeasurable

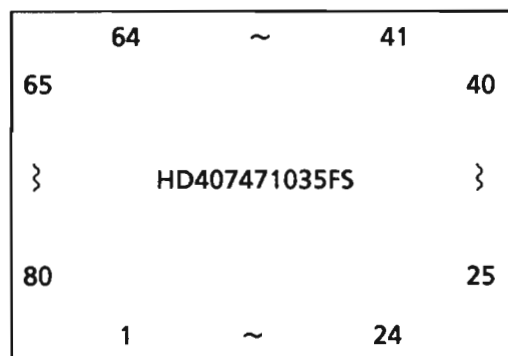
Design and specifications subject to change without notice.



## Description of Major LSIs

### ■ HD407471035FS (IC781) : CD/Tuner controller

#### 1. Terminal Layout



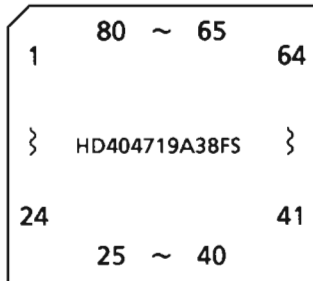
#### 2. Terminal Functions

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1~4		–	GND	38	STEREO	I	Input for 'STEREO' indication
5	RESET	I	Reset signal input	39	TUNED	I	Input for 'TUNED' indication
6	OSC 1	I/O	Oscillation terminal	40	INH IN	I	Inhibition signal
7	OSC 2	I/O	Oscillation terminal	41~45		–	+5V
8~10		–	GND	46	DEF.SW	O	"H" with focus searching
11	TEST	–	pull up	47	XRST	O	Reset signal output
12	VCC	–	Power supply	48		–	+5V
13	P.IND	O	Output terminal for indication of cd	49		–	GND
14	P.OFF	O	Power control signal to cd section	50	LOCK	I	Input terminal for LOCK signal
15~18		–	+5V	51	FOK	I	Input terminal for focus ok signal
19	KEY ON	I/O	"H" with key on	52	SENS	I	Input terminal for sens signal
20	DCS OUT	O	Compulink signal output	53	L.ON	O	Laser control signal
21	DCS IN	I	Compulink signal input	54	XCX	O	"H" with tracking loop is off
22	CLK	O	Clock to transmit data to IC802 (FL driver)	55	OPEN	O	"H" with the tray opening
23	DATA	O	Data output to IC802 (FL driver)	56	CLOSE	O	"H" with the tray closing
24	CS	O	Chip select signal to IC802	57	CL SW	I	"L" with the tray closed
25		–	+5V	58	OP SW	I	"L" with the tray opened
26	MUTE	O	Muting signal to TUNER section	59	CD TEST	–	Test mode terminal (T.P.2)
27	MONO	–	Not used.	60	SCOR	I	Subcord synchronizing signal is input
28	F.OUT	O	Frequency output (TP801)	61	CLOK	O	Clock for data transmission
29	T.CLK	O	Clock to transmit data to IC102	62	XLAT	O	Latch signal for data transmission
30	T.DATAO	O	Data output to IC102	63	DATA	O	Serial data for signal processor of cd
31	T.CE	O	Chip select signal to IC102	64	SQSO	I	Input of Q-data of subcode
32	T.DATAI	I	Data from IC102	65	SQCK	O	Clock output for SQSO transmission
33	CS 0 BAND0	–	Not used.	66~73		–	GND
34	CS 1 BAND1	–	Not used.	74	AMP RESET	O	Reset signal to IC901
35	CS 2 9K/10K LW	–	"H" with 9K	75	AD VCC	–	Power supply
36	CS 3 GI	–	Not used.	76~77	IN1~IN2	I	Detecting buttons and switches
37	TUNER TEST	–	TEST mode terminal (TP801)	78~80	IN3~IN5	I	Detecting buttons and switches

# CA-MXM10BK

## ■ HD404719A38FS (IC901) : Deck controller

### 1. Terminal Layout



### 2. Terminal Functions

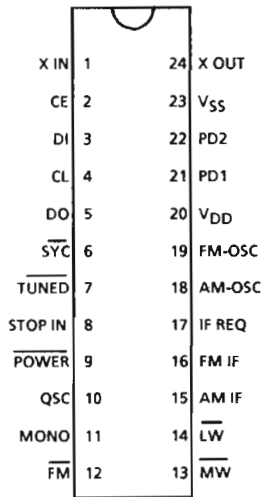
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	IN11	I	Leaf switch voltage	41	BFR	O	Reel motor control signal (forward)
2	IN12	I	Leaf switch voltage	42	BRR	O	Reel motor control signal (reverse)
3	PRT	I	Input from protector circuit	43	BRC	O	Cam motor control signal (counterclockwise)
4	AD GND	---	Ground for A/D converter	44	BFC	O	Cam motor control signal (clockwise)
5	RESET IN	I	Reset signal from IC801	45	AFR	O	Reel motor control signal (forward)
6	OSC1	---	Oscillation terminal	46	ARR	O	Reel motor control signal (reverse)
7	OSC2	---	Oscillation terminal	47	ARC	O	Cam motor control signal (counterclockwise)
8	LG	---	GND	48	AFC	O	Cam motor control signal (clockwise)
9	---	---	Connected to GND	49	---	---	Connected to GND
10	---	---	Connected to GND	50	ACS2	I	Input of mechanism information (deck A)
11	$\overline{\text{TEST}}$	---	Connected to +5V	51	ACS1	I	Input of mechanism information (deck A)
12	VCC	---	+5V	52	ACS0	I	Input of mechanism information (deck A)
13	$\overline{\text{DCS IN}}$	I	Compulink signal input	53	BCS2	I	Input of mechanism information (deck B)
14	$\overline{\text{DCS OUT}}$	O	Compulink signal output	54	BCS1	I	Input of mechanism information (deck B)
15	FADE	O	Fade recording control	55	BCS0	I	Input of mechanism information (deck B)
16	BIAS	O	Bias circuit control (on/off)	56	SMT	O	Muting control
17	ACAP	O	Drive signal for the capstan motor (A)	57	$\overline{\text{G}}$	O	Output control to IC905,906
18	BCAP	O	Drive signal for the capstan motor (B)	58	RCK	O	Data output to IC905,906
19	AMC	O	Speed control signal for deck A	59	SI	O	Strobe output to IC905,906
20	BMC	O	Speed control signal for deck B	60	AD SCK	O	Clock output to IC905,906
21	APLS	I	Input of reel pulse (Deck A)	61	RMIN	I	Input from remote signal detector
22	BPLS	I	Input of reel pulse (Deck B)	62	SPCLK	O	Clock output to IC803
23	RMT	O	Recording mute control	63	SPDATA	O	Data output to IC803
24	NR	O	Noise reduction control	64	CS	O	Chip select signal to IC803
25	NR REC	O	Mode control of NR (REC/PLAY)	65	MSI	I	Blank detection terminal for music scanning
26	$\overline{\text{H.S.D.}}$	O	Control signal for high-speed dubbing	66	CLK	O	Clock output to IC403 (Tone selector)
27	$\overline{\text{PBCR}}$	O	Playback equalizer control	67	STB	O	Strobe output to IC403 (Tone selector)
28	AI.S.BASS	O	AI.S.BASS indication signal and control.	68	DATA	O	Data output to IC403 (Tone selector)
29	LC	O	Rec. EQ control (Normal speed : CrO <sub>2</sub> )	69	POWER	O	Power control (Power on/off)
30	HC	O	Rec. EQ control (High speed : CrO <sub>2</sub> )	70	SPK	O	Speaker relay control
31	HN	O	Rec. EQ control (High speed : Normal)	71	VOL DOWN	O	Master volume control
32	$\overline{\text{BCR}}$	O	L' when using high position tape	72	VOL UP	O	Master volume control
33	KARAOKE		KARAOKE Indication signal	73	A PLAY	O	H' with deck A playing
34	DISCO		DISCO Indication signal	74	PB MUTE	O	Muting control for cassette decks
35	HALL		HALL Indication signal	75	AD VCC	---	+5V
36	STADIAM	O	STADIAM Indication signal	76	IN 6	I	AMP switch voltage
37	BGM	O	BGM Indication signal	77	IN 7	I	AMP switch voltage
38	CAR	O	CAR Indication signal	78	IN 8	I	DECK switch voltage
39	H.PHONE		H.PHONE Indication signal	79	IN 9	I	DECK switch voltage
40	STD-BY		STD-BY Indication signal	80	IN 0	I	DECK switch voltage

■ LC7218 (IC102) : PLL Synthesizer

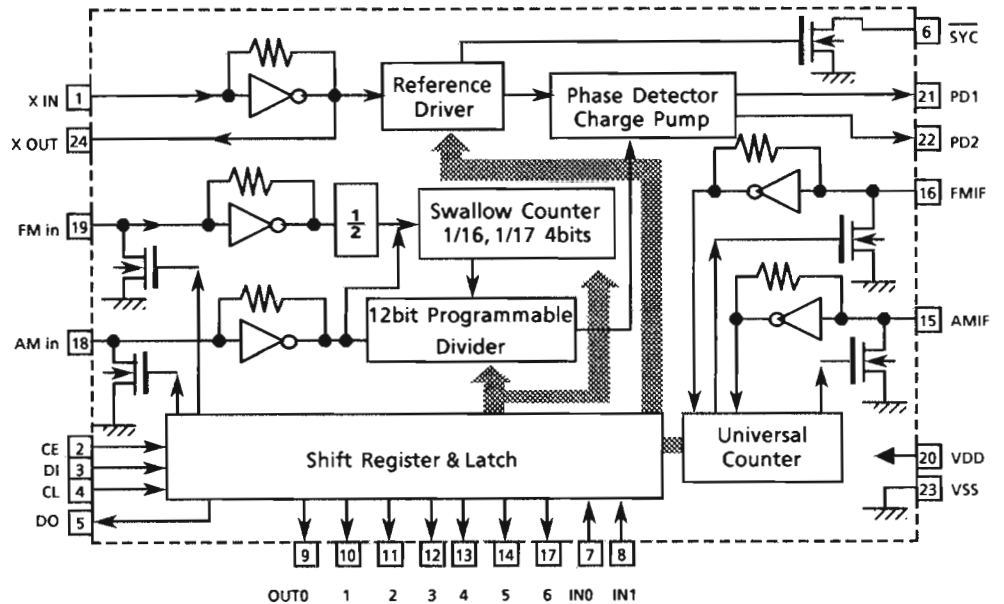
1. The main function descriptions

- (1) It makes the local oscillation frequency by the control data from IC901.
- (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 IC901.

2. Terminal Layout



3. Block Diagram



4. Pin Functions

Pin No.	Symbol	I/O	Functions
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 (IC801).
4	CL	I	This clock is used to synchronize data when transmitting the data of DI and DO.
5	DO	O	Transmit the data from LC7218 to the controller which is synchronized with CL.
6	SYC	-	Not used.
7	TUNED	I	Receive the tuned signal from IC104 (LA1266A).
8	STOP IN	-	Connected to GND
9	POWER	-	Not used.
10	QSC	-	Not used.
11	MONO	O	It is "H" on FM-monaural, "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 IC104 (LA1266A).
16	FM-IF	I	Universal counter input for FM-IF from IC104(LA1266A).
17	IF REQ	O	Output the "IF-signal request" to IC104 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	-	Not used.
23	V <sub>SS</sub>	-	Connected to GND

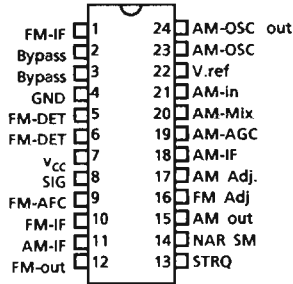
# CA-MXM10BK

## LA1266A (IC104) : FM AM IF AMP & detector

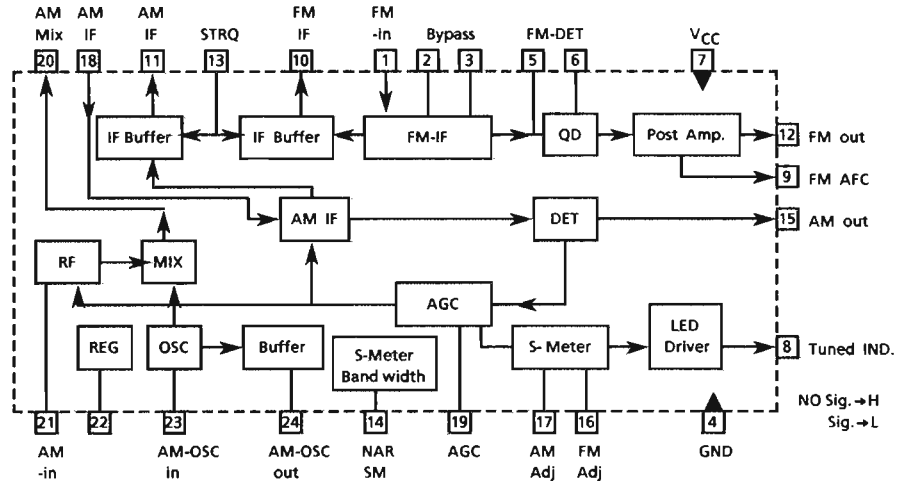
### 1. The main function descriptions

- (1) Amplify and detect of FM intermodulation frequencies.
- (2) It has local oscillator and mixer for AM, and amplify the AM-IF signal.

### 2. Top View



### 3. Block Diagram



### 4. Pin Function Description

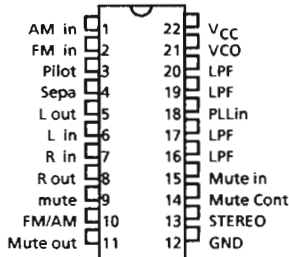
Pin No.	Symbol	I/O	Functions and Operations
1	FM IF	I	This is an input terminal of FM IF Signal.
2, 3	Bypass	---	Bypass of FM IF Amp.
4	GND	---	This is the device ground terminal.
5, 6	FM DET	---	FM detect transformer.
7	V <sub>CC</sub>	---	This is the power supply terminal.
8	SIGNAL	O	Mute drive and signal stop drive output when tuning. Active Low
9	FM AFC	O	This is an output terminal of voltage for FM - AFC.
10	FM IF	O	When the IF REQ signal of IC251(LC7218) applies to pin13, the signal of FM IF outputs.
11	AM IF	O	When the IF REQ signal of IC251(LC7218) applies to pin13, the signal of AM IF outputs.
12	FM out	O	FM detection output.
13	STRQ	I	The IF-signals come out from pin10 (FM-IF) or pin11 (AM-IF) while this terminal goes to "High".
14	NAR SM	---	Control the Band-width of AM signal meter.
15	AM out	O	AM detection output.
16	FM Adj	---	For adjust the stop level (or mute level) of FM.
17	AM Adj	---	For adjust the stop level (or mute level) of AM.
18	AM-IF	I	Input of AM IF Signal.
19	AM-AGC	I	This is an AGC voltage Input terminal for AM.
20	AM-MIX	O	This is an output terminal for AM mixer.
21	AM-IN	I	This is an input terminal for AM RF Signal.
22	V.REF	---	Control the Band-width of FM signal meter.
23	AM-OSC	---	This is a terminal of AM Local oscillation circuit.
24	AM-OSC out	O	AM Local Oscillation Signal output.

■ LA3401 (IC105) : FM MPX Detector

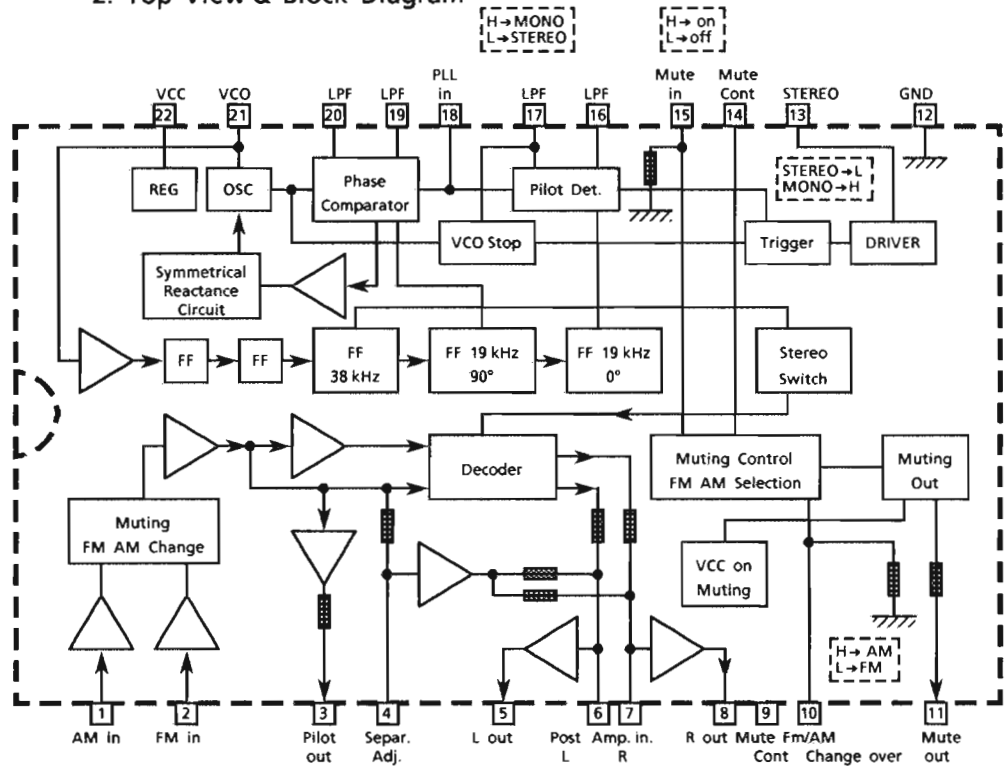
1. The main function descriptions

- (1) Detect the FM Multiplex Signal (Stereo signal).
- (2) When receiving FM Stereo Signal, it outputs the signal for indicator.
- (3) AM/FM Audio Amplifier.

(1) Terminal Layout



2. Top View & Block Diagram



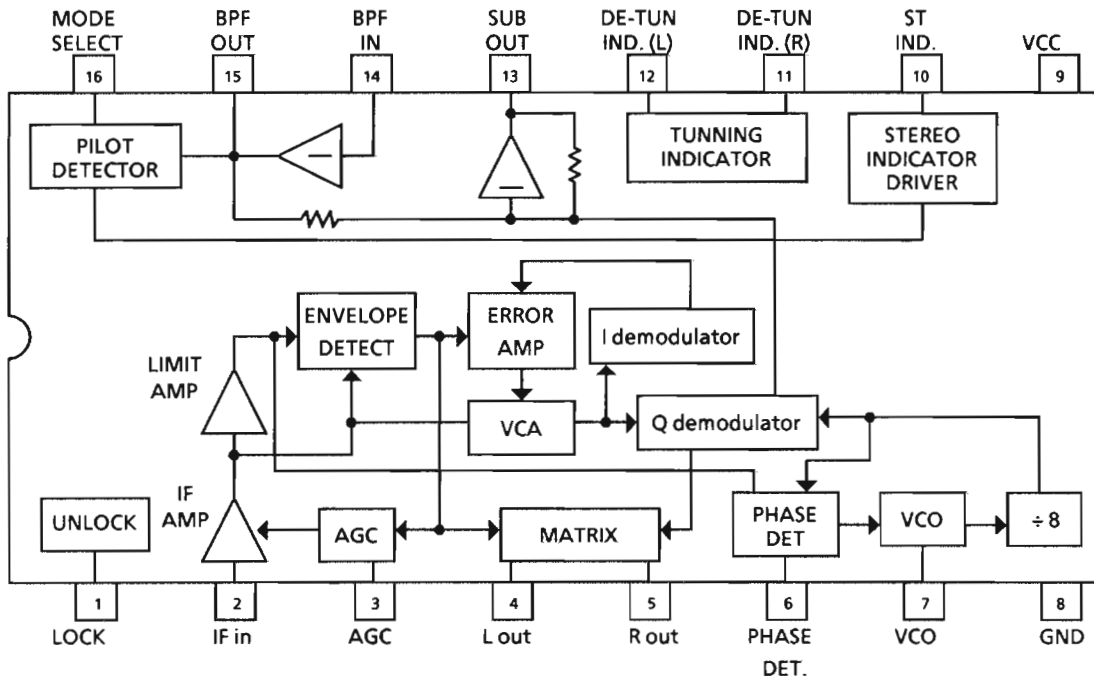
3. Pin Function Description

Pin No.	Symbol	I/O	Functions and Operations
1	AM in	I	This is an input terminal for AM detection signal.
2	FM in	I	This is an input terminal for FM detection signal.
3	Pilot out	O	Output of MPX pilot signal (Connect to Pin18).
4	Sepa. Adj.	---	Separation adjustment.
5	L. out	O	Left channel signal output.
6	L	O	Reversal output of Pin5.
7	R	O	Reversal output of Pin8.
8	R out	O	Right channel signal output
9	Mute Cont	---	The mute time is controlled by the connected capacitor when turning the power switch on.
10	FM/AM	I	Change over the FM/AM input. "H" : AM, "L" : FM
11	Mute out	---	Not use
12	GND	---	Ground terminal.
13	Stereo	O	Stereo indicator output. Stereo : "L", Mono : "H"
14	Mute Cont	---	The mute time is controlled by the connected capacitor when changing over the FM/AM .
15	Mute in	I	Mute signal input. "H" : Mute on, "L" : Mute off.
16	LPF	---	Low pass filter of pilot detector.
17	LPF	---	While this terminal goes to "H", the VCO stop.
18	Pilot in	I	PLL input.
19	LPF	---	Low-pass filter of PLL.
20	LPF	---	Low-pass filter of PLL.
21	VCO	I	Voltage controlled oscillator terminal.
22	V <sub>CC</sub>	---	Power supply.

# CA-MXM10BK

## ■ TA8124P (IC110) : Stereo Decoder

### 1. Internal Block Diagram



### 2. Terminal Functions

Pin No.	Symbol	I/O	Function
1	LOCK	--	Terminal for lock detect
2	IF in	I	Input terminal of AM IF signal
3	AGC	--	Terminal to the automatic gain controller
4	L out	O	Audio signal output
5	R out	O	Audio signal output
6	PHASE DET.	O	Phase detector
7	VCO	--	Voltage controlled oscillator terminal
8	GND	--	GND
9	VCC	--	VCC
10	ST IND.	--	Insication control signal for "STEREO"
11	DE-TUN IND. (H)	--	Not used
12	DE-TUN IND. (L)	--	Not used
13	SUB out	O	SUB signal output
14	BPF in	I	Input terminal to the low pass filter
15	BPF out	O	Low pass filter output
16	MODE SELECT	I	Monanral contro signal input

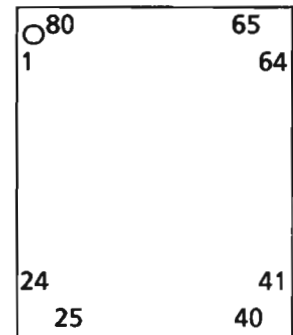
## ■ CXD2500BQ(IC701) : DIGITAL SIGNAL PROCESSOR

### 1. Outline

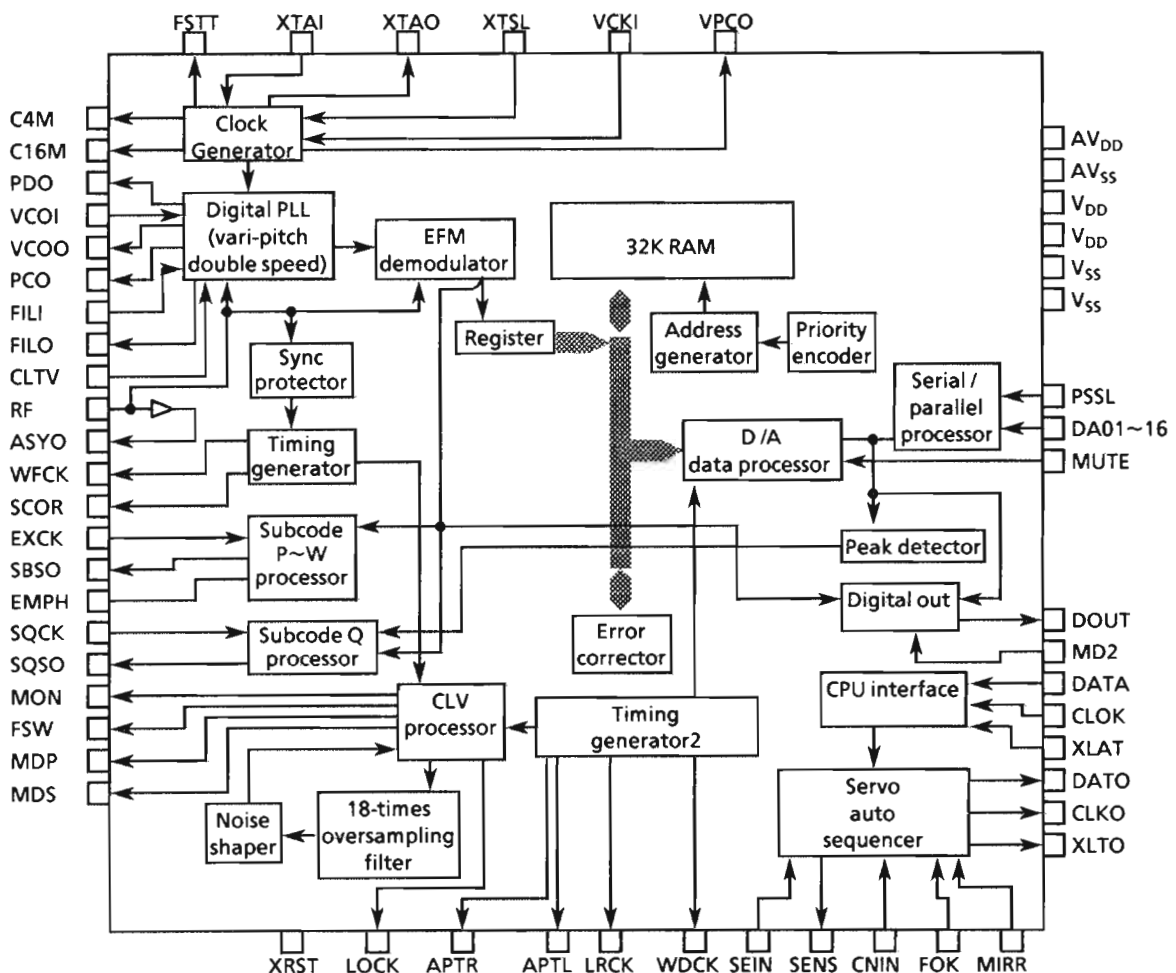
The CXD2500BQ is a digital signal processing LSI designed for use in compact disc players. It has the following functions:

- All digital signals for regeneration are processed using one chip.
- The built-in RAM enables high-integration mounting.
- Generation by the use of a digital PLL of bit clock pulses for strobing the EFM signal.
- EFM data demodulation
- Subcode demodulation and subcode Q data error detection
- Digital spindle servo system (incorporating an oversampling filter)

### 2. Terminal Layout



### 3. Internal Block Diagram



#### Notes:

- The data at the 64-bit slot is output in 2's complements on an LSB-first basis. The data at the 48-bit slot is output in 2's complements on an MSB-first basis.
- GTPM monitors the state of Frame Sync protection. ("H" : Sync protection window released)
- XUFG is a negative Frame Sync pulse obtained from the EFM signal before Frame Sync protection is effected.
- XPLCK is an inversion of the EFM PLL clock. The PLL is designed so that the falling edge of XPLCK coincides with a change point of the EFM signal.
- The GFS signal turns "H" upon coincidence between Frame Sync and the timing of interpolation protection.
- RFCK is a signal generated at 136- $\mu$ s periods using a crystal oscillator.
- C2PO is a signal to indicate a data error.
- XRAOF is a signal issued when a jitter margin of  $\pm 28F$  is exceeded by the 32K RAM.

# CA-MXM10BK

## 4. Terminal Function

Pin No.	Symbol	I/O	Description
1	FOK	I	Focus OK input pin. Used for SENS output and servo auto sequencer.
2	FSW	O	Non connection
3	MON	O	Output for spindle motor ON / OFF control.
4	MDP	O	Output for spindle servo control.
5	MDS	O	Output for spindle servo control (Non connection).
6	LOCK	O	This terminal is "H" when the GFS signal sampled at 460Hz is "H". It turns "L" when the GFS signal turns out "L" 8 or more times in succession.
7~9	—	--	Non connection
10	TEST	I	Test pin (Normally at 0V)
11	PDO	O	Output of charge pump for analog EFM PLL (Non connection).
12	Vss	--	GND
13~16	—	--	Non connection
17	VCKI	I	Clock input from external VCO for vari-pitch control. $f_c = 16.9344\text{MHz}$ .
18	FIL0	O	Output of filter for master PLL (Slave = Digital PLL)
19	FILI	I	Input to filter for master PLL.
20	PCO	O	Output of charge pump for master PLL.
21	AVss		Analog GND
22	CLTV	I	VCO control voltage input for master PLL.
23	AV <sub>DD</sub>	--	Analog power supply
24	RF	I	EFM signal input
25	TEST2	I	TEST pin (Connected to GND)
26	TEST3	I	TEST pin (Connected to GND)
27	ASYO	O	EFM full-swing output
28	TEST4	I	TEST pin (Connected to GND)
29	NC	--	Non connection
30	PSSL	I	Input used to switch the audio data output mode. "L" for serial output, "H" for parallel output.
31	WDCK	O	D / A interface for 48-bit slot. Word clock $f = 2F_s$ .
32	LRCK	O	D / A interface for 48-bit slot. LR clock $f = F_s$ .
33	V <sub>DD</sub>	--	Power supply
34	DA16	O	Output DA16(MSB) when PSSL = 1 or serial data from 48-bit slot(2's complements, MSB first) when PSSL = 0.
35	DDA15	O	Output DA15 when PSSL = 1 or bit clock from 48-bit slot when PSSL = 0.
36~51	—	--	Non connection
52	VSS	--	GND
53	XTAI	I	Input to 16.9344MHz Xtal oscillation circuit or 33.8688MHz input.
54	XTAO	O	Output of 16.9344 MHz Xtal oscillation circuit.
55	XTSL	I	Xtal selection input pin. "L" for 16,344MHz Xtal, "H" for 33.8688 MHz Xtal.
56~58	—	--	Non connection
59	MD2	I	Digital-Out ON/OFF control. "H" for ON, "L" for OFF.
60	DOU	O	Digital-Out output pin.
61	EMPH	O	H : emphasis on L : emphasis off
62	—	--	Non connection
63	SCOR	O	Turns "H" when subcode Sync S0 or S1 is detected.
64	SBSO	O	Serial output of Sub P to W.
65	EXCK	I	Clock input for reading SBSO.
66	SQSO	O	Outputs 80-bit Sub Q and 16-bit PCM peak-level data.
67	SQCK	I	Clock input for reading SQSO.
68	MUTE	I	"H" for muting, "L" for release.
69	SENS	O	SENS output to CPU.
70	XRST	I	System reset. "L" for resetting.
71	DATA	I	Inputs serial data from CPU.
72	XLAT	I	Latches serial data input from CPU at falling edge.
73	V <sub>DD</sub>	--	Power supply(+ 5V)
74	CLOK	I	Inputs serial data transfer clock from CPU.
75	SEIN	I	Inputs SENSE from SSP.
76	CNIN	I	Inputs track jump count signal.
77	DATO	O	Outputs serial data to SSP.
78	XLTO	O	Latches serial data output to SSP at falling edge.
79	CLKO	O	Outputs serial data transfer clock to SSP.
80	MIRR	I	Inputs mirror signal to be used by auto sequencer when jumping 128 or more tracks.



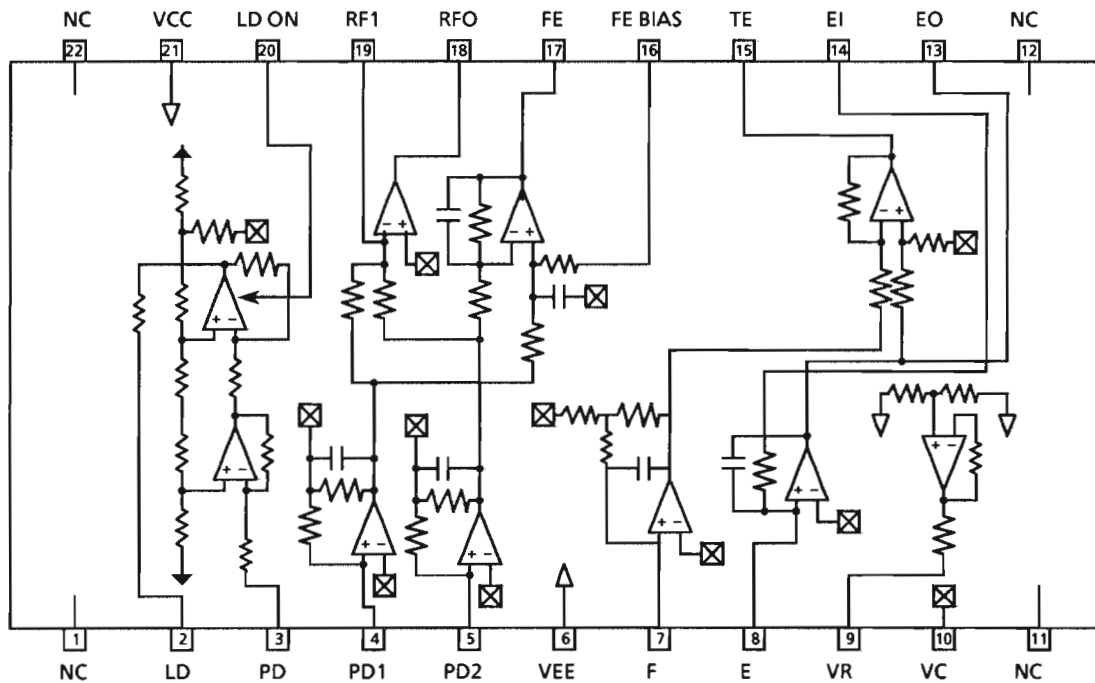
## ■ CXA15715(IC702) : RF AMP FOR COMPACT DISC

### 1. Outline

The CXA15715 IC for compact disc #-point method optical pickup output has following functions.

- RF amplifier
- Focus error amp
- Tracking error
- APC circuit

### 2. Internal Block Diagram



### 3. Pin Description

Pin No.	Symbol	I/O	Description
2	LD	O	APC amp output pin.
3	PD	I	APC amp input pin.
4	PD1	I	RF I-V amp inverted input pins; they are connected to the A + C and B + D pins of the photodiode and receive current input.
5	PD2	I	
7	F-IN	I	F and E I-V amp inverted input pin; they are connected to Photodiodes F and E and receive current input.
8	E-IN	I	
9	VR	O	(VCC + VEE) / 2 DC voltage output pin.
10	VC	I	VC intermediate voltage input pin; when dual $\pm 5V$ power supplies are used, this pin is connected to GND; for a single +5V power supply, it is connected to the VR pin.
13	EO	O	Monitor output pin for I-V amp E.
14	EI	I	Gain adjustment pin for I-V amp E.
15	TE	O	Tracking error amp output pin.
16	FE-BIAS	I	Bias adjustment pin for the non-inverted side of the focus error amp.
17	FE	O	Focus error amp output pin.
18	RFO	O	RF amp output pin.
19	RFI	I	RF inverted side input pin; the resistor connected between this pin and the RFO pin determines the gain of the RF amp.
20	LD-ON	I	This pin switches the APC amp on / off: on for VCC, off for ground.

# CA-MXM10BK

## ■ CXA1372S (IC703) : RF SIGNAL PROCESSING SERVO AMPLIFIER

### 1. Outline

The CXA1372S is a bipolar IC developed for RF signal processing (focus OK, mirror, defect detection, EFM comparator) and servo control.

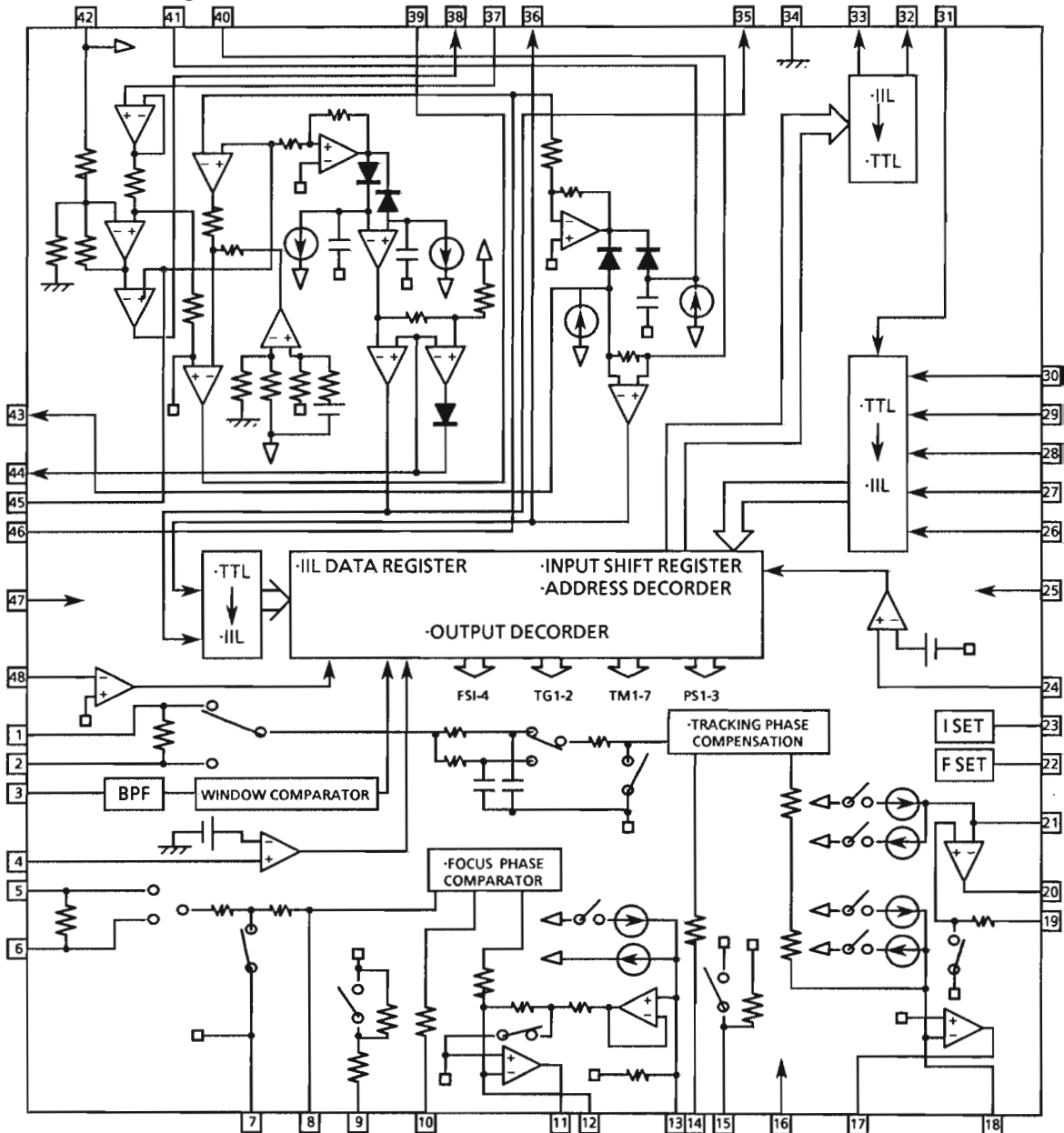
### 2. Functions

- Auto asymmetry control
- Focus OK detection circuit
- Mirror detection circuit
- Defects detection, counter measures circuit
- EFM comparator
- Focus servo control
- Tracking servo control
- Sled servo control

### 3. Terminal Layout

TE	1	48	TZC
TDFCT	2	47	DVEE
ATSC	3	46	RFO
FZC	4	45	RFI
FE	5	44	CP
FDFCT	6	43	CB
VC	7	42	DVCC
FGD	8	41	CC2
FS3	9	40	CC1
FLB	10	39	FOK
FEO	11	38	EFM
FE-	12	37	ASY
SRCH	13	36	DFCT
TGU	14	35	MIRR
TG2	15	34	DGND
AVCC	16	33	SENS
TAO	17	32	C.OUT
TA-	18	31	XRST
SL+	19	30	DATA
SLO	20	29	XLT
SL-	21	28	CLK
FSET	22	27	LOCK
ISET	23	26	DIRC
SSTOP	24	25	AVEE

### 4. Internal Block Diagram



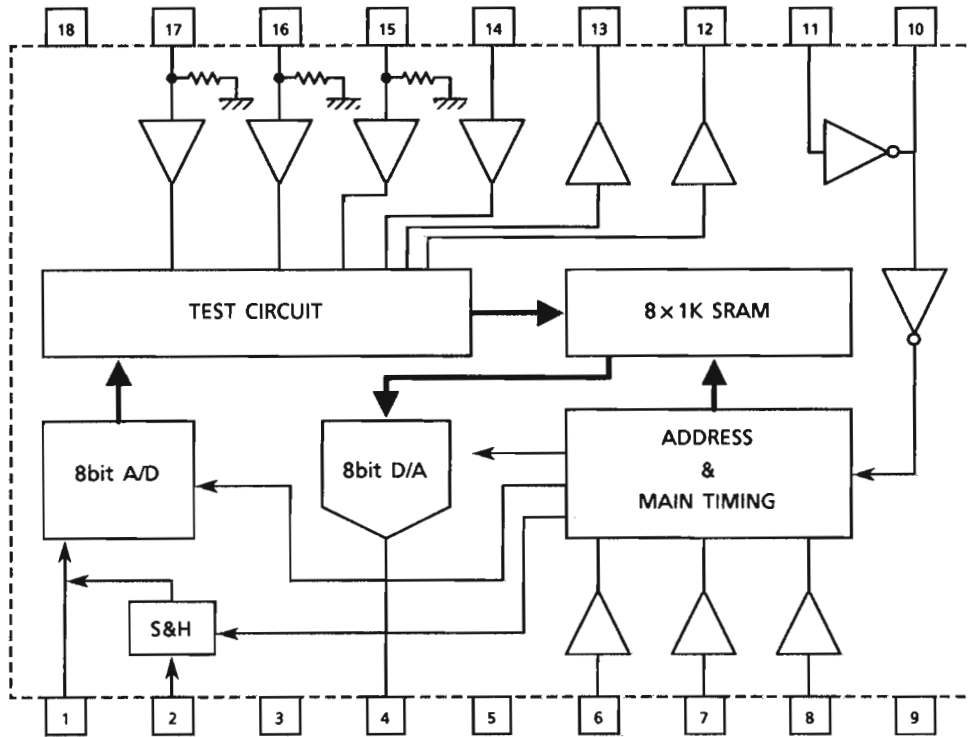
## 5.Pin Functions

Pin No	Symbol	I/O	Function
1	TE	I	Input pin of tracking error amplifier.
2	TDFCT	I	Capacitor connecting pin for time constant during defects.
3	ATSC	I	Window comparator input pin for ATSC detection.
4	FZC	I	Pin for focus zero-cross comparator input.
5	FE	I	Input pin of focus error.
6	DFCT	I	Capacitor connecting pin for time constant during defect functions.
7	VC	I	Center voltage input pin. For dual power: GND For single power supply: (VCC + GND)/2
8	FGD	I	Connect a capacitor between this pin and pin3 to reduce high-frequency gain.
9	FS3	I	The high-frequency gain of the focus servo is switched through FS3 ON and OFF.
10	FLB	I	Time constant external pin to raise the low bandwidth of the focus servo.
11	FEO	O	Focus drive output.
12	FE-	I	Inverse input for focus amplifier.
13	SRCH	I	Time constant external pin for formation of focus search waveform.
14	TGU	I	Time constant external pin for the selection of tracking high band gain.
15	TG2	I	Time constant external pin for the selection of tracking high band gain.
16	AVCC	--	Power supply
17	TAO	O	Tracking drive output.
18	TA-	I	Inverse input pin for tracking amplifier.
19	SL+	I	Non- inverse input pin for sled amplifier.
20	SLO	O	Sled drive output.
21	SL-	I	Inverse input pin for sled amplifier.
22	F SET	I	Pin to set peak frequency of focus tracking phase compensation and fo of CLV LPF.
23	I SET	I	Current is input to determine focus search, track jump, and sled kick height.
24	S STOP	I	Limit SW ON/OFF signal detection pin for disc inner periphery detection.
25	AVEE	--	- 5V
26	DIRC	I	Pin for one-track jump. Contains 47kΩ pull-up resistor.
27	LOCK	I	At "L" sled runaway prevention circuit operate. Contains a 47kΩ pull-up resistor.
28	CLK	I	Serial data transfer clock input from CPU.
29	XLT	I	Latch input from CPU.
30	DATA	I	Serial data input from CPU.
31	XRST	I	Reset input pin, reset at "L".
32	C.OUT	O	Track number count signal output.
33	SENS	O	Outputs FZC, AS, TZC and S STOP through command from CPU.
34	DGND	--	GND
35	MIRR	O	MIRR comparator output pin.
36	DFCT	O	Output pin of DEFECT comparator.
37	ASY	I	Input pin of auto asymmetry control.
38	EFM	O	Output pin of EFM comparator.
39	FOK	O	Output pin of FOK comparator.
40	CC1	I	Output pin of DEFECT bottom hold.
41	CC2	O	Input pin for the capacitance coupled output of DEFECT bottom hold.
42	DVCC	--	- 5V
43	CB	I	Connection pin of DEFECT bottom hold capacitor.
44	CP	I	Connecting pin of MIRR hold condenser. Non-inverted input pin of MIRR comparator.
45	RFI	I	Input pin with coupling capacitor where RF summing amplifier output is connected.
46	RFO	O	Output pin of RF summing amplifier and check point of eye pattern.
47	DVEE	--	- 5V
48	TZC	I	Input pin of tracking zero-cross comparator.

# CA-MXM10BK

## ■ BU9251S: IC999 (D/A DELAY & A/D)

### 1. Block Diagram

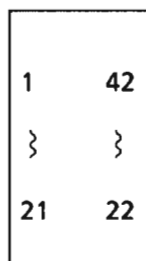


### 2. Terminal Function

Pin No	Pin Name	Function
1	S&H	Capacitor connected pin for sample and hold
2	AIN	Input for analog signal
3	GND	GND
4	AOUT	Output for analog signal
5	VDD	Power supply
6	DCNT0	Delay time setting
7	DCNT1	Delay time setting
8	DCNT2	Delay time setting
9	GND	GND
10	OSC0	Oscillating 2
11	OSC1	Oscillating 1
12	TDO1	For test (output)
13	TDO0	For test (output)
14	TDIN	For test (input)
15	TST2	Mode setting for test
16	TST1	Mode setting for test
17	TST0	Mode setting for test
18	VCC	Power supply

■ M660045P (IC801) : FL Driver IC

1. Terminal Layout

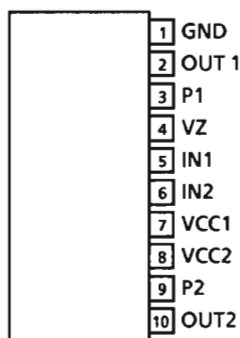


2. Terminal Functions

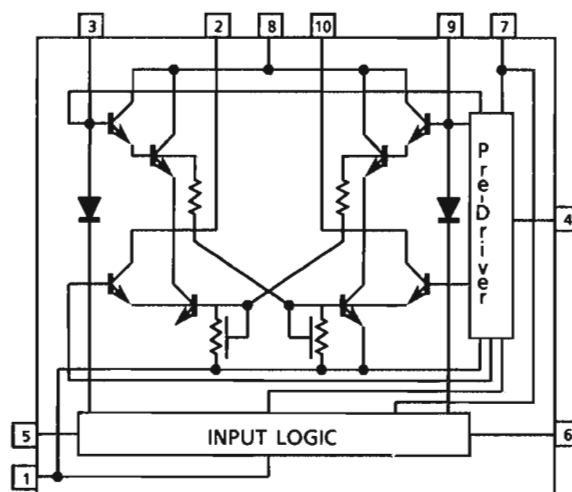
Pin No	Symbol	I/O	Function
2~12	1G,11G~20G	-	FL grid drive signal
13	RESET	I	Reset input for internal logic at turning the power on.
14	CS	I	Chip select
15	SCK	I	System clock for shift register
16	S.DATA	I	Indication data input
19,60	Vcc	-	Power supply
20,21	XOUT,XIN	I/O	Oscillation circuit is composed by connecting the resistor and capacitor.
22	GND	-	GND
32	VP	-	-27V
31,33,34,36~39,41~44, 46~49,51~54,56~59	S1~S23	O	FL anode drive signal

■ LB1641 (IC921~924) : Motor Driver

1. Terminal Layout



2. Internal Block Diagram



3. Terminal Function

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

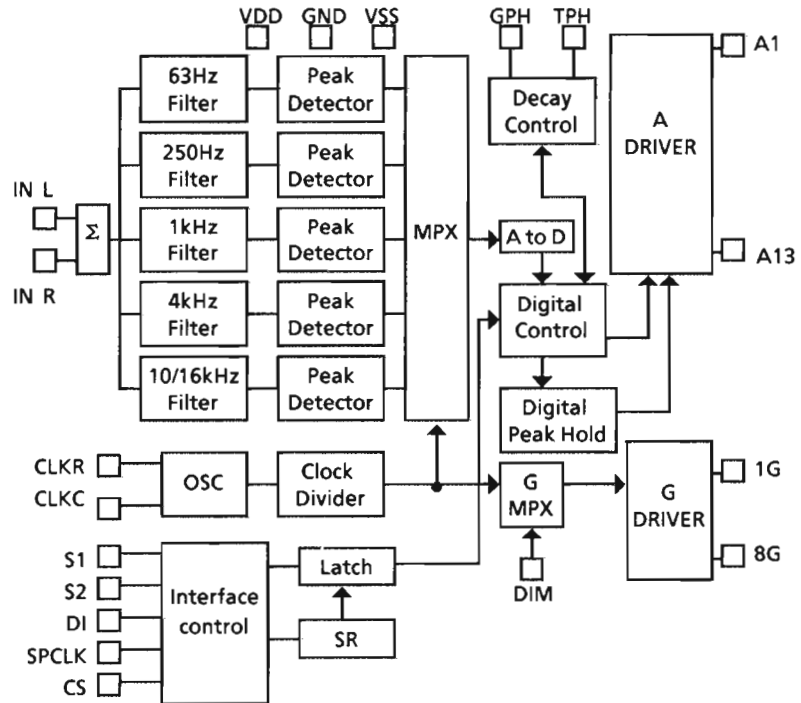
# CA-MXM10BK

## ■ XR1095CP (IC802) : Display Driver

### 1. Terminal Layout



### 2. Block Diagram

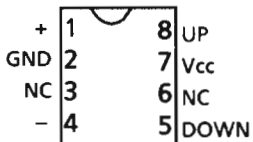


### 3. Terminal Functions

Pin No.	Symbol	Function	Pin No.	Symbol	Function
1~5, 9~16	T1~T13	FL anode control	24	GND	Ground
17	CS	Chip select	25	R IN	Audio signal input
18	SPCLK	Clock for data transmission	26	L IN	Audio signal input
19	DI	Serial data input	27	GPH	The resistor and capacitor connected to this pin determine the peak hold time.
20,21	S1, S2	Chip select (connected to GND)	28	TPH	
22	DIM	Connected to ground	31~38	1G~8G	FL grid control
23	VSS	Power supply(-)	40	CLKR	A resistor is connected for oscillation
24	GND	Ground	41	CLKC	A capacitor is connected for oscillation
			42	VDD	Power supply (+)

## ■ LB1639-CV (IC909) : Motor Driver

### 1. Terminal Layout

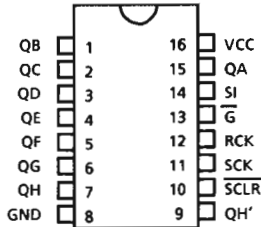


### 2. Pin Function

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

■ TC74HC595AP(IC905,906) : 8 Bit Shift Register

1. Terminal Layout

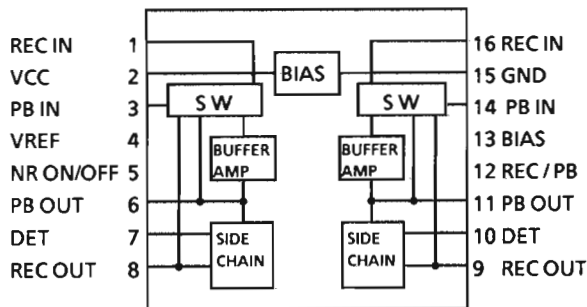


2. Function Table

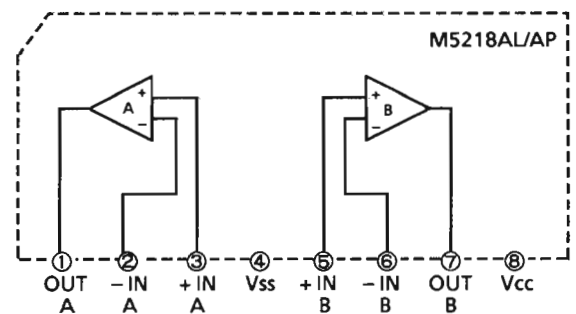
Inputs					Functions
SI	SCK	SCLR	RCK	$\overline{G}$	
X	X	X	X	H	Output (QA-QH) disable.
X	X	X	X	L	Output (QA-QH) enable.
X	X	L	X	X	Shift register is cleared.
L		H	X	X	Condition of shift register in initial stage is "L". In the other stages, data from the former stage is stored.
H		H	X	X	Condition of shift register in initial stage is "H". In the other stages, data from the former stage is stored.
X		H	X	X	Shift register does not change.
X	X	X		X	Shift register data is stored in the storage register.
X	X	X		X	Shift register does not change.

X : Don't care

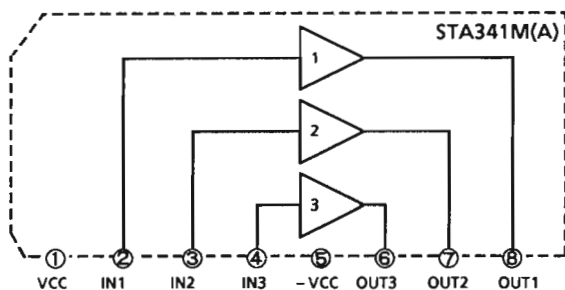
■ HA12136A (IC381) : Noise Reduction Amplifier



■ M5218AL/AP(IC751/752) : Dual OP Amp.



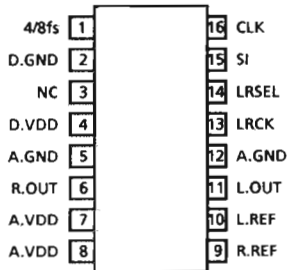
■ STA341M(A) (IC704) : Motor Driver



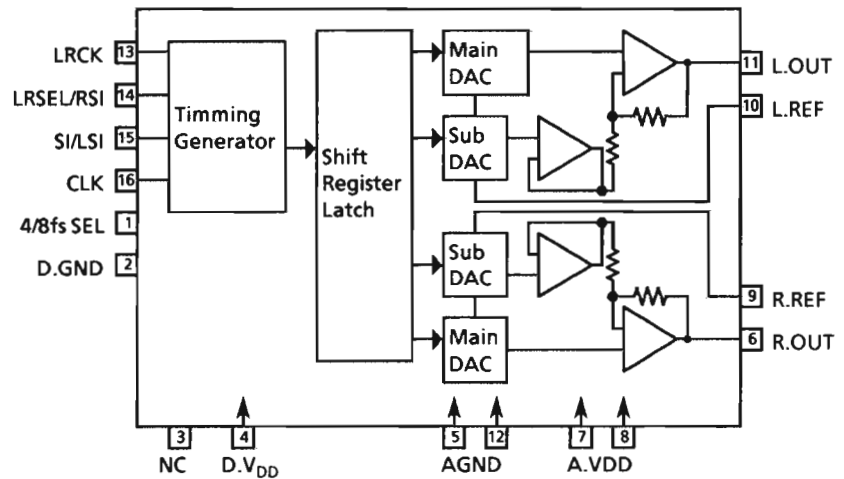
# CA-MXM10BK

## ■ UPD6376CX (IC751) : D / A CONVERTER

### 1. Terminal Layout



### 2. Internal Block Diagram



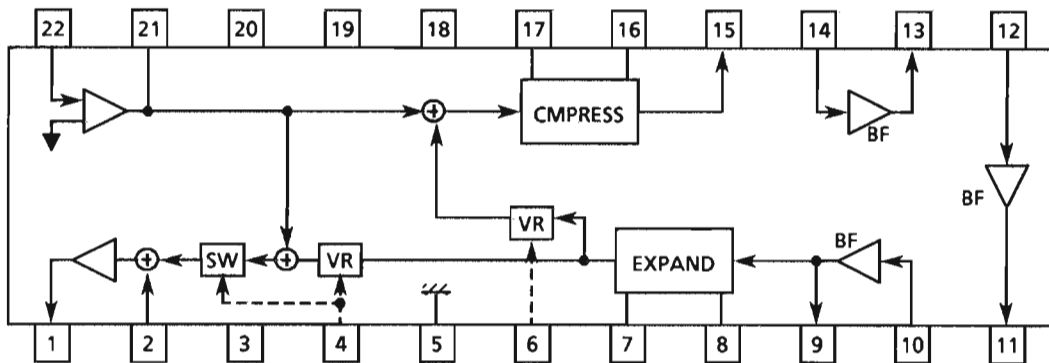
### 3. Terminal Functions

Pin No.	Symbol	I/O	Function
1	4/8FS SEL	I	"L" or "OPEN" : Left channel and Right channel data is input to the pin 15 "H" : Left channel data is input to the pin 15. Right channel data is input to the pin 14.
2	D.GND	--	Ground terminal for the logic section.
3	NC	--	Non connection
4	D.VDD	--	Power supply for the logic section.
5	A.GND	--	Analog ground
6	R.OUT	O	Output terminal for the Right channel signal.
7	A.VDD	--	Power supply for the Analog section.
8	A.VDD	--	Power supply for the Analog section.
9	R.REF	I	Reference voltage terminal
10	L.REF	I	Reference voltage terminal
11	L.OUT	O	Output terminal for the Left channel signal.
12	A.GND	--	Analog ground
13	LRCK/WDCK	I	Pin 1 = "L" or "OPEN" : Input terminal of the signal which indicates which channel is input. Pin 1 = "H" : Word clock input for the input data.
14	LRSEL/RSI	I	Pin 1 = "L" or "OPEN" : When this terminal is "H", input "L" of the LRCK indicates that Left channel is input to the pin 15. When this terminal is "L", input "H" of the LRCK indicates that Left channel is input to the pin 15. Pin 1 = "H" : Input terminal for the Right channel signal.
15	SI/LSI	I	Pin 1 = "L" or OPEN : Input terminal for the Right and Left channels Pin 1 = "H" : Serial data input terminal for the Left channel signal.
16	CLK	I	Clock input for reading the serial data.



■ BA7725S (IC751) : SEMICONDUCTOR

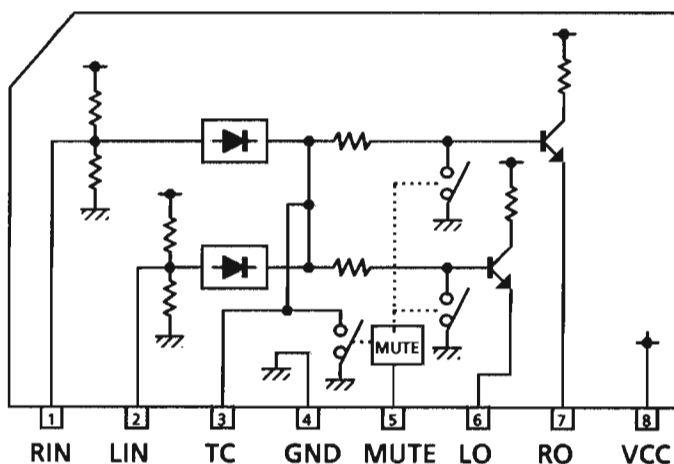
1. Internal Block Diagram



2. Terminal Functions

Pin No.	Symbol	Function
1	LINE OUT	Line output
2	LINE IN	Line input
3	NC	Not used
4	ECHO LEV CTRL	Sets MIC OFF mode under 1V, Sets echo signal attenuation between 2~9V.
5	GND	Analog ground
6	LOOP GAIN CTRL	Sets round loop attenuation. Adjusts between 2~9V.
7	EXP DET	Expand detection terminal.
8	EXP DET CT	Sets Expand attack and recovery time. Attack R:5.6k $\Omega$ , Recovery R:85.6k $\Omega$ .
9	EXP BFOUT	BF output for LPF (side of Expand).
10	EXP BF IN	BF input for LPF (side of Expand).
11	DLY BFOUT	BF output for echo signal output.
12	DLY BF IN	BF input for echo signal input.
13	CMP BFOUT	BF output for LPF (side of COMPRESS).
14	CMP BF IN	BF input for LPF (side of COMPRESS).
15	CMP OUT	Compress output.
16	CMP DET CT	Sets Compress attack and recovery time. Attack R:5.6k $\Omega$ , Recovery R:85.6k $\Omega$ .
17	CMP DET	Compress detection terminal.
18	RIPPLE FITER	Capacitor mounted to reject ripple.
19	VCC	Power supply.
20	NC	Not used
21	MICAMP OUT	Mic amp output.
22	MICAMP IN	Mic amp input.

■ BA8221N (IC351) : ALC





## Disassembly Procedures

### (1) Top cover removal

1. Remove 4 screws on the rear side and 2 screws on both sides of the cover.
2. Remove the cover.

### (2) Rear panel removal

1. Remove the top cover.
2. Remove the 10 screws (A).
3. Remove the rear panel.

### (3) Tuner and deck PCB (ENJ-077-1) removal

1. Remove the top cover.
2. Remove the rear panel (definitely).
3. Remove the screws (B).
4. Remove the plastic rivet.
5. Remove JA901, J851, P201 and P202 which are connected with the PCB.
6. Also remove other connectors if it is necessary to remove the PCB completely.

### (4) Front panel assembly removal

1. Remove the top cover.
2. Remove the rear panel.
3. Remove the tuner and deck PCB (ENJ-077-1).
4. Remove the 3 screws (C) on the bottom of the front panel.
5. Remove the screw (D) on the CD assembly base.
6. Remove the assembly, disconnecting connectors J512, J531, J601 and J991.

### (5) CD PCB (ENN-386-1) with CD mechanism assembly removal.

1. Remove the top cover.
2. Remove the rear panel.
3. Remove the front panel assembly.
4. Remove the 3 screws (E) fixing the CD PCB.
5. Disconnect the wire P701.
6. Remove the 4 screws (G) on the bottom of the CD PCB.
7. Remove the CD assembly base, disconnecting connectors P601, P602 and P603.

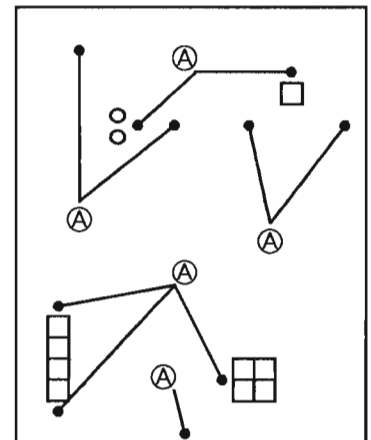


Fig 1 Rear view

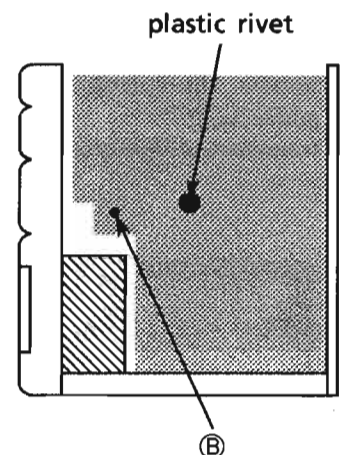


Fig 2 Right side view

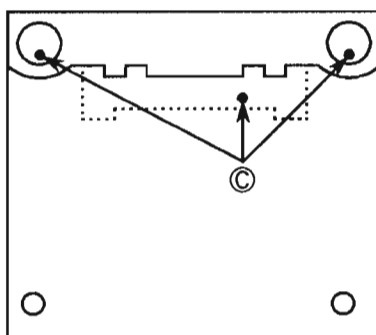


Fig 3 Bottom view

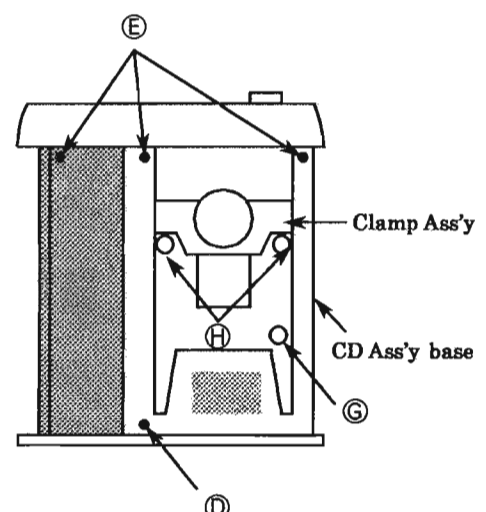


Fig 4 Top view

# CA-MXM10BK

## (6) CD mechanism assembly removal

1. Remove the front panel assembly.
2. Disconnect the connectors P602, P603.
3. Turn the screw ① located under the mechanism to remove the tray out of the loading mechanism.
4. Remove the screw ② to remove the tray.
5. Remove the 2 screws ③ to remove the clamp assembly.
6. Remove the 3 screws ④.
7. Remove the CD mechanism assembly.

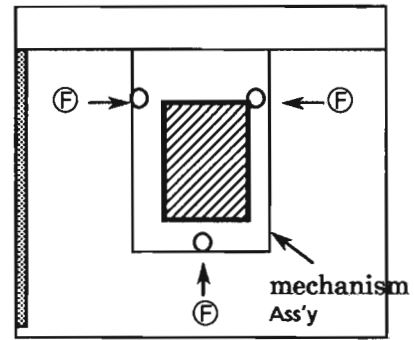


Fig 5

## (7) Cassette mechanism with the PCB (ENC-095-5) removal

1. Remove the top cover.
2. Remove the front panel assembly.
3. Disconnect the connectors JB801, J931 and P981.
4. Remove the 8 screws ①.
5. Open the cassette doors to remove the cassette mechanism.

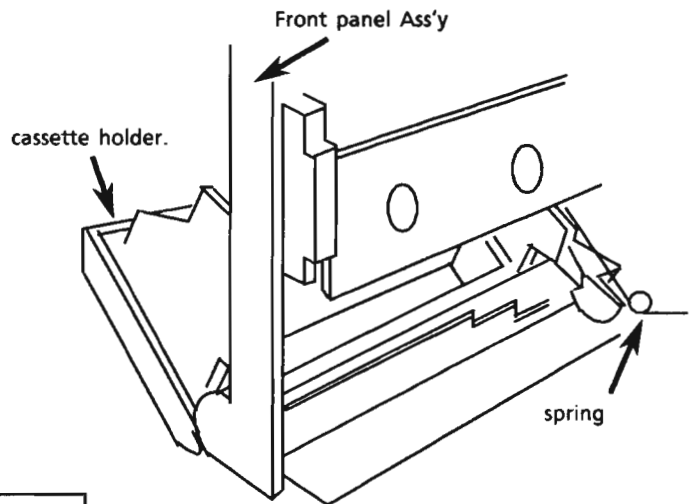


Fig 6

## (8) Cassette holder removal

1. Remove the cassette mechanism assembly.
2. Remove the spring hooked on the cassette holder (Fig 7).
3. Remove the cassette holder.

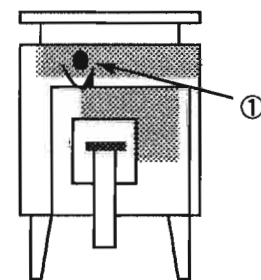


Fig 7

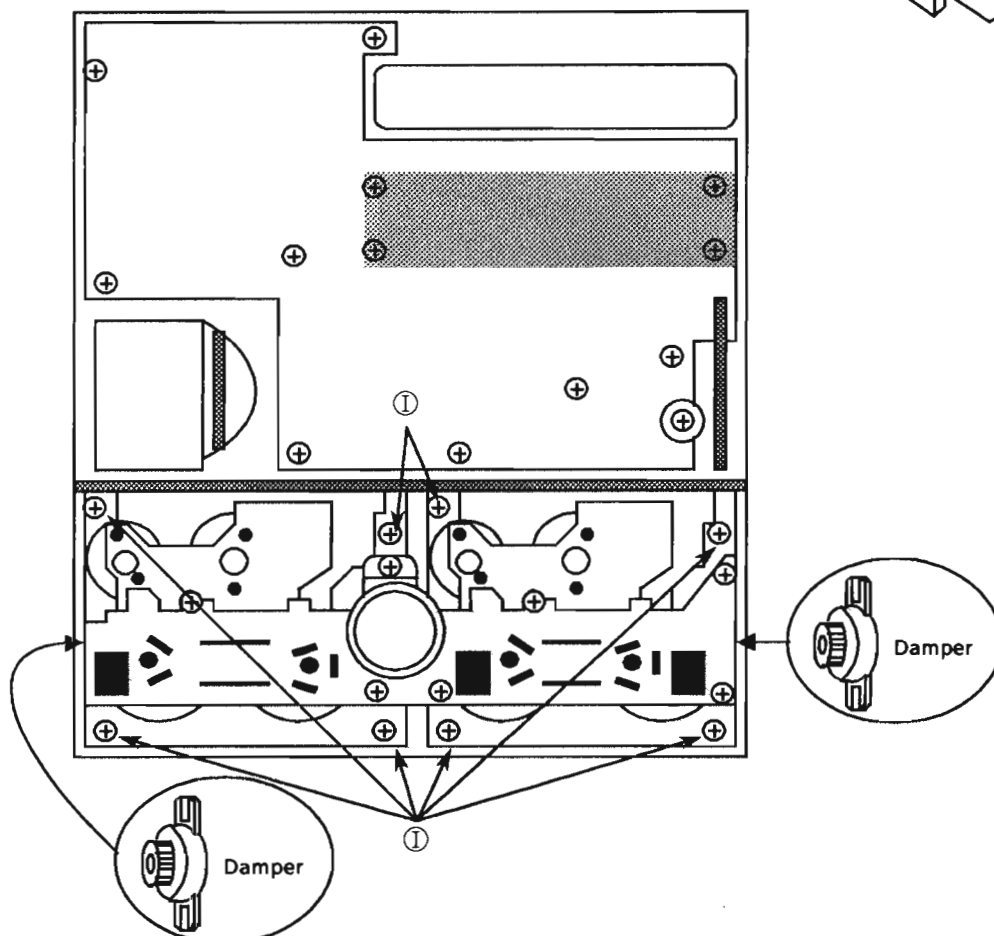


Fig 8

## Disassemble of the cd mechanism assembly

### (1) Pickup removal

1. Remove the cd mechanism assembly.
2. Release the shaft to remove the pickup (Fig 10).

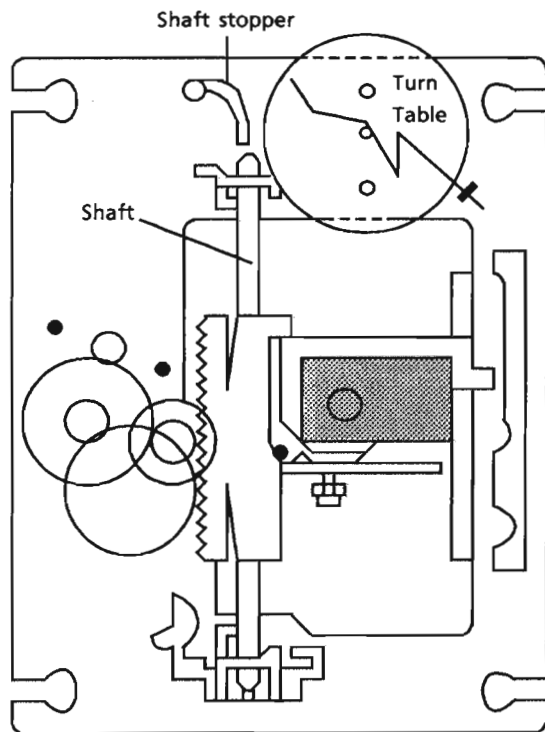


Fig 10 CD mechanism assembly

### (2) Spindle motor removal

1. Remove the cd mechanism assembly.
2. Remove the turntable, and remove the two screws retaining the spindle motor.
3. Remove the screws retaining the spindle and feed motor P.C. Board and unsolder it.

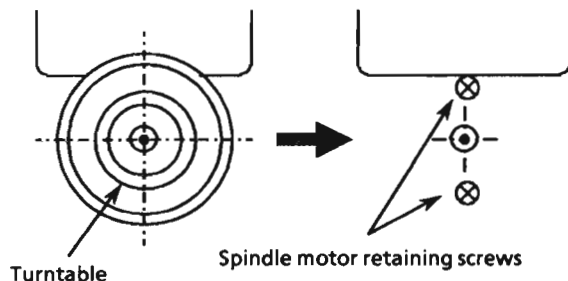


Fig 11

### (3) 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  $19.4 \pm 0.1\text{mm}$ .

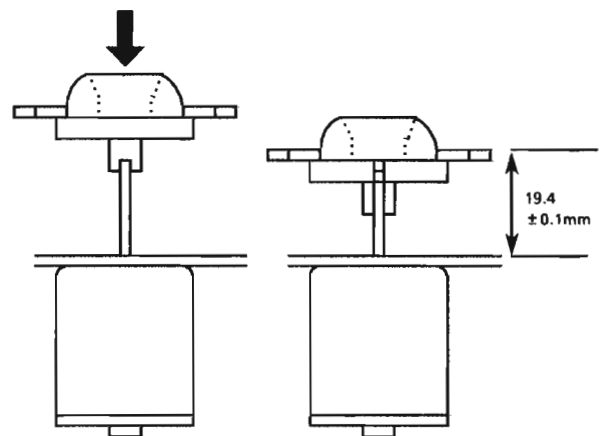


Fig 12

4. After inserting the turntable, bond the motor shaft and turntable together (at the section marked by an arrow in fig 13 on the left below).

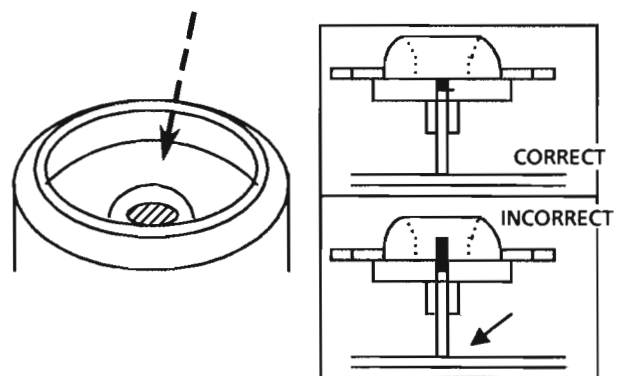


Fig 13

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 13 on the right).

## Disassemble of the cassette mechanism

### (1) Cassette controller PCB (ENC-106-3) removal

1. Remove the cassette mechanism assembly with the PCB.
2. Remove the 2 screws ④.

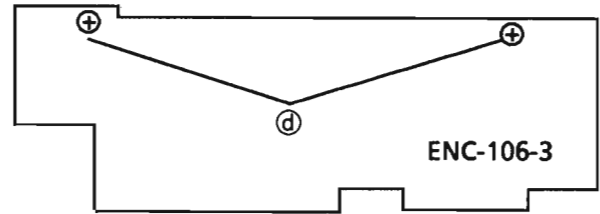


Fig 13

### (2) Head assembly removal

1. Remove the cassette mechanism assembly.
2. Remove the FPC holder (Fig 16).
3. Remove the 3 screws ① fixing the head assembly (Fig 17).

#### ※ Note

The direction of the head is changed with the head gear. When servicing, install the head gear according to the direction of the head. Refer to fig 15.

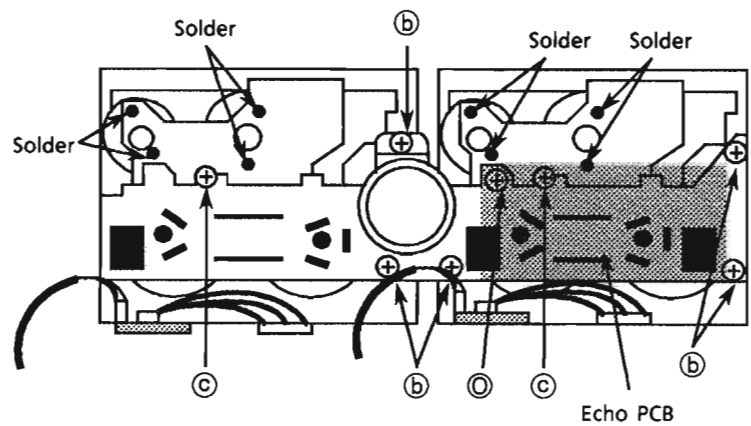


Fig 14

### (3) Pinch roller arm assembly removal

1. Release the hook holding the pinch roller arm assembly to remove the assembly (Fig 16).

### (4) Capstan motor removal

1. Remove the cassette mechanism assembly.
2. Remove the cassette controller PCB.
3. Remove the screw ① to remove the echo PCB (Fig 14).
4. Remove the 7 screws ②,③ fixing the bracket (Fig 14).
5. Remove the motor with the bracket.
6. Remove the 2 screws fixing the motor and the bracket.

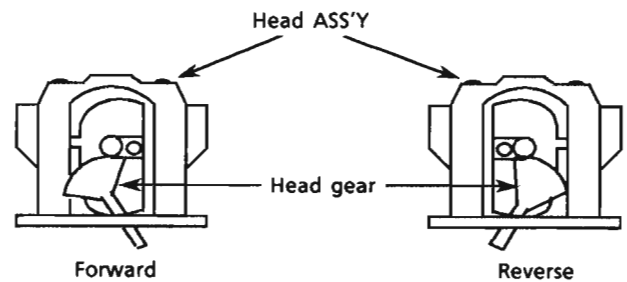


Fig 15

### (5) Reel and cam motor PCB with reel and cam motor removal

1. Remove the cassette mechanism assembly.
2. Remove the cassette controller PCB (ENC-106-3).
3. Remove the 7 screws ②,③ fixing the bracket (Fig 14).
4. Remove the motor with the bracket.
5. Remove the 4 screws ④ fixing the reel and cam motor.
6. Unsolder the reel and cam motor PCB.
7. Remove the PCB with motor.  
Be careful so that stress is not added to the terminals of the motor.

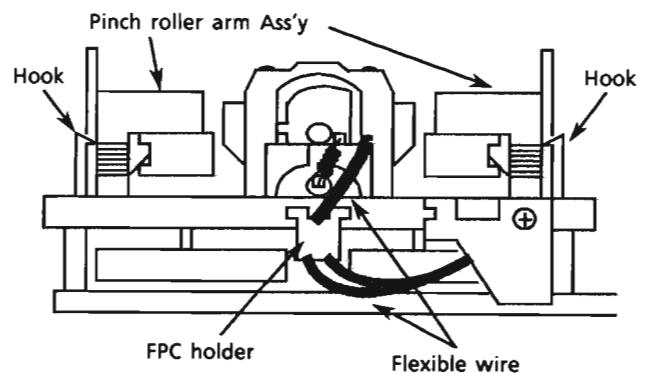


Fig 16

(5) Fly wheel removal

1. Remove the cassette mechanism assembly.
2. Remove the cassette controller PCB.
3. Remove the 7 screws (b), (c) and the bracket (Fig 14).

\* The oil on the capstan must be wiped out after re-assembling.

※ To install the bracket

1. Install the belt of mechanism A as shown in fig 19.
2. Assemble the mechanism A and the bracket with the capstan motor.
3. Hang the belt of the mechanism A to the motor pulley using a tweezers and the like.
4. Hang the part (R) to the Idler pulley.
5. Install the mechanism B installed the belt as shown in fig 20 to the bracket which is assembled with the mechanism A.
6. Hang the part (S) to the motor pulley using a tweezers and the like.

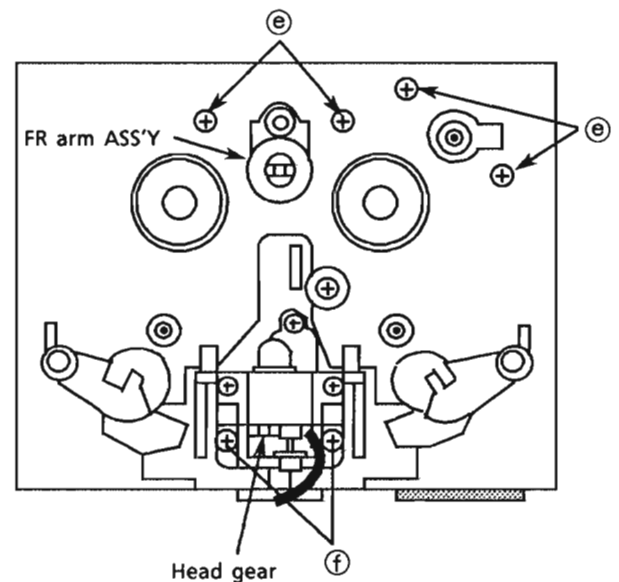


Fig 17

(6) Cam switch PCB removal

1. Remove the fly wheel.
  2. Remove the screw fixing the PCB.
  3. Remove the hooks fixing the PCB to remove the cam switch.
- When assembling the cam switch, install it so that the part (g) meets the part (h) (Fig 21).

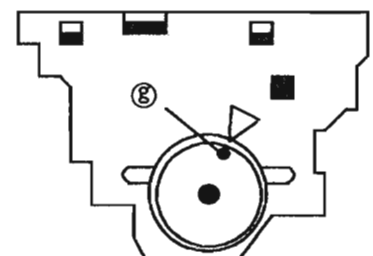
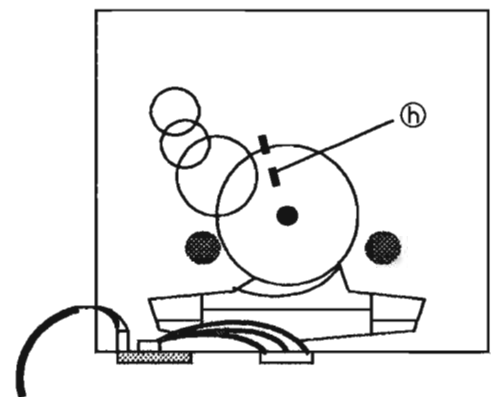
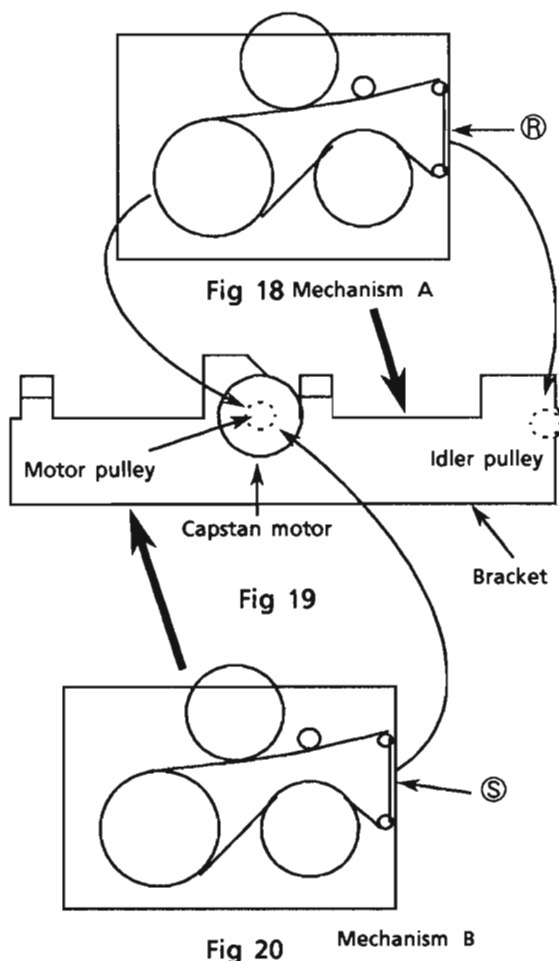


Fig 21

## Adjustment Procedures (Cassette Deck)

### ■ Tuner section

#### (1) Clock Adjustment

1. After connecting W649 and W650 with some wire, connect ac power cord into ac outlet.
2. Confirm that the display is off and remove the wire.
3. Connect a frequency counter to W774 and W650.
4. Adjust TC781 so that the frequency becomes  $34952.5 \pm 0.15\text{Hz}$ .

#### (2) Tuning voltage

Confirm the voltages in the table below at TP101. If the voltages are not satisfied, replace T101 for AM or FE101 for FM.

FM Tuning voltage (Unit : V)

Frequency	FM		AM	
	76MHz	108MHz	522kHz	1629KHz
Tuning voltage	$1.6 \pm 1.0$	$8.0 \pm 2.0$	$1.0 \pm 0.2$	$7.5 \pm 0.8$

#### (3) FM center meter

Receive a broadcast by using the function of 'AUTO STOP'.  
Adjust T105 (detector coil) so that the voltage at TP102 becomes  $0 \pm 1.5\text{mV}$ .

### ■ CD section

#### (1) Adjustment measure

Oscilloscope , Test disc (CRG-1117)

#### (2) Procedures

##### 1) EF balance

- ① Connect TP2(TEST) with TP4(GND).
- ② Connect an oscilloscope between TP8(TEIN) and TP4(GND) and play the test disc.
- ③ Adjust R684 so that the center voltage of the waveform becomes  $0 \pm 0.05\text{V}$ .

##### 2) Gain adjustment

If the gain is out of adjustment, the symptoms below will appear.

##### ● Gain too low

Focus gain : Focus is not obtained and disc does not rotate.

Tracking gain : Mechanical shock occurs easily and sound is interrupted. Or time counter display stops counting.

##### ● Gain too high

Focus gain : Scratches (on the disc) easily interrupt play, and noise is increased during play.

Tracking gain : Since the follow-up ability of the pickup is too high, the pickup may oscillate and oscillating sound may output.

As described above, the focus and tracking gain adjustment are performed to satisfy mutually contradictory characteristics.

A simplified adjustment procedure is described below. However, since exact adjustment can not be performed prior to adjustments, note(or mark) the positions of the semi-fixed resistors.

If the positions after the adjustment are only different, return the VRs to their original position.

#### Tracking gain adjustment

1. Connect TP 2(TEST) with TP 4(GND).
2. Connect an oscilloscope to TP 8(TEIN) and TP 4(GND).
3. Load the test disc and press the PLAY button.
4. Adjust R704 (T.GAIN ADJ.) so that the correct waveform as shown in figure 3 is obtain.

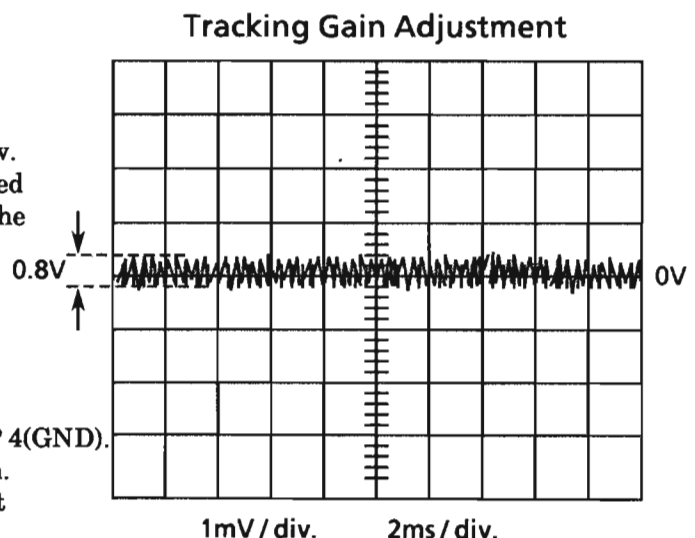


Figure 3



## Deck section

### 1. Measuring instruments

Audio frequency signal generator ( 0dbS 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

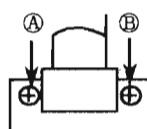
#### Standard Tape

0dBs = 0.775V

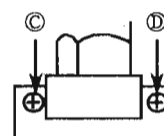
Tape No.	Frequency	Level (Wow & Flutter)	Purpose
VTT-703L	10kHz	- 10dBs	Head azimuth , Frequency Response
VTT-712	3000Hz	0dBs 0.025%WRMS	Tape Speed , Wow & Flutter
VTT-724	1kHz	- 4dBs	Standard Level
TMT-6447	-	-	Blunk Skip
TMT-6247 , TMT-6237	-	-	Music Scan
TS-8	-	-	Recording standard Normal : UR
TS-11	-	-	Recording standard METAL : MA
TS-10	-	-	Recording standard CrO <sub>2</sub> : SA
GTG-N (CT-100M)	-	-	Forward /reverse play torque measuring
TW-2231	-	-	Feed forward /rewind torque measuring
C-120 Tape	-	-	Comfirming 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 1) to playback VTT-703L.</li> <li>2. Adjust screw ① so that the indication of the voltmeter becomes maximum when PLAY (▶) is pressed.</li> <li>3. Adjust screw ② 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 ③ so that the indication of the voltmeter becomes maximum when PLAY (▶) is pressed.</li> <li>5. Adjust screw ④ 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 ①, ②, ③ and ④ 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.
Wow & flutter	<ol style="list-style-type: none"> <li>1. Connect the wow &amp; flutter meter to the DOLBY TP (figure 1) and play back VTT-712.</li> <li>2. Its reading should be within 0.2% (WRMS).</li> </ol>	Less than 0.2%	As a complaint may occur if the wow & flutter fluctuates by 0.1% even though it is allowed in the standard, repairing is required.
Auto stop	Confirm that "AUTO STOP" works at the end of the tape and doesn't work tape is running.		



Deck A



Deck B

Figure 3

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

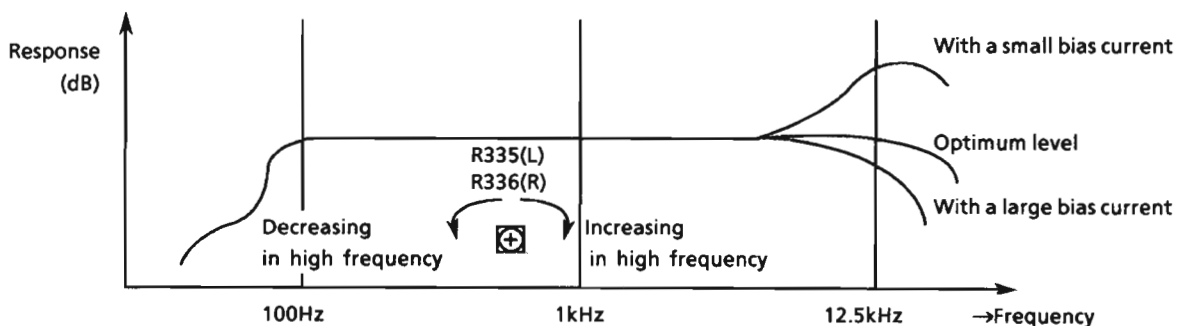
In principle, the adjustments should be made in the following sequence.

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**

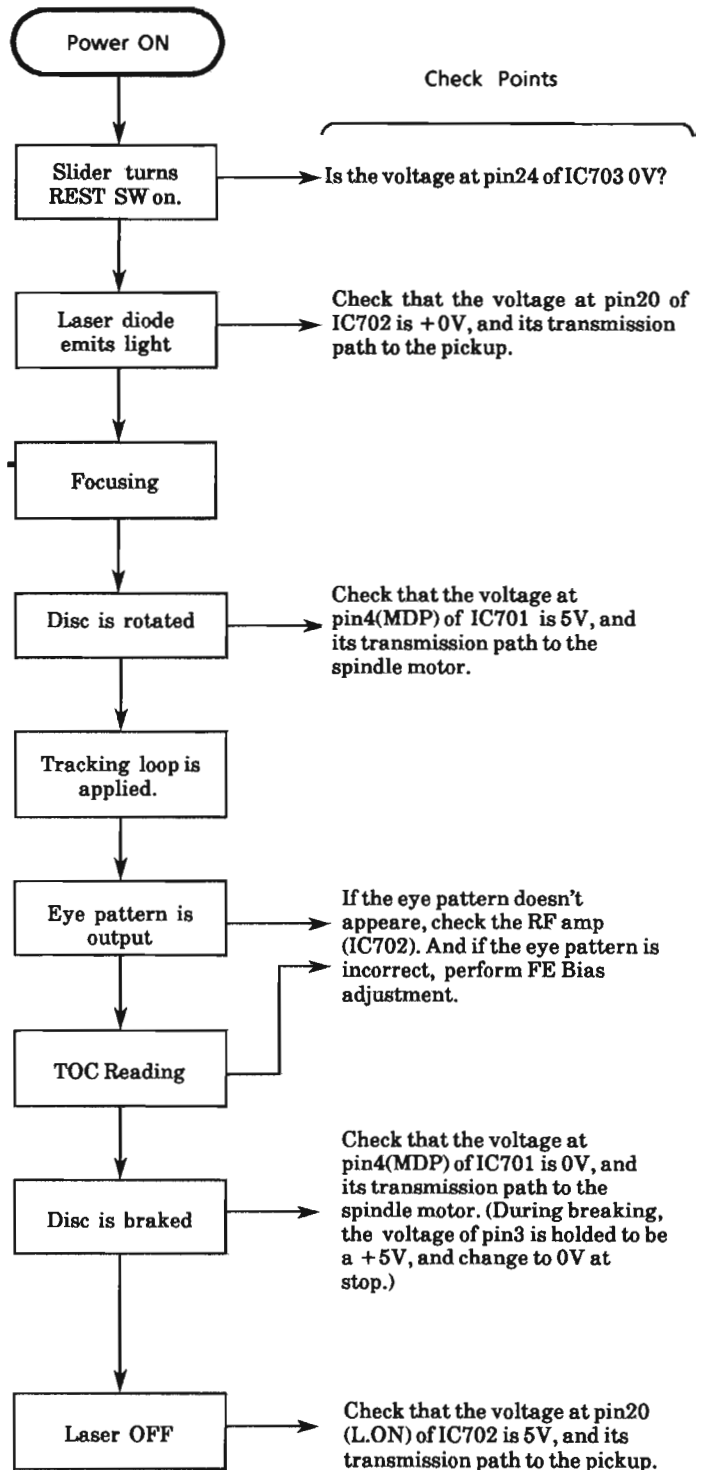
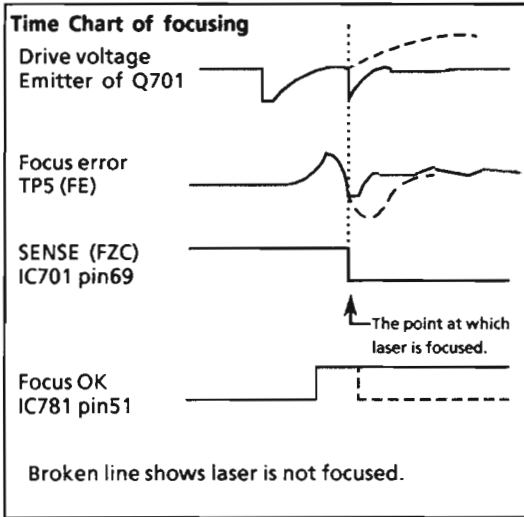
Item	Adjustment Method	Adjustment Location	Standard Value	Remarks
1 Tape Speed	1. Connect a frequency counter to the DOLBY TP (figure 1) and play back VTT-712. 2. Normal speed Adjustment 1) Mechanism B Play back deck B to adjust the semi-fixed resistor R948. 2) Mechanism A Play back deck A to confirm that the difference between deck A and deck B is within $\pm 51\text{Hz}$ . 3. High-speed adjustment 1) Mechanism B Play back deck B, check 6000Hz.	R948	3,000 Hz $\pm 10\text{Hz}$  6,000Hz $\pm 600\text{Hz}$	1) Adjust the normal speed first, and perform the high speed adjustment.
* 2 Standard level (Playback Level)	1. Connect an electronic voltmeter to the DOLBY TP (figure 1). Play back VTT-724 (1 kHz : -4dBs) to adjust the semi-fixed resistors.	<b>Deck A</b> L: R221 R: R222 <b>Deck B</b> L: R389 R: R390	-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 1). 2. Play VTT-703L (10kHz : -10dBs) and adjust semi-fixed resistors to obtain the standard values.	<b>Deck A</b> L: R203 R: R204 <b>Deck B</b> L: R205 R: R206	-11.5dBs (206mV)  $\pm 3\text{dB}$	—
* 4 Recording Bias Frequency	1. Connect a frequency counter to the BIAS TP (figure 1), and perform a recording to adjust bias frequency.	L335	100 kHz +10kHz -5kHz	—
* 5 Record / Play Frequency Response (Bias current)	1. Supply 1kHz and 12.5kHz with 30mV signals to PHONO/AUX terminals respectively to record them. 2. Connect an electronic voltmeter to the DOLBY TP (figure 1) 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: R335 R: R336	$0 \pm 2\text{ dB}$ with 1 kHz as the standard.	<b>Refer to figure 5 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 5**

	Item	Adjustment Method	Adjustment Location	Standard Value	Remarks
* 6	Record /Playback Sensitivity	<ol style="list-style-type: none"> <li>1. Input a 1 kHz ( -8.2dBs: 300mV) signal to PHONO /AUX terminals and record it on the left and right channels .</li> <li>2. Connect an electronic voltmeter to the DOLBY TP (figure 1) to confirm the recorded values .</li> <li>3. If the values are not satisfied , adjust the semi-fixed resistors and record the signal again to confirm the recorded values.</li> </ol>	L : R367 R : R368	- 5.5dBs (411mV) ± 1dB	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>1. Record a music source using the Metal tape.</li> <li>2. Rewind and erase the recorded section.</li> <li>3. Comfirm nothing can be heard.</li> </ol>	—	—	—
8	Music Scan	<ol style="list-style-type: none"> <li>1. Make sure not to work the music scanning operation at the start of tape wind using TMT-6237.</li> <li>2. Make sure to work the music scanning operation at the end of tape wind using TMT-6247.</li> </ol>	—	—	—

# Flow of Functional Operation Until TOC is Read



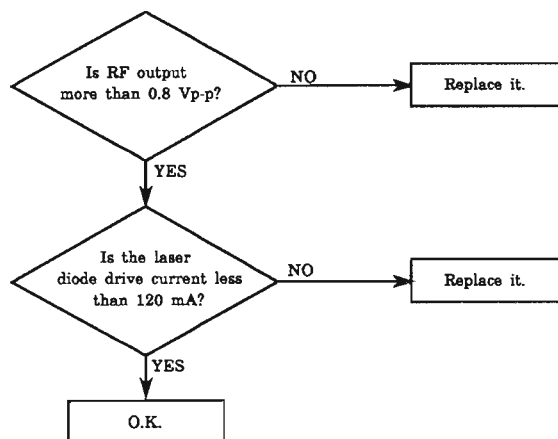
## Maintenance of Laser Pickup

### (1) Life of the laser diode

When the life of the laser diode has expired, the following symptoms will appear.

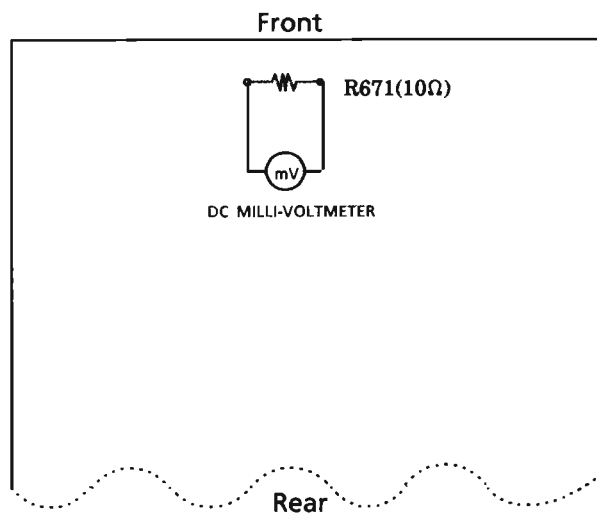
1. The level of RF output ( EFM output: amplitude of eye pattern) will be low.
2. The drive current required by the laser diode will be increased.

In such a case, check the life of the laser diode by the flowchart below



### (2) Measurement of laser diode drive current

Measure the voltage across the resistor R671 by using a milli-voltmeter. When the voltage is more than 1.2V, it shows that the life of the laser diode has expired.



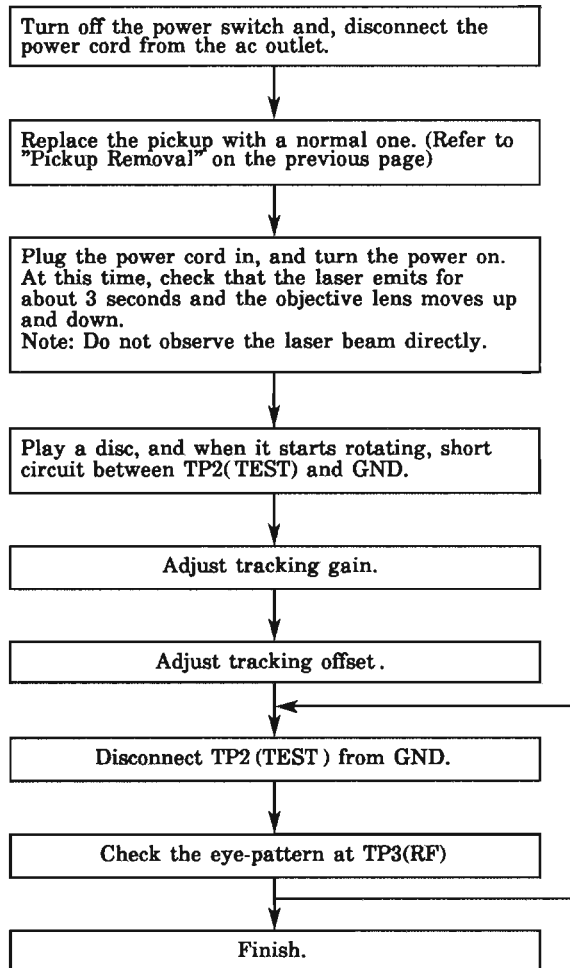
### (3) Semi-fixed resistor on the APC PC board

The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power. Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.

If the laser power is lower than the specified value, the laser diode is almost worn out, and the laser pickup should be replaced.

If the semi-fixed resistor is adjusted while the pickup is functioning normally, the laser pickup may be damaged due to excessive current.

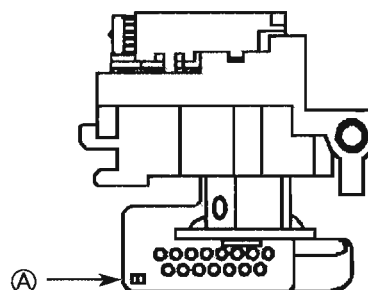
## Replacement of Laser Pickup



Note: Since one adjustment may affect other settings, repeat these adjustments a few times.

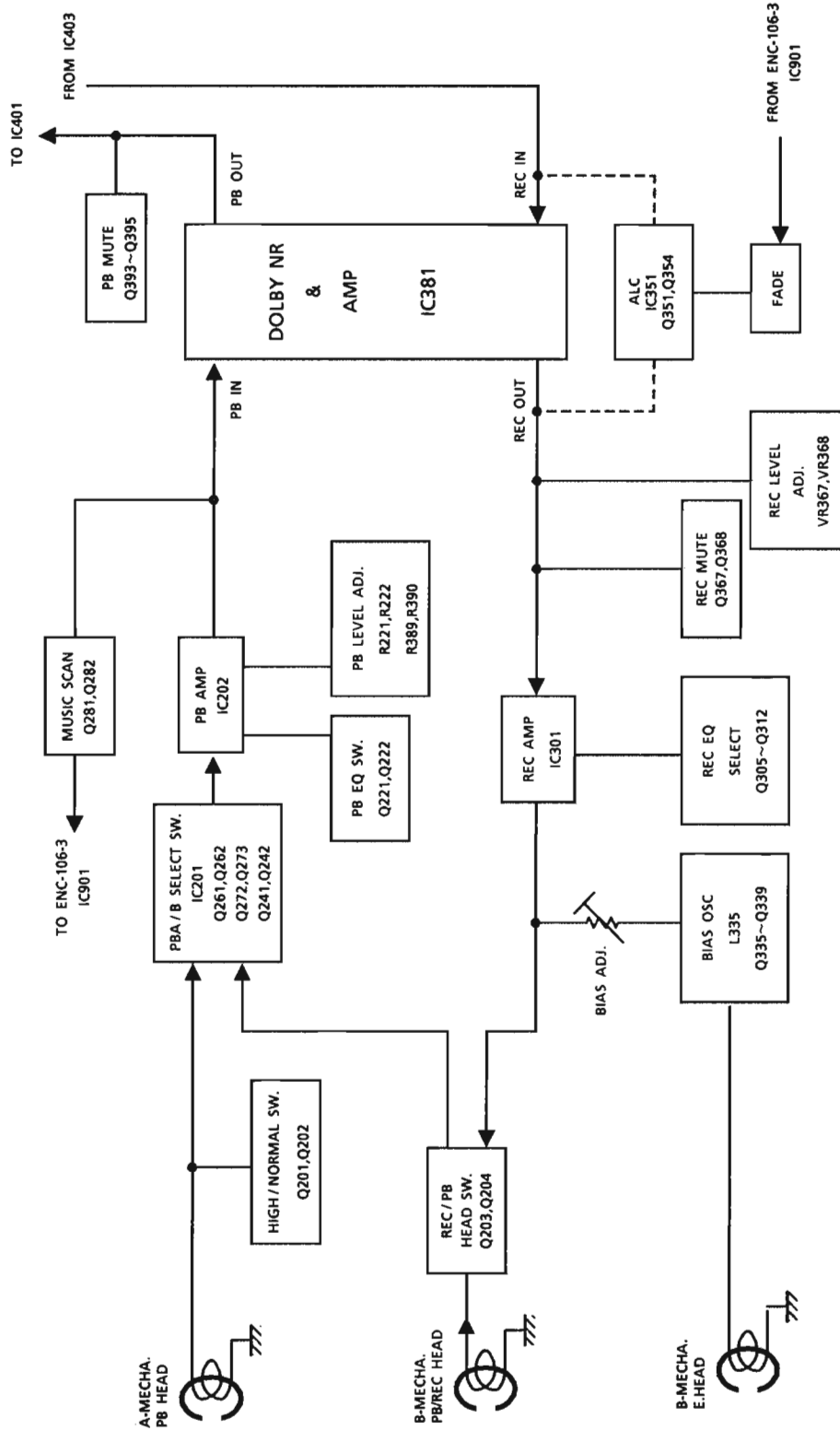
### Before installing the pickup

Unsolder the part ①, which is used for countermeasure for static electricity.



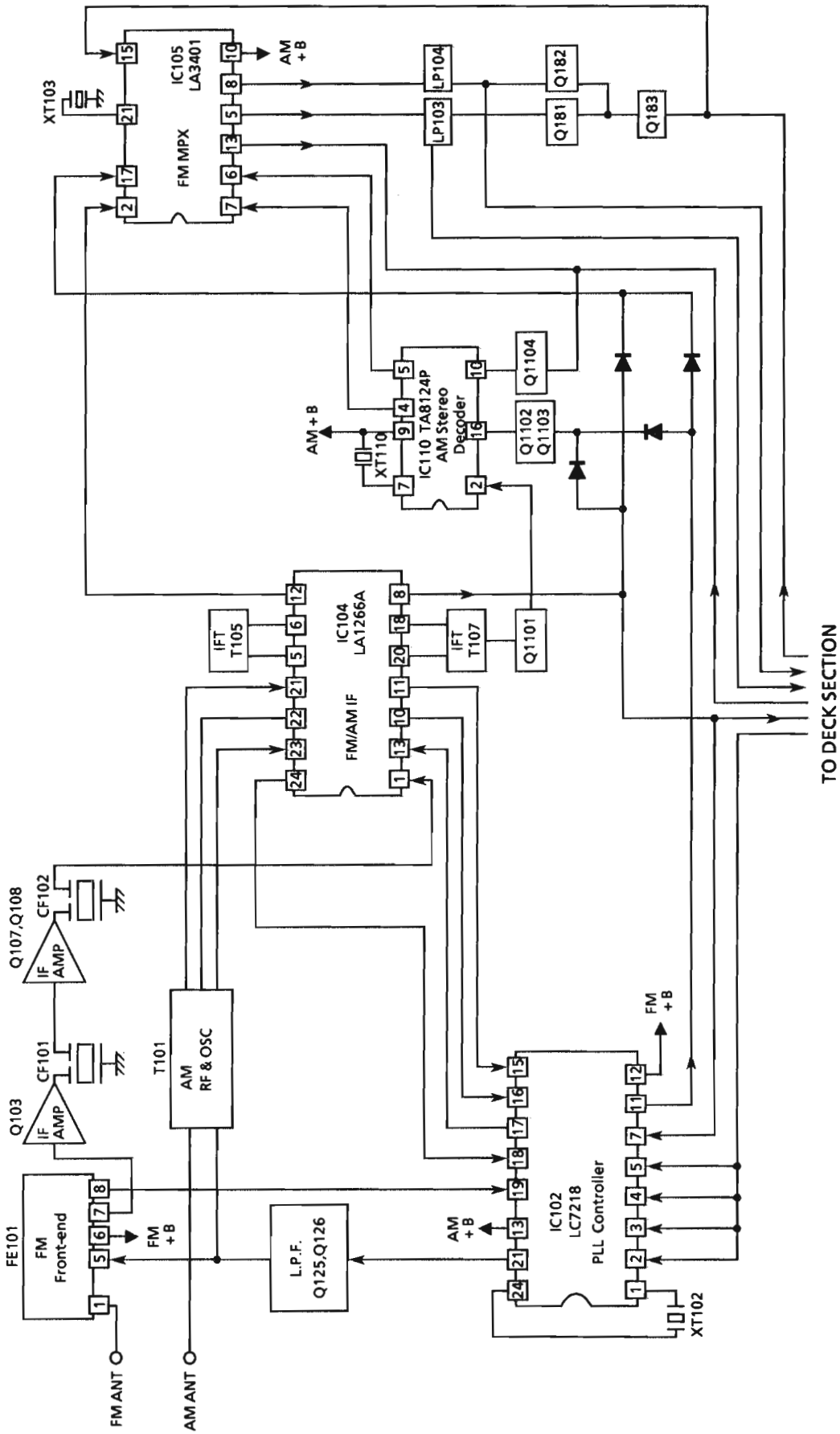
# Block Diagrams

## Cassette Deck Section

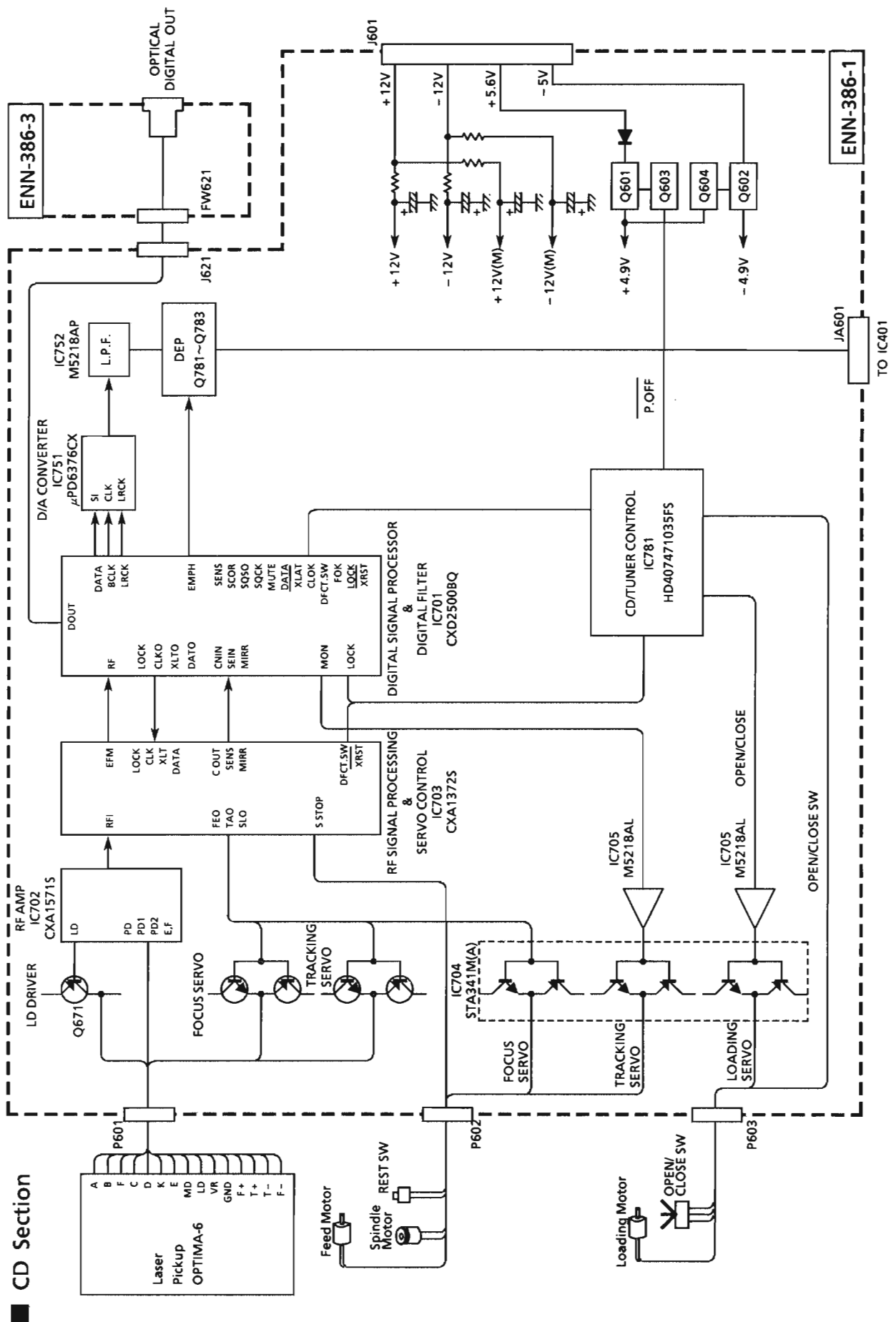




**Tuner Section**

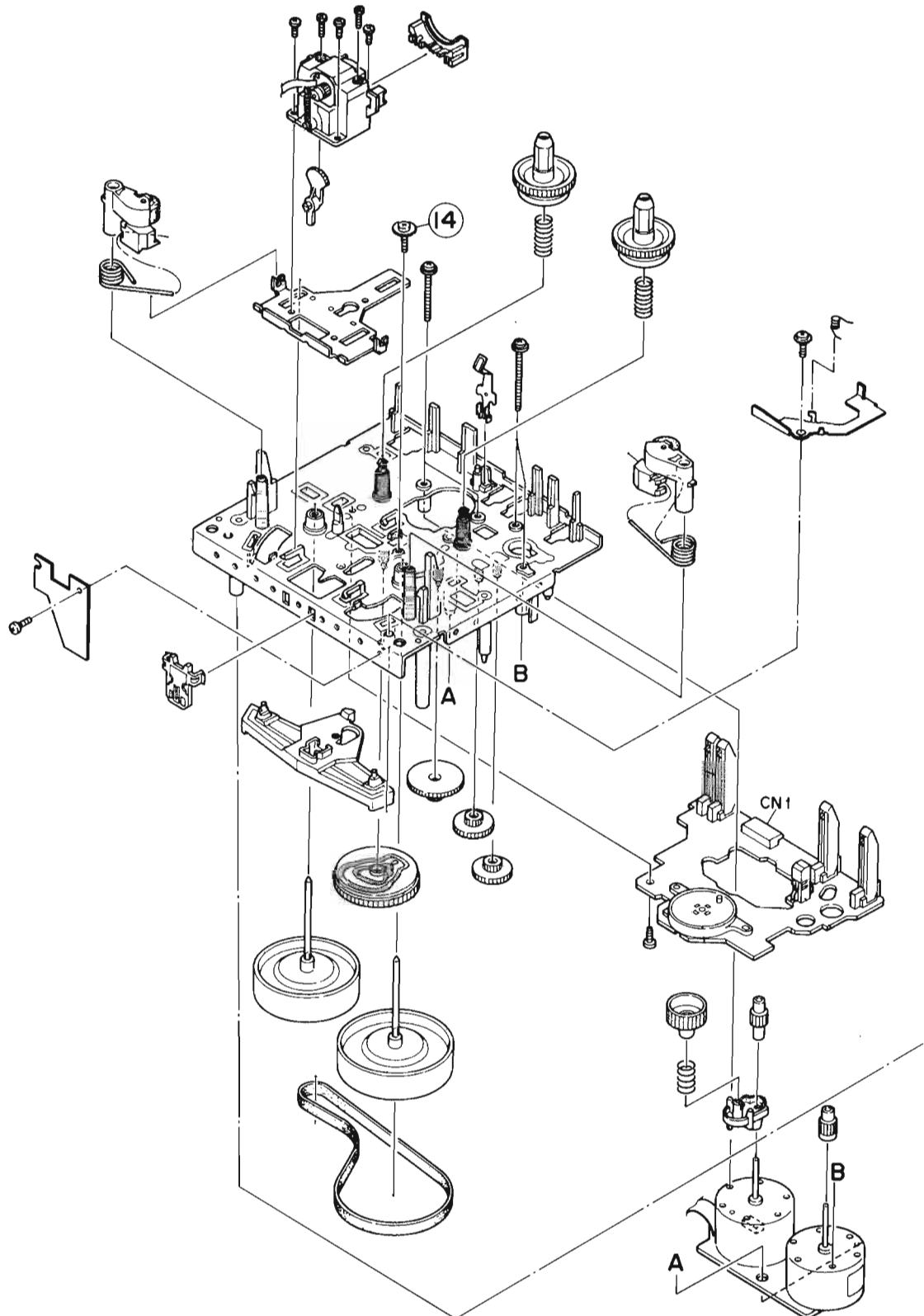








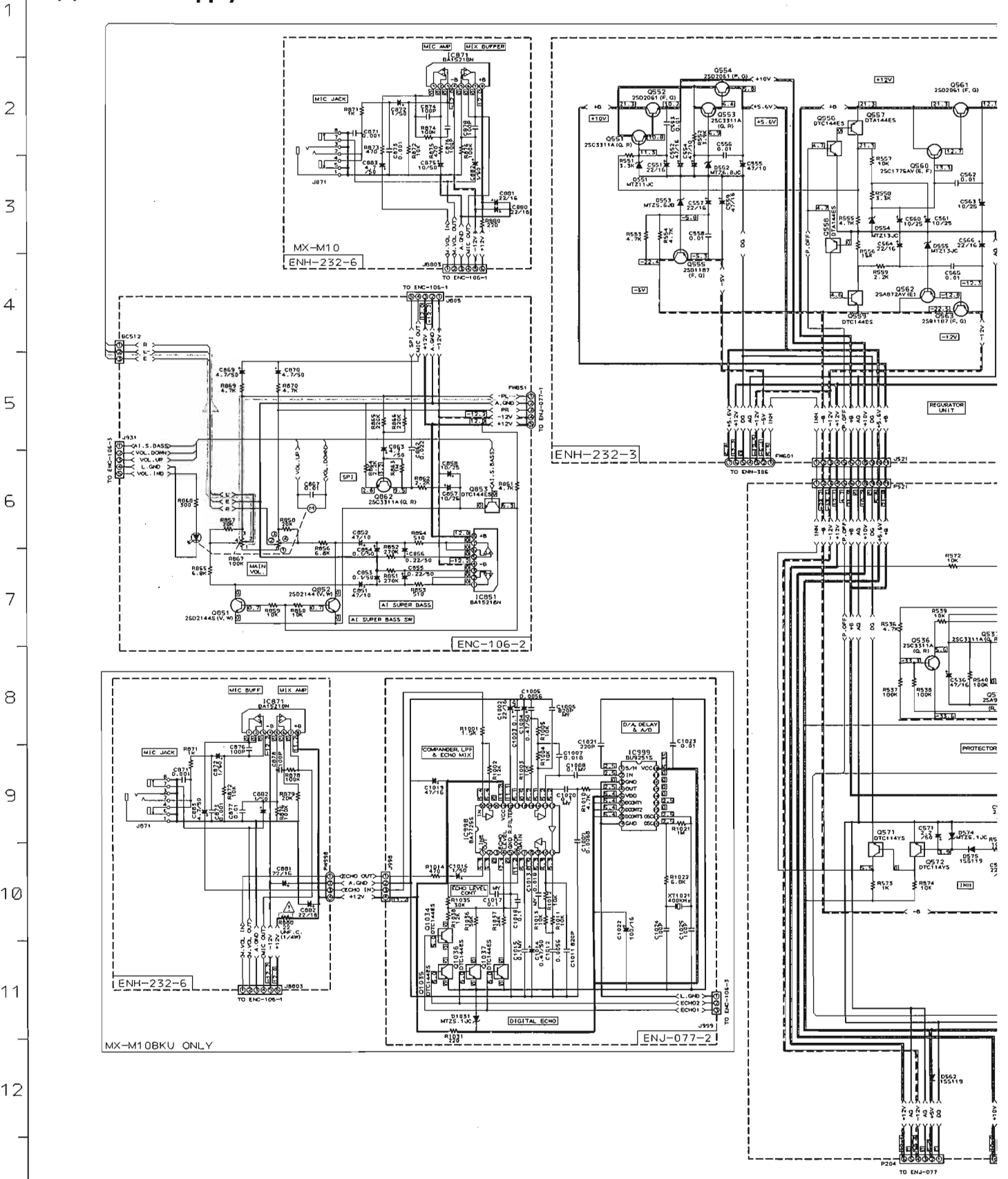
- LEN-315F
- LEN-320M



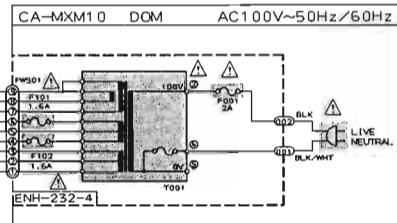
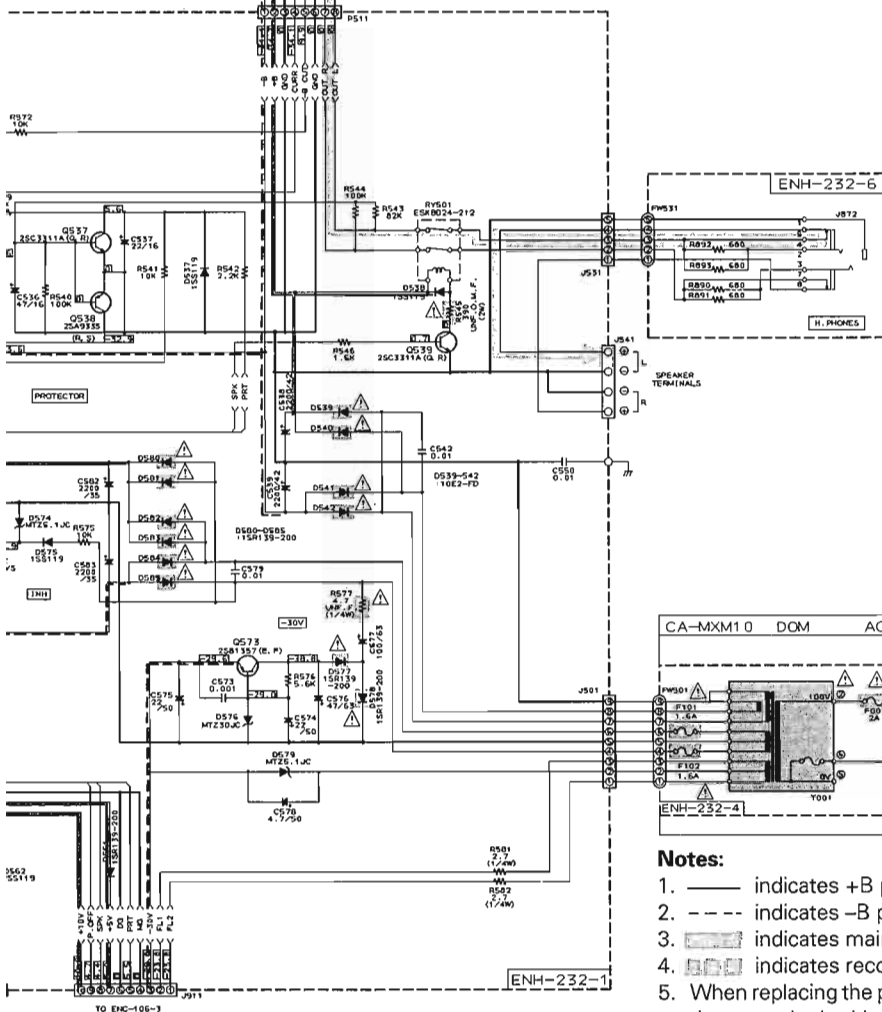
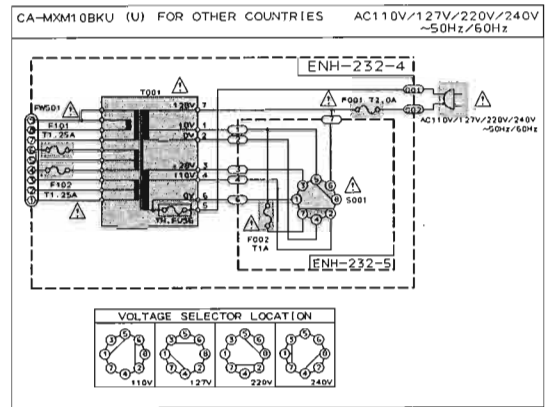
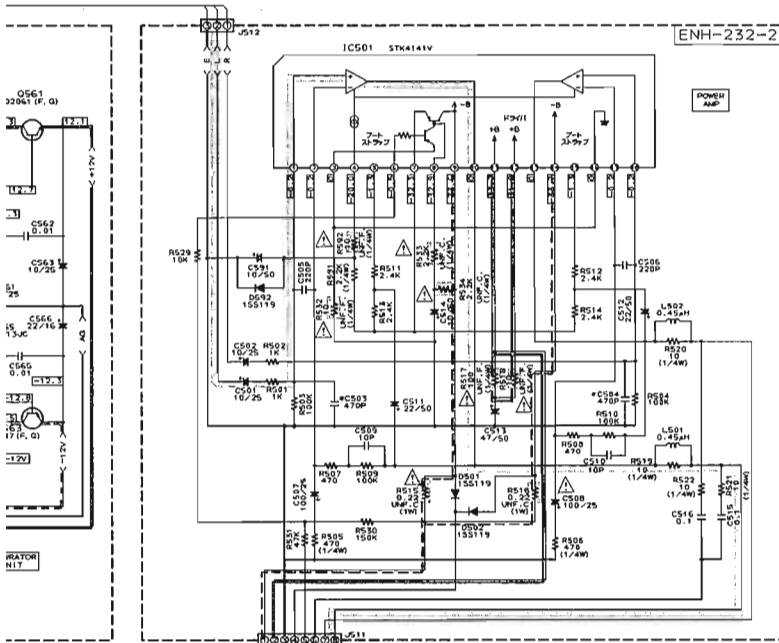
# Schematic Diagrams

A B C D E F G H I J

## (1) Power Supply & Audio Section



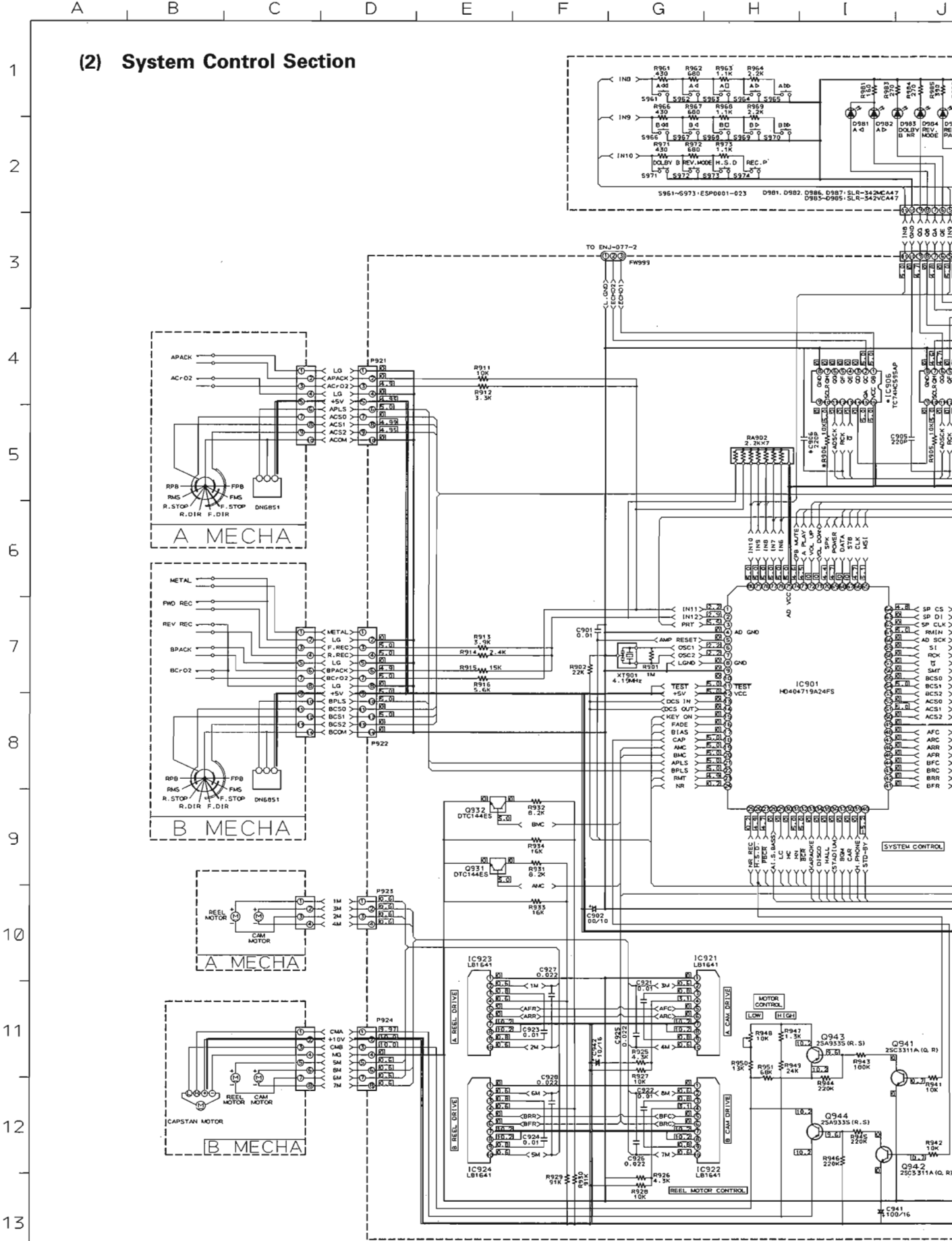
J | K | L | M | N | O | P | Q | R | S



**Notes:**

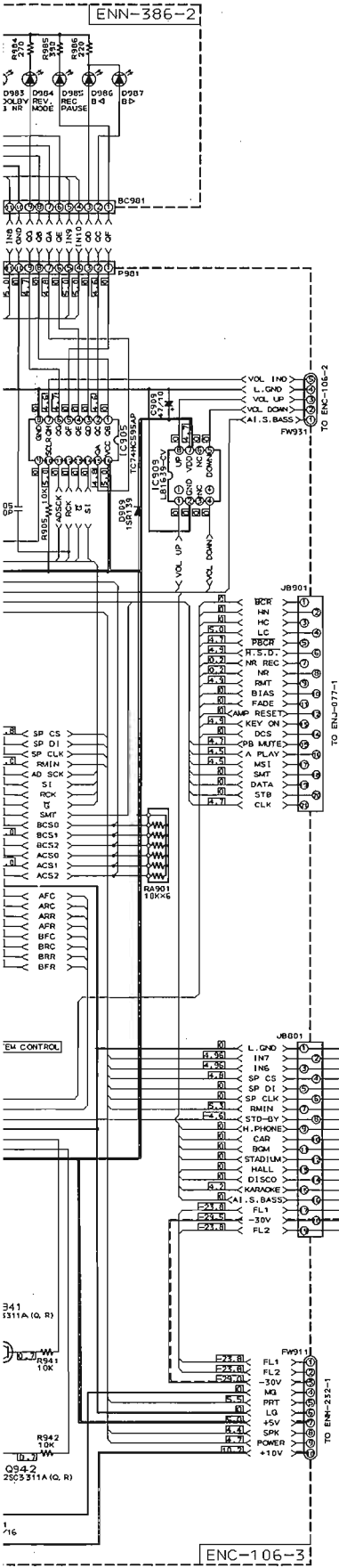
1. ——— indicates +B power supply.
2. - - - indicates -B power supply.
3. [Shaded Area] indicates main signal path.
4. [Shaded Area] indicates recording signal path.
5. When replacing the parts in the shaded area ( [Shaded Area] ) and those marked with  $\Delta$ , be sure to use the designated parts to ensure safety.  
This is the standard circuit diagram.
6. The design and contents are subject to change without notice.

(2) System Control Section



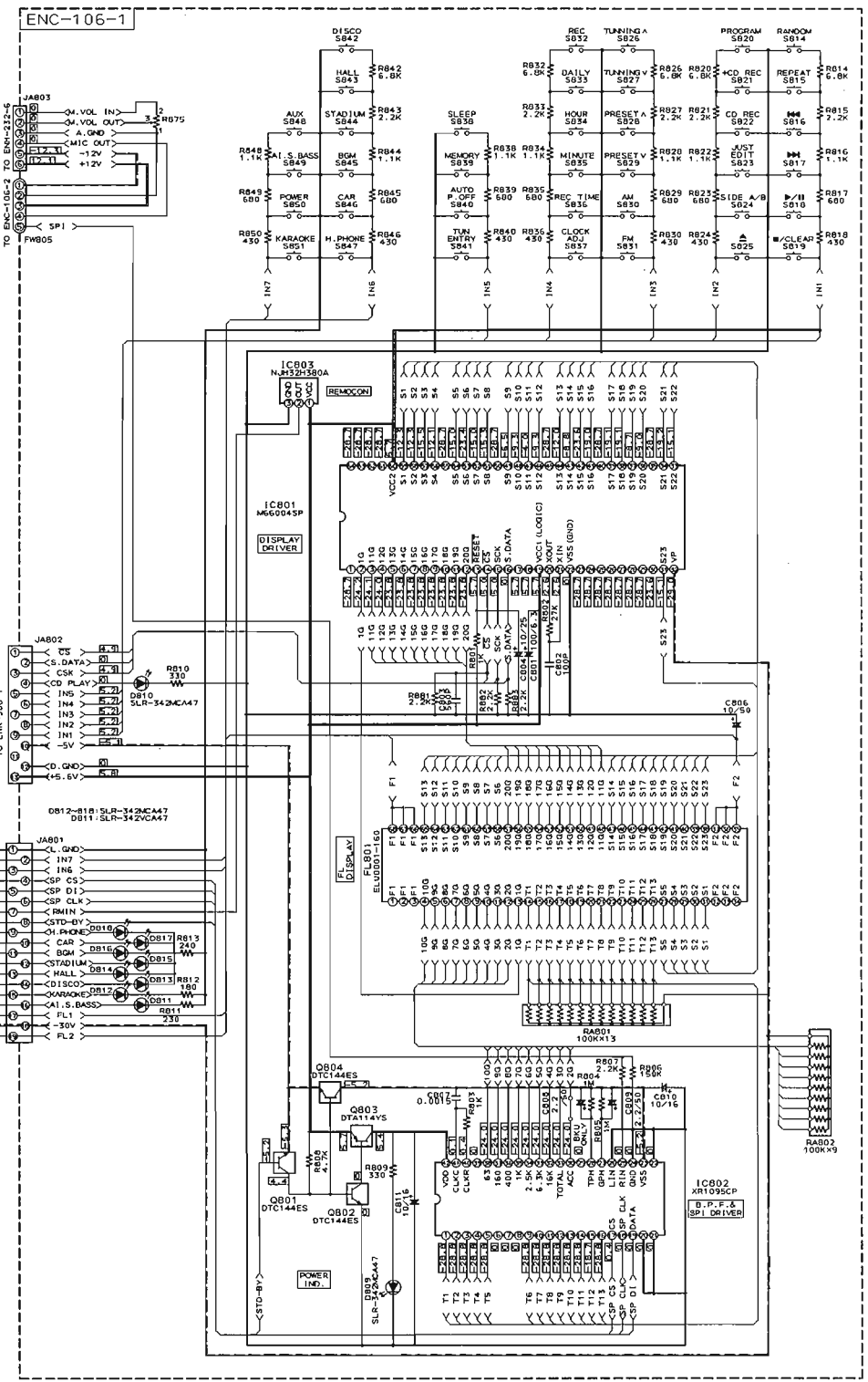
# CA-MXM10BK

J | K | L | M | N | O | P | Q | R | S



MARK LIST

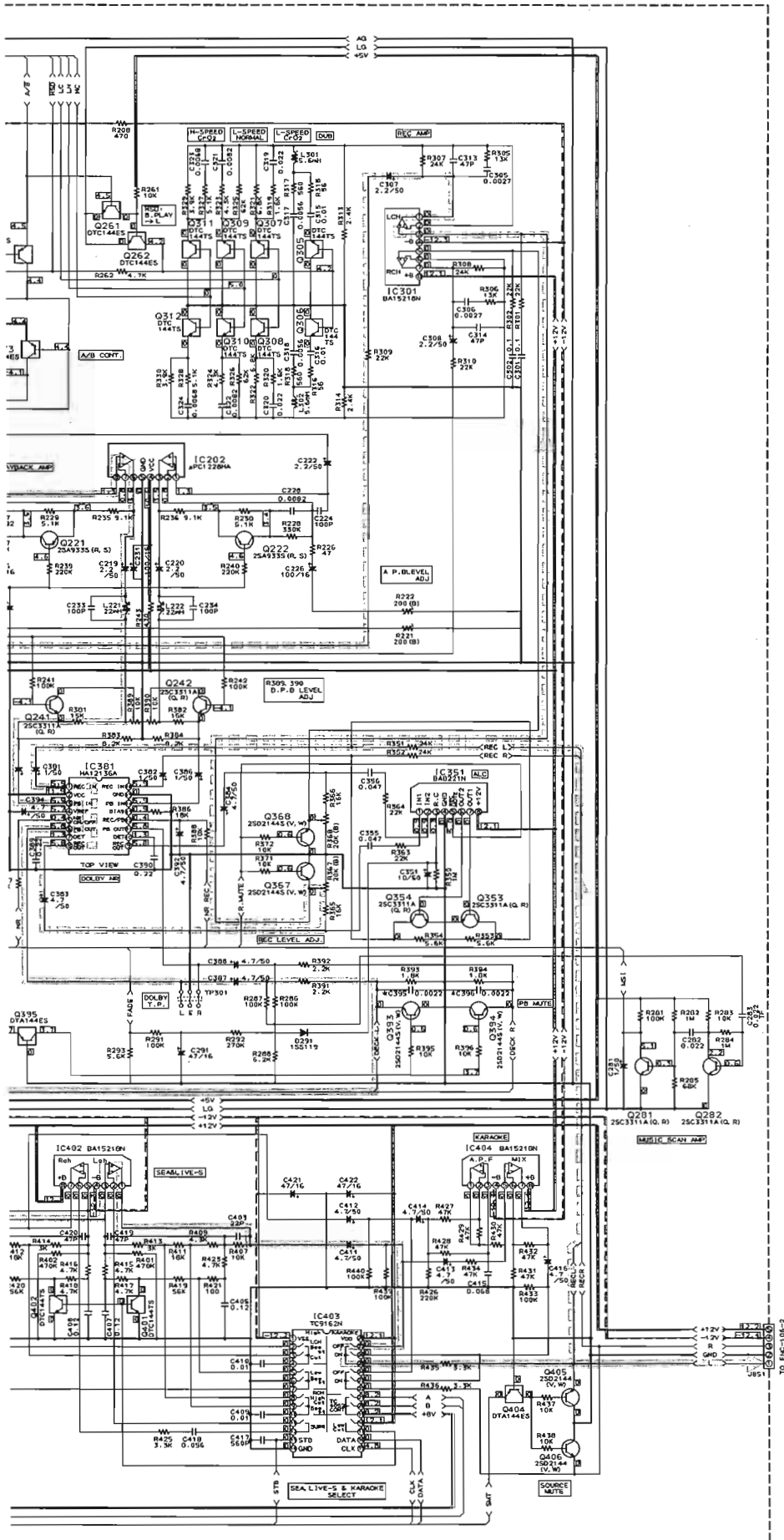
VER	DOM	U
C906	NONE	USED
R906	NONE	USED
IC906	NONE	USED



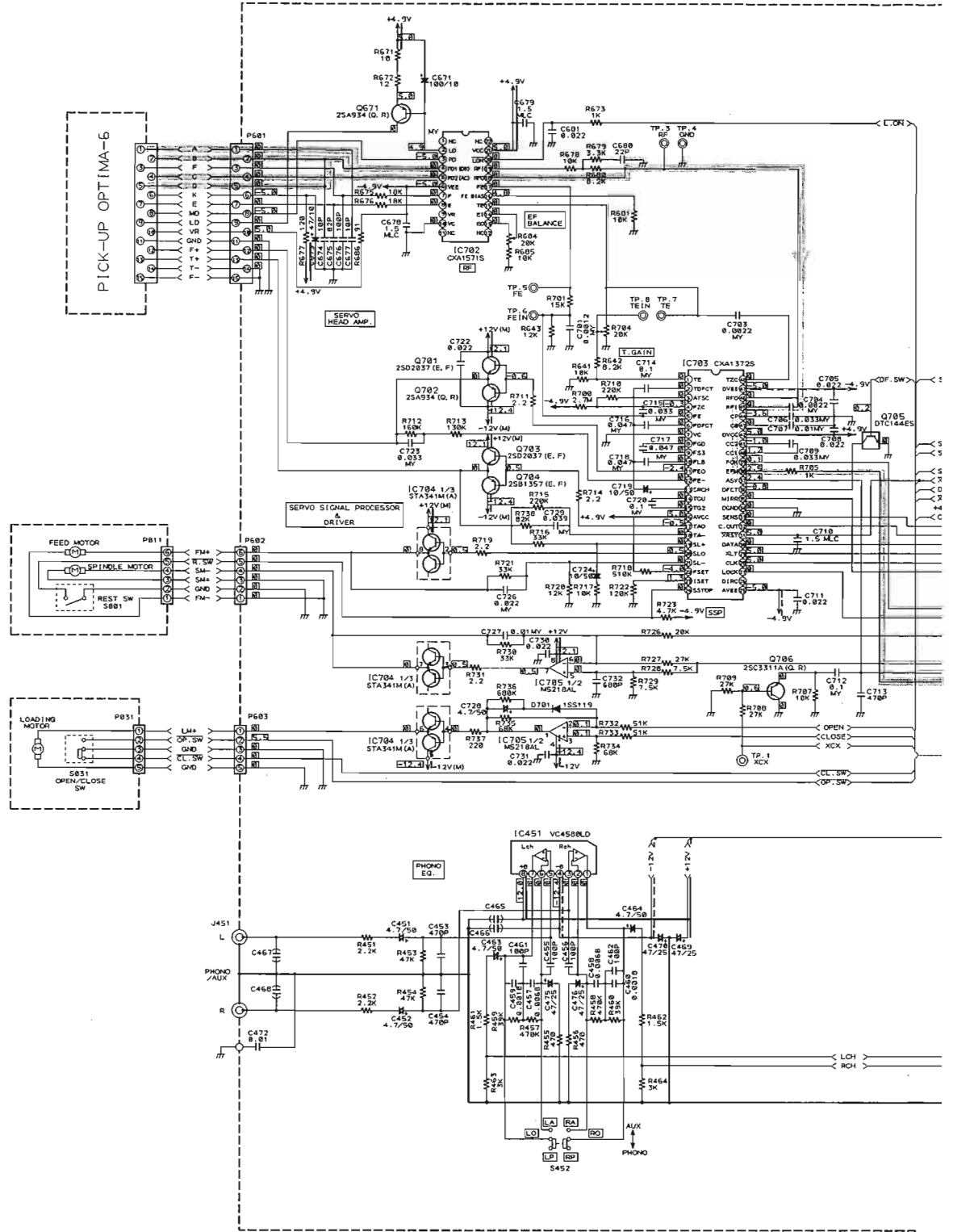




J | K | L | M | N | O | P | Q | R | S



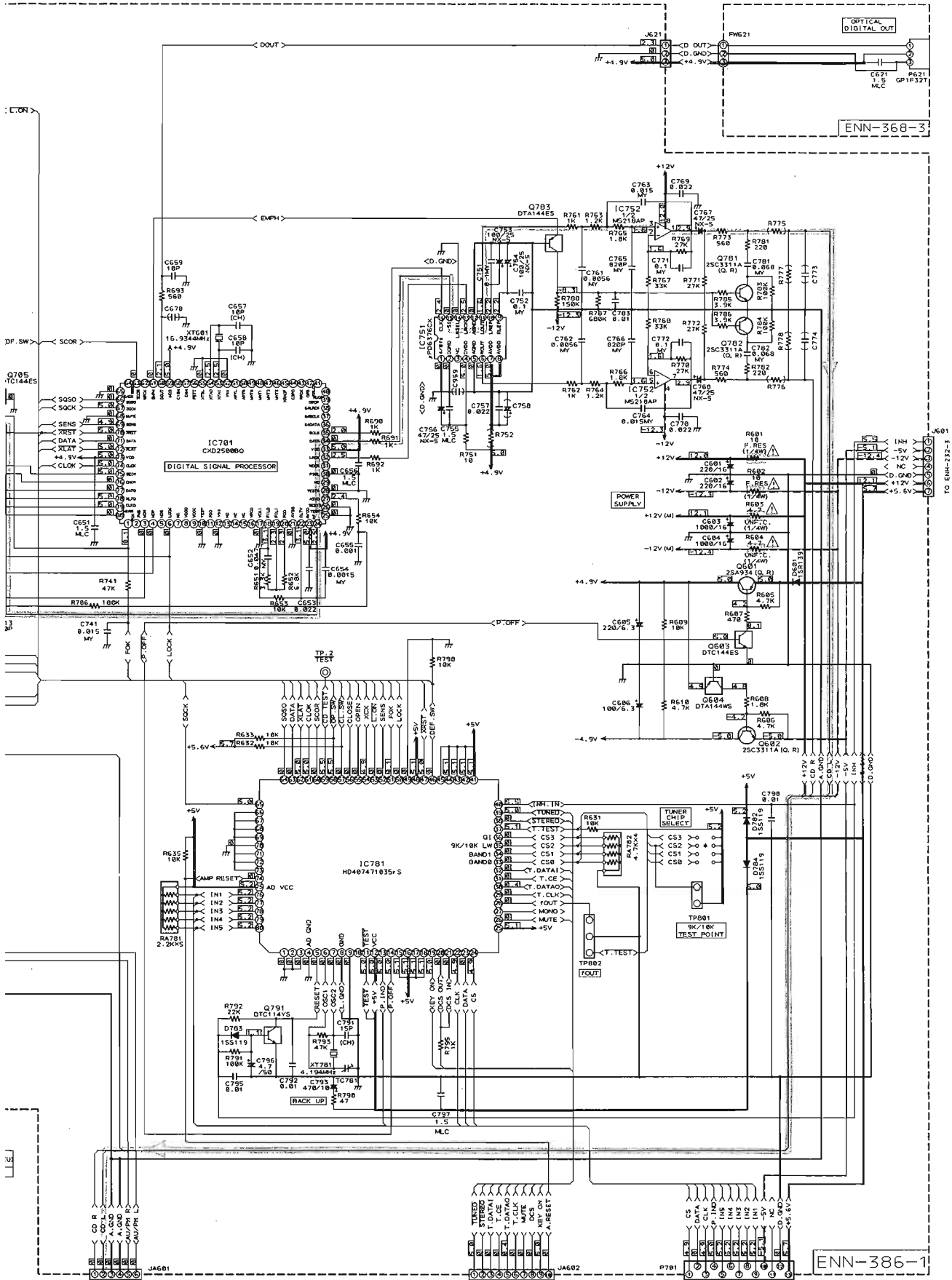
(4) CD Section



MARK	VER.	SYMBOL	A (010)	B (010BKU)
		C52 (06+5)	USED	NONE

CA-MXM10BK

J K L M N O P Q R S



TO ENJ-077-1

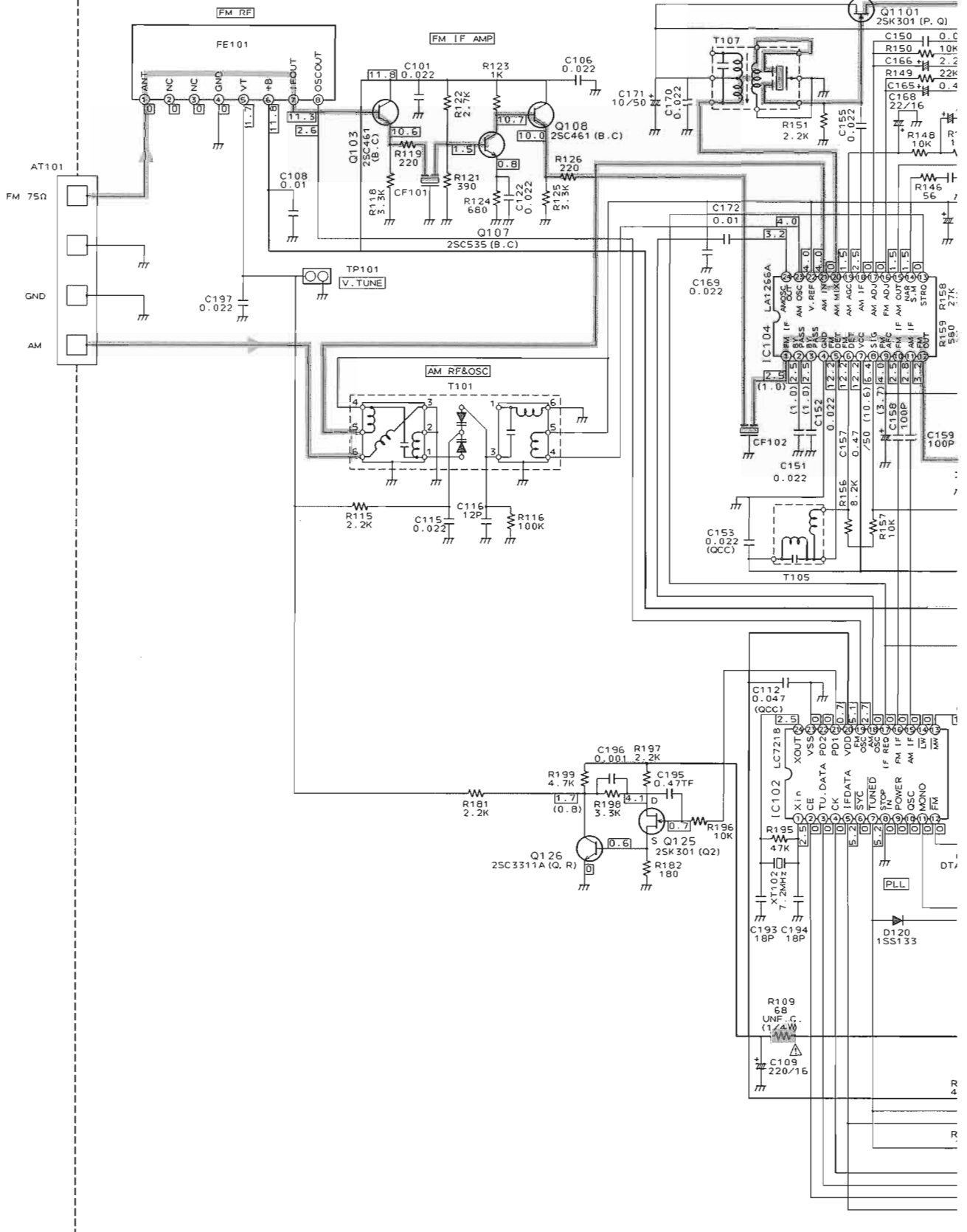
TO ENJ-077-1

TO ENC-106-1

A B C D E F G H I J

(5) Tuner Section

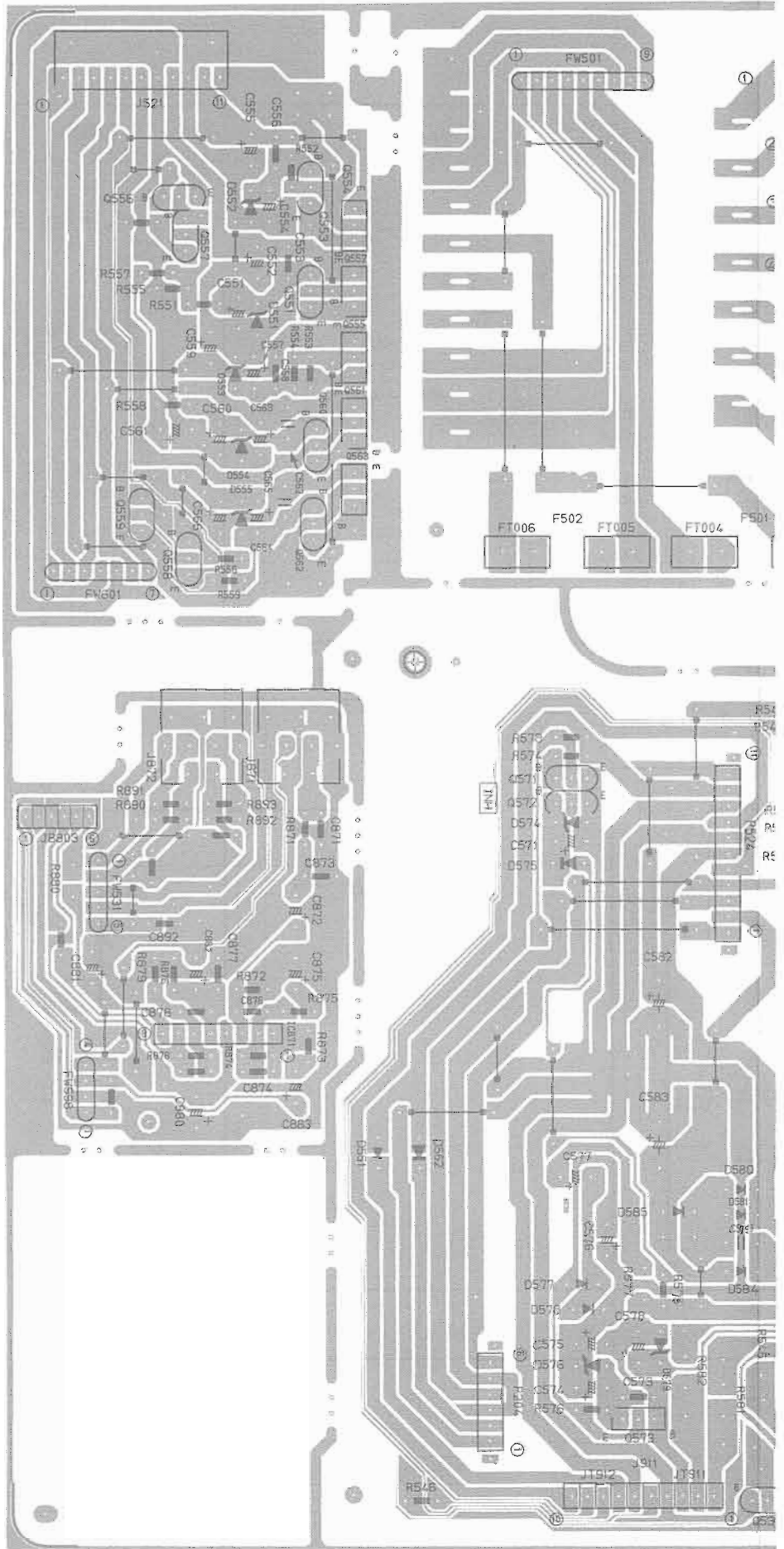
FOR D, BKU (LAOX)





# Printed Circuit Boards

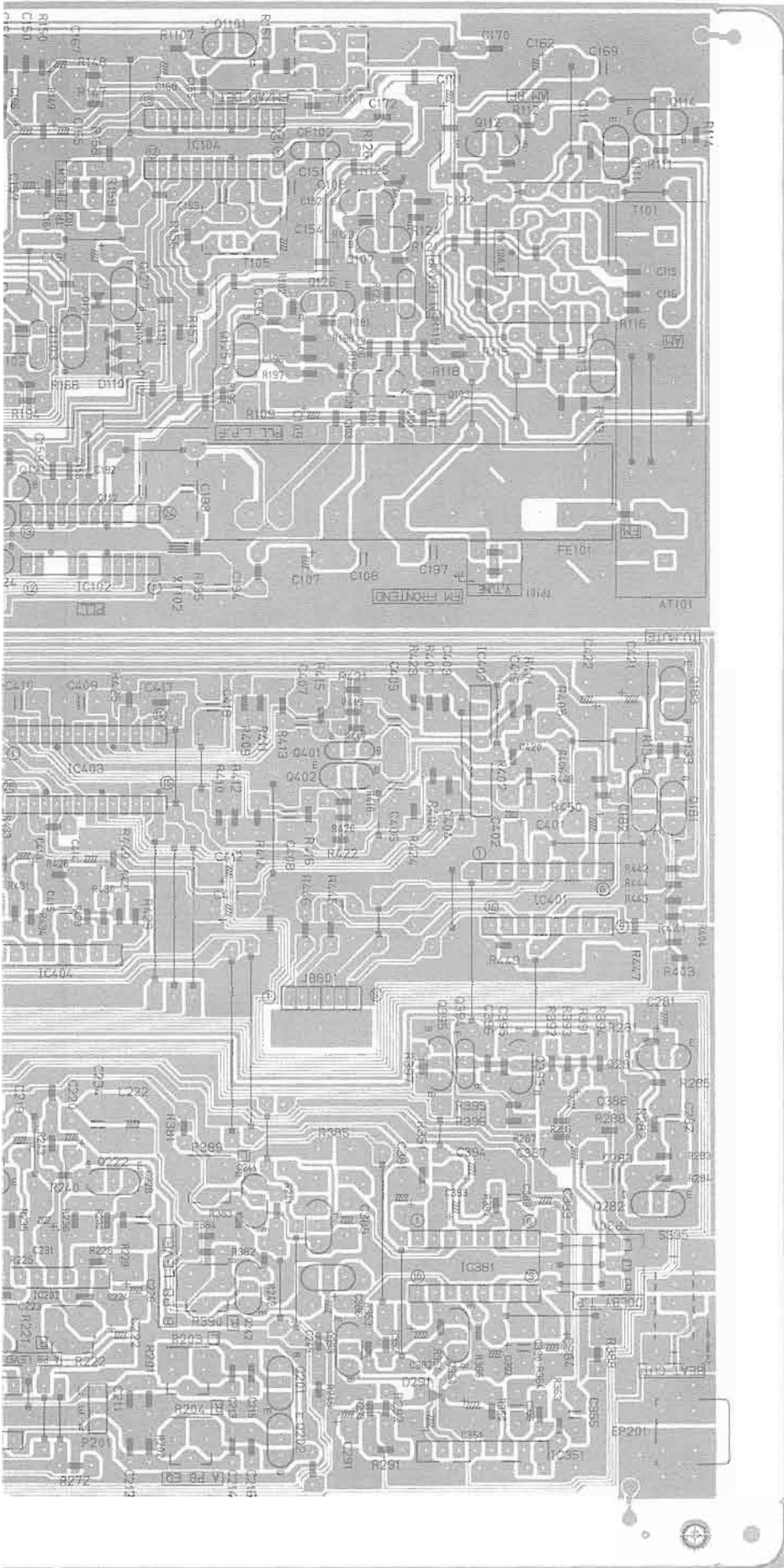
■ Power Supply, Echo & Mic Mix PCB (ENH-232)



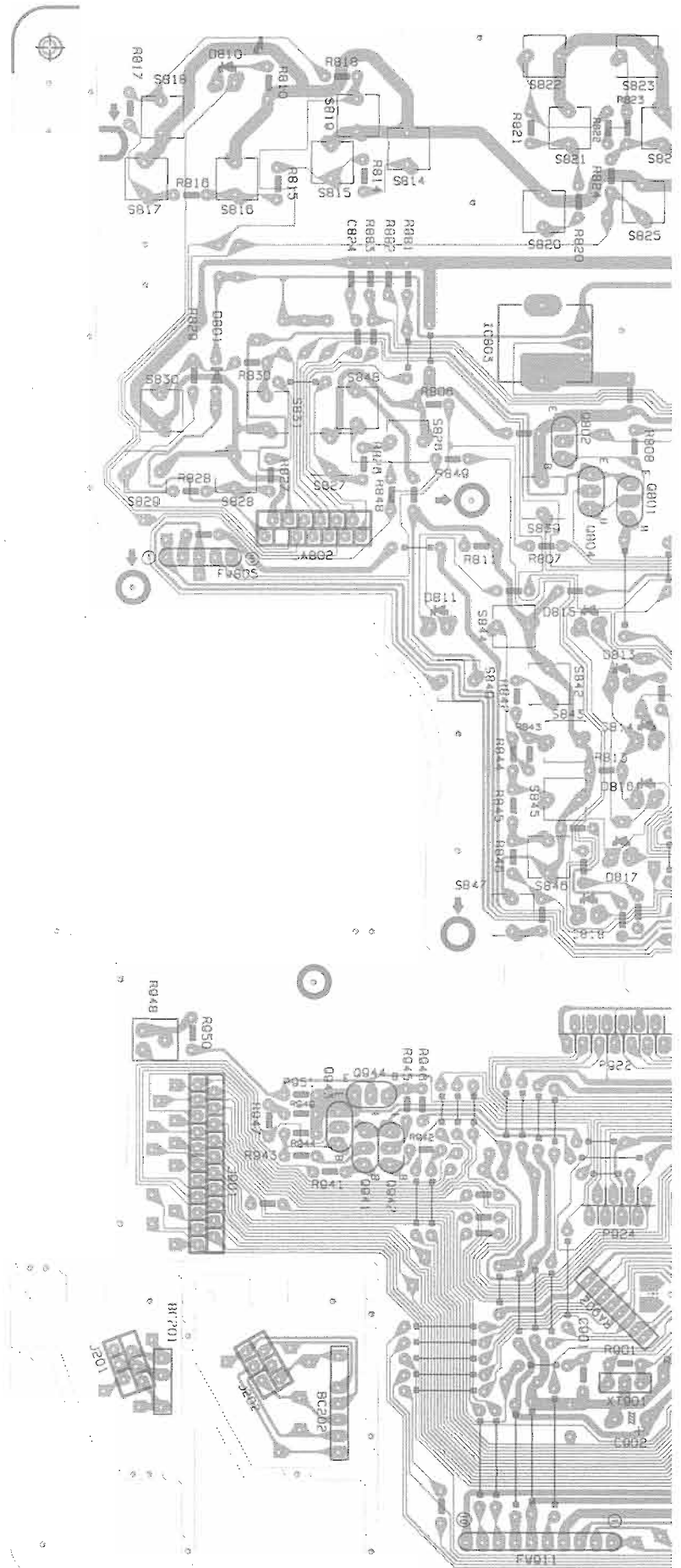


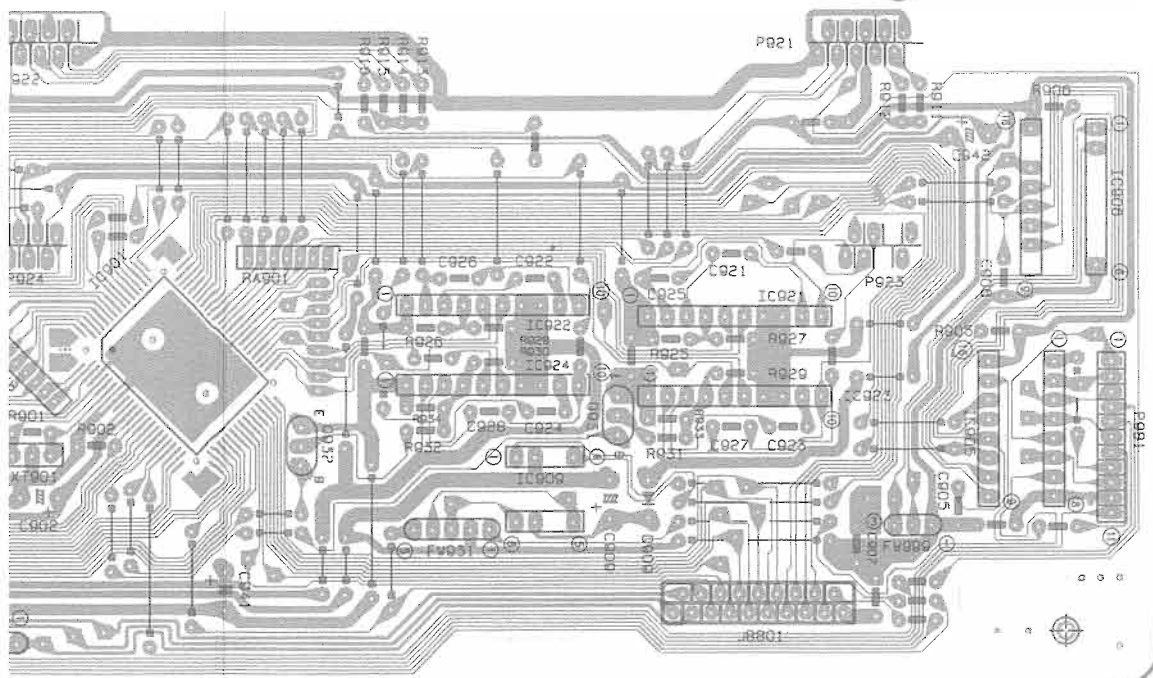
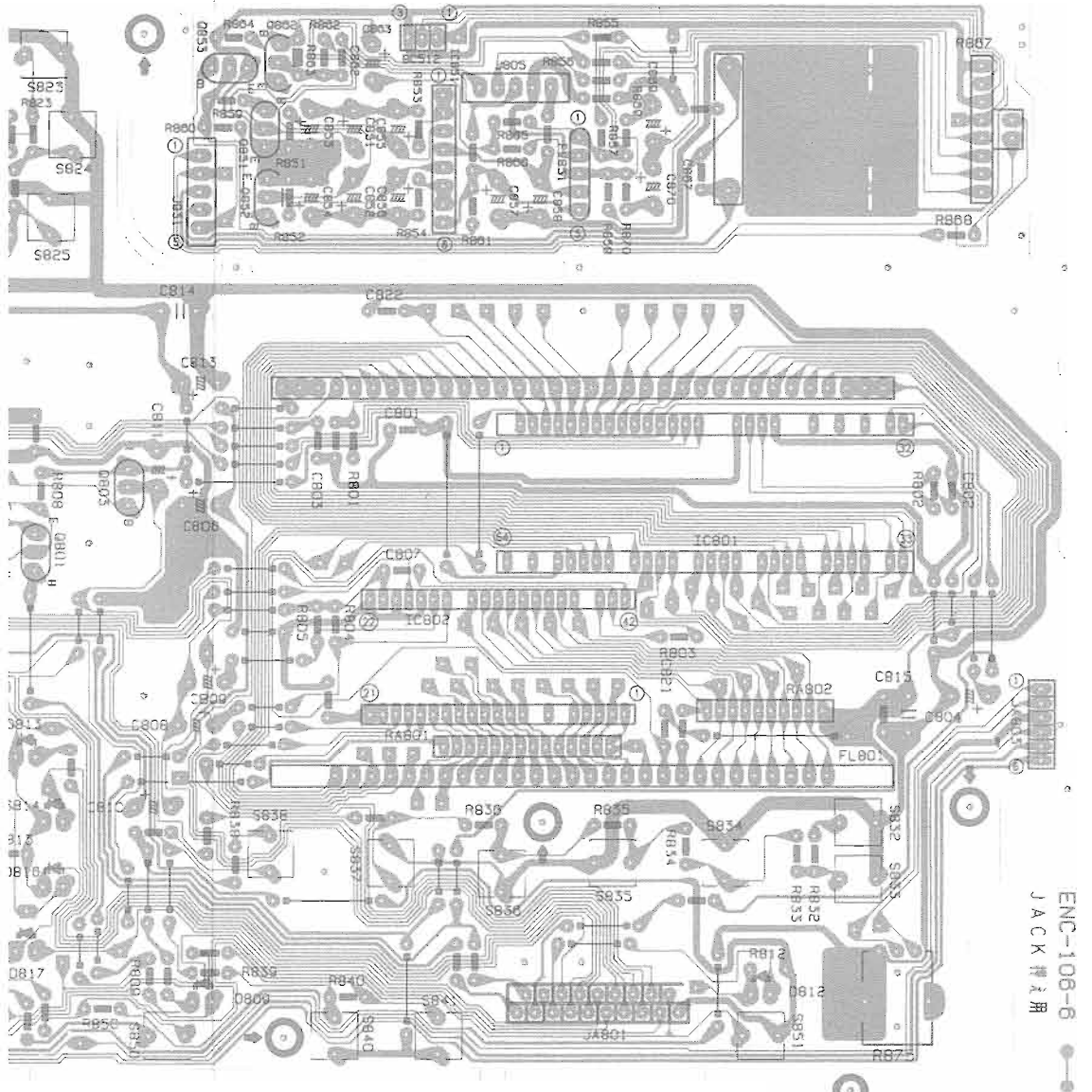




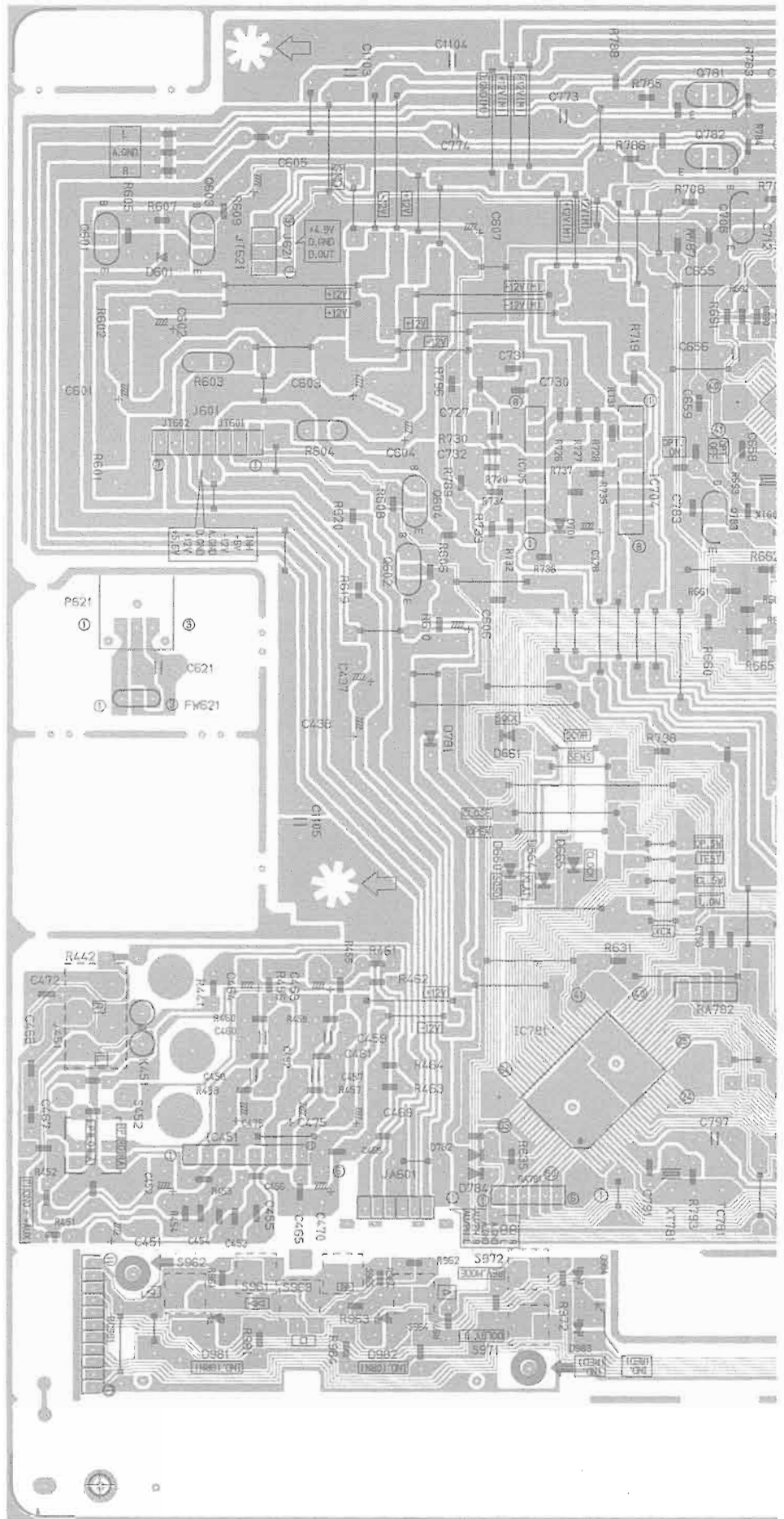


■ Front & Controller PCB  
(ENC-106)





■ CD & Deck Switch PCB  
(ENN-386)







# PARTS LIST

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

## Contents

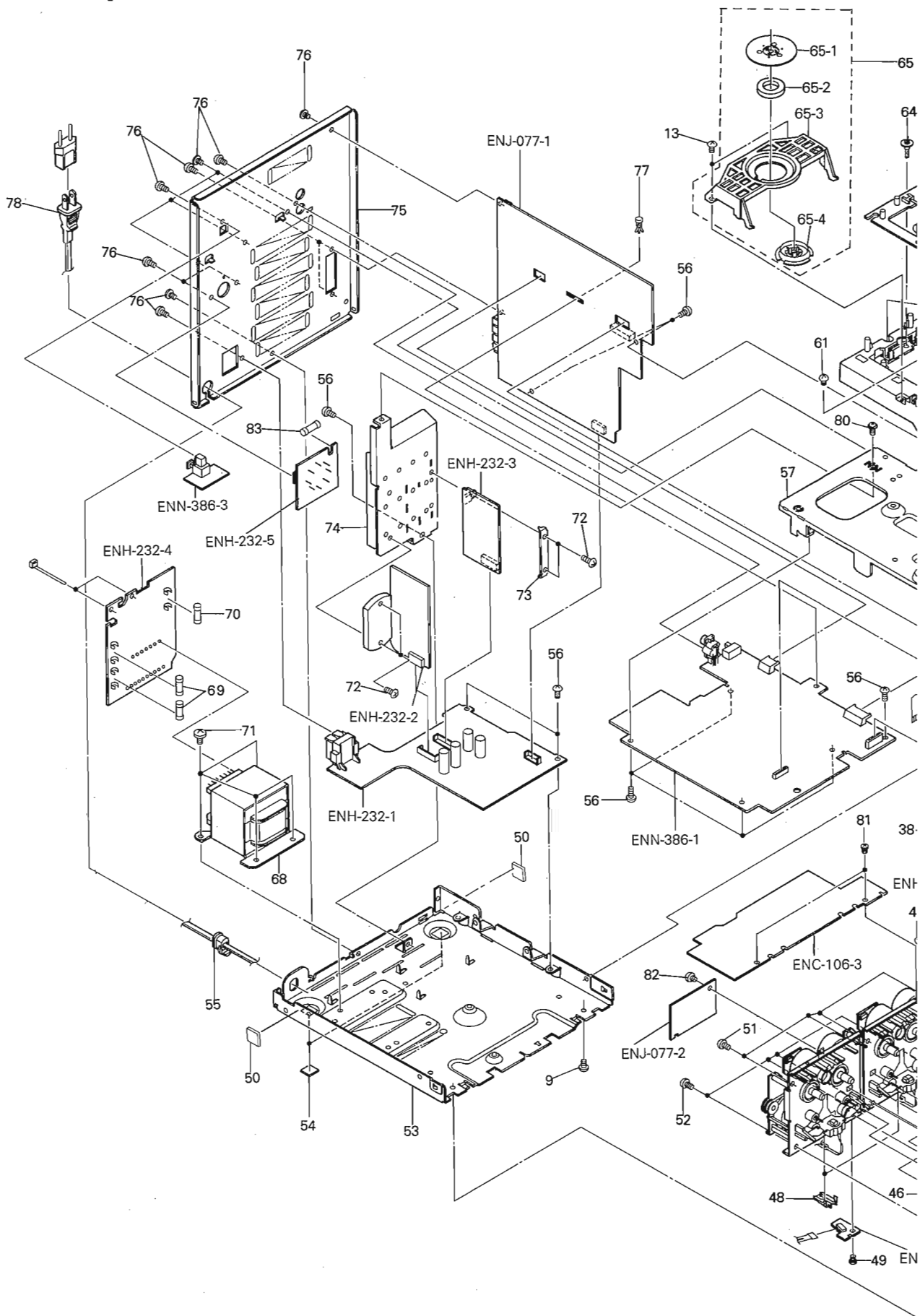
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■ ENJ-077 <b>J</b> Deck PC Board Ass'y .....	2-15
■ ENN-386 <b>B</b> CD & Deck Switch PC Board Ass'y .....	2-19
■ ENC-106 <b>B</b> Front , Controller & Tuner PC Board Ass'y .....	2-22
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# General Exploded View and Parts List





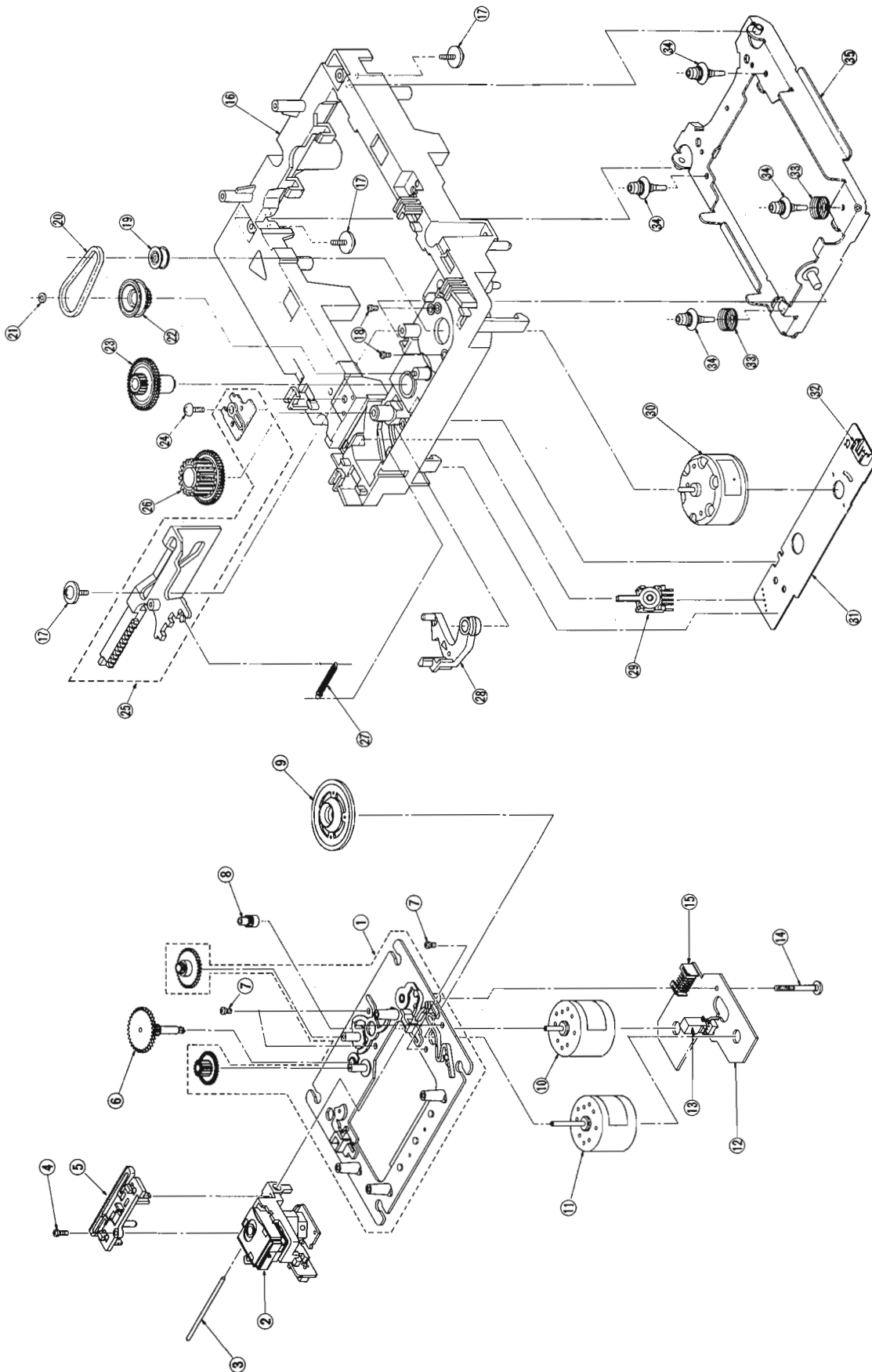
■ Parts List

△	Item	Part Number	Part Name	Q'ty	Description	Areas
	1	EFP-CAMXM10BKUS	FRONT PANEL ASS'Y	1		
	1-1	E102753-002	FRONT PANEL	1		
	1-2	E207964-001	WINDOW SCREEN	1		
	1-3	E69777-003	REFLECTION PLATE	2		
	1-4	E406971-221	JVC MARK	1		
	2	E207966-002SA	CASSETTE LID ASSY	1	(A)	
	2-1	E207966-002	CASSETTE LID	1	(A)	
	2-2	E406971-221	JVC MARK	1	(A)	
	3	E207969-002	CASSETTE LID ASSY	1	(B)	
	4	E207972-002	CASSETTE HOLDER	1	(A)	
	5	E207973-002	CASSETTE HOLDER	1	(B)	
	6	E407796-001	HOLDER SPRING	1	(A)	
	7	E407797-001	HOLDER SPRING	1	(B)	
	8	E406713-001	CASSETTE SPRING	4		
	9	SBST3008Z	SCREW	2		
	10	E75896-002	SPACER	2	FRONT FOOT	
	11	SBST3006M	SCREW	4		
	12	E102358-332SS	TRAY	1		
	13	SBSF3008M	SCREW	3		
	14	E207946-002	FITTING	1		
	15	E407233-003	KNOB	1		
	16	E308673-002	VOLUME KNOB	1		
	17	E304434-005	DAMPER ASSY	2		
	18	E308680-001	EJECT BUTTON	1		
	19	E308679-001	EJECT BUTTON	1		
	20	E308684-001	CIRCUIT BOARD BRACKET	1		
	21	SDSF2608Z	SCREW	19		
	22	E407798-002	SPRING	1		
	23	E308682-001	EJECT LEVER	1	(B)	
	24	E308683-002	EJECT GUIDE	1		
	25	E308681-001	EJECT LEVER	1	(A)	
	26	E207961-001	PUSH BUTTON ASS'Y	1		
	27	E207951-001	PUSH BUTTON	1		
	28	E207948-001	PUSH BUTTON ASS'Y	1		
	29	E407795-001	INDICATOR LENS	1		
	30	E407794-001	INDICATOR LENS	1		
	31	E407431-001SM	REMOTE LENS	1		
	32	E207956-001	PUSH BUTTON ASS'Y	1		
	33	E207953-001	PUSH BUTTON ASS'Y	1		
	34	E207958-001	PUSH BUTTON ASS'Y	1		
	35	EWR113K-13TT	FLAT WIRE ASS'Y	1		
	36	EWR119K-20TT	FLAT WIRE ASS'Y	1		
	37	E308685-001	STAY BRACKET	1		
	38	E407098-001	SPECIAL SCREW	3		
	39	E407900-001	PROTECT SHEET	1		
	40	E48729-009	PLASTIC RIVET	1		
	41	E207974-002	HOLDER BRACKET	1		
	42	SBSF3006Z	SCREW	2		
	43	E407802-002	SPRING	1	(B)	
	44	E407801-002	SPRING	1	(A)	
	45	E407800-001	EJECT BRACKET	1	(B)	
	46	E407799-001	EJECT BRACKET	1	(A)	
	47	-----	CASSETTE MECHANISM ASSY	1	SEE PAGE 2-9	
	48	VKS3655-002	HOLDER	2		
	49	SDST2604Z	SCREW	2		

⚠	Item	Part Number	Part Name	Q'ty	Description	Areas
	50	EXO012012R30S	SPACER	2	REAR FOOT	
	51	SBSF3008C	SCREW	4		
	52	SBST3006C	SCREW	4		
	53	E102616-001	CHASSIS BASE	1		
	54	E75896-006	FELT SPACER	2		
⚠	55	QHS3876-162	CORD STOPPER	1	SEE PAGE 2-7	
	56	SBSG3008N	SCREW	11		
	57	E102755-001	CHASSIS BASE	1		
	58	EWT021-014	LUG WIRE ASS'Y	1		
	59	-----	CD MECHANISM ASS'Y	1		
	60	EWS265-B408	SOCKET WIRE	1	6PIN	
	61	SBST3006Z	SCREW	3		
	62	EWR615M-14BB	FLAT WIRE ASS'Y	1		
	63	EWS266-B412	SOCKET WIRE	1		
	64	E406293-001	SPECIAL SCREW	1		
	65	E306837-005	CLAMPER BASE ASS'Y	1		
	65-1	E306836-003	YOKE	1		
	65-2	E74897-002	MAGNET	1		
	65-3	E26756-002	CLAMPER BASE	1		
	65-4	E306835-001	CLAMPER	1		
	66	E207564-001	METAL COVER	1	F501 , F502 ( T1.25A / 250V ) F001 ( T2.0A / 250V )	
⚠	67	SDSG3006M	SCREW	6		
⚠	68	ETP1070-34FA	POWER TRANSFORMER	1		
⚠	69	QMF51A2-1R25S	FUSE	1		
⚠	70	QMF51A2-2R0S	FUSE	1		
	71	E65389-004	SPECIAL SCREW	4		
	72	SBSG3014Z	SCREW	4		
	73	E406969-221	LEAF SPRING	1		
	74	E308686-001	HEAT SINK	1		
	75	E207975-003	REAR PANEL	1		
⚠	76	E73273-003	SPECIAL SCREW	12		
	77	E48729-008	PLASTIC RIVET	1		
	78	QMP7520-200	POWER CORD	1		
	79	EWR121K-10TT	FLAT WIRE ASS'Y	1		
	80	E73265-001	SPACIAL SCREW	1		
⚠	81	SPST2604Z	SCREW	2	F002 ( T1.0A / 250V )	
	82	SBSG3006N	SCREW	1		
	83	QMF51A2-1R0S	FUSE	1		
	-	E61029-005	NUMBER LABEL	1		
	-	E74821-001	LABEL	1		
	-	E70891-001	CLASS 1 LABEL	1		

⚠ SAFETY PARTS

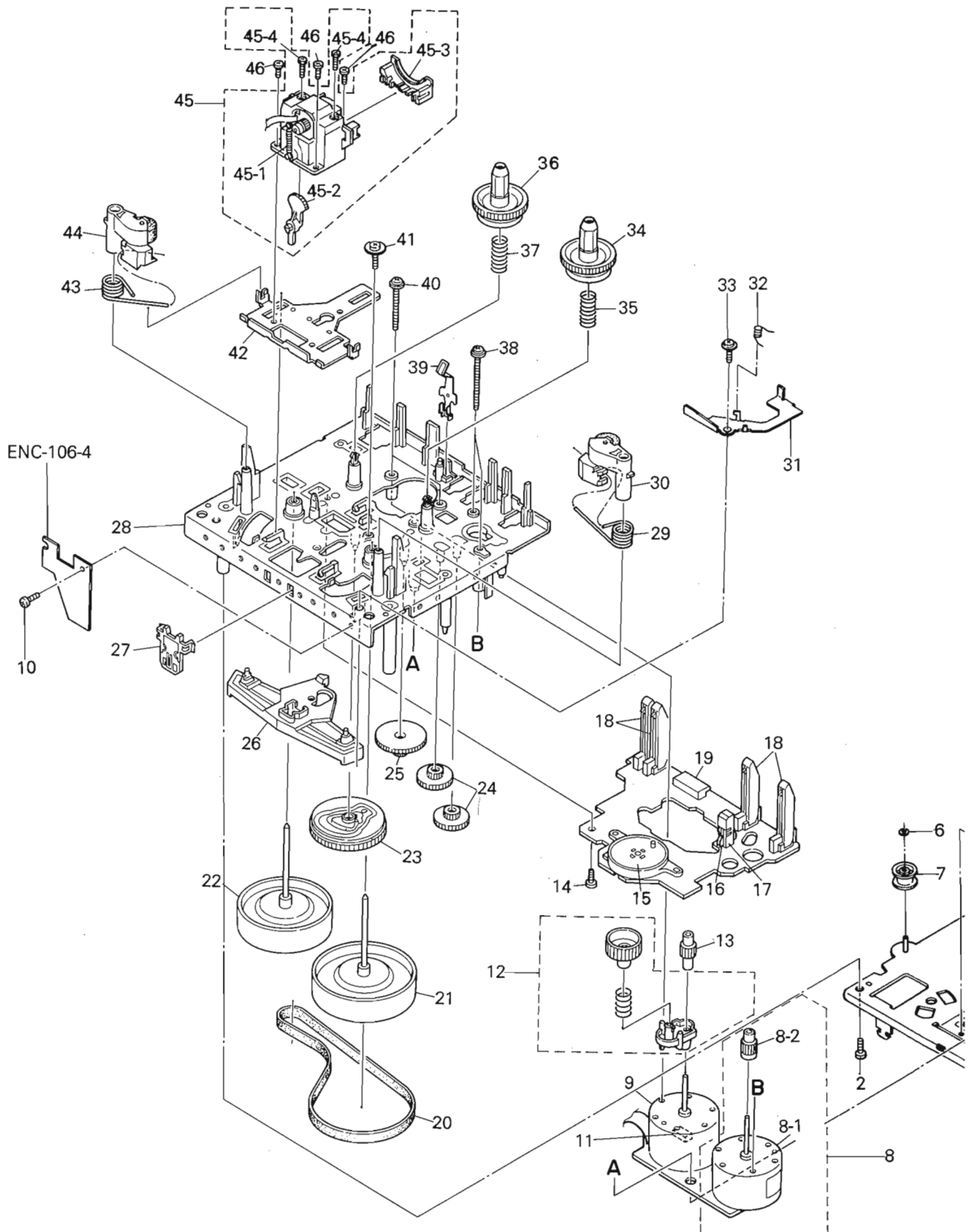
# CD Mechanism Ass'y and Parts List



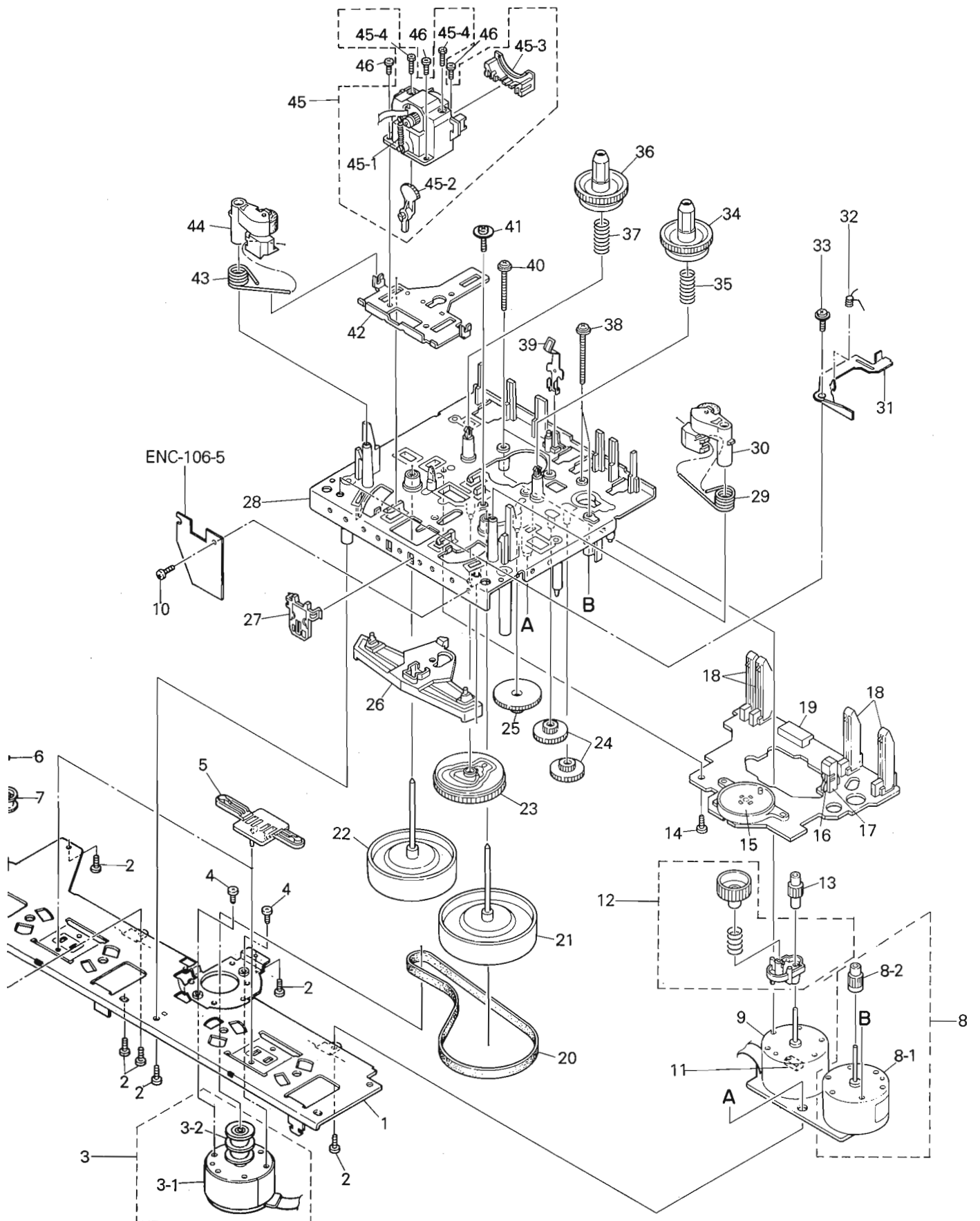
■ Parts List ( CD Mechanism Ass'y)

Item	Part Number	Part Name	Q'ty	Description	Area
1	EPB-002A	MECHANISM BASE ASSY	1		
2	OPTIMA-6S	PICK UP ASS'Y	1		
3	E406777-001	SHAFT	1		
4	SDSF2006Z	SCREW	1		
5	E307746-001	CD RACK	1		
6	EPB-003A	MECHANISM BASE ASSY	1		
7	SDSP2003N	SCREW	4		
8	E406750-001	PINION GEAR	1		
9	EPB-001C	TURNTABLE	1		
10	E406784-001	DC MOTOR	1		
11	E406783-001	DC MOTOR	1		
12	EMW10190-001(S)	CIRCUIT BOARD	1		
13	ESB1100-005	LEAF SWITCH	1		
14	E75832-001	SPECIAL SCREW	1		
15	EMV5109-006B	PLUG ASSY	1	6PIN	
16	E102357-221	LOADING BASE	1		
17	E65923-003	SCREW	3		
18	SPSK2640Z	SCREW	2		
19	E75984-001	MOTOR PULLEY	1		
20	E75950-002	BELT	1		
21	E72024-001	SPEED NUT	1		
22	E75985-001	GEAR	1		
23	E75986-002	GEAR	1		
24	SBSF3008Z	SCREW	1		
25	E307252-221	CAM - PLATE	1		
26	E75987-001	REEL GEAR	1		
27	E75989-001	SPRING	1		
28	E307162-221	LEVER	1		
29	ESS1200-002	SLIDE SWITCH	1		
30	RF-500TB-12560	MOTOR	1		
31	EMW10255-002(S)	CIRCUIT BOARD	1		
32	EMV5109-005B	PLUG ASSY	1	5PIN	
33	E406871-001	SPRING	2		
34	E406294-002	INSULATOR	4		
35	E307179-221	ELEVATOR BASE ASSY	1		

# Cassette Mechanism Ass'y and Parts List







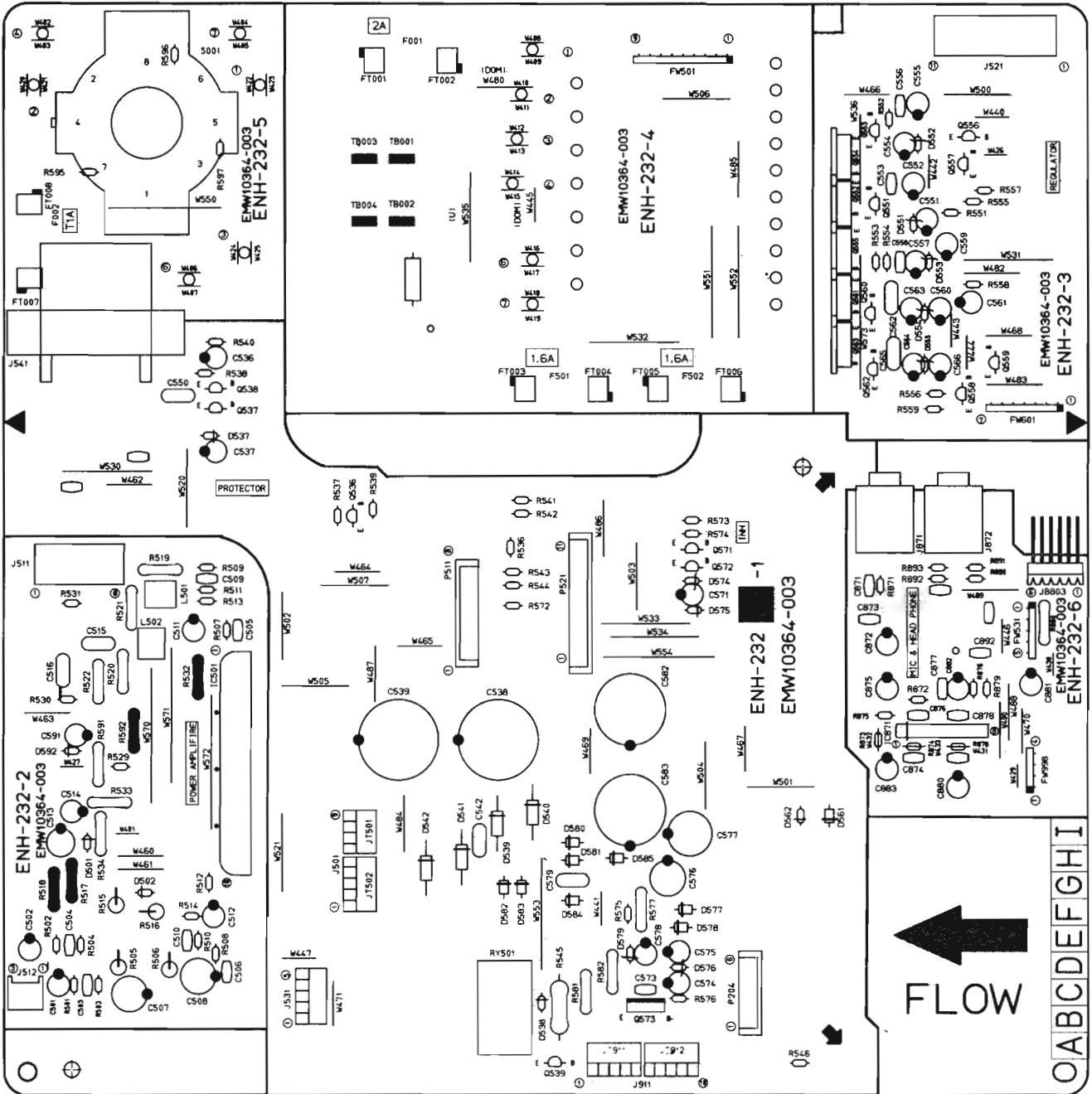


■ Parts List ( Cassette Mechanism Ass'y)

Item	Part Number	Part Name	Q'ty	Description	Areas
1	VKM3775-00A	FM BRACKET	1		
2	SDSF2608Z	SCREW	7		
3	MSI5U2LWA-SA1	DC MOTOR ASSY	1		
3-1	MSI-5U2LWA	MOTOR	1		
3-2	VKR4632-004	MOTOR PULLEY	1		
4	SPSP2603Z	SCREW	2		
5	VKS5327-004	PLATE	2		
6	WDL163525-4	WASHER	1		
7	VKR4631-002	IDLER PULLEY	1		
8	MSN5D257A-SA1	DC MOTOR ASSY	2		
8-1	MSN-5D257A	DC MOTOR	2		
8-2	VKS5433-001	MOTOR GEAR	2		
9	MMN-6F4RA38	DC MOTOR	2		
10	SDST2604Z	SCREW	2		
11	VMC0234-R08	CONNECTOR	2		
12	VKS5430-00B	FR ARM	2		
13	VKS5432-001	REEL MOTOR GEAR	2		
14	SDST2612Z	SCREW	2		
15	VKS3616-00A	CAM SWITCH	2		
16	DN6851-HI	IC	2		
17	VKS3630-001	IC HOLDER	2		
18	VSH1170-001	LEAF SWITCH	7		
19	VMC0234-R11	CONNECTOR	1	A MECHA	
	VMC0234-R14	CONNECTOR	1	B MECHA	
20	VKB3001-057	DRIVE BELT	1	A MECHA	
21	VKB3001-058	DRIVE BELT	1	B MECHA	
22	VKF3184-00H	FLY WHEEL	2	RIGHT	
23	VKF3186-00H	FLY WHEEL	2	LEFT	
24	VKS2224-001	CONTROL CAM	2		
25	VKS5454-001	ACTUATOR GEAR	4		
26	VKS5455-001	ACTUATOR GEAR	2		
27	VKS3627-001	PINCHROLLER LEVER	2		
28	VKS3655-002	F.P.C. HOLDER	2		
29	VKS1134-00B	CHASSIS BASE	2		
30	VKW5045-003	PINCHROLLER SPRING	2	PINCHROLLER ( RIGHT )	
31	VKP4227-00B	PINCHROLLER	2	RIGHT	
32	E407799-001	EJECT SAFETY	1	A MECHA	
	E407800-001	EJECT SAFETY	1	B MECHA	
	E407801-002	SPRING	1	A MECHA	
	E407802-002	SPRING	1	B MECHA	
33	SBSF3008Z	SCREW	2		
34	VKS5428-00B	REEL	2		
35	VKW5043-001	TENSION SPRING	2		
36	VKS3617-002	REEL	2		
37	VKW5043-001	TENSION SPRING	2		
38	VKZ4705-002	SCREW	4		
39	VKY4670-001	CASSETTE SPRING	2		
40	VKZ4705-001	SCREW	2		
41	VKZ4708-001	SCREW	2		
42	VKM3632-001	HEAD BASE	2		
43	VKW5046-003	PINCHROLLER SPRING	2	PINCHROLLER ( LEFT )	
44	VKP4229-00B	PINCHROLLER	2	LEFT	
45	VKS3626-00C	HEAD MOUNT	1	A MECHA	
	VKS3629-00C	HEAD MOUNT	1	B MECHA	
45-1	VKW5063-003	HEAD SPRING	2		
45-2	VKS3614-001	TURN GEAR	2		
45-3	VKS3654-001	HEAD MOUNT COVER	2		
45-4	VKZ4629-003	SCREW	4		
46	SDST2004Z	SCREW	6		

# Printed Circuit Board Ass'y and Parts List

■ ENH-232 [B] Power Supply, Power Amplifier, Echo & Mic Mix PC Board Ass'y



**Transistors**

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q536	2SC3311A(Q,R)	SI. TRANSIST MATSUSHITA	
	Q537	2SC3311A(Q,R)	SI. TRANSIST MATSUSHITA	
	Q538	2SA933S(R,S)	SI. TRANSIST	
	Q539	2SC3311A(Q,R)	SI. TRANSIST MATSUSHITA	
	Q551	2SC3311A(Q,R)	SI. TRANSIST MATSUSHITA	
	Q552	2SD2061(F,G)	SI. TRANSISTROHM	
	Q553	2SC3311A(Q,R)	SI. TRANSIST MATSUSHITA	
	Q554	2SD2061(F,G)	SI. TRANSISTROHM	
	Q555	2SB1187(F,G)	SI. TRANSISTROHM	
	Q556	DTC144ES	DIGITAL TRAROHM	
	Q557	DTA144ES	DIGITAL TRAROHM	
	Q558	DTA144ES	DIGITAL TRAROHM	
	Q559	DTC144ES	DIGITAL TRAROHM	
	Q560	2SC3311A(Q,R)	SI. TRANSIST MATSUSHITA	U
	Q561	2SD2061(F,G)	SI. TRANSISTROHM	

▲ ISIA:FEITY: PARTS

**Transistors**

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q562	2SA970(GR,BL)	SI. TRANSIST TOSHIBA	U
	Q563	2SB1187(F,G)	SI. TRANSISTROHM	
	Q571	DTC114YS	DIGITAL TRAROHM	
	Q572	DTC114YS	DIGITAL TRAROHM	
	Q573	2SB1357(E,F)	SI. TRANSISTROHM	

▲ ISIA:FEITY: PARTS

**I.C.s**

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC501	STK4161MK5	I.C.(HYBRID) SANYO	U
	IC871	BA15218N	I.C.(MONO-ANROHM)	

▲ ISIA:FEITY: PARTS

Diodes

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D501	1SS119	SI.DIODE HITACHI	
	D502	1SS119	SI.DIODE HITACHI	
	D537	1SS119	SI.DIODE HITACHI	
	D538	1SS119	SI.DIODE HITACHI	
	D539	10E2-FD	DIODE NIHONINTER	
	D540	10E2-FD	DIODE NIHONINTER	
	D541	10E2-FD	DIODE NIHONINTER	
	D542	10E2-FD	DIODE NIHONINTER	
	D551	MTZ11JC	ZENER DIODEROHM	
	D552	MTZ6.8JC	ZENER DIODEROHM	
	D553	MTZ5.6JB	ZENER DIODEROHM	
	D554	MTZ13JC	ZENER DIODEROHM	
	D555	MTZ13JC	ZENER DIODEROHM	
	D561	1SR139-200	SI.DIODE ROHM	
	D562	1SS119	SI.DIODE HITACHI	
	D574	MTZ5.1JC	ZENER DIODEROHM	
	D575	1SS119	SI.DIODE HITACHI	
	D576	MTZ30JC	ZENER DIODEROHM	
	D577	1SR139-200	SI.DIODE ROHM	
	D578	1SR139-200	SI.DIODE ROHM	
	D579	MTZ5.1JC	ZENER DIODEROHM	
	D580	1SR139-200	SI.DIODE ROHM	
	D581	1SR139-200	SI.DIODE ROHM	
	D582	1SR139-200	SI.DIODE ROHM	
	D583	1SR139-200	SI.DIODE ROHM	
	D584	1SR139-200	SI.DIODE ROHM	
	D585	1SR139-200	SI.DIODE ROHM	
	D592	1SS119	SI.DIODE HITACHI	

Δ SAFETY PARTS

Capacitors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C873	QCGB1HK-102	1000PF 50V CER.CAPACI TO	
	C876	QCBB1HK-101	100PF 50V CER.CAPACI TO	
	C877	QCVB1CM-103	0.01MF 16V CER.CAPACI TO U	
	C878	QCBB1HK-101	100PF 50V CER.CAPACI TO	
	C880	QET41CM-226	22MF 16V ELECTRO	
	C881	QET41CM-226	22MF 16V ELECTRO	
	C882	QET41HM-105	1MF 50V E.CAPACITO R	
	C883	QET41HM-475	4.7MF 50V ELECTRO	
	C892	QCVB1CM-103	0.01MF 16V CER.CAPACI TO U	

Δ SAFETY PARTS

Resistors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R501	QRD167J-102	1K 1/6W CARBON RES IS	
	R502	QRD167J-102	1K 1/6W CARBON RES IS	
	R503	QRD167J-104	100K 1/6W CARBON RES IS	
	R504	QRD167J-104	100K 1/6W CARBON RES IS	
	R505	ERD004J-471	470 NETWORK RE SI	
	R506	ERD004J-471	470 NETWORK RE SI	
	R507	QRD167J-471	470 1/6W CARBON RES IS	
	R508	QRD167J-471	470 1/6W CARBON RES IS	
	R509	QRD167J-104	100K 1/6W CARBON RES IS	
	R510	QRD167J-104	100K 1/6W CARBON RES IS	
	R511	QRD167J-242	2.4K 1/6W CARBON	
	R512	QRD167J-242	2.4K 1/6W CARBON	
	R513	QRD167J-242	2.4K 1/6W CARBON	
	R514	QRD167J-242	2.4K 1/6W CARBON	
	R515	QRX014J-R22	0.22 1W METAL FILM R	
	R516	QRX014J-R22	0.22 1W METAL FILM R	
	R517	QRZ0077-101	100 1/4W FUSIBLE RE SI	
	R518	QRZ0077-100	10 1/4W FUSIBLE RE SI	
	R519	QRD148J-100	10 1/4W CARBON	
	R520	QRD148J-100	10 1/4W CARBON	
	R521	QRD148J-100	10 1/4W CARBON	
	R522	QRD148J-100	10 1/4W CARBON	
	R529	QRD167J-103	10K 1/6W CARBON RES IS	
	R530	QRD167J-154	150K 1/6W CARBON RES IS	
	R531	QRD167J-303	30K 1/6W CARBON	
	R532	QRZ0077-100	10 1/4W FUSIBLE RE SI	
	R533	QRD148J-222	2.2K 1/4W CARBON	
	R534	QRD148J-222	2.2K 1/4W CARBON	
	R536	QRD167J-472	4.7K 1/6W CARBON RES IS	
	R537	QRD167J-104	100K 1/6W CARBON RES IS	
	R538	QRD167J-104	100K 1/6W CARBON RES IS	
	R539	QRD167J-103	10K 1/6W CARBON RES IS	
	R540	QRD167J-104	100K 1/6W CARBON RES IS	
	R541	QRD167J-103	10K 1/6W CARBON RES IS	
	R542	QRD167J-222	2.2K 1/6W CARBON RES IS	
	R543	QRD167J-823	82K 1/6W CARBON RES IS	
	R544	QRD167J-104	100K 1/6W CARBON RES IS	
	R545	QRG022J-471AM	470 2W OXIDE META L	
	R546	QRD167J-152	1.5K 1/6W CARBON RES IS	
	R551	QRD167J-332	3.3K 1/6W CARBON RES IS	
	R552	QRD167J-392	3.9K 1/6W CARBON RES IS	
	R553	QRD167J-472	4.7K 1/6W CARBON RES IS	
	R554	QRD167J-472	4.7K 1/6W CARBON RES IS	
	R555	QRD167J-472	4.7K 1/6W CARBON RES IS	
	R556	QRD167J-153	15K 1/6W CARBON RES IS	
	R557	QRD167J-103	10K 1/6W CARBON RES IS	
	R558	QRD167J-332	3.3K 1/6W CARBON RES IS	
	R559	QRD167J-222	2.2K 1/6W CARBON RES IS	
	R572	QRD167J-103	10K 1/6W CARBON RES IS	
	R573	QRD167J-102	1K 1/6W CARBON RES IS	
	R574	QRD167J-103	10K 1/6W CARBON RES IS	
	R575	QRD167J-103	10K 1/6W CARBON RES IS	
	R576	QRD167J-562	5.6K 1/6W CARBON RES IS	
	R577	QRD148J-4R7	4.7 1/4W CARBON	
	R581	QRD12CJ-2R7SX	2.7 1/2W CARBON RES IS U	
	R582	QRD12CJ-2R7SX	2.7 1/2W CARBON RES IS U	
	R591	QRD148J-222	2.2K 1/4W CARBON	
	R592	QRZ0077-100	10 1/4W FUSIBLE RE SI	
	R595	QRD167J-104	100K 1/6W CARBON RES IS U	
	R596	QRD167J-104	100K 1/6W CARBON RES IS U	
	R597	QRD167J-104	100K 1/6W CARBON RES IS U	
	R871	QRD167J-102	1K 1/6W CARBON RES IS	
	R872	QRD167J-103	10K 1/6W CARBON RES IS	
	R876	QRD167J-104	100K 1/6W CARBON RES IS	
	R878	QRD167J-104	100K 1/6W CARBON RES IS U	
	R879	QRD167J-203	20K 1/6W CARBON	
	R880	QRD148J-220	22 1/4W CARBON	
	R890	QRD167J-681	680 1/6W CARBON	
	R891	QRD167J-681	680 1/6W CARBON	
	R892	QRD167J-681	680 1/6W CARBON	
	R893	QRD167J-681	680 1/6W CARBON	

Δ SAFETY PARTS

Capacitors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C501	QET41EM-106	10MF 25V AL E.CAPAC IT U	
	C502	QET41EM-106	10MF 25V AL E.CAPAC IT U	
	C503	QCBB1HK-221	220PF 50V CER.CAPACI TO	
	C504	QCBB1HK-221	220PF 50V CER.CAPACI TO	
	C505	QCBB1HK-101	100PF 50V CER.CAPACI TO	
	C506	QCBB1HK-101	100PF 50V CER.CAPACI TO	
	C507	QET41EM-107	100MF 25V ELECTRO	
	C508	QET41EM-107	100MF 25V ELECTRO	
	C509	QCSB1HK-4R7	4.7PF 50V CER.CAPACI TO	
	C510	QCSB1HK-4R7	4.7PF 50V CER.CAPACI TO	
	C511	QET41HM-226	22MF 50V ELECTRO	
	C512	QET41HM-226	22MF 50V ELECTRO	
	C513	QET41HM-476	47MF 50V ELECTRO	
	C514	QETB1HM-106	10MF 50V E.CAPACITO R	
	C515	QFN81HJ-104	0.1MF 50V METAL.MYLA R U	
	C516	QFN81HJ-104	0.1MF 50V METAL.MYLA R U	
	C536	QET41CM-476	47MF 16V AL E.CAPAC IT	
	C537	QET41CM-226	22MF 16V ELECTRO	
	C538	EET4202-338E	3300MF E.CAPACITO R U	
	C539	EET4202-338E	3300MF E.CAPACITO R U	
	C540	QFLB2AJ-103	0.01MF 100V MYLAR CAPA CI	
	C541	QFLB2AJ-103	0.01MF 100V MYLAR CAPA CI	
	C542	QFLB2AJ-103	0.01MF 100V MYLAR CAPA CI U	
	C550	QFVB1HJ-103N	0.01MF 50V THIN FILM CA U	
	C551	QET41CM-226	22MF 16V ELECTRO	
	C552	QET41CM-476	47MF 16V AL E.CAPAC IT	
	C553	QCVB1CM-103	0.01MF 16V CER.CAPACI TO	
	C554	QET41AM-476	47MF 10V ELECTRO	
	C555	QET41AM-476	47MF 10V ELECTRO	
	C556	QCVB1CM-103	0.01MF 16V CER.CAPACI TO	
	C557	QET41CM-226	22MF 16V ELECTRO	
	C558	QCVB1CM-103	0.01MF 16V CER.CAPACI TO	
	C559	QET41CM-476	47MF 16V AL E.CAPAC IT	
	C560	QET41EM-106	10MF 25V AL E.CAPAC IT	
	C561	QET41EM-106	10MF 25V AL E.CAPAC IT	
	C562	QFN81HJ-103	0.01MF 50V METAL.MYLA R U	
	C563	QET41EM-106	10MF 25V AL E.CAPAC IT	
	C564	QET41CM-226	22MF 16V ELECTRO	
	C565	QFN81HJ-103	0.01MF 50V METAL.MYLA R U	
	C566	QET41CM-226	22MF 16V ELECTRO	
	C571	QETB1HM-225	2.2MF 50V E.CAPACITO R	
	C573	QCGB1HK-102	1000PF 50V CER.CAPACI TO	
	C574	QET41HM-226	22MF 50V ELECTRO	
	C575	QET41HM-226	22MF 50V ELECTRO	
	C576	QETB1JM-476	47MF 63V AL E.CAPAC IT	
	C577	QETB1JM-107	100MF 63V AL E.CAPAC IT	
	C578	QET41HM-475	4.7MF 50V ELECTRO	
	C579	QFLB2AJ-103	0.01MF 100V MYLAR CAPA CI U	
	C580	QFLB2AJ-103	0.01MF 100V MYLAR CAPA CI	
	C581	QFLB2AJ-103	0.01MF 100V MYLAR CAPA CI	
	C582	EET3509-228E	2200MF E.CAPACITO R	
	C583	EET3509-228E	2200MF E.CAPACITO R	
	C591	QETB1HM-106	10MF 50V E.CAPACITO R	
	C871	QCGB1HK-102	1000PF 50V CER.CAPACI TO	
	C872	QET41HM-105	1MF 50V E.CAPACITO R	

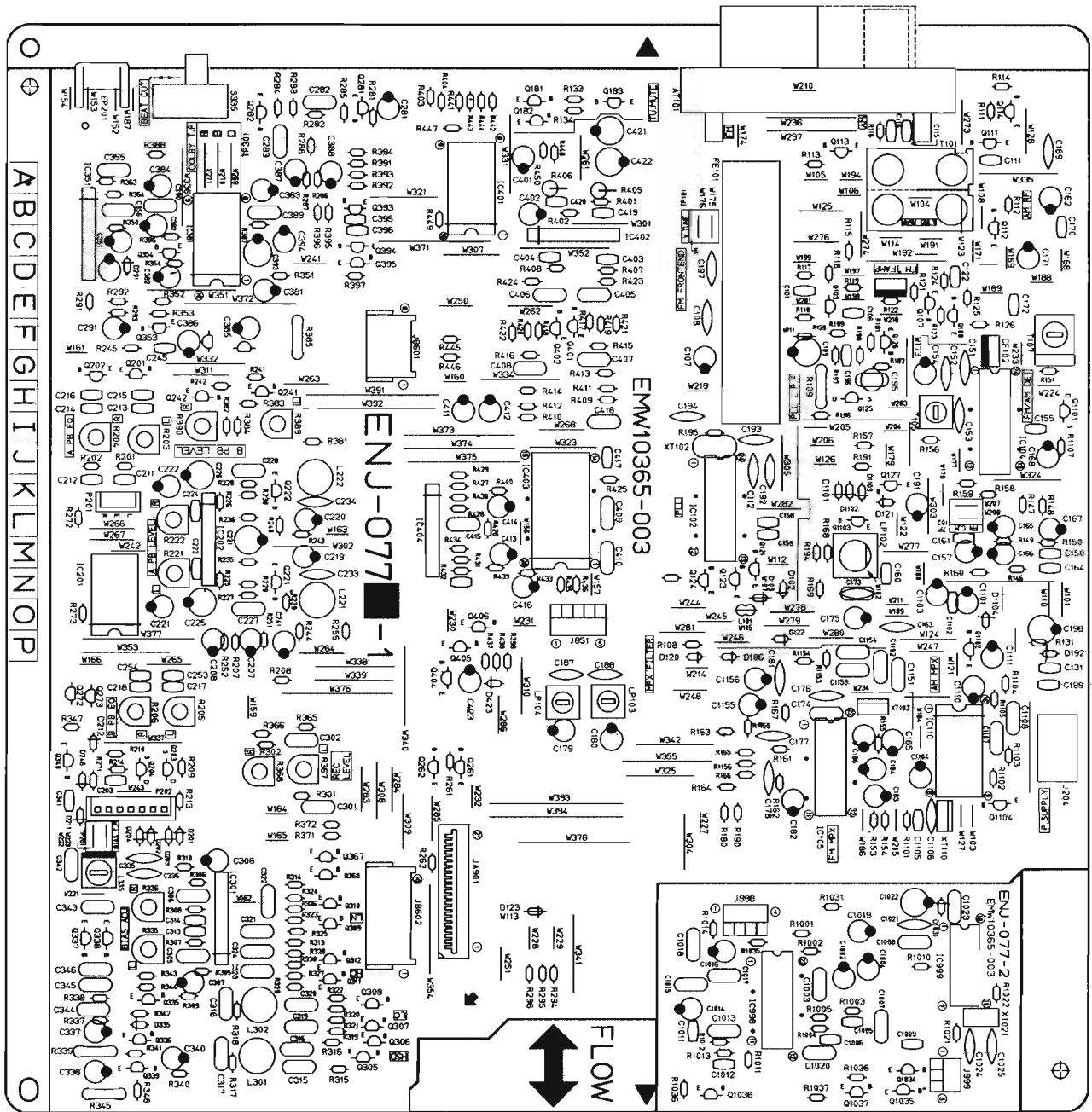
Δ SAFETY PARTS

Others

ITEM	PART NUMBER	DESCRIPTION	AREA
	E67132-T2R0	FUSE LABEL	U
	E67132-T1R25	FUSE LABEL	U
	QWE881-24RR	VINYL WIRE	U
	QWE882-24RR	WIRE	U
	QWE883-24RR	WIRE	U
	QWE884-26RR	VINYL WIRE	U
	QWE886-18RR	VINYL WIRE	U
	QWE888-22RR	VINYL WIRE	U
J511	EMV7125-008R	MALE CONNECTOR(8PIN)	
J512	EMV5109-003B	CONNECTOR(3PIN)	
J521	EMV7125-011R	MALE CONNECTOR(11PIN)	
J531	EMV7122-005	MALE CONNECTOR(5PIN)	
J541	EMB90TV-402A	SPEAKER TERMINAL	
J871	VMJ4024-001	HEADPHONE JACK	
J872	VMJ4024-001	HEADPHONE JACK	
J911	EMV7122-005	MALE CONNECTOR(5PIN)	
L501	EQL0001-R45	INDUCTOR	
L502	EQL0001-R45	INDUCTOR	
P204	EMV5125-006	CONNECT TERMINAL(6PIN)	
P511	EMV5125-008	MALE CONNECTOR(8PIN)	
P521	EMV5125-011	MALE CONNECTOR(11PIN)	
S001	QSR0085-018	SELECT SWITCH	U
FT001	VMZ0087-001	FUSE CLIP	
FT002	VMZ0087-001	FUSE CLIP	
FT003	VMZ0087-001	FUSE CLIP	
FT004	VMZ0087-001	FUSE CLIP	
FT005	VMZ0087-001	FUSE CLIP	
FT006	VMZ0087-001	FUSE CLIP	
FT007	VMZ0087-001	FUSE CLIP	U
FT008	VMZ0087-001	FUSE CLIP	U
FW501	EWR39E-10LST	FLAT WIRE(9PIN)	
FW531	EWR35B-25LST	FLAT WIRE ASSY(5PIN)	
FW601	EWR37E-25LST	FLAT WIRE(7PIN)	U
FW998	EWR34B-20LST	FLAT WIRE ASSY(4PIN)	U
JB803	EMV5122-006R	CONNECT TERMINAL(6PIN)	
JT501	EMV7122-004	CONNECT TERMINAL(4PIN)	
JT502	EMV7122-005	MALE CONNECTOR(5PIN)	
JT911	EMV7122-005	MALE CONNECTOR(5PIN)	U
JT912	EMV7122-005	MALE CONNECTOR(5PIN)	U
RY501	ESK8D24-212	RELAY	
TB001	EMZ4001-001	TAB	U
TB002	EMZ4001-001	TAB	U
TB003	EMZ4001-001	TAB	U
TB004	EMZ4001-001	TAB	U

△ (ISIA) ETC. PARTS

■ENJ-077 J Deck PC Board Ass'y



Transistors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q103	2SC461(B,C)	SI. TRANSISTHITACHI	
	Q107	2SC535(B,C)	SI. TRANSIST	
	Q108	2SC461(B,C)	SI. TRANSISTHITACHI	
	Q123	DTA144ES	DIGITAL TRAROHM	
	Q124	DTA144ES	DIGITAL TRAROHM	
	Q125	2SK301(Q2)	F.E.T.	
	Q126	2SC3311A(Q,R)	SI. TRANSISTMATSUSHITA	
	Q181	2SD2144S(VW)	SI. TRANSISTROHM	
	Q182	2SD2144S(VW)	SI. TRANSISTROHM	
	Q183	DTA144ES	DIGITAL TRAROHM	
	Q201	DTC144ES	DIGITAL TRAROHM	
	Q202	DTC144ES	DIGITAL TRAROHM	
	Q203	2SK373(O,Y)	F.E.T. TOSHIBA	
	Q204	2SK373(O,Y)	F.E.T. TOSHIBA	
	Q221	2SA933S(R,S)	SI. TRANSIST	
	Q222	2SA933S(R,S)	SI. TRANSIST	
	Q241	2SC3311A(Q,R)	SI. TRANSISTMATSUSHITA	
	Q242	2SC3311A(Q,R)	SI. TRANSISTMATSUSHITA	
	Q261	DTC144ES	DIGITAL TRAROHM	
	Q262	DTC144ES	DIGITAL TRAROHM	

Δ : SAFETY PARTS

Transistors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q272	DTA144ES	DIGITAL TRAROHM	
	Q273	DTA144ES	DIGITAL TRAROHM	
	Q281	2SC3311A(Q,R)	SI. TRANSISTMATSUSHITA	
	Q282	2SC3311A(Q,R)	SI. TRANSISTMATSUSHITA	
	Q305	DTC144TS	DIGITAL TRAROHM	
	Q306	DTC144TS	DIGITAL TRAROHM	
	Q307	DTC144TS	DIGITAL TRAROHM	
	Q308	DTC144TS	DIGITAL TRAROHM	
	Q309	DTC144TS	DIGITAL TRAROHM	
	Q310	DTC144TS	DIGITAL TRAROHM	
	Q311	DTC144TS	DIGITAL TRAROHM	
	Q312	DTC144TS	DIGITAL TRAROHM	
	Q335	2SC945A(P,Q)	SI. TRANSIST	
	Q336	2SC945A(P,Q)	SI. TRANSIST	
	Q337	2SC3311A(Q,R)	SI. TRANSISTMATSUSHITA	
	Q338	2SC3311A(Q,R)	SI. TRANSISTMATSUSHITA	
	Q339	DTC144ES	DIGITAL TRAROHM	
	Q353	2SC3311A(Q,R)	SI. TRANSISTMATSUSHITA	
	Q354	2SC3311A(Q,R)	SI. TRANSISTMATSUSHITA	
	Q367	2SD2144S(VW)	SI. TRANSISTROHM	

Δ : SAFETY PARTS

**Transistors**

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q368	2SD2144S(VW)	SI.TRANSISTROHM	
	Q393	2SD2144S(VW)	SI.TRANSISTROHM	
	Q394	2SD2144S(VW)	SI.TRANSISTROHM	
	Q395	DTA144ES	DIGITAL TRAROHM	U
	Q401	DTC144TS	DIGITAL TRAROHM	
	Q402	DTC144TS	DIGITAL TRAROHM	
	Q404	DTA144ES	DIGITAL TRAROHM	
	Q405	2SD2144S(VW)	SI.TRANSISTROHM	
	Q406	2SD2144S(VW)	SI.TRANSISTROHM	
	Q1034	DTC144ES	DIGITAL TRAROHM	U
	Q1035	DTC144ES	DIGITAL TRAROHM	U
	Q1036	DTC144ES	DIGITAL TRAROHM	U
	Q1037	DTC144ES	DIGITAL TRAROHM	U
	Q1101	2SK301(P,Q)	F.E.T. MATSUSHITA	U
	Q1102	DTA144ES	DIGITAL TRAROHM	U
	Q1103	DTC114YS	DIGITAL TRAROHM	U
	Q1104	DTC114YS	DIGITAL TRAROHM	U

Δ : SAFETY PARTS

**I.C.s**

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC102	LC7218	I.C(DIGI-MOSANYO	
	IC104	LA1266A	I.C(MONO-ANSANYO	
	IC105	LA3401	I.C(MONO-ANSANYO	
	IC110	TAB124P	I.C(MONO-ANTOSHIBA	U
	IC201	BU4066B	I.C(DIGI-MOROHM	
	IC202	UPC1228HA	I.C(MONO-ANNEC	
	IC301	BA15218N	I.C(MONO-ANROHM	
	IC351	BAB221N	I.C(MONO-ANROHM	
	IC381	HA12136A	I.C(MONO-ANHITACHI	
	IC401	TC4052BP	I.C(DIGI-MOTOSHIBA	
	IC402	BA15218N	I.C(MONO-ANROHM	
	IC403	TC9162N	I.C(DIGI-MOTOSHIBA	
	IC404	BA15218N	I.C(MONO-ANROHM	
	IC998	BA7725S	I.C(M) ROHM	U
	IC999	BU9251S	I.C(M) ROHM	U

Δ : SAFETY PARTS

**Diodes**

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D106	1SS133	SI.DIODE ROHM	
	D120	1SS133	SI.DIODE ROHM	
	D122	1SS133	SI.DIODE ROHM	
	D192	MTZ5.1JC	ZENER DIODEROHM	U
	D201	1SS119	SI.DIODE HITACHI	
	D202	1SS119	SI.DIODE HITACHI	
	D203	1SS119	SI.DIODE HITACHI	
	D204	1SS119	SI.DIODE HITACHI	
	D211	1SS119	SI.DIODE HITACHI	
	D212	1SS119	SI.DIODE HITACHI	
	D251	MTZ5.1JC	ZENER DIODEROHM	U
	D252	MTZ5.1JC	ZENER DIODEROHM	U
	D273	1SS119	SI.DIODE HITACHI	U
	D291	1SS119	SI.DIODE HITACHI	U
	D335	1SS119	SI.DIODE HITACHI	U
	D423	1SS119	SI.DIODE HITACHI	U
	D1031	MTZ5.1JC	ZENER DIODEROHM	U
	D1101	1SS133	SI.DIODE ROHM	U
	D1102	1SS133	SI.DIODE ROHM	U
	D1104	MTZ8.2JC	ZENER DIODEROHM	U

Δ : SAFETY PARTS

**Capacitors**

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C101	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C106	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C108	QCF11HP-103	0.01MF 50V CER.CAPACI	TO
	C109	QET41CM-227	220MF 16V ELECTRO	TO
	C112	QCC21EM-473	0.047MF 25V CER.CAPACI	TO U
	C115	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C116	QCT30CH-120	12PF 50V CER.CAPACI	TO
	C122	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C131	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C150	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C151	QCF11HP-223	0.022MF 50V CER.CAPACI	TO
	C152	QCF11HP-223	0.022MF 50V CER.CAPACI	TO
	C153	QCC21EM-223	0.022MF 25V CER.CAPACI	TO
	C155	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C157	QET41HM-474	0.47MF 50V AL E.CAPAC	IT

Δ : SAFETY PARTS

**Capacitors**

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C158	QCCB1HK-101	100PF 50V CER.CAPACI	TO
	C159	QCCB1HK-101	100PF 50V CER.CAPACI	TO
	C160	QCCB1HK-221	220PF 50V CER.CAPACI	TO
	C161	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C162	QETB1HM-106	10MF 50V E.CAPACITO	R
	C164	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C165	QET41HM-474	0.47MF 50V AL E.CAPAC	IT
	C166	QETB1HM-225	2.2MF 50V E.CAPACITO	R
	C167	QETB1HM-106	10MF 50V E.CAPACITO	R U
	C168	QETB1EM-226	22MF 25V E.CAPACITO	R U
	C169	QCF11HP-223	0.022MF 50V CER.CAPACI	TO
	C170	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C171	QETB1HM-106	10MF 50V E.CAPACITO	R
	C172	QCVB1CM-103	0.01MF 16V CER.CAPACI	TO
	C173	QCF11HP-223	0.022MF 50V CER.CAPACI	TO U
	C174	QFLB1HK-473	0.047MF 50V MYLAR CAPA	CI
	C175	QETB1HM-106	10MF 50V E.CAPACITO	R
	C176	QCY41HK-102	1000PF 50V CER.CAPACI	TO
	C177	QCS21HJ-561	5600PF 50V CER.CAPACI	TO U
	C178	QCS21HJ-561	5600PF 50V CER.CAPACI	TO U
	C179	QETB1HM-225	2.2MF 50V E.CAPACITO	R
	C180	QETB1HM-225	2.2MF 50V E.CAPACITO	R
	C181	QCF11HP-473	0.047MF 50V CER.CAPACI	TO
	C182	QETB1HM-225	2.2MF 50V E.CAPACITO	R
	C183	QET41HM-105	1MF 50V E.CAPACITO	R
	C184	QET41HM-105	1MF 50V E.CAPACITO	R
	C185	QETB1HM-225	2.2MF 50V E.CAPACITO	R
	C186	QET41HM-474	0.47MF 50V AL E.CAPAC	IT
	C187	QCY41HK-332	3300PF 50V CER.CAPACI	TO
	C188	QCY41HK-332	3300PF 50V CER.CAPACI	TO
	C191	QET41HM-475	4.7MF 50V ELECTRO	
	C193	QCS21HJ-180	18PF 50V CER.CAPACI	TO
	C194	QCS21HJ-180	18PF 50V CER.CAPACI	TO
	C195	QFVB1HJ-474	0.47MF 50V THIN FILM	CA U
	C196	QCCB1HK-102	1000PF 50V CER.CAPACI	TO
	C197	QCF11HP-223	0.022MF 50V CER.CAPACI	TO
	C198	QET41CM-227	220MF 16V ELECTRO	U
	C199	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO U
	C207	QET41CM-476	47MF 16V AL E.CAPAC	IT
	C208	QET41CM-476	47MF 16V AL E.CAPAC	IT
	C211	QCCB1HK-471	470PF 50V CER.CAPACI	TO
	C212	QCCB1HK-471	470PF 50V CER.CAPACI	TO
	C213	QCXB1CM-122	1200PF 16V POLYPROPY.	FI
	C214	QCXB1CM-122	1200PF 16V POLYPROPY.	FI
	C215	QCCB1HK-331	330PF 50V CER.CAPACI	TO
	C216	QCCB1HK-331	330PF 50V CER.CAPACI	TO
	C217	QCCB1HK-331	330PF 50V CER.CAPACI	TO
	C218	QCCB1HK-331	330PF 50V CER.CAPACI	TO
	C219	QETB1HM-225	2.2MF 50V E.CAPACITO	R
	C220	QETB1HM-225	2.2MF 50V E.CAPACITO	R
	C221	QETB1HM-225	2.2MF 50V E.CAPACITO	R
	C222	QETB1HM-225	2.2MF 50V E.CAPACITO	R
	C223	QCCB1HK-101	100PF 50V CER.CAPACI	TO
	C224	QCCB1HK-101	100PF 50V CER.CAPACI	TO
	C225	QET41CM-107	100MF 16V AL E.CAPAC	IT
	C226	QET41CM-107	100MF 16V AL E.CAPAC	IT
	C227	QFLB1HJ-822	8200PF 50V MYLAR CAPA	CI
	C228	QFLB1HJ-822	8200PF 50V MYLAR CAPA	CI
	C231	QET41CM-107	100MF 16V AL E.CAPAC	IT
	C233	QCS11HJ-101	100PF 50V CER.CAPACI	TO
	C234	QCS11HJ-101	100PF 50V CER.CAPACI	TO
	C241	QETB1HM-106	10MF 50V E.CAPACITO	R
	C245	QCVB1CM-103	0.01MF 16V CER.CAPACI	TO U
	C253	QCXB1CM-182	1800PF 16V CER.CAPACI	TO
	C254	QCXB1CM-182	1800PF 16V CER.CAPACI	TO
	C281	QET41HM-105	1MF 50V E.CAPACITO	R
	C282	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	CI
	C283	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	CI
	C291	QET41CM-476	47MF 16V AL E.CAPAC	IT
	C301	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI U
	C302	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI U
	C305	QCY21HK-272	2700PF 50V CER.CAPACI	TO
	C306	QCY21HK-272	2700PF 50V CER.CAPACI	TO
	C307	QETB1HM-225	2.2MF 50V E.CAPACITO	R
	C308	QETB1HM-225	2.2MF 50V E.CAPACITO	R
	C313	QCS11HJ-470	47PF 50V CER.CAPACI	TO
	C314	QCS11HJ-470	47PF 50V CER.CAPACI	TO
	C315	QFLB1HJ-123	0.012MF 50V MYLAR CAPA	CI U
	C316	QFLB1HJ-123	0.012MF 50V MYLAR CAPA	CI U
	C317	QCY21HK-562	5600PF 50V CER.CAPACI	TO
	C318	QCY21HK-562	5600PF 50V CER.CAPACI	TO
	C319	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	CI U
	C320	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	CI U
	C321	QFLB1HJ-822	8200PF 50V MYLAR CAPA	CI U
	C322	QFLB1HJ-822	8200PF 50V MYLAR CAPA	CI U
	C323	QFLB1HJ-682	6800PF 50V MYLAR CAPA	CI U
	C324	QFLB1HJ-682	6800PF 50V MYLAR CAPA	CI U
	C335	QCS11HJ-101	100PF 50V CER.CAPACI	TO
	C336	QCS11HJ-101	100PF 50V CER.CAPACI	TO
	C337	QETB1HM-106	10MF 50V E.CAPACITO	R
	C338	QET41CM-476	47MF 16V AL E.CAPAC	IT
	C340	QET41HM-105	1MF 50V E.CAPACITO	R
	C342	QFPB1HJ-822	8200PF 50V POLYPROPY.	FI
	C343	QFLB1HJ-123	0.012MF 50V MYLAR CAPA	CI
	C344	QFLB1HJ-222	2200PF 50V MYLAR CAPA	CI

Δ : SAFETY PARTS



Capacitors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C345	QFLB1HJ-222	2200PF 50V MYLAR CAPA	CI
	C346	QFLB1HJ-682	6800PF 50V MYLAR CAPA	CI
	C351	QETB1HM-106	10MF 50V E.CAPACITO	R
	C355	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CI
	C356	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CI
	C381	QET41HM-105	1MF 50V E.CAPACITO	R U
	C382	QET41HM-105	1MF 50V E.CAPACITO	R U
	C383	QET41HM-475	4.7MF 50V ELECTRO	U
	C384	QET41HM-475	4.7MF 50V ELECTRO	U
	C385	QET41HM-105	1MF 50V E.CAPACITO	R U
	C386	QET41HM-105	1MF 50V E.CAPACITO	R U
	C387	QET41HM-475	4.7MF 50V ELECTRO	U
	C388	QET41HM-475	4.7MF 50V ELECTRO	U
	C389	QFV81HJ-224	0.22MF 50V THIN FILM	CA
	C390	QFV81HJ-224	0.22MF 50V THIN FILM	CA
	C392	QET41HM-475	4.7MF 50V ELECTRO	U
	C393	QET41CM-107	100MF 16V AL E.CAPAC	IT
	C394	QET41HM-475	4.7MF 50V ELECTRO	U
	C401	QET41HM-475	4.7MF 50V ELECTRO	U
	C402	QET41HM-475	4.7MF 50V ELECTRO	U
	C403	QCSB1HJ-220	22PF 50V CER.CAPACI	TO
	C404	QCSB1HJ-220	22PF 50V CER.CAPACI	TO
	C405	QFN81HJ-124	0.12MF 50V METAL.MYLA	R U
	C406	QFN81HJ-124	0.12MF 50V METAL.MYLA	R U
	C407	QFN81HJ-124	0.12MF 50V METAL.MYLA	R U
	C408	QFN81HJ-124	0.12MF 50V METAL.MYLA	R U
	C409	QFLB1HJ-103	0.01MF 50V MYLAR CAPA	CI
	C410	QFLB1HJ-103	0.01MF 50V MYLAR CAPA	CI
	C411	QET41HM-475	4.7MF 50V ELECTRO	U
	C412	QET41HM-475	4.7MF 50V ELECTRO	U
	C413	QET41HM-475	4.7MF 50V ELECTRO	U
	C414	QET41HM-475	4.7MF 50V ELECTRO	U
	C415	QFLB1HJ-683	0.068MF 50V MYLAR CAPA	CI
	C416	QET41HM-475	4.7MF 50V ELECTRO	U
	C417	QCSB1HK-561	560PF 50V CER.CAPACI	TO
	C418	QFLB1HJ-563	0.056MF 50V MYLAR CAPA	CI
	C419	QCS11HJ-470	47PF 50V CER.CAPACI	TO
	C420	QCS11HJ-470	47PF 50V CER.CAPACI	TO
	C421	QET41CM-476	47MF 16V AL E.CAPAC	IT
	C422	QET41CM-476	47MF 16V AL E.CAPAC	IT
	C423	QET41HM-105	1MF 50V E.CAPACITO	R U
	C1002	QETB1EM-226	22MF 25V E.CAPACITO	R U
	C1003	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI U
	C1004	QET41HM-474	0.47MF 50V AL E.CAPAC	IT U
	C1005	QCSB1CM-562	5600PF 16V CER.CAPACI	TO U
	C1006	QCSB1HK-821	820PF 50V CER.CAPACI	TO U
	C1007	QFLB1HJ-183	0.018MF 50V MYLAR CAPA	CI U
	C1008	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI U
	C1009	QCSB1CM-682	6800PF 16V CER.CAPACI	TO U
	C1011	QCSB1HK-821	820PF 50V CER.CAPACI	TO U
	C1012	QCSB1CM-562	5600PF 16V CER.CAPACI	TO U
	C1013	QFLB1HJ-183	0.018MF 50V MYLAR CAPA	CI U
	C1014	QET41HM-474	0.47MF 50V AL E.CAPAC	IT U
	C1015	QFV81HJ-104	0.1MF 50V THIN FILM	CA U
	C1016	QET41HM-105	1MF 50V E.CAPACITO	R U
	C1017	QFV81HJ-104	0.1MF 50V THIN FILM	CA U
	C1018	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI U
	C1019	QET41CM-476	47MF 16V AL E.CAPAC	IT U
	C1020	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI U
	C1021	QCS21HJ-221	220PF 50V CER.CAPACI	TO U
	C1022	QET41CM-107	100MF 16V AL E.CAPAC	IT U
	C1023	QFLB1HJ-103	0.01MF 50V MYLAR CAPA	CI U
	C1024	QCS11HJ-101	100PF 50V CER.CAPACI	TO U
	C1025	QCS11HJ-101	100PF 50V CER.CAPACI	TO U
	C1101	QETB1HM-224	0.22MF 50V AL E.CAPAC	IT U
	C1102	QCHB1E2-223	0.022MF 25V CER.CAPACI	TO U
	C1103	QET41HM-475	4.7MF 50V ELECTRO	U
	C1104	QET41CM-107	100MF 16V AL E.CAPAC	IT U
	C1105	QCVB1CM-103	0.01MF 16V CER.CAPACI	TO U
	C1106	QCT26CH-180	18PF 50V CER.CAPACI	TO U
	C1107	QFV81HJ-473	0.047MF 50V THIN FILM	CA U
	C1108	QFV81HJ-473	0.047MF 50V THIN FILM	CA U
	C1110	QET41HM-475	4.7MF 50V ELECTRO	U
	C1111	QET41CM-107	100MF 16V AL E.CAPAC	IT U
	C1151	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CI U
	C1152	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CI U
	C1153	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CI U
	C1154	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CI U
	C1155	QET41HM-475	4.7MF 50V ELECTRO	U
	C1156	QET41HM-475	4.7MF 50V ELECTRO	U

Δ : SIAM P.E.T.V. PARTS

Resistors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R108	QRD167J-103	10K 1/6W CARBON RES	IS
	R109	QRZ0077-680	68 1/4W FUSIBLE RE	SI
	R115	QRD167J-222	2.2K 1/6W CARBON RES	IS U
	R116	QRD167J-104	100K 1/6W CARBON RES	IS
	R118	QRD167J-332	3.3K 1/6W CARBON RES	IS
	R119	QRD167J-221	220 1/6W CARBON RES	IS
	R121	QRD167J-391	390 1/6W CARBON RES	IS
	R122	QRD161J-272	2.7K 1/6W CARBON RES	IS
	R123	QRD167J-102	1K 1/6W CARBON RES	IS
	R124	QRD167J-681	680 1/6W CARBON	IS

Δ : SIAM P.E.T.V. PARTS

Resistors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R125	QRD167J-332	3.3K 1/6W CARBON RES	IS
	R126	QRD167J-221	220 1/6W CARBON RES	IS
	R131	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R133	QRD167J-102	1K 1/6W CARBON RES	IS U
	R134	QRD167J-102	1K 1/6W CARBON RES	IS U
	R146	QRD167J-560	56 1/6W CARBON RES	IS
	R147	QRD167J-103	10K 1/6W CARBON RES	IS
	R148	QRD167J-103	10K 1/6W CARBON RES	IS
	R149	QRD167J-223	22K 1/6W CARBON RES	IS
	R150	QRD167J-103	10K 1/6W CARBON RES	IS
	R151	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R153	QRD167J-103	10K 1/6W CARBON RES	IS
	R154	QRD167J-103	10K 1/6W CARBON RES	IS
	R155	QRD167J-562	5.6K 1/6W CARBON RES	IS
	R156	QRD167J-822	8.2K 1/6W CARBON RES	IS
	R157	QRD167J-103	10K 1/6W CARBON RES	IS
	R158	QRD167J-183	18K 1/6W CARBON	U
	R159	QRD167J-561	560 1/6W CARBON	U
	R161	QRD167J-104	100K 1/6W CARBON RES	IS U
	R162	QRD167J-104	100K 1/6W CARBON RES	IS U
	R163	QRD167J-332	3.3K 1/6W CARBON RES	IS U
	R164	QRD167J-332	3.3K 1/6W CARBON RES	IS U
	R165	QRD167J-184	180K 1/6W CARBON	U
	R166	QRD167J-184	180K 1/6W CARBON	U
	R167	QRD167J-473	47K 1/6W CARBON RES	IS U
	R168	QRD167J-103	10K 1/6W CARBON RES	IS
	R169	QRD167J-103	10K 1/6W CARBON RES	IS
	R180	QRD167J-472	4.7K 1/6W CARBON RES	IS
	R181	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R182	QRD167J-181	180 1/6W CARBON	IS
	R190	QRD167J-472	4.7K 1/6W CARBON RES	IS
	R194	QRD167J-103	10K 1/6W CARBON RES	IS
	R195	QRD167J-473	47K 1/6W CARBON RES	IS
	R196	QRD167J-103	10K 1/6W CARBON RES	IS U
	R197	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R198	QRD167J-332	3.3K 1/6W CARBON RES	IS U
	R199	QRD167J-472	4.7K 1/6W CARBON RES	IS
	R201	QRD167J-224	220K 1/6W CARBON RES	IS U
	R202	QRD167J-224	220K 1/6W CARBON RES	IS U
	R203	QVPA601-104A	100K TRIMMER RE	SI
	R204	QVPA601-104A	100K TRIMMER RE	SI
	R205	QVPA601-104A	100K TRIMMER RE	SI
	R206	QVPA601-104A	100K TRIMMER RE	SI
	R207	QRD167J-471	470 1/6W CARBON RES	IS
	R208	QRD167J-471	470 1/6W CARBON RES	IS
	R209	QRD167J-105	1M 1/6W CARBON	IS
	R210	QRD167J-105	1M 1/6W CARBON	IS
	R213	QRD167J-475	4.7M 1/6W CARBON	IS
	R214	QRD167J-475	4.7M 1/6W CARBON	IS
	R221	QVPA601-201A	200 TRIMMER RE	SI
	R222	QVPA601-201A	200 TRIMMER RE	SI
	R225	QRD167J-470	47 1/6W CARBON RES	IS
	R226	QRD167J-470	47 1/6W CARBON RES	IS
	R227	QRD167J-334	330K 1/6W CARBON RES	IS
	R228	QRD167J-334	330K 1/6W CARBON RES	IS
	R229	QRD167J-512	5.1K 1/6W CARBON	U
	R230	QRD167J-512	5.1K 1/6W CARBON	U
	R235	QRD167J-912	9.1K 1/6W CARBON	U
	R236	QRD167J-912	9.1K 1/6W CARBON	U
	R239	QRD167J-224	220K 1/6W CARBON RES	IS U
	R240	QRD167J-224	220K 1/6W CARBON RES	IS U
	R241	QRD167J-104	100K 1/6W CARBON RES	IS
	R242	QRD167J-104	100K 1/6W CARBON RES	IS
	R243	QRD167J-471	470 1/6W CARBON RES	IS
	R244	QRD167J-102	1K 1/6W CARBON RES	IS
	R245	QRD167J-102	1K 1/6W CARBON RES	IS
	R245	QRD167J-103	10K 1/6W CARBON RES	IS U
	R251	QRD167J-621	620 1/6W CARBON	IS
	R252	QRD167J-561	560 1/6W CARBON	IS
	R255	QRD167J-102	1K 1/6W CARBON RES	IS U
	R261	QRD167J-103	10K 1/6W CARBON RES	IS
	R262	QRD167J-472	4.7K 1/6W CARBON RES	IS U
	R271	QRD167J-103	10K 1/6W CARBON RES	IS
	R272	QRD167J-472	4.7K 1/6W CARBON RES	IS
	R273	QRD167J-472	4.7K 1/6W CARBON RES	IS
	R281	QRD167J-104	100K 1/6W CARBON RES	IS
	R282	QRD167J-105	1M 1/6W CARBON	IS
	R283	QRD167J-103	10K 1/6W CARBON RES	IS
	R284	QRD167J-105	1M 1/6W CARBON	IS
	R285	QRD167J-683	68K 1/6W CARBON RES	IS
	R286	QRD167J-104	100K 1/6W CARBON RES	IS
	R287	QRD167J-104	100K 1/6W CARBON RES	IS
	R288	QRD161J-272	2.7K 1/6W CARBON RES	IS U
	R291	QRD167J-104	100K 1/6W CARBON RES	IS
	R292	QRD167J-274	270K 1/6W CARBON	IS
	R293	QRD167J-562	5.6K 1/6W CARBON RES	IS
	R294	QRD167J-102	1K 1/6W CARBON RES	IS
	R295	QRD167J-102	1K 1/6W CARBON RES	IS
	R296	QRD167J-102	1K 1/6W CARBON RES	IS
	R301	QRD167J-223	22K 1/6W CARBON RES	IS U
	R302	QRD167J-223	22K 1/6W CARBON RES	IS U
	R305	QRD167J-133	13K 1/6W CARBON RES	IS
	R306	QRD167J-133	13K 1/6W CARBON RES	IS
	R307	QRD167J-243	24K 1/6W CARBON RES	IS
	R308	QRD167J-243	24K 1/6W CARBON RES	IS

Δ : SIAM P.E.T.V. PARTS

Resistors

Δ	ITEM	PART NUMBER	DESCRIPTION		AREA
	R309	QRD167J-223	22K	1/6W CARBON RES	IS
	R310	QRD167J-223	22K	1/6W CARBON RES	IS
	R313	QRD167J-242	2.4K	1/6W CARBON	IS
	R314	QRD167J-242	2.4K	1/6W CARBON	IS
	R315	QRD167J-560	56	1/6W CARBON RES	IS
	R316	QRD167J-560	56	1/6W CARBON RES	IS
	R317	QRD167J-561	560	1/6W CARBON	U
	R318	QRD167J-561	560	1/6W CARBON	U
	R319	QRD167J-162	1.6K	1/6W CARBON	U
	R320	QRD167J-162	1.6K	1/6W CARBON	U
	R321	QRD167J-682	6.8K	1/6W CARBON RES	IS U
	R322	QRD167J-682	6.8K	1/6W CARBON RES	IS U
	R323	QRD167J-432	4.3K	1/6W CARBON	U
	R324	QRD167J-432	4.3K	1/6W CARBON	U
	R325	QRD167J-623	62K	1/6W CARBON	U
	R326	QRD167J-623	62K	1/6W CARBON	U
	R327	QRD167J-512	5.1K	1/6W CARBON	U
	R328	QRD167J-512	5.1K	1/6W CARBON	U
	R329	QRD167J-392	3.9K	1/6W CARBON RES	IS U
	R330	QRD167J-392	3.9K	1/6W CARBON RES	IS U
	R334	QRD161J-100	10	1/6W CARBON RES	IS
	R335	QVPA601-104A	100K	TRIMMER RE	SI
	R336	QVPA601-104A	100K	TRIMMER RE	SI
	R337	QRD167J-473	47K	1/6W CARBON RES	IS
	R338	QRD167J-473	47K	1/6W CARBON RES	IS
	R339	QRD148J-5R6	5.6	1/4W CARBON	U
	R340	QRD167J-472	4.7K	1/6W CARBON RES	IS
	R341	QRD167J-104	100K	1/6W CARBON RES	IS
	R342	QRD167J-332	3.3K	1/6W CARBON RES	IS
	R343	QRD167J-131	130	1/6W CARBON RES	IS U
	R344	QRD167J-131	130	1/6W CARBON RES	IS U
	R345	QRZ0077-100	10	1/4W FUSIBLE RE	SI
	R346	QRD167J-103	10K	1/6W CARBON RES	IS
	R350	QRD167J-105	1M	1/6W CARBON	U
	R351	QRD167J-243	24K	1/6W CARBON RES	IS
	R352	QRD167J-243	24K	1/6W CARBON RES	IS
	R353	QRD167J-562	5.6K	1/6W CARBON RES	IS
	R354	QRD167J-562	5.6K	1/6W CARBON RES	IS
	R363	QRD167J-223	22K	1/6W CARBON RES	IS
	R364	QRD167J-223	22K	1/6W CARBON RES	IS
	R365	QRD167J-163	16K	1/6W CARBON	U
	R366	QRD167J-163	16K	1/6W CARBON	U
	R367	QVPA601-203A	20K	VARIABLE R	ES
	R368	QVPA601-203A	20K	VARIABLE R	ES
	R371	QRD167J-103	10K	1/6W CARBON RES	IS
	R372	QRD167J-103	10K	1/6W CARBON RES	IS
	R381	QRD167J-153	15K	1/6W CARBON RES	IS
	R382	QRD167J-153	15K	1/6W CARBON RES	IS
	R383	QRD167J-822	8.2K	1/6W CARBON RES	IS
	R384	QRD167J-822	8.2K	1/6W CARBON RES	IS
	R385	QRZ0077-220	22	1/4W FUSIBLE RE	SI
	R386	QRD167J-183	18K	1/6W CARBON	U
	R387	QRD167J-103	10K	1/6W CARBON RES	IS
	R388	QRD167J-103	10K	1/6W CARBON RES	IS
	R389	QVPA601-103A	10K	TRIMMER RE	SI
	R390	QVPA601-103A	10K	TRIMMER RE	SI
	R391	QRD167J-222	2.2K	1/6W CARBON RES	IS
	R392	QRD167J-222	2.2K	1/6W CARBON RES	IS
	R393	QRD167J-182	1.8K	1/6W CARBON RES	IS
	R394	QRD167J-182	1.8K	1/6W CARBON RES	IS
	R395	QRD167J-103	10K	1/6W CARBON RES	IS
	R396	QRD167J-103	10K	1/6W CARBON RES	IS
	R397	QRD167J-102	1K	1/6W CARBON RES	IS
	R398	QRD167J-102	1K	1/6W CARBON RES	IS U
	R401	QRD167J-474	470K	1/6W CARBON RES	IS
	R402	QRD167J-474	470K	1/6W CARBON RES	IS
	R403	QRD167J-104	100K	1/6W CARBON RES	IS
	R404	QRD167J-104	100K	1/6W CARBON RES	IS
	R405	QRV146F-1002	10K	1/4W CONST.META	L U
	R406	QRV146F-1002	10K	1/4W CONST.META	L U
	R407	QRD167J-103	10K	1/6W CARBON RES	IS
	R408	QRD167J-103	10K	1/6W CARBON RES	IS
	R409	QRD167J-432	4.3K	1/6W CARBON	U
	R410	QRD167J-432	4.3K	1/6W CARBON	U
	R411	QRD167J-183	18K	1/6W CARBON	U
	R412	QRD167J-183	18K	1/6W CARBON	U
	R413	QRD167J-302	3K	1/6W CARBON	U
	R414	QRD167J-302	3K	1/6W CARBON	U
	R415	QRD167J-472	4.7K	1/6W CARBON RES	IS
	R416	QRD167J-472	4.7K	1/6W CARBON RES	IS
	R417	QRD167J-472	4.7K	1/6W CARBON RES	IS
	R418	QRD167J-472	4.7K	1/6W CARBON RES	IS
	R419	QRD167J-563	56K	1/6W CARBON RES	IS
	R420	QRD167J-563	56K	1/6W CARBON RES	IS
	R421	QRD167J-101	100	1/6W CARBON	U
	R422	QRD167J-101	100	1/6W CARBON	U
	R423	QRD167J-472	4.7K	1/6W CARBON RES	IS
	R424	QRD167J-472	4.7K	1/6W CARBON RES	IS
	R425	QRD167J-332	3.3K	1/6W CARBON RES	IS
	R426	QRD167J-224	220K	1/6W CARBON RES	IS
	R427	QRD167J-473	47K	1/6W CARBON RES	IS
	R428	QRD167J-473	47K	1/6W CARBON RES	IS
	R429	QRD167J-473	47K	1/6W CARBON RES	IS
	R430	QRD167J-473	47K	1/6W CARBON RES	IS
	R431	QRD167J-473	47K	1/6W CARBON RES	IS

Δ : SAFETY PARTS

Resistors

Δ	ITEM	PART NUMBER	DESCRIPTION		AREA
	R432	QRD167J-473	47K	1/6W CARBON RES	IS
	R433	QRD167J-104	100K	1/6W CARBON RES	IS
	R434	QRD167J-473	47K	1/6W CARBON RES	IS
	R435	QRV146F-3301	3.3K	1/4W CONST.META	L U
	R436	QRV146F-3301	3.3K	1/4W CONST.META	L U
	R437	QRD167J-103	10K	1/6W CARBON RES	IS
	R438	QRD167J-103	10K	1/6W CARBON RES	IS
	R439	QRD167J-104	100K	1/6W CARBON RES	IS
	R440	QRD167J-104	100K	1/6W CARBON RES	IS
	R441	QRD167J-332	3.3K	1/6W CARBON RES	IS U
	R442	QRD167J-332	3.3K	1/6W CARBON RES	IS U
	R443	QRD161J-272	2.7K	1/6W CARBON RES	IS U
	R444	QRD161J-272	2.7K	1/6W CARBON RES	IS U
	R445	QRD167J-102	1K	1/6W CARBON RES	IS
	R446	QRD167J-102	1K	1/6W CARBON RES	IS
	R447	QRD167J-301	300	1/6W CARBON	U
	R448	QRD167J-301	300	1/6W CARBON	U
	R449	QRD167J-471	470	1/6W CARBON RES	IS
	R450	QRD167J-471	470	1/6W CARBON RES	IS
	R1001	QRD167J-152	1.5K	1/6W CARBON RES	IS U
	R1002	QRD167J-123	12K	1/6W CARBON RES	IS U
	R1003	QRD167J-103	10K	1/6W CARBON RES	IS U
	R1004	QRD167J-103	10K	1/6W CARBON RES	IS U
	R1005	QRD167J-103	10K	1/6W CARBON RES	IS U
	R1010	QRD167J-472	4.7K	1/6W CARBON RES	IS U
	R1011	QRD167J-103	10K	1/6W CARBON RES	IS U
	R1012	QRD167J-103	10K	1/6W CARBON RES	IS U
	R1013	QRD167J-103	10K	1/6W CARBON RES	IS U
	R1014	QRD167J-471	470	1/6W CARBON RES	IS U
	R1021	QRD167J-105	1M	1/6W CARBON	U
	R1022	QRD167J-682	6.8K	1/6W CARBON RES	IS U
	R1031	QRD167J-331	330	1/6W CARBON	U
	R1035	QRD167J-303	30K	1/6W CARBON	U
	R1036	QRD167J-563	56K	1/6W CARBON RES	IS U
	R1037	QRD167J-243	24K	1/6W CARBON RES	IS U
	R1038	QRD167J-123	12K	1/6W CARBON RES	IS U
	R1101	QRD167J-181	180	1/6W CARBON	U
	R1102	QRD167J-393	39K	1/6W CARBON RES	IS U
	R1103	QRD167J-222	2.2K	1/6W CARBON RES	IS U
	R1104	QRD167J-394	390K	1/6W CARBON RES	IS U
	R1105	QRD167J-683	68K	1/6W CARBON RES	IS U
	R1107	QRD167J-561	560	1/6W CARBON	U
	R1153	QRD167J-333	33K	1/6W CARBON	U
	R1154	QRD167J-333	33K	1/6W CARBON	U
	R1155	QRD167J-822	8.2K	1/6W CARBON RES	IS U
	R1156	QRD167J-822	8.2K	1/6W CARBON RES	IS U

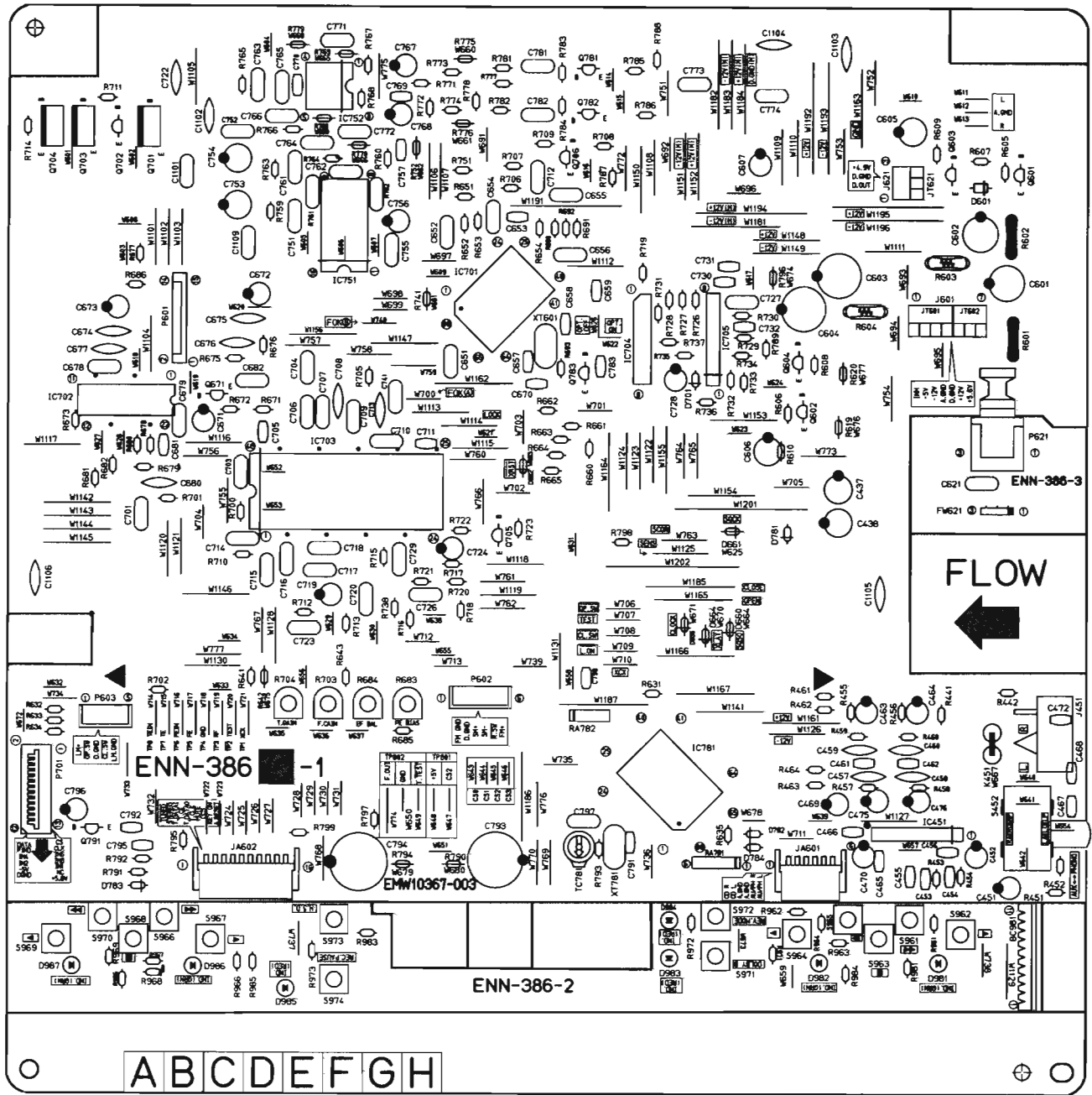
Δ : SAFETY PARTS

Others

Δ	ITEM	PART NUMBER	DESCRIPTION		AREA
	J204	EMV7125-006R	CONNECT TERMINAL (6PIN)		
	J851	EMV7122-005	MALE CONNECTOR (5PIN)		
	J998	EMV7122-004	CONNECT TERMINAL (4PIN)		U
	J999	EMV7122-103	CONNECT TERMINAL (3PIN)		U
	L221	EQL2106-223	INDUCTOR		
	L222	EQL2106-223	INDUCTOR		
	L301	EQL2106-562	INDUCTOR		
	L302	EQL2106-562	INDUCTOR		
	L335	ENZ6002-013	OSCILLATOR COIL		
	P201	EMV5133-003	CONNECT TERMINAL (3PIN)		U
	P202	EMV5133-007K	PLUG (7PIN)		
	T101	EQR7121-005	RF COIL		U
	T105	EQT2140-017	I.F. TRANSFORMER		
	T107	ECB1560-011	CERAMIC FILTER		U
	AT101	EMB10YV-401K	ANTENNA TERMINAL		U
	CF101	ECB2123-006R	CERAMIC FILTER		U
	CF102	ECB2123-006R	CERAMIC FILTER		U
	EP201	E70225-001	EARTH PLATE		U
	FE101	EAF6102-001	FRONT END		U
	JA901	EMV7155-021	CONNECT TERMINAL (21PIN)		U
	JB601	VMC0193-P06	CONNECT TERMINAL (6PIN)		U
	JB602	VMC0193-P10	CONNECT TERMINAL (10PIN)		U
	LP103	EQF0101-010	LOWPASS FILTER		
	LP104	EQF0101-010	LOWPASS FILTER		
	XT021	ECX0000-400KS	CERAMIC RESONATOR		U
	XT102	ECX0007-200KC	CRYSTAL		U
	XT103	ECX0000-456KR	CERAMIC RESONATOR		
	XT110	ECX0003-600KRDT	RESONATOR		U

Δ : SAFETY PARTS

■ ENN-386 B CD & Deck Switch PC Board Ass'y



Transistors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q601	2SA934(Q,R)	SI-TRANSISTROHM	U
	Q602	2SC3311A(Q,R)	SI-TRANSISTMAT SUSHITA	
	Q603	2SC3311A(Q,R)	SI-TRANSISTMAT SUSHITA	
	Q604	DTA144WS	DIGITAL TRAROHM	
	Q671	2SA934(Q,R)	SI-TRANSISTROHM	
	Q701	2SD2037(E,F)	SI-TRANSISTROHM	
	Q702	2SA934(Q,R)	SI-TRANSISTROHM	
	Q703	2SD2037(E,F)	SI-TRANSISTROHM	
	Q704	2SB1357(E,F)	SI-TRANSISTROHM	
	Q705	DTC144ES	DIGITAL TRAROHM	
	Q706	2SC3311A(Q,R)	SI-TRANSISTMAT SUSHITA	
	Q781	2SC3311A(Q,R)	SI-TRANSISTMAT SUSHITA	
	Q782	2SC3311A(Q,R)	SI-TRANSISTMAT SUSHITA	
	Q783	DTA144ES	DIGITAL TRAROHM	
	Q791	DTC114YS	DIGITAL TRAROHM	

Δ : SAFETY PARTS

I.C.s

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC451	VC4580LD	I.C(MONO-ANDAINICHI)	U
	IC701	CXD2500BQ	I.C(DIGI-MO1680)	
	IC702	CXA1571S	I.C(MONO-AN1680)	
	IC703	CXA1372S	I.C(MONO-AN1680)	
	IC704	STA341M(A)	TRANSISTOR SANKEN	
	IC705	M5218AL	I.C(MONO-ANMITSUBISHI)	
	IC751	UPD6376CX	I.C(DIGI-MONEC)	
	IC752	BA1521B	I.C(MONO-ANROHM)	
	IC753	BA1521B	I.C(MONO-ANROHM)	
	IC781	HD404710A35FS	I.C(MICRO-CHITACHI)	

Δ : SAFETY PARTS

Diodes

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D601	1SR139-200	SI.DIODE ROHM	
	D701	1SS119	SI.DIODE HITACHI	
	D781	1SS119	SI.DIODE HITACHI	
	D782	1SS119	SI.DIODE HITACHI	U
	D783	1SS119	SI.DIODE HITACHI	
	D784	1SS119	SI.DIODE HITACHI	U
	D981	SLR-342MCA47	L.E.D. ROHM	U
	D982	SLR-342MCA47	L.E.D. ROHM	U
	D983	SLR-342VC3F	L.E.D. ROHM	U
	D984	SLR-342VC3F	L.E.D. ROHM	U
	D985	SLR-342VC3F	L.E.D. ROHM	U
	D986	SLR-342MCA47	L.E.D. ROHM	U
	D987	SLR-342MCA47	L.E.D. ROHM	U

Δ : SAFETY PARTS

Capacitors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C451	QET41HM-475	4.7MF 50V ELECTRO	
	C452	QET41HM-475	4.7MF 50V ELECTRO	
	C453	QCBB1HK-471	470PF 50V CER.CAPACI	TO
	C454	QCBB1HK-471	470PF 50V CER.CAPACI	TO
	C455	QCBB1HK-101	100PF 50V CER.CAPACI	TO
	C456	QCBB1HK-101	100PF 50V CER.CAPACI	TO
	C457	QCY21HK-682	6800PF 50V CER.CAPACI	TO
	C458	QCY21HK-682	6800PF 50V CER.CAPACI	TO
	C459	QCY21HK-182	1800PF 50V CER.CAPACI	TO
	C460	QCY21HK-182	1800PF 50V CER.CAPACI	TO
	C461	QCBB1HK-101	100PF 50V CER.CAPACI	TO
	C462	QCBB1HK-101	100PF 50V CER.CAPACI	TO
	C463	QET41HM-475	4.7MF 50V ELECTRO	
	C464	QET41HM-475	4.7MF 50V ELECTRO	
	C469	QET41EM-476	47MF 25V ELECTRO	
	C470	QET41EM-476	47MF 25V ELECTRO	
	C472	QCVB1CM-103	0.01MF 16V CER.CAPACI	TO U
	C475	QET41EM-476	47MF 25V ELECTRO	
	C476	QET41EM-476	47MF 25V ELECTRO	
	C601	QET41CM-227	220MF 16V ELECTRO	
	C602	QET41CM-227	220MF 16V ELECTRO	
	C603	QETB1CM-108N	1000MF 16V ELECTRO	
	C604	QETB1CM-108N	1000MF 16V ELECTRO	
	C605	QETBOJM-227	220MF 6.3V E.CAPACITO	R
	C606	QETBOJM-107M	100MF 6.3V ELECTRO	
	C607	QET41HM-105	1MF 50V E.CAPACITO	R U
	C621	QCZO202-155	1.5MF 25V CER.RESIST	OR U
	C651	QCZO202-155	1.5MF 25V CER.RESIST	OR
	C652	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CI
	C653	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C654	QFLB1HJ-152	1500PF 50V MYLAR CAPA	CI
	C655	QFLB1HJ-102	1000PF 50V MYLAR CAPA	CI
	C656	QCZO202-155	1.5MF 25V CER.RESIST	OR
	C657	QCT30CH-100	10PF 50V CER.CAPACI	TO
	C658	QCT30CH-100	10PF 50V CER.CAPACI	TO
	C659	QCSB1HJ-100	10PF 50V CER.CAPACI	TO U
	C671	QET41AM-107	100MF 10V AL E.CAPAC	IT
	C673	QET41AM-476	47MF 10V ELECTRO	
	C674	QCS21HJ-100	10PF 50V CER.CAPACI	TO
	C675	QCS21HJ-820	82PF 50V CER.CAPACI	TO
	C676	QCS11HJ-101	100PF 50V CER.CAPACI	TO
	C677	QCS21HJ-100	10PF 50V CER.CAPACI	TO
	C678	QCZO202-155	1.5MF 25V CER.RESIST	OR
	C679	QCZO202-155	1.5MF 25V CER.RESIST	OR
	C680	QCS21HJ-220	22PF 50V CER.CAPACI	TO
	C681	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C701	QFLB1HJ-122	1200PF 50V MYLAR CAPA	CI
	C703	QFLB1HJ-222	2200PF 50V MYLAR CAPA	CI
	C704	QFLB1HJ-222	2200PF 50V MYLAR CAPA	CI
	C705	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C706	QFLB1HJ-333	0.033MF 50V MYLAR CAPA	CI
	C707	QFLB1HJ-103	0.01MF 50V MYLAR CAPA	CI
	C708	QCF11HP-223	0.022MF 50V CER.CAPACI	TO
	C709	QFLB1HJ-333	0.033MF 50V MYLAR CAPA	CI
	C710	QCZO202-155	1.5MF 25V CER.RESIST	OR
	C711	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C712	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI
	C713	QCS11HJ-471	470PF 50V CER.CAPACI	TO
	C714	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI
	C715	QFLB1HJ-333	0.033MF 50V MYLAR CAPA	CI
	C716	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CI
	C717	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CI
	C718	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CI
	C719	QETB1HM-106	10MF 50V E.CAPACITO	R
	C720	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI
	C722	QCF11HP-223	0.022MF 50V CER.CAPACI	TO
	C723	QFLB1HJ-333	0.033MF 50V MYLAR CAPA	CI
	C724	QETB1HM-106	10MF 50V E.CAPACITO	R
	C726	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	CI
	C727	QFLB1HJ-103	0.01MF 50V MYLAR CAPA	CI

Δ : SAFETY PARTS

Capacitors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C728	QET41HM-475	4.7MF 50V ELECTRO	
	C729	QFLB1HJ-393	0.039MF 50V MYLAR CAPA	CI
	C730	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C731	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C732	QCBB1HK-681	680PF 50V C.CAPACITO	R
	C741	QFLB1HJ-153	0.015MF 50V MYLAR CAPA	CI U
	C751	QFN81HJ-104	0.1MF 50V METAL.MYLA	R U
	C752	QFN81HJ-104	0.1MF 50V METAL.MYLA	R U
	C753	EET2502-107M	100MF ELECTRO	
	C754	EET2502-107M	100MF ELECTRO	
	C755	QCZO202-155	1.5MF 25V CER.RESIST	OR
	C756	EET2502-476N	47MF AL E.CAPAC	IT
	C757	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C761	QFN81HJ-562	5600PF 50V METAL.MYLA	R U
	C762	QFN81HJ-562	5600PF 50V METAL.MYLA	R U
	C763	QFN81HJ-153	0.015MF 50V MYLAR CAPA	CI U
	C764	QFN81HJ-153	0.015MF 50V MYLAR CAPA	CI U
	C765	QFN81HJ-821	820PF 50V MYLAR CAPA	CI U
	C766	QFN81HJ-821	820PF 50V MYLAR CAPA	CI U
	C767	EET2502-476N	47MF AL E.CAPAC	IT
	C768	EET2502-476N	47MF AL E.CAPAC	IT
	C769	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C770	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C771	QFN81HJ-104	0.1MF 50V METAL.MYLA	R U
	C772	QFN81HJ-104	0.1MF 50V METAL.MYLA	R U
	C781	QFLB1HJ-683	0.068MF 50V MYLAR CAPA	CI
	C782	QFLB1HJ-683	0.068MF 50V MYLAR CAPA	CI
	C783	QCVB1CM-103	0.01MF 16V CER.CAPACI	TO
	C791	QCTOSCH-150	15PF 50V CER.CAPACI	TO
	C792	QCVB1CM-103	0.01MF 16V CER.CAPACI	TO
	C793	QETBOJM-228N	2200MF 6.3V ELECTRO	U
	C795	QCVB1CM-103	0.01MF 16V CER.CAPACI	TO
	C796	QET41HM-475	4.7MF 50V ELECTRO	
	C797	QCZO202-155	1.5MF 25V CER.RESIST	OR U
	C798	QCVB1CM-103	0.01MF 16V CER.CAPACI	TO U
	C1101	QCZO202-155	1.5MF 25V CER.RESIST	OR U

Δ : SAFETY PARTS

Resistors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R451	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R452	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R453	QRD167J-473	47K 1/6W CARBON RES	IS
	R454	QRD167J-473	47K 1/6W CARBON RES	IS
	R455	QRD167J-471	470 1/6W CARBON RES	IS
	R456	QRD167J-471	470 1/6W CARBON RES	IS
	R457	QRD167J-474	470K 1/6W CARBON RES	IS
	R458	QRD167J-474	470K 1/6W CARBON RES	IS
	R459	QRD167J-393	39K 1/6W CARBON RES	IS
	R460	QRD167J-393	39K 1/6W CARBON RES	IS
	R461	QRD167J-152	1.5K 1/6W CARBON RES	IS
	R462	QRD167J-152	1.5K 1/6W CARBON RES	IS
	R463	QRD167J-302	3K 1/6W CARBON	
	R464	QRD167J-302	3K 1/6W CARBON	
	R601	QRZ0077-100	10 1/4W FUSIBLE RE	SI
	R602	QRZ0077-100	10 1/4W FUSIBLE RE	SI
	R603	QRD148J-4R7	4.7 1/4W CARBON	U
	R604	QRD148J-4R7	4.7 1/4W CARBON	U
	R605	QRD167J-472	4.7K 1/6W CARBON RES	IS
	R606	QRD167J-472	4.7K 1/6W CARBON RES	IS
	R607	QRD167J-471	470 1/6W CARBON RES	IS
	R608	QRD167J-182	1.8K 1/6W CARBON RES	IS
	R609	QRD167J-103	10K 1/6W CARBON RES	IS
	R610	QRD167J-472	4.7K 1/6W CARBON RES	IS
	R631	QRD167J-103	10K 1/6W CARBON RES	IS U
	R632	QRD167J-103	10K 1/6W CARBON RES	IS U
	R633	QRD167J-103	10K 1/6W CARBON RES	IS U
	R635	QRD167J-103	10K 1/6W CARBON RES	IS U
	R641	QRD167J-103	10K 1/6W CARBON RES	IS
	R642	QRD167J-822	8.2K 1/6W CARBON RES	IS
	R643	QRD167J-123	12K 1/6W CARBON RES	IS
	R651	QRD167J-332	3.3K 1/6W CARBON RES	IS
	R652	QRD167J-682	6.8K 1/6W CARBON RES	IS
	R653	QRD167J-103	10K 1/6W CARBON RES	IS
	R654	QRD167J-103	10K 1/6W CARBON RES	IS
	R671	QRD161J-100	10 1/6W CARBON RES	IS
	R672	QRD167J-120	12 1/6W CARBON	
	R673	QRD167J-102	1K 1/6W CARBON RES	IS
	R675	QRD167J-183	18K 1/6W CARBON	
	R676	QRD167J-183	18K 1/6W CARBON	
	R677	QRD167J-121	120 1/6W CARBON RES	IS
	R678	QRD167J-103	10K 1/6W CARBON RES	IS
	R679	QRD167J-332	3.3K 1/6W CARBON RES	IS
	R680	QRD167J-822	8.2K 1/6W CARBON RES	IS
	R681	QRD167J-103	10K 1/6W CARBON RES	IS
	R684	QVPA601-203A	20K VARIABLE R	ES
	R685	QRD167J-103	10K 1/6W CARBON RES	IS
	R686	QRD167J-910	91 1/6W CARBON	
	R690	QRD167J-102	1K 1/6W CARBON RES	IS
	R691	QRD167J-102	1K 1/6W CARBON RES	IS

Δ : SAFETY PARTS

Resistors

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	R692	QRD167J-102	1K	1/6W	CARBON RES	IS
	R693	QRD167J-561	560	1/6W	CARBON	U
	R700	QRD167J-275	2.7M	1/6W	CARBON RES	IS
	R701	QRD167J-153	15K	1/6W	CARBON RES	IS
	R704	QVPA601-203A	20K		VARIABLE RES	ES
	R705	QRD167J-102	1K	1/6W	CARBON RES	IS
	R706	QRD167J-104	100K	1/6W	CARBON RES	IS
	R707	QRD167J-103	10K	1/6W	CARBON RES	IS
	R708	QRD167J-273	27K	1/6W	CARBON	IS
	R709	QRD167J-273	27K	1/6W	CARBON	IS
	R710	QRD167J-224	220K	1/6W	CARBON RES	IS
	R711	QRD167J-2R2	2.2	1/6W	CARBON RES	IS
	R712	QRD167J-164	160K	1/6W	CARBON	IS
	R713	QRD167J-134	130K	1/6W	CARBON RES	IS
	R714	QRD167J-2R2	2.2	1/6W	CARBON RES	IS
	R715	QRD167J-224	220K	1/6W	CARBON RES	IS
	R716	QRD167J-333	33K	1/6W	CARBON	IS
	R717	QRD167J-103	10K	1/6W	CARBON RES	IS
	R718	QRD167J-514	510K	1/6W	CARBON	IS
	R719	QRD167J-2R2	2.2	1/6W	CARBON RES	IS
	R720	QRD167J-123	12K	1/6W	CARBON RES	IS
	R721	QRD167J-333	33K	1/6W	CARBON	IS
	R722	QRD167J-124	120K	1/6W	CARBON	IS
	R723	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R726	QRD167J-203	20K	1/6W	CARBON	IS
	R727	QRD167J-273	27K	1/6W	CARBON	IS
	R728	QRD167J-752	7.5K	1/6W	CARBON	IS
	R729	QRD167J-752	7.5K	1/6W	CARBON	IS
	R730	QRD167J-333	33K	1/6W	CARBON	IS
	R731	QRD167J-2R2	2.2	1/6W	CARBON RES	IS
	R732	QRD167J-513	51K	1/6W	CARBON	IS
	R733	QRD167J-513	51K	1/6W	CARBON	IS
	R734	QRD167J-683	68K	1/6W	CARBON RES	IS
	R735	QRD167J-683	68K	1/6W	CARBON RES	IS
	R736	QRD167J-684	680K	1/6W	CARBON	IS
	R737	QRD167J-221	220	1/6W	CARBON RES	IS
	R738	QRD167J-823	82K	1/6W	CARBON RES	IS
	R741	QRD167J-473	47K	1/6W	CARBON RES	IS U
	R751	QRD161J-100	10	1/6W	CARBON RES	IS U
	R759	QRD167J-103	10K	1/6W	CARBON RES	IS U
	R760	QRD167J-103	10K	1/6W	CARBON RES	IS U
Δ	R761	QRV146F-1001	1K	1/4W	M.FILM	U
Δ	R762	QRV146F-1001	1K	1/4W	M.FILM	U
	R763	QRD167J-122	1.2K	1/6W	CARBON	IS
	R764	QRD167J-122	1.2K	1/6W	CARBON	IS
	R765	QRD167J-182	1.8K	1/6W	CARBON RES	IS
	R766	QRD167J-182	1.8K	1/6W	CARBON RES	IS
	R767	QRD167J-333	33K	1/6W	CARBON	IS
	R768	QRD167J-333	33K	1/6W	CARBON	IS
	R769	QRD167J-273	27K	1/6W	CARBON	IS
	R770	QRD167J-273	27K	1/6W	CARBON	IS
	R771	QRD167J-273	27K	1/6W	CARBON	IS
	R772	QRD167J-273	27K	1/6W	CARBON	IS
	R773	QRD167J-561	560	1/6W	CARBON	IS
	R774	QRD167J-561	560	1/6W	CARBON	IS
	R781	QRD167J-221	220	1/6W	CARBON RES	IS
	R782	QRD167J-221	220	1/6W	CARBON RES	IS
	R783	QRD167J-104	100K	1/6W	CARBON RES	IS
	R784	QRD167J-104	100K	1/6W	CARBON RES	IS
	R785	QRD167J-392	3.9K	1/6W	CARBON RES	IS
	R786	QRD167J-392	3.9K	1/6W	CARBON RES	IS
	R787	QRD167J-684	680K	1/6W	CARBON	IS
	R788	QRD167J-154	150K	1/6W	CARBON RES	IS
	R790	QRD167J-470	47	1/6W	CARBON RES	IS U
	R791	QRD167J-104	100K	1/6W	CARBON RES	IS
	R792	QRD167J-223	22K	1/6W	CARBON RES	IS
	R793	QRD167J-473	47K	1/6W	CARBON RES	IS
	R794	QRD167J-470	47	1/6W	CARBON RES	IS
	R795	QRD167J-102	1K	1/6W	CARBON RES	IS
	R796	QRD167J-223	22K	1/6W	CARBON RES	IS U
	R797	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R798	QRD167J-103	10K	1/6W	CARBON RES	IS
	R961	QRD167J-431	430	1/6W	CARBON RES	IS U
	R962	QRD167J-681	680	1/6W	CARBON	U
	R963	QRD167J-112	1.1K	1/6W	CARBON	U
	R964	QRD167J-222	2.2K	1/6W	CARBON RES	IS U
	R966	QRD167J-431	430	1/6W	CARBON RES	IS U
	R967	QRD167J-681	680	1/6W	CARBON	U
	R968	QRD167J-112	1.1K	1/6W	CARBON	U
	R969	QRD167J-222	2.2K	1/6W	CARBON RES	IS U
	R971	QRD167J-431	430	1/6W	CARBON RES	IS U
	R972	QRD167J-681	680	1/6W	CARBON	U
	R973	QRD167J-112	1.1K	1/6W	CARBON	U
	R981	QRD167J-151	150	1/6W	CARBON RES	IS U
	R983	QRD167J-271	270	1/6W	CARBON RES	IS U
	R984	QRD167J-271	270	1/6W	CARBON RES	IS U
	R985	QRD167J-391	390	1/6W	CARBON RES	IS U
	R986	QRD167J-221	220	1/6W	CARBON RES	IS U
	RA781	QRB059J-222	2.2K	1/10W	NETWORK RES	SI U
	RA782	QRB049J-472	4.7K	1/10W	NETWORK RES	SI U

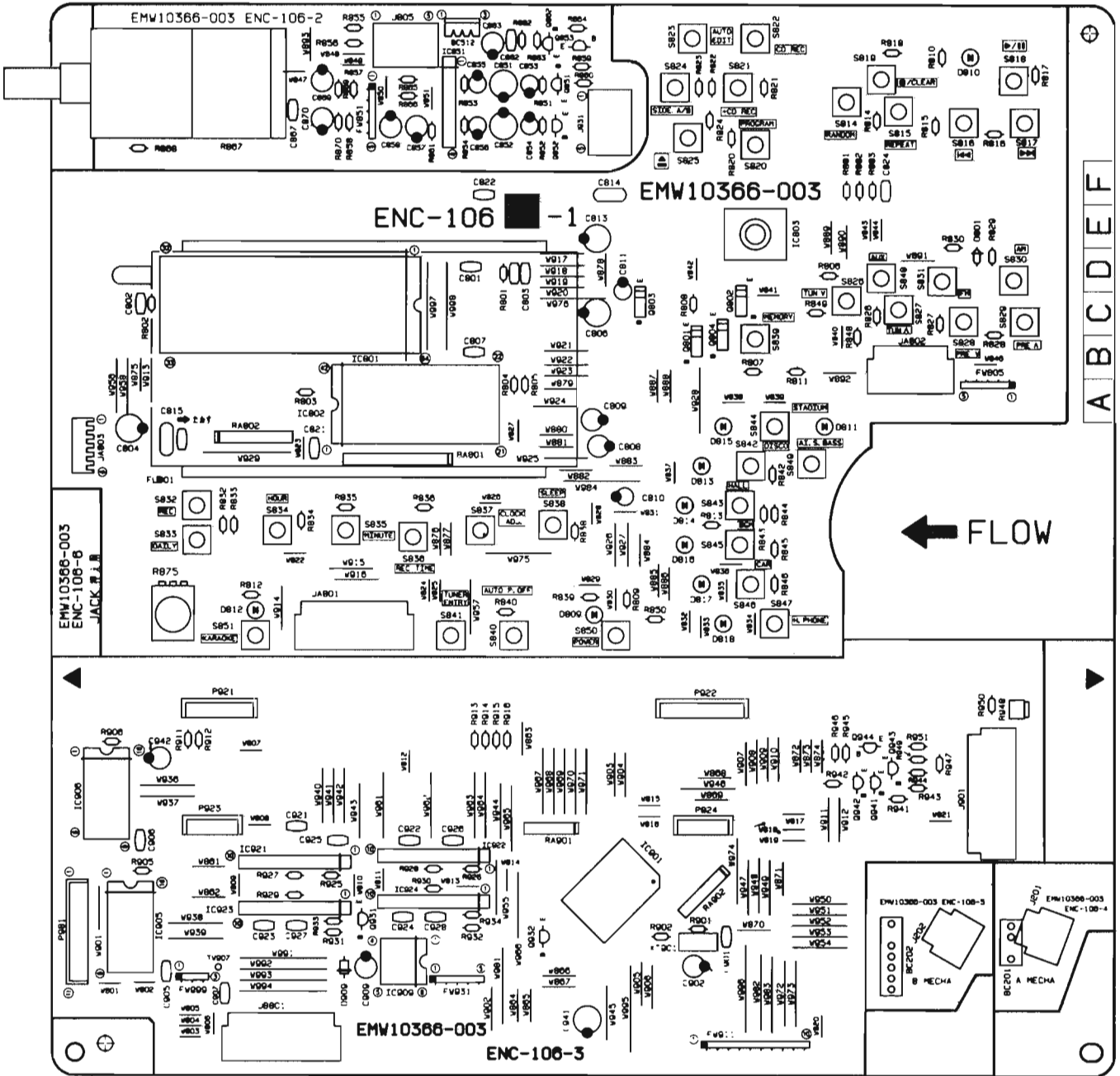
Δ : ISIA:PIETTY: IP:ARTIS

Others

Δ	ITEM	PART NUMBER	DESCRIPTION		AREA
	J451	EMN00TV-209A	PIN JACK		
	P601	EMV7144-015	F.P.C.PLUG(15PIN)		
	P602	EMV5109-006A	CONNECT TERMINAL(6PIN)		
	P603	EMV5109-005A	MALE CONNECTOR(5PIN)		
	P621	GP1F32T	OPTICAL JACK		U
	P701	EMV7155-013	CONNECT TERMINAL(13PIN)		
	S452	QSS2201-010	SLIDE SWITCH(INPUT SELECT)		
	S961	ESPO001-023M	TACT SWITCH(A◀◀)		U
	S962	ESPO001-023M	TACT SWITCH(A◀)		U
	S963	ESPO001-023M	TACT SWITCH(ASTOP)		U
	S964	ESPO001-023M	TACT SWITCH(A▶)		U
	S965	ESPO001-023M	TACT SWITCH(A▶▶)		U
	S966	ESPO001-023M	TACT SWITCH(B◀◀)		U
	S967	ESPO001-023M	TACT SWITCH(B◀)		U
	S968	ESPO001-023M	TACT SWITCH(BSTOP)		U
	S969	ESPO001-023M	TACT SWITCH(B▶)		U
	S970	ESPO001-023M	TACT SWITCH(B▶▶)		U
	S971	ESPO001-023M	TACT SWITCH(DOLBY B)		U
	S972	ESPO001-023M	TACT SWITCH(REV.MODE)		U
	S973	ESPO001-023M	TACT SWITCH(H.S.D.)		U
	S974	ESPO001-023M	TACT SWITCH(REC.P)		U
	BC981	EWS32B-A920	CONNECTOR WIRE ASSY(11PIN)		U
	FW621	EWR33B-OBLST	FLAT WIRE ASSY(3PIN)		U
	JA601	VMC0193-S06	CONNECT TERMINAL(6PIN)		U
	JA602	VMC0193-S10	CONNECT TERMINAL(10PIN)		U
	JT601	EMV7122-004	CONNECT TERMINAL(4PIN)		
	JT602	EMV7122-103	CONNECT TERMINAL(3PIN)		
	JT621	EMV7122-103	CONNECT TERMINAL(3PIN)		U
	TC781	ENZ1003-015	TRIMMER CAPACITOR		
	XT601	ECX0169-344EA	CRYSTAL		U
	XT781	ECX4194-304CF	CRYSTAL		

Δ : ISIA:PIETTY: IP:ARTIS

■ ENC-106 [B] Front, Controller & Tuner PC Board Ass'y



Transistors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q801	DTC144EFF	DIGITAL TRAROHM	
	Q802	DTC144EFF	DIGITAL TRAROHM	
	Q803	DTA114YFF	DIGITAL TRAROHM	
	Q804	DTC144EFF	DIGITAL TRAROHM	
	Q851	2SD2144S(VW)	SI. TRANSISTROHM	
	Q852	2SD2144S(VW)	SI. TRANSISTROHM	
	Q853	DTC144ES	DIGITAL TRAROHM	
	Q862	2SC3311A(Q,R)	SI. TRANSISTMATSHITA	
	Q931	DTC144ES	DIGITAL TRAROHM	
	Q932	DTC144ES	DIGITAL TRAROHM	
	Q941	2SC3311A(Q,R)	SI. TRANSISTMATSHITA	
	Q942	2SC3311A(Q,R)	SI. TRANSISTMATSHITA	
	Q943	2SA933S(R,S)	SI. TRANSIST	
	Q944	2SA933S(R,S)	SI. TRANSIST	

I.C.s

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC801	M66004SP	I.C.(M) MITSUBISHI	
	IC802	XR1095CP	I.C.(MONO-ANEXAR JAPAN	
	IC803	NJH32H380A	I.C.(M) DAINICHI	
	IC851	BA15218N	I.C.(MONO-ANROHM	
	IC901	HD404719A38FS	I.C.(MICRO-CHITACHI	U
	IC905	TC74HC595AP	I.C.(DIGI-MOTOSHIBA	
	IC906	TC74HC595AP	I.C.(DIGI-MOTOSHIBA	U
	IC909	LB1639-CV	I.C.(DIGI-OTSANYO	
	IC921	LB1641	I.C.(DIGI-OTSANYO	
	IC922	LB1641	I.C.(DIGI-OTSANYO	
	IC923	LB1641	I.C.(DIGI-OTSANYO	
	IC924	LB1641	I.C.(DIGI-OTSANYO	

Δ: HISA-FEITTY PARTS

Δ: HISA-FEITTY PARTS

**Diodes**

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D801	1SS119	SI.DIODE HITACHI	U
	D809	SLR-342MCA47	L.E.D. ROHM	U
	D810	SLR-342MCA47	L.E.D. ROHM	
	D811	SLR-342VC3F	L.E.D. ROHM	
	D812	SLR-342MCA47	L.E.D. ROHM	
	D813	SLR-342MCA47	L.E.D. ROHM	
	D814	SLR-342MCA47	L.E.D. ROHM	
	D815	SLR-342MCA47	L.E.D. ROHM	
	D816	SLR-342MCA47	L.E.D. ROHM	
	D817	SLR-342MCA47	L.E.D. ROHM	
	D818	SLR-342MCA47	L.E.D. ROHM	
	D909	1SR139-200	SI.DIODE ROHM	

Δ SAFETY PARTS

**Capacitors**

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C801	QER40JM-107	100MF 6.3V E.CAPACIT R	
	C802	QCB1HK-101	100PF 50V CER.CAPACI TO	
	C803	QCB1HK-561	560PF 50V CER.CAPACI TO	
	C804	QEK51EM-106	10MF 25V AL E.CAPAC IT U	
	C805	QEK51HM-106	10MF 50V AL E.CAPAC IT	
	C806	QEK51HM-106	10MF 50V AL E.CAPAC IT U	
	C807	QCXB1CM-152	1500PF 16V CER.CAPACI TO	
	C808	QEK51HM-225G	2.2MF 50V AL E.CAPAC IT	
	C809	QEK51HM-225G	2.2MF 50V AL E.CAPAC IT	
	C810	QER50JM-476	47MF 6.3V AL E.CAPAC IT U	
	C811	QER50JM-476	47MF 6.3V AL E.CAPAC IT U	
	C813	QER40JM-107	100MF 6.3V E.CAPACIT R U	
	C814	QC20205-155	1.5MF 25V C.CAPACIT R U	
	C815	QFV81HJ-104	0.1MF 50V THIN FILM CA U	
	C821	QCB1HK-101	100PF 50V CER.CAPACI TO U	
	C822	QCB1HK-101	100PF 50V CER.CAPACI TO U	
	C851	QER41CM-476	47MF 16V ELECTRO	
	C852	QER41CM-476	47MF 16V ELECTRO	
	C853	QER51HM-104GM	0.1MF 50V ELECTRO	
	C854	QER51HM-104GM	0.1MF 50V ELECTRO	
	C855	QER51HM-474G	0.47MF 50V AL E.CAPAC IT	
	C856	QER51HM-474G	0.47MF 50V AL E.CAPAC IT	
	C857	QER51EM-106	10MF 25V E.CAPACIT R	
	C858	QER51EM-106	10MF 25V E.CAPACIT R	
	C862	QCHB1EZ-223	0.022MF 25V CER.CAPACI TO	
	C863	QER51HM-475	4.7MF 50V AL E.CAPAC IT	
	C867	QCVB1CM-103	0.01MF 16V CER.CAPACI TO	
	C869	QER51HM-475	4.7MF 50V AL E.CAPAC IT	
	C870	QER51HM-475	4.7MF 50V AL E.CAPAC IT	
	C901	QCVB1CM-103	0.01MF 16V CER.CAPACI TO	
	C902	QET41AM-107	100MF 10V AL E.CAPAC IT	
	C905	QCB1HK-561	560PF 50V CER.CAPACI TO U	
	C907	QCVB1CM-103	0.01MF 16V CER.CAPACI TO U	
	C909	QET41AM-476	47MF 10V ELECTRO	
	C921	QCVB1CM-103	0.01MF 16V CER.CAPACI TO	
	C922	QCVB1CM-103	0.01MF 16V CER.CAPACI TO	
	C923	QCVB1CM-103	0.01MF 16V CER.CAPACI TO	
	C924	QCVB1CM-103	0.01MF 16V CER.CAPACI TO	
	C925	QCHB1EZ-223	0.022MF 25V CER.CAPACI TO	
	C926	QCHB1EZ-223	0.022MF 25V CER.CAPACI TO	
	C927	QCHB1EZ-223	0.022MF 25V CER.CAPACI TO	
	C928	QCHB1EZ-223	0.022MF 25V CER.CAPACI TO	
	C941	QET41CM-107	100MF 16V AL E.CAPAC IT	
	C942	QET41EM-106	10MF 25V AL E.CAPAC IT U	

Δ SAFETY PARTS

**Resistors**

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R801	QRD167J-822	8.2K 1/6W CARBON RES IS U	
	R802	QRD167J-273	27K 1/6W CARBON	
	R803	QRD167J-102	1K 1/6W CARBON RES IS	
	R804	QRD167J-105	1M 1/6W CARBON	
	R805	QRD167J-105	1M 1/6W CARBON	
	R806	QRD167J-154	150K 1/6W CARBON RES IS U	
	R807	QRD167J-222	2.2K 1/6W CARBON RES IS	
	R808	QRD167J-472	4.7K 1/6W CARBON RES IS	
	R809	QRD167J-331	330 1/6W CARBON	U
	R810	QRD167J-331	330 1/6W CARBON	U
	R811	QRD167J-331	330 1/6W CARBON	U
	R812	QRD167J-181	180 1/6W CARBON	U
	R813	QRD167J-241	240 1/6W CARBON RES IS U	
	R814	QRD167J-682	6.8K 1/6W CARBON RES IS	
	R815	QRD167J-222	2.2K 1/6W CARBON RES IS	
	R816	QRD167J-112	1.1K 1/6W CARBON	
	R817	QRD167J-681	680 1/6W CARBON	
	R818	QRD167J-431	430 1/6W CARBON RES IS	
	R820	QRD167J-682	6.8K 1/6W CARBON RES IS	
	R821	QRD167J-222	2.2K 1/6W CARBON RES IS	

Δ SAFETY PARTS

**Resistors**

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R822	QRD167J-112	1.1K 1/6W CARBON	
	R823	QRD167J-681	680 1/6W CARBON	
	R824	QRD167J-431	430 1/6W CARBON RES IS	
	R826	QRD167J-682	6.8K 1/6W CARBON RES IS	
	R827	QRD167J-222	2.2K 1/6W CARBON RES IS	
	R828	QRD167J-112	1.1K 1/6W CARBON	
	R829	QRD167J-681	680 1/6W CARBON	
	R830	QRD167J-431	430 1/6W CARBON RES IS	
	R832	QRD167J-682	6.8K 1/6W CARBON RES IS	
	R833	QRD167J-222	2.2K 1/6W CARBON RES IS	
	R834	QRD167J-112	1.1K 1/6W CARBON	
	R835	QRD167J-681	680 1/6W CARBON	
	R836	QRD167J-431	430 1/6W CARBON RES IS	
	R838	QRD167J-112	1.1K 1/6W CARBON	
	R839	QRD167J-681	680 1/6W CARBON	
	R840	QRD167J-431	430 1/6W CARBON RES IS	
	R842	QRD167J-682	6.8K 1/6W CARBON RES IS	
	R843	QRD167J-222	2.2K 1/6W CARBON RES IS	
	R844	QRD167J-112	1.1K 1/6W CARBON	
	R845	QRD167J-681	680 1/6W CARBON	
	R846	QRD167J-431	430 1/6W CARBON RES IS	
	R848	QRD167J-112	1.1K 1/6W CARBON	
	R849	QRD167J-681	680 1/6W CARBON	
	R850	QRD167J-431	430 1/6W CARBON RES IS	
	R851	QRD167J-274	270K 1/6W CARBON	
	R852	QRD167J-274	270K 1/6W CARBON	
	R853	QRD167J-511	510 1/6W CARBON RES IS	
	R854	QRD167J-511	510 1/6W CARBON RES IS	
	R855	QRD167J-682	6.8K 1/6W CARBON RES IS	
	R856	QRD167J-682	6.8K 1/6W CARBON RES IS	
	R857	QRD167J-203	20K 1/6W CARBON	
	R858	QRD167J-203	20K 1/6W CARBON	
	R859	QRD167J-103	10K 1/6W CARBON RES IS	
	R860	QRD167J-103	10K 1/6W CARBON RES IS	
	R861	QRD167J-472	4.7K 1/6W CARBON RES IS	
	R862	QRD167J-392	3.9K 1/6W CARBON RES IS U	
	R863	QRD167J-105	1M 1/6W CARBON	
	R864	QRD167J-222	2.2K 1/6W CARBON RES IS	
	R865	QRD167J-224	220K 1/6W CARBON RES IS	
	R866	QRD167J-224	220K 1/6W CARBON RES IS	
	R867	QVDB94B-E15C	100K VARIABLE	U
	R868	QRD167J-301	300 1/6W CARBON	U
	R869	QRD167J-472	4.7K 1/6W CARBON RES IS	
	R870	QVAA72B-E54B	50K VARIABLE R ES	
	R870	QRD167J-472	4.7K 1/6W CARBON RES IS	
	R875	QVAA72B-E54B	50K VARIABLE R ES U	
	R881	QRD167J-222	2.2K 1/6W CARBON RES IS	
	R882	QRD167J-222	2.2K 1/6W CARBON RES IS	
	R883	QRD167J-222	2.2K 1/6W CARBON RES IS	
	R901	QRD167J-105	1M 1/6W CARBON	
	R902	QRD167J-223	22K 1/6W CARBON RES IS	
	R905	QRD167J-103	10K 1/6W CARBON RES IS	
	R906	QRD167J-103	10K 1/6W CARBON RES IS U	
	R911	QRD167J-103	10K 1/6W CARBON RES IS	
	R912	QRD167J-332	3.3K 1/6W CARBON RES IS	
	R913	QRD167J-392	3.9K 1/6W CARBON RES IS	
	R914	QRD167J-242	2.4K 1/6W CARBON	
	R915	QRD167J-153	15K 1/6W CARBON RES IS	
	R916	QRD167J-562	5.6K 1/6W CARBON RES IS	
	R925	QRD167J-432	4.3K 1/6W CARBON	
	R926	QRD167J-432	4.3K 1/6W CARBON	
	R927	QRD167J-103	10K 1/6W CARBON RES IS	
	R928	QRD167J-103	10K 1/6W CARBON RES IS	
	R929	QRD167J-913	91K 1/6W CARBON RES IS U	
	R930	QRD167J-913	91K 1/6W CARBON RES IS U	
	R931	QRD167J-822	8.2K 1/6W CARBON RES IS U	
	R932	QRD167J-822	8.2K 1/6W CARBON RES IS U	
	R933	QRD167J-163	16K 1/6W CARBON	U
	R934	QRD167J-163	16K 1/6W CARBON	U
	R941	QRD167J-103	10K 1/6W CARBON RES IS	
	R942	QRD167J-103	10K 1/6W CARBON RES IS	
	R943	QRD167J-184	180K 1/6W CARBON	
	R944	QRD167J-224	220K 1/6W CARBON RES IS	
	R945	QRD167J-224	220K 1/6W CARBON RES IS	
	R946	QRD167J-224	220K 1/6W CARBON RES IS	
	R947	QRD167J-132	1.3K 1/6W CARBON	
	R948	QVPG401-103	10K VARIABLE R ES	
	R949	QRD167J-243	24K 1/6W CARBON RES IS	
	R950	QRD167J-133	13K 1/6W CARBON RES IS	
	R951	QRD167J-683	68K 1/6W CARBON RES IS	
	R953	QRD167J-103	10K 1/6W CARBON RES IS	
	R954	QRD167J-103	10K 1/6W CARBON RES IS	
	R955	QRD167J-103	10K 1/6W CARBON RES IS	
	R956	QRD167J-103	10K 1/6W CARBON RES IS	
	R957	QRD167J-103	10K 1/6W CARBON RES IS	
	RA801	QRB139J-104	100K 1/10W RESISTOR	
	RA802	QRB099J-104	100K 1/10W RESISTOR	
	RA901	QRB069J-103	10K 1/10W RESISTOR	
	RA902	QRB079J-222	2.2K 1/10W NETWORK RE SI	
	RA905	QRB089J-103	10K 1/10W NETWORK RE SI	

Δ SAFETY PARTS

Others

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	J201	EMV7155-106R	CONNECT TERMINAL (6PIN)	U
	J202	EMV7155-106R	CONNECT TERMINAL (6PIN)	U
	J805	VMC0107-R05	CONNECT TERMINAL (5PIN)	
	J931	VMC0107-R05	CONNECT TERMINAL (5PIN)	
	P921	VMC0234-P11	CONNECT TERMINAL (11PIN)	
	P922	VMC0234-P14	CONNECT TERMINAL (14PIN)	
	P923	VMC0234-P08	CONNECT TERMINAL (8PIN)	
	P924	VMC0234-P08	CONNECT TERMINAL (8PIN)	
	P981	EMV5142-911	CONNECT TERMINAL (11PIN)	
	S814	ESP0001-023M	TACT SWITCH (RANDOM)	
	S815	ESP0001-023M	TACT SWITCH (REPEAT)	
	S816	ESP0001-023M	TACT SWITCH (MUTE)	
	S817	ESP0001-023M	TACT SWITCH (MUTE)	
	S818	ESP0001-023M	TACT SWITCH (PLAY/PAUSE)	
	S819	ESP0001-023M	TACT SWITCH (STOP/CLEAR)	
	S820	ESP0001-023M	TACT SWITCH (PROGRAM)	
	S821	ESP0001-023M	TACT SWITCH (+CD REC)	
	S822	ESP0001-023M	TACT SWITCH (CD REC)	
	S823	ESP0001-023M	TACT SWITCH (JUST EDIT)	
	S824	ESP0001-023M	TACT SWITCH (SIDE A/B)	
	S825	ESP0001-023M	TACT SWITCH (EJECT)	
	S826	ESP0001-023M	TACT SWITCH (TUNING UP)	
	S827	ESP0001-023M	TACT SWITCH (TUNING DOWN)	
	S828	ESP0001-023M	TACT SWITCH (PRESET UP)	
	S829	ESP0001-023M	TACT SWITCH (PRESET DOWN)	
	S830	ESP0001-023M	TACT SWITCH (AM)	
	S831	ESP0001-023M	TACT SWITCH (FM)	
	S832	ESP0001-023M	TACT SWITCH (REC)	
	S833	ESP0001-023M	TACT SWITCH (DAILY)	
	S834	ESP0001-023M	TACT SWITCH (HOUR)	
	S835	ESP0001-023M	TACT SWITCH (MINUTE)	
	S836	ESP0001-023M	TACT SWITCH (RECYCLE)	
	S837	ESP0001-023M	TACT SWITCH (CLOCK)	
	S838	ESP0001-023M	TACT SWITCH (SLEEP)	
	S839	ESP0001-023M	TACT SWITCH (MEMORY)	

Δ SAFETY PARTS

Others

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	S840	ESP0001-023M	TACT SWITCH (AUTO P.OFF)	
	S841	ESP0001-023M	TACT SWITCH (TUNER ENTRY)	
	S842	ESP0001-023M	TACT SWITCH (DISCO)	
	S843	ESP0001-023M	TACT SWITCH (HALL)	
	S844	ESP0001-023M	TACT SWITCH (STADIUM)	
	S845	ESP0001-023M	TACT SWITCH (BGM)	
	S846	ESP0001-023M	TACT SWITCH (CAR)	
	S847	ESP0001-023M	TACT SWITCH (M. PHONE)	
	S848	ESP0001-023M	TACT SWITCH (AUX)	
	S849	ESP0001-023M	TACT SWITCH (A.S. BASS)	
	S850	ESP0001-023M	TACT SWITCH (POWER)	
	S851	ESP0001-023M	TACT SWITCH (KARAOKE)	
	BC201	EWS243-065J	SOCKET WIRE ASSY (3PIN)	U
	BC202	EWS247-012J	SOCKET WIRE ASSY (2PIN)	U
	BC512	EWS293-0120	SOCKET WIRE (3PIN)	
	FL801	ELU0001-160	FLUORESCENT DISPLAY TUBE	
	FW805	EWR35B-13LST	FLAT WIRE ASSY (5PIN)	
	FW851	EWR35B-16LST	FLAT WIRE ASSY (5PIN)	
	FW911	EWR3AB-13LST	FLAT WIRE ASSY (10PIN)	
	FW931	EWR35B-16LST	FLAT WIRE ASSY (5PIN)	
	FW999	EWR33B-10LST	FLAT WIRE ASSY (3PIN)	U
	JAB01	EMV7123-019R	CONNECTOR (19PIN)	
	JAB02	EMV7155-013R	CONNECT TERMINAL (13PIN)	
	JAB03	EMV7124-006	SOCKET (6PIN)	
	JB801	EMV7155-119R	CONNECT TERMINAL (19PIN)	
	JB901	EMV7155-021R	CONNECT TERMINAL (21PIN)	
	TW907	EWT011-078	TERMINAL WIRE ASSY (11PIN)	U
	XT901	ECX0004-194KM	CERAMIC RESONATOR	

Δ SAFETY PARTS

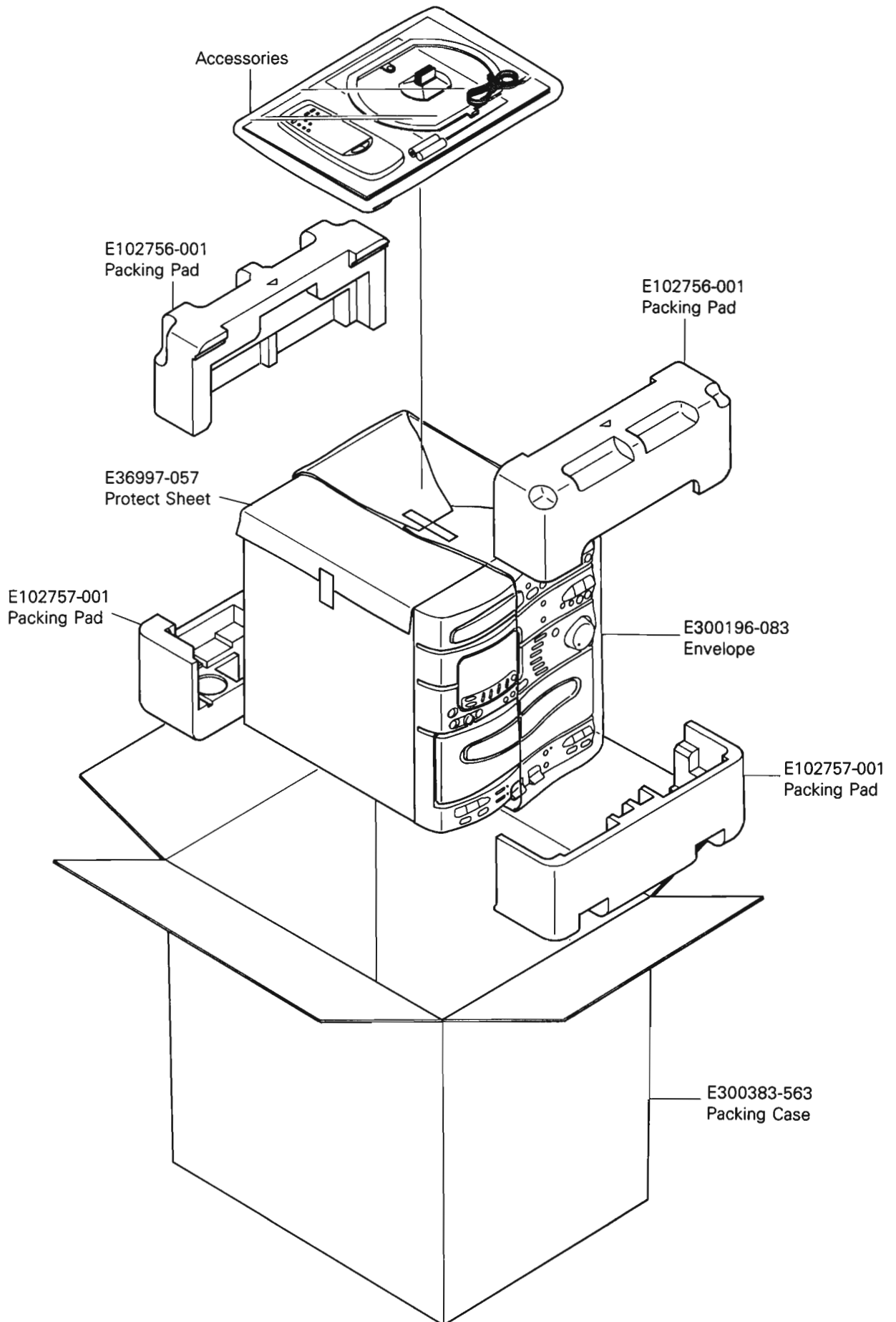
## Accessories List

Δ	Part Number	Part Name	Q'ty	Description	Areas
Δ	E30580-2037A	INSTRUCTION BOOK	1	220V	
	E04056	SIEMENS PLUG	1		
	E35497-019	CAUTION SHEET	1		
	EWP502-005K	BUILT-IN ANTENNA	1		
	RM-SEMXM10UJ	REMOTE CONTROLLER	1		
	UR64EC1351	BATTERY COVER	1		
	UM-4NJ-2PSA	BATTERY	1		
	EQB4001-018	LOOP ANTENNA	1		
	E308747-001	LOOP STAND	1		
	E43486-560	INST SHEET	1		
	E300196-010	ENVELOPE	1		

Δ SAFETY PARTS



# Packing Materials and Part Numbers



— MEMO —

— MEMO —

CA-MXM10BK

**JVC**

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AUDIO PRODUCTS DIVISION, 1644, Shimotsuruma, Yamato-shi, Kanagawa-ken, 242, JAPAN



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