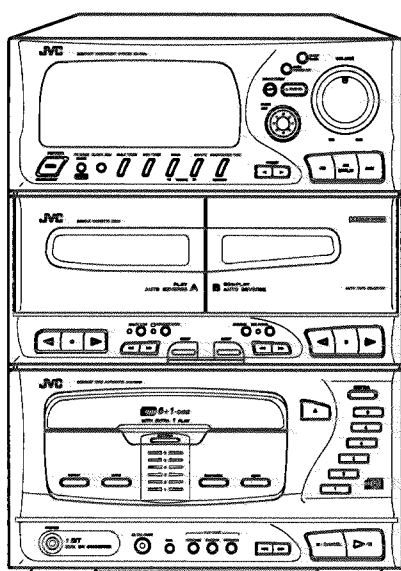
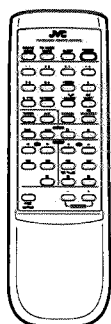


# JVC

## SERVICE MANUAL

### COMPACT COMPONENT SYSTEM

## CA-C330



|                                          |          |
|------------------------------------------|----------|
| Pick up                                  | OPTIMA-6 |
| CD SIGNAL PROCESSOR<br>with in 1 bit DAC | TC9284AF |
| CD SERVO                                 | TA8191F  |

#### Area Suffix

|    |       |                    |
|----|-------|--------------------|
| A  | ..... | Austraria          |
| BS | ..... | the U.K.           |
| C  | ..... | Canada             |
| EF | ..... | Continental Europe |
| EN | ..... | Scandinavia        |
| G  | ..... | Germany            |
| GI | ..... | Italy              |
| J  | ..... | U.S.A              |
| UT | ..... | Taiwan             |
| US | ..... | Singapore          |
| VX | ..... | Eastern Europe     |
| U  | ..... | Other Countries    |

**COMPACT**  
**disc**  
**DIGITAL AUDIO**

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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 authorised in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits.
2. Any unauthorised design alterations or additions will void the manufacturer's guarantee ; furthermore the manufacturer cannot accept responsibility for personal injury or property damage resulting therefrom.
3. Essential safety critical components are identified by ( $\triangle$ ) on the Parts List and by shading on the schematics ,and must never be replaced by parts other than those listed in the manual. Please note however that many electrical and mechanical parts in the product have special safety related characteristics . These characteristics are often not evident from visual inspection . Parts other than specified by the manufacturer may not have the same safety characteristics as the recommended replacement parts shown in the Parts List of the service manual and 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.

### **Warning**

1. Service should be performed by qualified personnel only.
2. This equipment has been designed and manufactured to meet international safety standards.
3. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
4. Repairs must be made in accordance with the relevant safety standards.
5. It is essential that safety critical components are replaced by approved parts.
6. 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.

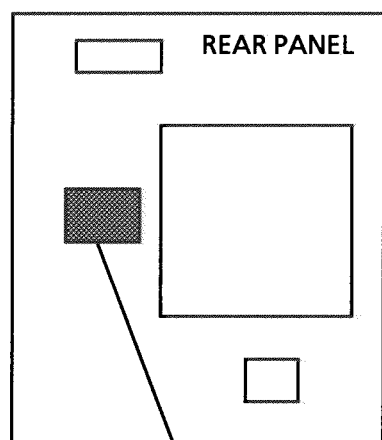
**VARNING** : Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

**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 åpning, når sikkerhetsbryteren er avslott. unngå utsettelse for stråling.

### REPRODUCTION AND POSITION OF LABELS



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

CLASS 1  
LASER PRODUCT

#### WARNING LABEL

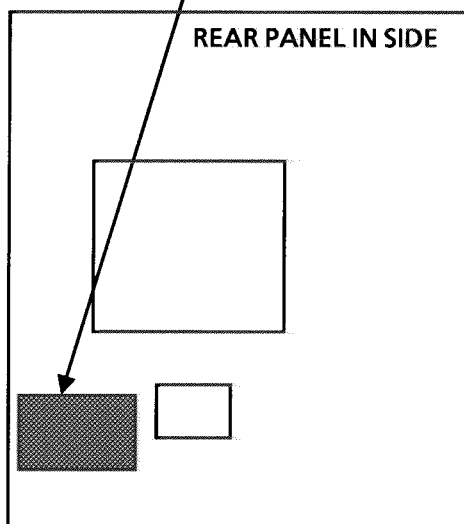
(Except for the U. S. A.)

**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)



**REAR PANEL IN SIDE**

# Instruction Book

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## IMPORTANT CAUTIONS

- Installation of the Unit**
  - Select a place which is level, dry and neither too hot nor too cold (Between 5°C and 35°C or 41°F - 95°F).
  - Leave sufficient distance between the Unit and a TV.
  - Do not use the Unit in a place subject to vibrations.
- Power cord**
  - Do not handle the power cord with wet hands!
  - A small amount of power (13 watts) is always consumed as long as the power cord is connected to the wall outlet.
  - When unplugging the Unit from the wall outlet, always pull the plug, not the power cord.
- 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.

Thank you for purchasing the JVC Compact Component Stereo System.

We hope it will be a valued addition to your home, giving you years of enjoyment.

Be sure to read this instruction manual carefully before operating your new stereo system.

Here you will find all the information you need to set up and use the system.

For questions that are not answered in the manual, please contact your dealer.

## Features

Here are some of the things that make your CA-C330 powerful and easy to use.

- To get such great sound from such a compact package the CA-C330 has:
  - Pre-programmed live surround effects like **B. CLUB** (Dance Club), **HALL**, **STADIUM** as well as S.E.A. effects like **ROCK**, **POPS**, and **CLASSIC** so you don't have to be a sound engineer to get great effects.
- The controls and operations have been redesigned to make them very easy to use so you can spend your time listening to music.
  - With the One Touch Operation feature of JVC's **COMPUPLAY** you can turn on the CA-C330 and start the radio, the cassette deck, or the CD player with a single touch.
  - The three timers, **REC (Recording) Timer**, **DAILY Timer**, and **SLEEP Timer** are extremely easy to set.
  - The Displays are large and clear. They are 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. They give you some important messages like "NO DISC", and some others.

## How This Manual Is Organized

In this manual we have incorporated some special features:

- 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 Using the Amplifier section.
- Name of buttons and controls are written in all capital letters like this: **POWER**.
- When we are talking about the Function, rather than the **BUTTON** or **DISPLAY**, only the first letter is capitalized.
- 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.

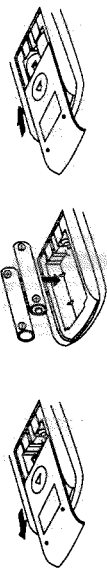
The manual has a table of contents to help you easily look up what you want to know.

We've enjoyed making this manual for you, and hope you will use it to enjoy the sound and many features built into your CA-C330.

## How To Put Batteries In the Remote Control

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

R6F (SUM-3)/AA (15F)



**CAUTION:** Handle batteries properly.

To avoid battery leakage or explosion:

- Remove batteries when the Remote Control will not be used for a long time.
- When you need to replace the batteries, replace both batteries at the same time with new ones.
- Don't use an old battery with a new one.
- Don't use different types of batteries together.



# Getting Started

Check to be sure you have all of the following things, which are supplied with the CA-C330.



If any are missing, contact your dealer immediately.

## Connecting the Speakers

(Please refer to instructions for speakers as well when you connect speakers.)

- For each speaker connect one end of the speaker wire to the speaker terminals on the back of the CA-C330 and one end to the speaker.
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-C330. Connect the red (+) and black (-) terminals of the left side speaker to the red (+) and black (-) terminals marked LEFT on the CA-C330.

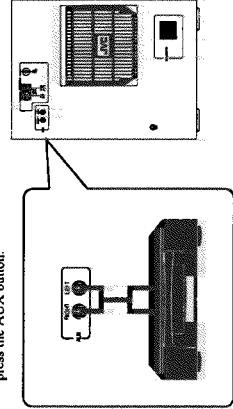
**IMPORTANT:** Use speakers with the correct impedance only. The correct impedance is indicated on the back panel.

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

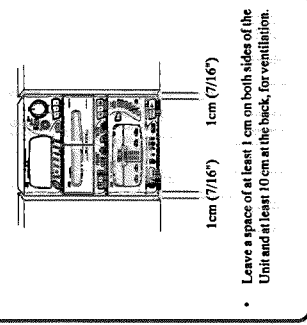
## Connecting Auxiliary Equipment

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

**VCR or other equipment**  
To listen to these sources, press the AUX button.



## Laying Out the Unit



- Leave a space of at least 1 cm on both sides of the Unit and at least 10 cm at the back, for ventilation.

## Connecting the FM And AM Antennas

### FM Antenna Connections

- For Germany**
- A. Using the Supplied Wire Antenna**
- The FM Wire Antenna provided can be connected to a FM 75-ohm COAXIAL as temporary measure.
  - Extend the supplied wire antenna horizontally.
- B. Using the Coaxial Type Connector (Not Supplied)**
- A 75-ohm antenna with coaxial type connector (DIN 45 332) should be connected to the FM 75-ohm COAXIAL terminal.
- For Other Countries**
- C. Using the Supplied Feeder Antenna**
- Attach the Feeder Antenna to the FM connector as shown in the figure.
  - Connect the FM connector to the FM 75-ohm COAXIAL terminal.
- D. Using an FM 75-Ohm Antenna Cable (Not Supplied)**
- Open the clamps at both sides and remove the cover.
  - Move the conductor wire from  $\Phi$  to  $\oplus$  using tweezers or a similar instrument (only when using coaxial cable).
  - Fix the coaxial cable and its core.
  - Put on the cover.
  - Connect the FM connector on the FM 75-ohm COAXIAL terminal.
- Note:** Make sure the antenna conductors do not touch any other terminals, connecting cords or the power cord in the system as this could cause poor reception.

**For Other Countries**

Unfold the loops of the supplied dipole FM Feeder Antenna and extend them as shown. Install them in the position and location which gives you the best FM reception.

If reception is poor, connect the outside antenna.

Before attaching a 75 ohm coaxial lead (the kind with a round wire going to an outside antenna), disconnect the supplied FM feeder antenna.

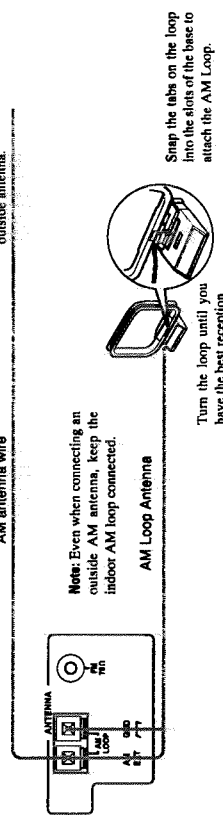
### How To Strip the 75-Ohm Coaxial Cable

1. Remove about 20 mm from the outside cover of the 75 ohm coaxial cable, exposing the metal mesh.
2. Pull the mesh back over the cable as shown.
3. Strip the insulation about 10 mm back from the central wire.
4. Attach to the supplied Antenna Adaptor, as shown in the diagram above.

**CAUTION:** To avoid noise, keep antennas away from metallic parts of the CA-C330, connecting cord and the AC power cord.

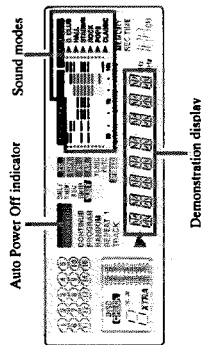
### AM (MW/LW) Antenna Connections

If reception is poor, connect the outside antenna.



Now you can plug the AC power cord into the wall outlet, and your CA-C330 is at your command!

## Display



When the CA-C330 is connected to an AC power outlet, after "DEMO" flashes in the display, the Demonstration Display comes on repeatedly. The Demonstration Display proceeds as follows until it is turned off, regardless of whether the power is on or off.



**To stop the Demonstration Display,** press the DEMO button (FM MODE/MUTE button) when the display is on. This will work whether the power is on or off.

The Demonstration Display will remain off until you press the DEMO button (FM MODE/MUTE button) again.

**To start the Demonstration Display again,** press the DEMO button (FM MODE/MUTE button) when the display is off. This will work whether the power is on or off.



**COMPUPLAY** is JVC's feature that lets you control the most used functions of the CA-C330 with a single touch. One Touch Operation starts playing a CD, turns on the Tuner, 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 specified. If you turn the Unit off, the Unit still powers on so you can put in a CD or tape.

The displays come on and the red indicator on the POWER button glows. If you were the Captain, you would now be ready to start the engine.

❑ The CA-330 comes on ready to do whatever it was last shut off. If the last thing you were doing was listening to a tape in Deck B, you are now ready to listen to a tape again in Deck B, or you can change to another source.

❑ If you were listening to the Tuner last, the Tuner comes on playing the station it was last set to.

☐ A little power (13 watts) is always consumed even though power is turned off (called Standby Mode).  
☐ 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 reset to 0:00 (AM 12:00 for Canada) right away, and preset Tuner stations will be erased after a few days.



Advantages of  
connecting optional  
equipment



## Listening To Optional Equipment

By playing the sound from auxiliary equipment through the CA-C330, you can gain control over how the music or program sounds. Once the connected equipment is playing through the CA-C330, you can apply the sound effects, make recordings, or listen with the headphones.

- First make sure that the optional equipment is properly connected to the CA-C330.

### 1. Set the VOLUME control to MIN.

Press the **AUX** button.

The Unit automatically turns on and "AUX" lights up on the display.

### 2. Start playing the selected equipment.

Adjust the VOLUME control to the desired listening level.

### 3. Select a sound effect mode, if you wish.

## To Cancel the Setting

Change the source by starting any one of the CA-C330's built-in sound sources, such as the Tuner or CD Player.

## Auto Power Off

When playing either a tape or a CD, Auto Power Off will shut the Unit off when the tape or CD comes to an end. Although Auto Power Off is very useful for shutting off the CA-C330 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 the day.

### To Use Auto Power Off

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

### To Cancel Auto Power Off

Press the **AUTO POWER OFF** button again so that the "AUTO POWER OFF" indicator disappears from the display.

### Important Information On Using Auto Power Off

- The end of CD musical performance varies depending on the play mode of the CD Player. If the play mode is "CONTINUE" or "RANDOM", when all tracks on the disc set in the CD player end, the power is automatically turned off. If the play mode is "PROGRAM", the power is automatically turned off when the last track you programmed ends.

### Repeat Mode ("REPEAT" indicator lights up on the display)

After all tracks on the disc set in the CD Player end, the power is automatically turned off.

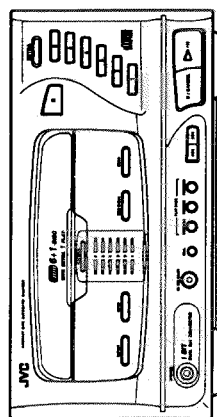
### Repeat 1 Mode ("REPEAT 1" indicator lights up on the display)

After the current track ends, the power is automatically turned off.

### □ If you press the AUTO POWER OFF button while the tape is playing:

- If Reverse Mode is off (the REVERSE MODE indicator is not lit), the Unit turns off when the current side finishes.
- If Reverse Mode is on (the REVERSE MODE indicator is lit), the Unit will turn off when the tape finishes playing in the < direction.

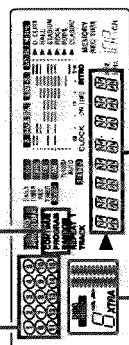
## Using the CD Player



### Display

All track numbers of the loaded CD

Play modes



Track number, playing time, step number

Disc display

The CD Player in the CA-C330 has an Automatic Changer function and Extra 1 Play function. The Automatic Changer function allows you to do Continuous, Random, Program or Repeat Play of the six CDs in the CD Player's holder. The Extra 1 Play function allows you to play a CD in the same way as a CD player with one tray, using the Extra Tray. With the Extra 1 Play function, you can play one disc without having to change the discs in the holder.

- To play discs using the Automatic Changer function, first remove the disc in the Extra Tray if one is inserted. You will not be able to select tracks on the six CDs in the holder if there is one in the Extra Tray.

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're talking about locating a track, we're also talking about how you find a certain song or performance.

### The Quickest Way To Start a CD Is With the One Touch Operation

- Press a Disc button (1 to 6) on the CD Player.
  - If one or more discs have been placed in the holder, when the power is turned on, the Unit will automatically play the disc whose Disc button (1-6) you have pressed. Play will start from the first track on the disc.
- When there is no disc in the selected tray, the disc tray will slide out automatically when the power is turned on.
- Press the > / M button (or the > button on the Remote Control) on the CD Player.
  - If one or more discs have been placed in the holder, when the power is turned on, the Unit will automatically begin playing the first track of the disc whose number is displayed.
  - If there is no disc in the holder, the disc tray will slide out automatically when the power is turned on.

## To Insert Discs

### When the CD Player is Used For the First Time

Before inserting a disc, press Disc button 1. The Unit will check that no disc is inserted in the holder in each position from 1 to 6, and turn off each Disc indicator in turn.

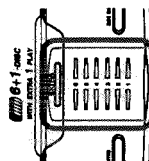
### To Insert Discs Into the Holder

1. Press the Disc button (1-6) for the disc to insert.
  - The disc tray slides out automatically.
2. Put a CD, with its label side up, into the tray.
3. Press the > button to close the tray.
4. Repeat steps 1 to 3 to insert other discs into the holder.
  - Up to 6 discs may be inserted.
  - To play an inserted disc quickly, instead of pressing the > button, press the > / M button, or the Disc button (1-6) of the inserted disc. The tray will close automatically, and the disc will begin playing.

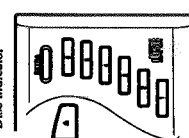
### To Insert a Disc Into the Extra Tray

1. Press the **EXTRA** button.
  - The Extra Tray slides out.
2. Put a CD, with its label side up, into the tray.
3. Press the > button to close the tray.
  - To play an inserted disc quickly, instead of pressing the > button, press the > / M button, or the **EXTRA** button. The tray will close automatically, and the disc will begin playing.

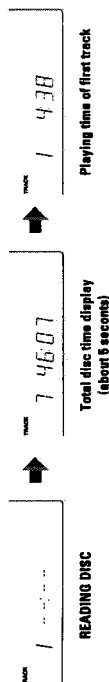
- 8 cm CDs cannot be placed in the holder. Place 8 cm CDs in the Extra Tray to play them, fitting them into the center groove.



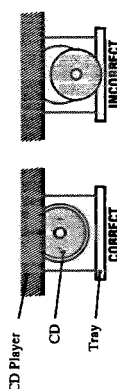
Disc indicator



When a disc is inserted, the display changes as follows:



**ATTENTION:** To avoid malfunctions when you play a CD, please set the CD in the right place at the center of the tray.



## Basics of Using the CD Player

Using the Automatic Changer function, you can do Continuous, Random, Program or Repeat Play of the discs in the holder. You can also choose preset names for the six discs using the Memo function.

☐ You can do Normal, Random, Program or Repeat Play of the disc in the Extra Tray.

☐ You cannot choose tracks from the discs in the holder when there is a disc in the Extra Tray. In this case, if a Disc button (1-6) is pressed, "PLEASE" and "TAKE" are displayed and the Extra Tray slides out automatically.

To select tracks on discs in the holder, you must remove the disc in the Extra Tray.

### To Play a Disc

The discs in the holder for which Disc indicators are lit play continuously, beginning with the selected disc, and moving toward disc 6.

When you do normal playback of the disc in the Extra Tray, the disc starts playing from the first track.

### To Play Discs in the Holder

1. Prepare the discs.
2. Check that "CONTINUE" appears in the display.
  - When using the Remote Control, press the CD CHANGER button and then press the PLAY MODE button repeatedly until "CONTINUE" appears in the display.
3. Press the Disc button (1-6) of the disc to play.
  - The first track of the selected disc will begin playing.
  - The Disc No. of the selected disc will appear in the display and the Disc indicator of the disc playing will flash.
  - When the selected disc finishes playing, the next disc will begin playing automatically.
  - When the last disc has finished playing, the Unit will stop automatically.
- ☐ When selecting the disc to play first, be sure to choose one which has a Disc No. lit in the Disc indicator. If you choose a disc whose Disc No. is unlit, "OPEN" will be appear in the display, and the tray will slide out automatically.

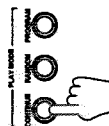
To play discs continuously, beginning with the first track of the disc in the Disc display, you do not need to press a Disc button (1-6), just press the  $\triangleright/\text{II}$  button.

### To Play a Disc in the Extra Tray

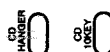
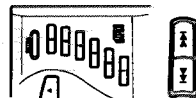
1. Insert a disc into the Extra Tray.
2. Press the  $\triangleright/\text{II}$  button or the EXTRA button.
  - When the disc in the Extra Tray finishes playing, the Unit stops automatically.

To stop the CD, press the  $\blacksquare/\text{CANCEL}$  button (or the  $\blacksquare$  button on the Remote Control).

To pause, press the  $\triangleright/\text{II}$  button while the CD is playing. The  $\blacktriangleright$  display is flash. To cancel pause (resume playing), press the  $\triangleright/\text{II}$  button again.



### How to find a track



### Searching the contents of CDs



### To Remove a Disc From the Holder

1. Press the Disc button (1-6) of the disc which you want to remove.
2. The tray with the selected disc slides out.
3. Press the  $\blacktriangle$  button to close the tray.

### To Remove a Disc From the Extra Tray

Press the  $\blacktriangle$  button.

The tray slides out.

Alternatively, you can press any of the Disc buttons (1 to 6). "PLEASE" and "TAKE" appear in the display, and the tray slides out.

### To Select a Disc, Track Or Passage Within a Track

- Using the Unit
1. If the disc with the track you want is not playing, enter the number of the disc you want using the Disc buttons (1 to 6) on the far right of the CD Player.
    - ☐ Example: for the third disc, press 3.
  2. Select the number of the track you want using the  $\blacktriangleleft$  or  $\blacktriangleright$  button.
    - The selected track starts playing.
    - ☐ Each time you briefly press and release the  $\blacktriangleleft$  or  $\blacktriangleright$  button, the track changes by one.
    - Press and release the  $\blacktriangleleft$  button to go ahead one track at a time.
    - Press and release the  $\blacktriangleright$  button to go back one track at a time.
    - ☐ Holding down the  $\blacktriangleleft$  or  $\blacktriangleright$  button will fast forward or fast reverse the CD so you can quickly find a particular passage in the selection you are listening to.

### Using the Remote Control

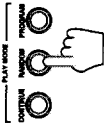
1. If the disc with the track you want is not playing, first press the CD CHANGER button, then enter the number of the disc you want, using the numeric keys (1 to 6).
  - ☐ Example: for the third disc, press 3.
2. Press the CD 10KEY button.
  - The selected track starts playing.
  - ☐ Example: for track 5, press 5. For track 15, press +10 then 5. For track 20, press +10, then 10.
  - ☐ You can also use the  $\blacktriangleleft$  or  $\blacktriangleright$  button to change tracks. However, you cannot fast forward or fast reverse to locate a particular passage using the Remote Control.

## Intro Scan

You can use the Intro Scan function to search for a desired track.

1. Make sure that the CD is not playing and that "CONTINUE" appears on the display.
    - If not, stop the CD Player and press the CONTINUE button on the Unit.
    - When using the Remote Control, press the CD CHANGER button, then press the PLAY MODE button until the display reads "CONTINUE".
  2. Press the Disc button (1-6) of the disc on which you want to begin Intro Scan.
  3. Press the  $\blacksquare/\text{CANCEL}$  button.
  4. Press the INTRO button on the Unit. (When using the Remote Control, press the CD CHANGER button and then the INTRO button.)
    - "INTRO" appears in the display.
  5. Press the  $\triangleright/\text{II}$  button.
    - Beginning with the first track on the selected disc, the first 15 seconds of each track is played continuously, one after another.
    - The Unit stops automatically after the first 15 seconds of the last track on the last disc has been played.
  6. Press the  $\blacktriangleleft$  button (or the  $\blacktriangleleft$  button on the Remote Control) when the desired track is reached.
    - Intro Scan is canceled and normal playback starts from the selected track.
    - ☐ If you press the following buttons instead of the  $\blacktriangleleft$  button (or the  $\blacktriangleleft$  button on the Remote Control), Intro Scan is also canceled, and:
      - If you press the  $\blacktriangleright$  button (or the  $\blacktriangleright$  button on the Remote Control): Continuous Play starts from the next track.
      - Disc buttons (1 to 6): Continuous Play starts from the first track of the selected disc.
      - To specify a track using the Remote Control, press the CD 10KEY button and then the numeric keys (1 to +10).
    - To enter a desired track number: Continuous Play starts from the selected track.
- To do an Intro Scan of the disc in the Extra Tray, press the INTRO button, then the  $\triangleright/\text{II}$  button. Intro Scan will begin on the tracks of the disc in the Extra Tray.
- To stop playing, press the  $\blacksquare/\text{CANCEL}$  button (or the  $\blacksquare$  button on the Remote Control).
- To exit Intro Scan Mode, press the INTRO button. "INTRO" will disappear from the display.

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 mode.

#### To Do Random Play of the Discs in the Holder

1. Press the Disc button (1-8) of a disc which has a **LIGHTED Disc Indicator number**.  
When 1 through 5 is displayed in the DISC display go to step 3.
  - When there is a disc in the Extra Tray, "PLEASE" and "TAKE" are displayed and the Extra Tray slides out. Remove this disc before doing other operations.
2. Press the **REPEAT** button.
3. Press the **RANDOM** button on the Unit.  
"RANDOM" will appear in the display.  
When using the Remote Control, press the CD CHANGER button and then press the PLAY MODE button repeatedly until "RANDOM" appears in the display.
4. Press the **STOP** button.  
Random Play begins.  
When all of the tracks have been played, the CD Player stops.

#### To Do Random Play of a Disc in the Extra Tray

1. Before inserting a CD, press the **RANDOM** button on the Unit.  
"RANDOM" will appear in the display.
  2. Press the **STOP** button.  
Random Play of the tracks on the disc in the Extra Tray begins.  
The CD Player stops automatically when all the tracks of the disc have been played.
- Note:** Random play is done on up to 32 tracks for each disc in the holder. If there are more than 32 tracks on a disc, the tracks after track 32 are not played.  
Random play is done on all tracks of the disc in the Extra Tray.
- To stop playing:** press the **REPEAT** button (or the **STOP** button on the Remote Control).  
**To exit Random Mode:** press the **REPEAT** button.  
When using the Remote Control, press the CD CHANGER button, then press the PLAY MODE button repeatedly until "CONTINUE" appears in the display. (The Unit must be in Stop Mode.)

- When Random Play finishes, press the **CONTINUE** button. You cannot select a disc while "RANDOM" is lit in the display.

### How to program

#### Program Play

You can change the order in which the discs and tracks play, and select only the discs and tracks you want from among those loaded in the holder.

- You can do Program Play using either the Unit or the Remote Control, or a combination of both.
- You can program up to 20 steps in any desired order from among the discs in the player.

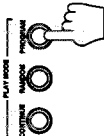
#### Programming Procedure

You can only make or change a program when the CD Player is stopped.

#### Programming Discs in the Holder

##### Using the Unit

1. Press the **PROGRAM** button.  
"PROGRAM" appears in the display.  
**Note:** Wait until the display has finished showing the total time before pressing the **PROGRAM** button, or "PROGRAM" will not light up.
2. Select a disc with the disc buttons (1 to 8).
3. To select individual tracks from the selected disc, press the **REPEAT** or **STOP** button.
4. Press the **PROGRAM** button.
5. Repeat steps 2 - 4 until you have entered all the tracks you want to program.
6. Press the **STOP** button.  
The Unit plays the tracks in the order you have programmed them.



#### Using the Remote Control

1. Press the CD CHANGER button.
  2. Press the **PLAY MODE** button repeatedly until "PROGRAM" appears on the display.
  3. Select a disc with the numeric keys (1 to 8).
  4. To select individual tracks from the selected disc enter each number by pressing the CD 10 KEY button and using the numeric keys (1 to 10 and +10).
    - Example: for track 5, press 5. For track 15, press +10 and 5. For track 20, press +10 and 10.
  - You can also use the **REPEAT** or **STOP** button to select tracks. If you use the **REPEAT** or **STOP** button to select tracks, press the **PROGRAM** button on the CD player after selecting the desired tracks.
  5. Repeat steps 1 and 3-4 until you have entered all the tracks you want to program.
  6. Press the **STOP** button.  
The Unit plays the tracks in the order you have programmed them.
  - If there is a disc in the Extra Tray, you cannot select discs in the holder. Before programming, remove the disc in the Extra Tray, if one has been inserted.
- To Program a Disc in the Extra Tray**  
When the disc in the Extra Tray is programmed, the program total time is displayed. You can take advantage of this feature to match the program time to the recording time on a tape, for example.

#### Using the Unit

1. Press the **PROGRAM** button.  
"PROGRAM" appears in the display.
2. Press the **REPEAT** or **STOP** button to choose a track.
3. Press the **PROGRAM** button.
4. Repeat steps 2 - 3 until you have entered all the tracks you want to program.
5. Press the **STOP** button.  
The Unit plays the tracks in the order you have programmed them.

#### Using the Remote Control

1. Press the CD CHANGER button.
2. Press the **PLAY MODE** button repeatedly until "PROGRAM" appears on the display.
3. Press the CD 10 KEY button, and then use the numeric keys (1 to 10 and +10) to choose a track.
  - Example: for track 5, press 5. For track 15, press +10 and 5. For track 20, press +10 and 10.
- You can also use the **REPEAT** or **STOP** button to select tracks. If you use the **REPEAT** or **STOP** button to select tracks, press the **PROGRAM** button on the CD Player after selecting the desired tracks.
4. Using the numeric keys (1 to 10 and +10), enter the track numbers of all the tracks to be programmed.
5. Press the **STOP** button.  
The Unit plays the tracks in the order you have programmed them.

**To stop playing:** press the **REPEAT** button (or the **STOP** button on the Remote Control) once.

**To delete the program and exit Program Mode:** press the **REPEAT** button on the Unit repeatedly until all the program steps are deleted, and then press the **CONTINUE** button.

- You can skip to a particular program step by pressing the **REPEAT** or **STOP** button (or the **REPEAT** or **STOP** button on the Remote Control) during program play.
- To play the programmed tracks over and over, press the **REPEAT** button on the Unit. "REPEAT" lights up on the display.  
When using the Remote Control, press the CD CHANGER button, then the **REPEAT** button.

**Note:** Pressing the **STOP** button sets the Play Mode to **CONTINUE**.

### A Few Hints to Make Programming Easier

**To Check the Program Contents (The Unit Must Be in Stop Mode)**

- Each time you press the **CALL** button on the Unit, the program contents are shown on the display in the programmed order.

#### To Change the Program Contents

- Press the **CALL** button on the Unit until the display shows the program step to correct. Enter the new disc number and/or track number, which will replace the one originally showing.
- To delete a program step, press the **CALL** button until the display shows the program step to delete, then press the **REPEAT** button.
- You can use both of these ways to change program steps during programming as well as later.

How to repeat a selection or all the CDs



## Repeating a Selection Or the Discs

You can have all the discs, the program or the individual selection currently playing repeat as many times as you like.

Press the **REPEAT** button on the CD Player.  
When using the Remote Control, press the **CD CHANGER** button, then the **REPEAT** button.  
Each time you press the **REPEAT** button, it cycles from function-off, which turns "REPEAT" off on the display, to "REPEAT" which will repeat all the tracks in order or according to the program you have set, and then to "REPEAT 1" which will repeat the currently playing track.

If there is no disc in the Extra Tray, Repeat Play is done of the discs in the holder (discs 1 to 6).  
If there is a disc in the Extra Tray, Repeat Play is done of that disc.

To exit Repeat Mode, press the **REPEAT** button so that neither "REPEAT" nor "REPEAT 1" appear on the display.  
Press the **REPEAT** button before or during Random Play to instruct the CA-C330 to continue with a different random track selection after the last selection of the last disc is played.

## Naming Discs

You can give genre names to discs in the holder, to help easily identify them.

1. Press the **Disc** button (1-4) of the disc you want to name.  
The disc will begin playing.
2. Press the **MEMO** button to choose a name.  
Each time you press the **MEMO** button, the names cycle as follows:  
**DISC** (disc number) → **BLUES** → **CLASSIC** → **HOUSE** → **JAZZ** → **OLDIES** → **POPS** → **RAP** → **ROCK** → **SOUL** → (back to the beginning)

Repeat steps 1 and 2 to name other discs in the holder.

- If none of the names apply to a particular disc, use a disc number.
- A selected disc name will not change until the disc is removed or renamed.

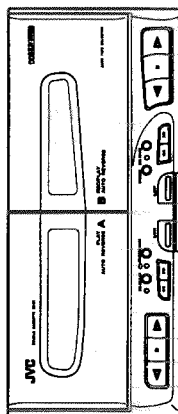
Note: You cannot name the disc in the Extra Tray.

To check the name of a disc, press the **DISC CHECK** button.

The "CHECK" indicator flashes, and the names given to discs 1 to 6 will appear for 2 seconds each.



## Using the Cassette Deck



## Listening To a Tape

The Cassette Deck allows you to play, record and dub audio tapes.

- Most tapes are now recorded with the Dolby NR system, so first check which type of the Dolby NR system has been used on the tape. Only Dolby B NR is incorporated into the CA-C330.
- With Automatic Tape Detection, you can listen to type I or II tapes without changing any settings.

### One Touch Play

By pressing either the **▶▶** or **◀◀** button (or the **◀▶** button on the Remote Control) on either Deck A or B, the Unit 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 you to insert a tape, or select another function.

## Regular Play

When the power is already on, you can use this basic procedure:

1. Press the **EJECT** button 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-C330.
- If the cassette carrier does not open, turn the Unit off, then back on and press the **EJECT** button again.
3. Close the carrier gently.
4. Press the **▶▶** button to play the front side, or the **◀◀** button to play the reverse side. The arrow indicator on the pressed button flashes and the tape starts playing.

To stop playing, press the **■** button.

To remove the tape, press the **EJECT** button.

### Fast Left And Fast Right

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

## 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.

Warning: If you use Music Scan on Deck A while recording on Deck B, recording will stop.

### To Find the Beginning of the Current Song

- Press the **◀◀** or **▶▶** button during play.
- Make sure that you press the **◀◀** or **▶▶** button in the opposite direction to that in which the tape is playing. Searching stops at the beginning of the current song, and the current song starts automatically.

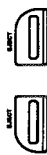
### To Find the Beginning of the Next Song

- Press the **◀◀** or **▶▶** button during play.
- Make sure that you press the **◀◀** or **▶▶** button in the same direction as that in which the tape is playing. Searching stops at the beginning of the next song, and the next song starts automatically.

Finding the place you want:  
Music Scan

Scanning backwards

Scanning forwards



## Standard Recording

This is the basic method for recording any source. The CA-C330 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 described below; just substitute the source you want into this procedure, such as a tape in Deck A, a CD, or the Tuner. You can also record from an auxiliary source with this procedure.

### 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 reusable tape into Deck B.
2. Press the REC PAUSE button.
3. Press the REVERSE MODE button if you want to record on both sides of the tape.
4. Prepare the source, for example, tuning in a radio station, loading CDs, or turning on connected equipment.
5. On Deck B, press either the ▷ button to record on the front side, or the ◁ button to record on the reverse side.

### To Pause At Any Time During the Recording Process

Press the REC PAUSE button again. Then press either the ▷ or ◁ button on Deck B to restart recording.

### To Stop At Any Time During the Recording Process

Press the ■ button on Deck B.

**CAUTION:** During recording, DO NOT change the source or change discs. Otherwise, recording will be interrupted.

## 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.

1. **Prepare CDs.** (See page 8.)  
When recording from a disc in the holder, first select the disc by pressing the Disc button (1-6) of the disc to record from, then the ■/CANCEL button.
2. **Set the Sound Effect Mode if you want.**
3. **Insert a cassette in Deck B to record on.**  
If you want to record on both sides of the tape, press the REVERSE MODE button on the Cassette Deck so that the REVERSE MODE indicator lights up.
4. **Press the CD REC START button on the CD Player.**  
The Unit plays the CD and starts recording.

At the end of the tape, the CA-C330 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, the reverse side starts with the last selection on the front side and will be faded out at the end again. (A 10 second blank is created at the beginning of the reverse side.)

When the tape is finished, the Unit stops the CD Player and the Cassette Deck.

### To Stop At Any Time During the Recording Process

Press the ■ button on Deck B.

**Note:** When the Auto Power Off function is turned on while recording a CD, the power will automatically turn OFF when either the CD or tape finishes. Be careful when the Auto Power Off function is turned on while recording a CD in Repeat Mode, as repeat will be canceled and the power will automatically turn OFF with Repeat Mode ("REPEAT" or "REPEAT 1"). (Page 7)

### Notes on Recording Process Started by the CD REC START button:

When the CD playback ends or you end it midway, a 4-second blank portion is allocated on the tape automatically and then the tape stops.

Do not perform any operation until the tape stops completely. If you press any button before the tape stops, further operation may be disabled. In this case, press the POWER button to turn the power off, and then press it again to turn the power back on.

For CD Direct Recording using more than one disc, use a blank tape. If you use a pre-recorded tape, pre-recorded sound may not be erased between newly-recorded tracks.

Standard recording:  
any source to tape

Source to tape:  
step by step



CD Direct Recording:  
step by step



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 as 4-second long blanks. If this happens, just scan again until you reach the selection you want.

## Other Useful Features of the Cassette Deck

- ☐ **Use Reverse Mode** to make the tape automatically reverse at the end of a side and start playing the other side. Press the REVERSE MODE button to change from Reverse Mode on (when the indicator is lit) to Reverse Mode off, or from off to on.
- ☐ **Continuous Play:** With the Reverse Mode indicator on, when a tape finishes playing, the Unit always checks to see if a tape is in the other deck. If there is, it automatically starts playing. This Continuous Play function works regardless of which deck starts first.
- ☐ Press the DOLBY B NR button to switch Dolby B Noise Reduction on (the indicator lights up) or off (the indicator goes off). If a tape is recorded with the Dolby B NR system, 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.

## Recording

Recording onto a cassette from any of the sound sources is simple. Just place a tape in Deck B, have the source ready, make one or two settings, and you're ready to record. For each source the procedure is a little different and now we'll explain just what to do for each one. If you forget, just come back to the section which has the specific procedures you need. But first, here are a few things to make your recordings better.

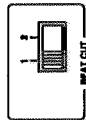
### Things To Know Before You Start Recording

- ☐ **It may be unlawful to record or play back copyrighted material without the consent of the copyright owner.**
- ☐ Press the DOLBY B NR button — 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 combines the same processing as the source tape.
- ☐ 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-C330. Thus, during recording you can adjust the sound you are actually listening to without affecting the recording level.
- ☐ 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.
- ☐ When recording, you can use the Sound Effect Modes to condition the music as it is recorded. But when recording using CD Direct, once recording has started, these settings cannot be changed.
- ☐ Type I and Type II tapes can be used for recording.

**CAUTION:** If recording you have made 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-C330.

### Except for Canada

If you are recording an AM (MW/LW) broadcast and you hear interference, move BEAT CUT switch on the back panel from position 1 (the normal mode) to position 2.



More useful things to know:

- Reverse Mode
- Continuous Play



- Dolby NR



What can you record?

- Tapes
- Radio
- CDs
- Connected source

Copyright

Reduce hiss —  
Dolby NR

Recording level

Erase protection

Recording sound  
mode

Usable tape type

## Tape To Tape Recording (Dubbing)

Recording from one tape to another is called dubbing. You can dub tapes simply, with just a single button.

- To dub both sides of a tape, start from side A for both Deck A and Deck B, and press the REVERSE MODE button so that the REVERSE MODE indicator lights up.
- It is preferable that the type of tape (Type I or Type II) you record from be the same as the type you record onto.

### How To Use the DUBBING Button

- Insert the source cassette you want to copy from into Deck A for playback.
  - Set the DOLBY NR mode to NR.
  - Set the DUBBING button.
  - Deck A and Deck B will start simultaneously.
  - To stop:
    - Press the button on Deck A. Recording on Deck B can be paused by Rec Mute.
    - Press the button on Deck B. Deck A and Deck B will stop simultaneously.
- 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 With the Timer

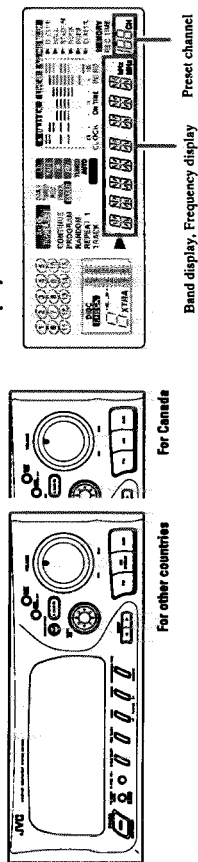
The Cassette Deck can be set to record a tape automatically. This is especially useful for recording broadcasts when you are not at home, or late at night when you are asleep.

- Insert a cassette for recording into Deck B.
- Set the REC Timer, by following the steps in "Setting the REC (Recording) Timer" (Page 20).



## Using the Tuner

Display



## Listening To the Radio

You can listen to both FM and AM (MW/LW) stations. Stations can be tuned in manually, automatically, or from preset memory storage.

- Before listening to the radio:
  - Check that both the FM and AM (MW/LW) antennas are firmly connected.

### One Touch Radio

Just press the FM button to turn on the Unit and start playing the most recent FM station tuned in, or press the AM (MW/LW) button to listen to the most recent AM (MW/LW) station tuned in.

- You can switch from any other sound source to the radio by pressing either the FM or AM (MW/LW) button.

## Tuning In a Station

Press the FM or AM (MW/LW) button to turn on the radio. The display shows the station frequency tuned in.

### Three ways to select a station

- Press the TUNING < or > button repeatedly to move from frequency to frequency until you find the one you want.
  - OR
  - Hold down the TUNING < or > button, 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
  - (Possible only after presetting stations.) Press once and release the PRESET < or > button to go to the next preset station, or hold the PRESET < or > button to cycle through the preset stations; release the button when the preset station you want shows on the display.
- You can also use the Remote Control to tune in preset channels:
- Press the TUNER button so that you can receive the most recent station tuned in.
  - Select the station by entering the preset number in the numeric keys of the Remote Control.

### Presetting Stations

You can store up to 40 of your favorite radio stations (FM and AM (MW/LW)) in memory, giving you quick, easy access to the stations.

- Select a band by pressing either the FM or AM (MW/LW) button.
- Press the TUNING < or > button to tune in a station.
- Press the MEMORY button on the Tuner. On the display, "MEMORY" will blink for 5 seconds.
  - During these 5 seconds while "MEMORY" is blinking, you can assign a channel number to the station and enter it into the memory.
- Select a channel number by pressing the PRESET < or > button until you find the channel number you want.
- Press the MEMORY button 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, this will be erased and the newly selected station will be stored.
  - If "MEMORY" in the display goes off, start again from step 3.
- Repeat steps 1 - 5 for each station you want to store in memory with a preset number.

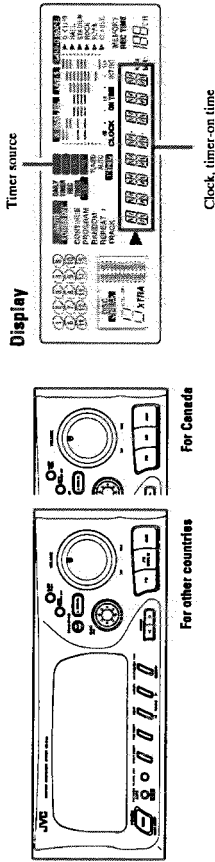
**Caution:** If the Unit is unplugged or if a power failure occurs, the preset stations stored in memory may be lost.

### How to preset FM and AM radio stations





## Using the Timers



**Three Timers:**

- REC Timer
- DAILY Timer
- SLEEP Timer

The timers let you control recording and listening functions automatically.

- Three types of timers are available:
- ☐ **REC (Recording) Timer** — Unattended recording of radio broadcasts. You can set the starting time and length of the recording.
  - ☐ **DAILY Timer** — Wake up to music from any source.
  - ☐ **SLEEP Timer** — Fall asleep and have your CA-C330 turn off automatically after a certain length of time.

## Clock Setting

The timers depend on the clock; the clock must be right for the timers to work as you expect. Note that the clock must be set, or the timers cannot be set.

### Setting the Clock

1. Press the **CLOCK ADJ.** button.
2. Set the hour by pressing the **HOURLY** button. Each time you press the button, the hour advances by one. Hold the button down, and the hour displayed will advance continuously, until you release the button.
3. Set the minutes by pressing the **MINUTE** button. Each time you press the button, the minutes advance by one. Hold the button down, and the minutes advance in ten minutes increments until you release the button.
4. Press the **CLOCK ADJ.** button again and the clock is set for the hour and minute you have selected, starting from zero seconds.

**Caution:** If there is a power failure, the clock loses its setting. The display shows "0:00" ("AM 12:00" for Canada), and the clock must be reset.

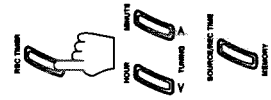
## Setting the REC (Recording) Timer

With the Recording Timer you can make a tape of a radio broadcast automatically whether or not you are home. For the timer to work correctly, you need to make sure of the following in addition to setting the time for the Tuner and Cassette Deck 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 the timer comes on.

### Procedure For Setting the Recording Timer

1. Press the **REC TIMER** button so that "REC TIMER" blinks on the display. As long as it is blinking, you can continue with the setting process.
2. ☐ If you wait too long, and it stops before you are done, just press the **REC TIMER** button twice and start over. Press the time you want the radio to come on, and put a tape in Deck B to record on.
3. Press the **SOURCE/REC TIME** button 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.



## Receiving In Stereo Or Mono

The CA-C330 can receive FM broadcasts in either stereo or mono. When "AUTO" lights up on the display, the Unit automatically receives broadcasts in the mode they are transmitted. (When a stereo broadcast is received, "STEREO" lights up on the display.) Furthermore, you won't hear noise while tuning in stations. Usually, leaving the Unit in Auto Mode, with "AUTO" lit, gives you the best reception.

While receiving an FM broadcast, the FM Mode can be switched between Auto and Mono with the FM MODE/MUTE button (DEMO button), as explained below.

### Switching From FM Auto Mode To FM Mono Mode

**When the Demonstration Display is On**  
Press the FM MODE/MUTE button (DEMO button) twice.

**When the Demonstration Display is Off**

Press the FM MODE/MUTE button (DEMO button) three times.

When "MONO" is lit up in the display, press this button to switch the FM Mode between Auto and Mono.

### Switching From FM Mono Mode To FM Auto Mode

**When the Demonstration Display is On**

Press the FM MODE/MUTE button (DEMO button) twice.

**When the Demonstration Display is Off**

Press the FM MODE/MUTE button (DEMO button) three times.

When "AUTO" is lit up in the display, press this button to switch the FM Mode between Mono and Auto.

**Note:** The Demonstration Display will always turn off when the FM Mode is switched from Mono to Auto or vice versa.

- ☐ Pressing the FM MODE/MUTE button on the Remote Control switches between FM Auto Mode and FM Mono Mode, no matter what is in the Demonstration Display.





4. Press the REC TIMER button again, or wait 8 seconds.  
The set contents are displayed for a few seconds and the "REC TIMER" indicator lights up.  
The Unit will memorize the setting. When the set time comes, the CA-C330 turns the power on and records the broadcasting station you selected last, before turning the power off.
- ☐ If you press any button while the Recording Timer is operated, 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 (D. CLUB, HALL STADIUM, etc.).
- ☐ Set the VOLUME control to MIN so that no sound comes out from speakers when the recording timer switches on the CA-C330. This is important especially if you will be out during the recording.

*It is very easy, and can be very disappointing, to forget to put in a tape, or to accidentally leave a tape in Deck B you don't want recorded over. Although this happens to almost everyone at one time or another, we hope it won't happen to you!*

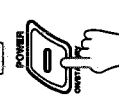
#### To Change the Recording Timer Setting

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

#### To Cancel the Recording Timer Setting

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

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.

#### Procedure For Setting the DAILY Timer

1. Press the DAILY TIMER button so that "DAILY TIMER" blinks on the display.  
Set the time you want the Unit to turn on:
- ☐ Press the HOUR button to set the hour and the MINUTE button to set the minute.
2. Press the SOURCE/REC TIME button 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 but select within 5 seconds.
  - If the CD is the source, when the set time comes, the CA-C330 plays in the Play Mode you set before turning the power off.
  - If you select FM or AM as the source, the last played station is the one which comes on at the set time.
3. Press the DAILY TIMER button again, or wait 8 seconds.  
The set contents are displayed for a few seconds and the "DAILY TIMER" indicator lights up.  
The Unit will memorize the setting.
4. Turn the power off.

When the set time comes, the CA-C330 turns on, 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 a tape:
  - Check that the tape direction is correct. This is important especially when Reverse Mode is off.
  - Deck B has priority, so if tapes are in both decks, the tape in Deck B plays first.
  - Set Reverse Mode on if you want to play both sides of the tape.
  - If you're not home at the designated time, be sure to set the volume level to minimum.
- ☐ Select the Sound Mode if you want to listen using a Sound Mode (D. CLUB, HALL STADIUM, etc.).
- ☐ Set the volume to an appropriate level.

#### To change the DAILY Timer setting

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

#### To cancel the DAILY Timer setting

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

## Setting the SLEEP Timer

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

- ☐ You can only set the Sleep Timer when the Unit is on and a source is playing.

#### To set the SLEEP Timer, follow this procedure:

1. With the CA-C330 on and a source playing, press the SLEEP TIMER button. The "SLEEP" indicator on the display will start blinking.

SLEEP 10

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

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

→ 10 → 20 → 30 → 60 → 90 → 120 → Sleep Timer off → (back to the beginning)

When the number of minutes you want shows on the display, just wait 5 seconds until the indicator stops blinking, and is lit steadily.

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

#### To Change the SLEEP Timer Setting

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

#### To Cancel the SLEEP Timer Setting

Press the SLEEP TIMER button until the "SLEEP" indicator 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 wonder what happens if the settings overlap. 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 when 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 operating, 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 set to turn on the Unit.

## How To Use the Remote Control

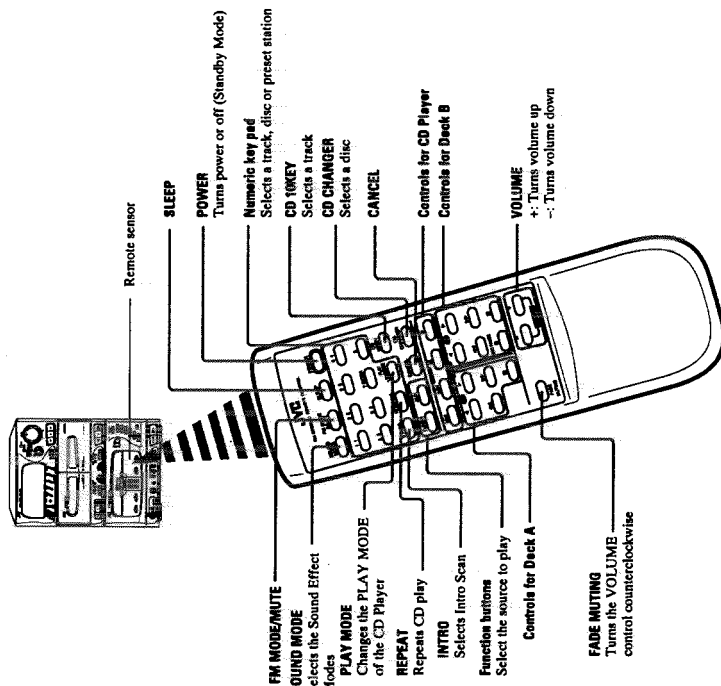
The Remote Control makes it easy to use many of the functions of the CA-C330 from a distance of up to 23 feet away. You need to point the Remote Control at the remote sensor on the CA-C330's front panel.

- Most of the buttons on the Remote Control do just what the ones on the CA-C330 do.
- A few functions are available only by using the Remote Control, as described below.

### Using the Numeric Key Pad

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

- Before using the numeric key pad, check to see whether the numeric key pad is functioning to operate the CD Player or Tuner. This depends on which button on the Remote Control you have pressed before using the numeric key pad. For example, if you press the TUNER button before the numeric key pad, it can select a preset station. Pressing the CD CHANGER button enables you to select a CD and also to operate the INTRO, REPEAT, and PLAY MODE buttons. If you press the CD 10KEY button, 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 ones digit of the number you want — to get 15, first press +10, then 5. For 20, press +10 and 0.
- For numbers from 21 to 30, press the +10 key twice; then press the ones digit — to get 25, press +10 +10 and 5. For 30, +10 +10 and 0.
- For numbers from 31 to 40, press the +10 key three times, then the ones digit of the number you want — to get 32, press +10 +10 +10 and 2. For 40, press +10 +10 +10 and 0.



# Care And Maintenance — General Notes

## Compact Discs

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



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



- Put the CD back in its case after use to prevent warping.
- Be careful not to scratch the surface of the CD when placing it back in the case.



- Avoid exposure to direct sunlight, temperature extremes, and moisture.
- A dirty CD may not play correctly. If a CD does become dirty, wipe it with a soft cloth in a straight line, from center to edge.

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

## Cassette Tapes



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



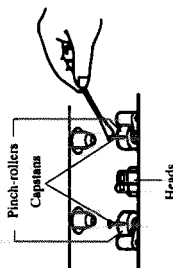
- Do not touch the tape surface.



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

## Cassette Deck

- If the heads, capstans, and pinch-rollers of the Cassette Deck become dirty, the following will occur:
  - Loss of sound quality
  - Discontinuous sound
  - Fading
  - Incomplete erasure
  - Difficult recording
- Clean the heads, capstans, and pinch-rollers using a cotton swab moistened with alcohol.



- If the heads become magnetized, the Unit will produce noise or lose high frequencies.
- To demagnetize the heads, turn off the Unit, and use a head demagnetizer (available at electronics and record shops).

## Moisture Condensation

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

- After starting the heating in the room.
  - In a damp room.
  - If the unit is brought directly from a cold to a warm place.
- Should this occur, the Unit may malfunction. In this case, leave the unit turned on for a few hours until the moisture evaporates, unplug the AC power cord, and then plug it in again.



- In general, you will have the best performance by keeping your tapes, CDs, and the mechanism clean.
- Store tapes and CDs in their cases, and keep them in cabinets or on shelves.
  - Keep the Cassette Deck's tape doors and the CD trays closed when not in use.

## Troubleshooting

- If you are having a problem with your CA-C330, 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.<br>(See pages 3 - 4.)                                                                                       |
| Unable to record.                     | Cassette record protect tabs are removed.                                                                                                     | Cover holes on back edge of cassette with tape.                                                                                                         |
| Poor radio reception                  | The antenna is disconnected.<br>The AM Loop Antenna is too close to the Unit.<br>The FM Wire Antenna is not properly extended and positioned. | Re-connect the antenna securely.<br>Change the position and direction of the AM Loop Antenna.<br>Extend FM Wire Antenna to the best reception position. |
| The CD skips.                         | The CD is dirty or scratched.                                                                                                                 | Clean or replace the CD.                                                                                                                                |
| Unable to operate the Remote Control. | The path between the Remote Control and the sensor on the Unit is blocked.<br>The batteries have lost their charge.                           | Remove the obstruction.<br>Replace the batteries.                                                                                                       |
| 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 has malfunctioned due to external electrical interference.                                                        | Unplug the Unit then plug it back in.                                                                                                                   |
| The cassette door cannot be opened.   | During tape playing, the power cord was unplugged.                                                                                            | Plug in the power cord and press eject.                                                                                                                 |

## Specifications

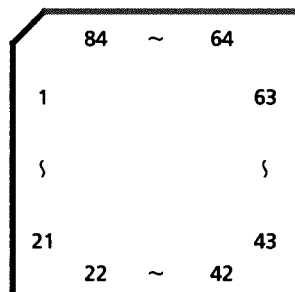
| Amplifier Section | FM Tuner                                    |
|-------------------|---------------------------------------------|
| Output Power      | 87.5 - 108.0 MHz                            |
| (IEC 268-3/DIN)   | 530 - 1,710 kHz (only for Canada)           |
|                   | 522 - 1,629 kHz (for other countries)       |
|                   | 144 - 288 kHz (except for Canada)           |
|                   | 245 x 329 x 343 mm (W/H/D)                  |
|                   | (9-11/16 x 13 x 13-9/16 inches)             |
|                   | 8.6 kg (19 lbs)                             |
|                   | Dimensions                                  |
|                   | Weight                                      |
|                   | Accessories                                 |
|                   | AM (MW/LW) Loop Antenna (1)                 |
|                   | Remote Control (1)                          |
|                   | Batteries R6P (SUM-3)/AA (15F) (2)          |
|                   | FM Wire Antenna (only for Germany) (1)      |
|                   | FM Feeder Antenna (except for Germany) (1)  |
|                   | FM Antenna Adaptor (except for Germany) (1) |
|                   | Power Specifications (for Canada only)      |
|                   | Power Requirements AC 120 V ~, 60 Hz        |
|                   | Power Consumption 110 watts (130VA)         |
|                   | Power Specifications (for other areas)      |
|                   | Power Requirements AC 230 V ~, 50 Hz        |
|                   | Power Consumption 130 watts                 |
|                   | 13 watts (in standby mode)                  |

Design and specifications are subject to change without notice.

## Description of ICs

### ■ MN172412J5Z(IC804) : System Controller

#### 1. Terminal Layout



#### 2. Key Matrix

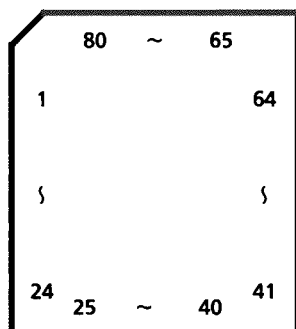
|                      | KEY IN 0<br>(PIN48) | KEY IN 1<br>(PIN49) | KEY IN 2<br>(PIN50)            | KEY IN 3<br>(PIN51)             |
|----------------------|---------------------|---------------------|--------------------------------|---------------------------------|
| KEY OUT 0<br>(PIN52) | FM MODE /<br>MUTE   | CLOCK<br>ADJ        | DAILY<br>TIMER                 | REC<br>TIMER                    |
| KEY OUT 1<br>(PIN53) | HOUR<br>TU <        | MINUTE<br>TU >      | SOURCE /<br>REC TIME<br>MEMORY | PRESET <                        |
| KEY OUT 2<br>(PIN54) | PRESET >            | FM                  | AM                             | SLEEP TIMER<br>(except U,US,UT) |
| KEY OUT 3<br>(PIN12) | REPEAT              | INTRO               | CD REC<br>START                | CALL                            |
| KEY OUT 4<br>(PIN11) | DICK CHEK           | MEMO                | CONTINUE                       | RANDOM                          |
| KEY OUT 5<br>(PIN10) | PROGRAM             | ⏮                   | ⏭                              | ■ /<br>CANCEL                   |
| KEY OUT 6<br>(PIN9)  | ▶ / ⏸               | ▲                   | 5                              | 6                               |
| KEY OUT 7<br>(PIN8)  | EXTRA               | 4                   | 3                              | 2                               |
| KEY OUT 8<br>(PIN7)  | 1                   | ---                 | ---                            | ---                             |

#### 3. Pin Functions

| Pin No. | Symbol        | I/O | Function                                       | Pin No. | Symbol  | I/O | Function                                          |
|---------|---------------|-----|------------------------------------------------|---------|---------|-----|---------------------------------------------------|
| 1~3     | 1G~3G         | O   | FL grid control signal                         | 57      | DATA    | I/O | Control,Status data I/O for IC801                 |
| 4       | LSI ON        | O   | ON signal for CD LSI (IC801)                   | 58      | SCK     | O   | Click output for IC801                            |
| 5       | INH           | I   | Inhibit signal input for tuner controller      | 59      | CHREQ   | I   | Input the "mecha. data request " to IC801         |
| 6       | CS            | I   | Chip select terminal for tuner controller      | 60      | STEREO  | I   | Stereo mode signal input from IC012               |
| 7~12    | KO8~KO3       | O   | Key matrix output                              | 61      | TUNED   | I   | TUNED indicator on signal input from tuner P.C.B. |
| 13,14   | DCS<br>IN,OUT | I/O | DCS signal input / output                      | 62      | T.CE    | O   | Chip enable signal output for IC121               |
| 15~22   | S24~S17       | O   | FL segment control signal                      | 63      | T.CLK   | O   | Clock output for IC121                            |
| 23      | VDISP         | —   | Power supply for FL display                    | 64      | IFDATA  | O   | IF data output for IC121                          |
| 24~39   | S16~S1        | O   | FL segment control signal                      | 65      | T.DATA  | I   | Data input from IC121                             |
| 40~43   | BUS0~<br>BUS3 | I/O | CD bus command / data input and output (IC601) | 66      | T.MUTE  | I   | Mute signal input from tuner P.C.B.               |
| 44      | CCE           | O   | CD bus data chip enable (IC601)                | 67      | TU TEST | I   | Test mode input for tuner controller              |
| 45      | BUCK          | O   | CD bus clock output (IC601)                    | 68      | RESET   | I   | Reset signal input for tuner controller           |
| 46      | CD RESET      | O   | CD reset signal output (IC601)                 | 69      | X1      | —   | Connected to ground                               |
| 47      | RESTSW        | I   | CD rest switch signal input                    | 70      | X2      | —   | Non connection                                    |
| 48~51   | KI0~KI3       | I   | Key matrix input                               | 71      | VSS     | —   | Connected to ground                               |
| 52~54   | KO0~KO2       | O   | Key matrix output                              | 72,73   | OSC2,1  | I/O | Oscillation terminal                              |
| 55      | CD TEST       | I   | CD TEST mode input                             | 74      | VDD     | —   | Power supply                                      |
| 56      | CHST          | O   | Strobe signal output for IC801                 | 75~84   | 13G~4G  | O   | FL grid control signal                            |

# ■ HD404719A62FS (IC901) : Deck / Amp. Controller

## 1. Terminal Layout



## 2. Pin Functions

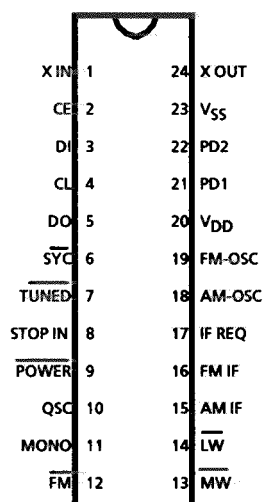
| Pin No. | Symbol    | I/O | Function                                              | Pin No. | Symbol     | I/O | Function                                                 |
|---------|-----------|-----|-------------------------------------------------------|---------|------------|-----|----------------------------------------------------------|
| 1,2     | IN6,7     | I   | Mode switch signal input                              | 36      | REV I      | O   | Reverse mode indicator control signal                    |
| 3       | PRT       | I   | Detection for protector                               | 37      | DOL I      | O   | Dolby indicator control signal                           |
| 4       | AD GND    | —   | Ground                                                | 38,39   | AFI,ARI    | O   | Forward / reverse indicator control signal for A deck    |
| 5       | A.RES     | I   | Amp. reset signal input                               | 40      | P.LED      | O   | Power LED control signal                                 |
| 6,7     | OSC1,2    | I/O | Oscillation terminal                                  | 41,42   | BFR,BRR    | O   | Forward / reverse control signal for B deck's reel motor |
| 8,9     | GND       | —   | Connection to the ground                              | 43,44   | BRC,BFC    | O   | Forward / reverse control signal for B deck's cam motor  |
| 10      | NC        | —   | Non connection                                        | 45,46   | AFR,ARR    | O   | Forward / reverse control signal for A deck's reel motor |
| 11      | TEST      | —   | Test mode select terminal                             | 47,48   | ARC,AFC    | O   | Forward / reverse control signal for A deck's cam motor  |
| 12      | VCC       | —   | Power supply                                          | 49      | GND        | —   | Connection to the ground                                 |
| 13      | PBMT      | O   | Deck playback muting signal output                    | 50~52   | ACS2~0     | I   | Cam switch input signal for A mech.                      |
| 14,15   | ECHO1,2   | O   | Echo level control signal output                      | 53~55   | BCS2~0     | I   | Cam switch input signal for B mech.                      |
| 16,17   | AMC,BMC   | O   | A mech. and B mech. reel motor control signal output  | 56      | FADE       | O   | FADE mode control signal output                          |
| 18      | CAP       | O   | Capstan motor control signal output                   | 57,58   | JOG2,1     | I   | JOG dial signal input                                    |
| 19      | A/B       | O   | A/B select signal output for IC304                    | 59,60   | DCS IN/OUT | I/O | DCS signal input / output terminal                       |
| 20      | NC        | —   | Non connection                                        | 61      | RM         | I   | Remote control signal input                              |
| 21,22   | APLS,BPLS | I   | Pulse signal input from hall IC                       | 62      | MSI        | I   | Music scan signal input                                  |
| 23      | RMT       | O   | Rec. mute signal output for IC304                     | 63,64   | B,A        | O   | Deck A / B select signal output                          |
| 24      | NR        | O   | NR on signal output for IC304                         | 65      | LATCH      | O   | Latch signal output for IC402                            |
| 25      | REC       | O   | Recording mode signal output for IC304                | 66      | CLK        | O   | Clock signal output for IC402                            |
| 26      | D.CLUB    | O   | "D.CLUB" indicator control signal                     | 67      | BIAS       | O   | Bias on signal output for IC304                          |
| 27      | HALL      | O   | "HALL" indicator control signal                       | 68      | DATA       | O   | Data output for IC402                                    |
| 28      | STADIUM   | O   | "STADIUM" indicator control signal                    | 69      | POWER      | O   | Power control signal output                              |
| 29      | ROCK      | O   | "ROCK" indicator control signal                       | 70      | SPK        | O   | Speaker relay control signal output                      |
| 30      | POPS      | O   | "POPS" indicator control signal                       | 71,72   | V.DO,UP    | O   | Master volume up /down signal output                     |
| 31      | CLASSIC   | O   | "CLASSIC" indicator control signal                    | 73      | S.MUTE     | O   | Source mute control signal output                        |
| 32      | FLAT      | O   | Flat control signal for sound mode indicator          | 74      | HP IN      | I   | Headphone in signal input                                |
| 33,34   | BFI,BRI   | O   | Forward / reverse indicator control signal for B deck | 75      | AD VCC     | —   | Power supply terminal                                    |
| 35      | REC I     | O   | Recording indicator control signal                    | 76~80   | IN1~5      | I   | Operation switch signal input                            |

## ■ LC7218 (IC121) : PLL Synthesizer

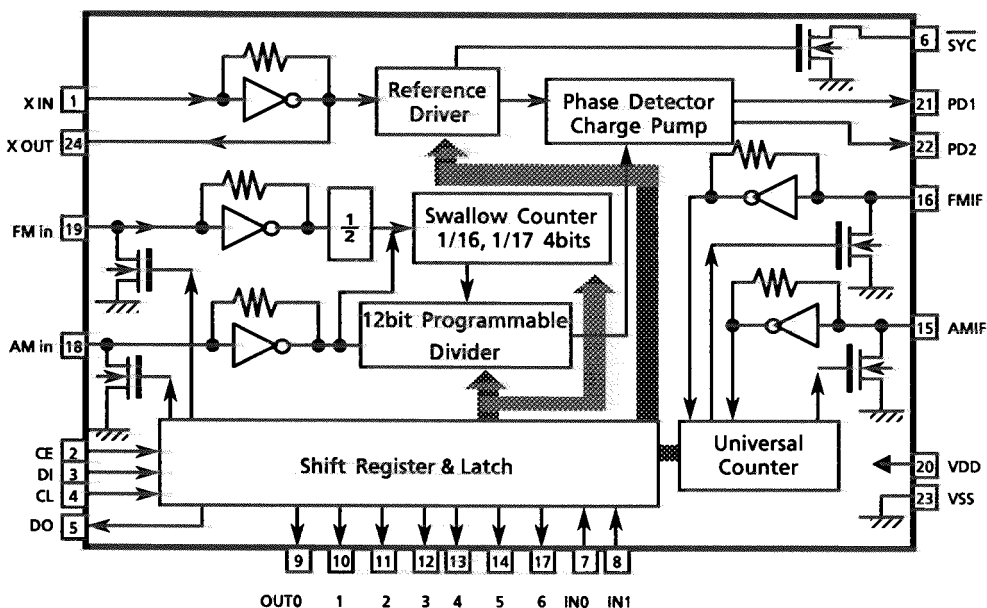
### 1. The main function descriptions

- (1) It makes the local oscillation frequency by the control data from IC804.
- (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 IC804.

### 2. Terminal Layout



### 3. Block Diagram

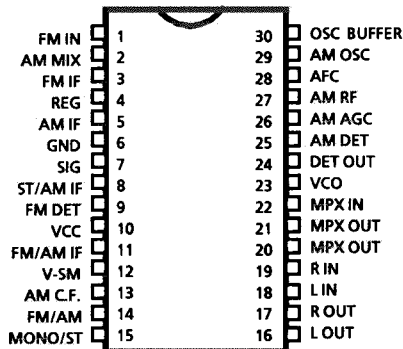


### 4. Pin Functions

| Pin No. | Symbol          | I/O | Function                                                                                                                                                                                                                                                                                      |
|---------|-----------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 (IC804).                                                                                                                                                                                                                                         |
| 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 IC102 (LA1836).                                                                                                                                                                                                                                                 |
| 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 IC102 (LA1836).                                                                                                                                                                                                                                        |
| 16      | FM-IF           | I   | Universal counter input for FM-IF from IC102(LA1836).                                                                                                                                                                                                                                         |
| 17      | IF REQ          | O   | Output the "IF-signal request" to IC102 when the pin-7 (tuned in) goes to "H".                                                                                                                                                                                                                |
| 18      | AM OSC          | I   | Input the local oscillator signal of AM.                                                                                                                                                                                                                                                      |
| 19      | FM OSC          | I   | Input the local oscillator signal of FM.                                                                                                                                                                                                                                                      |
| 20      | V <sub>DD</sub> | —   | This is a terminal of power supply.                                                                                                                                                                                                                                                           |
| 21      | PD1             | O   | PLL charge pump output : When the local oscillator signal frequency is higher than the reference frequency high level signals will output. When it is lower than the reference frequency, low level signals will output. When it is same as reference frequency signals, it will be floating. |
| 22      | PD2             | —   | Not used.                                                                                                                                                                                                                                                                                     |
| 23      | V <sub>SS</sub> | —   | Connected to GND                                                                                                                                                                                                                                                                              |

# LA1836M (IC102) : FM / AM IF Amp. & Detector

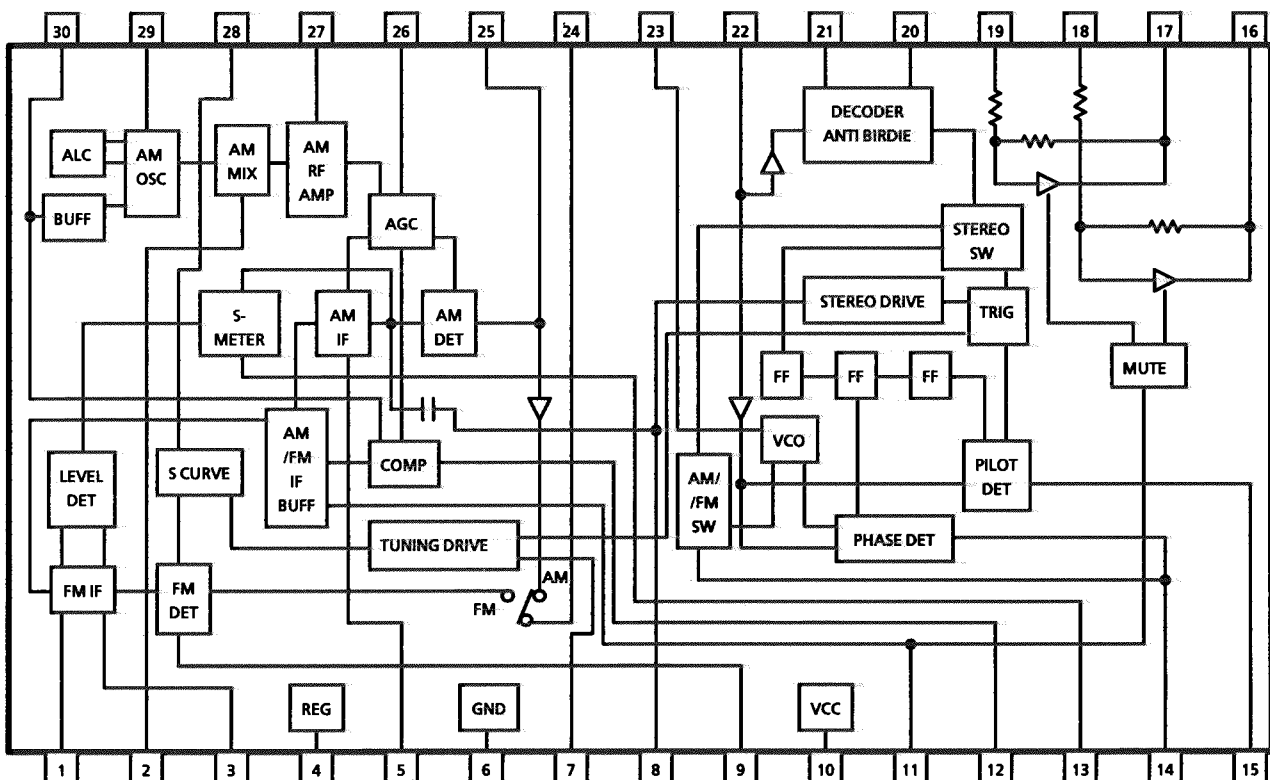
## 1. Terminal Layout



## 2. Pin Functions

| Pin No. | Symbol     | I/O | Function                                                                               |
|---------|------------|-----|----------------------------------------------------------------------------------------|
| 1       | FM IN      | I   | This is an input terminal of FM IF Signal.                                             |
| 2       | AM MIX     | O   | This is an output terminal for AM mixer.                                               |
| 3       | FM IF      | I   | Bypass of FM IF                                                                        |
| 4       | REG        | —   | Register value between pin4 and pin28 desides the frequency width of the input signal. |
| 5       | AM IF      | I   | Input of AM IF Signal.                                                                 |
| 6       | GND        | —   | This is the device ground terminal.                                                    |
| 7       | SIG        | O   | When the set is tuning, this terminal becomes "L".                                     |
| 8       | ST/AM IF   | O   | Stereo indicator output. Stereo : "L", Mono : "H"                                      |
| 9       | FM DET     | —   | FM detect transformer.                                                                 |
| 10      | VCC        | —   | This is the power supply terminal.                                                     |
| 11      | FM/AM IF   | O   | When the signal of IF REQ of IC121(LC7218) appear, the signal of FM/AM IF output.      |
| 12      | VSM        | O   | S Meter output and adjust AM SD sensitivity.                                           |
| 13      | AM C.F.    | I   | This is a terminal of AM ceramic filter.                                               |
| 14      | FM/AM      | I   | Change over the FM / AM input. "H" : FM, "L" : AM                                      |
| 15      | MONO/ST    | O   | Stereo : "H", Mono : "L"                                                               |
| 16      | L OUT      | O   | Left channel signal output.                                                            |
| 17      | R OUT      | O   | Right channel signal output                                                            |
| 18      | LIN        | I   | Input terminal of the Left channel post AMP.                                           |
| 19      | R IN       | I   | Input terminal of the Right channel post AMP.                                          |
| 20      | MPX L OUT  | O   | Mpx Left channel signal output.                                                        |
| 21      | MPX R OUT  | O   | Mpx Right channel signal output.                                                       |
| 22      | MPX IN     | I   | Mpx input terminal.                                                                    |
| 23      | VCO        | I   | Voltage controlled oscillator terminal.                                                |
| 24      | DET OUT    | O   | AM/FM detection output.                                                                |
| 25      | AM DET     | —   | AM low cut adjustment.                                                                 |
| 26      | AM AGC     | I   | This is an AGC voltage input terminal for AM.                                          |
| 27      | AM RF      | I   | This is an input terminal for AM RF signal.                                            |
| 28      | AFC        | —   | This is an output terminal of voltage for FM-AFC.                                      |
| 29      | AM OSC     | —   | This is a terminal of AM Local oscillation circuit.                                    |
| 30      | OSC BUFFER | O   | AM Local oscillation Signal output.                                                    |

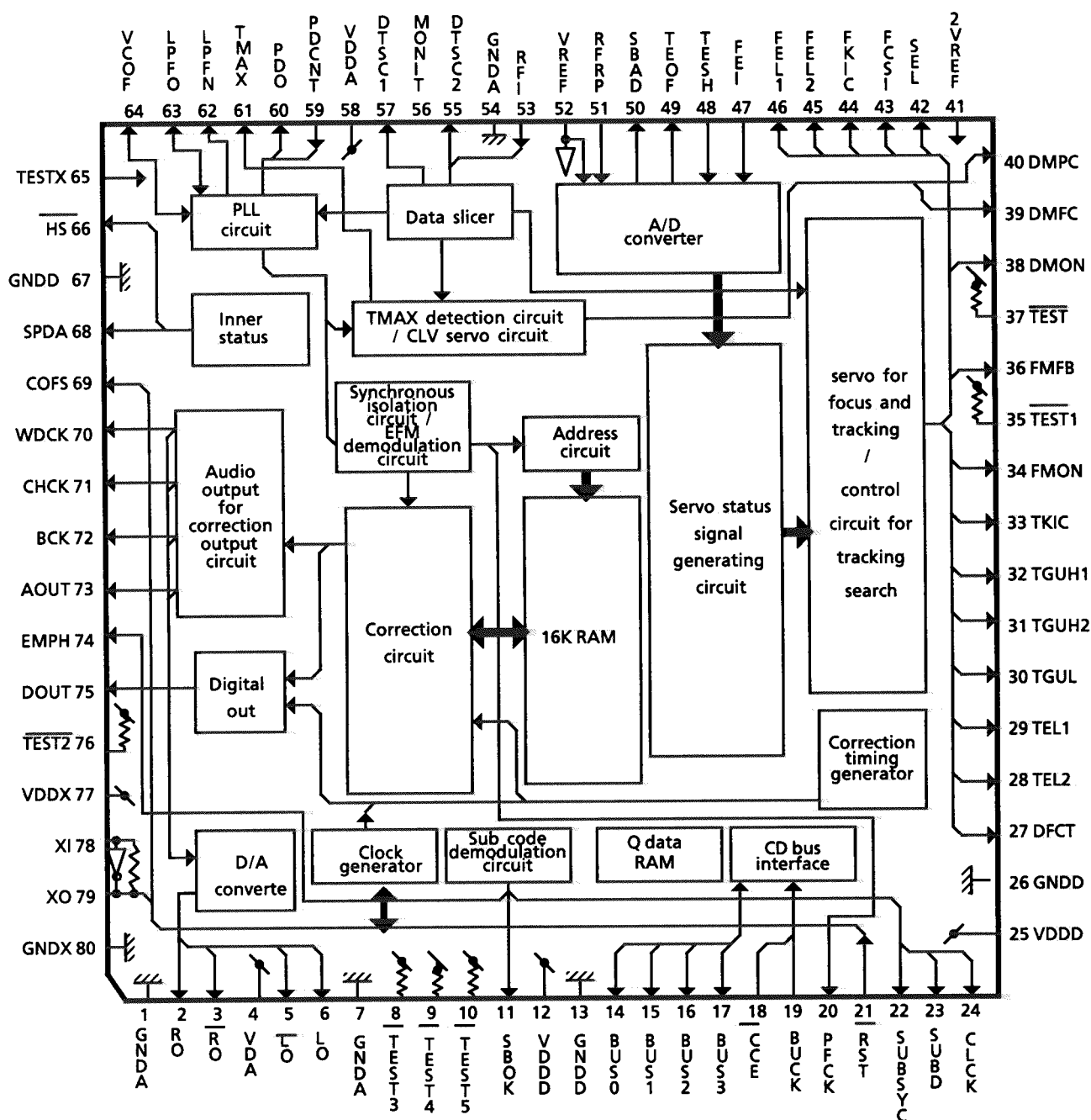
## 3. Block Diagram





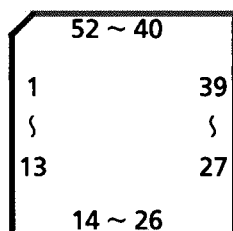
■ TA9284AF (IC998) : 1 CHIP PROCESSOR ( 1 BIT DAC )

Block Diagram



# ■ UPD65612GC-088 (IC801) : CD Changer Controller

## 1. Terminal Layout



## 2. Pin Functions

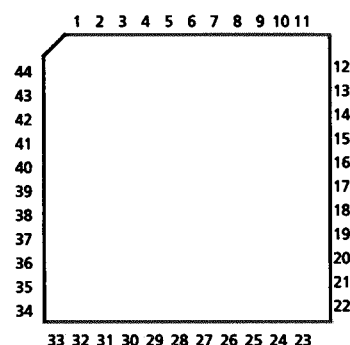
| Pin No. | Symbol | I/O | Function                                            | Pin No. | Symbol   | I/O | Function                                  |
|---------|--------|-----|-----------------------------------------------------|---------|----------|-----|-------------------------------------------|
| 1       | EXTRA  | I   | Input terminal of the Disc case assy UP/DOWN RST.SW | 27      | C25OUT   | --  | Not used                                  |
| 2       | CHPS   | I   | Input terminal of the changer HPS                   | 28      | C25IN    | --  | Not used                                  |
| 3       | --     | --  | Not used                                            | 29      | OS2I     | --  | Oscillation terminal                      |
| 4       | DOORPS | I   | LOAD/UNLOAD Pals input                              | 30      | OS2      | --  | Oscillation terminal                      |
| 5       | OPEN   | I   | Input terminal of the CD Tray open                  | 31      | OS1      | --  | Oscillation terminal                      |
| 6       | CLOSE  | I   | Input terminal of the CD Tray close                 | 32      | OS1I     | --  | Oscillation terminal                      |
| 7       | DG     | --  | DGITAL GND                                          | 33      | DG       | --  | DGITAL GND                                |
| 8       | TOP    | I   | Input terminal of the CD mecha. up                  | 34      | VCC      | --  | Power supply terminal                     |
| 9       | BOTTM  | I   | Input terminal of the CD mecha. down                | 35      | RST      | I   | Reset signal input                        |
| 10      | DISCPS | I   | Input terminal of the Disc NO. pals                 | 36      | CHREQ    | O   | Output the "mecha. data request" to IC804 |
| 11      | ERROR  | I   | Input terminal of the Disc error                    | 37      | DATA     | I   | Control,Status data I/O for IC804         |
| 12      | SCK    | --  | Connection to the graund                            | 38      | STCH     | I   | Strobe signal input from IC804            |
| 13      | SELECT | --  | Connection to the graund                            | 39      | CKS      | I   | Clock input from IC804                    |
| 14      | NC     | --  | Not used                                            | 40      | NC       | --  | Not used                                  |
| 15      | IN1    | --  | Connection to the graund                            | 41      | CHANGE 2 | O   | Plunger control signal                    |
| 16      | IN2    | --  | Connection to the graund                            | 42      | LED1     | O   | Indicator control signal                  |
| 17      | IN3    | --  | Connection to the graund                            | 43      | LED2     | O   | Indicator control signal                  |
| 18      | IN4    | --  | Connection to the graund                            | 44      | LED3     | O   | Indicator control signal                  |
| 19      | IN5    | --  | Connection to the graund                            | 45      | LED4     | O   | Indicator control signal                  |
| 20      | IN6    | --  | Connection to the graund                            | 46      | LED5     | O   | Indicator control signal                  |
| 21      | LMF    | O   | L motor control signal (foward)                     | 47      | LED6     | O   | Indicator control signal                  |
| 22      | LMR    | O   | L motor control signal (reverse)                    | 48      | NC       | --  | Not used                                  |
| 23      | UDMUP  | O   | U/D motor control signal (up)                       | 49      | NC       | --  | Not used                                  |
| 24      | UDNDW  | O   | U/D motor control signal (down)                     | 50      | NC       | --  | Not used                                  |
| 25      | NC     | --  | Not used                                            | 51      | NC       | --  | Not used                                  |
| 26      | NC     | --  | Not used                                            | 52      | NC       | --  | Not used                                  |

## ■ TA8191F ( IC501 ) : Focus Tracking Servo LSI

### 1. Description

- RF amp, Focus error amp, and Tracking error amp
- Focus and Tracking servo amp
- Phase compensation amp and LPF amp

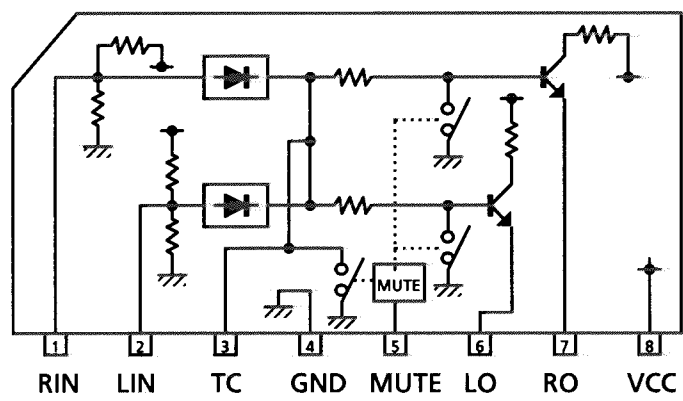
### 2. Terminal Layout



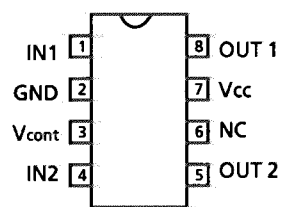
### 3. Pin Functions

| Pin No. | Symbol | I/O | Function                                                             | Pin No. | Symbol | I/O | Function                                            |
|---------|--------|-----|----------------------------------------------------------------------|---------|--------|-----|-----------------------------------------------------|
| 1       | TPO    | O   | Sub beam I-V amp ( TP AMP ) output                                   | 23      | VCC    | --  | + 5V                                                |
| 2       | TPI    | I   | Sub beam I-V amp ( TP AMP ) input                                    | 24      | DMEP   | I   | Disc motor amp ( DM AMP ) positive phase input      |
| 3       | TNI    | I   | Sub beam I-V amp ( TN AMP ) input                                    | 25      | DMEN   | I   | Disc motor amp ( DM AMP ) negative phase input      |
| 4       | FNI    | I   | Main beam I-V amp ( FN AMP ) input                                   | 26      | DME0   | O   | Disc motor amp ( DM AMP ) output                    |
| 5       | FPI    | I   | Main beam I-V amp ( FP AMP ) input                                   | 27      | DMPO   | O   | Disc motor driving amp ( DM AMP ) output            |
| 6       | LDO    | O   | Laser diode amp ( LD AMP ) output                                    | 28      | PVR    | I   | Driving amp reference voltage input                 |
| 7       | MDI    | I   | Monitor photo amp ( MD AMP ) input                                   | 29      | FMPO   | O   | Feed motor driving amp ( FMP AMP ) output           |
| 8       | RFN    | I   | RF amp ( RF AMP ) negative phase input                               | 30      | FME0   | O   | Feed motor amp ( FM AMP ) output                    |
| 9       | RFO    | O   | RF amp ( RF AMP ) output                                             | 31      | FMEP   | I   | Feed motor amp ( FM AMP ) negative phase input      |
| 10      | RFI    | I   | RF ripple signal generating circuit                                  | 32      | TS2O   | I   | Feed motor amp ( FM AMP ) positive phase input      |
| 11      | VREF   | O   | Reference voltage supply ( + 2.1V ) output                           | 33      | FAPO   | O   | Focus actuator driving amp ( FAP AMP ) output       |
| 12      | RFRP   | O   | RF ripple signal output                                              | 34      | 2VRO   | O   | 2VREF amp ( 2VREF AMP ) output                      |
| 13      | SBAD   | O   | Defects detection signal output                                      | 35      | 2VRP   | I   | 2VREF amp ( 2VREF AMP ) positive phase input        |
| 14      | FEB    | I   | Focus error balance adjusting input                                  | 36      | 2VRN   | I   | 2VREF amp ( 2VREF AMP ) negative phase input        |
| 15      | FEO    | O   | Focus error amp ( FE AMP ) output                                    | 37      | TS2O   | O   | Tracking servo amp ( TS2 AMP ) output               |
| 16      | SEL    | I   | Analog switch control signal input                                   | 38      | TS2N   | I   | Tracking servo amp ( TS2 AMP ) negative phase input |
| 17      | VEE    | --  | GND                                                                  | 39      | TS2P   | I   | Tracking servo amp ( TS2 AMP ) positive phase input |
| 18      | FSN    | I   | Focus output amp ( FS AMP ) negative phase input                     | 40      | TS1O   | O   | Tracking servo amp ( TS1 AMP ) output               |
| 19      | FSO    | O   | Focus output amp ( FS AMP ) output                                   | 41      | TS1N   | I   | Tracking servo amp ( TS1 AMP ) negative phase input |
| 20      | COSC   | O   | Focus search signal generating capacitor connecting                  | 42      | TS1P   | I   | Tracking servo amp ( TS1 AMP ) positive phase input |
| 21      | OSCI   | I   | Focus search signal generating built-in current source control input | 43      | TSO    | O   | Tracking output amp ( TS AMP ) output               |
| 22      | GND    | --  | GND                                                                  | 44      | TSN    | I   | Tracking output amp ( TS AMP ) negative phase input |

■ BA8221N (IC353) : ALC (Auto Level Controller)

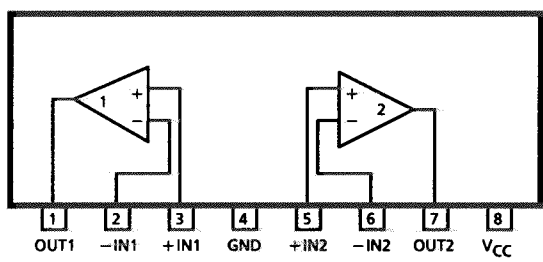


■ LB1639-CV (IC404) : Motor Driver

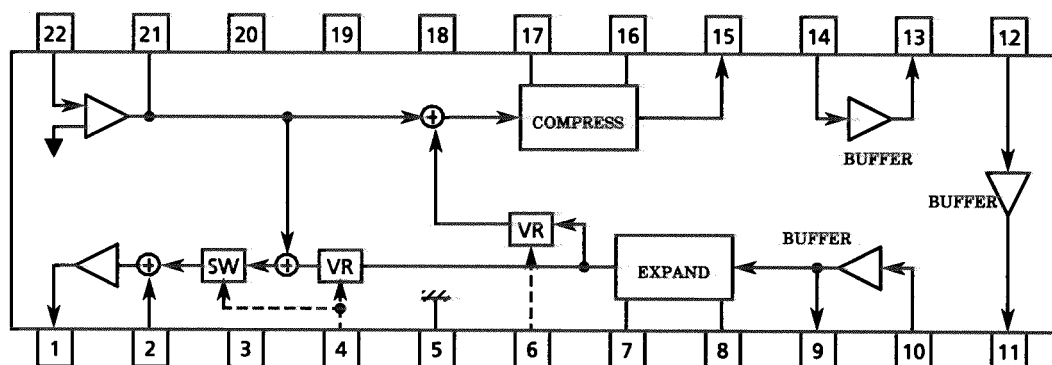


| IN 1 | IN 2 | OUT 1 | OUT 2 | MOTOR               |
|------|------|-------|-------|---------------------|
| H    | L    | H     | L     | clockwise           |
| L    | H    | L     | H     | counter - clockwise |
| H    | H    | OFF   | OFF   | waiting             |
| L    | L    | OFF   | OFF   | waiting             |

■ BA15218N or XRA15218N (IC805,604) : Dual OP Amp.  
VC4580L (IC502,515)  
VC4580LD (IC503)



■ BA7725S (IC751) :Echo circuit (For U,UT,US)

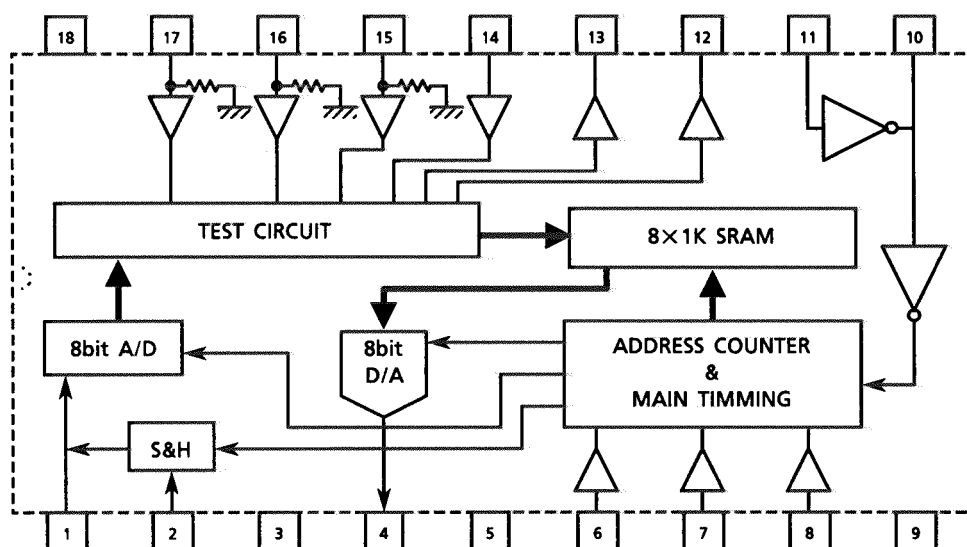


Terminal Description

| Pin No. | Symbol         | Function                                                                                                                                     |
|---------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | LINE OUT       | Line output                                                                                                                                  |
| 2       | LINE IN        | Line input                                                                                                                                   |
| 3       | NC             | Not used                                                                                                                                     |
| 4       | ECHO LEV CTRL  | Determines echo level. The echo circuit is off when 1 volt is added. The echo level varies according to the voltage from 2 volts to 9 volts. |
| 5       | GND            | Analog GND                                                                                                                                   |
| 6       | LOOP GAIN CTRL | Loop gain control terminal. The gain varies according to the voltage from 2 volts to 9 volts.                                                |
| 7       | EXP DET        | Detection terminal for expand circuit                                                                                                        |
| 8       | EXP DET CT     | Determines the attack and recovery time of expand circuit                                                                                    |
| 9       | EXP BF OUT     | Buffer output (Expand circuit side)                                                                                                          |
| 10      | EXP BF IN      | Buffer input (Expand circuit side)                                                                                                           |
| 11      | DLY BF OUT     | Delay buffer output                                                                                                                          |
| 12      | DLY BF IN      | Delay buffer input                                                                                                                           |
| 13      | CMP BF OUT     | Buffer output (Compress circuit side)                                                                                                        |
| 14      | CMP BF IN      | Buffer input (Compress circuit side)                                                                                                         |
| 15      | CMP OUT        | Compress circuit output                                                                                                                      |
| 16      | CMP DET CT     | Determines the attack and recovery time of compress circuit                                                                                  |
| 17      | CMP DET        | Detection terminal for compress circuit                                                                                                      |
| 18      | RIPPLE FILTER  | A capacitor is connected for ripple elimination filter                                                                                       |
| 19      | VCC            | Power supply                                                                                                                                 |
| 20      | NC             | Not used                                                                                                                                     |
| 21      | MIC AMP OUT    | Mic amp output                                                                                                                               |
| 22      | MIC AMP IN     | Mic amp input                                                                                                                                |

■ BU9251S (IC652) : Delay Circuit (For U,UT,US)

### Block Diagram



### Description

| Description |        |                                            | Description |        |                      |
|-------------|--------|--------------------------------------------|-------------|--------|----------------------|
| Pin No      | Symbol | Function                                   | Pin No      | Symbol | Function             |
| 1           | S&H    | A capacitor is connected for sample & hold | 10          | OSC0   | Oscillation terminal |
| 2           | AIN    | Analog input                               | 11          | OSC1   | Oscillation terminal |
| 3           | GND    | GND                                        | 12          | TDO1   | Not used             |
| 4           | AOOUT  | Analog output                              | 13          | TDO0   | Not used             |
| 5           | VDD    | Power supply                               | 14          | TDIN   | Not used             |
| 6           | DCNT0  | Pull up (+5V)                              | 15          | TST2   | Not used             |
| 7           | DCNT1  | Pull up (+5V)                              | 16          | TST1   | Not used             |
| 8           | DCNT2  | Pull up (+5V)                              | 17          | TST0   | Not used             |
| 9           | GND    | GND                                        | 18          | VCC    | Power supply         |

## ■ HA12171NT ( IC304 ) : DOLBY NR&amp;RECORD EQUALIZER

## 1. Outline

- Dolby B type NR
- Recoed equalizer
- Interval detection

## 2. Terminal Layout

|             |    |          |    |
|-------------|----|----------|----|
| GND         | 1  | GND      | 56 |
| AIN(R)      | 2  | AIN(L)   | 55 |
| BIN(R)      | 3  | BIN(L)   | 54 |
| ABO(R)      | 4  | ABO(L)   | 53 |
| CIN(R)      | 5  | CIN(L)   | 52 |
| RIN(R)      | 6  | RIN(L)   | 51 |
| BIAS        | 7  | RIP      | 50 |
| PBOUT(R)    | 8  | PBOUT(L) | 49 |
| DET(R)      | 9  | DET(L)   | 48 |
| RECOU(R)    | 10 | RECOU(L) | 47 |
| EQIN(R)     | 11 | EQIN(L)  | 46 |
| BOOST(R)    | 12 | BOOST(L) | 45 |
| EQOUT(R)    | 13 | EQOUT(L) | 44 |
| PB A/B      | 14 | BIAS(N)  | 43 |
| A 120/70    | 15 | BIAS(C)  | 42 |
| PAS/DOL     | 16 | BIAS(M)  | 41 |
| NORM/HIGH   | 17 | BIASOUT  | 40 |
| B 120/70    | 18 | VREF     | 39 |
| CROM/METAL  | 19 | NOI      | 38 |
| BIAS ON/OFF | 20 | FFI      | 37 |
| RM ON/OFF   | 21 | MS-GND   | 36 |
| NR ON/OFF   | 22 | MAOUT    | 35 |
| MS GAIN R/S | 23 | MSIN     | 34 |
| REC/PB      | 24 | MSDET    | 33 |
| LM ON/OFF   | 25 | MS-VCC   | 32 |
| IREF        | 26 | MSOUT    | 31 |
| GPCAL       | 27 | D-GND    | 30 |
| RECCAL      | 28 | VCC      | 29 |

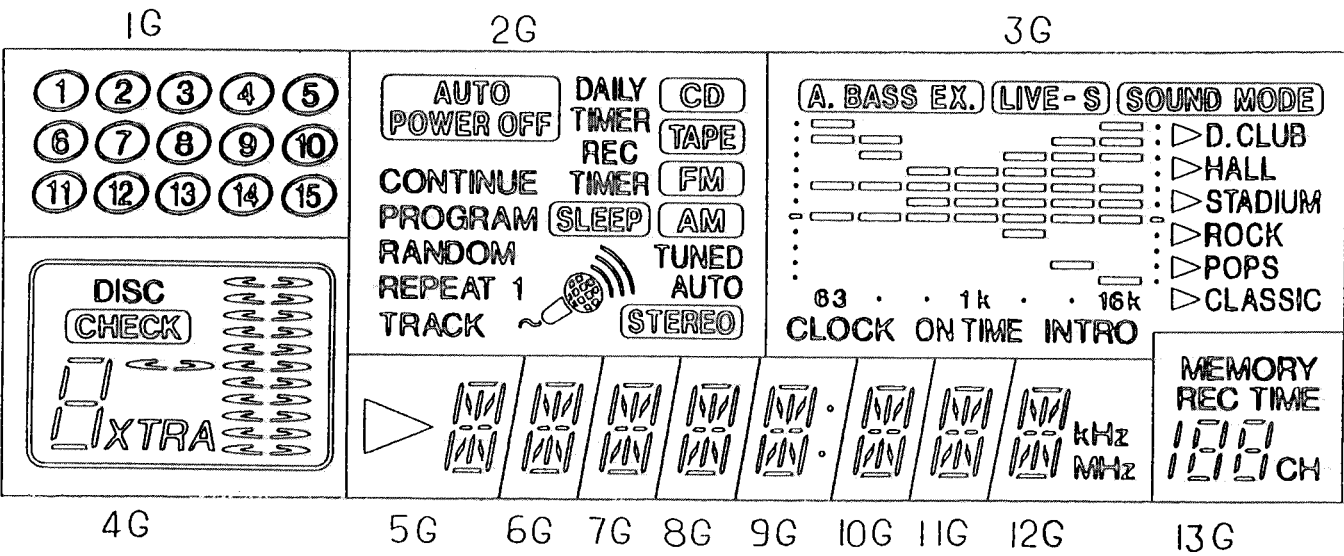
## 3. Terminal Description

| Pin No | Symbol      | I/O | Function                                | Pin No | Symbol   | I/O | Function                                     |
|--------|-------------|-----|-----------------------------------------|--------|----------|-----|----------------------------------------------|
| 1      | GND         | --  | Ground                                  | 29     | VCC      | --  | Power supply                                 |
| 2      | AIN(R)      | I   | Deck A playback input (Rch)             | 30     | D-GND    | --  | Digital GND                                  |
| 3      | BIN(R)      | I   | Deck B playback input (Rch)             | 31     | MSOUT    | O   | Blank scanning signal output                 |
| 4      | ABO(R)      | O   | Playback buffer out (Rch)               | 32     | MS-VCC   | --  | Power supply                                 |
| 5      | CIN(R)      | I   | 70 $\mu$ Buffer input (Rch)             | 33     | MSDET    | I   | Time constant setting for music scan         |
| 6      | RIN(R)      | I   | Recording input (Rch)                   | 34     | MSIN     | I   | Input for music scan                         |
| 7      | BIAS        | I   | Connected to GND                        | 35     | MAOUT    | O   | Buffer AMP for music scan                    |
| 8      | PBOUT(R)    | O   | Playback output (Rch)                   | 36     | MS-GND   | --  | GND                                          |
| 9      | DET (R)     | I   | NR time constant (Rch)                  | 37     | FFI      | I   | Feedback input for MS(FF,REW)                |
| 10     | RECOU(R)    | O   | Recording output (Rch)                  | 38     | NOI      | I   | Feedback input for MS                        |
| 11     | EQIN(R)     | I   | Input for recording equalizer (Rch)     | 39     | VREF     | --  | Reference for music scan                     |
| 12     | BOOST(R)    | I   | Time constant for low boost (Rch)       | 40     | BIASOUT  | O   | Recording bias control                       |
| 13     | EQOUT(R)    | O   | Equalizer output (Rch)                  | 41     | BIAS(M)  | I   | Bias current input for metal tape            |
| 14     | PB A/B      | I   | Deck A/B select                         | 42     | BIAS(C)  | I   | Bias current input for CrO <sub>2</sub> tape |
| 15     | A 120/70    | I   | Deck A playback EQ select               | 43     | BIAS(N)  | I   | Bias current input for normal tape           |
| 16     | PAS/DOL     | I   | Dolby signal path select (Through/pass) | 44     | EQOUT(L) | O   | Equalizer output (Lch)                       |
| 17     | NORM/HIGH   | I   | Dubbing mode select                     | 45     | BOOST(L) | I   | Time constant for low boost (Lch)            |
| 18     | B 120/70    | I   | Deck B playback EQ select               | 46     | EQIN(L)  | I   | Input for recording equalizer (Lch)          |
| 19     | CROM/METAL  | I   | Tape select                             | 47     | RECOU(L) | O   | /Recording output (Lch)                      |
| 20     | BIAS ON/OFF | I   | Bias ON/OFF control                     | 48     | DET(L)   | I   | NR time constant (Lch)                       |
| 21     | RM ON/OFF   | I   | Recording mute ON/OFF control           | 49     | PBOUT(L) | O   | Playback output (Lch)                        |
| 22     | NR ON/OFF   | I   | NR ON/OFF control                       | 50     | RIP      | I   | Ripple filter                                |
| 23     | MS GAIN R/S | I   | Gain for music scan control             | 51     | RIN(L)   | I   | Recording input (Lch)                        |
| 24     | REC/PB      | I   | Recording/Playback control              | 52     | CIN(L)   | --  | 70 $\mu$ buffer input (Lch)                  |
| 25     | LM ON/OFF   | I   | Playback mute ON/OFF control            | 53     | ABO(L)   | O   | Playback buffer out (Lch)                    |
| 26     | IREF        | I   | Reference current input                 | 54     | BIN(L)   | I   | Deck B playback input (Lch)                  |
| 27     | GPCAL       | I   | GP calibration                          | 55     | AIN(L)   | I   | Deck A playback input (Lch)                  |
| 28     | RECCAL      | I   | Recording gain calibration              | 56     | GND      | --  | GND                                          |

Internal Connections of FL Display

■ ELU0001-201 : (FL800)

1. Grid Layout



2. Pin Connections

LOWER

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

UPPER

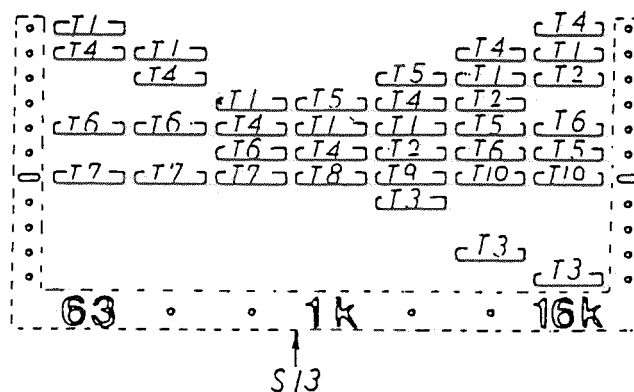
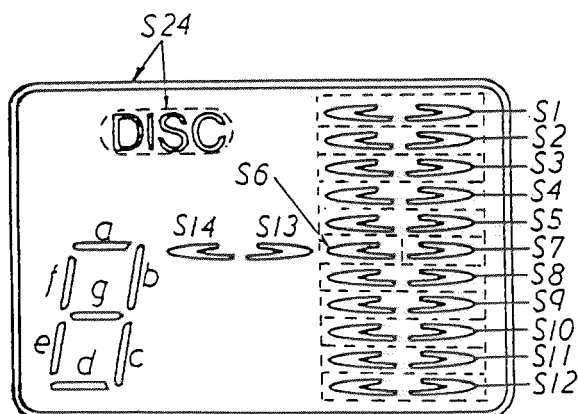
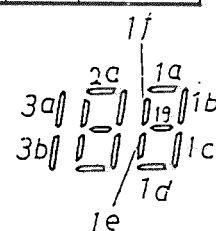
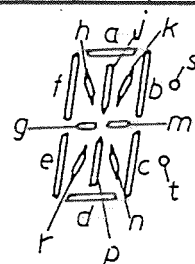
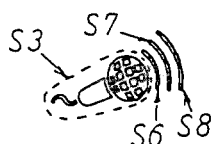
| TERMINAL NO. | 32 | 33       | 34 | 35 | 36       | 37       | 38       | 39       | 40       | 41       | 42       | 43       | 44       | 45       | 46       | 47       |
|--------------|----|----------|----|----|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|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

(Notes) F: Filament G: Grid P: Anode NP: No Pin



## (3) Anode Designation

|     | 1G | 2G             | 3G              | 4G    | 5G | 6-8G | 9G | 10, 11G | 12G | 13G      |
|-----|----|----------------|-----------------|-------|----|------|----|---------|-----|----------|
| S1  | ⑤  | TRACK          | CLOCK           | S1    | ▶  |      | s  |         | kHz | MEMORY   |
| S2  | ④  | STEREO         | ON TIME         | S2    | a  | a    | a  | a       | a   | REC TIME |
| S3  | ③  | S3             | INTORO          | S3    | b  | b    | b  | b       | b   | 1a       |
| S4  | ②  | REPEAT         | CLASSIC         | S4    | j  | j    | j  | j       | j   | 1b       |
| S5  | ①  | 1              | POPS            | S5    | k  | k    | k  | k       | k   | 1f       |
| S6  | ⑩  | S6             | ROCK            | S6    | h  | h    | h  | h       | h   | 1g       |
| S7  | ⑨  | S7             | STADIUM         | S7    | f  | f    | f  | f       | f   | 1c       |
| S8  | ⑧  | S8             | HALL            | S8    | g  | g    | g  | g       | g   | 1e       |
| S9  | ⑦  | AUTO           | D. CLUB         | S9    | m  | m    | m  | m       | m   | 1d       |
| S10 | ⑥  | TUNED          | SOUND MODE      | S10   | e  | e    | e  | e       | e   | CH       |
| S11 | ⑤  | SLEEP          | LIVE-S          | S11   | n  | n    | n  | n       | n   | 2a       |
| S12 | ④  | RANDOM         | A BASS EX       | S12   | r  | r    | r  | r       | r   | 2b       |
| S13 | ③  | AM             | S13             | S13   | p  | p    | p  | p       | p   | 2f       |
| S14 | ②  | PROGRAM        |                 | S14   | c  | c    | c  | c       | c   | 2g       |
| S15 | ①  | CONTINUE       |                 | XTRA  | d  | d    | d  | d       | d   | 2c       |
| S16 |    | REC TIMER      |                 | d     |    |      | t  |         | MHz | 2e       |
| S17 |    | FM             |                 | e     |    |      |    |         |     | 2d       |
| S18 |    | TAPE           |                 | c     |    |      |    |         |     | 3a, 3b   |
| S19 |    | AUTO POWER OFF |                 | g     |    |      |    |         |     |          |
| S20 |    | DAILY TIMER    |                 | f     |    |      |    |         |     |          |
| S21 |    | CD             |                 | b     |    |      |    |         |     |          |
| S22 |    |                |                 | a     |    |      |    |         |     |          |
| S23 |    |                |                 | CHECK |    |      |    |         |     |          |
| S24 |    |                |                 | S24   |    |      |    |         |     |          |
| T1  |    |                | ▶ (D. CLUB) ,T1 |       |    |      |    |         |     |          |
| T2  |    |                | ▶ (HALL) ,T2    |       |    |      |    |         |     |          |
| T3  |    |                | ▶ (STADIUM),T3  |       |    |      |    |         |     |          |
| T4  |    |                | ▶ (ROCK) ,T4    |       |    |      |    |         |     |          |
| T5  |    |                | ▶ (POPS) ,T5    |       |    |      |    |         |     |          |
| T6  |    |                | ▶ (CLASSIC),T6  |       |    |      |    |         |     |          |
| T7  |    |                | T7              |       |    |      |    |         |     |          |
| T8  |    |                | T8              |       |    |      |    |         |     |          |
| T9  |    |                | T9              |       |    |      |    |         |     |          |
| T10 |    |                | T10             |       |    |      |    |         |     |          |



— MEMO —

## Disassembly Procedures

### (1) Top cover removal

1. Take off 6 screws ① on the rear side and 2 screws ① on both sides of the cover.
2. Remove the cover.

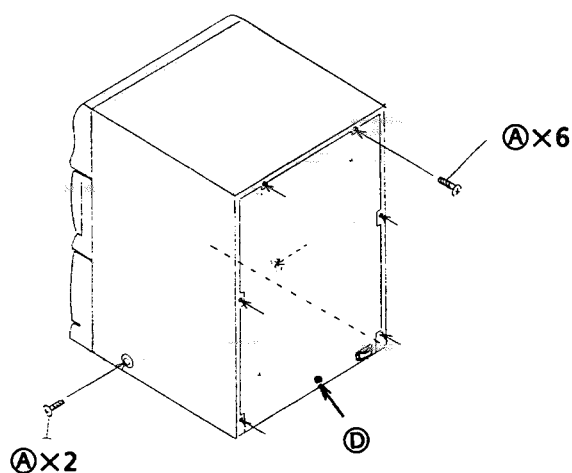


Fig. 1

### (2) Front panel and Cassette mecha ass'y removal

1. Remove the top cover.
2. Remove the main volume knob and remove the NUT for the volumeshaft.
3. Take off 2 screws ② and remove the Main P.C.B. from the cassette P.C.B.'s connector.
4. Drawing out the Disc base ass'y and remove the Tray Fitting.
5. Remove 8 flat wires from each connector.
6. Take off 2 screws ③ on the bottom side.

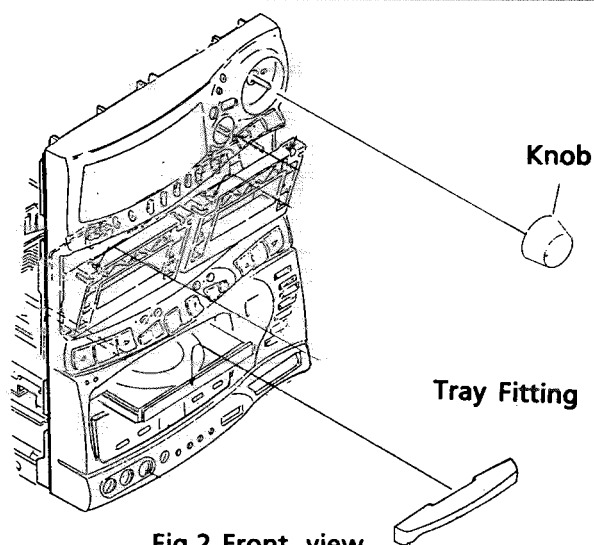


Fig. 2 Front view

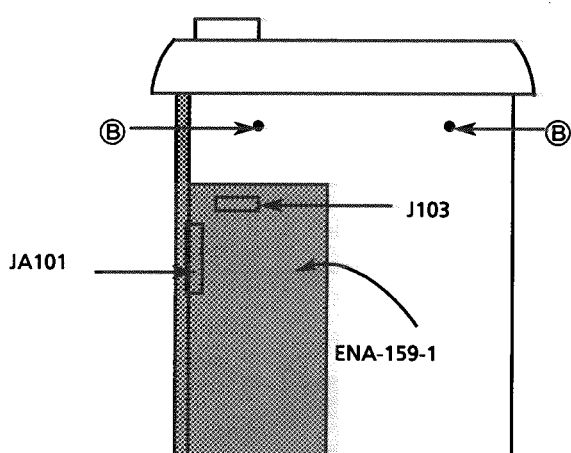


Fig. 3 Top view

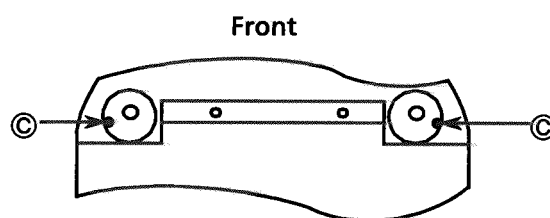


Fig. 4 Bottom view

### (3) Rear panel removal ( including power trans and power amp. P.C.B. and tuner P.C.B. and main P.C.B. )

1. Remove the top cover.
2. Remove the main volume knob and remove the NUT for the volumeshaft.
3. Take off 8 flat wires from each connector.
4. Take off 2 screws ② and remove the Main P.C.B. from the cassette P.C.B.'s connector.
5. Take off a screw ④ and remove the rear panel.

① .. SD5G3006M    ② ... SPST2604Z    ③ ... SBST3006Z    ④ ... E73273-003

**(4) CD Changer mechanism assembly removal**

1. Remove the front panel assembly and rear panel assembly.
2. Take off 4 screws ③ securing the CD changer mechanism assembly.
3. Remove the CD changer mechanism assembly.

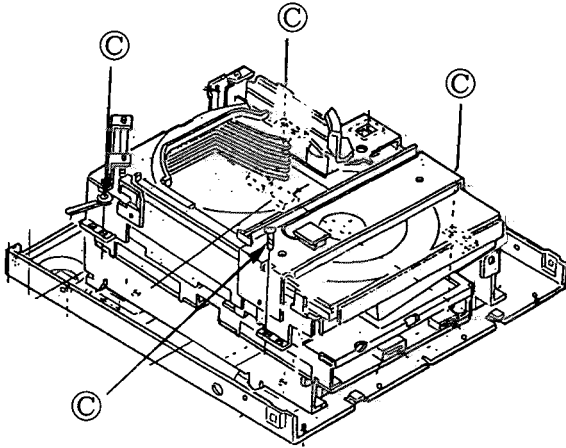


Fig. 5

**(5) Disc base assembly removal**

1. Remove the CD changer mechanism assembly.
2. Take off 2 screws ⑤ securing the clamper base assembly.
3. Turn the gear G4 manually in the direction of arrow as shown in Fig.6, and lower the CD mechanism assembly.
4. Remove a screw ③ securing the disc base bracket visible from notched window of the disc base assembly. (Refer to Fig.7)
5. Draw out the disc base assembly to the position the base is hooked.
6. After turning over the CD changer mechanism assembly, move the point ⑥ engaging the cover plate A (S) and disc base assembly in the direction of arrow and disengage the above plate and assembly. (Refer to Fig.8)
7. While lifting the tip of the disc base assembly, move the blue guide stopper slide switch in the direction of arrow, and remove the switch from the disc base assembly. (Refer to Fig.9)
8. Draw out the disc base assembly further toward the front side until it is hooked by the guide.
9. When the guide stopper switch and guide have been removed by lifting the tip of disc base assembly, then the disc base assembly will be dismounted.

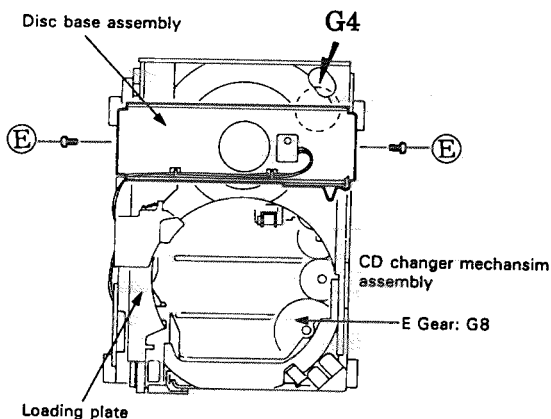


Fig. 6

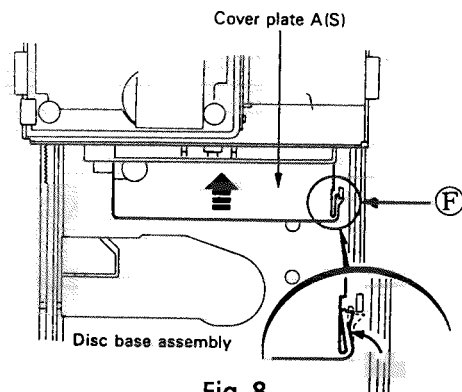


Fig. 8

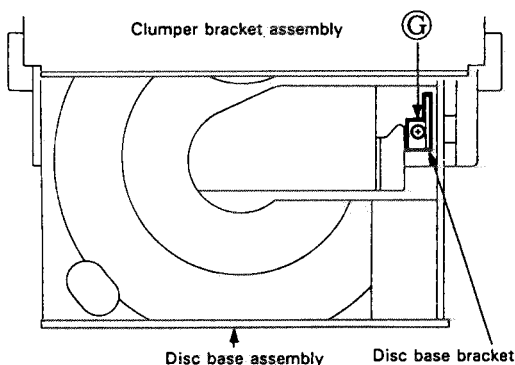


Fig. 7

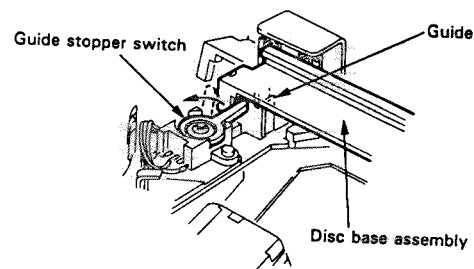


Fig. 9

**(6) CD mechanism removal**

1. Remove the CD changer mechanism assembly.  
(Refer to Item (4) of "CD changer mechanism assembly removal")
2. After turning over the CD changer mechanism assembly, from the CD changer mechanism assembly, remove the 2 screws  $\textcircled{H}$  securing the P.C. board holder bracket. (Refer to Fig.10)
3. From the CD changer mechanism assembly, remove the 2 screws  $\textcircled{I}$  securing the CD mechanism. (Refer to Fig.11)

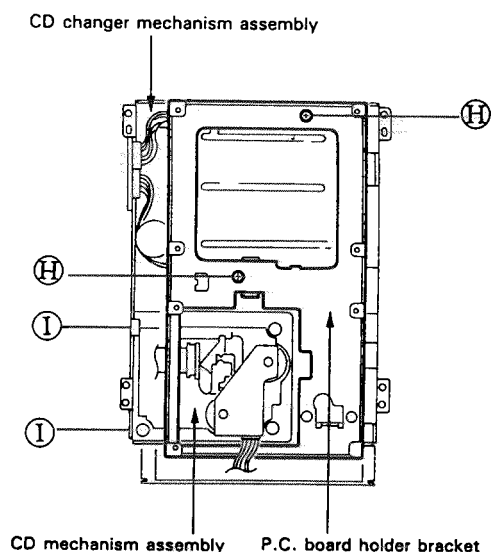


Fig. 10

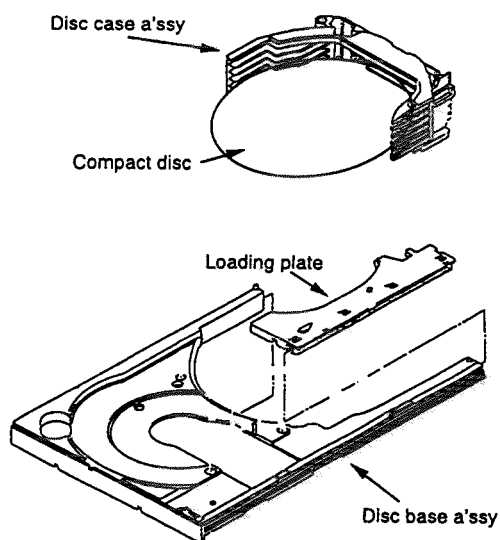


Fig. 12

**■ Forced ejection method of Compact Disc**

1. Remove the CD changer mechanism assembly.  
(Refer to Item (4) of "CD changer mechanism assembly removal")
2. Compact disc ejection method.
  - 2-1. Method of ejecting the compact disc on the disc base ass'y. (Refer to Fig.6)
    - (1) Turn the gear G4 clockwise and lower the CD mechanism.
    - (2) When the loading plate is located at the rear most position, move the plate to the front panel side (At this time, the compact disc will be set on the disc base ass'y by the loading plate).
    - (3) By moving the disc base ass'y to the front panel side, take out the compact disc.
  - 2-2. Method of ejecting the compact disc left on the disc case ass'y (Refer to Fig.12).
    - (1) Move the loading plate to the rear most position.
    - (2) Turn the E gear G8 (Refer to Fig.6) counterclockwise, and move up the disc case ass'y into which any compact disc has been loaded.
    - (3) While turning the E gear G8, align the first compact disc (the lowermost compact disc on the disc case ass'y) to its loading position to the loading plate.
    - (4) After the loading plate onto which the first compact disc is loaded has been moved to the front panel side, pull out the disc base ass'y from the front panel side and take out the compact disc.
    - (5) Eject the second through sixth compact discs as well similarly according to the procedures in Items (1) through (4).  
Whenever the second and subsequent discs are to be ejected, however, align the compact disc to be ejected to the height of the loading plate.

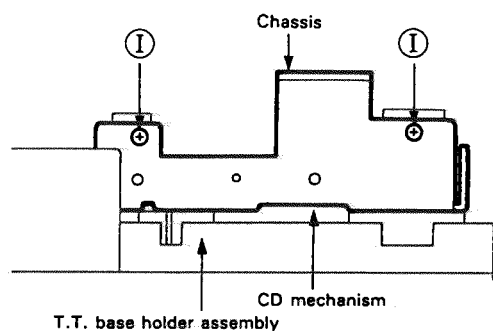


Fig. 11

**(7) Cassette mechanism  
with the PCB (ENJ-083) removal**

1. Remove the (1) and (2).
2. Open the cassette door.
3. Remove the 4 screws ⑫ and the 4 screws ⑪.
4. Remove the Cassette mechanism.

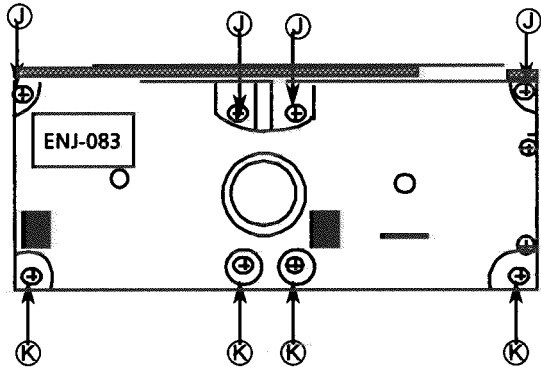


Fig. 13 Front panel Rear view

**(8) Cassette lid removal**

1. Open the cassette door.
2. Remove the Cassette lid slide up ward.

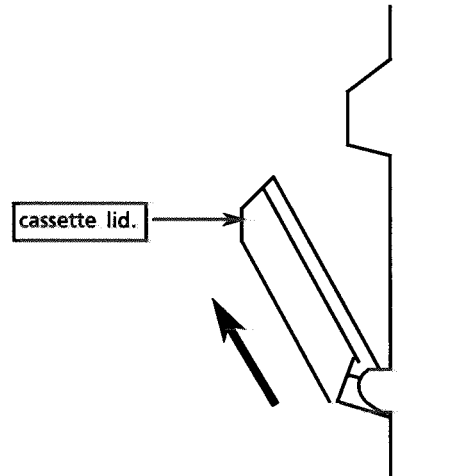


Fig 14 Side view

**(9) Front SW PCB( ENH-263-2,3) removal**

1. Remove the (1),(2),(4)and (5),(7),(10).
2. Remove the Cassette mechanism assembly.
3. Remove the 6 screws ⑤holding the braket .
4. Remove the 14 screws ⑤holding the SW PCB.
5. Remove the SW PCB .

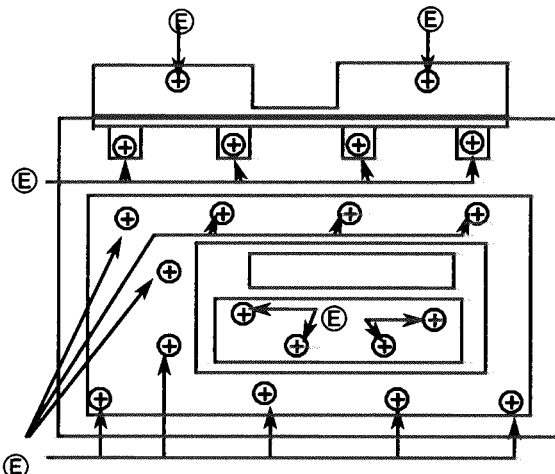


Fig 15 Front panel Rear view

**(10) Cassette door lock plate removal**

1. Remove the (1),(2)and (5),(9).
2. Remove the 2screw ⑥holding the door lock plate.
3. Remove the door lock plate.

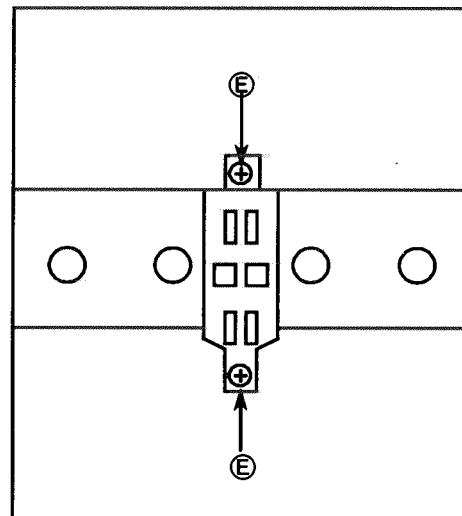


Fig 16 Front panel Rear view

**(11) Damper removal**

1. Remove the cassette mechanism.
2. Remove the spring holding the cassette holder.
3. Press the tab which secures the damper to remove the damper. (See the arrow shown in the figure below)

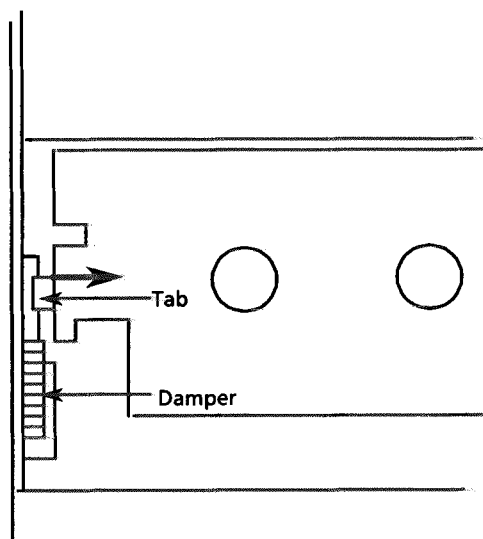


Fig 17 Door damper view

**(12) Cassette holder removal**

1. Remove the Cassette mechanism assembly.
2. Remove the spring holding the cassette holder.
3. Remove Cassette holder.

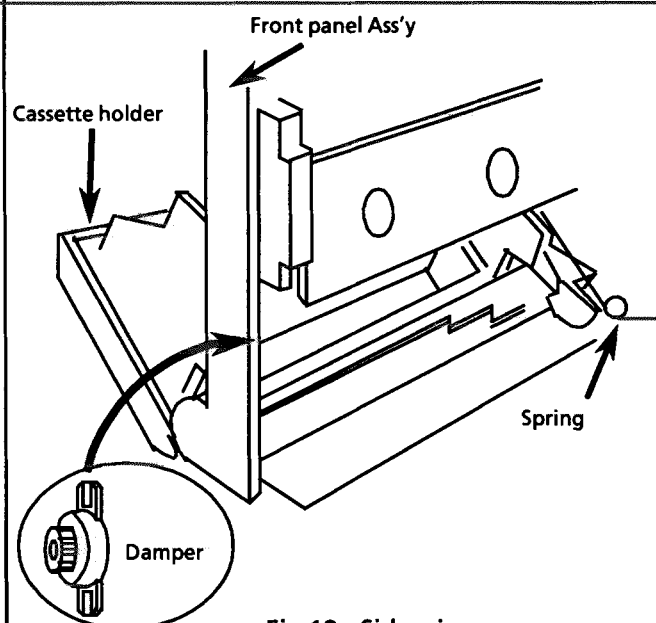


Fig 18 Side view

**(13) Capstan motor removal.**

1. Remove the cassette mechanism.
2. Remove the cassette deck control PCB.
3. Remove the 6 screws holding the bracket.
4. Remove the capstan motor with the bracket.
5. Remove the 2 screws fixing the motor and the bracket.

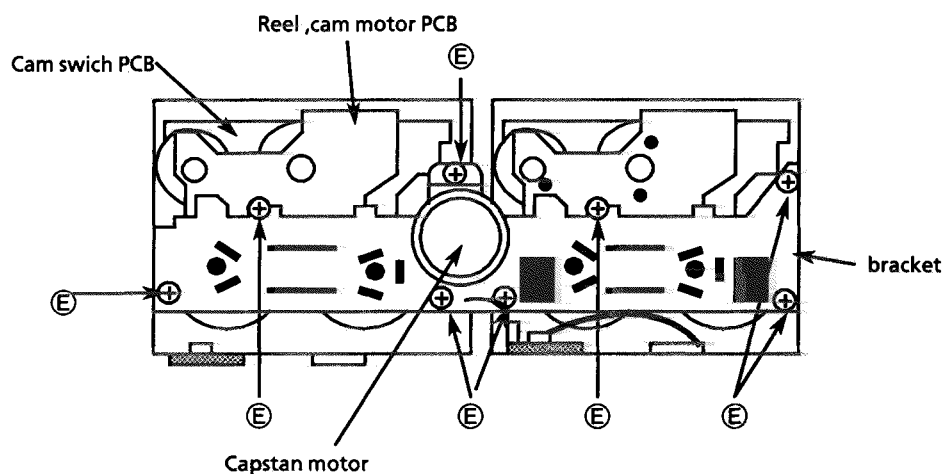


Fig 19 Cassette mechanism bottom view

**(14) Head assembly**

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

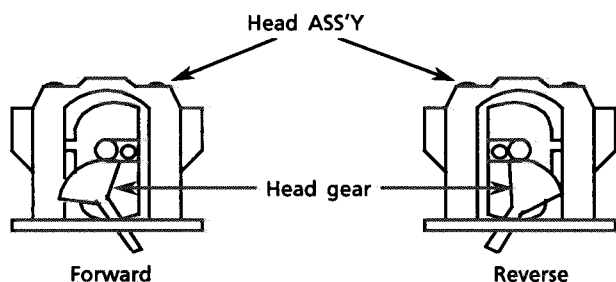


Fig20 Head ass'y side view

**(15) Pinch roller arm assembly removal**

1. Release the hook holding the pinch roller arm assembly to remove the assembly .

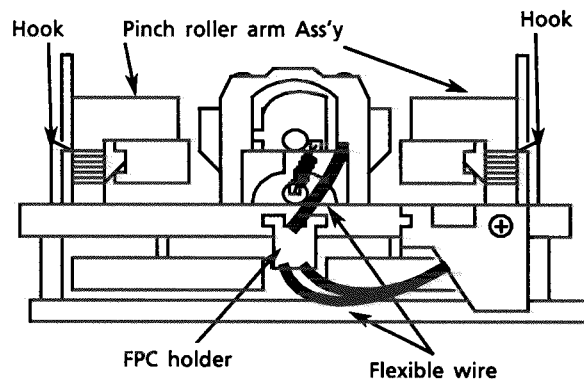


Fig21 Cassette mechanism side view

**(16) Fly wheel removal**

1. Remove the cassette mechanism assembly.
  2. Remove the cassette controller PCB.
  3. Remove the 8 screws (E) and the bracket.
- \* The oil on the capstan must be wiped out after re-assembling.

**(17) Fly wheel assembly**

1. Install the beltB of bossA ,next install the beltA as shown in fig 19 up side.
2. Assemble the d the bracket with the capstan motor.
3. Hang the beltB of the motor pulley using a tweezers and the like as shown in fig 19 down side .

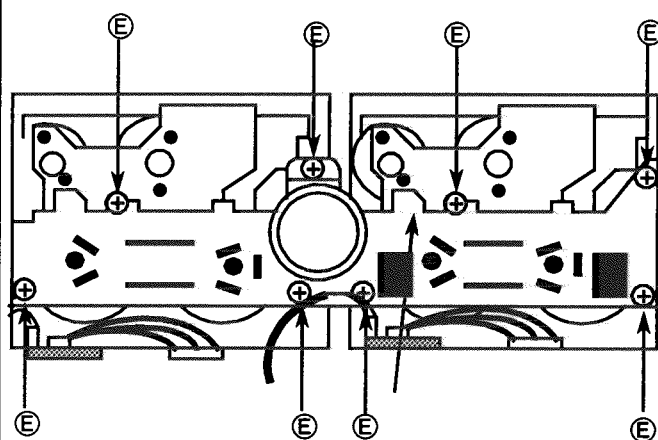


Fig 22 Cassette mechanism bottom view

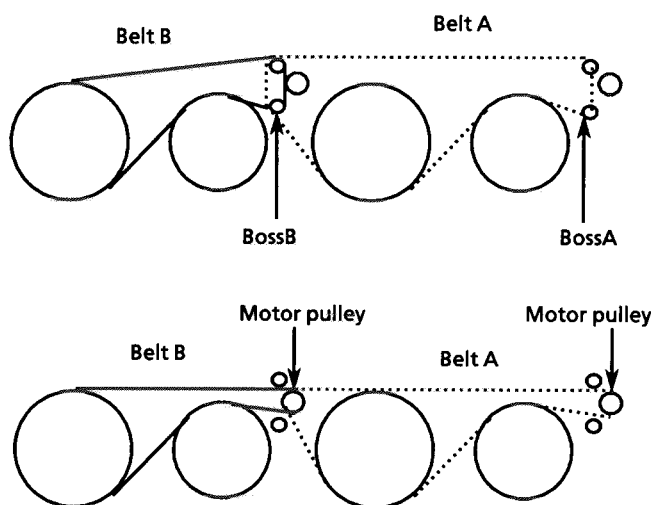


Fig 23 Fly wheel view



**(18) Reel and cam motor removal**

1. Remove the cassette mechanism assembly.
2. Remove the cassette controller PCB.
3. Remove the (15).
4. Remove the 2screws① and 2screws②.
5. Unsolder the reel and cam motor PCB .
6. Remove the motor .

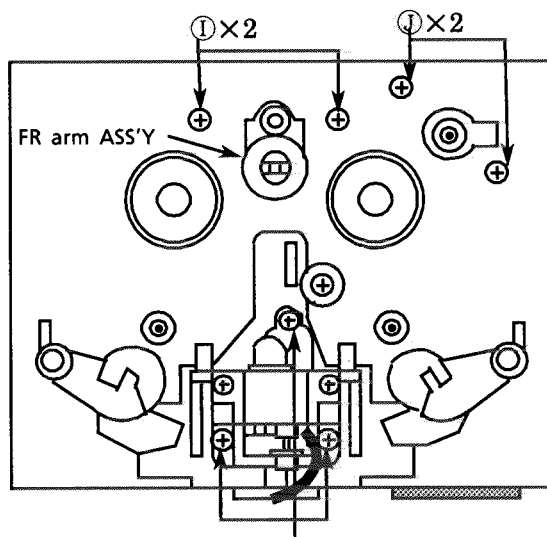


Fig 24 Cassette mecha Top view

**(19) Cam SW PCB removal**

1. Remove the (18).
  2. Remove the reel and cam motor PCB.
  3. Remove the screw and hooks fixing the PCB to remove the Cam SW .
- When assembling the cam switch ,install it so that the part ④ meets the part ⑤.

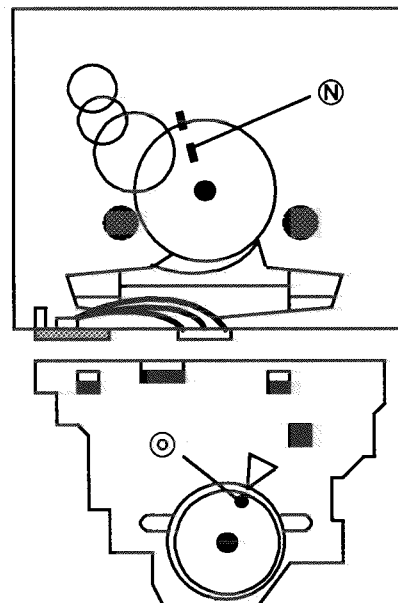


Fig 25 AMP PCB view

**(20) Cassette control PCB(ENJ-083)removal.**

1. Remove the (1)(2)and (5).
2. Disconnect the J303,J304.
3. Remove the 2screws ③ holding the Cassette control PCB.
4. Remove the Cassette control PCB.

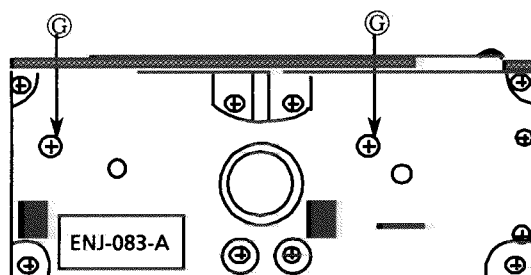


Fig 26 Cassette mechanism Bottom view

**(21) Head assembly removal**

1. Remove the cassette mechanism assembly.
2. Remove the FPC wire to the Cassette control PCB.
3. Remove the 3 screws ⑥ holding the Cassette control PCB.

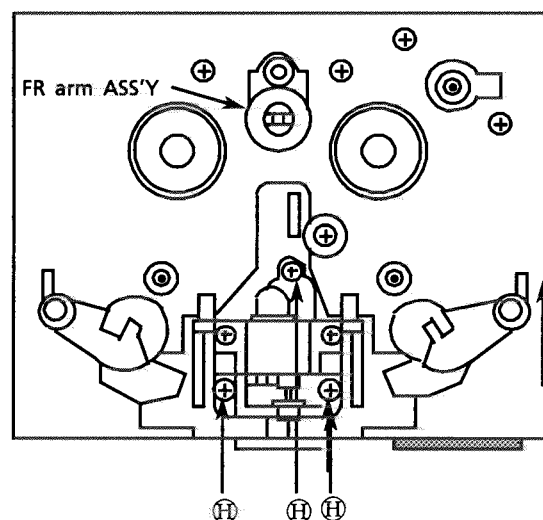
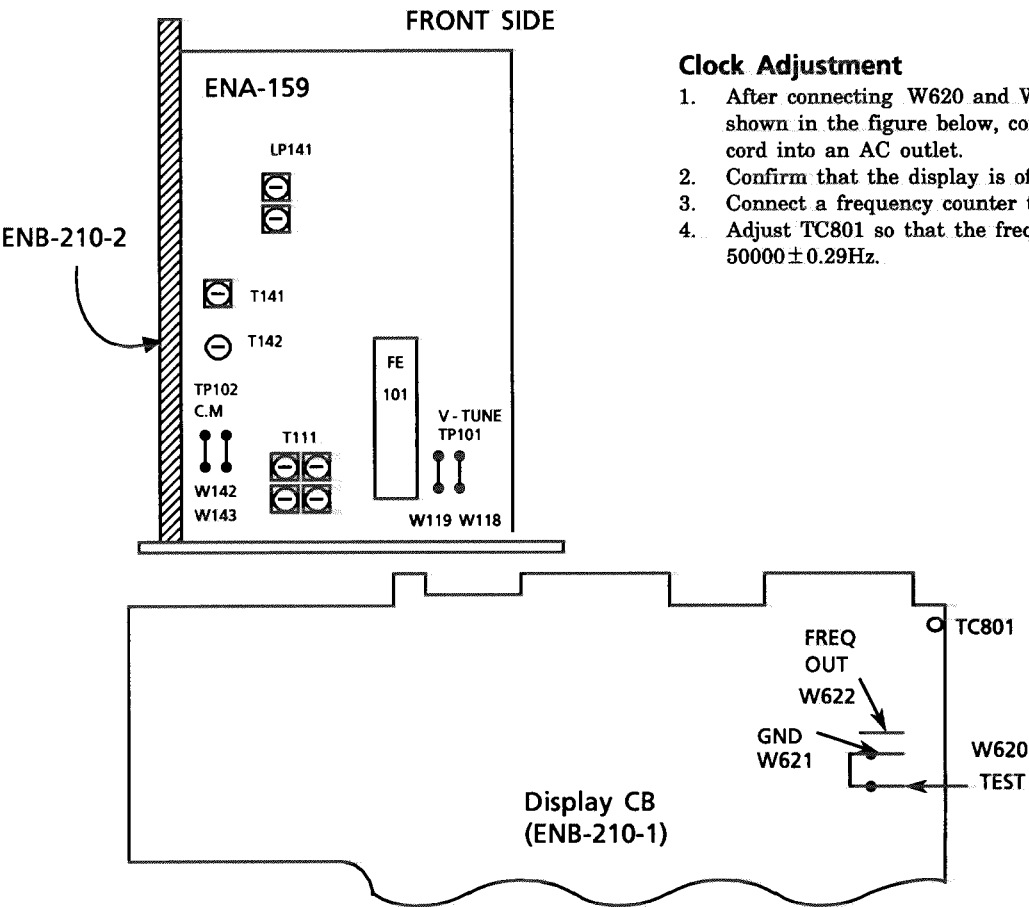


Fig 27 Front panel rear view

Adjustment Procedures

Tuner section



Clock Adjustment

1. After connecting W620 and W621 with some wire as shown in the figure below, connect the AC power cord into an AC outlet.
2. Confirm that the display is off and remove the wire.
3. Connect a frequency counter to W622 and W621.
4. Adjust TC801 so that the frequency becomes  $50000 \pm 0.29\text{Hz}$ .

(1) Tuning voltage

Confirm the voltages at TP101 is within the standard values shown in the table below. If the voltages are not satisfied, replace T111 for MW and for LW or FE101 for FM.

FM Tuning voltage (Unit : V)

| Area               | Frequency               |          |
|--------------------|-------------------------|----------|
|                    | 87.5MHz                 | 108MHz   |
| EXCPET EAST EUROPE | $1.6 \pm 0.5(\text{V})$ | 7~10 (V) |
| EAST EUROPE        | $1.6 \pm 0.5(\text{V})$ | 7~11 (V) |

AM Tuning voltage (Unit : V)

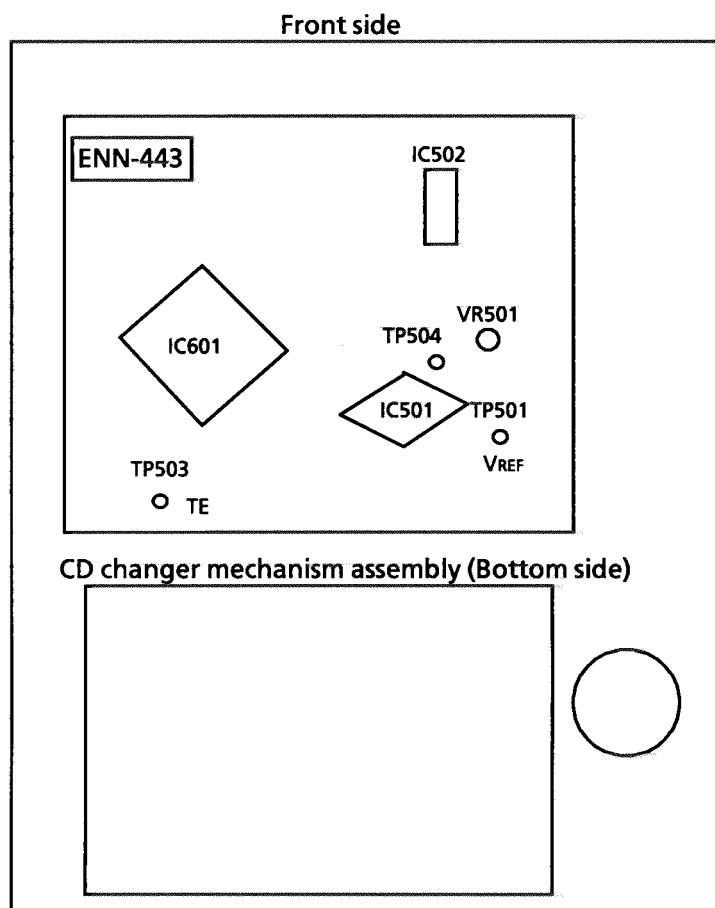
| Area                          | Frequency (MW) |           |           |           |           |           |           | Frequency (LW) |        |
|-------------------------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|----------------|--------|
|                               | 522KHz         | 530KHz    | 531KHz    | 1600KHz   | 1602KHz   | 1629KHz   | 1710KHz   | 144kHz         | 353kHz |
| the U.K. , Europe             | 1.0 > 0.5      | —         | —         | —         | —         | 7.5 < 8.5 | —         | 0.7 <          | 5.5~9  |
| U.S.A,Canada                  | —              | 1.0 > 0.5 | —         | —         | —         | —         | 7.5 < 8.5 | —              | —      |
| Universal(Chanel Space 9kHz)  | —              | —         | 1.0 > 0.5 | —         | 7.5 < 8.5 | —         | —         | —              | —      |
| Universal(Chanel Space 10kHz) | —              | 1.0 > 0.5 | —         | 7.5 < 8.5 | —         | —         | —         | —              | —      |
| Australia                     | 1.0 > 0.5      | —         | —         | —         | —         | 7.5 < 8.5 | —         | —              | —      |

(2) FM center meter

Receive a broadcast by using the function of 'AUTO STOP'.  
Adjust T141 (detector coil) so that the voltage at TP102 becomes  $0 \pm 1.5\text{mV}$ .

# Adjustment Procedures

## ■ CD section



1. CD changer mechanism assembly removal.
2. Re-assembling front panel assembly (including cassette mechanism ass'y) and rear panel ass'y.
3. Connections all wires connection.
4. Adjusting Tracking offset adjustment.

### Tracking offset adjustment

- 1) Measuring instruments : Oscilloscope, Normal disc
  - 2) Adjusting procedure
    - (1) Connect an oscilloscope with TP503 (HOT side) and TP501 (EARTH side) on the CD servo (ENN-443) PC board.
    - (2) Play a disc.
    - (3) Short circuit between TP504 and TP501.
    - (4) Adjust VR501 for setting the DC level of the tracking error (offset) becomes 0.
- Note : Adjust VR501 for setting the waveform becomes symmetrical around the 0 level.  
Input to the oscilloscope should be DC coupling.

## ■ Deck section

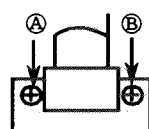
### 1. Measuring instruments

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

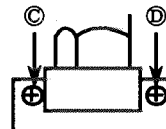
| Tape No.            | Frequency | Level (Wow & Fkutter) | Purpose                                 |
|---------------------|-----------|-----------------------|-----------------------------------------|
| VTT-703L            | 10kHz     | − 10dBs               | Head azimuth , Frequency Response       |
| 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                              |
| TMT-7088S           | —         | —                     | Recording standard Normal : UR          |
| AC-712              | —         | —                     | Recording standard METAL :MA            |
| AC-513              | —         | —                     | Recording standard CrO <sub>2</sub> :SA |
| TW-2111, TW-2121    | —         | —                     | Forward / reverse play torque measuring |
| TW-2231             | —         | —                     | Feed forward / rewind torque measuring  |
| C-120 Tape          | —         | —                     | Confirming the tape running             |

### 2. Adjustment and repairing the mechanism

| Item                | Adjustment method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Standard value | Remarks                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Head azimuth        | <p>Deck A</p> <ol style="list-style-type: none"> <li>1. Connect an electronic voltmeter to the DOLBY TP (figure 3) to playback VTT-703L.</li> <li>2. Adjust screw 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 torque 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 torque meter.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 80 ~ 200 g·cm  | When the standard torque cannot be obtained, replace the FR arm assembly or motor.                                                                                                                                                                                                                                                                                                                                                              |
| Rewind torque       | 1. Measure the torque in the rewind mode by the torque meter.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 80 ~ 200 g·cm  | When the standard torque cannot be obtained, replace the FR arm assembly or motor.                                                                                                                                                                                                                                                                                                                                                              |
| Wow & flutter       | <ol style="list-style-type: none"> <li>1. Connect the wow &amp; flutter meter to the DOLBY TP (figure 3) and play back VTT-712.</li> <li>2. Its reading should be within 0.2% (WTD).</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 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.                                                                                                                                                                                                                                                                                                              |



Deck A



Deck B

Figure 1

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

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

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

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

0dBs=0.775V.

| Item                                            | Adjustment Method                                                                                                                                                                                                                                                                                                                    | Adjustment Location                                              | Standard Value                                       | Remarks                                                                                                                                                                                                                                                   |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tape Speed                                      | 1. Connect a frequency counter to the DOLBY TP (figure 3) and play back VTT-712.<br>2. Adjust the semi-fixed resistor VR948 on ENJ-083.                                                                                                                                                                                              | VR948                                                            | 3,000 Hz<br>$\pm 10$ Hz                              | Connect a wow & flutter meter with a built-in frequency counter to the speaker terminals.                                                                                                                                                                 |
| Standard level (Playback Level)                 | 1. Connect an electronic voltmeter to the DOLBY TP (figure 3).<br>Play back VTT-724 (1 kHz : -4dBs) to adjust the semi-fixed resistors.                                                                                                                                                                                              | Deck A<br>L: VR311<br>R: VR312<br>Deck B<br>L: VR333<br>R: VR334 | 488mV<br>(-4dBs)                                     | 1) The playback level varies when the head is replaced so should be adjusted.<br>Use an electronic voltmeter with an impedance of 100 k $\Omega$ or more.                                                                                                 |
| Playback Frequency Response                     | 1. Connect an electronic voltmeter to the DOLBY TP (figure 3).<br>2. Play VTT-703L (10kHz : -10dBs) and adjust semi-fixed resistors to obtain the standard values.                                                                                                                                                                   | Deck A<br>L: VR303<br>R: VR304<br>Deck B<br>L: VR323<br>R: VR324 | 245mV<br>(-10dBs)                                    | —                                                                                                                                                                                                                                                         |
| Recording Bias Frequency                        | 1. Connect a frequency counter to the BIAS TP (figure 3), and perform a recording to adjust bias frequency.                                                                                                                                                                                                                          | L331                                                             | 100 kHz<br>$\pm 5$ kHz                               | Set the BEAT CUT SWITCH to "1".                                                                                                                                                                                                                           |
| Record / Play Frequency Response (Bias current) | 1. Supply 1kHz and 12.5kHz with 30mV signals to PHONO/AUX terminals respectively to record them.<br>2. Connect an electronic voltmeter to the DOLBY TP (figure 3) to confirm the recorded values.<br>3. If the values are not satisfied, adjust the semi-fixed resistors and record the signal again to confirm the recorded values. | L: VR355<br>R: VR356                                             | 0 $\pm 2$ dB<br>with<br>1 kHz<br>as the<br>standard. | <b>Refer to figure 2 below.</b><br>1) The recording and playback frequency response of a cassette deck are adjusted by adjusting the bias.<br>2) Perform the adjustment with normal tape and confirm that the values are within the range for metal tape. |

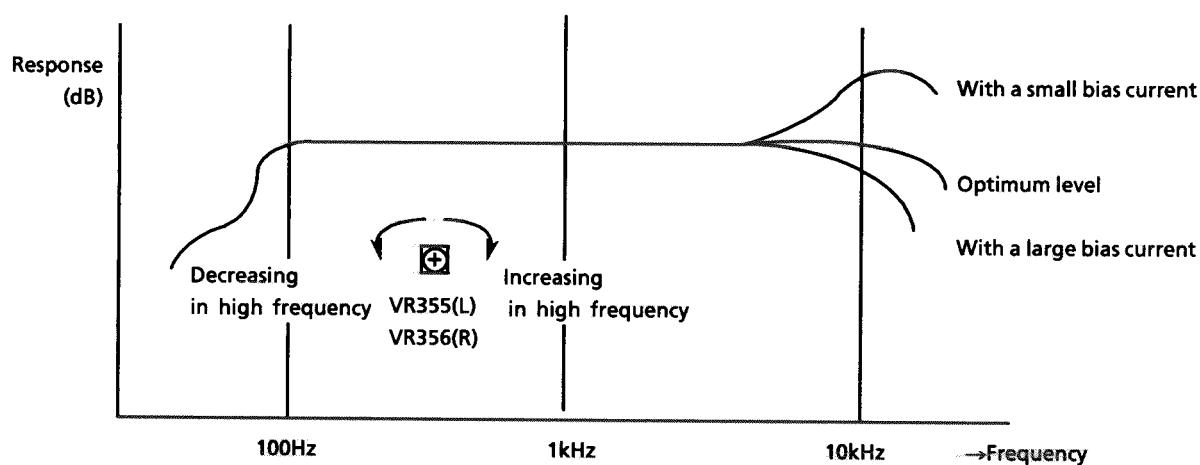


Figure 2

| Item                            | Adjustment Method                                                                                                                                                                                                                                                                                                                      | Adjustment Location    | Standard Value                              | Remarks                                                                                           |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------------------------------|---------------------------------------------------------------------------------------------------|
| Record / Playback Sensitivity   | 1. Input a 1kHz (300mV) signal to AUX terminal and record it with a normal tape.<br>2. Connect an electronic voltmeter to the DOLBY TP (figure 3) to confirm the values.<br>3. If the values are not satisfied , adjust the semi-fixed resistors and record the signal again to confirm the values.                                    | L : VR205<br>R : VR206 | -5.5dBs (411mV)                             | Adjust with normal tape and make sure that the left / right level difference is 1.0dB or less     |
| Recording / playback distortion | 1) Input a 1 kHz (300mV) to AUX terminal and record it.<br>2) Play it back and check the speaker out with a distortion meter to make sure it is within the criterion.                                                                                                                                                                  |                        | less than 3% (Normal/ CrO <sub>2</sub> )    | Perform after the record / play frequency response and recording /playback sencivity adjustments. |
| Recording / playback S/N ratio  | 1) Input a 1 kHz (300mV) signal to AUX terminal and record it. While recording, remove the input and record without the signal.<br>2) Connect a electronic voltmeter to the speaker terminals to measure the output levels.<br>3) Confirm that the output level ratio between the signals with a 1kHz and no signal is more than 40dB. |                        | more than 40 dB (Normal/ CrO <sub>2</sub> ) |                                                                                                   |
| Erase ratio check               | 1. Record a music source using the Metal tape.<br>2. Rewind and erase the recorded section.<br>3. Comfirm nothing can be heard.                                                                                                                                                                                                        | —                      | —                                           | —                                                                                                 |
| Music Scan                      | 1. Make sure not to work the music scanning operation at the start of tape wind.<br>2. Make sure to work the music scanning operation at the end of tape wind.                                                                                                                                                                         | —                      | —                                           | —                                                                                                 |

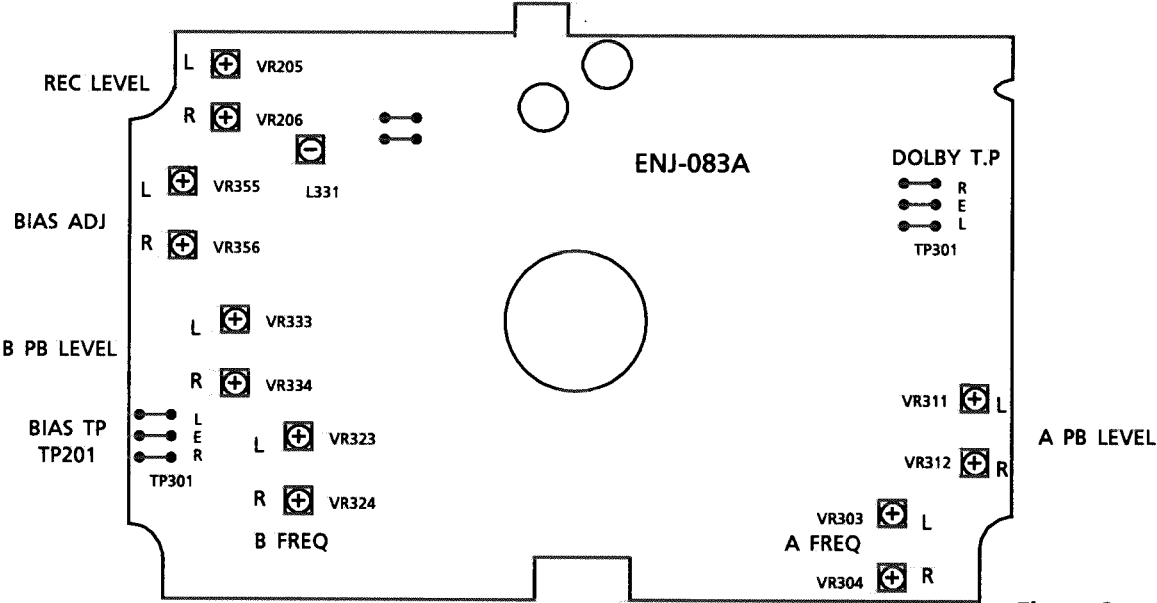


Figure 3

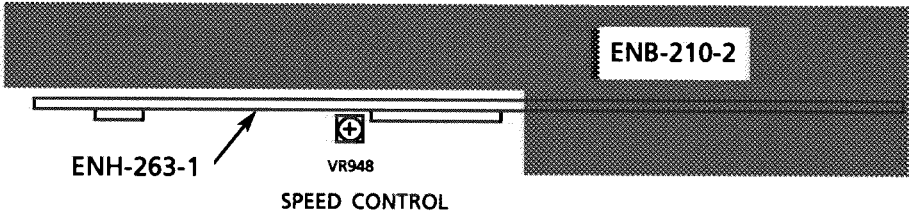
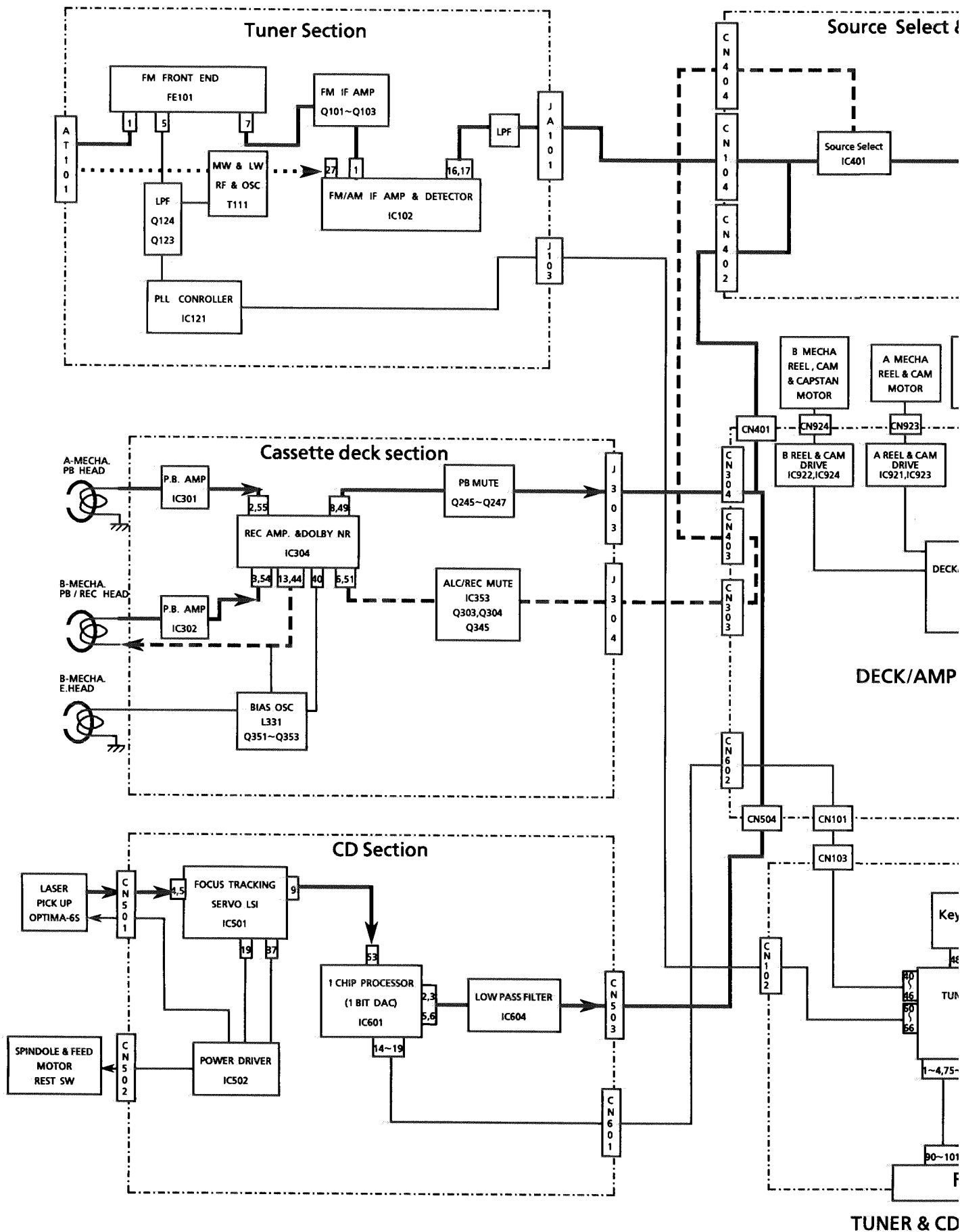


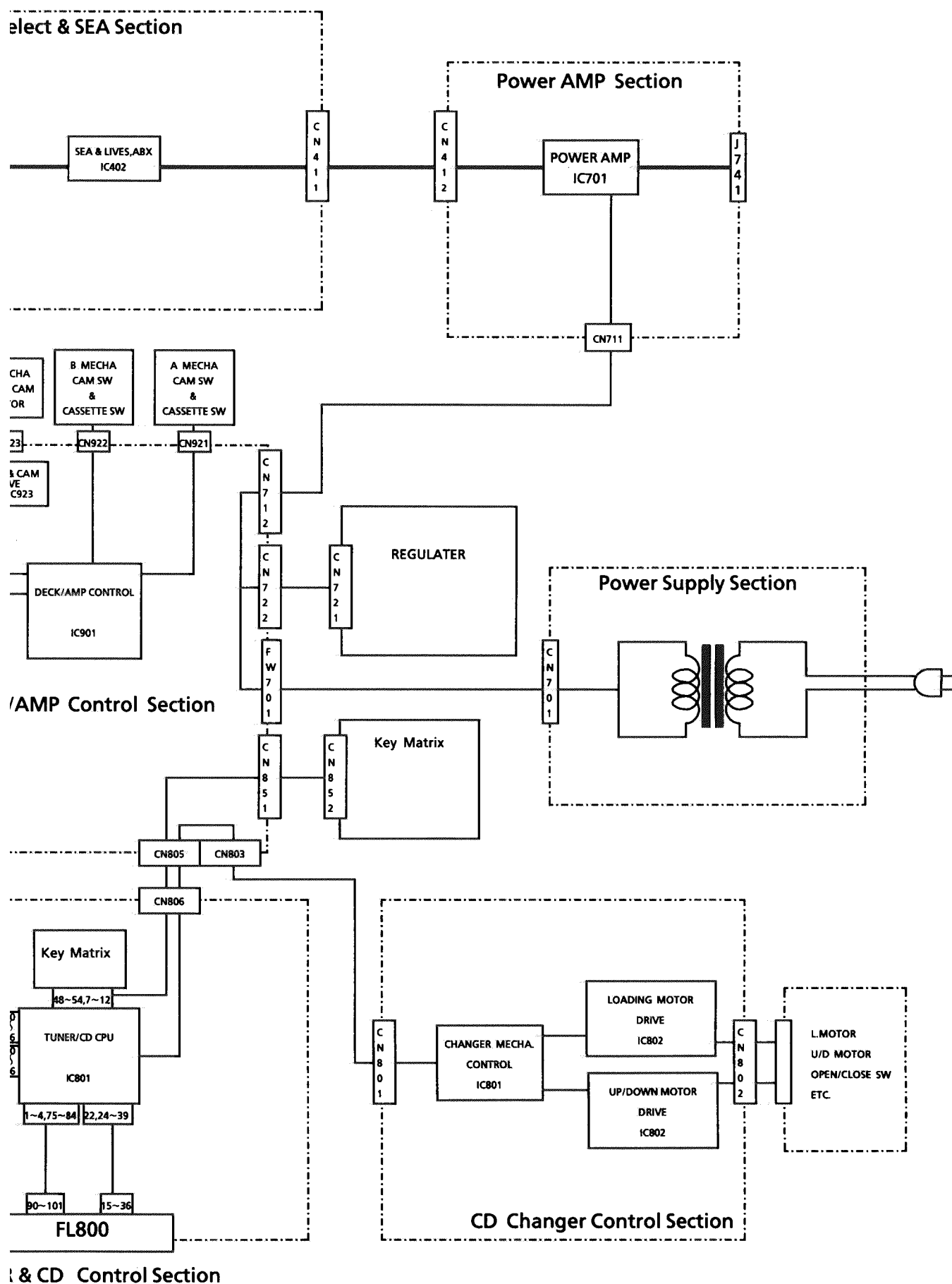
Figure 4



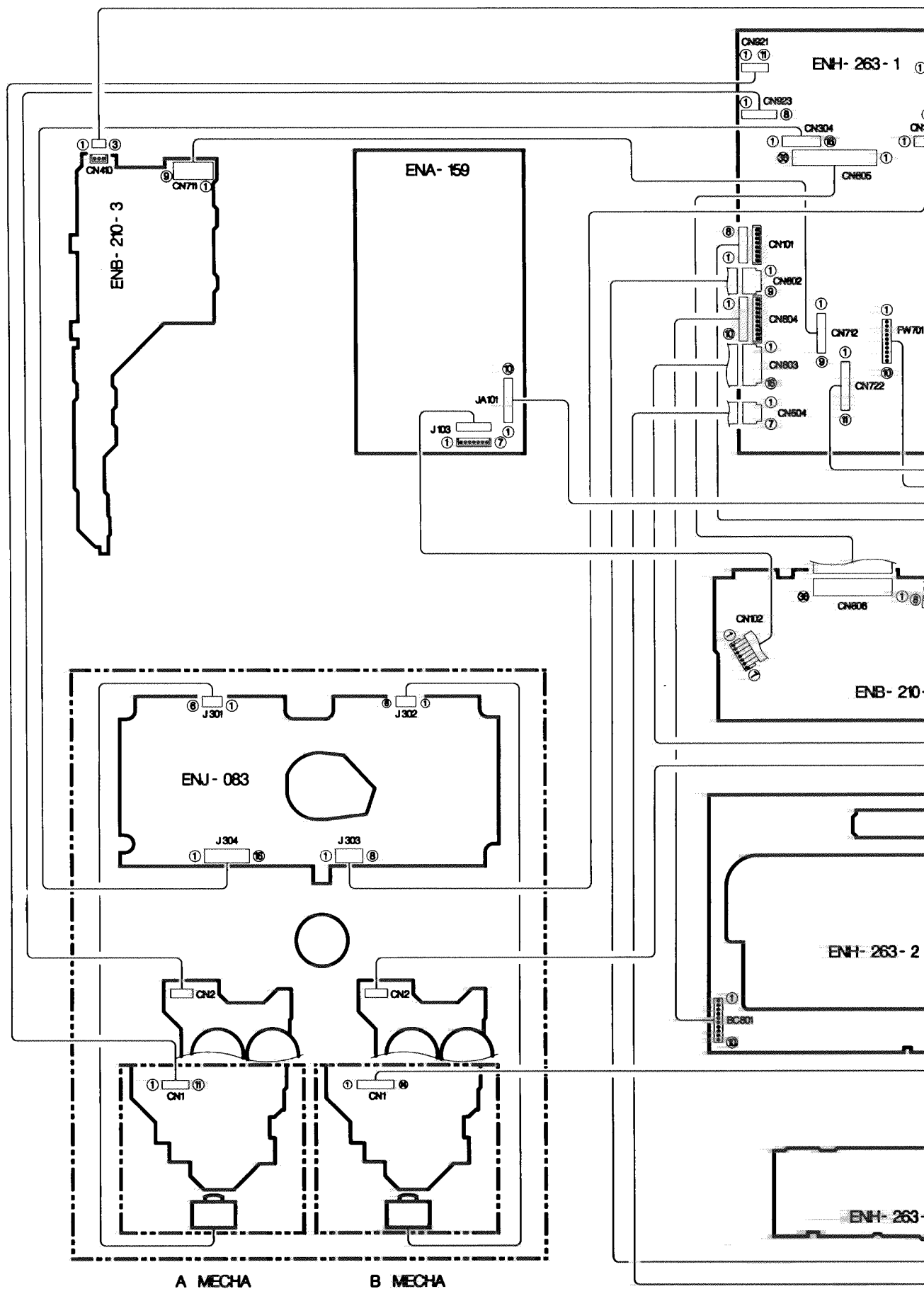
# Block Diagrams

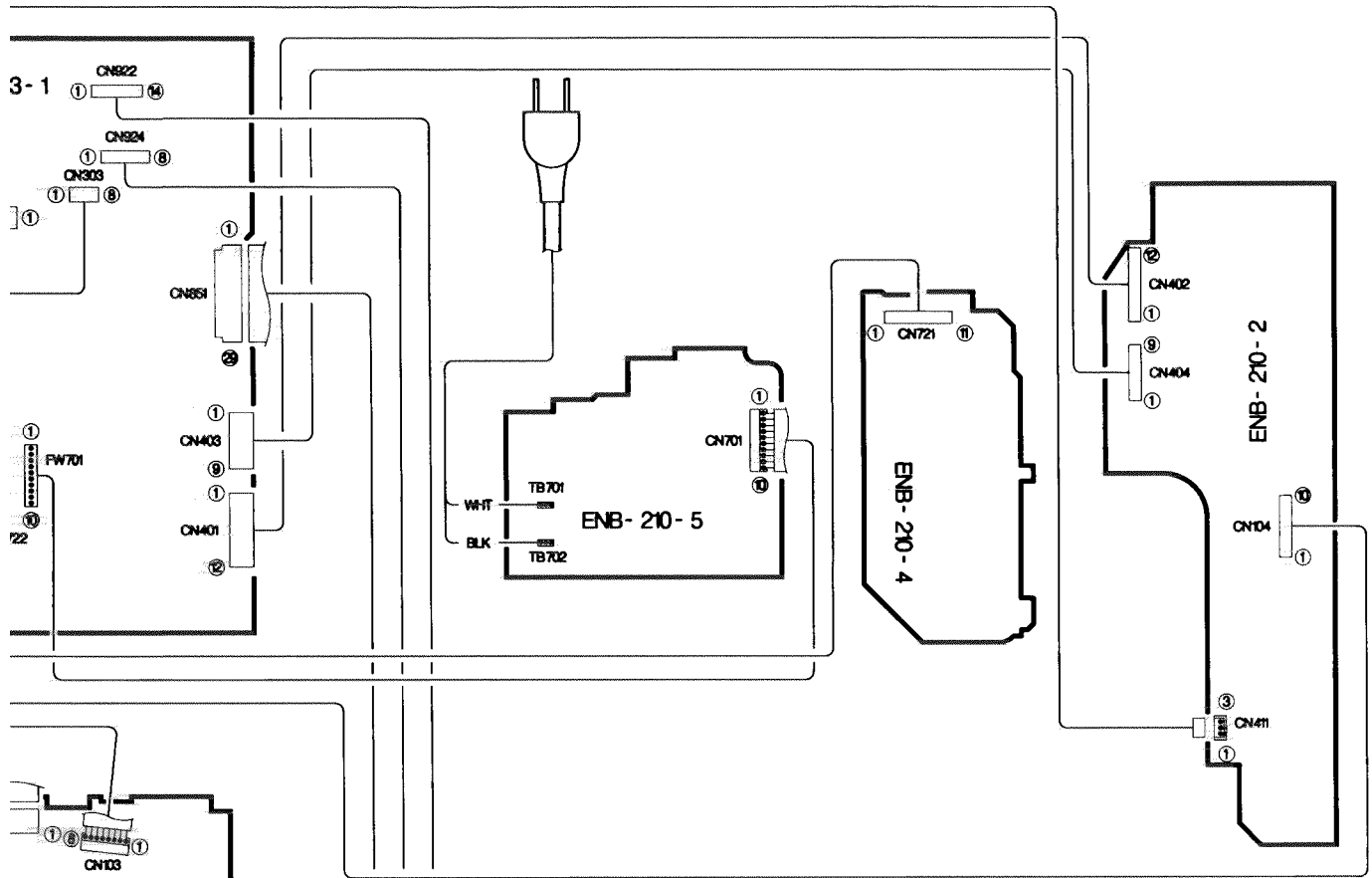




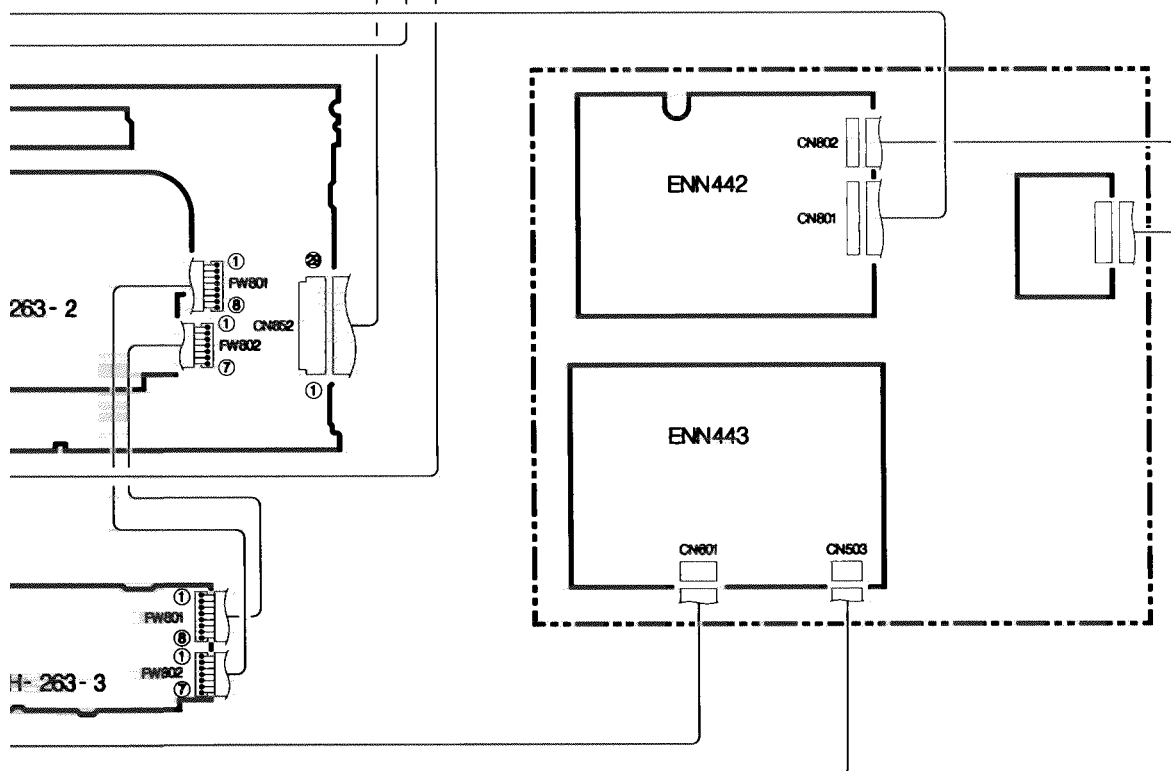


Connection Diagram





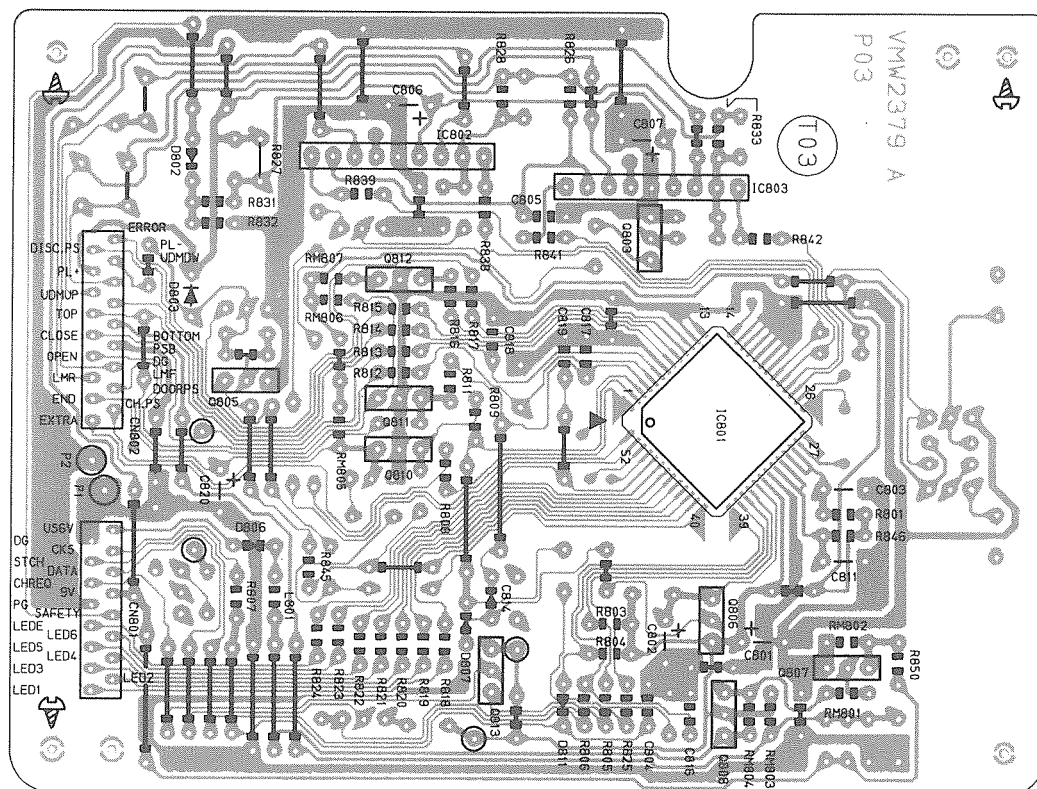
IB-210-1



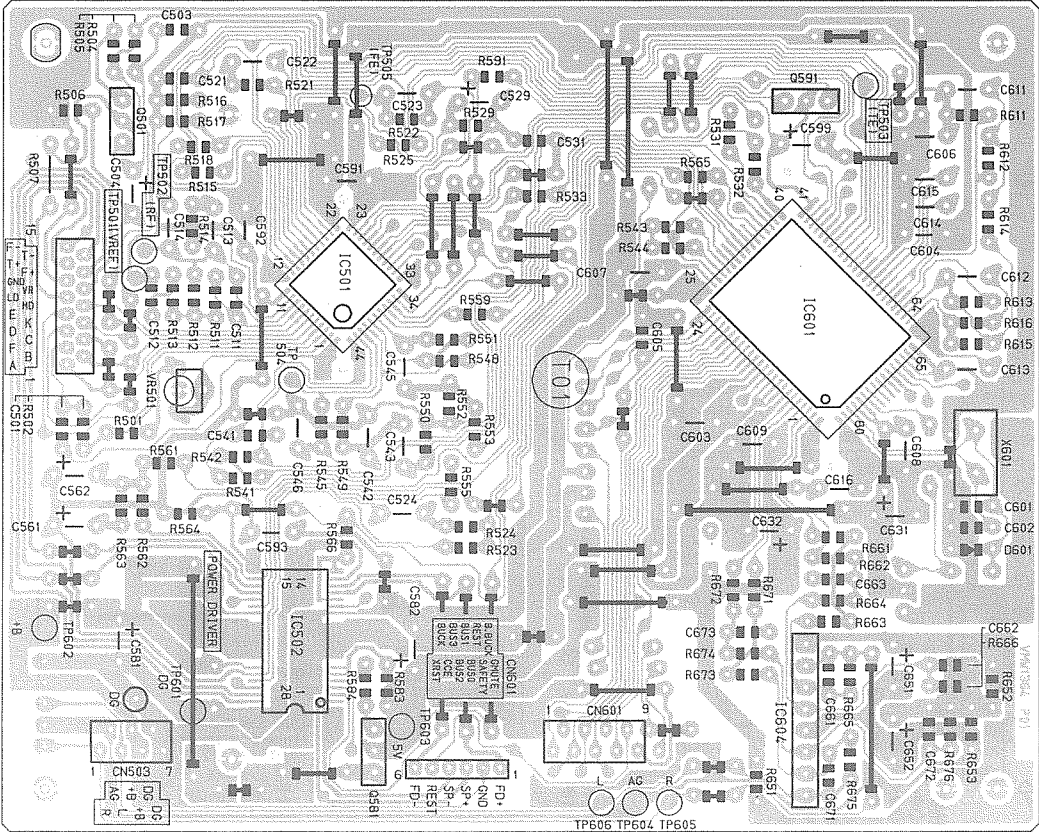


## Printed Circuit Boards

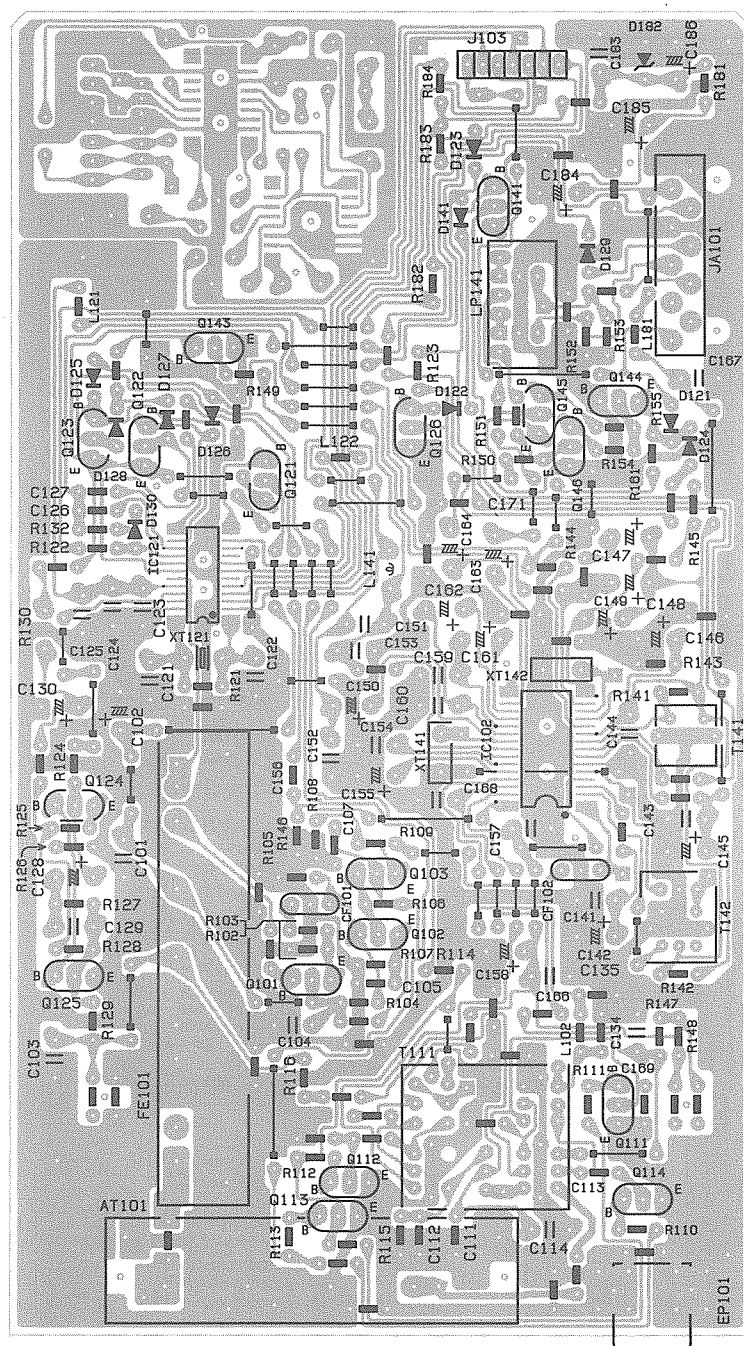
### ■ CD Changer Mechanizm Control P.C.Board ( ENN-442 )



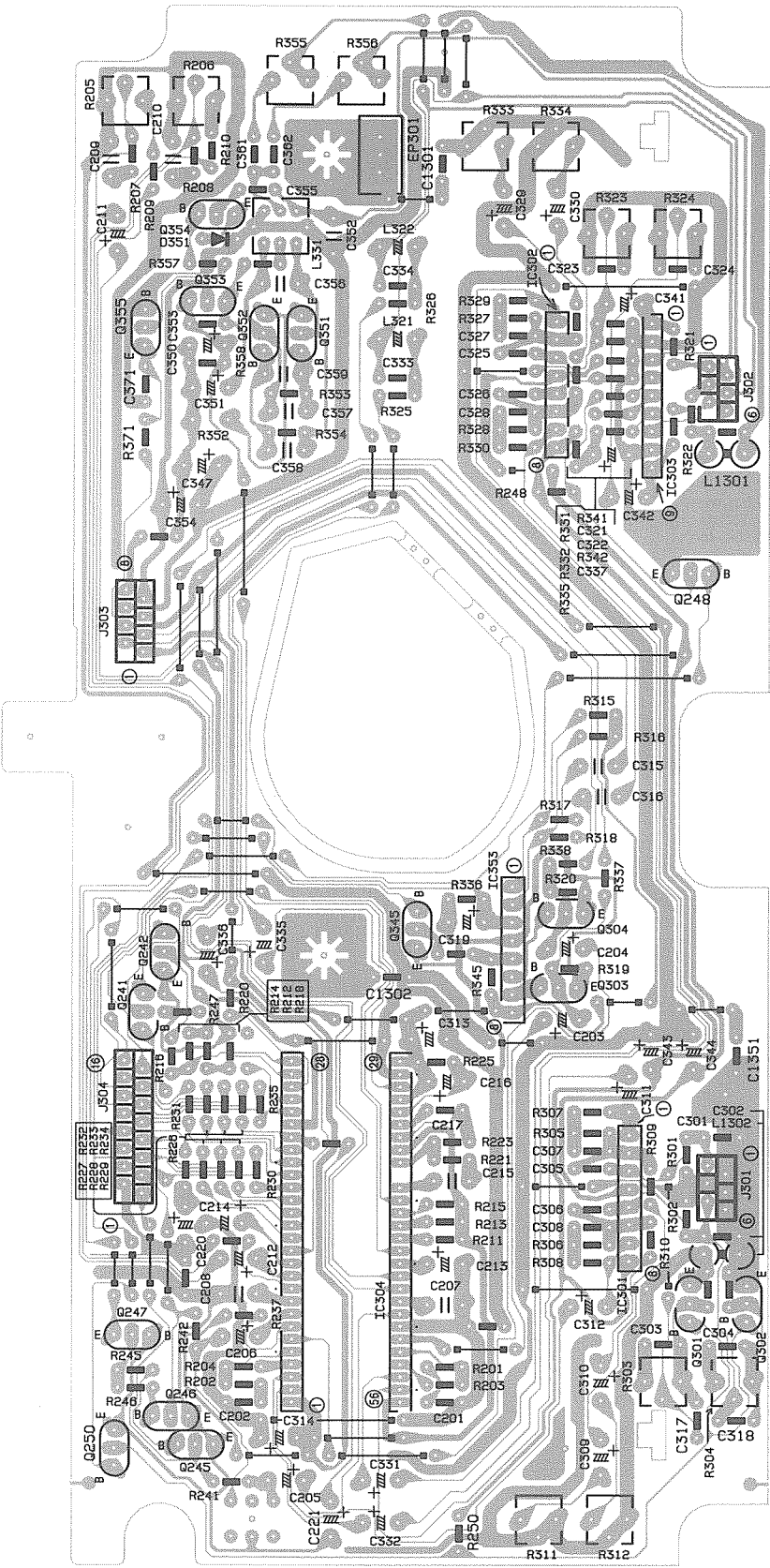
■ CD Servo & Low Pass Filter P.C.Board (ENN-443)



■ Tuner P.C.Board (ENA-159)



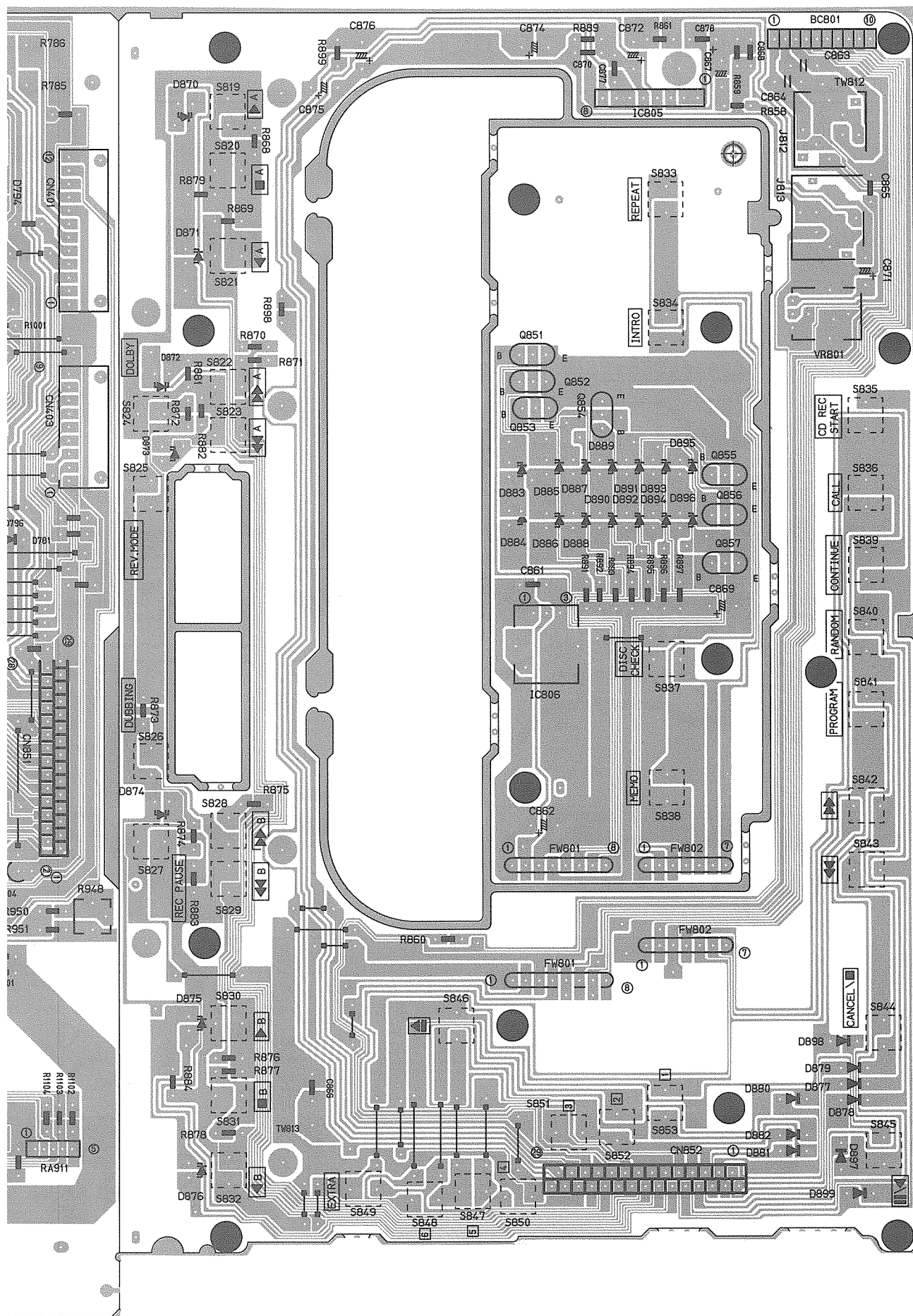
■ Deck Amp., EQ & NR P.C.Board (ENJ-083)





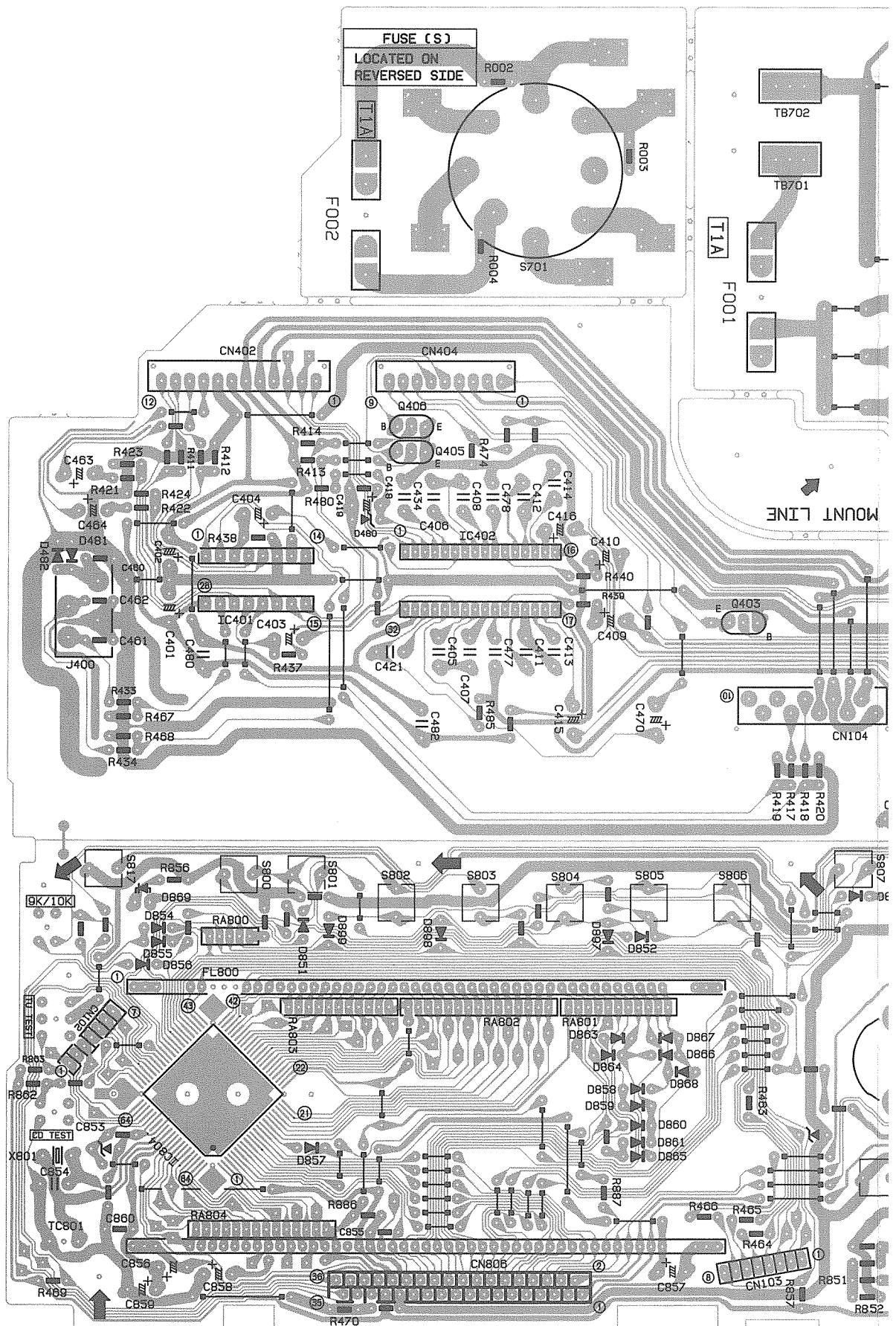


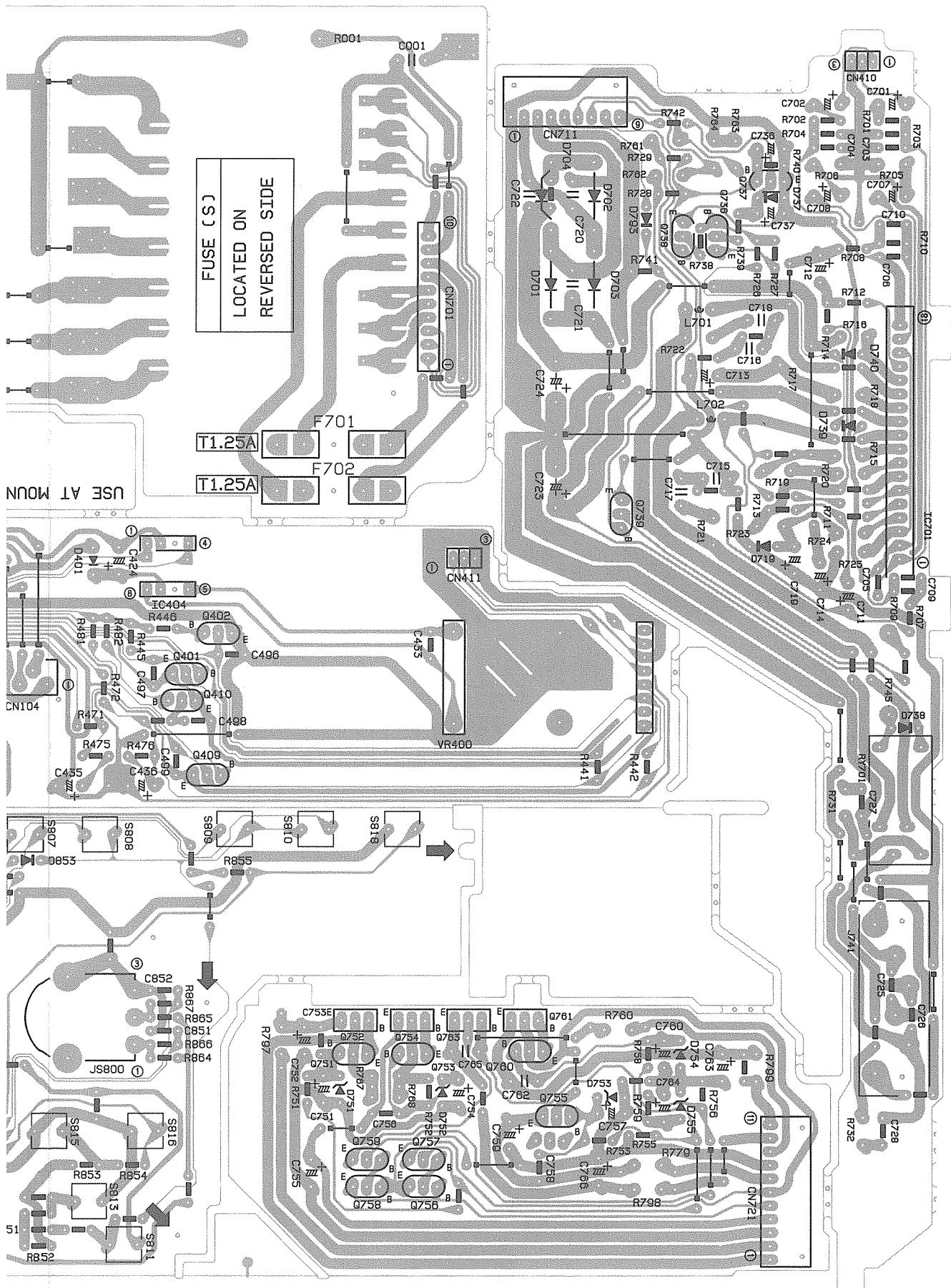






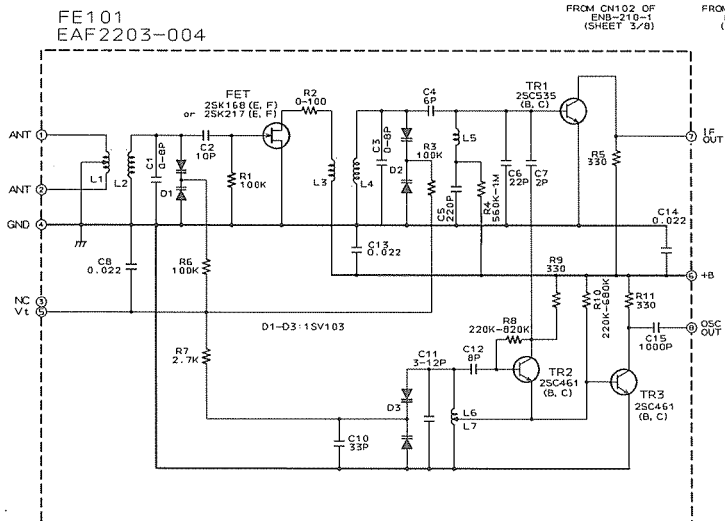
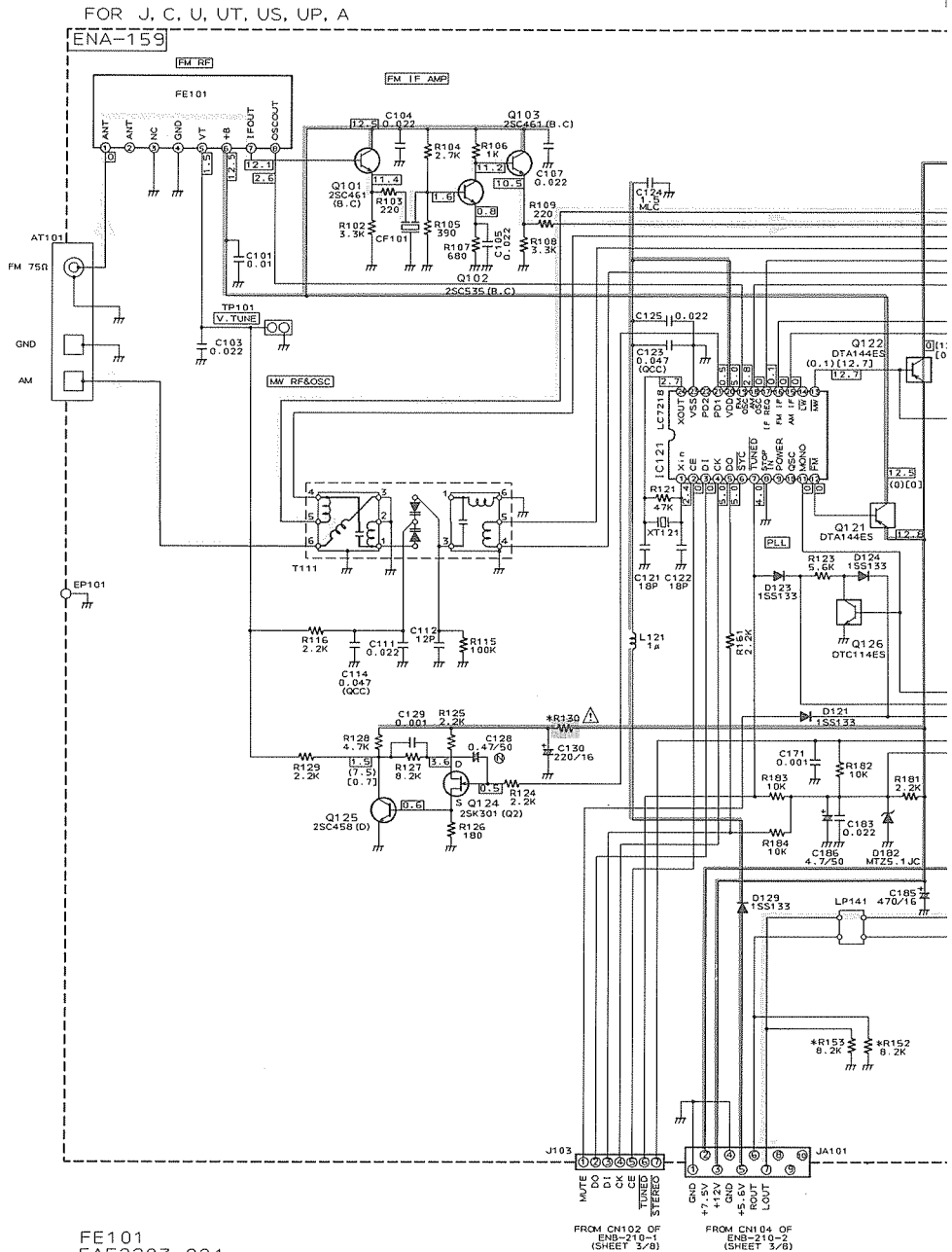
■ Tuner / CD Control, FL Display & Power Supply P.C.Board ( ENB-210)



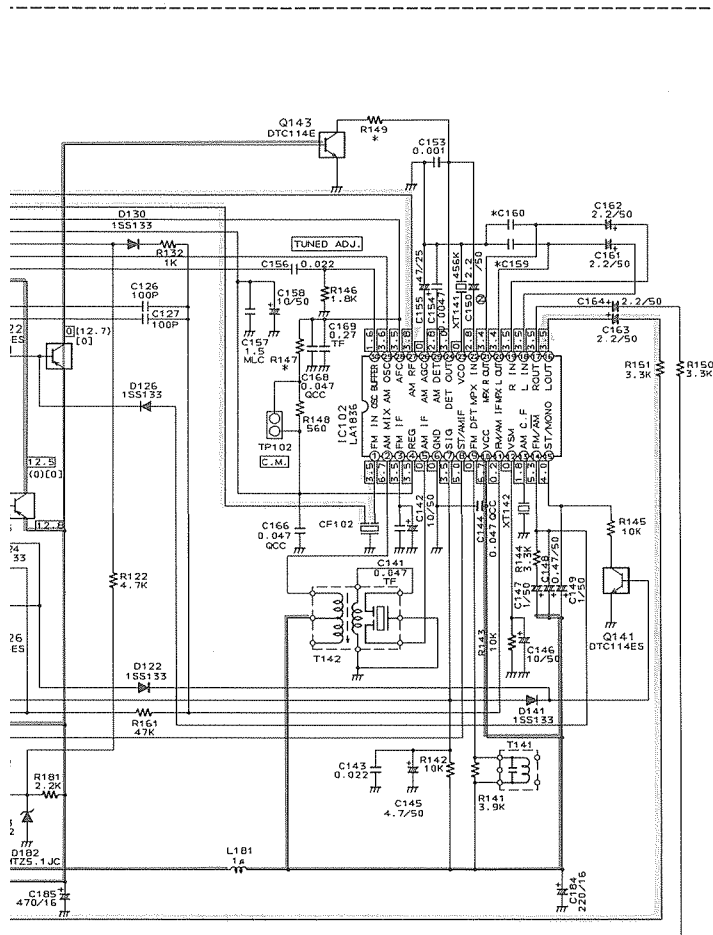


## Schematic Diagrams

## ■ Tuner Section



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



\* MARK

|           | U.                | UT. | US. | UP | A                 | J. | C                 |
|-----------|-------------------|-----|-----|----|-------------------|----|-------------------|
| C159, 160 | 0.033             |     |     |    | 0.022             |    | 0.033             |
| R130      | 68 UNF. F. (1/4W) |     |     |    | 68 UNF. F. (1/4W) |    | 68 UNF. C. (1/4W) |
| R147      | 47K               |     |     |    | 47K               |    | 22K               |
| R149      | 22K               |     |     |    | 10K               |    | 22K               |
| R152, 153 | 3.3K              |     |     |    | 8.2K              |    | 3.3K              |

△

□ FM AUTO NO SIGNAL  
 ( ) MW NO SIGNAL  
 [ ] LW NO SIGNAL

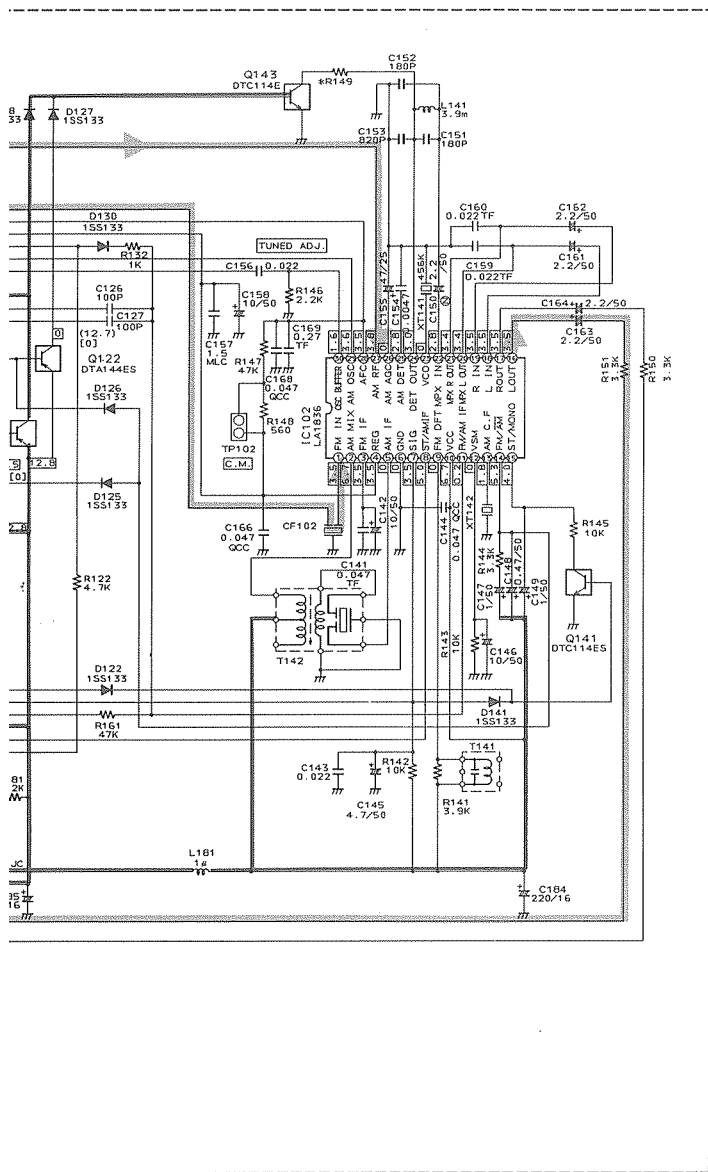
## Notes:

1. — indicates +B power supply.
2. — indicates -B power supply.
3. ■ indicates Main signal path.
4. ■ indicates Recording signal path.
5. ■ indicates Mic signal path.
6. When replacing the parts in the darkened are (■) and those marked with △, be sure to use the designated parts to ensure safety.
7. This is the standard circuit diagram.  
The design and contents are subject to change without notice.





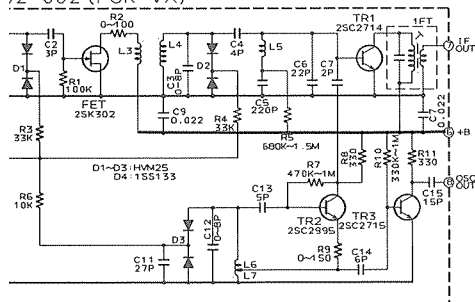
J K L M N O P Q R S T



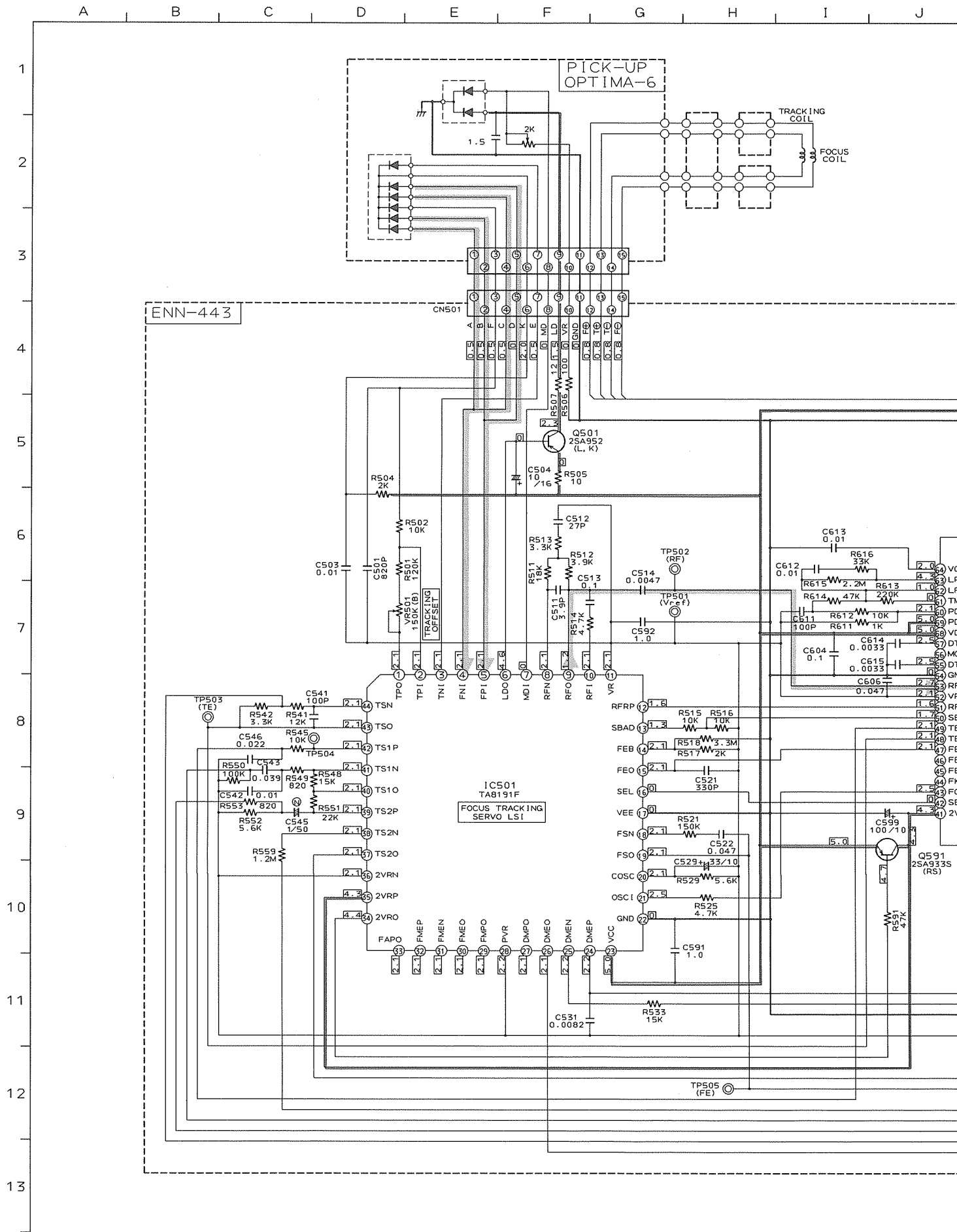
| * MARK    | EN, EF      | G, G1       | BS          | VX          |
|-----------|-------------|-------------|-------------|-------------|
| R149      | 10K         | 10K         | 22K         | 10K         |
| R152, 153 | 8.2K        | 8.2K        | 3.3K        | 8.2K        |
| FE101     | EAF2203-005 | EAF2203-005 | EAF2203-005 | EAF2302-002 |

□ FM AUTO NO SIGNAL  
 ( ) MW NO SIGNAL  
 ( ) LW NO SIGNAL

02-002 (FOR VX)

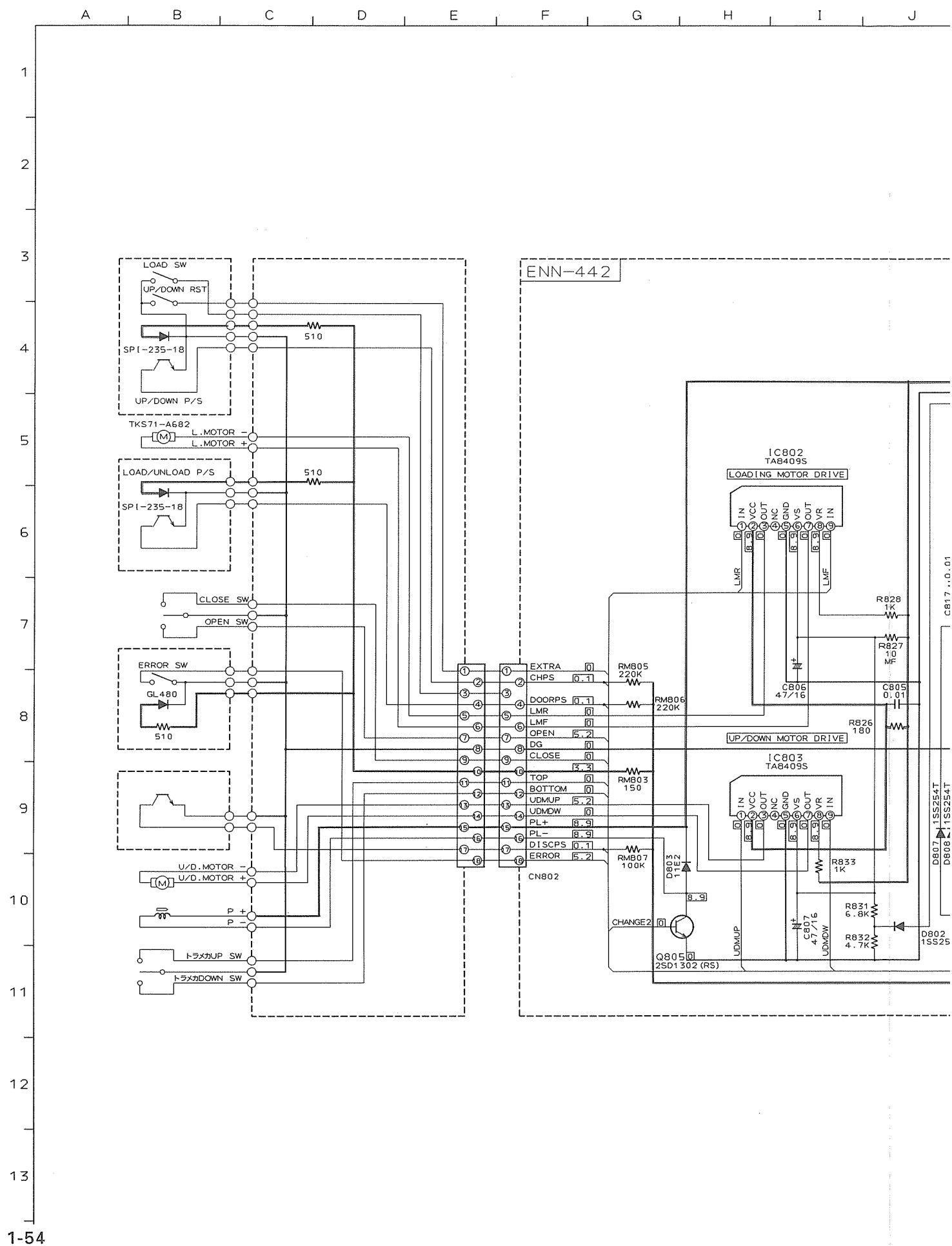


### ■ CD Servo & Low Pass Filter Section



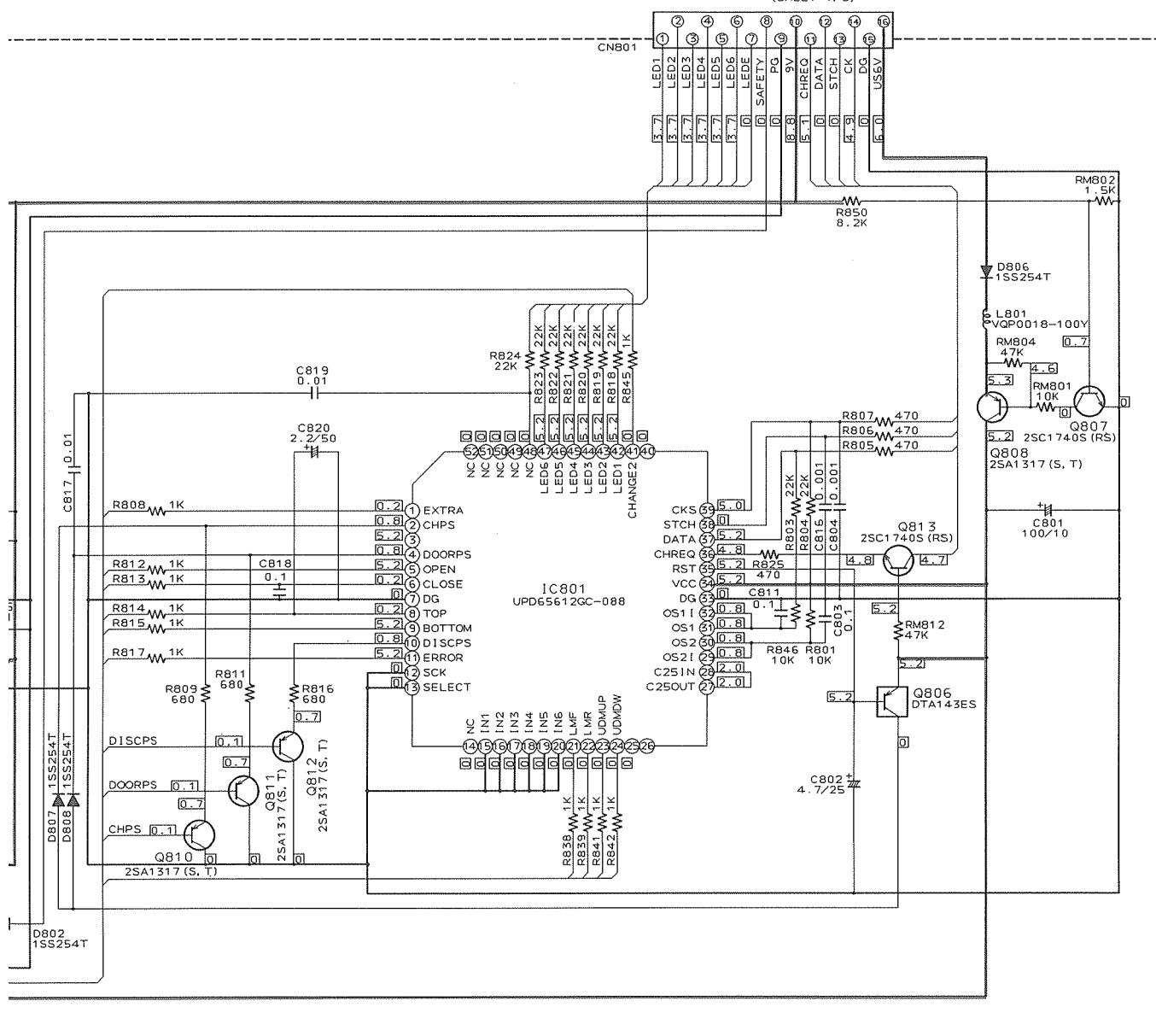


## ■ CD Changer Mechanizm Control Section

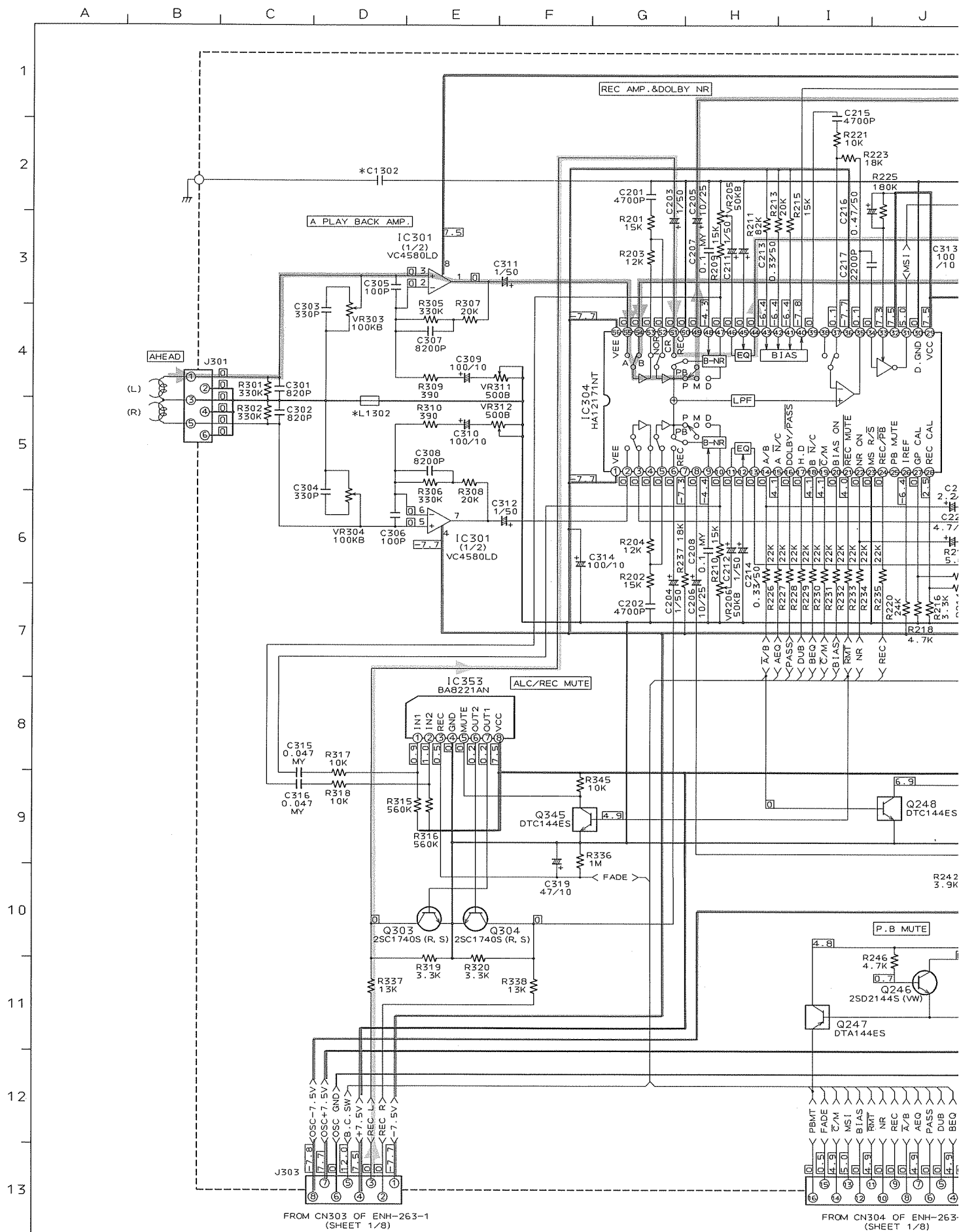


J K L M N O P Q R S T

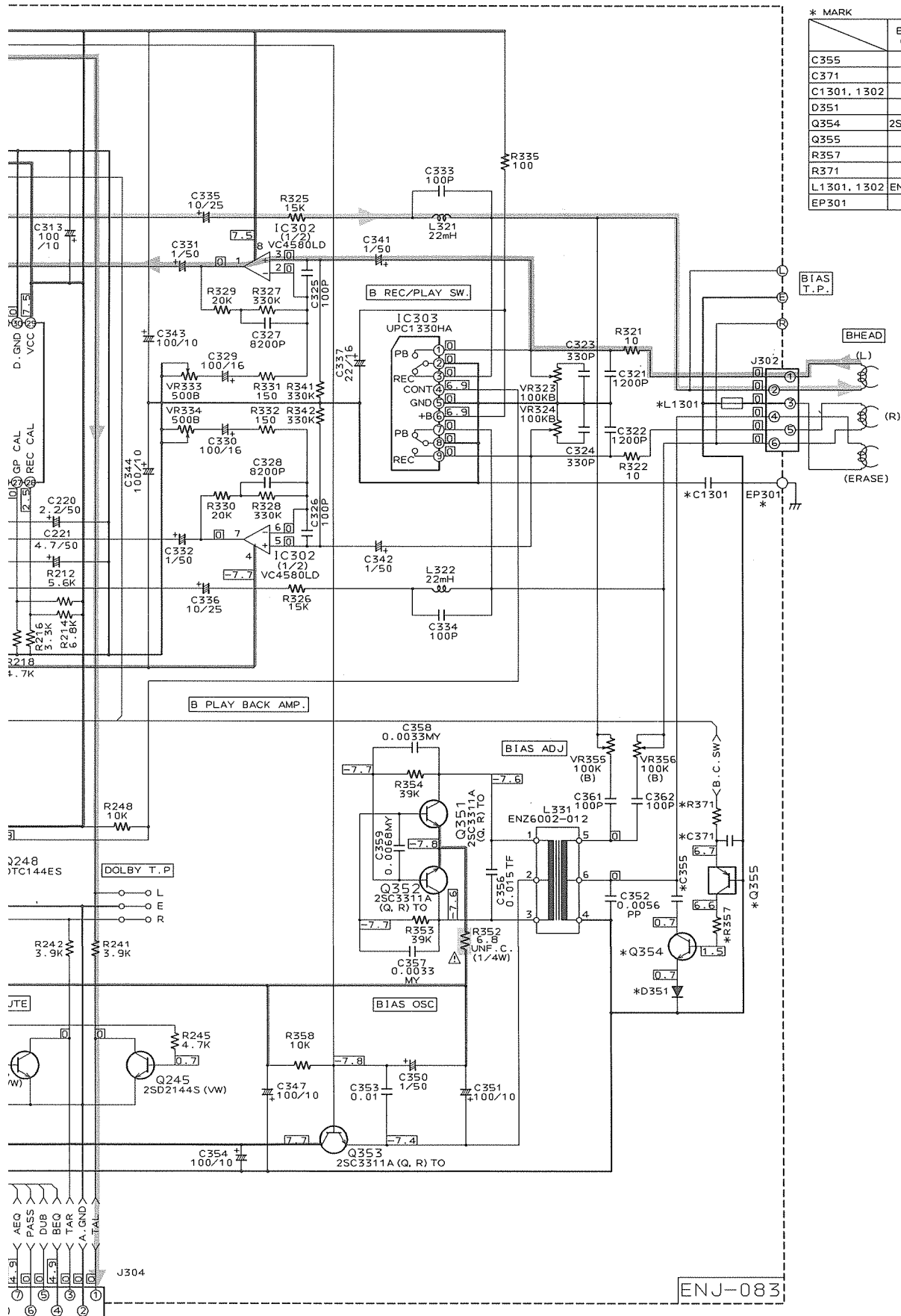
FROM CN803 OF ENN-263-1  
(SHEET 1/8)



# ■ Cassette Amplifier, Dolby NR & Bias Qscillator Section



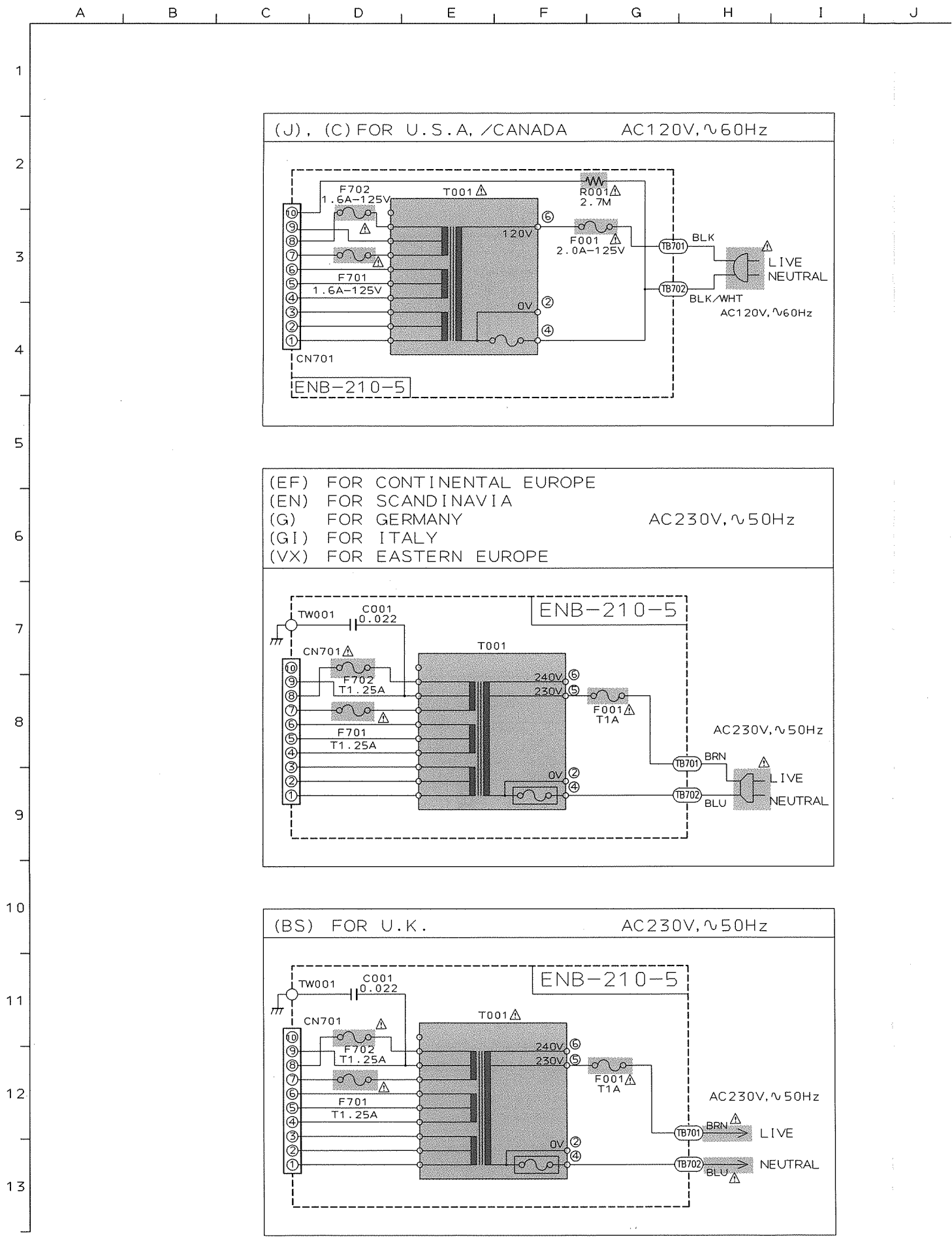
J K L M N O P Q R S T



\* MARK

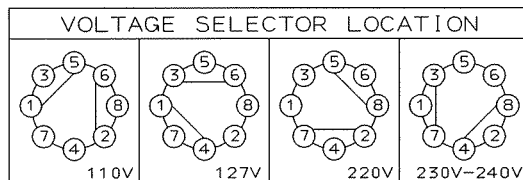
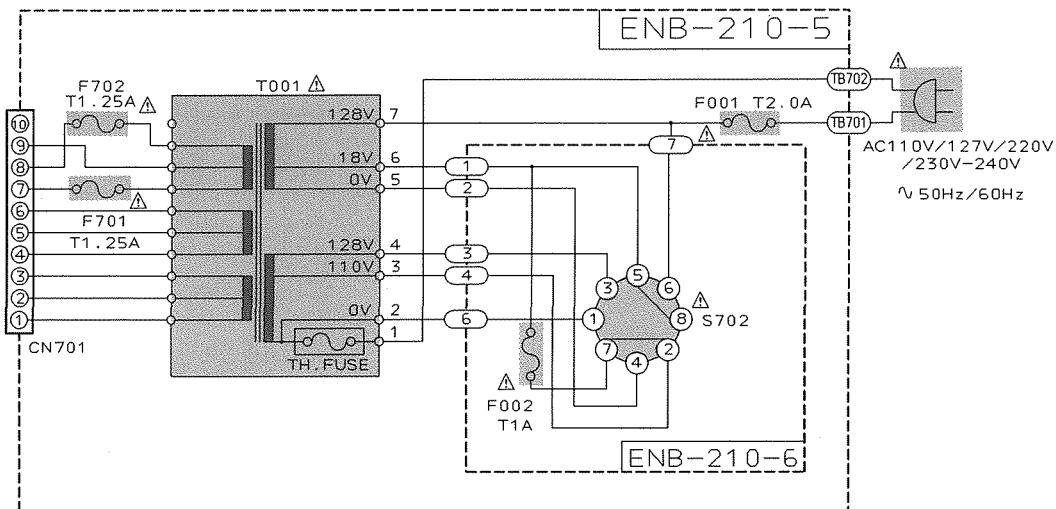
|             | BS, EF, EN,<br>G, GI, VX | OTHER |
|-------------|--------------------------|-------|
| C355        | 470P                     | NONE  |
| C371        | 0.022                    | NONE  |
| C1301, 1302 | 0.001                    | NONE  |
| D351        | 1SS119                   | NONE  |
| Q354        | 2SC945A (P, Q)           | NONE  |
| Q355        | DTA144E                  | NONE  |
| R357        | 1K                       | NONE  |
| R371        | 1K                       | NONE  |
| L1301, 1302 | ENZ8001-007              | NONE  |
| EP301       | USED                     | NONE  |

Power Supply Section

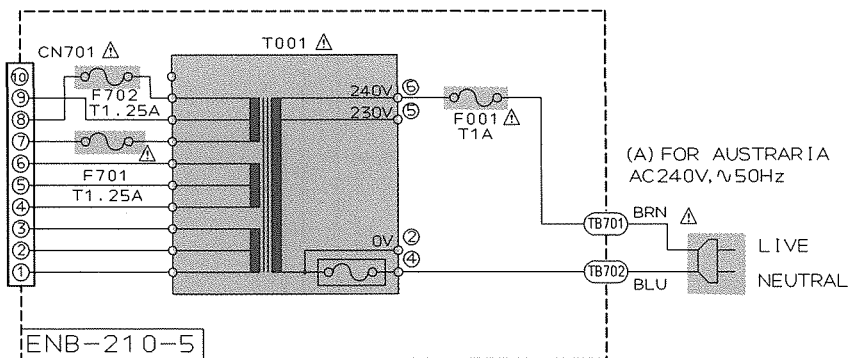




(U) FOR OTHER COUNTRIES AC110V/127V/220V/230V-240V  
 (UT) FOR TAIWAN  $\sim 50\text{Hz}/60\text{Hz}$   
 (US) FOR SINGAPORE



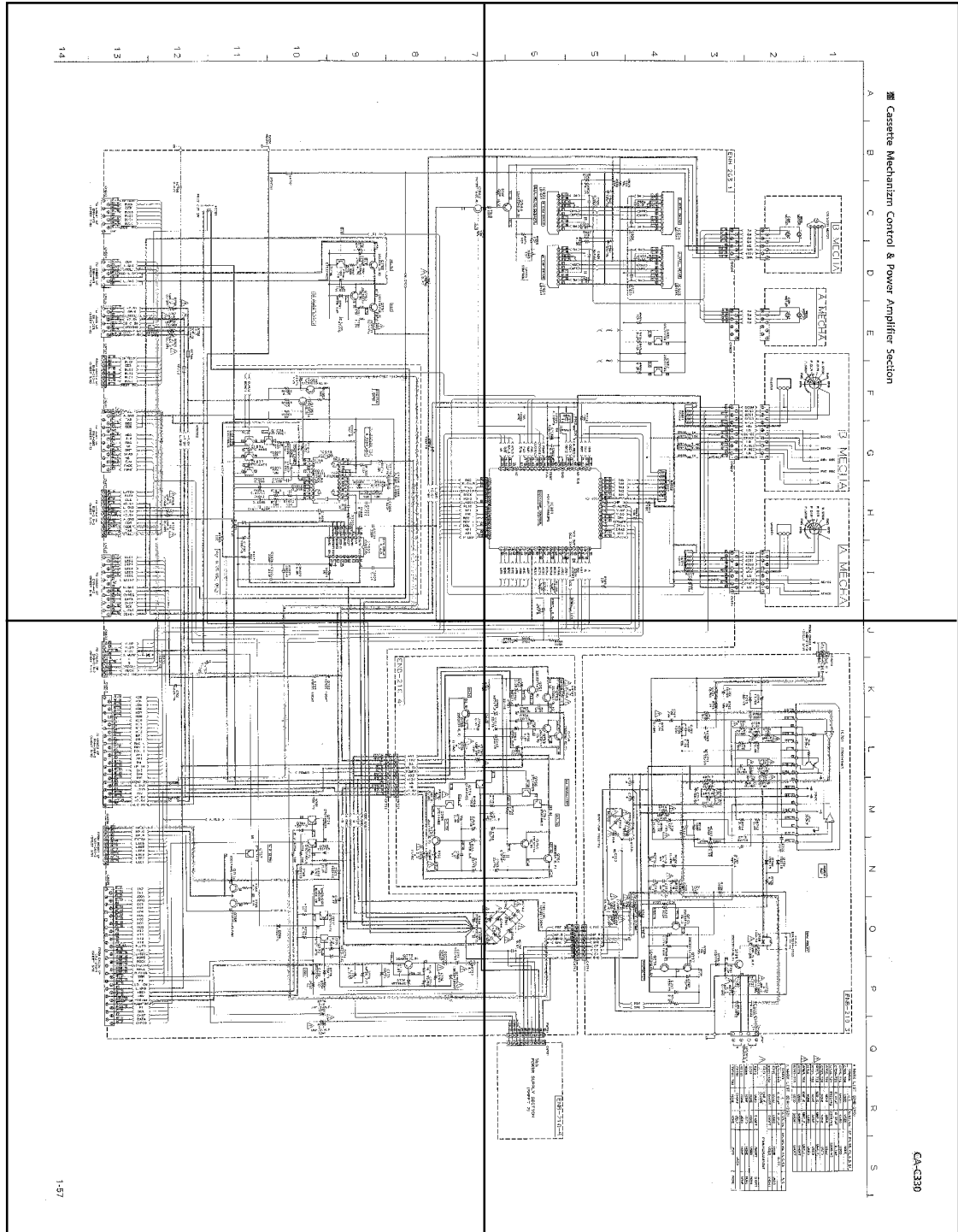
(A) FOR AUSTRARIA AC 240V,  $\sim 50\text{Hz}$





P1-57-a

P1-57-b



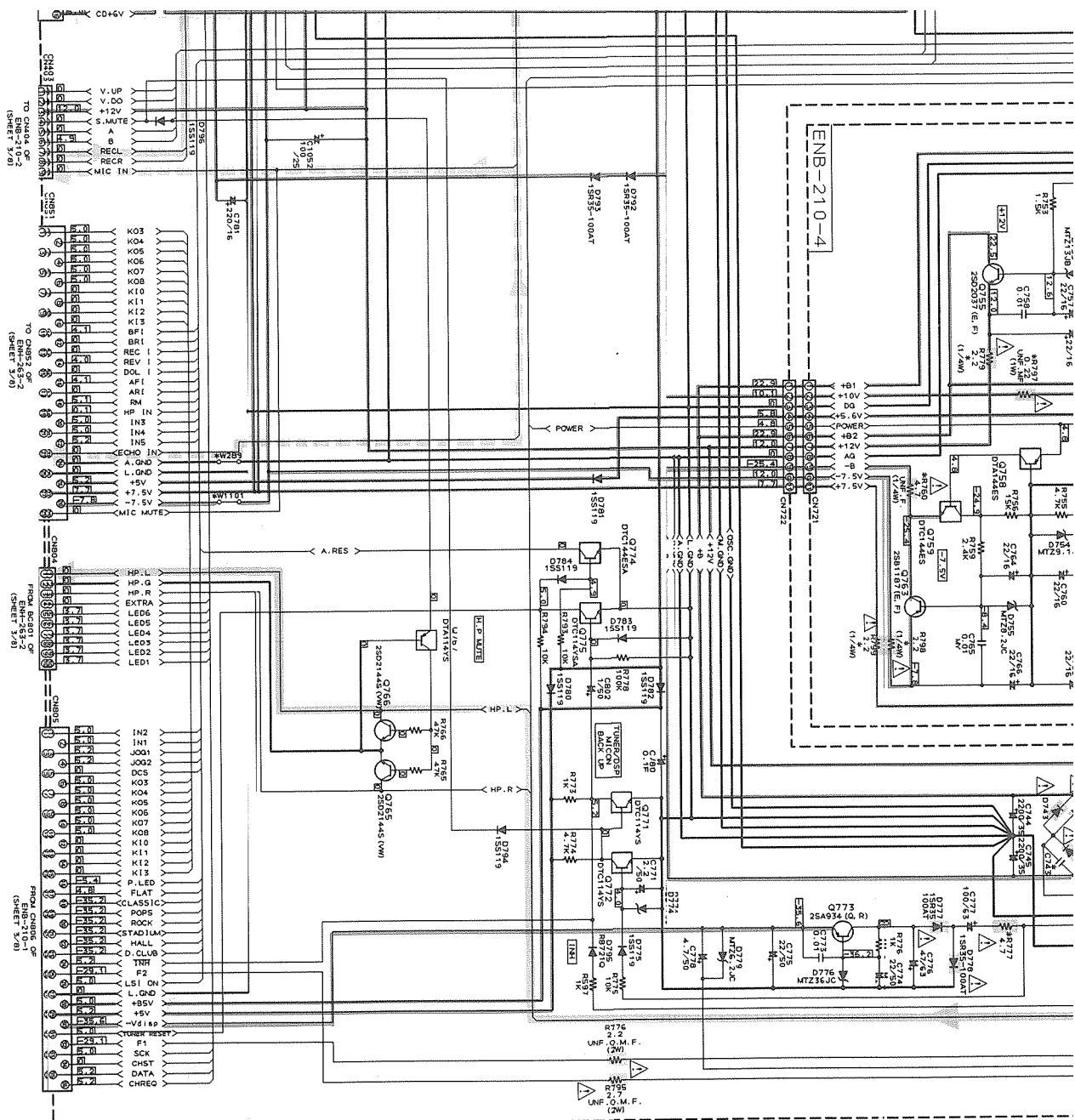
P1-57-c

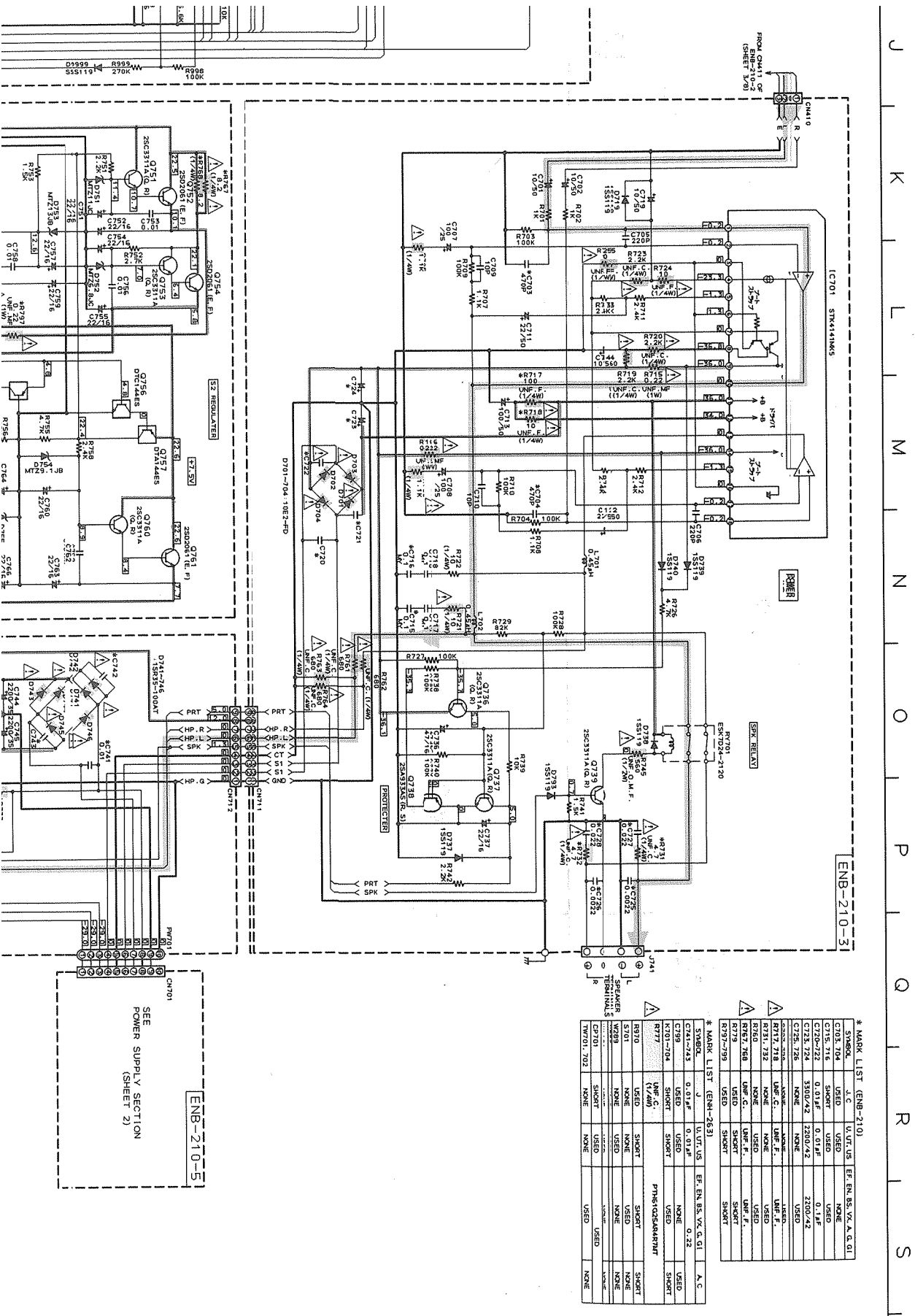
P1-57-d



A  
B  
C  
D  
E  
F  
G  
H  
I  
J



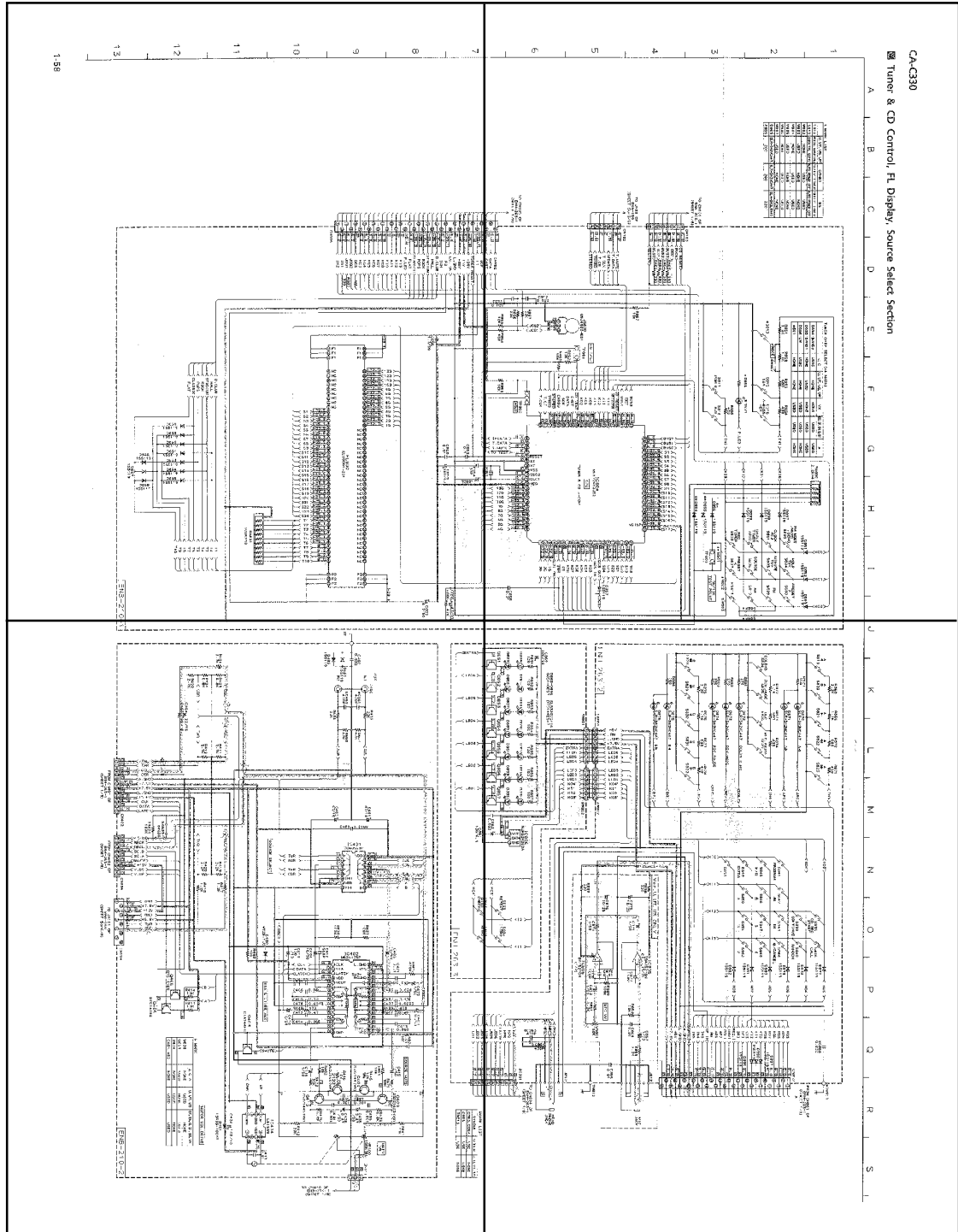








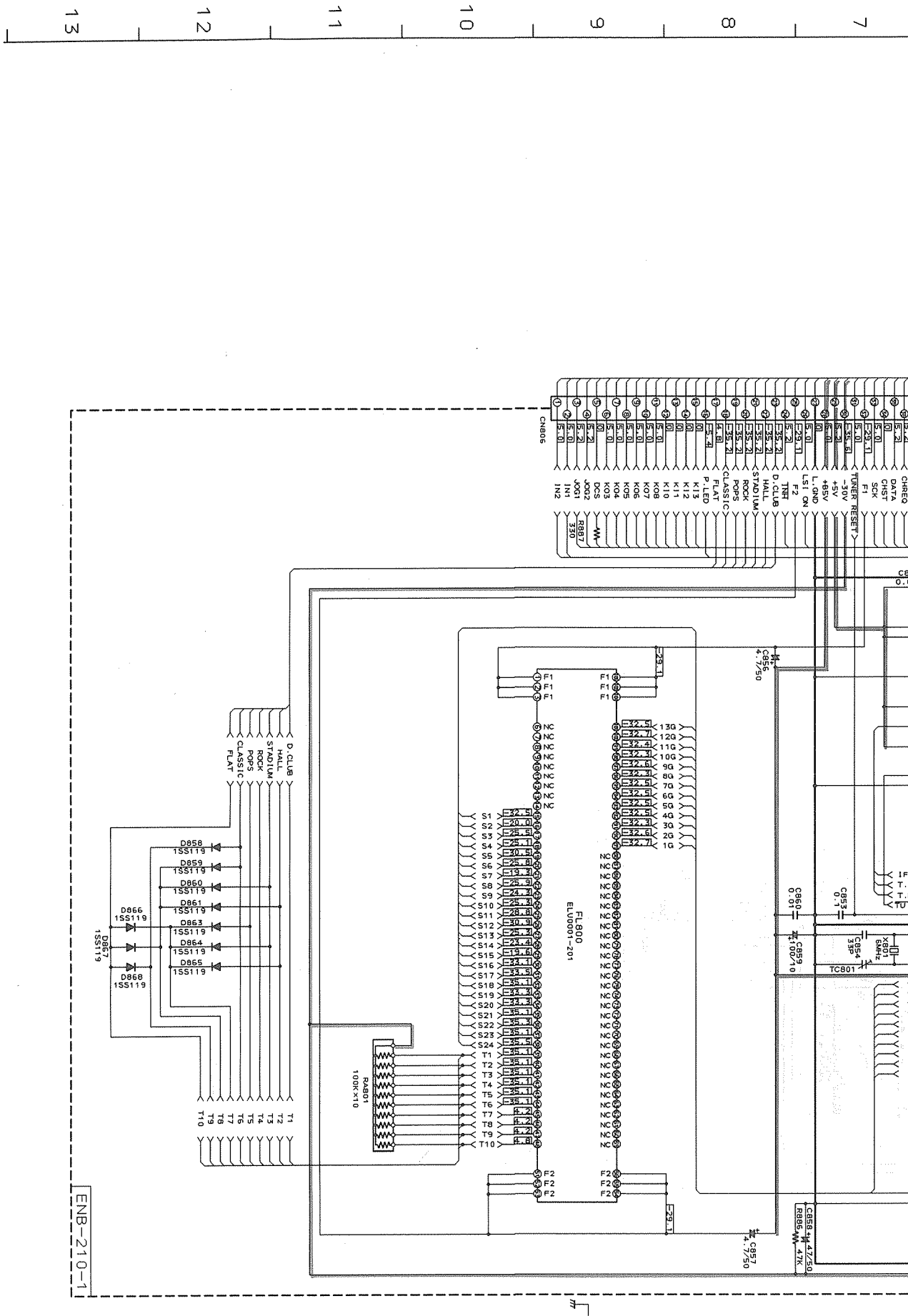
P1-58-a



P1-58-b

P1-58-c

P1-58-d



# CA-C330

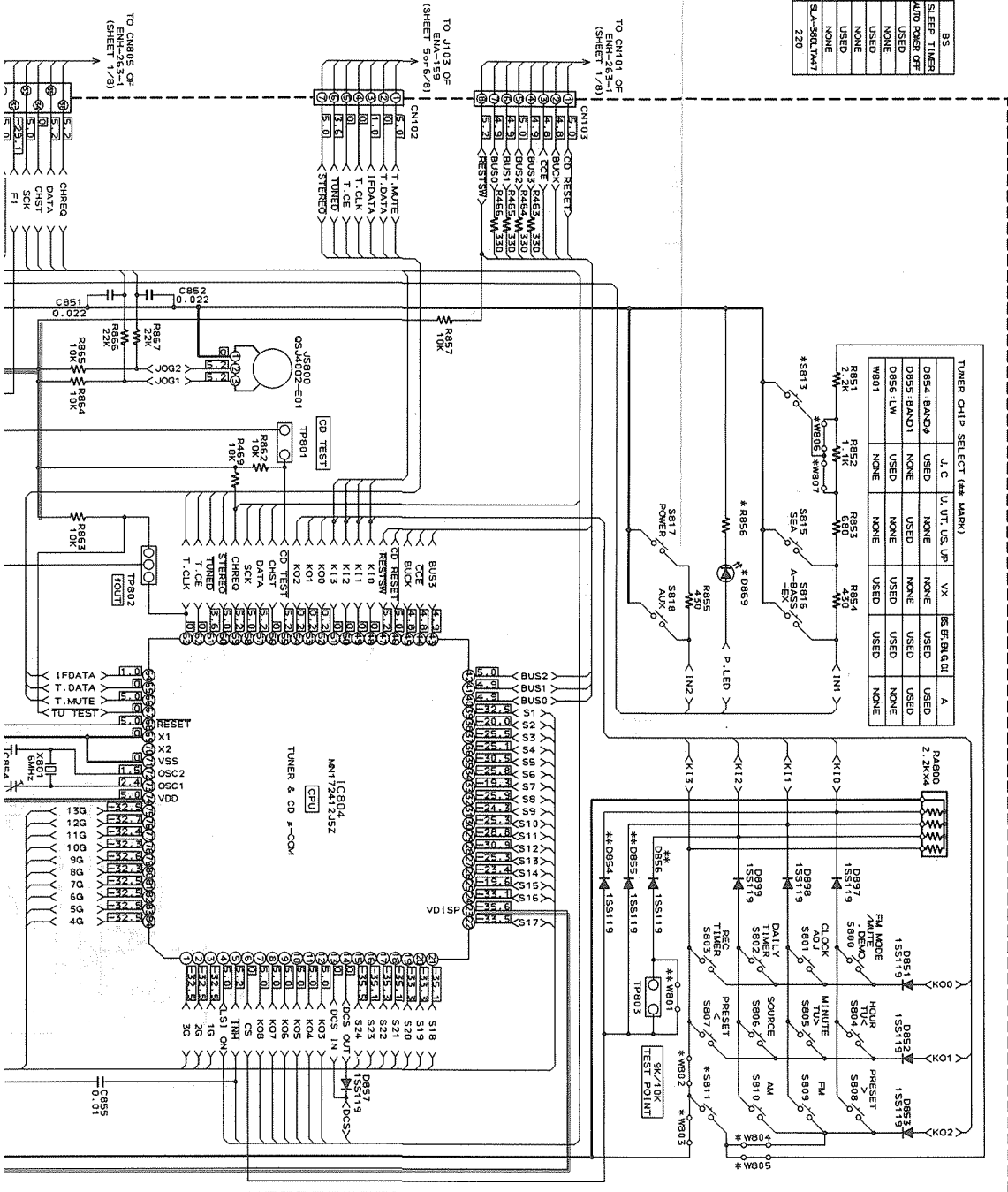
## Tuner & CD Control, FL Display, Source Select Section

\* MARK LIST

| U.I.T. US. UP | OTHER                                     | BS           |
|---------------|-------------------------------------------|--------------|
| S811          | NOCT. WORKING                             | SLEEP TIMER  |
| S813          | DIGITAL EPOD AND POWER OFF AUTO POWER OFF |              |
| W802          | NONE                                      | USED         |
| W803          | USED                                      | NONE         |
| W804          | NONE                                      | NONE         |
| W805          | USED                                      | NONE         |
| W806          | NONE                                      | NONE         |
| W807          | USED                                      | NONE         |
| D869          | SLR-342CM7                                | SLA-350LTM17 |
| R856          | 200                                       | 200          |
|               |                                           | 220          |

TUNER CHIP SELECT (\*\* MARK)

| U.I.T. US. UP | OTHER | BS   |
|---------------|-------|------|
| D854          | BAND# | USED |
| D855          | BAND1 | USED |
| D856          | LW    | USED |
| W801          | NONE  | NONE |
| R851          | 2W    | 4W   |
| R852          | 6W    | 4W   |
| R853          | 6W    | 4W   |
| R854          | 4W    | 4W   |
| R855          | 4W    | 4W   |
| R856          | 4W    | 4W   |
| R857          | 4W    | 4W   |
| R858          | 4W    | 4W   |
| R859          | 4W    | 4W   |
| R860          | 4W    | 4W   |
| R861          | 4W    | 4W   |
| R862          | 4W    | 4W   |
| R863          | 4W    | 4W   |
| R864          | 4W    | 4W   |
| R865          | 4W    | 4W   |
| R866          | 4W    | 4W   |
| R867          | 4W    | 4W   |
| R868          | 4W    | 4W   |
| R869          | 4W    | 4W   |
| R870          | 4W    | 4W   |
| R871          | 4W    | 4W   |
| R872          | 4W    | 4W   |
| R873          | 4W    | 4W   |
| R874          | 4W    | 4W   |
| R875          | 4W    | 4W   |
| R876          | 4W    | 4W   |
| R877          | 4W    | 4W   |
| R878          | 4W    | 4W   |
| R879          | 4W    | 4W   |
| R880          | 4W    | 4W   |
| R881          | 4W    | 4W   |
| R882          | 4W    | 4W   |
| R883          | 4W    | 4W   |
| R884          | 4W    | 4W   |
| R885          | 4W    | 4W   |
| R886          | 4W    | 4W   |
| R887          | 4W    | 4W   |
| R888          | 4W    | 4W   |
| R889          | 4W    | 4W   |
| R890          | 4W    | 4W   |
| R891          | 4W    | 4W   |
| R892          | 4W    | 4W   |
| R893          | 4W    | 4W   |
| R894          | 4W    | 4W   |
| R895          | 4W    | 4W   |
| R896          | 4W    | 4W   |
| R897          | 4W    | 4W   |
| R898          | 4W    | 4W   |
| R899          | 4W    | 4W   |
| R900          | 4W    | 4W   |
| R901          | 4W    | 4W   |
| R902          | 4W    | 4W   |
| R903          | 4W    | 4W   |
| R904          | 4W    | 4W   |
| R905          | 4W    | 4W   |
| R906          | 4W    | 4W   |
| R907          | 4W    | 4W   |
| R908          | 4W    | 4W   |
| R909          | 4W    | 4W   |
| R910          | 4W    | 4W   |
| R911          | 4W    | 4W   |
| R912          | 4W    | 4W   |
| R913          | 4W    | 4W   |
| R914          | 4W    | 4W   |
| R915          | 4W    | 4W   |
| R916          | 4W    | 4W   |
| R917          | 4W    | 4W   |
| R918          | 4W    | 4W   |
| R919          | 4W    | 4W   |
| R920          | 4W    | 4W   |
| R921          | 4W    | 4W   |
| R922          | 4W    | 4W   |
| R923          | 4W    | 4W   |
| R924          | 4W    | 4W   |
| R925          | 4W    | 4W   |
| R926          | 4W    | 4W   |
| R927          | 4W    | 4W   |
| R928          | 4W    | 4W   |
| R929          | 4W    | 4W   |
| R930          | 4W    | 4W   |
| R931          | 4W    | 4W   |
| R932          | 4W    | 4W   |
| R933          | 4W    | 4W   |
| R934          | 4W    | 4W   |
| R935          | 4W    | 4W   |
| R936          | 4W    | 4W   |
| R937          | 4W    | 4W   |
| R938          | 4W    | 4W   |
| R939          | 4W    | 4W   |
| R940          | 4W    | 4W   |
| R941          | 4W    | 4W   |
| R942          | 4W    | 4W   |
| R943          | 4W    | 4W   |
| R944          | 4W    | 4W   |
| R945          | 4W    | 4W   |
| R946          | 4W    | 4W   |
| R947          | 4W    | 4W   |
| R948          | 4W    | 4W   |
| R949          | 4W    | 4W   |
| R950          | 4W    | 4W   |
| R951          | 4W    | 4W   |
| R952          | 4W    | 4W   |
| R953          | 4W    | 4W   |
| R954          | 4W    | 4W   |
| R955          | 4W    | 4W   |
| R956          | 4W    | 4W   |
| R957          | 4W    | 4W   |
| R958          | 4W    | 4W   |
| R959          | 4W    | 4W   |
| R960          | 4W    | 4W   |
| R961          | 4W    | 4W   |
| R962          | 4W    | 4W   |
| R963          | 4W    | 4W   |
| R964          | 4W    | 4W   |
| R965          | 4W    | 4W   |
| R966          | 4W    | 4W   |
| R967          | 4W    | 4W   |
| R968          | 4W    | 4W   |
| R969          | 4W    | 4W   |
| R970          | 4W    | 4W   |
| R971          | 4W    | 4W   |
| R972          | 4W    | 4W   |
| R973          | 4W    | 4W   |
| R974          | 4W    | 4W   |
| R975          | 4W    | 4W   |
| R976          | 4W    | 4W   |
| R977          | 4W    | 4W   |
| R978          | 4W    | 4W   |
| R979          | 4W    | 4W   |
| R980          | 4W    | 4W   |
| R981          | 4W    | 4W   |
| R982          | 4W    | 4W   |
| R983          | 4W    | 4W   |
| R984          | 4W    | 4W   |
| R985          | 4W    | 4W   |
| R986          | 4W    | 4W   |
| R987          | 4W    | 4W   |
| R988          | 4W    | 4W   |
| R989          | 4W    | 4W   |
| R990          | 4W    | 4W   |
| R991          | 4W    | 4W   |
| R992          | 4W    | 4W   |
| R993          | 4W    | 4W   |
| R994          | 4W    | 4W   |
| R995          | 4W    | 4W   |
| R996          | 4W    | 4W   |
| R997          | 4W    | 4W   |
| R998          | 4W    | 4W   |
| R999          | 4W    | 4W   |
| R1000         | 4W    | 4W   |









# PARTS LIST

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

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## ■ Parts List

Symbol No. 

|   |   |   |   |
|---|---|---|---|
| M | 1 | M | M |
|---|---|---|---|

| △ | Item | Part Number    | Part Name         | Q'ty | Description  | Area                   |
|---|------|----------------|-------------------|------|--------------|------------------------|
|   | 1    | EFP-CAC330E(S) | FRONT PANEL       | 1    |              | A,BS,C,EF,EN,G,GI,J,VX |
|   |      | EFP-CAC330U(S) | FRONT PANEL       | 1    |              | U,US,UT                |
|   | 1-1  | E103009-003SS  | FRONT PANEL       | 1    |              | U,US,UT                |
|   |      | E103009-004SS  | FRONT PANEL       | 1    |              | A,BS,C,EF,EN,G,GI,J,VX |
|   | 1-2  | E208491-002SS  | WINDOW SCREEN     | 1    |              |                        |
|   | 1-3  | E208489-001SS  | WINDOW SCREEN     | 1    |              |                        |
|   | 1-4  | E69777-003     | REFLECTION PLATE  | 2    |              |                        |
|   | 1-5  | E406971-221    | JVC MARK          | 2    |              |                        |
|   | 2    | FSJT2003-001SA | CASSETTE LID ASSY | 1    |              |                        |
|   | 2-1  | FSJT2003-001   | CASSETTE LID      | 1    |              |                        |
|   | 2-2  | E406971-221    | JVC MARK          | 1    |              |                        |
|   | 3    | FSJT2004-001   | CASSETTE LID      | 1    |              |                        |
|   | 4    | E207972-004SS  | CASSETTE HOLDER   | 1    |              |                        |
|   | 5    | E207973-004SS  | CASSETTE HOLDER   | 1    |              |                        |
|   | 6    | E406713-001    | CASSETE SPRING    | 4    |              |                        |
|   | 7    | SBST3006Z      | TAPPING SCREW     | 24   |              |                        |
|   | 8    | FSXP3016-001   | SELECT KNOB       | 1    |              |                        |
|   | 9    | E309084-004SS  | VOLUME KNOB       | 1    |              |                        |
|   | 10   | E208487-001SS  | CD FITTING        | 1    |              |                        |
|   | 11   | E304434-005    | DAMPER ASSY       | 2    |              |                        |
|   | 12   | E208484-001SS  | PUSH BUTTON       | 1    |              |                        |
|   | 13   | E208244-002SS  | PUSH BUTTON ASSY  | 1    |              |                        |
|   | 14   | E309079-002SS  | PUSH BUTTON       | 1    |              |                        |
|   | 15   | E408306-001    | INDICATOR LENS    | 1    |              |                        |
|   | 16   | E408305-001    | INDICATOR LENS    | 1    |              |                        |
|   | 17   | E309357-001SS  | INDICATOR LENS    | 1    |              |                        |
|   | 18   | E208482-001SS  | PUSH BUTTON       | 1    |              |                        |
|   | 19   | E208241-002SS  | PUSH BUTTON ASSY  | 1    |              |                        |
|   | 20   | E208479-001SS  | PUSH BUTTON ASSY  | 1    |              | A,C,J,U,US,UT          |
|   |      | E208479-002SS  | PUSH BUTTON ASSY  | 1    |              | BS,EF,EN,G,GI,VX       |
|   | 21   | E208486-001SS  | PUSH BUTTON       | 1    |              |                        |
|   | 22   | SDSF2608Z      | SCREW             | 29   |              |                        |
|   | 23   | VWF1229-30TTB  | FFC CABLE         | 1    |              |                        |
|   | 24   | VWF1236-20TTBW | CARD WIRE         | 1    |              |                        |
|   | 25   | E309081-002SS  | EJECT BUTTON      | 1    |              |                        |
|   | 26   | E309082-002SS  | EJECT BUTTON      | 1    |              |                        |
|   | 27   | E308681-002SS  | EJECT LEVER       | 1    |              |                        |
|   | 28   | E308682-002SS  | EJECT LEVER       | 1    |              |                        |
|   | 29   | E308683-002    | EJECT GUIDE       | 1    |              |                        |
|   | 30   | E407798-002    | SPRING            | 1    |              |                        |
|   | 31   | E407799-001    | EJECT BRACKET     | 1    |              |                        |
|   | 32   | E407800-001    | EJECT BRACKET     | 1    |              |                        |
|   | 33   | E407801-002    | SPRING            | 1    |              |                        |
|   | 34   | E407802-002    | SPRING            | 1    |              |                        |
|   | 35   | SBSF3006Z      | TAPPING SCREW     | 2    |              |                        |
|   | 36   | ---            | CASS MECHA ASSY   | 1    | SEE PAGE 2-8 |                        |
|   | 37   | SBSF3008Z      | TAPPING SCREW     | 4    |              |                        |
|   | 38   | E208256-001    | HOLDER BKT        | 1    |              |                        |
|   | 39   | FSKW4002-001   | HOLDER SPRING     | 1    |              |                        |
|   | 40   | FSKW4003-001   | HOLDER SPRING     | 1    |              |                        |

## The Marks for Designated Areas

J ..... the U.S.A.

G ..... Germany

EF ..... Continental Europe

No mark indicates all area.

A ..... Australia

U ..... Universal

EN ..... Scandinavia

C ..... Canada

US ..... Singapore

GI ..... Italy

VX ..... East Europe

UT ..... Taiwan

BS ..... the U.K.





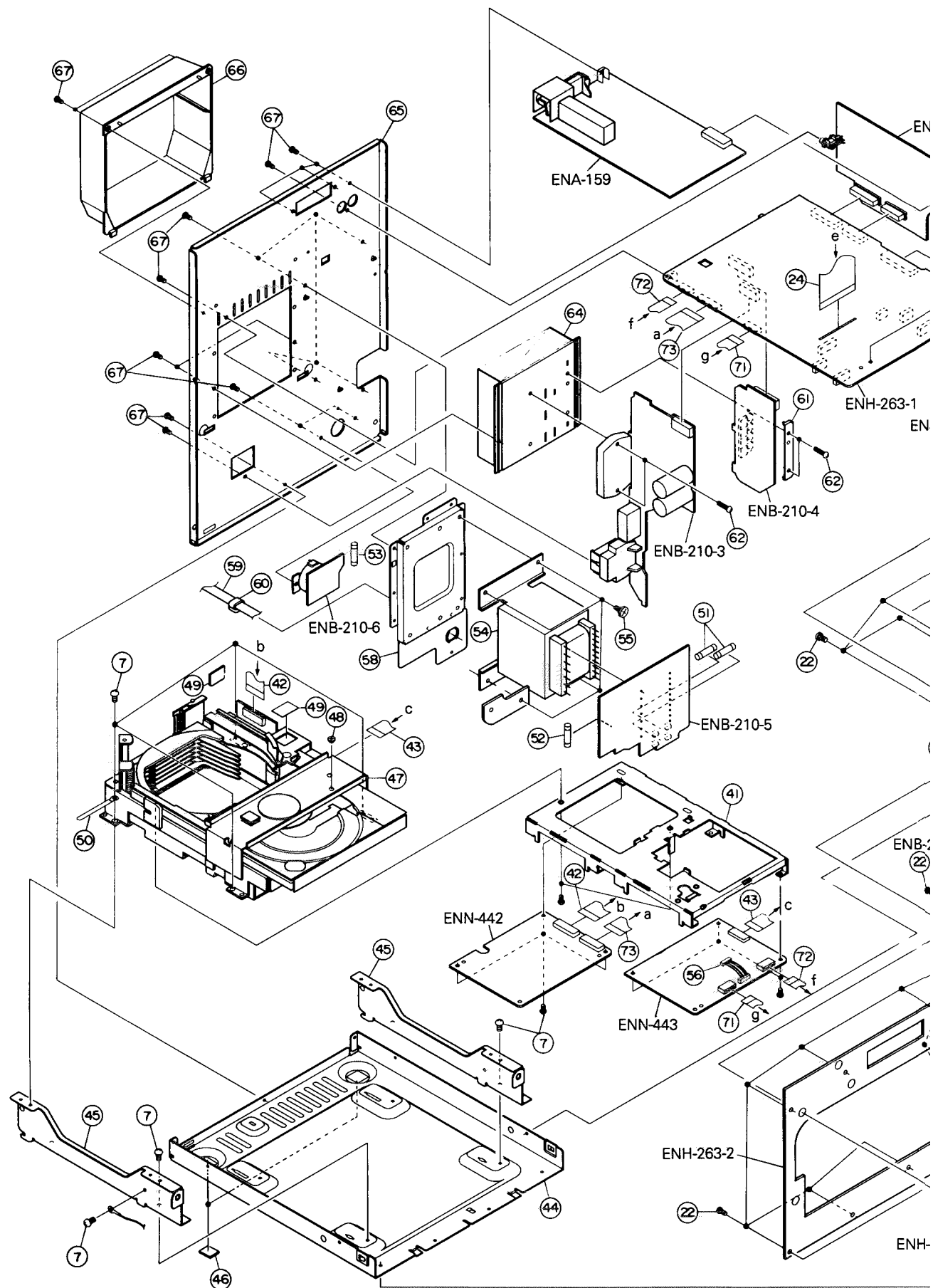
| ⚠ | Item | Part Number     | Part Name         | Q'ty | Description  | Area                       |
|---|------|-----------------|-------------------|------|--------------|----------------------------|
|   | 41   | VYH2285-003     | P.W.BOARD BRACKET | 1    |              |                            |
|   | 42   | VWF1218-14TTB   | CARD WIRE         | 1    |              |                            |
|   | 43   | VWF1015-07TTA   | FLAT WIRE         | 1    |              |                            |
|   | 44   | E103011-001SS   | CHASSIS BASE      | 1    |              |                            |
|   | 45   | E309359-002SS   | MECHA BRACKET     | 2    |              |                            |
|   | 46   | E75896-006      | FELT SPACER       | 2    |              |                            |
|   | 47   | ---             | CHANGER MECHA     | 1    | SEE PAGE 2-5 |                            |
|   | 48   | VKS5503-001     | GUIDE PIN         | 1    |              |                            |
|   | 49   | VYSA1R6-049     | FELT SPACER       | 2    |              |                            |
|   | 50   | E407469-001SS   | WIRE CLAMP        | 1    |              |                            |
| ⚠ | 51   | QMF0007-1R6J1   | FUSE              | 2    |              | C,J                        |
| ⚠ |      | QMF51E2-1R2J1BS | FUSE              | 2    |              | BS                         |
| ⚠ |      | QMF51E2-1R25    | FUSE              | 2    |              | A,EF,EN,G,GI,U,US,UT,VX    |
| ⚠ | 52   | QMF0007-2R0J1   | FUSE              | 1    |              | C,J                        |
| ⚠ |      | QMF51E2-1R0J1   | FUSE              | 1    |              | A,EF,EN,G,GI,VX            |
| ⚠ |      | QMF51E2-1R0J1BS | FUSE              | 1    |              | BS                         |
| ⚠ |      | QMF51E2-2R0     | FUSE              | 1    |              | U,US,UT                    |
| ⚠ | 53   | QMF51E2-1R0J1   | FUSE              | 1    |              | U,US,UT                    |
| ⚠ | 54   | ETP1070-36EAJ   | POWER TRANSFORMER | 1    |              | A,EF,EN,G,GI,VX            |
| ⚠ |      | ETP1070-36EAJBS | POWER TRANSFORMER | 1    |              | BS                         |
| ⚠ |      | ETP1070-36FAJ   | POWER TRANSFORMER | 1    |              | U,US,UT                    |
| ⚠ |      | ETP1070-36JAJ   | POWER TRANSFORMER | 1    |              | C,J                        |
|   | 55   | E65389-002      | SPECIAL SCREW     | 4    |              |                            |
|   | 56   | EWS266-B908     | SOCKET WIRE       | 1    |              |                            |
|   | 57   | E408393-002SS   | SHIELD PLATE      | 1    |              |                            |
| ⚠ | 58   | E309358-001SS   | P.W.BOARD BRACKET | 1    |              |                            |
| ⚠ | 59   | QMP1D00-200H    | POWER CORD        | 1    |              | C,J                        |
| ⚠ |      | QMP25F0-244     | POWER CORD        | 1    |              | A                          |
| ⚠ |      | QMP3900-200     | POWER CORD        | 1    |              | EF,EN,G,GI,US,VX           |
| ⚠ |      | QMP5530-0085BS  | POWER CORD        | 1    |              | BS                         |
| ⚠ |      | QMP7520-200     | POWER CORD        | 1    |              | U,UT                       |
| ⚠ | 60   | QHS3876-162     | CORD STOPPER      | 1    |              | A,BS,EF,EN,G,GI,U,US,UT,VX |
| ⚠ |      | QHS3876-163     | CORD BUSHING      | 1    |              | C,J                        |
|   | 61   | E406969-221     | LEAF SPRING       | 1    |              |                            |
|   | 62   | SB5G3014CC      | SCREW             | 4    |              |                            |
|   | 63   | SPST2604Z       | TAPPING SCREW     | 2    |              |                            |
|   | 64   | FSJC3007-001    | HEAT SINK         | 1    |              |                            |
|   | 65   | E103012-008SS   | REAR PANEL        | 1    |              | J                          |
|   |      | E103012-009SS   | REAR PANEL        | 1    |              | C                          |
|   |      | E103012-010SS   | REAR PANEL        | 1    |              | U,US,UT                    |
|   |      | E103012-011SS   | REAR PANEL        | 1    |              | BS,EF,EN,G,GI              |
|   |      | E103012-012SS   | REAR PANEL        | 1    |              | A                          |
|   |      | E103012-013SS   | REAR PANEL        | 1    |              | VX                         |
|   | 66   | E207356-223SS   | REAR COVER        | 1    |              | A,BS,EF,EN,G,GI,VX,U,US,UT |
|   |      | E207356-002SM   | REAR COVER        | 1    |              | J,C                        |
|   | 67   | E73273-003      | SPECIAL SCREW     | 15   |              | A,BS,C,EF,EN,G,GI,J,VX     |
|   |      | E73273-003      | SPECIAL SCREW     | 17   |              | U,US,UT                    |
|   | 68   | E103014-002     | METAL COVER       | 1    |              |                            |
|   | 69   | SDSG3006M       | TAPPING SCREW     | 8    |              |                            |
|   | 70   | FSXP3017-001    | VOLUME KNOB       | 1    |              | U,US,UT                    |
|   | 71   | VWF1209-40TTB   | FLAT WIRE ASSY    | 1    |              |                            |
|   | 72   | VWF1207-45TTB   | FLAT WIRE ASSY    | 1    |              |                            |
|   | 73   | VWF1216-40TTBX  | FLAT WIRE ASSY    | 1    |              |                            |
|   | -    | E307570-001     | NUMBER LABEL      | 1    |              | J                          |
|   | -    | E309384-009     | RATING LABEL      | 2    |              | UT                         |

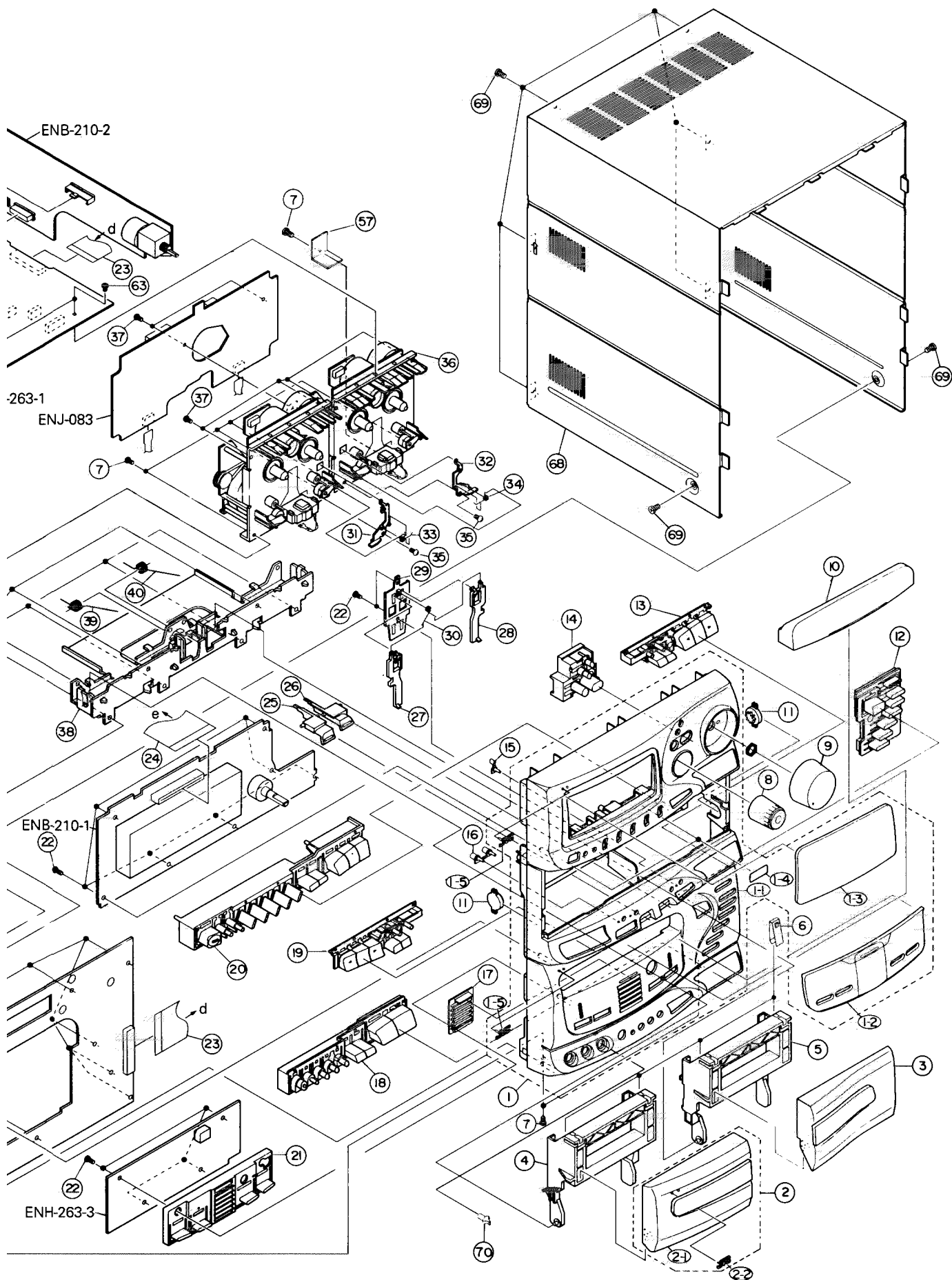
|  | Item | Part Number | Part Name      | Q'ty | Description | Area                         |
|-----------------------------------------------------------------------------------|------|-------------|----------------|------|-------------|------------------------------|
|                                                                                   | -    | E406507-001 | CAUTION LABEL  | 1    |             | A,BS,C,EF,EN,G,GI,U,US,UT,VX |
|                                                                                   | -    | E61029-005  | NUMBER LABEL   | 1    |             | A,BS,C,EF,EN,G,GI,U,US,UTVX  |
|                                                                                   | -    | E67132-T2R0 | FUSE LABEL     | 1    |             | U,US,UT                      |
|                                                                                   | -    | E70028-001  | APPROVAL LABEL | 1    |             | EN                           |
|                                                                                   | -    | E70891-001  | CLASS 1 LABEL  | 1    |             | A,BS,EF,EN,G,GI,U,US,UT,VX   |
|                                                                                   | -    | E75040-054  | GI LABEL       | 1    |             | GI                           |
|                                                                                   | -    | E75139-004  | NAME LABEL     | 1    |             | U,UT                         |
|                                                                                   | -    | E75803-001  | CAUTION LABEL  | 2    |             | J                            |
|                                                                                   | -    | E75804-001  | CAUTION LABEL  | 2    |             | C                            |
|                                                                                   | -    | QZL1007-001 | BEAB LABEL     | 1    |             | BS                           |
|                                                                                   | -    | QZL1031-101 | LABEL          | 1    |             | EF                           |

General Exploded View and Parts List

Symbol No. 

|   |   |   |   |
|---|---|---|---|
| M | 1 | M | M |
|---|---|---|---|

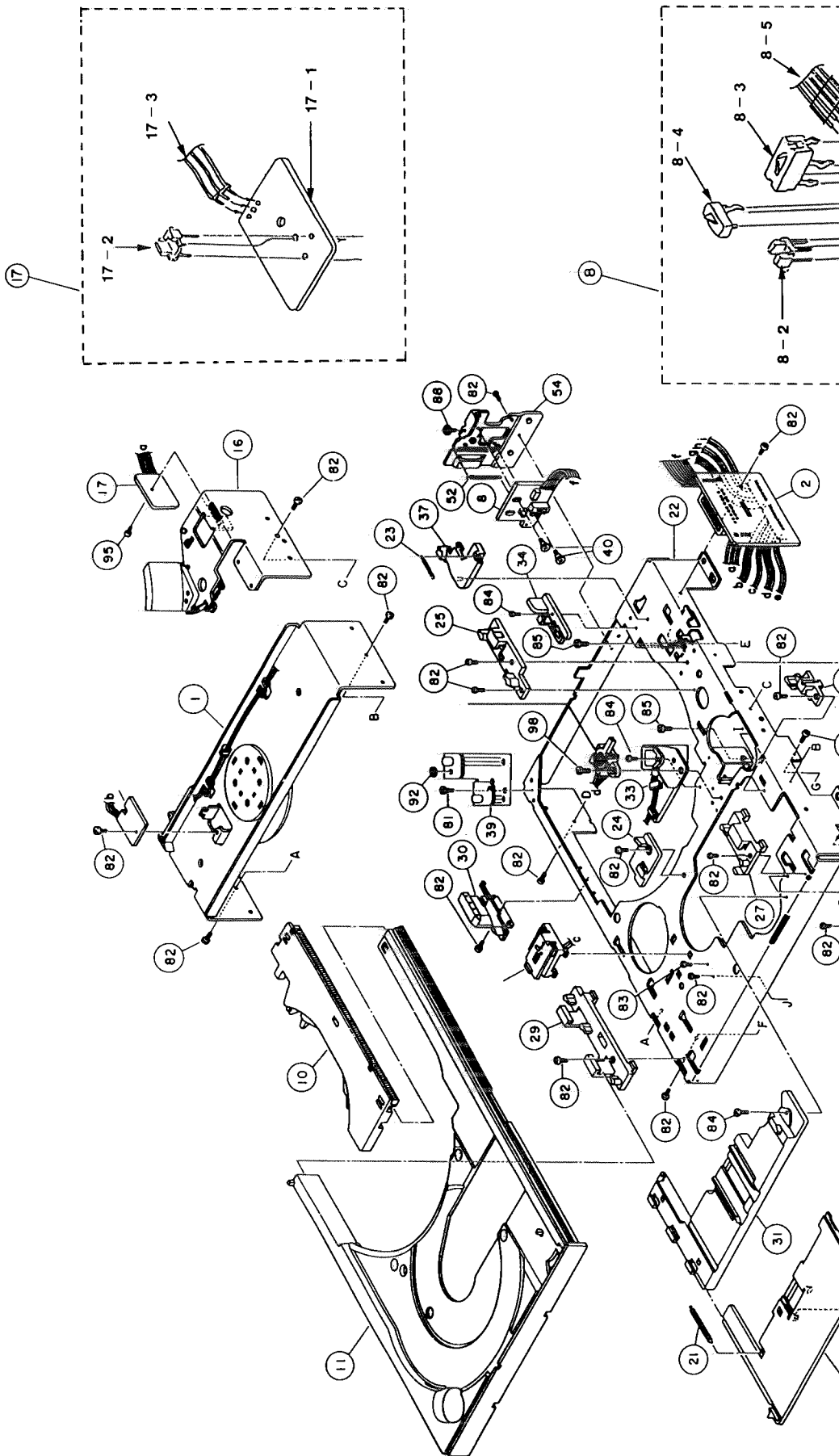




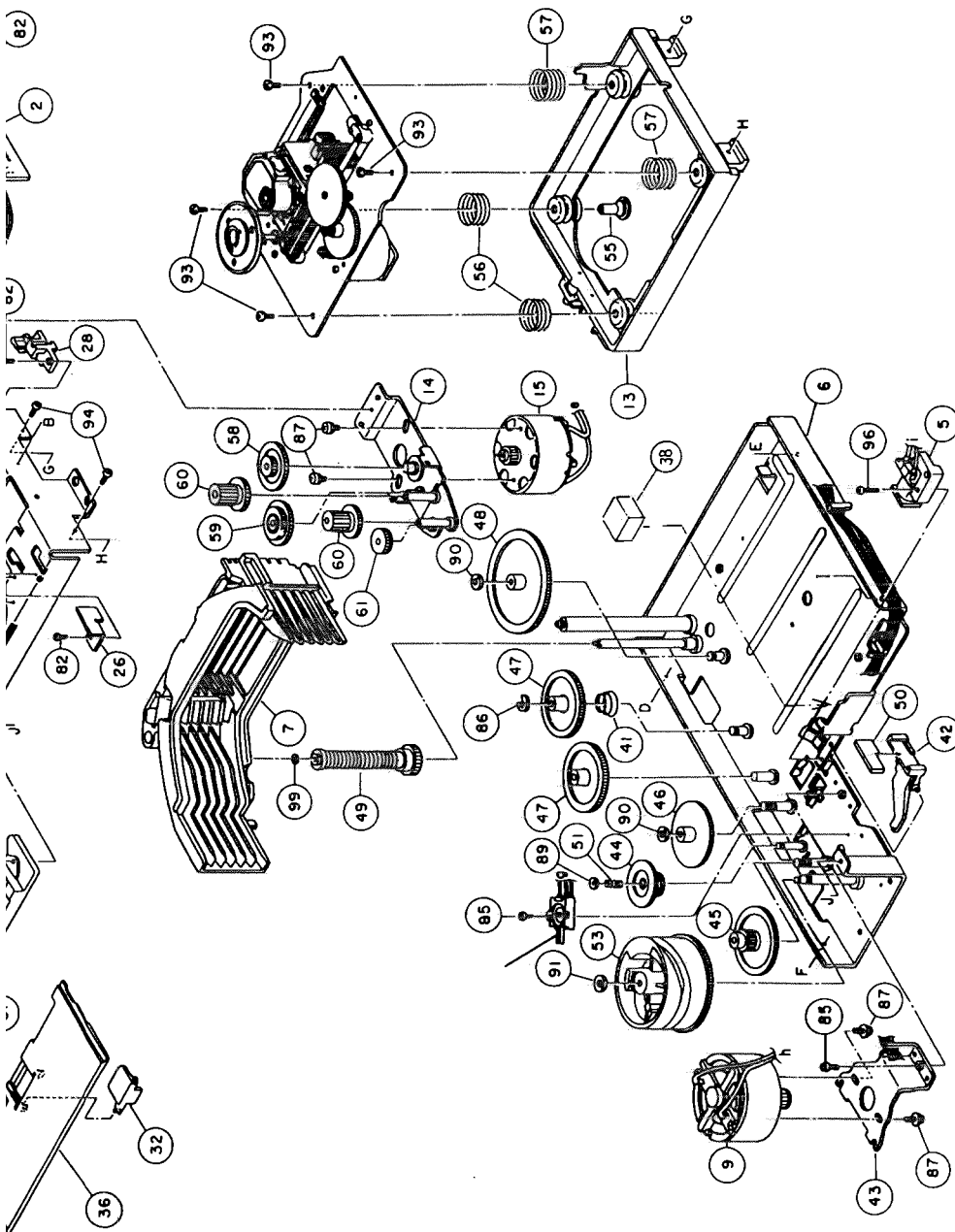
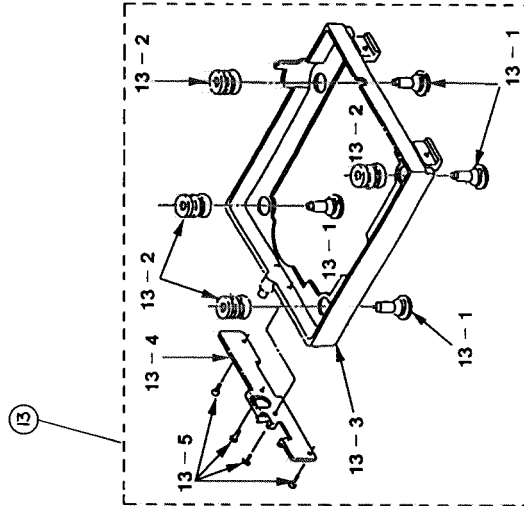
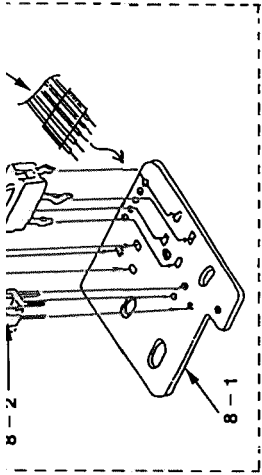
CD Changer Mechanism Ass'y and Parts List

Symbol No. 

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



2 M M



## ■ Parts List ( CD Changer Mechanism Ass'y )

Symbol No.

M 2 M M

| △ | Item | Part Number | Part Name              | Q'ty | Description  | Area |
|---|------|-------------|------------------------|------|--------------|------|
|   | 1    | 300701307T  | CLUMPER BKT ASSY       | 1    |              |      |
|   | 2    | ---         | CONNECTOR PCB ASSY     | 1    |              |      |
|   | 2-1  | 30070119T   | PRINTED BOARD          | 1    |              |      |
|   | 2-2  | VMC0163-R18 | CONNECT TERMINAL       | 1    |              |      |
|   | 2-3  | 68190503T   | CARBON RESISTOR        | 2    |              |      |
|   | 2-4  | 30071016T   | CONNECTOR WIRE ASSY    | 1    |              |      |
|   | 2-5  | 30071015T   | CONNECTOR WIRE ASSY    | 1    |              |      |
|   | 3    | ---         | CD MECH ASSY           | 1    | SEE PAGE 2-7 |      |
|   | 5    | 300702303T  | COIL ASSY              | 1    |              |      |
|   | 6    | 300702505T  | GEAR CHASSIS           | 1    |              |      |
|   | 7    | 300702305T  | DISC CASE ASSY         | 1    |              |      |
|   | 8    | ---         | E.SENSOR PCB ASSY      | 1    |              |      |
|   | 8-1  | 30070250T   | PRINTED BOARD          | 1    |              |      |
|   | 8-2  | SPI-235-18  | I.C(PHOTO-INTERRUPTOR) | 1    |              |      |
|   | 8-3  | 64010401T   | PUSH SWITCH            | 1    |              |      |
|   | 8-4  | 64010402T   | PUSH SWITCH            | 1    |              |      |
|   | 8-5  | 30071013T   | FLAT WIRE              | 1    |              |      |
|   | 9    | 300702302T  | DC MOTOR ASSY          | 1    |              |      |
|   | 10   | 300706315T  | LOADING PLATE ASSY     | 1    |              |      |
|   | 11   | 300706313T  | DISC BASE ASSY         | 1    |              |      |
|   | 13   | ---         | T.T BASE HOLDER ASSY   | 1    |              |      |
|   | 13-1 | 30070713T   | RUBBER HOLDER          | 4    |              |      |
|   | 13-2 | 30070741T   | RUBBER BUSHING         | 4    |              |      |
|   | 13-3 | 30070745T   | BASE HOLDER            | 1    |              |      |
|   | 13-4 | 30070750T   | PLATE                  | 1    |              |      |
|   | 13-5 | 9P0720531T  | TAPPING SCREW          | 4    |              |      |
|   | 14   | 300711501T  | L.GEAR BKT ASSY        | 1    |              |      |
|   | 15   | 300711301T  | L MOTOT ASSY           | 1    |              |      |
|   | 16   | 300711303T  | GUIDE PLATE ASSY       | 1    |              |      |
|   | 17   | ---         | L SENSOR PCB ASSY      | 1    |              |      |
|   | 17-1 | 30071116T   | PRINTED BOARD          | 1    |              |      |
|   | 17-2 | SPI-235-18  | I.C(PHOTO-INTERRUPTOR) | 1    |              |      |
|   | 17-3 | 30071018T   | FLAT WIRE              | 1    |              |      |
|   | 21   | 30070117T   | COIL SPRING            | 1    |              |      |
|   | 22   | 30070142T   | CHASSIS BASE           | 1    |              |      |
|   | 23   | 30070144T   | LEVER SPRING           | 1    |              |      |
|   | 24   | 30070165T   | SPRING STOPPER         | 1    |              |      |
|   | 25   | 30070148T   | BASE GUIDE             | 1    |              |      |
|   | 26   | 30070149T   | BASE BRACKET           | 1    |              |      |
|   | 27   | 30070150T   | BASE GUIDE             | 1    |              |      |
|   | 28   | 30070151T   | BASE GUIDE             | 1    |              |      |
|   | 29   | 30070153T   | BASE GUIDE             | 1    |              |      |
|   | 30   | 30070154T   | BASE GUIDE             | 1    |              |      |
|   | 31   | 30070155T   | COVER PLATE            | 1    |              |      |
|   | 32   | 30070156T   | DISK STOPPER           | 1    |              |      |
|   | 33   | 30070157T   | GUIDE STOPPER          | 1    |              |      |
|   | 34   | 30070158T   | WIRE CLAMP             | 1    |              |      |
|   | 36   | 30070162T   | COVER PLATE            | 1    |              |      |
|   | 37   | 30070163T   | LOCK LEVER             | 1    |              |      |
|   | 38   | 30070265T   | SPONGE CUSHION         | 1    |              |      |

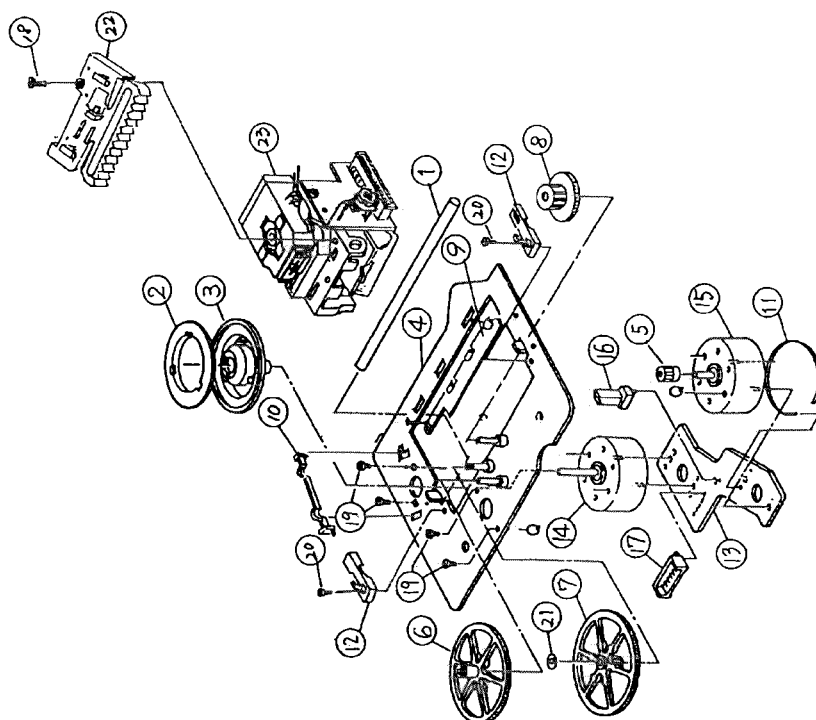


| △ | Item | Part Number | Part Name      | Q'ty | Description | Area |
|---|------|-------------|----------------|------|-------------|------|
|   | 39   | 30070240T   | GEAR BRACKET   | 1    |             |      |
|   | 40   | 19001204T   | COLOR SCREW    | 2    |             |      |
|   | 41   | 19210707T   | CLUTCH SPRING  | 1    |             |      |
|   | 42   | 30070257T   | ADJUST LEVER   | 1    |             |      |
|   | 43   | 30070203T   | MOTOR BRACKET  | 1    |             |      |
|   | 44   | 30070214T   | ELEVATOR GEAR  | 1    |             |      |
|   | 45   | 30070215T   | ELEVATOR GEAR  | 1    |             |      |
|   | 46   | 30070217T   | ELEVATOR GEAR  | 1    |             |      |
|   | 47   | 30070218T   | ELEVATOR GEAR  | 2    |             |      |
|   | 48   | 30070220T   | ELEVATOR GEAR  | 1    |             |      |
|   | 49   | 30070221T   | ELEVATOR GEAR  | 1    |             |      |
|   | 50   | 30070228T   | CONTROL PLATE  | 1    |             |      |
|   | 51   | 30070232T   | GEAR SPRING    | 1    |             |      |
|   | 52   | 30070233T   | SENSOR SPRING  | 1    |             |      |
|   | 53   | 30070259T   | ELEVATOR GEAR  | 1    |             |      |
|   | 54   | 30070266T   | SENSOR BRACKET | 1    |             |      |
|   | 56   | 30070755T   | RUBBER SPRING  | 2    |             |      |
|   | 57   | 30070756T   | RUBBER SPRING  | 2    |             |      |
|   | 58   | 30071103T   | LOADING GEAR   | 1    |             |      |
|   | 59   | 30071104T   | LOADING GEAR   | 1    |             |      |
|   | 60   | 30071105T   | LOADING GEAR   | 2    |             |      |
|   | 61   | 30071106T   | LOADING GEAR   | 1    |             |      |
|   | 81   | 9B1320041T  | TAPPING SCREW  | 1    |             |      |
|   | 82   | 9P0420041T  | SCREW          | 18   |             |      |
|   | 83   | 9P0420051T  | SCREW          | 1    |             |      |
|   | 84   | 9P0420061T  | TAPPING SCREW  | 4    |             |      |
|   | 85   | 9C2020301T  | SPECIAL SCREW  | 3    |             |      |
|   | 86   | 9E0100252T  | 'E' WASHER     | 1    |             |      |
|   | 87   | 9P0226031T  | SCREW          | 4    |             |      |
|   | 88   | 9P1720061T  | SCREW          | 1    |             |      |
|   | 89   | 9W0250080T  | POLY WASHER    | 1    |             |      |
|   | 90   | 9W0250110T  | WASHER         | 2    |             |      |
|   | 91   | 9W0250130T  | POLY WASHER    | 1    |             |      |
|   | 92   | 9W0650220T  | POLY WASHER    | 4    |             |      |
|   | 93   | 9B1220041T  | TAPPING SCREW  | 3    |             |      |
|   | 94   | 9P0720061T  | TAPPING SCREW  | 1    |             |      |
|   | 95   | 9C0320353T  | SCREW          | 2    |             |      |
|   | 96   | 9P0420081T  | TAPPING SCREW  | 1    |             |      |
|   | 97   | 9C2020301T  | TAPPING SCREW  | 1    |             |      |
|   | 98   | 9P0426051T  | TAPPING SCREW  | 1    |             |      |
|   | 99   | 9W0613010T  | WASHER         | 1    |             |      |

# CD Mechanism Ass'y and Parts List

Symbol No. 

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



## Parts List (CD Mechanism Ass'y)

Symbol No. 

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

| Item | Part Number | Part Name        | Q'ty | Description | Area |
|------|-------------|------------------|------|-------------|------|
| 1    | 30020712T   | GUIDE SHAFT      | 1    |             |      |
| 2    | 30050713T   | LOCK RING        | 1    |             |      |
| 3    | 30070760T   | TURNTABLE        | 1    |             |      |
| 4    | 300707502T  | MECHA BASE       | 1    |             |      |
| 5    | 30070726T   | CD GEAR          | 1    |             |      |
| 6    | 30070727T   | CD GEAR          | 1    |             |      |
| 7    | 30070728T   | CD GEAR          | 1    |             |      |
| 8    | 30070729T   | CD GEAR          | 1    |             |      |
| 9    | 30070730T   | STOPPER          | 1    |             |      |
| 10   | 30070739T   | TENSION ARM      | 1    |             |      |
| 11   | 30070746T   | EARTH SPRING     | 1    |             |      |
| 12   | 30070764T   | SHAFT CLAMP      | 2    |             |      |
| 13   | 30070751T   | PRINTED BOARD    | 1    |             |      |
| 14   | 60020902T   | SPINDLE MOTOR    | 1    |             |      |
| 15   | 60020903T   | GEAR MOTOR       | 1    |             |      |
| 16   | 640101195T  | LEAF SWITCH      | 1    |             |      |
| 17   | 68020264T   | CONNECT TERMINAL | 1    |             |      |
| 18   | 9B1220061T  | SCREW            | 1    |             |      |
| 19   | 9C0120253T  | TAPPING SCREW    | 4    |             |      |
| 20   | 9P0420051T  | TAPPING SCREW    | 2    |             |      |
| 21   | 9W0640070T  | WASHER           | 1    |             |      |
| 22   | E307746-001 | CD RACK          | 1    |             |      |
| 23   | OPTIMA-65   | OPTICAL PICK-UP  | 1    |             |      |

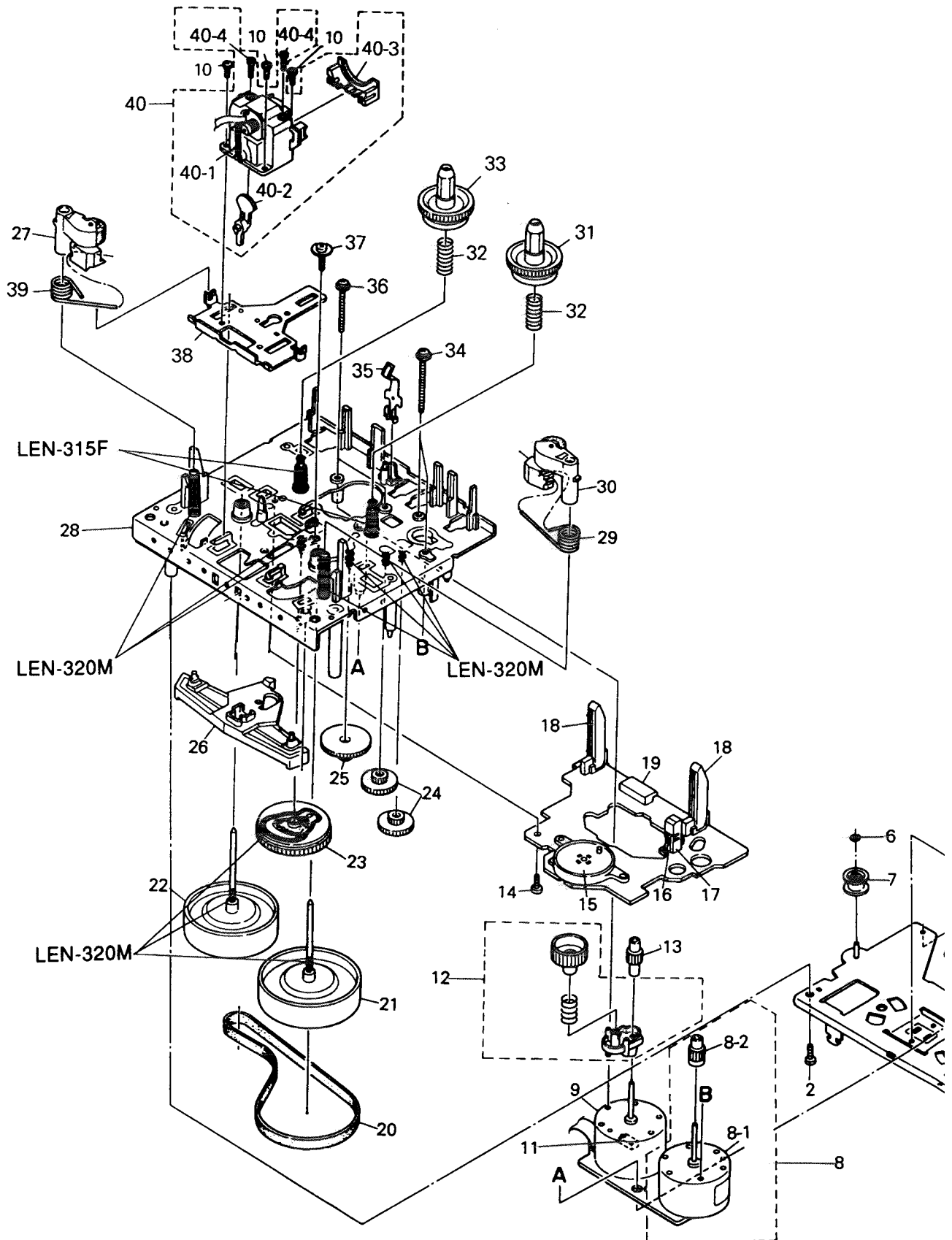
## ■ Parts List (Cassette Mechanism Ass'y)

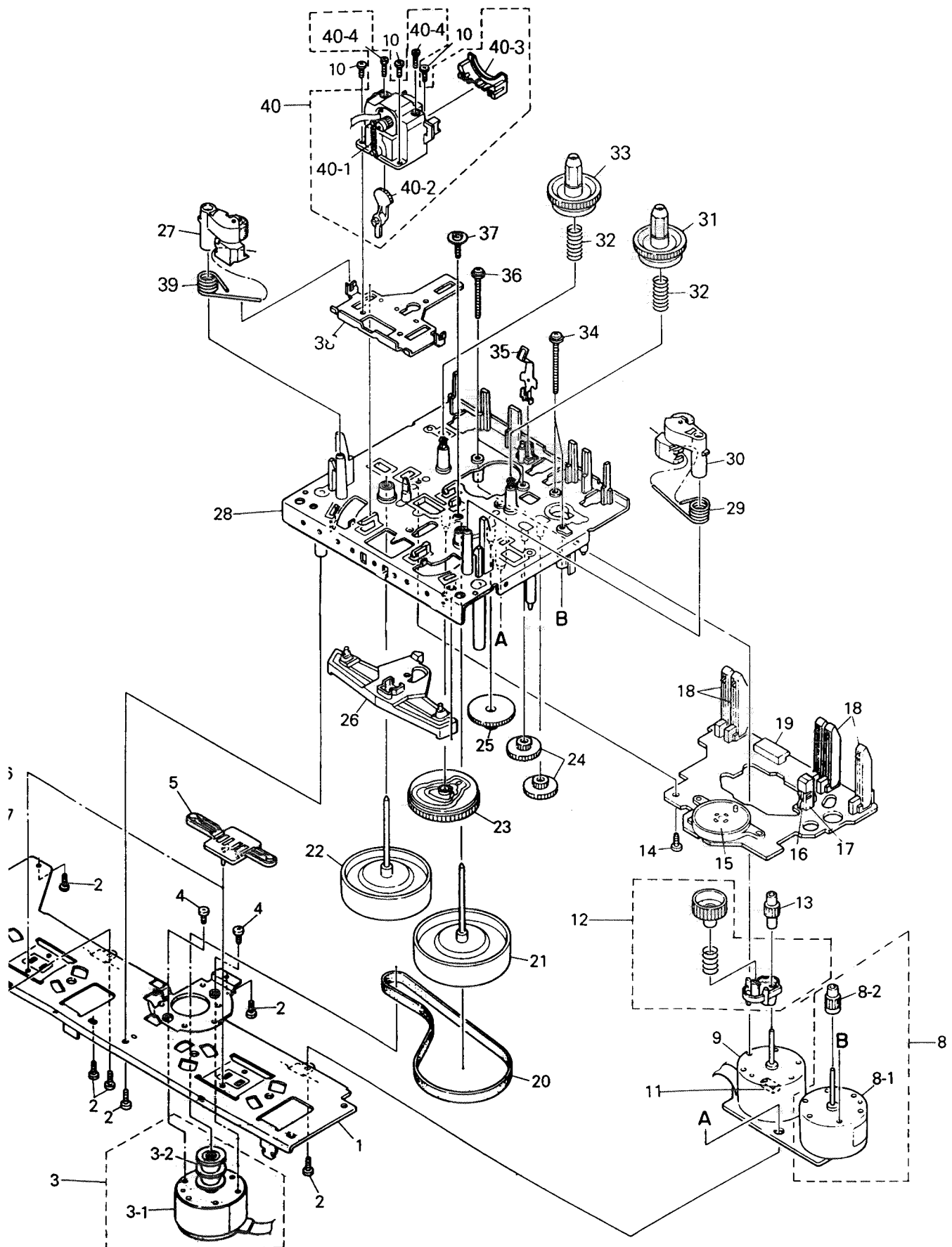
Symbol No. 

|   |   |   |   |
|---|---|---|---|
| M | 4 | M | M |
|---|---|---|---|

| ⚠ | Item | Part Number   | Part Name           | Q'ty | Description | Area |
|---|------|---------------|---------------------|------|-------------|------|
|   | 1    | VKM3775-00A   | GUIDE BRACKET       | 1    |             |      |
|   | 2    | SDSF2608Z     | SCREW               | 1    |             |      |
|   | 3    | MSI5U2LWA-SA1 | DC MOTOR            | 1    |             |      |
|   | 3-1  | MSI-5U2LWA    | DC MOTOR            | 1    |             |      |
|   | 3-2  | VKR4632-003MM | MOTOR PULLEY        | 1    |             |      |
|   | 4    | SPSP2603Z     | WOOD SCREW          | 1    |             |      |
|   | 5    | VKS5327-005MM | LOCK PLATE          | 1    |             |      |
|   | 6    | WDL163525-4   | WASHER              | 1    |             |      |
|   | 7    | VKR4631-005MM | IDLER PULLEY        | 1    |             |      |
|   | 8    | MSN5D257A-SA1 | DC MOTOR            | 1    |             |      |
|   | 8-1  | MSN-5D257A    | DC MOTOR            | 1    |             |      |
|   | 8-2  | VKS5433-001   | ACTUATER MOTOR GEAR | 1    |             |      |
|   | 9    | MMN-6F4RA38   | DC MOTOR            | 1    |             |      |
|   | 10   | SDSR2004Z     | SCREW               | 1    |             |      |
|   | 11   | VMC0234-R08   | CONNECT TERMINAL    | 1    |             |      |
|   | 12   | VKS5430-00CMM | F.F/REW.ARM         | 1    |             |      |
|   | 13   | VKS5432-001   | REEL MOTOR GEAR     | 1    |             |      |
|   | 14   | SDST2612Z     | SCREW               | 1    |             |      |
|   | 15   | VKS3616-00A   | CAM SWITCH          | 1    |             |      |
|   | 16   | DN6851-HI     | I.C(M)              | 1    |             |      |
|   | 17   | VKS3630-001MM | I.C.PROTECTOR       | 1    |             |      |
|   | 18   | MXS00220MVL0  | CASSETTE SWITCH     | 1    |             |      |
|   | 19   | VMC0234-R11   | CONNECT TERMINAL    | 1    |             |      |
|   | 19   | VMC0234-R14   | CONNECT TERMINAL    | 1    |             |      |
|   | 20   | VKB3001-064   | DRIVE BELT          | 1    |             |      |
|   | 20   | VKB3001-065   | DRIVE BELT          | 1    |             |      |
|   | 21   | VKF3184-00H   | FLYWHEEL            | 1    |             |      |
|   | 22   | VKF3186-00H   | FLYWHEEL            | 1    |             |      |
|   | 23   | VKS2224-002   | CONTROL CAM         | 1    |             |      |
|   | 24   | VKS5454-001   | ACTUATER GEAR       | 1    |             |      |
|   | 25   | VKS5455-001   | ACTUATER GEAR       | 1    |             |      |
|   | 26   | VKS3627-001   | PINCH ROLLER LEVER  | 1    |             |      |
|   | 27   | VKP4229-00B   | PINCH ROLLER        | 1    |             |      |
|   | 28   | VKS1134-00B   | CHASSIS BASE        | 1    |             |      |
|   | 29   | VKW5045-003   | PINCH ROLLER SPRING | 1    |             |      |
|   | 30   | VKP4227-00B   | PINCH ROLLER        | 1    |             |      |
|   | 31   | VKS5428-00B   | REEL DISK           | 1    |             |      |
|   | 32   | VKW5043-001   | TENSION SPRING      | 1    |             |      |
|   | 33   | VKS3617-002   | REEL DISK           | 1    |             |      |
|   | 34   | VKZ4705-102   | SCREW               | 1    |             |      |
|   | 35   | VKY4670-001   | SPRING              | 1    |             |      |
|   | 36   | VKZ4705-101   | SCREW               | 1    |             |      |
|   | 37   | VKZ4708-001   | SPECIAL SCREW       | 1    |             |      |
|   | 38   | VKM3632-001   | HEAD BASE           | 1    |             |      |
|   | 39   | VKW5046-003   | PINCH ROLLER SPRING | 1    |             |      |
|   | 40   | VKS3682-00BMM | H.MOUNT ASS'Y       | 1    |             |      |
|   | 40   | VKS3701-00AMM | H.MOUNT ASS'Y       | 1    |             |      |
|   | 40-1 | VKW5126-001   | HEAD SPRING         | 1    |             |      |
|   | 40-2 | VKS3670-001   | CONNECT GEAR        | 1    |             |      |
|   | 40-3 | VKS3671-001   | HEAD COVER          | 1    |             |      |
|   | 40-4 | VKZ4730-001   | SPECIAL SCREW       | 1    |             |      |

# Cassette Mechanism Ass'y and Parts List

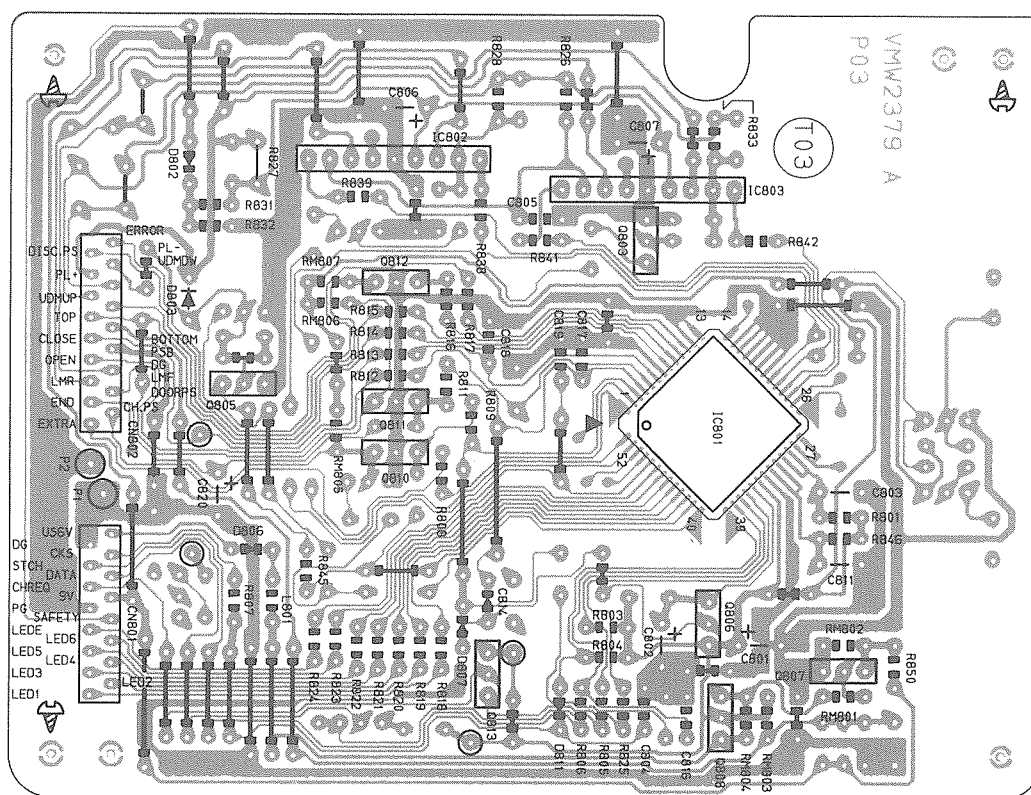
Symbol No. **M**





# Printed Circuit Board Ass'y and Parts List

■ ENN-442 [A] CD Changer MechanizmControl PC Board Ass'y



## TRANSISTORS

| △ | ITEM | PART NUMBER   | DESCRIPTION            | AREA |
|---|------|---------------|------------------------|------|
|   | Q805 | 2SD1302       | SI.TRANSIST MATSUSHITA |      |
|   | Q806 | DTA143ES      | DIGITAL TRA ROHM       |      |
|   | Q807 | 2SC1740S(R,S) | SI.TRANSIST ROHM       |      |
|   | Q808 | 2SA1317       | SI.TRANSIST SANYO      |      |
|   | Q810 | 2SA1317       | SI.TRANSIST SANYO      |      |
|   | Q811 | 2SA1317       | SI.TRANSIST SANYO      |      |
|   | Q812 | 2SA1317       | SI.TRANSIST SANYO      |      |
|   | Q813 | 2SC1740S(R,S) | SI.TRANSIST ROHM       |      |

△ : SAFETY PARTS

## I.C.S

| △ | ITEM  | PART NUMBER    | DESCRIPTION         | AREA |
|---|-------|----------------|---------------------|------|
|   | IC801 | UPD656126C-088 | I.C(M) 0050         |      |
|   | IC802 | TA8409S        | I.C(MONO-AN TOSHIBA |      |
|   | IC803 | TA8409S        | I.C(MONO-AN TOSHIBA |      |

△ : SAFETY PARTS

## DIODES

| △ | ITEM | PART NUMBER | DESCRIPTION         | AREA |
|---|------|-------------|---------------------|------|
|   | D802 | 1SS254      | DIODE               |      |
|   | D803 | 11E2        | SI.DIODE NIHONINTER |      |
|   | D806 | 1SS254      | DIODE               |      |
|   | D807 | 1SS254      | DIODE               |      |
|   | D808 | 1SS254      | DIODE               |      |

△ : SAFETY PARTS

## CAPACITORS

| △ | ITEM | PART NUMBER  | DESCRIPTION           | AREA |
|---|------|--------------|-----------------------|------|
|   | C801 | QEK51AM-107  | 100MF 10V AL E.CAPAC  |      |
|   | C802 | QEK51EM-475  | 4.7MF 25V AL E.CAPAC  |      |
|   | C803 | QFV81HJ-104  | 0.1MF 50V THIN FILM   |      |
|   | C804 | QCB81HK-102Y | 1000PF 50V CER.CAPACI |      |
|   | C805 | QCV81CM-103Y | 0.01MF 16V CER.CAPACI |      |
|   | C806 | QEK51CM-476  | 47MF 16V AL E.CAPAC   |      |
|   | C807 | QEK51CM-476  | 47MF 16V AL E.CAPAC   |      |
|   | C811 | QFV81HJ-104  | 0.1MF 50V THIN FILM   |      |
|   | C816 | QCB81HK-102Y | 1000PF 50V CER.CAPACI |      |
|   | C817 | QCV81CM-103Y | 0.01MF 16V CER.CAPACI |      |
|   | C818 | QCF81HZ-104Y | 0.1MF 50V CER.CAPACI  |      |
|   | C819 | QCV81CM-103Y | 0.01MF 16V CER.CAPACI |      |
|   | C820 | QEK51HM-225G | 2.2MF 50V AL E.CAPAC  |      |

△ : SAFETY PARTS

## RESISTORS

| △ | ITEM | PART NUMBER | DESCRIPTION         | AREA |
|---|------|-------------|---------------------|------|
|   | R801 | QRD161J-103 | 10K 1/6W CARBON RES |      |
|   | R803 | QRD167J-223 | 22K 1/6W CARBON RES |      |
|   | R804 | QRD167J-223 | 22K 1/6W CARBON RES |      |
|   | R805 | QRD161J-471 | 470 1/6W CARBON RES |      |
|   | R806 | QRD161J-471 | 470 1/6W CARBON RES |      |
|   | R807 | QRD161J-471 | 470 1/6W CARBON RES |      |
|   | R808 | QRD161J-102 | 1K 1/6W CARBON RES  |      |
|   | R809 | QRD161J-681 | 680 1/6W CARBON RES |      |
|   | R811 | QRD161J-681 | 680 1/6W CARBON RES |      |
|   | R812 | QRD161J-102 | 1K 1/6W CARBON RES  |      |
|   | R813 | QRD161J-102 | 1K 1/6W CARBON RES  |      |
|   | R814 | QRD161J-102 | 1K 1/6W CARBON RES  |      |
|   | R815 | QRD161J-102 | 1K 1/6W CARBON RES  |      |
|   | R816 | QRD161J-681 | 680 1/6W CARBON RES |      |
|   | R817 | QRD161J-102 | 1K 1/6W CARBON RES  |      |
|   | R818 | QRD167J-223 | 22K 1/6W CARBON RES |      |
|   | R819 | QRD167J-223 | 22K 1/6W CARBON RES |      |
|   | R820 | QRD167J-223 | 22K 1/6W CARBON RES |      |
|   | R821 | QRD167J-223 | 22K 1/6W CARBON RES |      |
|   | R822 | QRD167J-223 | 22K 1/6W CARBON RES |      |

△ : SAFETY PARTS

## RESISTORS

| ITEM  | PART NUMBER  | DESCRIPTION          | AREA |
|-------|--------------|----------------------|------|
| R823  | QRD167J-223  | 22K 1/6W CARBON RES  |      |
| R824  | QRD167J-223  | 22K 1/6W CARBON RES  |      |
| R825  | QRD161J-471  | 470 1/6W CARBON RES  |      |
| R826  | QRD161J-181  | 180 1/6W CARBON RES  |      |
| R827  | QR20076-100X | 10 1/4W FUSIBLE RE   |      |
| R828  | QRD161J-102  | 1K 1/6W CARBON RES   |      |
| R831  | QRD167J-682  | 6.8K 1/6W CARBON RES |      |
| R832  | QRD161J-472  | 4.7K 1/6W CARBON RES |      |
| R833  | QRD161J-102  | 1K 1/6W CARBON RES   |      |
| R838  | QRD161J-102  | 1K 1/6W CARBON RES   |      |
| R839  | QRD161J-102  | 1K 1/6W CARBON RES   |      |
| R841  | QRD161J-102  | 1K 1/6W CARBON RES   |      |
| R842  | QRD161J-102  | 1K 1/6W CARBON RES   |      |
| R845  | QRD161J-102  | 1K 1/6W CARBON RES   |      |
| R846  | QRD161J-103  | 10K 1/6W CARBON RES  |      |
| R850  | QRD167J-822  | 8.2K 1/6W CARBON RES |      |
| RM801 | QRD161J-103  | 10K 1/6W CARBON RES  |      |
| RM802 | QRD167J-152  | 1.5K 1/6W CARBON RES |      |
| RM803 | QRD167J-151  | 150 1/6W CARBON RES  |      |
| RM804 | QRD161J-473  | 47K 1/6W CARBON RES  |      |

△ : SAFETY PARTS

## RESISTORS

| ITEM  | PART NUMBER | DESCRIPTION          | AREA |
|-------|-------------|----------------------|------|
| RM805 | QRD161J-224 | 220K 1/6W CARBON RES |      |
| RM806 | QRD161J-224 | 220K 1/6W CARBON RES |      |
| RM807 | QRD161J-104 | 100K 1/6W CARBON RES |      |
| RM812 | QRD161J-473 | 47K 1/6W CARBON RES  |      |

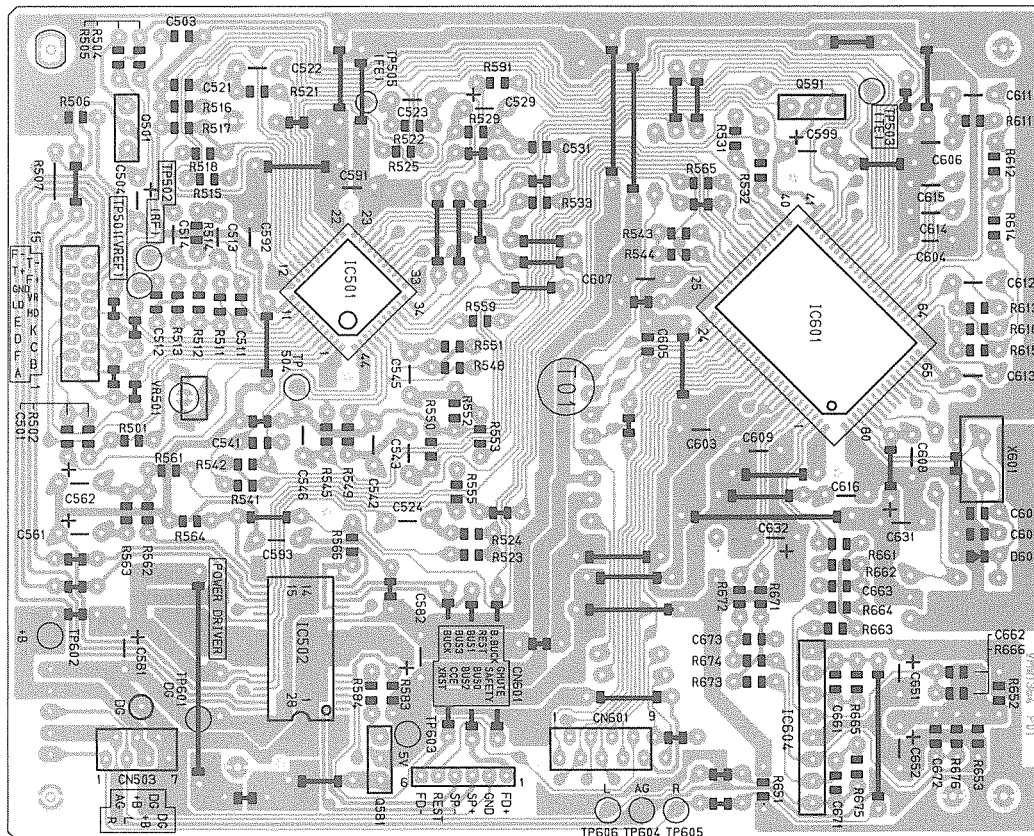
△ : SAFETY PARTS

## OTHERS

| ITEM  | PART NUMBER  | DESCRIPTION | AREA |
|-------|--------------|-------------|------|
| L801  | VMW2379-003X | PRINTED BOA |      |
| CN801 | EQL4004-100  | INDUCTOR    |      |
| CN802 | VMC0161-R16  | CONNECT TER |      |
| SP801 | VMC0161-R18  | CONNECT TER |      |
|       | VYH7237-003  | I.C COVER   |      |

△ : SAFETY PARTS

## ■ ENN-443 A CD Servo &amp; Low Pass Filter PC Board Ass'y



## TRANSISTORS

| ITEM | PART NUMBER | DESCRIPTION      | AREA |
|------|-------------|------------------|------|
| Q501 | 2SA952(L/K) | SI. TRANSIST NEC |      |
| Q581 | 2SA952(L/K) | SI. TRANSIST NEC |      |
| Q591 | 2SA933S(RS) | SI. TRANSIST     |      |

△ : SAFETY PARTS

## I.C.S

| ITEM  | PART NUMBER | DESCRIPTION          | AREA |
|-------|-------------|----------------------|------|
| IC501 | TA8191F     | I.C (MONO-AN TOSHIBA |      |
| IC502 | BA6398FP    | I.C (MONO-AN ROHM    |      |
| IC601 | TC9284BF    | I.C (M) TOSHIBA      |      |
| IC604 | NJM4580L-S  | I.C (MONO-AN 0050    |      |

△ : SAFETY PARTS



## CAPACITORS

| Δ | ITEM | PART NUMBER  | DESCRIPTION            | AREA |
|---|------|--------------|------------------------|------|
|   | C501 | QCBB1HK-821Y | 820PF 50V CER.CAPACI   |      |
|   | C503 | QCVB1CM-103Y | 0.01MF 16V CER.CAPACI  |      |
|   | C504 | QETB1EM-106  | 10MF 25V AL E.CAPAC    |      |
|   | C511 | QCSB1HK-3R9  | 3.9PF 50V CER.CAPACI   |      |
|   | C512 | QCSB1HJ-270  | 27PF 50V CERAMIC       |      |
|   | C513 | QFLB1HJ-104  | 0.1MF 50V MYLAR CAPA   |      |
|   | C514 | QFN81HJ-472  | 4700PF 50V MYLAR CAPA  |      |
|   | C521 | QCBB1HK-331Y | 330PF 50V CER.CAPACI   |      |
|   | C522 | QFLB1HJ-473  | 0.047MF 50V MYLAR CAPA |      |
|   | C523 | QFV81HJ-154  | 0.15MF 50V THIN FILM   |      |
|   | C524 | QENC1HM-475Z | 4.7MF 50V NP E.CAPAC   |      |
|   | C529 | QETB1AM-336  | 33MF 10V AL E.CAPAC    |      |
|   | C531 | QCVB1CM-822Y | 8200PF 16V CER.CAPACI  |      |
|   | C541 | QCBB1HK-101Y | 100PF 50V CER.CAPACI   |      |
|   | C542 | QFLB1HJ-103  | 0.01MF 50V MYLAR CAPA  |      |
|   | C543 | QFLB1HJ-393  | 0.039MF 50V MYLAR CAPA |      |
|   | C545 | QENC1HM-105Z | 1MF 50V NP E.CAPAC     |      |
|   | C546 | QFLB1HJ-223  | 0.022MF 50V MYLAR CAPA |      |
|   | C561 | QETB1AM-476  | 47MF 10V E.CAPACITO    |      |
|   | C562 | QETB1HM-475E | 4.7MF 50V E.CAPACITO   |      |
|   | C581 | QETB1AM-477  | 470MF 10V E.CAPACITO   |      |
|   | C582 | QEK51CM-476  | 47MF 16V AL E.CAPAC    |      |
|   | C591 | QCC2025-155  | 1.5MF 25V C.CAPACITO   |      |
|   | C592 | QCC2025-155  | 1.5MF 25V C.CAPACITO   |      |
|   | C593 | QCC21EM-104  | 0.1MF 25V CER.CAPACI   |      |
|   | C599 | QEK51AM-107  | 100MF 10V AL E.CAPAC   |      |
|   | C601 | QCSB1HJ-220  | 22PF 50V CER.CAPACI    |      |
|   | C602 | QCSB1HJ-220  | 22PF 50V CER.CAPACI    |      |
|   | C603 | QFV81HJ-104  | 0.1MF 50V THIN FILM    |      |
|   | C604 | QCC21EM-104  | 0.1MF 25V CER.CAPACI   |      |
|   | C605 | QCVB1CM-103Y | 0.01MF 16V CER.CAPACI  |      |
|   | C606 | QCC21EM-473  | 0.047MF 25V CER.CAPACI |      |
|   | C607 | QFV81HJ-104  | 0.1MF 50V THIN FILM    |      |
|   | C608 | QCC21EM-473  | 0.047MF 25V CER.CAPACI |      |
|   | C609 | QFV81HJ-104  | 0.1MF 50V THIN FILM    |      |
|   | C611 | QCS21HJ-101A | 100PF 50V CER.CAPACI   |      |
|   | C612 | QFLB1HJ-103  | 0.01MF 50V MYLAR CAPA  |      |
|   | C613 | QFLB1HJ-103  | 0.01MF 50V MYLAR CAPA  |      |
|   | C614 | QFN31HJ-332Z | 3300PF 50V MYLAR CAPA  |      |
|   | C615 | QFN31HJ-332Z | 3300PF 50V MYLAR CAPA  |      |
|   | C616 | QCC21EM-103  | 0.01MF 25V CER.CAPACI  |      |
|   | C631 | QEK51AM-107  | 100MF 10V AL E.CAPAC   |      |
|   | C632 | QER50JM-107  | 100MF 6.3V AL E.CAPAC  |      |
|   | C651 | QEK51AM-107  | 100MF 10V AL E.CAPAC   |      |
|   | C652 | QEK51CM-226  | 22MF 16V AL E.CAPAC    |      |
|   | C661 | QCBB1HK-101Y | 100PF 50V CER.CAPACI   |      |
|   | C662 | QCBB1HK-101Y | 100PF 50V CER.CAPACI   |      |
|   | C663 | QCSB1HJ-270  | 27PF 50V CERAMIC       |      |
|   | C671 | QCBB1HK-101Y | 100PF 50V CER.CAPACI   |      |
|   | C672 | QCBB1HK-101Y | 100PF 50V CER.CAPACI   |      |
|   | C673 | QCSB1HJ-270  | 27PF 50V CERAMIC       |      |

Δ SAFETY PARTS

## OTHERS

| Δ | ITEM  | PART NUMBER     | DESCRIPTION | AREA |
|---|-------|-----------------|-------------|------|
|   |       | EMW10477-004    | PRINTED BOA |      |
|   |       | VMW1364-002X    | PRINTED BOA |      |
|   | X601  | CSA16.93MXZ040T | CERAMIC RES |      |
|   | CN501 | EMV7144-015R    | CONNECT TER |      |
|   | CN502 | EMV5109-006A    | CONNECT TER |      |
|   | CN503 | VMC0161-R07     | CONNECT TER |      |
|   | CN601 | VMC0161-R09     | CONNECT TER |      |
|   | SP501 | VYH7237-004     | I.C.COVER   |      |
|   | SP502 | VYH7653-003     | I.C.PROTECT |      |
|   | SP601 | VYH7237-002     | I.C.COVER   |      |

Δ SAFETY PARTS

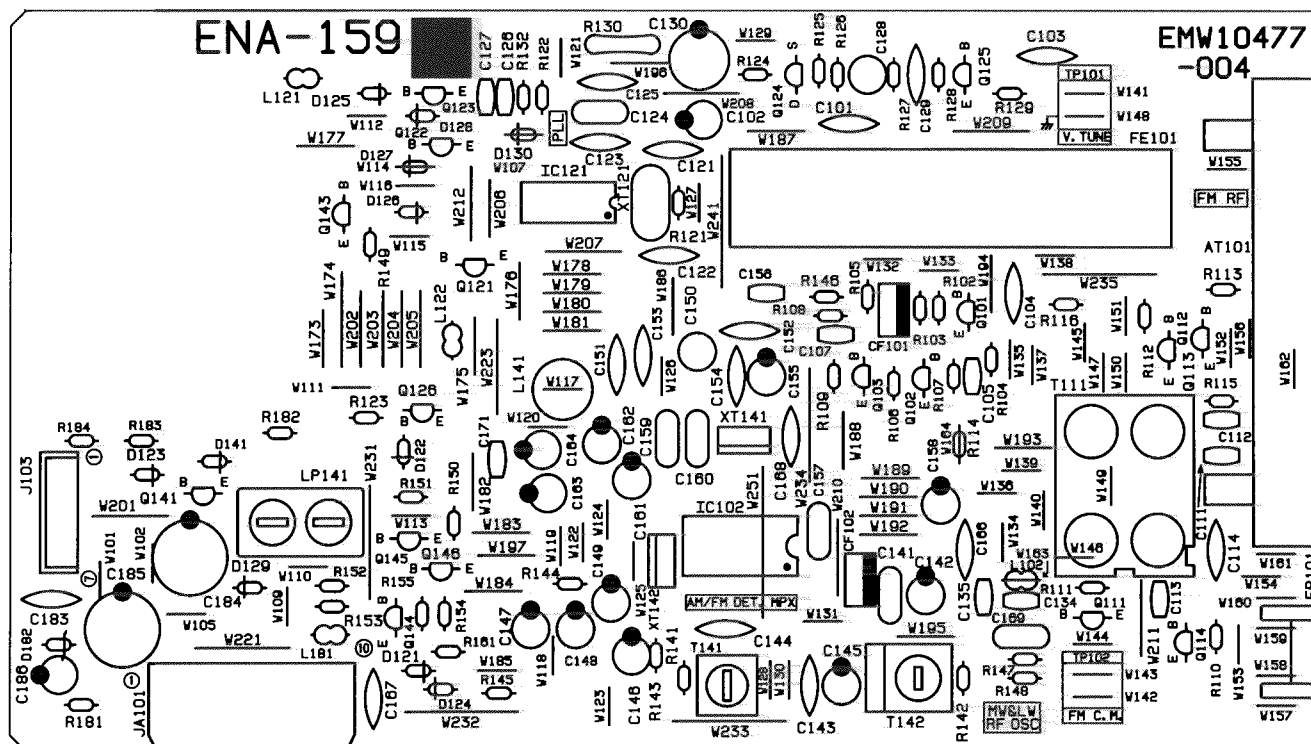
## RESISTORS

| Δ | ITEM  | PART NUMBER   | DESCRIPTION          | AREA |
|---|-------|---------------|----------------------|------|
|   | R501  | QRD161J-124   | 120K 1/6W CARBON RES |      |
|   | R502  | QRD161J-103   | 10K 1/6W CARBON RES  |      |
|   | R504  | QRD161J-202   | 2K 1/6W CARBON RES   |      |
|   | R505  | QRD161J-100   | 10 1/6W CARBON RES   |      |
|   | R506  | QRD161J-101   | 100 1/6W CARBON RES  |      |
|   | R507  | QRD161J-120   | 12 1/6W CARBON RES   |      |
|   | R511  | QRD161J-183   | 18K 1/6W CARBON RES  |      |
|   | R512  | QRD161J-392   | 3.9K 1/6W CARBON RES |      |
|   | R513  | QRD167J-332   | 3.3K 1/6W CARBON RES |      |
|   | R514  | QRD161J-472   | 4.7K 1/6W CARBON RES |      |
|   | R515  | QRD161J-103   | 10K 1/6W CARBON RES  |      |
|   | R516  | QRD161J-103   | 10K 1/6W CARBON RES  |      |
|   | R517  | QRD161J-202   | 2K 1/6W CARBON RES   |      |
|   | R518  | QRD161J-335YT | 3.3M 1/6W CARBON RES |      |
|   | R521  | QRD167J-154   | 150K 1/6W CARBON RES |      |
|   | R522  | QRD161J-392   | 3.9K 1/6W CARBON RES |      |
|   | R523  | QRD161J-472   | 4.7K 1/6W CARBON RES |      |
|   | R524  | QRD161J-331   | 330 1/6W CARBON RES  |      |
|   | R525  | QRD161J-472   | 4.7K 1/6W CARBON RES |      |
|   | R529  | QRD167J-562   | 5.6K 1/6W CARBON RES |      |
|   | R531  | QRD161J-473   | 47K 1/6W CARBON RES  |      |
|   | R532  | QRD161J-104   | 100K 1/6W CARBON RES |      |
|   | R533  | QRD167J-153   | 15K 1/6W CARBON RES  |      |
|   | R541  | QRD161J-123   | 12K 1/6W CARBON RES  |      |
|   | R542  | QRD167J-332   | 3.3K 1/6W CARBON RES |      |
|   | R543  | QRD161J-473   | 47K 1/6W CARBON RES  |      |
|   | R544  | QRD167J-223   | 22K 1/6W CARBON RES  |      |
|   | R545  | QRD161J-103   | 10K 1/6W CARBON RES  |      |
|   | R548  | QRD167J-153   | 15K 1/6W CARBON RES  |      |
|   | R549  | QRD161J-821   | 820 1/6W CARBON RES  |      |
|   | R550  | QRD161J-104   | 100K 1/6W CARBON RES |      |
|   | R551  | QRD167J-223   | 22K 1/6W CARBON RES  |      |
|   | R552  | QRD167J-562   | 5.6K 1/6W CARBON RES |      |
|   | R553  | QRD161J-821   | 820 1/6W CARBON RES  |      |
|   | R555  | QRD161J-392   | 3.9K 1/6W CARBON RES |      |
|   | R559  | QRD161J-125   | 1.2M 1/6W CARBON RES |      |
|   | R561  | QRD167J-562   | 5.6K 1/6W CARBON RES |      |
|   | R562  | QRD161J-102   | 1K 1/6W CARBON RES   |      |
|   | R563  | QRD167J-152   | 1.5K 1/6W CARBON RES |      |
|   | R564  | QRD167J-332   | 3.3K 1/6W CARBON RES |      |
|   | R565  | QRD161J-683   | 68K 1/6W CARBON RES  |      |
|   | R566  | QRD161J-273   | 27K 1/6W CARBON RES  |      |
|   | R583  | QRD161J-101   | 100 1/6W CARBON RES  |      |
|   | R584  | QRD161J-331   | 330 1/6W CARBON RES  |      |
|   | R591  | QRD161J-473   | 47K 1/6W CARBON RES  |      |
|   | R611  | QRD161J-102   | 1K 1/6W CARBON RES   |      |
|   | R612  | QRD161J-103   | 10K 1/6W CARBON RES  |      |
|   | R613  | QRD161J-224   | 220K 1/6W CARBON RES |      |
|   | R614  | QRD161J-473   | 47K 1/6W CARBON RES  |      |
|   | R615  | QRD161J-225   | 2.2M 1/6W CARBON RES |      |
|   | R616  | QRD161J-333   | 33K 1/6W CARBON RES  |      |
|   | R651  | QRD161J-820   | 82 1/6W CARBON RES   |      |
|   | R652  | QRD161J-473   | 47K 1/6W CARBON RES  |      |
|   | R653  | QRD161J-473   | 47K 1/6W CARBON RES  |      |
|   | R661  | QRD161J-473   | 47K 1/6W CARBON RES  |      |
|   | R662  | QRD161J-473   | 47K 1/6W CARBON RES  |      |
|   | R663  | QRD161J-473   | 47K 1/6W CARBON RES  |      |
|   | R664  | QRD161J-473   | 47K 1/6W CARBON RES  |      |
|   | R665  | QRD167J-223   | 22K 1/6W CARBON RES  |      |
|   | R666  | QRD167J-223   | 22K 1/6W CARBON RES  |      |
|   | R671  | QRD161J-473   | 47K 1/6W CARBON RES  |      |
|   | R672  | QRD161J-473   | 47K 1/6W CARBON RES  |      |
|   | R673  | QRD161J-473   | 47K 1/6W CARBON RES  |      |
|   | R674  | QRD161J-473   | 47K 1/6W CARBON RES  |      |
|   | R675  | QRD167J-223   | 22K 1/6W CARBON RES  |      |
|   | R676  | QRD167J-223   | 22K 1/6W CARBON RES  |      |
|   | VR501 | QVPA601-154A  | 150K TRIMMER RE      |      |

Δ SAFETY PARTS

☒ ENA-159 ☐ Tuner PC Board Ass'y

**Note : ENA-159 □ varies according to the areas employed. See note (1) when placing an order.**



**Note(1)**

| PC Board Ass'y | Designated Areas                                |
|----------------|-------------------------------------------------|
| ENA-159 [I]    | U.S.A., Canada                                  |
| ENA-159 [J]    | Singapore,Taiwan,<br>Other Countries            |
| ENA-159 [K]    | Austraria                                       |
| ENA-159 [L]    | Eastern Europe                                  |
| ENA-159 [M]    | Scandinavia,Germany,Italy<br>Continental Europe |
| ENA-159 [N] BS | the U.K.                                        |

## TRANSISTORS

| △ | ITEM | PART NUMBER  | D E S C R I P T I O N | AREA |
|---|------|--------------|-----------------------|------|
|   | Q101 | 2SC461       | SI.TRANSIST           |      |
|   | Q102 | 2SC535       | SI.TRANSIST HITACHI   |      |
|   | Q103 | 2SC461       | SI.TRANSIST           |      |
|   | Q111 | 2SD2144S(VW) | SI.TRANSIST ROHM      | BS   |
|   | Q111 | 2SD2144S(VW) | SI.TRANSIST ROHM      | EF   |
|   | Q111 | 2SD2144S(VW) | SI.TRANSIST ROHM      | EN   |
|   | Q111 | 2SD2144S(VW) | SI.TRANSIST ROHM      | G    |
|   | Q111 | 2SD2144S(VW) | SI.TRANSIST ROHM      | GI   |
|   | Q111 | 2SD2144S(VW) | SI.TRANSIST ROHM      | VX   |
|   | Q112 | 2SD2144S(VW) | SI.TRANSIST ROHM      | BS   |
|   | Q112 | 2SD2144S(VW) | SI.TRANSIST ROHM      | EF   |
|   | Q112 | 2SD2144S(VW) | SI.TRANSIST ROHM      | EN   |
|   | Q112 | 2SD2144S(VW) | SI.TRANSIST ROHM      | G    |
|   | Q112 | 2SD2144S(VW) | SI.TRANSIST ROHM      | GI   |
|   | Q112 | 2SD2144S(VW) | SI.TRANSIST ROHM      | VX   |

A : SAFETY PARTS

# TRANSISTORS

| ITEM | PART NUMBER   | DESCRIPTION          | AREA |
|------|---------------|----------------------|------|
| Q113 | 2SC1740S(R,S) | SI. TRANSIST ROHM    | BS   |
| Q113 | 2SC1740S(R,S) | SI. TRANSIST ROHM    | EF   |
| Q113 | 2SC1740S(R,S) | SI. TRANSIST ROHM    | EN   |
| Q113 | 2SC1740S(R,S) | SI. TRANSIST ROHM    | G    |
| Q113 | 2SC1740S(R,S) | SI. TRANSIST ROHM    | GI   |
| Q113 | 2SC1740S(R,S) | SI. TRANSIST ROHM    | VX   |
| Q114 | 2SD2144S(VW)  | SI. TRANSIST ROHM    | BS   |
| Q114 | 2SD2144S(VW)  | SI. TRANSIST ROHM    | EF   |
| Q114 | 2SD2144S(VW)  | SI. TRANSIST ROHM    | EN   |
| Q114 | 2SD2144S(VW)  | SI. TRANSIST ROHM    | G    |
| Q114 | 2SD2144S(VW)  | SI. TRANSIST ROHM    | GI   |
| Q114 | 2SD2144S(VW)  | SI. TRANSIST ROHM    | VX   |
| Q121 | DTA144ES      | DIGITAL TRA ROHM     |      |
| Q122 | DTA144ES      | DIGITAL TRA ROHM     |      |
| Q123 | DTA144ES      | DIGITAL TRA ROHM     | BS   |
| Q123 | DTA144ES      | DIGITAL TRA ROHM     | EF   |
| Q123 | DTA144ES      | DIGITAL TRA ROHM     | EN   |
| Q123 | DTA144ES      | DIGITAL TRA ROHM     | G    |
| Q123 | DTA144ES      | DIGITAL TRA ROHM     | GI   |
| Q123 | DTA144ES      | DIGITAL TRA ROHM     | VX   |
| Q124 | 2SK301(P,Q)   | F.E.T.               |      |
| Q125 | 2SC458(C,D)   | SI. TRANSIST HITACHI |      |
| Q126 | DTC114ES      | DIGITAL TRA ROHM     |      |
| Q141 | DTC114ES      | DIGITAL TRA ROHM     |      |
| Q143 | DTC114ES      | DIGITAL TRA ROHM     |      |

SAFETY PARTS

**I.C.S**

| ITEM  | PART NUMBER | DESCRIPTION        | AREA |
|-------|-------------|--------------------|------|
| IC102 | LA1836M     | I.C.(MONO-AN SANYO |      |
| IC121 | LC7218JMX   | I.C.(DIGI-MO SANYO |      |

## A SAFETY PARTS

## DIODES

| Δ | ITEM | PART NUMBER | DESCRIPTION      | AREA |
|---|------|-------------|------------------|------|
|   | D121 | 1SS133      | SI.DIODE ROHM    |      |
|   | D122 | 1SS133      | SI.DIODE ROHM    |      |
|   | D123 | 1SS133      | SI.DIODE ROHM    |      |
|   | D124 | 1SS133      | SI.DIODE ROHM    |      |
|   | D125 | 1SS133      | SI.DIODE ROHM    | BS   |
|   | D125 | 1SS133      | SI.DIODE ROHM    | EF   |
|   | D125 | 1SS133      | SI.DIODE ROHM    | EN   |
|   | D125 | 1SS133      | SI.DIODE ROHM    | G    |
|   | D125 | 1SS133      | SI.DIODE ROHM    | GI   |
|   | D125 | 1SS133      | SI.DIODE ROHM    | VX   |
|   | D126 | 1SS133      | SI.DIODE ROHM    |      |
|   | D127 | 1SS133      | SI.DIODE ROHM    | BS   |
|   | D127 | 1SS133      | SI.DIODE ROHM    | EF   |
|   | D127 | 1SS133      | SI.DIODE ROHM    | EN   |
|   | D127 | 1SS133      | SI.DIODE ROHM    | G    |
|   | D127 | 1SS133      | SI.DIODE ROHM    | GI   |
|   | D127 | 1SS133      | SI.DIODE ROHM    | VX   |
|   | D128 | 1SS133      | SI.DIODE ROHM    | BS   |
|   | D128 | 1SS133      | SI.DIODE ROHM    | EF   |
|   | D128 | 1SS133      | SI.DIODE ROHM    | EN   |
|   | D128 | 1SS133      | SI.DIODE ROHM    | G    |
|   | D128 | 1SS133      | SI.DIODE ROHM    | GI   |
|   | D128 | 1SS133      | SI.DIODE ROHM    | VX   |
|   | D129 | 1SS133      | SI.DIODE ROHM    |      |
|   | D130 | 1SS133      | SI.DIODE ROHM    |      |
|   | D141 | 1SS133      | SI.DIODE ROHM    |      |
|   | D182 | MTZ5.1JC    | ZENER DIODE ROHM |      |

Δ SAFETY PARTS

## CAPACITORS

| Δ | ITEM | PART NUMBER   | DESCRIPTION            | AREA |
|---|------|---------------|------------------------|------|
|   | C101 | QCF21HP-103A  | 0.01MF 50V CER.CAPACI  |      |
|   | C102 | QETB1EM-476   | 47MF 25V AL E.CAPAC    | BS   |
|   | C102 | QETB1EM-476   | 47MF 25V AL E.CAPAC    | EF   |
|   | C102 | QETB1EM-476   | 47MF 25V AL E.CAPAC    | EN   |
|   | C102 | QETB1EM-476   | 47MF 25V AL E.CAPAC    | G    |
|   | C102 | QETB1EM-476   | 47MF 25V AL E.CAPAC    | GI   |
|   | C102 | QETB1EM-476   | 47MF 25V AL E.CAPAC    | VX   |
|   | C103 | QCF21HP-223A  | 0.022MF 50V CER.CAPACI |      |
|   | C104 | QCF21HP-223A  | 0.022MF 50V CER.CAPACI |      |
|   | C105 | QCHB1EZ-223   | 0.022MF 25V CER.CAPACI |      |
|   | C107 | QCHB1EZ-223   | 0.022MF 25V CER.CAPACI |      |
|   | C111 | QCHB1EZ-223   | 0.022MF 25V CER.CAPACI |      |
|   | C112 | QCT30CH-120Y  | 12PF 50V CER.CAPACI    |      |
|   | C113 | QCHB1EZ-223   | 0.022MF 25V CER.CAPACI | BS   |
|   | C113 | QCHB1EZ-223   | 0.022MF 25V CER.CAPACI | EF   |
|   | C113 | QCHB1EZ-223   | 0.022MF 25V CER.CAPACI | EN   |
|   | C113 | QCHB1EZ-223   | 0.022MF 25V CER.CAPACI | G    |
|   | C113 | QCHB1EZ-223   | 0.022MF 25V CER.CAPACI | GI   |
|   | C113 | QCHB1EZ-223   | 0.022MF 25V CER.CAPACI | VX   |
|   | C114 | QCC21EM-473   | 0.047MF 25V CER.CAPACI |      |
|   | C121 | QCS21HJ-180A  | 18PF 50V CER.CAPACI    |      |
|   | C122 | QCS21HJ-180A  | 18PF 50V CER.CAPACI    |      |
|   | C123 | QCC21EM-473   | 0.047MF 25V CER.CAPACI |      |
|   | C124 | QCZ0202-155   | 1.5MF 25V CER.RESIST   |      |
|   | C125 | QCF21HP-223A  | 0.022MF 50V CER.CAPACI |      |
|   | C126 | QCSB1HK-101Y  | 100PF 50V CER.CAPACI   |      |
|   | C127 | QCSB1HK-101Y  | 100PF 50V CER.CAPACI   |      |
|   | C128 | QENB1HM-474   | 0.47MF 50V NP E.CAPAC  |      |
|   | C129 | QCY31HK-102Z  | 1000PF 50V CER.CAPACI  |      |
|   | C130 | QETB1CM-227   | 220MF 16V AL E.CAPAC   |      |
|   | C134 | QCSB1HK-5R6Y  | 5.6PF 50V CER.CAPACI   | BS   |
|   | C134 | QCSB1HK-5R6Y  | 5.6PF 50V CER.CAPACI   | EF   |
|   | C134 | QCSB1HK-5R6Y  | 5.6PF 50V CER.CAPACI   | EN   |
|   | C134 | QCSB1HK-5R6Y  | 5.6PF 50V CER.CAPACI   | G    |
|   | C134 | QCSB1HK-5R6Y  | 5.6PF 50V CER.CAPACI   | GI   |
|   | C134 | QCSB1HK-5R6Y  | 5.6PF 50V CER.CAPACI   | VX   |
|   | C135 | QCSB1HJ-150Y  | 15PF 50V CER.CAPACI    | BS   |
|   | C135 | QCSB1HJ-150Y  | 15PF 50V CER.CAPACI    | EF   |
|   | C135 | QCSB1HJ-150Y  | 15PF 50V CER.CAPACI    | EN   |
|   | C135 | QCSB1HJ-150Y  | 15PF 50V CER.CAPACI    | G    |
|   | C135 | QCSB1HJ-150Y  | 15PF 50V CER.CAPACI    | GI   |
|   | C135 | QCSB1HJ-150Y  | 15PF 50V CER.CAPACI    | VX   |
|   | C141 | QFLB1HJ-473   | 0.047MF 50V MYLAR CAPA |      |
|   | C142 | QETB1HM-106   | 10MF 50V E.CAPACITO    |      |
|   | C143 | QCF21HP-223A  | 0.022MF 50V CER.CAPACI |      |
|   | C144 | QCC21EM-473   | 0.047MF 25V CER.CAPACI |      |
|   | C145 | QETB1HM-475E  | 4.7MF 50V E.CAPACITO   |      |
|   | C146 | QETB1HM-106   | 10MF 50V E.CAPACITO    |      |
|   | C147 | QETB1HM-105   | 1MF 50V AL E.CAPAC     |      |
|   | C148 | QETB1HM-474   | 0.47MF 50V ELECTRO     |      |
|   | C149 | QETB1HM-105   | 1MF 50V AL E.CAPAC     |      |
|   | C150 | QETC1HM-225ZN | 2.2MF 50V AL E.CAPAC   |      |
|   | C151 | QCS21HJ-181A  | 180PF 50V CER.CAPACI   | BS   |
|   | C151 | QCS21HJ-181A  | 180PF 50V CER.CAPACI   | EF   |
|   | C151 | QCS21HJ-181A  | 180PF 50V CER.CAPACI   | EN   |

Δ SAFETY PARTS

## CAPACITORS

| Δ | ITEM | PART NUMBER  | DESCRIPTION            | AREA |
|---|------|--------------|------------------------|------|
|   | C151 | QCS21HJ-181A | 180PF 50V CER.CAPACI   | G    |
|   | C151 | QCS21HJ-181A | 180PF 50V CER.CAPACI   | GI   |
|   | C151 | QCS21HJ-181A | 180PF 50V CER.CAPACI   | VX   |
|   | C152 | QCS21HJ-181A | 180PF 50V CER.CAPACI   | BS   |
|   | C152 | QCS21HJ-181A | 180PF 50V CER.CAPACI   | EF   |
|   | C152 | QCS21HJ-181A | 180PF 50V CER.CAPACI   | EN   |
|   | C152 | QCS21HJ-181A | 180PF 50V CER.CAPACI   | G    |
|   | C152 | QCS21HJ-181A | 180PF 50V CER.CAPACI   | GI   |
|   | C152 | QCS21HJ-181A | 180PF 50V CER.CAPACI   | VX   |
|   | C153 | QCY31HK-102Z | 1000PF 50V CER.CAPACI  | A    |
|   | C153 | QCY31HK-102Z | 1000PF 50V CER.CAPACI  | C    |
|   | C153 | QCY31HK-102Z | 1000PF 50V CER.CAPACI  | J    |
|   | C153 | QCY31HK-102Z | 1000PF 50V CER.CAPACI  | U    |
|   | C153 | QCY31HK-102Z | 1000PF 50V CER.CAPACI  | US   |
|   | C153 | QCY31HK-102Z | 1000PF 50V CER.CAPACI  | UT   |
|   | C153 | QCY31HK-821Z | 820PF 50V CER.CAPACI   | BS   |
|   | C153 | QCY31HK-821Z | 820PF 50V CER.CAPACI   | EF   |
|   | C153 | QCY31HK-821Z | 820PF 50V CER.CAPACI   | EN   |
|   | C153 | QCY31HK-821Z | 820PF 50V CER.CAPACI   | G    |
|   | C153 | QCY31HK-821Z | 820PF 50V CER.CAPACI   | GI   |
|   | C153 | QCY31HK-821Z | 820PF 50V CER.CAPACI   | VX   |
|   | C154 | QCY31HK-472Z | 4700PF 50V CER.CAPACI  |      |
|   | C155 | QETB1EM-476  | 47MF 25V AL E.CAPAC    |      |
|   | C156 | QCHB1EZ-223  | 0.022MF 25V CER.CAPACI |      |
|   | C157 | QCZ0202-155  | 1.5MF 25V CER.RESIST   |      |
|   | C158 | QETB1HM-106  | 10MF 50V E.CAPACITO    |      |
|   | C159 | QFLB1HJ-333  | 0.033MF 50V MYLAR CAPA |      |
|   | C160 | QFLB1HJ-333  | 0.033MF 50V MYLAR CAPA |      |
|   | C161 | QETB1HM-225  | 2.2MF 50V AL E.CAPAC   |      |
|   | C162 | QETB1HM-225  | 2.2MF 50V AL E.CAPAC   |      |
|   | C163 | QETB1HM-225  | 2.2MF 50V AL E.CAPAC   |      |
|   | C164 | QETB1HM-225  | 2.2MF 50V AL E.CAPAC   |      |
|   | C166 | QCC21EM-473  | 0.047MF 25V CER.CAPACI |      |
|   | C168 | QCC21EM-473  | 0.047MF 25V CER.CAPACI |      |
|   | C169 | QFV81HJ-274  | 0.27MF 50V T.FILM CAP  |      |
|   | C171 | QCSB1HJ-470  | 47PF 50V CER.CAPACI    |      |
|   | C179 | QCSB1HK-101Y | 100PF 50V CER.CAPACI   |      |
|   | C183 | QCF21HP-223A | 0.022MF 50V CER.CAPACI |      |
|   | C184 | QETB1CM-227  | 220MF 16V AL E.CAPAC   |      |
|   | C185 | QETB1CM-477M | 470MF 16V E.CAPACITO   |      |
|   | C186 | QETB1HM-475E | 4.7MF 50V E.CAPACITO   |      |

Δ SAFETY PARTS

## RESISTORS

| Δ | ITEM | PART NUMBER | DESCRIPTION          | AREA |
|---|------|-------------|----------------------|------|
|   | R102 | QRD167J-332 | 3.3K 1/6W CARBON RES |      |
|   | R103 | QRD161J-221 | 220 1/6W CARBON RES  |      |
|   | R104 | QRD167J-272 | 2.7K 1/6W CARBON RES |      |
|   | R105 | QRD161J-391 | 390 1/6W CARBON RES  |      |
|   | R106 | QRD161J-102 | 1K 1/6W CARBON RES   |      |
|   | R107 | QRD161J-681 | 680 1/6W CARBON RES  |      |
|   | R108 | QRD167J-332 | 3.3K 1/6W CARBON RES |      |
|   | R109 | QRD161J-221 | 220 1/6W CARBON RES  |      |
|   | R110 | QRD161J-472 | 4.7K 1/6W CARBON RES | BS   |
|   | R110 | QRD161J-472 | 4.7K 1/6W CARBON RES | EF   |
|   | R110 | QRD161J-472 | 4.7K 1/6W CARBON RES | EN   |
|   | R110 | QRD161J-472 | 4.7K 1/6W CARBON RES | G    |
|   | R110 | QRD161J-472 | 4.7K 1/6W CARBON RES | GI   |
|   | R110 | QRD161J-472 | 4.7K 1/6W CARBON RES | VX   |
|   | R111 | QRD161J-472 | 4.7K 1/6W CARBON RES | BS   |
|   | R111 | QRD161J-472 | 4.7K 1/6W CARBON RES | EF   |
|   | R111 | QRD161J-472 | 4.7K 1/6W CARBON RES | EN   |
|   | R111 | QRD161J-472 | 4.7K 1/6W CARBON RES | G    |
|   | R111 | QRD161J-472 | 4.7K 1/6W CARBON RES | GI   |
|   | R111 | QRD161J-472 | 4.7K 1/6W CARBON RES | VX   |
|   | R112 | QRD161J-472 | 4.7K 1/6W CARBON RES | BS   |
|   | R112 | QRD161J-472 | 4.7K 1/6W CARBON RES | EF   |
|   | R112 | QRD161J-472 | 4.7K 1/6W CARBON RES | EN   |
|   | R112 | QRD161J-472 | 4.7K 1/6W CARBON RES | G    |
|   | R112 | QRD161J-472 | 4.7K 1/6W CARBON RES | GI   |
|   | R112 | QRD161J-472 | 4.7K 1/6W CARBON RES | VX   |
|   | R113 | QRD161J-103 | 10K 1/6W CARBON RES  | BS   |
|   | R113 | QRD161J-103 | 10K 1/6W CARBON RES  | EF   |
|   | R113 | QRD161J-103 | 10K 1/6W CARBON RES  | EN   |
|   | R113 | QRD161J-103 | 10K 1/6W CARBON RES  | G    |
|   | R113 | QRD161J-103 | 10K 1/6W CARBON RES  | GI   |
|   | R113 | QRD161J-103 | 10K 1/6W CARBON RES  | VX   |
|   | R114 | QRD161J-103 | 10K 1/6W CARBON RES  |      |
|   | R115 | QRD161J-104 | 100K 1/6W CARBON RES |      |
|   | R116 | QRD161J-222 | 2.2K 1/6W CARBON RES |      |
|   | R121 | QRD161J-473 | 47K 1/6W CARBON RES  |      |
|   | R122 | QRD161J-472 | 4.7K 1/6W CARBON RES |      |
|   | R123 | QRD167J-562 | 5.6K 1/6W CARBON RES |      |
|   | R124 | QRD161J-222 | 2.2K 1/6W CARBON RES |      |
|   | R125 | QRD161J-222 | 2.2K 1/6W CARBON RES |      |

Δ SAFETY PARTS

## RESISTORS

| Δ | ITEM | PART NUMBER   | DESCRIPTION |                  | AREA |
|---|------|---------------|-------------|------------------|------|
|   | R126 | QRD161J-181   | 180         | 1/6W CARBON RES  |      |
|   | R127 | QRD167J-822   | 8.2K        | 1/6W CARBON RES  |      |
|   | R128 | QRD161J-472   | 4.7K        | 1/6W CARBON RES  |      |
|   | R129 | QRD161J-222   | 2.2K        | 1/6W CARBON RES  |      |
| Δ | R130 | QRD14CJ-680SX | 68          | 1/4W UNF. CARBON | C    |
| Δ | R130 | QRD14CJ-680SX | 68          | 1/4W UNF. CARBON | J    |
| Δ | R130 | QRZ0077-680   | 68          | 1/4W FUSIBLE RE  | A    |
| Δ | R130 | QRZ0077-680   | 68          | 1/4W FUSIBLE RE  | BS   |
| Δ | R130 | QRZ0077-680   | 68          | 1/4W FUSIBLE RE  | EF   |
| Δ | R130 | QRZ0077-680   | 68          | 1/4W FUSIBLE RE  | EN   |
| Δ | R130 | QRZ0077-680   | 68          | 1/4W FUSIBLE RE  | G    |
| Δ | R130 | QRZ0077-680   | 68          | 1/4W FUSIBLE RE  | GI   |
| Δ | R130 | QRZ0077-680   | 68          | 1/4W FUSIBLE RE  | U    |
| Δ | R130 | QRZ0077-680   | 68          | 1/4W FUSIBLE RE  | US   |
| Δ | R130 | QRZ0077-680   | 68          | 1/4W FUSIBLE RE  | UT   |
| Δ | R130 | QRZ0077-680   | 68          | 1/4W FUSIBLE RE  | VX   |
|   | R132 | QRD161J-102   | 1K          | 1/6W CARBON RES  |      |
|   | R141 | QRD161J-392   | 3.9K        | 1/6W CARBON RES  |      |
|   | R142 | QRD161J-103   | 10K         | 1/6W CARBON RES  |      |
|   | R143 | QRD161J-103   | 10K         | 1/6W CARBON RES  |      |
|   | R144 | QRD167J-332   | 3.3K        | 1/6W CARBON RES  |      |
|   | R145 | QRD161J-103   | 10K         | 1/6W CARBON RES  |      |
|   | R146 | QRD161J-222   | 2.2K        | 1/6W CARBON RES  |      |
|   | R147 | QRD161J-473   | 47K         | 1/6W CARBON RES  | A    |
|   | R147 | QRD161J-473   | 47K         | 1/6W CARBON RES  | BS   |
|   | R147 | QRD161J-473   | 47K         | 1/6W CARBON RES  | EF   |
|   | R147 | QRD161J-473   | 47K         | 1/6W CARBON RES  | EN   |
|   | R147 | QRD161J-473   | 47K         | 1/6W CARBON RES  | G    |
|   | R147 | QRD161J-473   | 47K         | 1/6W CARBON RES  | GI   |
|   | R147 | QRD161J-473   | 47K         | 1/6W CARBON RES  | U    |
|   | R147 | QRD161J-473   | 47K         | 1/6W CARBON RES  | US   |
|   | R147 | QRD161J-473   | 47K         | 1/6W CARBON RES  | UT   |
|   | R147 | QRD161J-473   | 47K         | 1/6W CARBON RES  | VX   |
|   | R147 | QRD167J-223   | 22K         | 1/6W CARBON RES  | C    |
|   | R147 | QRD167J-223   | 22K         | 1/6W CARBON RES  | J    |
|   | R148 | QRD161J-561   | 560         | 1/6W CARBON RES  |      |
|   | R149 | QRD161J-103   | 10K         | 1/6W CARBON RES  | A    |
|   | R149 | QRD161J-103   | 10K         | 1/6W CARBON RES  | EF   |
|   | R149 | QRD161J-103   | 10K         | 1/6W CARBON RES  | EN   |
|   | R149 | QRD161J-103   | 10K         | 1/6W CARBON RES  | G    |
|   | R149 | QRD161J-103   | 10K         | 1/6W CARBON RES  | GI   |
|   | R149 | QRD161J-103   | 10K         | 1/6W CARBON RES  | VX   |
|   | R149 | QRD167J-223   | 22K         | 1/6W CARBON RES  | BS   |
|   | R149 | QRD167J-223   | 22K         | 1/6W CARBON RES  | C    |
|   | R149 | QRD167J-223   | 22K         | 1/6W CARBON RES  | J    |
|   | R149 | QRD167J-223   | 22K         | 1/6W CARBON RES  | U    |
|   | R149 | QRD167J-223   | 22K         | 1/6W CARBON RES  | US   |
|   | R149 | QRD167J-223   | 22K         | 1/6W CARBON RES  | UT   |
|   | R150 | QRD167J-332   | 3.3K        | 1/6W CARBON RES  |      |
|   | R151 | QRD167J-332   | 3.3K        | 1/6W CARBON RES  |      |
|   | R152 | QRD167J-332   | 3.3K        | 1/6W CARBON RES  | BS   |
|   | R152 | QRD167J-332   | 3.3K        | 1/6W CARBON RES  | C    |
|   | R152 | QRD167J-332   | 3.3K        | 1/6W CARBON RES  | J    |
|   | R152 | QRD167J-332   | 3.3K        | 1/6W CARBON RES  | U    |
|   | R152 | QRD167J-332   | 3.3K        | 1/6W CARBON RES  | US   |
|   | R152 | QRD167J-332   | 3.3K        | 1/6W CARBON RES  | UT   |
|   | R152 | QRD167J-822   | 8.2K        | 1/6W CARBON RES  | A    |
|   | R152 | QRD167J-822   | 8.2K        | 1/6W CARBON RES  | EF   |
|   | R152 | QRD167J-822   | 8.2K        | 1/6W CARBON RES  | EN   |
|   | R152 | QRD167J-822   | 8.2K        | 1/6W CARBON RES  | G    |
|   | R152 | QRD167J-822   | 8.2K        | 1/6W CARBON RES  | GI   |
|   | R152 | QRD167J-822   | 8.2K        | 1/6W CARBON RES  | VX   |
|   | R153 | QRD167J-332   | 3.3K        | 1/6W CARBON RES  | BS   |
|   | R153 | QRD167J-332   | 3.3K        | 1/6W CARBON RES  | C    |
|   | R153 | QRD167J-332   | 3.3K        | 1/6W CARBON RES  | J    |
|   | R153 | QRD167J-332   | 3.3K        | 1/6W CARBON RES  | U    |
|   | R153 | QRD167J-332   | 3.3K        | 1/6W CARBON RES  | US   |
|   | R153 | QRD167J-332   | 3.3K        | 1/6W CARBON RES  | UT   |
|   | R153 | QRD167J-822   | 8.2K        | 1/6W CARBON RES  | A    |
|   | R153 | QRD167J-822   | 8.2K        | 1/6W CARBON RES  | EF   |
|   | R153 | QRD167J-822   | 8.2K        | 1/6W CARBON RES  | EN   |
|   | R153 | QRD167J-822   | 8.2K        | 1/6W CARBON RES  | G    |
|   | R153 | QRD167J-822   | 8.2K        | 1/6W CARBON RES  | GI   |
|   | R153 | QRD167J-822   | 8.2K        | 1/6W CARBON RES  | VX   |
|   | R161 | QRD161J-473   | 47K         | 1/6W CARBON RES  |      |
|   | R162 | QRD161J-222   | 2.2K        | 1/6W CARBON RES  |      |
|   | R181 | QRD161J-222   | 2.2K        | 1/6W CARBON RES  |      |
|   | R182 | QRD161J-103   | 10K         | 1/6W CARBON RES  |      |
|   | R183 | QRD161J-103   | 10K         | 1/6W CARBON RES  |      |
|   | R184 | QRD161J-473   | 47K         | 1/6W CARBON RES  |      |

SAFETY PARTS

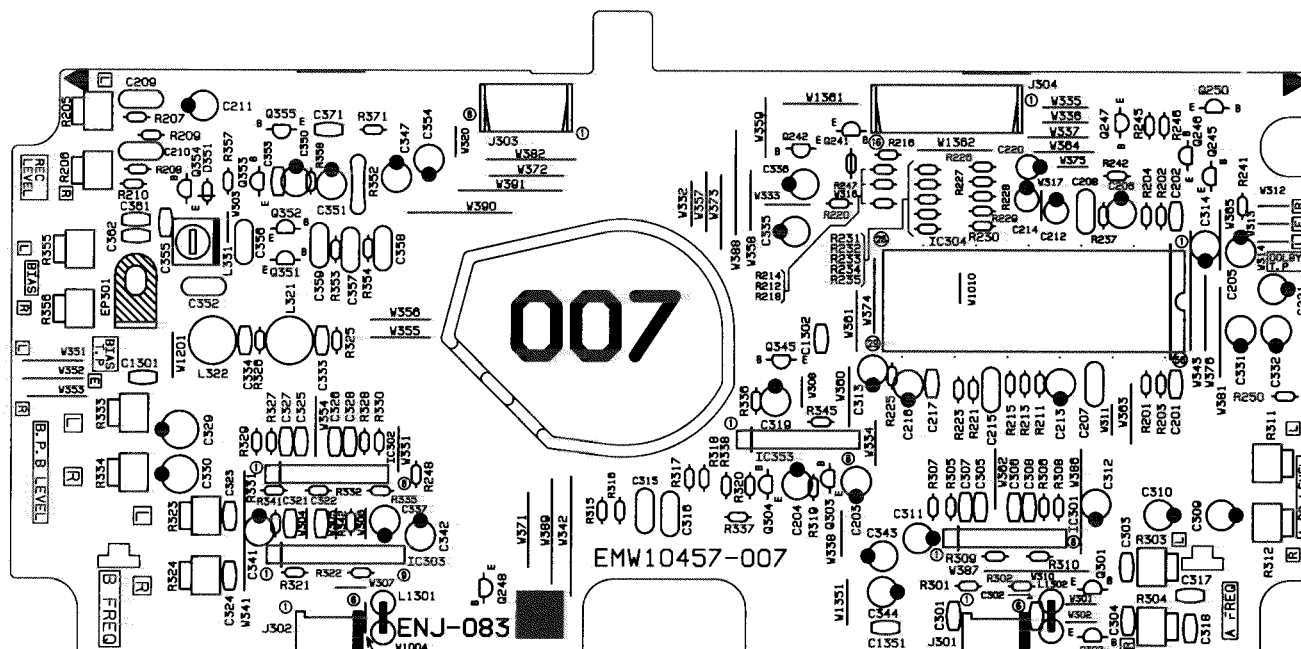
## OTHERS

| ▲ | ITEM  | PART NUMBER     | D E S C R I P T I O N | AREA |
|---|-------|-----------------|-----------------------|------|
|   | J103  | FSKL4005-001    | SHIELD PLAT           |      |
|   | L102  | EMV5109-007A    | MALE CONNEC           |      |
|   | L102  | EQL4004-150     | INDUCTOR              | BS   |
|   | L102  | EQL4004-150     | INDUCTOR              | EF   |
|   | L102  | EQL4004-150     | INDUCTOR              | EN   |
|   | L102  | EQL4004-150     | INDUCTOR              | G    |
|   | L102  | EQL4004-150     | INDUCTOR              | GI   |
|   | L102  | EQL4004-150     | INDUCTOR              | VX   |
|   | L121  | EQL4004-1R0     | INDUCTOR              |      |
|   | L141  | EQL2108-392     | INDUCTOR              | BS   |
|   | L141  | EQL2108-392     | INDUCTOR              | EF   |
|   | L141  | EQL2108-392     | INDUCTOR              | EN   |
|   | L141  | EQL2108-392     | INDUCTOR              | G    |
|   | L141  | EQL2108-392     | INDUCTOR              | GI   |
|   | L141  | EQL2108-392     | INDUCTOR              | VX   |
|   | L181  | EQL4004-1R0     | INDUCTOR              |      |
|   | T111  | EQR7121-004     | RF COIL               | A    |
|   | T111  | EQR7121-004     | RF COIL               | C    |
|   | T111  | EQR7121-004     | RF COIL               | J    |
|   | T111  | EQR7121-004     | RF COIL               | U    |
|   | T111  | EQR7121-004     | RF COIL               | US   |
|   | T111  | EQR7121-004     | RF COIL               | UT   |
|   | T111  | EQR7121-006     | RF COIL               | BS   |
|   | T111  | EQR7121-006     | RF COIL               | EF   |
|   | T111  | EQR7121-006     | RF COIL               | EN   |
|   | T111  | EQR7121-006     | RF COIL               | G    |
|   | T111  | EQR7121-006     | RF COIL               | GI   |
|   | T111  | EQR7121-006     | RF COIL               | VX   |
|   | T141  | EQT2140-021     | I.F.TRANSFO           |      |
|   | T142  | ECB1560-010     | CERAMIC FIL           |      |
|   | AT101 | EMB41YV-302K    | ANTENNA TER           |      |
|   | CF101 | ECB2118-007R    | CERAMIC FIL           | BS   |
|   | CF101 | ECB2118-007R    | CERAMIC FIL           | EF   |
|   | CF101 | ECB2118-007R    | CERAMIC FIL           | EN   |
|   | CF101 | ECB2118-007R    | CERAMIC FIL           | G    |
|   | CF101 | ECB2118-007R    | CERAMIC FIL           | GI   |
|   | CF101 | ECB2118-007R    | CERAMIC FIL           | VX   |
|   | CF101 | ECB2123-006R    | CERAMIC FIL           | A    |
|   | CF101 | ECB2123-006R    | CERAMIC FIL           | C    |
|   | CF101 | ECB2123-006R    | CERAMIC FIL           | J    |
|   | CF101 | ECB2123-006R    | CERAMIC FIL           | U    |
|   | CF101 | ECB2123-006R    | CERAMIC FIL           | US   |
|   | CF101 | ECB2123-006R    | CERAMIC FIL           | UT   |
|   | CF102 | ECB2118-007R    | CERAMIC FIL           | BS   |
|   | CF102 | ECB2118-007R    | CERAMIC FIL           | EF   |
|   | CF102 | ECB2118-007R    | CERAMIC FIL           | EN   |
|   | CF102 | ECB2118-007R    | CERAMIC FIL           | G    |
|   | CF102 | ECB2118-007R    | CERAMIC FIL           | GI   |
|   | CF102 | ECB2118-007R    | CERAMIC FIL           | VX   |
|   | CF102 | ECB2123-006R    | CERAMIC FIL           | A    |
|   | CF102 | ECB2123-006R    | CERAMIC FIL           | C    |
|   | CF102 | ECB2123-006R    | CERAMIC FIL           | J    |
|   | CF102 | ECB2123-006R    | CERAMIC FIL           | U    |
|   | CF102 | ECB2123-006R    | CERAMIC FIL           | US   |
|   | CF102 | ECB2123-006R    | CERAMIC FIL           | UT   |
|   | EP101 | E70225-003SS    | EARTH PLATE           |      |
|   | FE101 | EAF2203-003     | UHF TUNER             | BS   |
|   | FE101 | EAF2203-003     | UHF TUNER             | EF   |
|   | FE101 | EAF2203-003     | UHF TUNER             | EN   |
|   | FE101 | EAF2203-003     | UHF TUNER             | G    |
|   | FE101 | EAF2203-003     | UHF TUNER             | GI   |
|   | FE101 | EAF2203-004     | FRONT END             | A    |
|   | FE101 | EAF2203-004     | FRONT END             | C    |
|   | FE101 | EAF2203-004     | FRONT END             | J    |
|   | FE101 | EAF2203-004     | FRONT END             | U    |
|   | FE101 | EAF2203-004     | FRONT END             | US   |
|   | FE101 | EAF2203-004     | FRONT END             | UT   |
|   | FE101 | EAF2302-002     | FRONT END             | VX   |
|   | JA101 | EMV7140-L10R    | PIN CONNECT           |      |
|   | LP141 | EQF0101-002     | LOWPASS FIL           |      |
|   | SP102 | VYH7653-002     | I.C.SOCKET            |      |
|   | SP121 | VYH7653-004     | I.C.PROTECT           |      |
|   | XT121 | ECX0007-200KWJ1 | CRYSTAL               |      |
|   | XT141 | ECXPR46-001A    | CRYSTAL               |      |
|   | XT142 | ECB3001-002     | CERAMIC FIL           |      |
|   |       | EMW10477-003A   | PRINTED CIR. BOARD    |      |

A: SAFETY PARTS

■ ENJ-083 □ Deck Amp.,EQ & NR PC Board Ass'y

Note : ENJ-083 □ varies according to the areas employed. See note (2) when placing an order.



Note(2)

| PC Board Ass'y                                                        | Designated Areas                                                           |
|-----------------------------------------------------------------------|----------------------------------------------------------------------------|
| ENJ-083 <span style="border: 1px solid black; padding: 2px;">D</span> | Austraria,U.S.A., Canada<br>Singapore,Taiwan,<br>Other Countries           |
| ENJ-083 <span style="border: 1px solid black; padding: 2px;">E</span> | the U.K.,Eastern Europe<br>Scandinavia,Germany,Italy<br>Continental Europe |

I.C.S

| Δ | ITEM  | PART NUMBER | DESCRIPTION          | AREA |
|---|-------|-------------|----------------------|------|
|   | IC301 | NJM4580LD   | I.C(MONO-AN DAINICHI |      |
|   | IC302 | NJM4580LD   | I.C(MONO-AN DAINICHI |      |
|   | IC303 | UPC1330HA   | I.C(MONO-AN NEC      |      |
|   | IC304 | HA12171NT   | I.C(MONO-AN HITACHI  |      |
|   | IC353 | BA8221AN    | I.C(MONO-AN ROHM     |      |

Δ SAFETY PARTS

TRANSISTORS

| Δ | ITEM | PART NUMBER   | DESCRIPTION            | AREA |
|---|------|---------------|------------------------|------|
|   | Q245 | 2SD2144S(VW)  | SI.TRANSIST ROHM       |      |
|   | Q246 | 2SD2144S(VW)  | SI.TRANSIST ROHM       |      |
|   | Q247 | DTA144ES      | DIGITAL TRA ROHM       |      |
|   | Q248 | DTC144ES      | DIGITAL TRA ROHM       |      |
|   | Q303 | 2SC1740S(R,S) | SI.TRANSIST ROHM       |      |
|   | Q304 | 2SC1740S(R,S) | SI.TRANSIST ROHM       |      |
|   | Q345 | DTC144ES      | DIGITAL TRA ROHM       |      |
|   | Q351 | 2SC3311A(Q,R) | SI.TRANSIST MATSUSHITA |      |
|   | Q352 | 2SC3311A(Q,R) | SI.TRANSIST MATSUSHITA |      |
|   | Q353 | 2SC3311A(Q,R) | SI.TRANSIST MATSUSHITA |      |
|   | Q354 | 2SC3311A(Q,R) | SI.TRANSIST MATSUSHITA | BS   |
|   | Q354 | 2SC3311A(Q,R) | SI.TRANSIST MATSUSHITA | EF   |
|   | Q354 | 2SC3311A(Q,R) | SI.TRANSIST MATSUSHITA | EN   |
|   | Q354 | 2SC3311A(Q,R) | SI.TRANSIST MATSUSHITA | G    |
|   | Q354 | 2SC3311A(Q,R) | SI.TRANSIST MATSUSHITA | GI   |
|   | Q354 | 2SC3311A(Q,R) | SI.TRANSIST MATSUSHITA | VX   |
|   | Q355 | DTA144ES      | DIGITAL TRA ROHM       | BS   |
|   | Q355 | DTA144ES      | DIGITAL TRA ROHM       | EF   |
|   | Q355 | DTA144ES      | DIGITAL TRA ROHM       | EN   |
|   | Q355 | DTA144ES      | DIGITAL TRA ROHM       | G    |
|   | Q355 | DTA144ES      | DIGITAL TRA ROHM       | GI   |
|   | Q355 | DTA144ES      | DIGITAL TRA ROHM       | VX   |

Δ SAFETY PARTS

## DIODES

| Δ | ITEM | PART NUMBER | DESCRIPTION | AREA |
|---|------|-------------|-------------|------|
|   | D351 | 1SS119      | SI.DIODE    | BS   |
|   | D351 | 1SS119      | SI.DIODE    | EF   |
|   | D351 | 1SS119      | SI.DIODE    | EN   |
|   | D351 | 1SS119      | SI.DIODE    | G    |
|   | D351 | 1SS119      | SI.DIODE    | GI   |
|   | D351 | 1SS119      | SI.DIODE    | VX   |

Δ SAFETY PARTS

## CAPACITORS

| Δ | ITEM  | PART NUMBER  | DESCRIPTION            | AREA |
|---|-------|--------------|------------------------|------|
|   | C201  | QCXB1CM-472Y | 4700PF 16V CER.CAPACI  |      |
|   | C202  | QCXB1CM-472Y | 4700PF 16V CER.CAPACI  |      |
|   | C203  | QETB1HM-105  | 1MF 50V AL E.CAPAC     |      |
|   | C204  | QETB1HM-105  | 1MF 50V AL E.CAPAC     |      |
|   | C205  | QETB1EM-106  | 10MF 25V AL E.CAPAC    |      |
|   | C206  | QETB1EM-106  | 10MF 25V AL E.CAPAC    |      |
|   | C207  | QFVB1HJ-104  | 0.1MF 50V THIN FILM    |      |
|   | C208  | QFVB1HJ-104  | 0.1MF 50V THIN FILM    |      |
|   | C211  | QETB1HM-105  | 1MF 50V AL E.CAPAC     |      |
|   | C212  | QEK51HM-105G | 1MF 50V AL E.CAPAC     |      |
|   | C213  | QER61HM-334Z | 0.33MF 50V AL E.CAPAC  |      |
|   | C214  | QER61HM-334Z | 0.33MF 50V AL E.CAPAC  |      |
|   | C215  | QFLB1HJ-472  | 4700PF 50V MYLAR CAPA  |      |
|   | C216  | QETB1HM-474  | 0.47MF 50V ELECTRO     |      |
|   | C217  | QCXB1CM-222Y | 2200PF 16V CER.CAPACI  |      |
|   | C220  | QEK51HM-225G | 2.2MF 50V AL E.CAPAC   |      |
|   | C221  | QETB1HM-475E | 4.7MF 50V E.CAPACITO   |      |
|   | C301  | QCBB1HK-821Y | 820PF 50V CER.CAPACI   |      |
|   | C302  | QCBB1HK-821Y | 820PF 50V CER.CAPACI   |      |
|   | C303  | QCBB1HK-331Y | 330PF 50V CER.CAPACI   |      |
|   | C304  | QCBB1HK-331Y | 330PF 50V CER.CAPACI   |      |
|   | C305  | QCBB1HK-101Y | 100PF 50V CER.CAPACI   |      |
|   | C306  | QCBB1HK-101Y | 100PF 50V CER.CAPACI   |      |
|   | C307  | QCVB1CM-822Y | 8200PF 16V CER.CAPACI  |      |
|   | C308  | QCVB1CM-822Y | 8200PF 16V CER.CAPACI  |      |
|   | C309  | QETB1AM-107  | 100MF 10V AL E.CAPAC   |      |
|   | C310  | QETB1AM-107  | 100MF 10V AL E.CAPAC   |      |
|   | C311  | QETB1HM-105  | 1MF 50V AL E.CAPAC     |      |
|   | C312  | QETB1HM-105  | 1MF 50V AL E.CAPAC     |      |
|   | C313  | QETB1AM-107  | 100MF 10V AL E.CAPAC   |      |
|   | C314  | QETB1AM-107  | 100MF 10V AL E.CAPAC   |      |
|   | C315  | QFVB1HJ-473  | 0.047MF 50V THIN FILM  |      |
|   | C316  | QFVB1HJ-473  | 0.047MF 50V THIN FILM  |      |
|   | C319  | QETB1AM-476  | 47MF 10V E.CAPACITO    |      |
|   | C321  | QCXB1CM-122  | 1200PF 16V POLYPROPY.  |      |
|   | C322  | QCXB1CM-122  | 1200PF 16V POLYPROPY.  |      |
|   | C323  | QCBB1HK-331Y | 330PF 50V CER.CAPACI   |      |
|   | C324  | QCBB1HK-331Y | 330PF 50V CER.CAPACI   |      |
|   | C325  | QCBB1HK-101Y | 100PF 50V CER.CAPACI   |      |
|   | C326  | QCBB1HK-101Y | 100PF 50V CER.CAPACI   |      |
|   | C327  | QCVB1CM-822Y | 8200PF 16V CER.CAPACI  |      |
|   | C328  | QCVB1CM-822Y | 8200PF 16V CER.CAPACI  |      |
|   | C329  | QEK51CM-107  | 100MF 16V E.CAPACITO   |      |
|   | C330  | QEK51CM-107  | 100MF 16V E.CAPACITO   |      |
|   | C331  | QETB1HM-105  | 1MF 50V AL E.CAPAC     |      |
|   | C332  | QETB1HM-105  | 1MF 50V AL E.CAPAC     |      |
|   | C333  | QCBB1HK-101Y | 100PF 50V CER.CAPACI   |      |
|   | C334  | QCBB1HK-101Y | 100PF 50V CER.CAPACI   |      |
|   | C335  | QETB1EM-106  | 10MF 25V AL E.CAPAC    |      |
|   | C336  | QETB1EM-106  | 10MF 25V AL E.CAPAC    |      |
|   | C337  | QEK51CM-226  | 22MF 16V AL E.CAPAC    |      |
|   | C341  | QER51HM-105G | 1MF 50V AL E.CAPAC     |      |
|   | C342  | QER51HM-105G | 1MF 50V AL E.CAPAC     |      |
|   | C343  | QETB1AM-107  | 100MF 10V AL E.CAPAC   |      |
|   | C344  | QETB1AM-107  | 100MF 10V AL E.CAPAC   |      |
|   | C347  | QETB1AM-107  | 100MF 10V AL E.CAPAC   |      |
|   | C350  | QETB1HM-105  | 1MF 50V AL E.CAPAC     |      |
|   | C351  | QETB1AM-107  | 100MF 10V AL E.CAPAC   |      |
|   | C352  | QFP31HG-562  | 5600PF 50V POLYPROPY.  |      |
|   | C353  | QCVB1CM-103Y | 0.01MF 16V CER.CAPACI  |      |
|   | C354  | QETB1AM-107  | 100MF 10V AL E.CAPAC   |      |
|   | C355  | QCBB1HK-471Y | 470PF 50V CER.CAPACI   | BS   |
|   | C355  | QCBB1HK-471Y | 470PF 50V CER.CAPACI   | EF   |
|   | C355  | QCBB1HK-471Y | 470PF 50V CER.CAPACI   | EN   |
|   | C355  | QCBB1HK-471Y | 470PF 50V CER.CAPACI   | G    |
|   | C355  | QCBB1HK-471Y | 470PF 50V CER.CAPACI   | GI   |
|   | C355  | QCBB1HK-471Y | 470PF 50V CER.CAPACI   | VX   |
|   | C356  | QFLB1HJ-153  | 0.015MF 50V MYLAR CAPA |      |
|   | C357  | QFLB1HJ-332  | 3300PF 50V MYLAR CAPA  |      |
|   | C358  | QFLB1HJ-332  | 3300PF 50V MYLAR CAPA  |      |
|   | C359  | QFLB1HJ-682  | 6800PF 50V MYLAR CAPA  |      |
|   | C361  | QCBB1HK-101Y | 100PF 50V CER.CAPACI   |      |
|   | C362  | QCBB1HK-101Y | 100PF 50V CER.CAPACI   |      |
|   | C371  | QCHB1EZ-223  | 0.022MF 25V CER.CAPACI | BS   |
|   | C371  | QCHB1EZ-223  | 0.022MF 25V CER.CAPACI | EF   |
|   | C371  | QCHB1EZ-223  | 0.022MF 25V CER.CAPACI | EN   |
|   | C371  | QCHB1EZ-223  | 0.022MF 25V CER.CAPACI | G    |
|   | C371  | QCHB1EZ-223  | 0.022MF 25V CER.CAPACI | GI   |
|   | C371  | QCHB1EZ-223  | 0.022MF 25V CER.CAPACI | VX   |
|   | C1301 | QCBB1HK-102Y | 1000PF 50V CER.CAPACI  | BS   |

Δ SAFETY PARTS

## CAPASITORS

| Δ | ITEM  | PART NUMBER  | DESCRIPTION           | AREA |
|---|-------|--------------|-----------------------|------|
|   | C1301 | QCBB1HK-102Y | 1000PF 50V CER.CAPACI | EF   |
|   | C1301 | QCBB1HK-102Y | 1000PF 50V CER.CAPACI | EN   |
|   | C1301 | QCBB1HK-102Y | 1000PF 50V CER.CAPACI | G    |
|   | C1301 | QCBB1HK-102Y | 1000PF 50V CER.CAPACI | GI   |
|   | C1301 | QCBB1HK-102Y | 1000PF 50V CER.CAPACI | VX   |
|   | C1302 | QCBB1HK-102Y | 1000PF 50V CER.CAPACI | BS   |
|   | C1302 | QCBB1HK-102Y | 1000PF 50V CER.CAPACI | EF   |
|   | C1302 | QCBB1HK-102Y | 1000PF 50V CER.CAPACI | EN   |
|   | C1302 | QCBB1HK-102Y | 1000PF 50V CER.CAPACI | G    |
|   | C1302 | QCBB1HK-102Y | 1000PF 50V CER.CAPACI | GI   |
|   | C1302 | QCBB1HK-102Y | 1000PF 50V CER.CAPACI | VX   |

Δ SAFETY PARTS

## RESISTORS

| Δ | ITEM | PART NUMBER   | DESCRIPTION          | AREA |
|---|------|---------------|----------------------|------|
|   | R201 | QRD167J-153   | 15K 1/6W CARBON RES  |      |
|   | R202 | QRD167J-153   | 15K 1/6W CARBON RES  |      |
|   | R203 | QRD161J-123   | 12K 1/6W CARBON RES  |      |
|   | R204 | QRD161J-123   | 12K 1/6W CARBON RES  |      |
|   | R205 | QVPA603-503A  | 50K VARIABLE R       |      |
|   | R206 | QVPA603-503A  | 50K VARIABLE R       |      |
|   | R209 | QRD167J-153   | 15K 1/6W CARBON RES  |      |
|   | R210 | QRD167J-153   | 15K 1/6W CARBON RES  |      |
|   | R211 | QRD161J-823   | 82K 1/6W CARBON RES  |      |
|   | R212 | QRD167J-562   | 5.6K 1/6W CARBON RES |      |
|   | R213 | QRD161J-203   | 20K 1/6W CARBON RES  |      |
|   | R214 | QRD167J-682   | 6.8K 1/6W CARBON RES |      |
|   | R215 | QRD167J-153   | 15K 1/6W CARBON RES  |      |
|   | R216 | QRD167J-332   | 3.3K 1/6W CARBON RES |      |
|   | R218 | QRD161J-472   | 4.7K 1/6W CARBON RES |      |
|   | R220 | QRD161J-243   | 24K 1/6W CARBON RES  |      |
|   | R221 | QRD161J-103   | 10K 1/6W CARBON RES  |      |
|   | R223 | QRD161J-183   | 18K 1/6W CARBON RES  |      |
|   | R225 | QRD161J-184   | 180K 1/6W CARBON RES |      |
|   | R226 | QRD167J-223   | 22K 1/6W CARBON RES  |      |
|   | R227 | QRD167J-223   | 22K 1/6W CARBON RES  |      |
|   | R228 | QRD167J-223   | 22K 1/6W CARBON RES  |      |
|   | R229 | QRD167J-223   | 22K 1/6W CARBON RES  |      |
|   | R230 | QRD167J-223   | 22K 1/6W CARBON RES  |      |
|   | R231 | QRD167J-223   | 22K 1/6W CARBON RES  |      |
|   | R232 | QRD167J-223   | 22K 1/6W CARBON RES  |      |
|   | R233 | QRD167J-223   | 22K 1/6W CARBON RES  |      |
|   | R234 | QRD167J-223   | 22K 1/6W CARBON RES  |      |
|   | R235 | QRD167J-223   | 22K 1/6W CARBON RES  |      |
|   | R237 | QRD161J-183   | 18K 1/6W CARBON RES  |      |
|   | R241 | QRD161J-392   | 3.9K 1/6W CARBON RES |      |
|   | R242 | QRD161J-392   | 3.9K 1/6W CARBON RES |      |
|   | R245 | QRD161J-472   | 4.7K 1/6W CARBON RES |      |
|   | R246 | QRD161J-472   | 4.7K 1/6W CARBON RES |      |
|   | R248 | QRD161J-103   | 10K 1/6W CARBON RES  |      |
|   | R301 | QRD167J-334   | 330K 1/6W CARBON RES |      |
|   | R302 | QRD167J-334   | 330K 1/6W CARBON RES |      |
|   | R303 | QVPA603-104A  | 100K TRIMMER RE      |      |
|   | R304 | QVPA603-104A  | 100K TRIMMER RE      |      |
|   | R305 | QRD167J-334   | 330K 1/6W CARBON RES |      |
|   | R306 | QRD167J-334   | 330K 1/6W CARBON RES |      |
|   | R307 | QRD167J-223   | 22K 1/6W CARBON RES  |      |
|   | R308 | QRD167J-223   | 22K 1/6W CARBON RES  |      |
|   | R309 | QRD161J-391   | 390 1/6W CARBON RES  |      |
|   | R310 | QRD161J-391   | 390 1/6W CARBON RES  |      |
|   | R311 | QVPA603-501A  | 500 TRIMMER RE       |      |
|   | R312 | QVPA603-501A  | 500 TRIMMER RE       |      |
|   | R315 | QRD161J-564   | 560K 1/6W CARBON RES |      |
|   | R316 | QRD161J-564   | 560K 1/6W CARBON RES |      |
|   | R317 | QRD161J-103   | 10K 1/6W CARBON RES  |      |
|   | R318 | QRD161J-103   | 10K 1/6W CARBON RES  |      |
|   | R319 | QRD167J-332   | 3.3K 1/6W CARBON RES |      |
|   | R320 | QRD167J-332   | 3.3K 1/6W CARBON RES |      |
|   | R321 | QRD161J-100   | 10 1/6W CARBON RES   |      |
|   | R322 | QRD161J-100   | 10 1/6W CARBON RES   |      |
|   | R323 | QVPA603-104A  | 100K TRIMMER RE      |      |
|   | R324 | QVPA603-104A  | 100K TRIMMER RE      |      |
|   | R325 | QRD167J-153   | 15K 1/6W CARBON RES  |      |
|   | R326 | QRD167J-153   | 15K 1/6W CARBON RES  |      |
|   | R327 | QRD167J-334   | 330K 1/6W CARBON RES |      |
|   | R328 | QRD167J-334   | 330K 1/6W CARBON RES |      |
|   | R329 | QRD161J-203   | 20K 1/6W CARBON RES  |      |
|   | R330 | QRD161J-203   | 20K 1/6W CARBON RES  |      |
|   | R331 | QRD167J-151   | 150 1/6W CARBON RES  |      |
|   | R332 | QRD167J-151   | 150 1/6W CARBON RES  |      |
|   | R333 | QVPA603-501A  | 500 TRIMMER RE       |      |
|   | R334 | QVPA603-501A  | 500 TRIMMER RE       |      |
|   | R335 | QRD161J-101   | 100 1/6W CARBON RES  |      |
|   | R336 | QRD161J-105   | 1M 1/6W CARBON RES   |      |
|   | R337 | QRD161J-133Y  | 13K 1/6W CARBON RES  |      |
|   | R338 | QRD161J-133Y  | 13K 1/6W CARBON RES  |      |
|   | R341 | QRD167J-334   | 330K 1/6W CARBON RES |      |
|   | R342 | QRD167J-334   | 330K 1/6W CARBON RES |      |
|   | R345 | QRD161J-103   | 10K 1/6W CARBON RES  |      |
|   | R352 | QRD14CJ-6R8SX | 6.8 1/4W UNF. CARBON |      |

Δ SAFETY PARTS

## RESISTORS

| Δ | ITEM | PART NUMBER  | DESCRIPTION |      |            | AREA |
|---|------|--------------|-------------|------|------------|------|
|   | R353 | QRD161J-393  | 39K         | 1/6W | CARBON RES |      |
|   | R354 | QRD161J-393  | 39K         | 1/6W | CARBON RES |      |
|   | R355 | QVPA603-104A | 100K        |      | TRIMMER RE |      |
|   | R356 | QVPA603-104A | 100K        |      | TRIMMER RE |      |
|   | R357 | QRD161J-102  | 1K          | 1/6W | CARBON RES | BS   |
|   | R357 | QRD161J-102  | 1K          | 1/6W | CARBON RES | EF   |
|   | R357 | QRD161J-102  | 1K          | 1/6W | CARBON RES | EN   |
|   | R357 | QRD161J-102  | 1K          | 1/6W | CARBON RES | G    |
|   | R357 | QRD161J-102  | 1K          | 1/6W | CARBON RES | GI   |
|   | R357 | QRD161J-102  | 1K          | 1/6W | CARBON RES | VX   |
|   | R358 | QRD161J-103  | 10K         | 1/6W | CARBON RES |      |
|   | R371 | QRD161J-102  | 1K          | 1/6W | CARBON RES | BS   |
|   | R371 | QRD161J-102  | 1K          | 1/6W | CARBON RES | EF   |
|   | R371 | QRD161J-102  | 1K          | 1/6W | CARBON RES | EN   |
|   | R371 | QRD161J-102  | 1K          | 1/6W | CARBON RES | G    |
|   | R371 | QRD161J-102  | 1K          | 1/6W | CARBON RES | GI   |
|   | R371 | QRD161J-102  | 1K          | 1/6W | CARBON RES | VX   |

Δ SAFETY PARTS

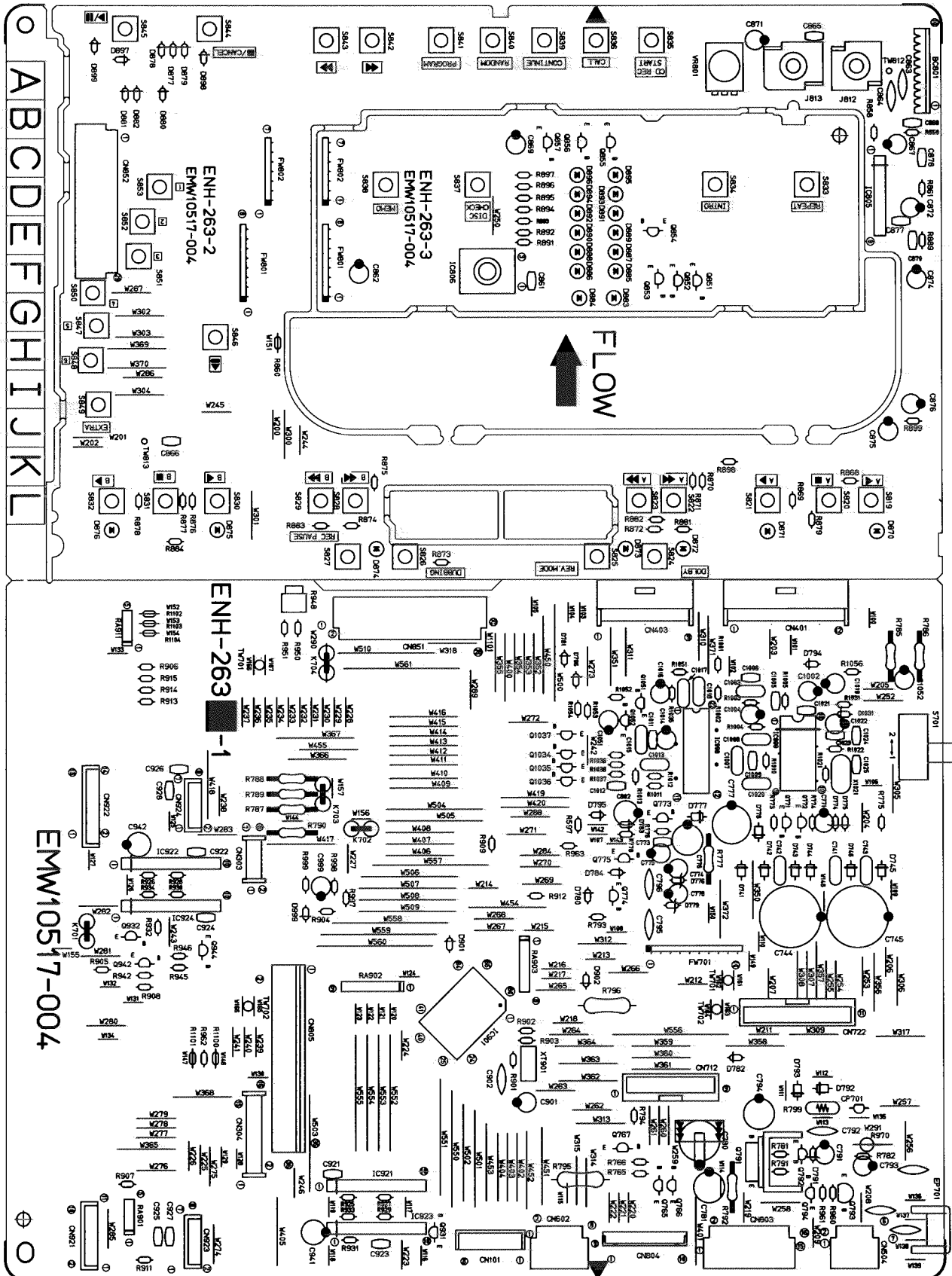
## OTHERS

| Δ | ITEM  | PART NUMBER  | DESCRIPTION |  |  | AREA |
|---|-------|--------------|-------------|--|--|------|
|   |       | EMW10457-006 | PRINTED BOA |  |  |      |
|   | J301  | EMV7155-106R | CONNECT TER |  |  |      |
|   | J302  | EMV7155-106R | CONNECT TER |  |  |      |
|   | J303  | EMV5132-008R | CONNECT TER |  |  |      |
|   | J304  | EMV5132-016R | CONNECT TER |  |  |      |
|   | L321  | EQL2106-223  | INDUCTOR    |  |  |      |
|   | L322  | EQL2106-223  | INDUCTOR    |  |  |      |
|   | L331  | ENZ6002-012  | OSCILLATOR  |  |  |      |
|   | EP301 | EMZ4002-001Z | EARTH PLATE |  |  | BS   |
|   | EP301 | EMZ4002-001Z | EARTH PLATE |  |  | EF   |
|   | EP301 | EMZ4002-001Z | EARTH PLATE |  |  | EN   |
|   | EP301 | EMZ4002-001Z | EARTH PLATE |  |  | G    |
|   | EP301 | EMZ4002-001Z | EARTH PLATE |  |  | GI   |
|   | EP301 | EMZ4002-001Z | EARTH PLATE |  |  | VX   |
|   | L1301 | ENZ8101-007  | INDUCTOR    |  |  | BS   |
|   | L1301 | ENZ8101-007  | INDUCTOR    |  |  | EF   |
|   | L1301 | ENZ8101-007  | INDUCTOR    |  |  | EN   |
|   | L1301 | ENZ8101-007  | INDUCTOR    |  |  | G    |
|   | L1301 | ENZ8101-007  | INDUCTOR    |  |  | GI   |
|   | L1301 | ENZ8101-007  | INDUCTOR    |  |  | VX   |
|   | L1302 | ENZ8101-007  | INDUCTOR    |  |  | BS   |
|   | L1302 | ENZ8101-007  | INDUCTOR    |  |  | EF   |
|   | L1302 | ENZ8101-007  | INDUCTOR    |  |  | EN   |
|   | L1302 | ENZ8101-007  | INDUCTOR    |  |  | G    |
|   | L1302 | ENZ8101-007  | INDUCTOR    |  |  | GI   |
|   | L1302 | ENZ8101-007  | INDUCTOR    |  |  | VX   |

Δ SAFETY PARTS

■ ENH-263 □ Indicator, Key & Deck / Amp.Control PC Board Ass'y

Note : ENH-263 □ varies according to the areas employed. See note (3) when placing an order.





## Note(3)

| PC Board Ass'y   | Designated Areas                                                           |
|------------------|----------------------------------------------------------------------------|
| ENH-263 <b>A</b> | U.S.A.                                                                     |
| ENH-263 <b>B</b> | Canada                                                                     |
| ENH-263 <b>C</b> | Singapore,Taiwan,<br>Other Countries                                       |
| ENH-263 <b>D</b> | the U.K.,Eastern Europe<br>Scandinavia,Germany,Italy<br>Continental Europe |
| ENH-263 <b>E</b> | Austraria                                                                  |

## TRANSISTORS

| ITEM  | PART NUMBER   | DESCRIPTION             | AREA |
|-------|---------------|-------------------------|------|
| Q765  | 2SD2144S(VW)  | SI. TRANSIST ROHM       |      |
| Q766  | 2SD2144S(VW)  | SI. TRANSIST ROHM       |      |
| Q767  | DTA114YS      | DIGITAL TRA ROHM        |      |
| Q771  | DTC114YS      | DIGITAL TRA ROHM        |      |
| Q772  | DTC114YS      | DIGITAL TRA ROHM        |      |
| Q773  | 2SA934(Q,R)   | SI. TRANSIST ROHM       |      |
| Q774  | DTC144ES      | DIGITAL TRA ROHM        |      |
| Q775  | DTC114YS      | DIGITAL TRA ROHM        |      |
| Q791  | 2SB1187(F,G)  | SI. TRANSIST ROHM       |      |
| Q792  | 2SC3311A(Q,R) | SI. TRANSIST MATSUSHITA |      |
| Q793  | 2SA934(Q,R)   | SI. TRANSIST ROHM       |      |
| Q794  | DTC114YS      | DIGITAL TRA ROHM        |      |
| Q851  | DTC144ES      | DIGITAL TRA ROHM        |      |
| Q852  | DTC144ES      | DIGITAL TRA ROHM        |      |
| Q853  | DTC144ES      | DIGITAL TRA ROHM        |      |
| Q854  | DTC144ES      | DIGITAL TRA ROHM        |      |
| Q855  | DTC144ES      | DIGITAL TRA ROHM        |      |
| Q856  | DTC144ES      | DIGITAL TRA ROHM        |      |
| Q857  | DTC144ES      | DIGITAL TRA ROHM        |      |
| Q931  | DTC144ES      | DIGITAL TRA ROHM        |      |
| Q932  | DTC144ES      | DIGITAL TRA ROHM        |      |
| Q942  | 2SC3311A(Q,R) | SI. TRANSIST MATSUSHITA |      |
| Q944  | 2SA933S(RS)   | SI. TRANSIST            |      |
| Q1034 | DTC144ES      | DIGITAL TRA ROHM        | U    |
| Q1034 | DTC144ES      | DIGITAL TRA ROHM        | US   |
| Q1034 | DTC144ES      | DIGITAL TRA ROHM        | UT   |
| Q1035 | DTC144ES      | DIGITAL TRA ROHM        | U    |
| Q1035 | DTC144ES      | DIGITAL TRA ROHM        | US   |
| Q1035 | DTC144ES      | DIGITAL TRA ROHM        | UT   |
| Q1036 | DTC144ES      | DIGITAL TRA ROHM        | U    |
| Q1036 | DTC144ES      | DIGITAL TRA ROHM        | US   |
| Q1036 | DTC144ES      | DIGITAL TRA ROHM        | UT   |
| Q1037 | DTC144ES      | DIGITAL TRA ROHM        | U    |
| Q1037 | DTC144ES      | DIGITAL TRA ROHM        | US   |
| Q1037 | DTC144ES      | DIGITAL TRA ROHM        | UT   |
| Q1051 | 2SC3311A(Q,R) | SI. TRANSIST MATSUSHITA | U    |
| Q1051 | 2SC3311A(Q,R) | SI. TRANSIST MATSUSHITA | US   |
| Q1051 | 2SC3311A(Q,R) | SI. TRANSIST MATSUSHITA | UT   |
| Q1052 | 2SC3311A(Q,R) | SI. TRANSIST MATSUSHITA | U    |
| Q1052 | 2SC3311A(Q,R) | SI. TRANSIST MATSUSHITA | US   |
| Q1052 | 2SC3311A(Q,R) | SI. TRANSIST MATSUSHITA | UT   |

△ SAFETY PARTS

## I.C.S

| ITEM  | PART NUMBER   | DESCRIPTION          | AREA |
|-------|---------------|----------------------|------|
| IC805 | BA15218N      | I.C(MONO-AN ROHM     | U    |
| IC805 | BA15218N      | I.C(MONO-AN ROHM     | US   |
| IC805 | BA15218N      | I.C(MONO-AN ROHM     | UT   |
| IC806 | NJH32H380A    | I.C(M) DAINICHI      |      |
| IC901 | HD404719A62FS | I.C(MICROD-C HITACHI |      |
| IC921 | LB1641        | I.C(DIGI-OT SANYO    |      |
| IC922 | LB1641        | I.C(DIGI-OT SANYO    |      |
| IC923 | LB1641        | I.C(DIGI-OT SANYO    |      |
| IC924 | LB1641        | I.C(DIGI-OT SANYO    |      |
| IC998 | BA7725S       | I.C(MONO-AN ROHM     | U    |
| IC998 | BA7725S       | I.C(MONO-AN ROHM     | US   |
| IC998 | BA7725S       | I.C(MONO-AN ROHM     | UT   |
| IC999 | BU9251S       | I.C(M) ROHM          | U    |
| IC999 | BU9251S       | I.C(M) ROHM          | US   |
| IC999 | BU9251S       | I.C(M) ROHM          | UT   |

△ SAFETY PARTS

## DIODES

| ITEM   | PART NUMBER  | DESCRIPTION      | AREA |
|--------|--------------|------------------|------|
| △ D741 | 1SR35-100    | SI. DIODE ROHM   |      |
| △ D742 | 1SR35-100    | SI. DIODE ROHM   |      |
| △ D743 | 1SR35-100    | SI. DIODE ROHM   |      |
| △ D744 | 1SR35-100    | SI. DIODE ROHM   |      |
| △ D745 | 1SR35-100    | SI. DIODE ROHM   |      |
| △ D746 | 1SR35-100    | SI. DIODE ROHM   |      |
| D774   | MTZ5.1JC     | ZENER DIODE ROHM |      |
| D775   | 1SS119       | SI. DIODE        |      |
| D776   | MTZ36JC      | ZENER DIODE ROHM |      |
| △ D777 | 1SR35-100    | SI. DIODE ROHM   |      |
| △ D778 | 1SR35-100    | SI. DIODE ROHM   |      |
| D779   | MTZ6.2JC     | ZENER DIODE ROHM |      |
| D780   | 1SS119       | SI. DIODE        |      |
| D781   | 1SS119       | SI. DIODE        |      |
| D782   | 1SS119       | SI. DIODE        |      |
| D783   | 1SS119       | SI. DIODE        |      |
| D784   | 1SS119       | SI. DIODE        |      |
| D791   | MTZ6.8JB     | ZENER DIODE ROHM |      |
| D792   | 1SR35-100    | SI. DIODE ROHM   |      |
| D793   | 1SR35-100    | SI. DIODE ROHM   |      |
| D794   | 1SS119       | SI. DIODE        |      |
| D795   | RB721Q       | SI. DIODE ROHM   |      |
| D796   | 1SS119       | SI. DIODE        |      |
| D870   | SLR-342MCA47 | L.E.D. ROHM      |      |
| D871   | SLR-342MCA47 | L.E.D. ROHM      |      |
| D872   | SLR-342VC3F  | L.E.D. ROHM      |      |
| D873   | SLR-342VC3F  | L.E.D. ROHM      |      |
| D874   | SLR-342VC3F  | L.E.D. ROHM      |      |
| D875   | SLR-342MCA47 | L.E.D. ROHM      |      |
| D876   | SLR-342MCA47 | L.E.D. ROHM      |      |
| D877   | 1SS119       | SI. DIODE        |      |
| D878   | 1SS119       | SI. DIODE        |      |
| D879   | 1SS119       | SI. DIODE        |      |
| D880   | 1SS119       | SI. DIODE        |      |
| D881   | 1SS119       | SI. DIODE        |      |
| D882   | 1SS119       | SI. DIODE        |      |
| D883   | SLR-320VCA49 | L.E.D. ROHM      |      |
| D884   | SLR-320VCA49 | L.E.D. ROHM      |      |
| D885   | SLR-320MCA49 | L.E.D. ROHM      |      |
| D886   | SLR-320MCA49 | L.E.D. ROHM      |      |
| D887   | SLR-320MCA49 | L.E.D. ROHM      |      |
| D888   | SLR-320MCA49 | L.E.D. ROHM      |      |
| D889   | SLR-320MCA49 | L.E.D. ROHM      |      |
| D890   | SLR-320MCA49 | L.E.D. ROHM      |      |
| D891   | SLR-320MCA49 | L.E.D. ROHM      |      |
| D892   | SLR-320MCA49 | L.E.D. ROHM      |      |
| D893   | SLR-320MCA49 | L.E.D. ROHM      |      |
| D894   | SLR-320MCA49 | L.E.D. ROHM      |      |
| D895   | SLR-320MCA49 | L.E.D. ROHM      |      |
| D896   | SLR-320MCA49 | L.E.D. ROHM      |      |
| D897   | 1SS119       | SI. DIODE        |      |
| D898   | 1SS119       | SI. DIODE        |      |
| D899   | 1SS119       | SI. DIODE        |      |
| D901   | 1SS119       | SI. DIODE        |      |
| D902   | 1SS119       | SI. DIODE        |      |
| D999   | 1SS119       | SI. DIODE        |      |
| D1031  | MTZ5.1JC     | ZENER DIODE ROHM | U    |
| D1031  | MTZ5.1JC     | ZENER DIODE ROHM | US   |
| D1031  | MTZ5.1JC     | ZENER DIODE ROHM | UT   |
| D1100  | MTZ3.0JB     | ZENER DIODE ROHM |      |

△ SAFETY PARTS

## CAPACITORS

| ITEM | PART NUMBER | DESCRIPTION            | AREA |
|------|-------------|------------------------|------|
| C741 | QFN82AJ-103 | 0.01MF 100V MYLAR CAPA | J    |
| C741 | QFN82AJ-103 | 0.01MF 100V MYLAR CAPA | U    |
| C741 | QFN82AJ-103 | 0.01MF 100V MYLAR CAPA | US   |
| C741 | QFN82AJ-103 | 0.01MF 100V MYLAR CAPA | UT   |
| C741 | QFV82AJ-224 | 0.22MF 100V MYLAR CAPA | A    |
| C741 | QFV82AJ-224 | 0.22MF 100V MYLAR CAPA | BS   |
| C741 | QFV82AJ-224 | 0.22MF 100V MYLAR CAPA | C    |
| C741 | QFV82AJ-224 | 0.22MF 100V MYLAR CAPA | EF   |
| C741 | QFV82AJ-224 | 0.22MF 100V MYLAR CAPA | EN   |
| C741 | QFV82AJ-224 | 0.22MF 100V MYLAR CAPA | G    |
| C741 | QFV82AJ-224 | 0.22MF 100V MYLAR CAPA | GI   |
| C741 | QFV82AJ-224 | 0.22MF 100V MYLAR CAPA | VX   |
| C742 | QFN82AJ-103 | 0.01MF 100V MYLAR CAPA | J    |
| C742 | QFN82AJ-103 | 0.01MF 100V MYLAR CAPA | U    |
| C742 | QFN82AJ-103 | 0.01MF 100V MYLAR CAPA | US   |
| C742 | QFN82AJ-103 | 0.01MF 100V MYLAR CAPA | UT   |
| C742 | QFV82AJ-224 | 0.22MF 100V MYLAR CAPA | A    |
| C742 | QFV82AJ-224 | 0.22MF 100V MYLAR CAPA | BS   |
| C742 | QFV82AJ-224 | 0.22MF 100V MYLAR CAPA | C    |
| C742 | QFV82AJ-224 | 0.22MF 100V MYLAR CAPA | EF   |
| C742 | QFV82AJ-224 | 0.22MF 100V MYLAR CAPA | EN   |
| C742 | QFV82AJ-224 | 0.22MF 100V MYLAR CAPA | G    |
| C742 | QFV82AJ-224 | 0.22MF 100V MYLAR CAPA | GI   |
| C742 | QFV82AJ-224 | 0.22MF 100V MYLAR CAPA | VX   |
| C743 | QFN82AJ-103 | 0.01MF 100V MYLAR CAPA | J    |

△ SAFETY PARTS

## CAPACITORS

| Δ | ITEM | PART NUMBER   | DESCRIPTION            | AREA |
|---|------|---------------|------------------------|------|
|   | C743 | QFN82AJ-103   | 0.01MF 100V MYLAR CAPA | U    |
|   | C743 | QFN82AJ-103   | 0.01MF 100V MYLAR CAPA | US   |
|   | C743 | QFN82AJ-103   | 0.01MF 100V MYLAR CAPA | UT   |
|   | C743 | QFV82AJ-224   | 0.22MF 100V MYLAR CAPA | A    |
|   | C743 | QFV82AJ-224   | 0.22MF 100V MYLAR CAPA | BS   |
|   | C743 | QFV82AJ-224   | 0.22MF 100V MYLAR CAPA | C    |
|   | C743 | QFV82AJ-224   | 0.22MF 100V MYLAR CAPA | EF   |
|   | C743 | QFV82AJ-224   | 0.22MF 100V MYLAR CAPA | EN   |
|   | C743 | QFV82AJ-224   | 0.22MF 100V MYLAR CAPA | G    |
|   | C743 | QFV82AJ-224   | 0.22MF 100V MYLAR CAPA | GI   |
|   | C743 | QFV82AJ-224   | 0.22MF 100V MYLAR CAPA | VX   |
|   | C744 | QETM1VM-228J7 | 2200MF 35V E.CAPACITO  |      |
|   | C745 | QETM1VM-228J7 | 2200MF 35V E.CAPACITO  |      |
|   | C771 | QETB1HM-225   | 2.2MF 50V AL E.CAPAC   |      |
|   | C773 | QCVB1CM-103Y  | 0.01MF 16V CER.CAPACI  |      |
|   | C774 | QETB1HM-226E  | 22MF 50V E.CAPACITO    |      |
|   | C775 | QETB1HM-226E  | 22MF 50V E.CAPACITO    |      |
|   | C776 | QETB1HM-476   | 47MF 63V AL E.CAPAC    |      |
|   | C777 | QETB1HM-107   | 100MF 63V AL E.CAPAC   |      |
|   | C778 | QETB1HM-475E  | 4.7MF 50V E.CAPACITO   |      |
|   | C780 | QEZ0171-10AM  | AL E.CAPAC             |      |
|   | C781 | QETB1CM-227   | 220MF 16V AL E.CAPAC   |      |
|   | C791 | QETB1CM-476   | 47MF 16V AL E.CAPAC    |      |
|   | C792 | QCF21HP-223A  | 0.022MF 50V CER.CAPACI |      |
|   | C793 | QETB1AM-107   | 100MF 10V AL E.CAPAC   |      |
|   | C794 | QETB1AM-107   | 100MF 10V AL E.CAPAC   |      |
|   | C795 | QCF21HP-103A  | 0.01MF 50V CER.CAPACI  |      |
|   | C796 | QCF21HP-103A  | 0.01MF 50V CER.CAPACI  |      |
|   | C799 | QCF21HP-223A  | 0.022MF 50V CER.CAPACI |      |
|   | C799 | QCF21HP-223A  | 0.022MF 50V CER.CAPACI | A    |
|   | C799 | QCF21HP-223A  | 0.022MF 50V CER.CAPACI | C    |
|   | C799 | QCF21HP-223A  | 0.022MF 50V CER.CAPACI | J    |
|   | C799 | QCF21HP-223A  | 0.022MF 50V CER.CAPACI | US   |
|   | C799 | QCF21HP-223A  | 0.022MF 50V CER.CAPACI | UT   |
|   | C802 | QETB1HM-105   | 1MF 50V AL E.CAPAC     |      |
|   | C861 | QCHB1EZ-223   | 0.022MF 25V CER.CAPACI |      |
|   | C862 | QER50JM-107   | 100MF 6.3V AL E.CAPAC  |      |
|   | C863 | QCS31HJ-471Z  | 470PF 50V CER.CAPACI   | BS   |
|   | C863 | QCS31HJ-471Z  | 470PF 50V CER.CAPACI   | EF   |
|   | C863 | QCS31HJ-471Z  | 470PF 50V CER.CAPACI   | EN   |
|   | C863 | QCS31HJ-471Z  | 470PF 50V CER.CAPACI   | G    |
|   | C863 | QCS31HJ-471Z  | 470PF 50V CER.CAPACI   | GI   |
|   | C863 | QCS31HJ-471Z  | 470PF 50V CER.CAPACI   | VX   |
|   | C864 | QCS31HJ-471Z  | 470PF 50V CER.CAPACI   | BS   |
|   | C864 | QCS31HJ-471Z  | 470PF 50V CER.CAPACI   | EF   |
|   | C864 | QCS31HJ-471Z  | 470PF 50V CER.CAPACI   | EN   |
|   | C864 | QCS31HJ-471Z  | 470PF 50V CER.CAPACI   | G    |
|   | C864 | QCS31HJ-471Z  | 470PF 50V CER.CAPACI   | GI   |
|   | C864 | QCS31HJ-471Z  | 470PF 50V CER.CAPACI   | VX   |
|   | C865 | QCVB1CM-103Y  | 0.01MF 16V CER.CAPACI  |      |
|   | C865 | QCVB1CM-103Y  | 0.01MF 16V CER.CAPACI  | U    |
|   | C865 | QCVB1CM-103Y  | 0.01MF 16V CER.CAPACI  | US   |
|   | C865 | QCVB1CM-103Y  | 0.01MF 16V CER.CAPACI  | UT   |
|   | C866 | QCHB1EZ-223   | 0.022MF 25V CER.CAPACI | BS   |
|   | C866 | QCHB1EZ-223   | 0.022MF 25V CER.CAPACI | EF   |
|   | C866 | QCHB1EZ-223   | 0.022MF 25V CER.CAPACI | EN   |
|   | C866 | QCHB1EZ-223   | 0.022MF 25V CER.CAPACI | G    |
|   | C866 | QCHB1EZ-223   | 0.022MF 25V CER.CAPACI | GI   |
|   | C866 | QCHB1EZ-223   | 0.022MF 25V CER.CAPACI | VX   |
|   | C867 | QEK51HM-105G  | 1MF 50V AL E.CAPAC     | U    |
|   | C867 | QEK51HM-105G  | 1MF 50V AL E.CAPAC     | US   |
|   | C867 | QEK51HM-105G  | 1MF 50V AL E.CAPAC     | UT   |
|   | C868 | QCVB1CM-103Y  | 0.01MF 16V CER.CAPACI  | U    |
|   | C868 | QCVB1CM-103Y  | 0.01MF 16V CER.CAPACI  | US   |
|   | C868 | QCVB1CM-103Y  | 0.01MF 16V CER.CAPACI  | UT   |
|   | C869 | QEK51CM-107   | 100MF 16V E.CAPACITO   |      |
|   | C870 | QCVB1CM-103Y  | 0.01MF 16V CER.CAPACI  | U    |
|   | C870 | QCVB1CM-103Y  | 0.01MF 16V CER.CAPACI  | US   |
|   | C870 | QCVB1CM-103Y  | 0.01MF 16V CER.CAPACI  | UT   |
|   | C871 | QEK51HM-105   | 1MF 50V AL E.CAPAC     | U    |
|   | C871 | QEK51HM-105   | 1MF 50V AL E.CAPAC     | US   |
|   | C871 | QEK51HM-105   | 1MF 50V AL E.CAPAC     | UT   |
|   | C872 | QETB1HM-105   | 1MF 50V AL E.CAPAC     | U    |
|   | C872 | QETB1HM-105   | 1MF 50V AL E.CAPAC     | US   |
|   | C872 | QETB1HM-105   | 1MF 50V AL E.CAPAC     | UT   |
|   | C874 | QETB1HM-105   | 1MF 50V AL E.CAPAC     | U    |
|   | C874 | QETB1HM-105   | 1MF 50V AL E.CAPAC     | US   |
|   | C874 | QETB1HM-105   | 1MF 50V AL E.CAPAC     | UT   |
|   | C875 | QEK51EM-106   | 10MF 25V AL E.CAPAC    | U    |
|   | C875 | QEK51EM-106   | 10MF 25V AL E.CAPAC    | US   |
|   | C875 | QEK51EM-106   | 10MF 25V AL E.CAPAC    | UT   |
|   | C876 | QETB1EM-106   | 10MF 25V AL E.CAPAC    | U    |
|   | C876 | QETB1EM-106   | 10MF 25V AL E.CAPAC    | US   |
|   | C876 | QETB1EM-106   | 10MF 25V AL E.CAPAC    | UT   |
|   | C877 | QCB1HK-101Y   | 100PF 50V CER.CAPACI   | U    |
|   | C877 | QCB1HK-101Y   | 100PF 50V CER.CAPACI   | US   |
|   | C877 | QCB1HK-101Y   | 100PF 50V CER.CAPACI   | UT   |
|   | C878 | QCB1HK-101Y   | 100PF 50V CER.CAPACI   | U    |
|   | C878 | QCB1HK-101Y   | 100PF 50V CER.CAPACI   | US   |

Δ SAFETY PARTS

## CAPASITORS

| Δ | ITEM  | PART NUMBER  | DESCRIPTION            | AREA |
|---|-------|--------------|------------------------|------|
|   | C878  | QCB1HK-101Y  | 100PF 50V CER.CAPACI   | UT   |
|   | C901  | QETB1AM-107  | 100MF 10V AL E.CAPAC   |      |
|   | C902  | QCF21HP-103A | 0.01MF 50V CER.CAPACI  |      |
|   | C921  | QCVB1CM-103Y | 0.01MF 16V CER.CAPACI  |      |
|   | C922  | QCVB1CM-103Y | 0.01MF 16V CER.CAPACI  |      |
|   | C923  | QCVB1CM-103Y | 0.01MF 16V CER.CAPACI  |      |
|   | C924  | QCVB1CM-103Y | 0.01MF 16V CER.CAPACI  |      |
|   | C925  | QCHB1EZ-223  | 0.022MF 25V CER.CAPACI |      |
|   | C926  | QCHB1EZ-223  | 0.022MF 25V CER.CAPACI |      |
|   | C927  | QCHB1EZ-223  | 0.022MF 25V CER.CAPACI |      |
|   | C928  | QCHB1EZ-223  | 0.022MF 25V CER.CAPACI |      |
|   | C941  | QETB1CM-107  | 100MF 16V AL E.CAPAC   |      |
|   | C942  | QETB1CM-107  | 100MF 16V AL E.CAPAC   |      |
|   | C999  | QETB1CM-476  | 47MF 16V AL E.CAPAC    |      |
|   | C1002 | QETB1CM-226  | 22MF 16V E.CAPACITO    | U    |
|   | C1002 | QETB1CM-226  | 22MF 16V E.CAPACITO    | US   |
|   | C1002 | QETB1CM-226  | 22MF 16V E.CAPACITO    | UT   |
|   | C1003 | QFN81HJ-104  | 0.1MF 50V METAL.MYLA   | U    |
|   | C1003 | QFN81HJ-104  | 0.1MF 50V METAL.MYLA   | US   |
|   | C1003 | QFN81HJ-104  | 0.1MF 50V METAL.MYLA   | UT   |
|   | C1004 | QETB1HM-474  | 0.47MF 50V ELECTRO     | U    |
|   | C1004 | QETB1HM-474  | 0.47MF 50V ELECTRO     | US   |
|   | C1004 | QETB1HM-474  | 0.47MF 50V ELECTRO     | UT   |
|   | C1005 | QCVB1CM-562Y | 5600PF 16V CER.CAPACI  | U    |
|   | C1005 | QCVB1CM-562Y | 5600PF 16V CER.CAPACI  | US   |
|   | C1005 | QCVB1CM-562Y | 5600PF 16V CER.CAPACI  | UT   |
|   | C1006 | QCVB1CM-562Y | 5600PF 16V CER.CAPACI  | U    |
|   | C1006 | QCVB1CM-562Y | 5600PF 16V CER.CAPACI  | US   |
|   | C1006 | QCVB1CM-562Y | 5600PF 16V CER.CAPACI  | UT   |
|   | C1007 | QFN81HJ-183  | 0.018MF 50V METAL.MYLA | U    |
|   | C1007 | QFN81HJ-183  | 0.018MF 50V METAL.MYLA | US   |
|   | C1007 | QFN81HJ-183  | 0.018MF 50V METAL.MYLA | UT   |
|   | C1008 | QFN81HJ-104  | 0.1MF 50V METAL.MYLA   | U    |
|   | C1008 | QFN81HJ-104  | 0.1MF 50V METAL.MYLA   | US   |
|   | C1008 | QFN81HJ-104  | 0.1MF 50V METAL.MYLA   | UT   |
|   | C1009 | QCVB1CM-103Y | 0.01MF 16V CER.CAPACI  | U    |
|   | C1009 | QCVB1CM-103Y | 0.01MF 16V CER.CAPACI  | US   |
|   | C1009 | QCVB1CM-103Y | 0.01MF 16V CER.CAPACI  | UT   |
|   | C1011 | QCVB1CM-821  | 820PF 50V CER.CAPACI   | U    |
|   | C1011 | QCVB1CM-821  | 820PF 50V CER.CAPACI   | US   |
|   | C1011 | QCVB1CM-821  | 820PF 50V CER.CAPACI   | UT   |
|   | C1012 | QCVB1CM-562Y | 5600PF 16V CER.CAPACI  | U    |
|   | C1012 | QCVB1CM-562Y | 5600PF 16V CER.CAPACI  | US   |
|   | C1012 | QCVB1CM-562Y | 5600PF 16V CER.CAPACI  | UT   |
|   | C1013 | QFN81HJ-183  | 0.018MF 50V METAL.MYLA | U    |
|   | C1013 | QFN81HJ-183  | 0.018MF 50V METAL.MYLA | US   |
|   | C1013 | QFN81HJ-183  | 0.018MF 50V METAL.MYLA | UT   |
|   | C1014 | QETB1HM-474  | 0.47MF 50V ELECTRO     | U    |
|   | C1014 | QETB1HM-474  | 0.47MF 50V ELECTRO     | US   |
|   | C1014 | QETB1HM-474  | 0.47MF 50V ELECTRO     | UT   |
|   | C1015 | QFN81HJ-104  | 0.1MF 50V METAL.MYLA   | U    |
|   | C1015 | QFN81HJ-104  | 0.1MF 50V METAL.MYLA   | US   |
|   | C1015 | QFN81HJ-104  | 0.1MF 50V METAL.MYLA   | UT   |
|   | C1016 | QETB1HM-105  | 1MF 50V AL E.CAPAC     | U    |
|   | C1016 | QETB1HM-105  | 1MF 50V AL E.CAPAC     | US   |
|   | C1016 | QETB1HM-105  | 1MF 50V AL E.CAPAC     | UT   |
|   | C1017 | QFV81HJ-104  | 0.1MF 50V THIN FILM    | U    |
|   | C1017 | QFV81HJ-104  | 0.1MF 50V THIN FILM    | US   |
|   | C1017 | QFV81HJ-104  | 0.1MF 50V THIN FILM    | UT   |
|   | C1018 | QFV81HJ-104  | 0.1MF 50V THIN FILM    | U    |
|   | C1018 | QFV81HJ-104  | 0.1MF 50V THIN FILM    | US   |
|   | C1018 | QFV81HJ-104  | 0.1MF 50V THIN FILM    | UT   |
|   | C1019 | QETB1CM-107  | 100MF 16V AL E.CAPAC   | U    |
|   | C1019 | QETB1CM-107  | 100MF 16V AL E.CAPAC   | US   |
|   | C1019 | QETB1CM-107  | 100MF 16V AL E.CAPAC   | UT   |
|   | C1020 | QFN81HJ-104  | 0.1MF 50V METAL.MYLA   | U    |
|   | C1020 | QFN81HJ-104  | 0.1MF 50V METAL.MYLA   | US   |
|   | C1020 | QFN81HJ-104  | 0.1MF 50V METAL.MYLA   | UT   |
|   | C1021 | QCB1HK-221Y  | 220PF 50V CER.CAPACI   | U    |
|   | C1021 | QCB1HK-221Y  | 220PF 50V CER.CAPACI   | US   |
|   | C1021 | QCB1HK-221Y  | 220PF 50V CER.CAPACI   | UT   |
|   | C1022 | QETB1AM-107  | 100MF 10V AL E.CAPAC   | U    |
|   | C1022 | QETB1AM-107  | 100MF 10V AL E.CAPAC   | US   |
|   | C1022 | QETB1AM-107  | 100MF 10V AL E.CAPAC   | UT   |
|   | C1023 | QCVB1CM-103Y | 0.01MF 16V CER.CAPACI  | U    |
|   | C1023 | QCVB1CM-103Y | 0.01MF 16V CER.CAPACI  | US   |
|   | C1023 | QCVB1CM-103Y | 0.01MF 16V CER.CAPACI  | UT   |
|   | C1024 | QCB1HK-221Y  | 220PF 50V CER.CAPACI   | U    |
|   | C1024 | QCB1HK-221Y  | 220PF 50V CER.CAPACI   | US   |
|   | C1024 | QCB1HK-221Y  | 220PF 50V CER.CAPACI   | UT   |
|   | C1025 | QCB1HK-221Y  | 220PF 50V CER.CAPACI   | U    |
|   | C1025 | QCB1HK-221Y  | 220PF 50V CER.CAPACI   | US   |
|   | C1025 | QCB1HK-221Y  | 220PF 50V CER.CAPACI   | UT   |
|   | C1051 | QETB1HM-105  | 1MF 50V AL E.CAPAC     | U    |
|   | C1051 | QETB1HM-105  | 1MF 50V AL E.CAPAC     | US   |
|   | C1051 | QETB1HM-105  | 1MF 50V AL E.CAPAC     | UT   |

Δ SAFETY PARTS

## RESISTORS

| Δ | ITEM | PART NUMBER    | DESCRIPTION |      |            |    | AREA |
|---|------|----------------|-------------|------|------------|----|------|
|   | R597 | QRD161J-102    | 1K          | 1/6W | CARBON RES |    |      |
|   | R765 | QRD161J-473    | 47K         | 1/6W | CARBON RES |    |      |
|   | R766 | QRD161J-473    | 47K         | 1/6W | CARBON RES |    |      |
|   | R773 | QRD161J-102    | 1K          | 1/6W | CARBON RES |    |      |
|   | R774 | QRD161J-472    | 4.7K        | 1/6W | CARBON RES |    |      |
|   | R775 | QRD161J-103    | 10K         | 1/6W | CARBON RES |    |      |
|   | R776 | QRD161J-102    | 1K          | 1/6W | CARBON RES |    |      |
| Δ | R777 | PTH61G25AR4R7M |             |      | POSITIVE T | A  |      |
| Δ | R777 | PTH61G25AR4R7M |             |      | POSITIVE T | BS |      |
| Δ | R777 | PTH61G25AR4R7M |             |      | POSITIVE T | C  |      |
| Δ | R777 | PTH61G25AR4R7M |             |      | POSITIVE T | EF |      |
| Δ | R777 | PTH61G25AR4R7M |             |      | POSITIVE T | EN |      |
| Δ | R777 | PTH61G25AR4R7M |             |      | POSITIVE T | G  |      |
| Δ | R777 | PTH61G25AR4R7M |             |      | POSITIVE T | GI |      |
| Δ | R777 | PTH61G25AR4R7M |             |      | POSITIVE T | U  |      |
| Δ | R777 | PTH61G25AR4R7M |             |      | POSITIVE T | US |      |
| Δ | R777 | PTH61G25AR4R7M |             |      | POSITIVE T | UT |      |
| Δ | R777 | PTH61G25AR4R7M |             |      | POSITIVE T | VX |      |
| Δ | R777 | QRD14CJ-4R7S   | 4.7         | 1/4W | UNF.CARBON | J  |      |
|   | R778 | QRD161J-104    | 100K        | 1/6W | CARBON RES |    |      |
|   | R781 | QRD167J-121    | 120         | 1/6W | CARBON RES |    |      |
|   | R782 | QRD161J-222    | 2.2K        | 1/6W | CARBON RES |    |      |
| Δ | R785 | QRD14CJ-100SX  | 10          | 1/4W | UNF.CARBON |    |      |
| Δ | R786 | QRD14CJ-100SX  | 10          | 1/4W | UNF.CARBON |    |      |
| Δ | R787 | QRD14CJ-4R7S   | 4.7         | 1/4W | UNF.CARBON |    |      |
| Δ | R788 | QRD14CJ-4R7S   | 4.7         | 1/4W | UNF.CARBON |    |      |
| Δ | R789 | QRD14CJ-4R7S   | 4.7         | 1/4W | UNF.CARBON |    |      |
| Δ | R790 | QRD14CJ-4R7S   | 4.7         | 1/4W | UNF.CARBON |    |      |
|   | R791 | QRD161J-122    | 1.2K        | 1/6W | CARBON RES |    |      |
|   | R793 | QRD161J-103    | 10K         | 1/6W | CARBON RES |    |      |
|   | R794 | QRD161J-103    | 10K         | 1/6W | CARBON RES |    |      |
| Δ | R795 | QRX022J-2R7AM  | 2.7         | 2W   | METAL FILM |    |      |
| Δ | R796 | QRX022J-2R2AM  | 2.2         | 2W   | METAL FILM |    |      |
|   | R858 | QRD161J-122    | 1.2K        | 1/6W | CARBON RES | U  |      |
|   | R858 | QRD161J-122    | 1.2K        | 1/6W | CARBON RES | US |      |
|   | R858 | QRD161J-122    | 1.2K        | 1/6W | CARBON RES | UT |      |
|   | R859 | QRD161J-103    | 10K         | 1/6W | CARBON RES | U  |      |
|   | R859 | QRD161J-103    | 10K         | 1/6W | CARBON RES | US |      |
|   | R859 | QRD161J-103    | 10K         | 1/6W | CARBON RES | UT |      |
|   | R861 | QRD161J-122    | 1.2K        | 1/6W | CARBON RES | U  |      |
|   | R861 | QRD161J-122    | 1.2K        | 1/6W | CARBON RES | US |      |
|   | R861 | QRD161J-122    | 1.2K        | 1/6W | CARBON RES | UT |      |
|   | R868 | QRD161J-222    | 2.2K        | 1/6W | CARBON RES |    |      |
|   | R869 | QRD161J-112    | 1.1K        | 1/6W | CARBON RES |    |      |
|   | R870 | QRD161J-681    | 680         | 1/6W | CARBON RES |    |      |
|   | R871 | QRD167J-431    | 430         | 1/6W | CARBON RES |    |      |
|   | R872 | QRD161J-112    | 1.1K        | 1/6W | CARBON RES |    |      |
|   | R873 | QRD161J-681    | 680         | 1/6W | CARBON RES |    |      |
|   | R874 | QRD167J-431    | 430         | 1/6W | CARBON RES |    |      |
|   | R875 | QRD161J-222    | 2.2K        | 1/6W | CARBON RES |    |      |
|   | R876 | QRD161J-112    | 1.1K        | 1/6W | CARBON RES |    |      |
|   | R877 | QRD161J-681    | 680         | 1/6W | CARBON RES |    |      |
|   | R878 | QRD167J-431    | 430         | 1/6W | CARBON RES |    |      |
|   | R879 | QRD167J-161    | 160         | 1/6W | CARBON RES |    |      |
|   | R881 | QRD161J-271    | 270         | 1/6W | CARBON RES |    |      |
|   | R882 | QRD161J-271    | 270         | 1/6W | CARBON RES |    |      |
|   | R883 | QRD161J-391    | 390         | 1/6W | CARBON RES |    |      |
|   | R884 | QRD167J-161    | 160         | 1/6W | CARBON RES |    |      |
|   | R889 | QRD161J-103    | 10K         | 1/6W | CARBON RES | U  |      |
|   | R889 | QRD161J-103    | 10K         | 1/6W | CARBON RES | US |      |
|   | R889 | QRD161J-103    | 10K         | 1/6W | CARBON RES | UT |      |
|   | R891 | QRD167J-121    | 120         | 1/6W | CARBON RES |    |      |
|   | R892 | QRD161J-101    | 100         | 1/6W | CARBON RES |    |      |
|   | R893 | QRD161J-101    | 100         | 1/6W | CARBON RES |    |      |
|   | R894 | QRD161J-101    | 100         | 1/6W | CARBON RES |    |      |
|   | R895 | QRD161J-101    | 100         | 1/6W | CARBON RES |    |      |
|   | R896 | QRD161J-101    | 100         | 1/6W | CARBON RES |    |      |
|   | R897 | QRD161J-101    | 100         | 1/6W | CARBON RES |    |      |
|   | R898 | QRD161J-221    | 220         | 1/6W | CARBON RES | U  |      |
|   | R898 | QRD161J-221    | 220         | 1/6W | CARBON RES | US |      |
|   | R898 | QRD161J-221    | 220         | 1/6W | CARBON RES | UT |      |
|   | R899 | QRD161J-221    | 220         | 1/6W | CARBON RES | U  |      |
|   | R899 | QRD161J-221    | 220         | 1/6W | CARBON RES | US |      |
|   | R899 | QRD161J-221    | 220         | 1/6W | CARBON RES | UT |      |
|   | R901 | QRD161J-105    | 1M          | 1/6W | CARBON RES |    |      |
|   | R902 | QRD161J-103    | 10K         | 1/6W | CARBON RES |    |      |
|   | R903 | QRD167J-223    | 22K         | 1/6W | CARBON RES |    |      |
|   | R904 | QRD161J-103    | 10K         | 1/6W | CARBON RES |    |      |
|   | R905 | QRD161J-102    | 1K          | 1/6W | CARBON RES |    |      |
|   | R906 | QRD161J-102    | 1K          | 1/6W | CARBON RES |    |      |
|   | R907 | QRD161J-102    | 1K          | 1/6W | CARBON RES |    |      |
|   | R908 | QRD161J-473    | 47K         | 1/6W | CARBON RES |    |      |
|   | R909 | QRD167J-223    | 22K         | 1/6W | CARBON RES |    |      |
|   | R911 | QRD161J-103    | 10K         | 1/6W | CARBON RES |    |      |
|   | R912 | QRD161J-103    | 10K         | 1/6W | CARBON RES |    |      |
|   | R913 | QRD161J-392    | 3.9K        | 1/6W | CARBON RES |    |      |
|   | R914 | QRD161J-242    | 2.4K        | 1/6W | CARBON RES |    |      |
|   | R915 | QRD167J-153    | 15K         | 1/6W | CARBON RES |    |      |
|   | R925 | QRD161J-432    | 4.3K        | 1/6W | CARBON RES |    |      |
|   | R926 | QRD161J-432    | 4.3K        | 1/6W | CARBON RES |    |      |

Δ : SAFETY PARTS

## RESISTORS

| Δ | ITEM  | PART NUMBER  | DESCRIPTION |       |            | AREA |
|---|-------|--------------|-------------|-------|------------|------|
|   | R927  | QRD161J-103  | 10K         | 1/6W  | CARBON RES |      |
|   | R928  | QRD161J-103  | 10K         | 1/6W  | CARBON RES |      |
|   | R929  | QRD161J-913  | 91K         | 1/6W  | CARBON RES |      |
|   | R930  | QRD161J-913  | 91K         | 1/6W  | CARBON RES |      |
|   | R931  | QRD167J-822  | 8.2K        | 1/6W  | CARBON RES |      |
|   | R932  | QRD167J-822  | 8.2K        | 1/6W  | CARBON RES |      |
|   | R933  | QRD161J-163  | 16K         | 1/6W  | CARBON RES |      |
|   | R934  | QRD161J-163  | 16K         | 1/6W  | CARBON RES |      |
|   | R942  | QRD161J-103  | 10K         | 1/6W  | CARBON RES |      |
|   | R945  | QRD161J-224  | 220K        | 1/6W  | CARBON RES |      |
|   | R946  | QRD161J-224  | 220K        | 1/6W  | CARBON RES |      |
|   | R948  | QVPA603-103A | 10K         |       | TRIMMER RE |      |
|   | R950  | QRD161J-133Y | 13K         | 1/6W  | CARBON RES |      |
|   | R951  | QRD161J-683  | 68K         | 1/6W  | CARBON RES |      |
|   | R960  | QRD161J-472  | 4.7K        | 1/6W  | CARBON RES |      |
|   | R961  | QRD161J-331  | 330         | 1/6W  | CARBON RES |      |
|   | R962  | QRD161J-222  | 2.2K        | 1/6W  | CARBON RES |      |
|   | R963  | QRD161J-103  | 10K         | 1/6W  | CARBON RES |      |
| Δ | R970  | QRX014J-R47X | 0.47        | 1W    | M.FILM     | J    |
|   | R997  | QRD167J-562  | 5.6K        | 1/6W  | CARBON RES |      |
|   | R998  | QRD161J-104  | 100K        | 1/6W  | CARBON RES |      |
|   | R999  | QRD161J-274  | 270K        | 1/6W  | CARBON RES |      |
|   | RA901 | QRB049J-103  | 10K         | 1/10W | RESISTOR   |      |
|   | RA903 | QRB079J-222  | 2.2K        | 1/10W | NETWORK RE |      |
|   | RA911 | QRB049J-103  | 10K         | 1/10W | RESISTOR   |      |
|   | R1001 | QRD167J-152  | 1.5K        | 1/6W  | CARBON RES | U    |
|   | R1001 | QRD167J-152  | 1.5K        | 1/6W  | CARBON RES | US   |
|   | R1001 | QRD167J-152  | 1.5K        | 1/6W  | CARBON RES | UT   |
|   | R1002 | QRD161J-123  | 12K         | 1/6W  | CARBON RES | U    |
|   | R1002 | QRD161J-123  | 12K         | 1/6W  | CARBON RES | US   |
|   | R1002 | QRD161J-123  | 12K         | 1/6W  | CARBON RES | UT   |
|   | R1003 | QRD161J-103  | 10K         | 1/6W  | CARBON RES | U    |
|   | R1003 | QRD161J-103  | 10K         | 1/6W  | CARBON RES | US   |
|   | R1003 | QRD161J-103  | 10K         | 1/6W  | CARBON RES | UT   |
|   | R1004 | QRD161J-103  | 10K         | 1/6W  | CARBON RES | U    |
|   | R1004 | QRD161J-103  | 10K         | 1/6W  | CARBON RES | US   |
|   | R1004 | QRD161J-103  | 10K         | 1/6W  | CARBON RES | UT   |
|   | R1005 | QRD161J-103  | 10K         | 1/6W  | CARBON RES | U    |
|   | R1005 | QRD161J-103  | 10K         | 1/6W  | CARBON RES | US   |
|   | R1005 | QRD161J-103  | 10K         | 1/6W  | CARBON RES | UT   |
|   | R1010 | QRD161J-472  | 4.7K        | 1/6W  | CARBON RES | U    |
|   | R1010 | QRD161J-472  | 4.7K        | 1/6W  | CARBON RES | US   |
|   | R1010 | QRD161J-472  | 4.7K        | 1/6W  | CARBON RES | UT   |
|   | R1011 | QRD161J-103  | 10K         | 1/6W  | CARBON RES | U    |
|   | R1011 | QRD161J-103  | 10K         | 1/6W  | CARBON RES | US   |
|   | R1011 | QRD161J-103  | 10K         | 1/6W  | CARBON RES | UT   |
|   | R1012 | QRD161J-103  | 10K         | 1/6W  | CARBON RES | U    |
|   | R1012 | QRD161J-103  | 10K         | 1/6W  | CARBON RES | US   |
|   | R1012 | QRD161J-103  | 10K         | 1/6W  | CARBON RES | UT   |
|   | R1013 | QRD161J-103  | 10K         | 1/6W  | CARBON RES | U    |
|   | R1013 | QRD161J-103  | 10K         | 1/6W  | CARBON RES | US   |
|   | R1013 | QRD161J-103  | 10K         | 1/6W  | CARBON RES | UT   |
|   | R1021 | QRD161J-105  | 1M          | 1/6W  | CARBON RES | U    |
|   | R1021 | QRD161J-105  | 1M          | 1/6W  | CARBON RES | US   |
|   | R1021 | QRD161J-105  | 1M          | 1/6W  | CARBON RES | UT   |
|   | R1022 | QRD167J-682  | 6.8K        | 1/6W  | CARBON RES | U    |
|   | R1022 | QRD167J-682  | 6.8K        | 1/6W  | CARBON RES | US   |
|   | R1022 | QRD167J-682  | 6.8K        | 1/6W  | CARBON RES | UT   |
|   | R1031 | QRD161J-331  | 330         | 1/6W  | CARBON RES | U    |
|   | R1031 | QRD161J-331  | 330         | 1/6W  | CARBON RES | US   |
|   | R1031 | QRD161J-331  | 330         | 1/6W  | CARBON RES | UT   |
|   | R1035 | QRD161J-303Y | 30K         | 1/6W  | CARBON RES | U    |
|   | R1035 | QRD161J-303Y | 30K         | 1/6W  | CARBON RES | US   |
|   | R1035 | QRD161J-303Y | 30K         | 1/6W  | CARBON RES | UT   |
|   | R1036 | QRD161J-563  | 56K         | 1/6W  | CARBON RES | U    |
|   | R1036 | QRD161J-563  | 56K         | 1/6W  | CARBON RES | US   |
|   | R1036 | QRD161J-563  | 56K         | 1/6W  | CARBON RES | UT   |
|   | R1037 | QRD161J-243  | 24K         | 1/6W  | CARBON RES | U    |
|   | R1037 | QRD161J-243  | 24K         | 1/6W  | CARBON RES | US   |
|   | R1037 | QRD161J-243  | 24K         | 1/6W  | CARBON RES | UT   |
|   | R1038 | QRD161J-123  | 12K         | 1/6W  | CARBON RES | U    |
|   | R1038 | QRD161J-123  | 12K         | 1/6W  | CARBON RES | US   |
|   | R1038 | QRD161J-123  | 12K         | 1/6W  | CARBON RES | UT   |
|   | R1051 | QRD161J-105  | 1M          | 1/6W  | CARBON RES | U    |
|   | R1051 | QRD161J-105  | 1M          | 1/6W  | CARBON RES | US   |
|   | R1051 | QRD161J-105  | 1M          | 1/6W  | CARBON RES | UT   |
|   | R1052 | QRD161J-243  | 24K         | 1/6W  | CARBON RES | U    |
|   | R1052 | QRD161J-243  | 24K         | 1/6W  | CARBON RES | US   |
|   | R1052 | QRD161J-243  | 24K         | 1/6W  | CARBON RES | UT   |
|   | R1053 | QRD161J-103  | 10K         | 1/6W  | CARBON RES | U    |
|   | R1053 | QRD161J-103  | 10K         | 1/6W  | CARBON RES | US   |
|   | R1053 | QRD161J-103  | 10K         | 1/6W  | CARBON RES | UT   |
|   | R1054 | QRD161J-472  | 4.7K        | 1/6W  | CARBON RES | U    |
|   | R1054 | QRD161J-472  | 4.7K        | 1/6W  | CARBON RES | US   |
|   | R1054 | QRD161J-472  | 4.7K        | 1/6W  | CARBON RES | UT   |
|   | R1056 | QRD161J-221  | 220         | 1/6W  | CARBON RES | U    |
|   | R1056 | QRD161J-221  | 220         | 1/6W  | CARBON RES | US   |
|   | R1056 | QRD161J-221  | 220         | 1/6W  | CARBON RES | UT   |
|   | R1103 | QRD161J-222  | 2.2K        | 1/6W  | CARBON RES |      |
|   | VR801 | QVAA72B-E548 | 50K         |       | VARIABLE R | U    |
|   | VR801 | QVAA72B-E548 | 50K         |       | VARIABLE R | US   |
|   | VR801 | QVAA72B-E548 | 50K         |       | VARIABLE R | UT   |

## OTHERS

| Δ | ITEM | PART NUMBER  | DESCRIPTION | AREA |
|---|------|--------------|-------------|------|
|   | J812 | EMW10517-004 | CIR BOARD   |      |
|   | J813 | QMS3R10-E40S | MICROPHONE  | U    |
|   | J813 | QMS3R80-EE0S | HEADPHONE J | US   |
|   | J813 | QMS3R80-EE0S | HEADPHONE J | UT   |
|   | K701 | ENZ8101-007  | INDUCTOR    | BS   |
|   | K701 | ENZ8101-007  | INDUCTOR    | EF   |
|   | K701 | ENZ8101-007  | INDUCTOR    | EN   |
|   | K701 | ENZ8101-007  | INDUCTOR    | G    |
|   | K701 | ENZ8101-007  | INDUCTOR    | GI   |
|   | K701 | ENZ8101-007  | INDUCTOR    | VX   |
|   | K702 | ENZ8101-007  | INDUCTOR    | BS   |
|   | K702 | ENZ8101-007  | INDUCTOR    | EF   |
|   | K702 | ENZ8101-007  | INDUCTOR    | EN   |
|   | K702 | ENZ8101-007  | INDUCTOR    | G    |
|   | K702 | ENZ8101-007  | INDUCTOR    | GI   |
|   | K702 | ENZ8101-007  | INDUCTOR    | VX   |
|   | K703 | ENZ8101-007  | INDUCTOR    | BS   |
|   | K703 | ENZ8101-007  | INDUCTOR    | EF   |
|   | K703 | ENZ8101-007  | INDUCTOR    | EN   |
|   | K703 | ENZ8101-007  | INDUCTOR    | G    |
|   | K703 | ENZ8101-007  | INDUCTOR    | GI   |
|   | K703 | ENZ8101-007  | INDUCTOR    | VX   |
|   | K704 | ENZ8101-007  | INDUCTOR    | BS   |
|   | K704 | ENZ8101-007  | INDUCTOR    | EF   |
|   | K704 | ENZ8101-007  | INDUCTOR    | EN   |
|   | K704 | ENZ8101-007  | INDUCTOR    | G    |
|   | K704 | ENZ8101-007  | INDUCTOR    | GI   |
|   | K704 | ENZ8101-007  | INDUCTOR    | VX   |
|   | S701 | QSS7A12-E01  | SLIDE SWITC | BS   |
|   | S701 | QSS7A12-E01  | SLIDE SWITC | EF   |
|   | S701 | QSS7A12-E01  | SLIDE SWITC | EN   |
|   | S701 | QSS7A12-E01  | SLIDE SWITC | G    |
|   | S701 | QSS7A12-E01  | SLIDE SWITC | GI   |
|   | S701 | QSS7A12-E01  | SLIDE SWITC | VX   |
|   | S819 | ESP0001-023M | TACT SWITCH |      |
|   | S820 | ESP0001-023M | TACT SWITCH |      |
|   | S821 | ESP0001-023M | TACT SWITCH |      |
|   | S822 | ESP0001-023M | TACT SWITCH |      |
|   | S823 | ESP0001-023M | TACT SWITCH |      |
|   | S824 | ESP0001-023M | TACT SWITCH |      |
|   | S825 | ESP0001-023M | TACT SWITCH |      |
|   | S826 | ESP0001-023M | TACT SWITCH |      |
|   | S827 | ESP0001-023M | TACT SWITCH |      |
|   | S828 | ESP0001-023M | TACT SWITCH |      |
|   | S829 | ESP0001-023M | TACT SWITCH |      |
|   | S830 | ESP0001-023M | TACT SWITCH |      |
|   | S831 | ESP0001-023M | TACT SWITCH |      |
|   | S832 | ESP0001-023M | TACT SWITCH |      |
|   | S833 | ESP0001-023M | TACT SWITCH |      |
|   | S834 | ESP0001-023M | TACT SWITCH |      |
|   | S835 | ESP0001-023M | TACT SWITCH |      |
|   | S836 | ESP0001-023M | TACT SWITCH |      |
|   | S837 | ESP0001-023M | TACT SWITCH |      |
|   | S838 | ESP0001-023M | TACT SWITCH |      |
|   | S839 | ESP0001-023M | TACT SWITCH |      |
|   | S840 | ESP0001-023M | TACT SWITCH |      |
|   | S841 | ESP0001-023M | TACT SWITCH |      |
|   | S842 | ESP0001-023M | TACT SWITCH |      |
|   | S843 | ESP0001-023M | TACT SWITCH |      |
|   | S844 | ESP0001-023M | TACT SWITCH |      |
|   | S845 | ESP0001-023M | TACT SWITCH |      |
|   | S846 | ESP0001-023M | TACT SWITCH |      |
|   | S847 | ESP0001-023M | TACT SWITCH |      |
|   | S848 | ESP0001-023M | TACT SWITCH |      |

Δ : SAFETY PARTS

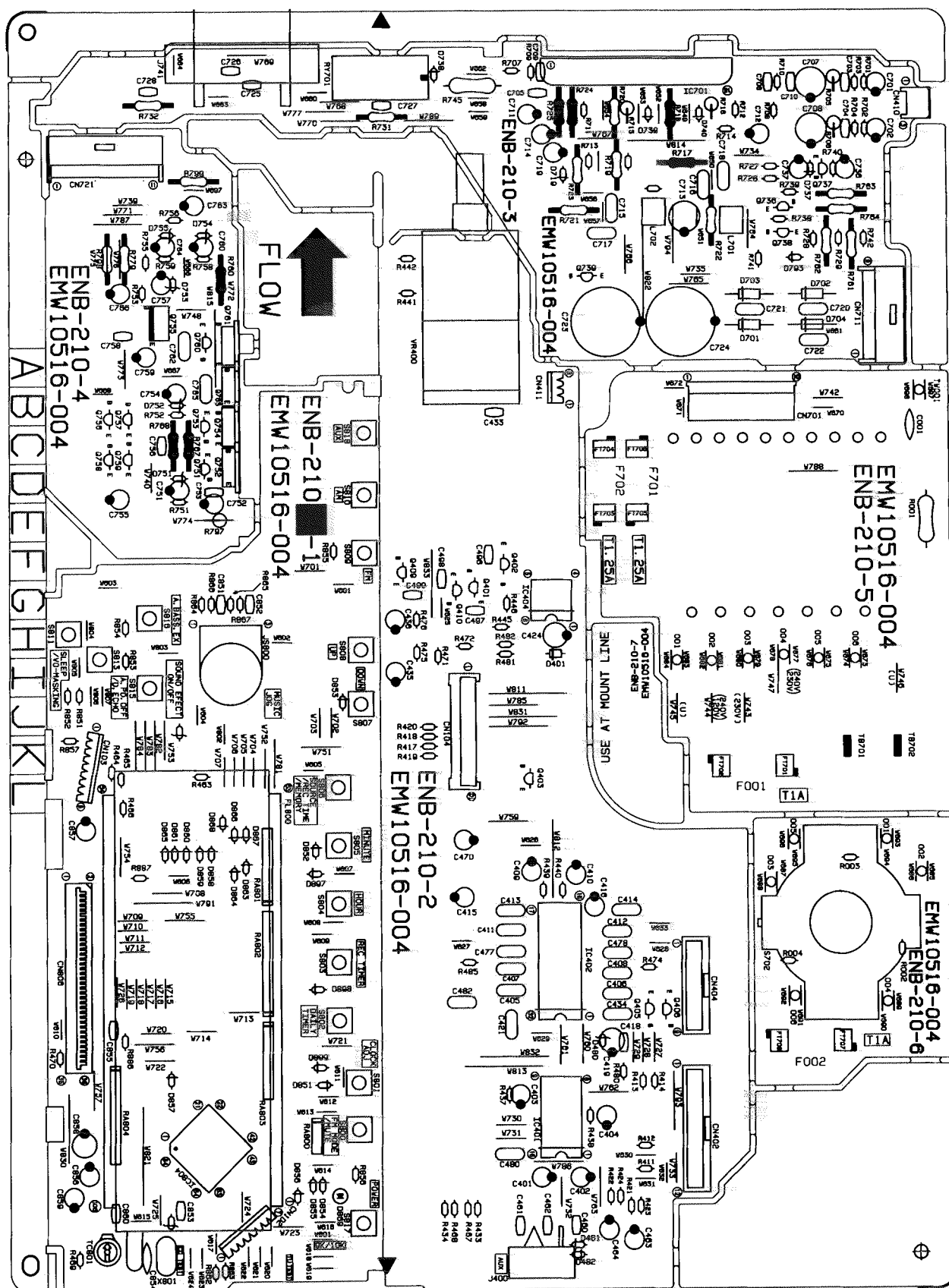
## OTHERS

| Δ | ITEM  | PART NUMBER   | DESCRIPTION | AREA |
|---|-------|---------------|-------------|------|
|   | S849  | ESP0001-023M  | TACT SWITCH |      |
|   | S850  | ESP0001-023M  | TACT SWITCH |      |
|   | S851  | ESP0001-023M  | TACT SWITCH |      |
|   | S852  | ESP0001-023M  | TACT SWITCH |      |
|   | S853  | ESP0001-023M  | TACT SWITCH |      |
|   | BC801 | EW532A-A942J  | SOCKET WIRE |      |
|   | CN101 | VMC0075-008N  | CONNECT TER |      |
|   | CN303 | VMC0314-S08   | CONNECT TER |      |
|   | CN304 | VMC0314-S16   | CONNECT TER |      |
|   | CN401 | EMV5163-012R  | CONNECT TER |      |
|   | CN403 | EMV5163-009R  | CONNECT TER |      |
|   | CN504 | VMC0161-R07   | CONNECT TER |      |
|   | CN602 | VMC0161-R09   | CONNECT TER |      |
|   | CN712 | EMV7163-009   | CONNECT TER |      |
|   | CN722 | EMV7163-011   | CONNECT TER |      |
|   | CN803 | VMC0161-R16   | CONNECT TER |      |
|   | CN804 | EMV5142-910   | CONNECT TER |      |
|   | CN805 | EMV7160-036   | CONNECT TER |      |
|   | CN851 | VMC0161-R29   | CONNECT TER |      |
|   | CN852 | VMC0161-R29   | CONNECT TER |      |
|   | CN921 | VMC0234-P11   | CONNECT TER |      |
|   | CN922 | VMC0234-P14   | CONNECT TER |      |
|   | CN923 | VMC0234-P08   | CONNECT TER |      |
|   | CN924 | VMC0234-P08   | CONNECT TER |      |
| Δ | CP701 | ICP-N15       | I.C.PROTECT | A    |
| Δ | CP701 | ICP-N15       | I.C.PROTECT | BS   |
| Δ | CP701 | ICP-N15       | I.C.PROTECT | C    |
| Δ | CP701 | ICP-N15       | I.C.PROTECT | EF   |
| Δ | CP701 | ICP-N15       | I.C.PROTECT | EN   |
| Δ | CP701 | ICP-N15       | I.C.PROTECT | G    |
| Δ | CP701 | ICP-N15       | I.C.PROTECT | GI   |
| Δ | CP701 | ICP-N15       | I.C.PROTECT | U    |
| Δ | CP701 | ICP-N15       | I.C.PROTECT | US   |
| Δ | CP701 | ICP-N15       | I.C.PROTECT | UT   |
| Δ | CP701 | ICP-N15       | I.C.PROTECT | VX   |
|   | EP701 | E70225-003SS  | EARTH PLATE |      |
|   | FW701 | EW338-20LST   | FLAT WIRE A |      |
|   | FW801 | EW338-08SST   | FLAT WIRE A |      |
|   | FW802 | EW338-08SST   | FLAT WIRE A |      |
|   | TW701 | QWE880-20RR   | VINYL WIRE  | BS   |
|   | TW701 | QWE880-20RR   | VINYL WIRE  | EF   |
|   | TW701 | QWE880-20RR   | VINYL WIRE  | EN   |
|   | TW701 | QWE880-20RR   | VINYL WIRE  | G    |
|   | TW701 | QWE880-20RR   | VINYL WIRE  | GI   |
|   | TW701 | QWE880-20RR   | VINYL WIRE  | VX   |
|   | TW702 | QWE881-17RR   | PIN WIRE    | BS   |
|   | TW702 | QWE881-17RR   | PIN WIRE    | EF   |
|   | TW702 | QWE881-17RR   | PIN WIRE    | EN   |
|   | TW702 | QWE881-17RR   | PIN WIRE    | G    |
|   | TW702 | QWE881-17RR   | PIN WIRE    | GI   |
|   | TW702 | QWE881-17RR   | PIN WIRE    | VX   |
|   | TW812 | EW7011-045    | TERMINAL WI |      |
|   | TW813 | EW7011-045    | TERMINAL WI | BS   |
|   | TW813 | EW7011-045    | TERMINAL WI | EF   |
|   | TW813 | EW7011-045    | TERMINAL WI | EN   |
|   | TW813 | EW7011-045    | TERMINAL WI | G    |
|   | TW813 | EW7011-045    | TERMINAL WI | GI   |
|   | TW813 | EW7011-045    | TERMINAL WI | VX   |
|   | XT901 | ECX0004-194KM | CERAMIC RES |      |
|   | X1021 | ECX0000-400KS | CERAMIC RES | U    |
|   | X1021 | ECX0000-400KS | CERAMIC RES | US   |
|   | X1021 | ECX0000-400KS | CERAMIC RES | UT   |

Δ : SAFETY PARTS

■ ENB-210 □ Tuner / CD Control, FL Display & Power Supply PC Board Ass'y

Note : ENB-210 □ varies according to the areas employed. See note (4) when placing an order.



### Note(4)

| PC Board Ass'y | Designated Areas                                |
|----------------|-------------------------------------------------|
| ENB-210 A      | U.S.A.,Canada                                   |
| ENB-210 B      | Singapore,Taiwan,<br>Other Countries            |
| ENB-210 C      | Scandinavia,Germany,Italy<br>Continental Europe |
| ENB-210 D      | Eastern Europe                                  |
| ENB-210 E      | Austraria                                       |
| ENB-210 F      | the U.K.                                        |

## TRANSISTORS

| △ | ITEM | PART NUMBER   | D E S C R I P T I O N  | AREA |
|---|------|---------------|------------------------|------|
|   | Q401 | 2SD2144S(VW)  | SI.TRANSIST ROHM       |      |
|   | Q402 | 2SD2144S(VW)  | SI.TRANSIST ROHM       |      |
|   | Q403 | DTA144ES      | DIGITAL TRA ROHM       |      |
|   | Q405 | DTC144ES      | DIGITAL TRA ROHM       |      |
|   | Q406 | DTC144ES      | DIGITAL TRA ROHM       |      |
|   | Q409 | 2SD2144S(VW)  | SI.TRANSIST ROHM       |      |
|   | Q410 | 2SD2144S(VW)  | SI.TRANSIST ROHM       |      |
|   | Q736 | 2SC3311A(Q,R) | SI.TRANSIST MATSUSHITA |      |
|   | Q737 | 2SC3311A(Q,R) | SI.TRANSIST MATSUSHITA |      |
|   | Q738 | 2SA933S(RS)   | SI.TRANSIST            |      |
|   | Q739 | 2SC3311A(Q,R) | SI.TRANSIST MATSUSHITA |      |
|   | Q751 | 2SC3311A(Q,R) | SI.TRANSIST MATSUSHITA |      |
|   | Q752 | 2SD2061(F,G)  | SI.TRANSIST ROHM       |      |
|   | Q753 | 2SC3311A(Q,R) | SI.TRANSIST MATSUSHITA |      |
|   | Q754 | 2SD2061(F,G)  | SI.TRANSIST ROHM       |      |
|   | Q755 | 2SD2037(E,F)  | SI.TRANSIST ROHM       |      |
|   | Q756 | DTC144ES      | DIGITAL TRA ROHM       |      |
|   | Q757 | DTA144ES      | DIGITAL TRA ROHM       |      |
|   | Q758 | DTA144ES      | DIGITAL TRA ROHM       |      |
|   | Q759 | DTC144ES      | DIGITAL TRA ROHM       |      |
|   | Q760 | 2SC3311A(Q,R) | SI.TRANSIST MATSUSHITA |      |
|   | Q761 | 2SD2061(F,G)  | SI.TRANSIST ROHM       |      |
|   | Q763 | 2SB1187(F,G)  | SI.TRANSIST ROHM       |      |

## Δ SAFETY PARTS

**I.C.S**

| △ | ITEM  | PART NUMBER  | D E S C R I P T I O N   | AREA |
|---|-------|--------------|-------------------------|------|
|   | IC401 | TC4052BP     | I.C.(DIGI-MO TOSHIBA    |      |
|   | IC402 | M62417SP     | I.C.(M) MITSUBISHI      |      |
|   | IC404 | LB1639-CV    | I.C.(DIGI-OT SANYO      |      |
|   | IC701 | STK4141MK5   | I.C.(HYBRID) SANYO      |      |
|   | IC804 | MN172412JS21 | I.C.(MICRO-C MATSUSHITA |      |

SAFETY PARTS

## DIODES

| △ | ITEM | PART NUMBER | DESCRIPTION      | AREA |
|---|------|-------------|------------------|------|
|   | D401 | 1SR35-100   | SI.DIODE ROHM    |      |
|   | D480 | MTZ5.1JB    | ZENER DIODE ROHM |      |
|   | D481 | 1SS119      | SI.DIODE         |      |
|   | D482 | 1SS119      | SI.DIODE         |      |
| △ | D701 | 10E2-FD     | DIODE NIHONINTER |      |
| △ | D702 | 10E2-FD     | DIODE NIHONINTER |      |
| △ | D703 | 10E2-FD     | DIODE NIHONINTER |      |
| △ | D704 | 10E2-FD     | DIODE NIHONINTER |      |
|   | D719 | 1SS119      | SI.DIODE         |      |
|   | D737 | 1SS119      | SI.DIODE         |      |
|   | D738 | 1SS119      | SI.DIODE         |      |
|   | D739 | 1SS119      | SI.DIODE         |      |
|   | D740 | 1SS119      | SI.DIODE         |      |
|   | D751 | MTZ11JC     | ZENER DIODE ROHM |      |
|   | D752 | MTZ6.8JC    | ZENER DIODE ROHM |      |
|   | D753 | MTZ13JA     | ZENER DIODE ROHM |      |
|   | D754 | MTZ9.1JB    | ZENER DIODE ROHM |      |
|   | D755 | MTZ8.2JC    | ZENER DIODE ROHM |      |
|   | D793 | 1SS119      | SI.DIODE         |      |
|   | D851 | 1SS119      | SI.DIODE         |      |

**A SAFETY PARTS**

## DIODES

| △ | ITEM | PART NUMBER | DESCRIPTION | AREA |
|---|------|-------------|-------------|------|
|   | D852 | 1SS119      | SI.DIODE    |      |
|   | D853 | 1SS119      | SI.DIODE    |      |
|   | D854 | 1SS119      | SI.DIODE    | A    |
|   | D854 | 1SS119      | SI.DIODE    | BS   |
|   | D854 | 1SS119      | SI.DIODE    | C    |
|   | D854 | 1SS119      | SI.DIODE    | EF   |
|   | D854 | 1SS119      | SI.DIODE    | EN   |
|   | D854 | 1SS119      | SI.DIODE    | G    |
|   | D854 | 1SS119      | SI.DIODE    | GI   |
|   | D854 | 1SS119      | SI.DIODE    | J    |
|   | D855 | 1SS119      | SI.DIODE    | A    |
|   | D855 | 1SS119      | SI.DIODE    | BS   |
|   | D855 | 1SS119      | SI.DIODE    | EF   |
|   | D855 | 1SS119      | SI.DIODE    | EN   |
|   | D855 | 1SS119      | SI.DIODE    | G    |
|   | D855 | 1SS119      | SI.DIODE    | GI   |
|   | D855 | 1SS119      | SI.DIODE    | U    |
|   | D855 | 1SS119      | SI.DIODE    | US   |
|   | D855 | 1SS119      | SI.DIODE    | UT   |
|   | D856 | 1SS119      | SI.DIODE    | BS   |
|   | D856 | 1SS119      | SI.DIODE    | C    |
|   | D856 | 1SS119      | SI.DIODE    | EF   |
|   | D856 | 1SS119      | SI.DIODE    | EN   |
|   | D856 | 1SS119      | SI.DIODE    | G    |
|   | D856 | 1SS119      | SI.DIODE    | GI   |
|   | D856 | 1SS119      | SI.DIODE    | J    |
|   | D856 | 1SS119      | SI.DIODE    | VX   |
|   | D857 | 1SS119      | SI.DIODE    |      |
|   | D858 | 1SS119      | SI.DIODE    |      |
|   | D859 | 1SS119      | SI.DIODE    |      |
|   | D860 | 1SS119      | SI.DIODE    |      |
|   | D861 | 1SS119      | SI.DIODE    |      |
|   | D863 | 1SS119      | SI.DIODE    |      |
|   | D864 | 1SS119      | SI.DIODE    |      |
|   | D865 | 1SS119      | SI.DIODE    |      |
|   | D866 | 1SS119      | SI.DIODE    | BS   |
|   | D867 | 1SS119      | SI.DIODE    | A    |
|   | D868 | 1SS119      | SI.DIODE    | C    |
|   | D869 | SLA-380LT   | L.E.D. ROHM | EF   |
|   | D869 | SLR-342VC3F | L.E.D. ROHM | EN   |
|   | D869 | SLR-342VC3F | L.E.D. ROHM | G    |
|   | D869 | SLR-342VC3F | L.E.D. ROHM | GI   |
|   | D869 | SLR-342VC3F | L.E.D. ROHM | J    |
|   | D869 | SLR-342VC3F | L.E.D. ROHM | U    |
|   | D869 | SLR-342VC3F | L.E.D. ROHM | US   |
|   | D869 | SLR-342VC3F | L.E.D. ROHM | UT   |
|   | D869 | SLR-342VC3F | L.E.D. ROHM | VX   |
|   | D897 | 1SS119      | SI.DIODE    |      |
|   | D898 | 1SS119      | SI.DIODE    |      |
|   | D899 | 1SS119      | SI.DIODE    |      |

A SAFETY PARTS

## CAPACITORS

| Δ | ITEM | PART NUMBER   | DESCRIPTION |     |            | AREA |
|---|------|---------------|-------------|-----|------------|------|
|   | C001 | QCF21HP-223A  | 0.022MF     | 50V | CER.CAPACI | BS   |
|   | C001 | QCF21HP-223A  | 0.022MF     | 50V | CER.CAPACI | EF   |
|   | C001 | QCF21HP-223A  | 0.022MF     | 50V | CER.CAPACI | EN   |
|   | C001 | QCF21HP-223A  | 0.022MF     | 50V | CER.CAPACI | G    |
|   | C001 | QCF21HP-223A  | 0.022MF     | 50V | CER.CAPACI | GI   |
|   | C001 | QCF21HP-223A  | 0.022MF     | 50V | CER.CAPACI | VX   |
|   | C401 | QETB1CM-476   | 47MF        | 16V | AL E.CAPAC |      |
|   | C402 | QETB1CM-476   | 47MF        | 16V | AL E.CAPAC |      |
|   | C403 | QETB1HM-106   | 10MF        | 50V | E.CAPACITO |      |
|   | C404 | QETB1HM-106   | 10MF        | 50V | E.CAPACITO |      |
|   | C405 | QFV71HJ-683ZM | 0.068MF     | 50V | THIN FILM  |      |
|   | C406 | QFV71HJ-683ZM | 0.068MF     | 50V | THIN FILM  |      |
|   | C407 | QFV71HJ-184ZM | 0.18MF      | 50V | CAPACITOR  |      |
|   | C408 | QFV71HJ-184ZM | 0.18MF      | 50V | CAPACITOR  |      |
|   | C409 | QETB1HM-106   | 10MF        | 50V | E.CAPACITO |      |
|   | C410 | QETB1HM-106   | 10MF        | 50V | E.CAPACITO |      |
|   | C411 | QFV71HJ-474ZM | 0.47MF      | 50V | THIN FILM  |      |
|   | C412 | QFV71HJ-474ZM | 0.47MF      | 50V | THIN FILM  |      |
|   | C413 | QFV71HJ-683ZM | 0.068MF     | 50V | THIN FILM  |      |
|   | C414 | QFV71HJ-683ZM | 0.068MF     | 50V | THIN FILM  |      |
|   | C415 | QETB1HM-105   | 1MF         | 50V | AL E.CAPAC |      |
|   | C416 | QETB1HM-105   | 1MF         | 50V | AL E.CAPAC |      |
|   | C418 | QCBBIHK-561V  | 560PF       | 50V | CER.CAPACI |      |
|   | C419 | QETB1AM-107   | 100MF       | 10V | AL E.CAPAC |      |
|   | C421 | QFV81HJ-103   | 0.01MF      | 50V | THIN FILM  |      |
|   | C424 | QETB1AM-107   | 100MF       | 10V | AL E.CAPAC |      |
|   | C433 | QCVB1CM-103Y  | 0.01MF      | 16V | CER.CAPACI |      |
|   | C434 | QFV81HJ-104   | 0.1MF       | 50V | THIN FILM  |      |
|   | C435 | QETB1HM-474   | 0.47MF      | 50V | ELECTRO    |      |
|   | C436 | QETB1HM-474   | 0.47MF      | 50V | ELECTRO    |      |
|   | C460 | QCHB1EZ-223   | 0.022MF     | 25V | CER.CAPACI |      |
|   | C461 | QCSB1HK-471V  | 470PF       | 50V | CER.CAPACI | BS   |
|   | C461 | QCSB1HK-471V  | 470PF       | 50V | CER.CAPACI | EF   |

SAFETY PARTS

## CAPACITORS

| Δ | ITEM | PART NUMBER  | DESCRIPTION |      |            |    | AREA |
|---|------|--------------|-------------|------|------------|----|------|
|   | C461 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI |    | EN   |
|   | C461 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | G  |      |
|   | C461 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | GI |      |
|   | C461 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | U  |      |
|   | C461 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | US |      |
|   | C461 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | UT |      |
|   | C461 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | VX |      |
|   | C462 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | BS |      |
|   | C462 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | EF |      |
|   | C462 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | EN |      |
|   | C462 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | G  |      |
|   | C462 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | GI |      |
|   | C462 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | U  |      |
|   | C462 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | US |      |
|   | C462 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | UT |      |
|   | C462 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | VX |      |
|   | C463 | QETB1CM-226  | 22MF        | 16V  | E.CAPACITO |    |      |
|   | C464 | QETB1CM-226  | 22MF        | 16V  | E.CAPACITO |    |      |
|   | C470 | QETB1HM-105  | 1MF         | 50V  | AL E.CAPAC |    |      |
|   | C477 | QFN31HJ-332Z | 3300PF      | 50V  | MYLAR CAPA |    |      |
|   | C478 | QFN31HJ-332Z | 3300PF      | 50V  | MYLAR CAPA |    |      |
|   | C480 | QFN81HJ-103  | 0.01MF      | 50V  | METAL.MYLA |    |      |
|   | C482 | QFN81HJ-103  | 0.01MF      | 50V  | METAL.MYLA |    |      |
|   | C496 | QCBB1HK-102Y | 1000PF      | 50V  | CER.CAPACI |    |      |
|   | C497 | QCBB1HK-102Y | 1000PF      | 50V  | CER.CAPACI |    |      |
|   | C498 | QCBB1HK-102Y | 1000PF      | 50V  | CER.CAPACI |    |      |
|   | C499 | QCBB1HK-102Y | 1000PF      | 50V  | CER.CAPACI |    |      |
|   | C701 | QETB1HM-106  | 10MF        | 50V  | E.CAPACITO |    |      |
|   | C702 | QETB1HM-106  | 10MF        | 50V  | E.CAPACITO |    |      |
|   | C703 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | C  |      |
|   | C703 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | J  |      |
|   | C703 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | U  |      |
|   | C703 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | US |      |
|   | C703 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | UT |      |
|   | C704 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | C  |      |
|   | C704 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | J  |      |
|   | C704 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | U  |      |
|   | C704 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | US |      |
|   | C704 | QCBB1HK-471Y | 470PF       | 50V  | CER.CAPACI | UT |      |
|   | C705 | QCBB1HK-221Y | 220PF       | 50V  | CER.CAPACI |    |      |
|   | C706 | QCBB1HK-221Y | 220PF       | 50V  | CER.CAPACI |    |      |
|   | C707 | QETB1EM-476  | 47MF        | 25V  | AL E.CAPAC |    |      |
|   | C708 | QETB1EM-476  | 47MF        | 25V  | AL E.CAPAC |    |      |
|   | C709 | QCSB1HJ-100Y | 10PF        | 50V  | CER.CAPACI |    |      |
|   | C710 | QCSB1HJ-100Y | 10PF        | 50V  | CER.CAPACI |    |      |
|   | C711 | QETB1HM-226E | 22MF        | 50V  | E.CAPACITO |    |      |
|   | C712 | QETB1HM-226E | 22MF        | 50V  | E.CAPACITO |    |      |
|   | C713 | QETB1HM-107  | 100MF       | 50V  | E.CAPACITO |    |      |
|   | C714 | QETB1HM-106  | 10MF        | 50V  | E.CAPACITO |    |      |
|   | C715 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA | A  |      |
|   | C715 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA | BS |      |
|   | C715 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA | EF |      |
|   | C715 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA | EN |      |
|   | C715 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA | G  |      |
|   | C715 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA | GI |      |
|   | C715 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA | U  |      |
|   | C715 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA | US |      |
|   | C715 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA | UT |      |
|   | C715 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA | VX |      |
|   | C716 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA | A  |      |
|   | C716 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA | BS |      |
|   | C716 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA | EF |      |
|   | C716 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA | EN |      |
|   | C716 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA | G  |      |
|   | C716 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA | GI |      |
|   | C716 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA | U  |      |
|   | C716 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA | US |      |
|   | C716 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA | UT |      |
|   | C716 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA | VX |      |
|   | C717 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA |    |      |
|   | C718 | QFN81HJ-104  | 0.1MF       | 50V  | METAL.MYLA |    |      |
|   | C719 | QETB1HM-106  | 10MF        | 50V  | E.CAPACITO |    |      |
|   | C720 | QFN82AJ-103  | 0.01MF      | 100V | MYLAR CAPA | C  |      |
|   | C720 | QFN82AJ-103  | 0.01MF      | 100V | MYLAR CAPA | J  |      |
|   | C720 | QFN82AJ-103  | 0.01MF      | 100V | MYLAR CAPA | U  |      |
|   | C720 | QFN82AJ-103  | 0.01MF      | 100V | MYLAR CAPA | US |      |
|   | C720 | QFN82AJ-103  | 0.01MF      | 100V | MYLAR CAPA | UT |      |
|   | C720 | QFN82AJ-104  | 0.1MF       | 100V | THIN FILM  | A  |      |
|   | C720 | QFN82AJ-104  | 0.1MF       | 100V | THIN FILM  | BS |      |
|   | C720 | QFN82AJ-104  | 0.1MF       | 100V | THIN FILM  | EF |      |
|   | C720 | QFN82AJ-104  | 0.1MF       | 100V | THIN FILM  | EN |      |
|   | C720 | QFN82AJ-104  | 0.1MF       | 100V | THIN FILM  | G  |      |
|   | C720 | QFN82AJ-104  | 0.1MF       | 100V | THIN FILM  | GI |      |
|   | C720 | QFN82AJ-104  | 0.1MF       | 100V | THIN FILM  | VX |      |
|   | C721 | QFN82AJ-103  | 0.01MF      | 100V | MYLAR CAPA | C  |      |
|   | C721 | QFN82AJ-103  | 0.01MF      | 100V | MYLAR CAPA | J  |      |
|   | C721 | QFN82AJ-103  | 0.01MF      | 100V | MYLAR CAPA | U  |      |
|   | C721 | QFN82AJ-103  | 0.01MF      | 100V | MYLAR CAPA | US |      |
|   | C721 | QFN82AJ-103  | 0.01MF      | 100V | MYLAR CAPA | UT |      |
|   | C721 | QFN82AJ-104  | 0.1MF       | 100V | THIN FILM  | A  |      |
|   | C721 | QFN82AJ-104  | 0.1MF       | 100V | THIN FILM  | BS |      |
|   | C721 | QFN82AJ-104  | 0.1MF       | 100V | THIN FILM  | EF |      |
|   | C721 | QFN82AJ-104  | 0.1MF       | 100V | THIN FILM  | EN |      |
|   | C721 | QFN82AJ-104  | 0.1MF       | 100V | THIN FILM  | G  |      |

Δ SAFETY PARTS

## CAPACITORS

| Δ  | ITEM | PART NUMBER  | DESCRIPTION |      |            |    | AREA |
|----|------|--------------|-------------|------|------------|----|------|
|    | C721 | QFV82AJ-104  | 0.1MF       | 100V | THIN FILM  | GI |      |
|    | C721 | QFV82AJ-104  | 0.1MF       | 100V | THIN FILM  | VX |      |
|    | C722 | QFN82AJ-103  | 0.01MF      | 100V | MYLAR CAPA | C  |      |
|    | C722 | QFN82AJ-103  | 0.01MF      | 100V | MYLAR CAPA | J  |      |
|    | C722 | QFN82AJ-103  | 0.01MF      | 100V | MYLAR CAPA | U  |      |
|    | C722 | QFN82AJ-103  | 0.01MF      | 100V | MYLAR CAPA | US |      |
|    | C722 | QFV82AJ-104  | 0.01MF      | 100V | MYLAR CAPA | UT |      |
|    | C722 | QFV82AJ-104  | 0.1MF       | 100V | THIN FILM  | A  |      |
|    | C722 | QFV82AJ-104  | 0.1MF       | 100V | THIN FILM  | BS |      |
|    | C722 | QFV82AJ-104  | 0.1MF       | 100V | THIN FILM  | EF |      |
|    | C722 | QFV82AJ-104  | 0.1MF       | 100V | THIN FILM  | EN |      |
|    | C722 | QFV82AJ-104  | 0.1MF       | 100V | THIN FILM  | G  |      |
|    | C722 | QFV82AJ-104  | 0.1MF       | 100V | THIN FILM  | GI |      |
|    | C722 | QFV82AJ-104  | 0.1MF       | 100V | THIN FILM  | VX |      |
|    | C723 | EET4202-228E | 2200MF      |      | E.CAPACITO | A  |      |
|    | C723 | EET4202-228E | 2200MF      |      | E.CAPACITO | BS |      |
|    | C723 | EET4202-228E | 2200MF      |      | E.CAPACITO | EF |      |
|    | C723 | EET4202-228E | 2200MF      |      | E.CAPACITO | EN |      |
|    | C723 | EET4202-228E | 2200MF      |      | E.CAPACITO | G  |      |
|    | C723 | EET4202-228E | 2200MF      |      | E.CAPACITO | GI |      |
|    | C723 | EET4202-228E | 2200MF      |      | E.CAPACITO | U  |      |
|    | C723 | EET4202-228E | 2200MF      |      | E.CAPACITO | US |      |
|    | C723 | EET4202-228E | 2200MF      |      | E.CAPACITO | UT |      |
|    | C723 | EET4202-228E | 2200MF      |      | E.CAPACITO | VX |      |
|    | C723 | EET4202-338E | 3300MF      |      | E.CAPACITO | C  |      |
|    | C723 | EET4202-338E | 3300MF      |      | E.CAPACITO | J  |      |
|    | C724 | EET4202-228E | 2200MF      |      | E.CAPACITO | A  |      |
|    | C724 | EET4202-228E | 2200MF      |      | E.CAPACITO | BS |      |
|    | C724 | EET4202-228E | 2200MF      |      | E.CAPACITO | EF |      |
|    | C724 | EET4202-228E | 2200MF      |      | E.CAPACITO | EN |      |
|    | C724 | EET4202-228E | 2200MF      |      | E.CAPACITO | G  |      |
|    | C724 | EET4202-228E | 2200MF      |      | E.CAPACITO | GI |      |
|    | C724 | EET4202-228E | 2200MF      |      | E.CAPACITO | U  |      |
|    | C724 | EET4202-228E | 2200MF      |      | E.CAPACITO | US |      |
|    | C724 | EET4202-228E | 2200MF      |      | E.CAPACITO | UT |      |
|    | C724 | EET4202-228E | 2200MF      |      | E.CAPACITO | VX |      |
|    | C724 | EET4202-338E | 3300MF      |      | E.CAPACITO | C  |      |
|    | C724 | EET4202-338E | 3300MF      |      | E.CAPACITO | J  |      |
|    | C725 | QCXB1CM-222Y | 2200PF      | 16V  | CER.CAPACI | A  |      |
|    | C725 | QCXB1CM-222Y | 2200PF      | 16V  | CER.CAPACI | BS |      |
|    | C725 | QCXB1CM-222Y | 2200PF      | 16V  | CER.CAPACI | EF |      |
|    | C725 | QCXB1CM-222Y | 2200PF      | 16V  | CER.CAPACI | EN |      |
|    | C725 | QCXB1CM-222Y | 2200PF      | 16V  | CER.CAPACI | G  |      |
|    | C725 | QCXB1CM-222Y | 2200PF      | 16V  | CER.CAPACI | GI |      |
|    | C725 | QCXB1CM-222Y | 2200PF      | 16V  | CER.CAPACI | VX |      |
|    | C726 | QCXB1CM-222Y | 2200PF      | 16V  | CER.CAPACI | A  |      |
|    | C726 | QCXB1CM-222Y | 2200PF      | 16V  | CER.CAPACI | BS |      |
|    | C726 | QCXB1CM-222Y | 2200PF      | 16V  | CER.CAPACI | EF |      |
|    | C726 | QCXB1CM-222Y | 2200PF      | 16V  | CER.CAPACI | EN |      |
|    | C726 | QCXB1CM-222Y | 2200PF      | 16V  | CER.CAPACI | G  |      |
|    | C726 | QCXB1CM-222Y | 2200PF      | 16V  | CER.CAPACI | GI |      |
|    | C726 | QCXB1CM-222Y | 2200PF      | 16V  | CER.CAPACI | VX |      |
|    | C727 | QCHB1EZ-223  | 0.022MF     | 25V  | CER.CAPACI | A  |      |
|    | C727 | QCHB1EZ-223  | 0.022MF     | 25V  | CER.CAPACI | BS |      |
|    | C727 | QCHB1EZ-223  | 0.022MF     | 25V  | CER.CAPACI | EF |      |
|    | C727 | QCHB1EZ-223  | 0.022MF     | 25V  | CER.CAPACI | EN |      |
|    | C727 | QCHB1EZ-223  | 0.022MF     | 25V  | CER.CAPACI | G  |      |
|    | C727 | QCHB1EZ-223  | 0.022MF     | 25V  | CER.CAPACI | GI |      |
|    | C727 | QCHB1EZ-223  | 0.022MF     | 25V  | CER.CAPACI | VX |      |
|    | C728 | QCHB1EZ-223  | 0.022MF     | 25V  | CER.CAPACI | A  |      |
|    | C728 | QCHB1EZ-223  | 0.022MF     | 25V  | CER.CAPACI | BS |      |
|    | C728 | QCHB1EZ-223  | 0.022MF     | 25V  | CER.CAPACI | EF |      |
|    | C728 | QCHB1EZ-223  | 0.022MF     | 25V  | CER.CAPACI | EN |      |
|    | C728 | QCHB1EZ-223  | 0.022MF     | 25V  | CER.CAPACI | G  |      |
|    | C728 | QCHB1EZ-223  | 0.022MF     | 25V  | CER.CAPACI | GI |      |
|    | C728 | QCHB1EZ-223  | 0.022MF     | 25V  | CER.CAPACI | VX |      |
|    | C736 | QETB1CM-476  | 47MF        | 16V  | AL E.CAPAC |    |      |
|    | C737 | QETB1CM-226  | 22MF        | 16V  | E.CAPACITO |    |      |
|    | C751 | QETB1CM-226  | 22MF        | 16V  | E.CAPACITO |    |      |
|    | C752 | QETB1CM-226  | 22MF        | 16V  | E.CAPACITO |    |      |
|    | C753 | QCVB1CM-103Y | 0.01MF      | 16V  | CER.CAPACI |    |      |
|    | C754 | QETB1CM-226  | 22MF        | 16V  | E.CAPACITO |    |      |
|    | C755 | QETB1CM-226  | 22MF        | 16V  | E.CAPACITO |    |      |
|    | C756 | QCVB1CM-103Y | 0.01MF      | 16V  | CER.CAPACI |    |      |
|    | C757 | QETB1CM-226  | 22MF        | 16V  | E.CAPACITO |    |      |
|    | C758 | QCVB1CM-103Y | 0.01MF      | 16V  | CER.CAPACI |    |      |
|    | C759 | QETB1CM-226  | 22MF        | 16V  | E.CAPACITO |    |      |
|    | C760 | QETB1CM-226  | 22MF        | 16V  | E.CAPACITO |    |      |
|    | C762 | QFN81HJ-103  | 0.01MF      | 50V  | METAL.MYLA |    |      |
|    | C763 | QETB1CM-226  | 22MF        | 16V  | E.CAPACITO |    |      |
|    | C764 | QETB1CM-226  | 22MF        | 16V  | E.CAPACITO |    |      |
|    | C765 | QFN81HJ-103  | 0.01MF      | 50V  | METAL.MYLA |    |      |
|    | C766 | QETB1CM-226  | 22MF        | 16V  | E.CAPACITO |    |      |
|    | C851 | QCHB1EZ-223  | 0.022MF     | 25V  | CER.CAPACI |    |      |
|    | C852 | QCHB1EZ-223  | 0.022MF     | 25V  | CER.CAPACI |    |      |
|    | C853 | QCFB1HZ-104Y | 0.1MF       | 50V  | CER.CAPACI |    |      |
|    | C854 | QCT26CH-330  | 33PF        | 50V  | CER.CAPACI |    |      |
|    | C855 | QCVB1CM-103Y | 0.01MF      | 16V  | CER.CAPACI |    |      |
|    | C856 | QETB1HM-475E | 4.7MF       | 50V  | E.CAPACITO |    |      |
|    | C857 | QETB1HM-475E | 4.7MF       | 50V  | E.CAPACITO |    |      |
|    | C858 | QETB1HM-475E | 47MF        | 50V  | E.CAPACITO |    |      |
|    | C859 | QETB1AM-107  | 100MF       | 10V  | AL E.CAPAC |    |      |
|    | C860 | QCVB1CM-103Y | 0.01MF      | 16V  | CER.CAPACI |    |      |
| TC | 801  | ENZ1003-015  | 0.1MF       |      | TRIMMER CA |    |      |



## RESISTORS

| ▲ | ITEM | PART NUMBER   | DESCRIPTION |      |             | AREA |
|---|------|---------------|-------------|------|-------------|------|
| ▲ | R001 | QRC128K-275EM | 2.7M        | 1/2W | COMPOSITIO  | C    |
| ▲ | R001 | QRC128K-275EM | 2.7M        | 1/2W | COMPOSITIO  | J    |
|   | R002 | QRD161J-104   | 100K        | 1/6W | CARBON RES  | U    |
|   | R002 | QRD161J-104   | 100K        | 1/6W | CARBON RES  | US   |
|   | R002 | QRD161J-104   | 100K        | 1/6W | CARBON RES  | UT   |
|   | R003 | QRD161J-104   | 100K        | 1/6W | CARBON RES  | U    |
|   | R003 | QRD161J-104   | 100K        | 1/6W | CARBON RES  | US   |
|   | R003 | QRD161J-104   | 100K        | 1/6W | CARBON RES  | UT   |
|   | R004 | QRD161J-104   | 100K        | 1/6W | CARBON RES  | U    |
|   | R004 | QRD161J-104   | 100K        | 1/6W | CARBON RES  | US   |
|   | R004 | QRD161J-104   | 100K        | 1/6W | CARBON RES  | UT   |
|   | R411 | QRD167J-272   | 2.7K        | 1/6W | CARBON RES  |      |
|   | R412 | QRD167J-272   | 2.7K        | 1/6W | CARBON RES  |      |
|   | R413 | QRD161J-103   | 10K         | 1/6W | CARBON RES  |      |
|   | R414 | QRD161J-103   | 10K         | 1/6W | CARBON RES  |      |
|   | R417 | QRD161J-122   | 1.2K        | 1/6W | CARBON RES  |      |
|   | R418 | QRD161J-122   | 1.2K        | 1/6W | CARBON RES  |      |
|   | R419 | QRD161J-222   | 2.2K        | 1/6W | CARBON RES  |      |
|   | R420 | QRD161J-222   | 2.2K        | 1/6W | CARBON RES  |      |
|   | R421 | QRD167J-272   | 2.7K        | 1/6W | CARBON RES  |      |
|   | R422 | QRD167J-272   | 2.7K        | 1/6W | CARBON RES  |      |
|   | R423 | QRD167J-682   | 6.8K        | 1/6W | CARBON RES  |      |
|   | R424 | QRD167J-682   | 6.8K        | 1/6W | CARBON RES  |      |
|   | R433 | QRD167J-223   | 22K         | 1/6W | CARBON RES  |      |
|   | R434 | QRD167J-223   | 22K         | 1/6W | CARBON RES  |      |
|   | R437 | QRD161J-104   | 100K        | 1/6W | CARBON RES  |      |
|   | R438 | QRD161J-104   | 100K        | 1/6W | CARBON RES  |      |
|   | R439 | QRD161J-471   | 470         | 1/6W | CARBON RES  |      |
|   | R440 | QRD161J-471   | 470         | 1/6W | CARBON RES  |      |
|   | R441 | QRD161J-203   | 20K         | 1/6W | CARBON RES  |      |
|   | R442 | QRD161J-203   | 20K         | 1/6W | CARBON RES  |      |
|   | R445 | QRD161J-103   | 10K         | 1/6W | CARBON RES  |      |
|   | R446 | QRD161J-103   | 10K         | 1/6W | CARBON RES  |      |
|   | R463 | QRD161J-331   | 330         | 1/6W | CARBON RES  |      |
|   | R464 | QRD161J-331   | 330         | 1/6W | CARBON RES  |      |
|   | R465 | QRD161J-331   | 330         | 1/6W | CARBON RES  |      |
|   | R466 | QRD161J-331   | 330         | 1/6W | CARBON RES  |      |
|   | R467 | QRD161J-473   | 47K         | 1/6W | CARBON RES  |      |
|   | R468 | QRD161J-473   | 47K         | 1/6W | CARBON RES  |      |
|   | R469 | QRD161J-103   | 10K         | 1/6W | CARBON RES  |      |
|   | R470 | QRD161J-104   | 100K        | 1/6W | CARBON RES  |      |
|   | R471 | QRD161J-333   | 33K         | 1/6W | CARBON RES  |      |
|   | R472 | QRD161J-333   | 33K         | 1/6W | CARBON RES  |      |
|   | R474 | QRD161J-104   | 100K        | 1/6W | CARBON RES  | U    |
|   | R474 | QRD161J-104   | 100K        | 1/6W | CARBON RES  | US   |
|   | R474 | QRD161J-104   | 100K        | 1/6W | CARBON RES  | UT   |
|   | R475 | QRD167J-682   | 6.8K        | 1/6W | CARBON RES  |      |
|   | R476 | QRD167J-682   | 6.8K        | 1/6W | CARBON RES  |      |
|   | R480 | QRD161J-101   | 100         | 1/6W | CARBON RES  |      |
|   | R481 | QRD161J-103   | 10K         | 1/6W | CARBON RES  |      |
|   | R482 | QRD161J-103   | 10K         | 1/6W | CARBON RES  |      |
|   | R485 | QRD161J-474   | 470K        | 1/6W | CARBON RES  |      |
|   | R701 | QRD161J-102   | 1K          | 1/6W | CARBON RES  |      |
|   | R702 | QRD161J-102   | 1K          | 1/6W | CARBON RES  |      |
|   | R703 | QRD161J-104   | 100K        | 1/6W | CARBON RES  |      |
|   | R704 | QRD161J-104   | 100K        | 1/6W | CARBON RES  |      |
|   | R705 | ERD004J-112Z  | 1.1K        |      | CARBON RES  |      |
|   | R706 | ERD004J-112Z  | 1.1K        |      | CARBON RES  |      |
|   | R707 | QRD161J-112   | 1.1K        | 1/6W | CARBON RES  |      |
|   | R708 | QRD161J-112   | 1.1K        | 1/6W | CARBON RES  |      |
|   | R709 | QRD161J-104   | 100K        | 1/6W | CARBON RES  |      |
|   | R710 | QRD161J-104   | 100K        | 1/6W | CARBON RES  |      |
|   | R711 | QRD161J-242   | 2.4K        | 1/6W | CARBON RES  |      |
|   | R712 | QRD161J-242   | 2.4K        | 1/6W | CARBON RES  |      |
|   | R713 | QRD161J-242   | 2.4K        | 1/6W | CARBON RES  |      |
|   | R714 | QRD161J-242   | 2.4K        | 1/6W | CARBON RES  |      |
| ▲ | R715 | QRX014J-R22   | 0.22        | 1W   | METAL FILM  |      |
| ▲ | R716 | QRX014J-R22   | 0.22        | 1W   | METAL FILM  |      |
| ▲ | R717 | QRD14CJ-101S  | 100         | 1/4W | UNF. CARBON | C    |
| ▲ | R717 | QRD14CJ-101S  | 100         | 1/4W | UNF. CARBON | J    |
| ▲ | R717 | QRZ0077-101   | 100         | 1/4W | FUSIBLE RE  | A    |
| ▲ | R717 | QRZ0077-101   | 100         | 1/4W | FUSIBLE RE  | BS   |
| ▲ | R717 | QRZ0077-101   | 100         | 1/4W | FUSIBLE RE  | EF   |
| ▲ | R717 | QRZ0077-101   | 100         | 1/4W | FUSIBLE RE  | EN   |
| ▲ | R717 | QRZ0077-101   | 100         | 1/4W | FUSIBLE RE  | G    |
| ▲ | R717 | QRZ0077-101   | 100         | 1/4W | FUSIBLE RE  | GI   |
| ▲ | R717 | QRZ0077-101   | 100         | 1/4W | FUSIBLE RE  | U    |
| ▲ | R717 | QRZ0077-101   | 100         | 1/4W | FUSIBLE RE  | US   |
| ▲ | R717 | QRZ0077-101   | 100         | 1/4W | FUSIBLE RE  | UT   |
| ▲ | R717 | QRZ0077-101   | 100         | 1/4W | FUSIBLE RE  | VX   |
| ▲ | R718 | QRD14CJ-100SX | 10          | 1/4W | UNF. CARBON | C    |
| ▲ | R718 | QRD14CJ-100SX | 10          | 1/4W | UNF. CARBON | J    |
| ▲ | R718 | QRZ0077-100   | 10          | 1/4W | FUSIBLE RE  | A    |
| ▲ | R718 | QRZ0077-100   | 10          | 1/4W | FUSIBLE RE  | BS   |
| ▲ | R718 | QRZ0077-100   | 10          | 1/4W | FUSIBLE RE  | EF   |
| ▲ | R718 | QRZ0077-100   | 10          | 1/4W | FUSIBLE RE  | EN   |
| ▲ | R718 | QRZ0077-100   | 10          | 1/4W | FUSIBLE RE  | G    |
| ▲ | R718 | QRZ0077-100   | 10          | 1/4W | FUSIBLE RE  | GI   |
| ▲ | R718 | QRZ0077-100   | 10          | 1/4W | FUSIBLE RE  | U    |
| ▲ | R718 | QRZ0077-100   | 10          | 1/4W | FUSIBLE RE  | US   |
| ▲ | R718 | QRZ0077-100   | 10          | 1/4W | FUSIBLE RE  | UT   |
| ▲ | R718 | QRZ0077-100   | 10          | 1/4W | FUSIBLE RE  | VX   |
| ▲ | R719 | QRD14CJ-222SX | 2.2K        | 1/4W | UNF. CARBON |      |
| ▲ | R720 | QRD14CJ-222SX | 2.2K        | 1/4W | UNF. CARBON |      |

SAFETY PARTS

## RESISTORS

| △ | ITEM | PART NUMBER   | DESCRIPTION |                 | AREA |
|---|------|---------------|-------------|-----------------|------|
| △ | R721 | QRD14CJ-100SX | 10          | 1/4W UNF.CARBON |      |
| △ | R722 | QRD14CJ-100SX | 10          | 1/4W UNF.CARBON |      |
| △ | R723 | QRD14CJ-222SX | 2.2K        | 1/4W UNF.CARBON |      |
| △ | R724 | QRZ0077-100   | 10          | 1/4W FUSIBLE RE |      |
| △ | R725 | QRZ0077-100   | 10          | 1/4W FUSIBLE RE |      |
| △ | R726 | QRD161J-472   | 4.7K        | 1/6W CARBON RES |      |
| △ | R727 | QRD161J-104   | 100K        | 1/6W CARBON RES |      |
| △ | R728 | QRD161J-104   | 100K        | 1/6W CARBON RES |      |
| △ | R729 | QRD161J-823   | 82K         | 1/6W CARBON RES |      |
| △ | R731 | QRD14CJ-4R7S  | 4.7         | 1/4W UNF.CARBON | A    |
| △ | R731 | QRD14CJ-4R7S  | 4.7         | 1/4W UNF.CARBON | BS   |
| △ | R731 | QRD14CJ-4R7S  | 4.7         | 1/4W UNF.CARBON | EF   |
| △ | R731 | QRD14CJ-4R7S  | 4.7         | 1/4W UNF.CARBON | EN   |
| △ | R731 | QRD14CJ-4R7S  | 4.7         | 1/4W UNF.CARBON | G    |
| △ | R731 | QRD14CJ-4R7S  | 4.7         | 1/4W UNF.CARBON | GI   |
| △ | R731 | QRD14CJ-4R7S  | 4.7         | 1/4W UNF.CARBON | VX   |
| △ | R732 | QRD14CJ-4R7S  | 4.7         | 1/4W UNF.CARBON | A    |
| △ | R732 | QRD14CJ-4R7S  | 4.7         | 1/4W UNF.CARBON | BS   |
| △ | R732 | QRD14CJ-4R7S  | 4.7         | 1/4W UNF.CARBON | EF   |
| △ | R732 | QRD14CJ-4R7S  | 4.7         | 1/4W UNF.CARBON | EN   |
| △ | R732 | QRD14CJ-4R7S  | 4.7         | 1/4W UNF.CARBON | G    |
| △ | R732 | QRD14CJ-4R7S  | 4.7         | 1/4W UNF.CARBON | GI   |
| △ | R732 | QRD14CJ-4R7S  | 4.7         | 1/4W UNF.CARBON | VX   |
| △ | R738 | QRD161J-104   | 100K        | 1/6W CARBON RES |      |
| △ | R739 | QRD161J-103   | 10K         | 1/6W CARBON RES |      |
| △ | R740 | QRD161J-104   | 100K        | 1/6W CARBON RES |      |
| △ | R741 | QRD161J-103   | 10K         | 1/6W CARBON RES |      |
| △ | R742 | QRD161J-222   | 2.2K        | 1/6W CARBON RES |      |
| △ | R745 | QRG022J-561A  | 560         | 2W OXIDE META   |      |
| △ | R751 | QRD161J-222   | 2.2K        | 1/6W CARBON RES |      |
| △ | R752 | QRD161J-272   | 2.7K        | 1/6W CARBON RES |      |
| △ | R753 | QRD161J-152   | 1.5K        | 1/6W CARBON RES |      |
| △ | R755 | QRD161J-472   | 4.7K        | 1/6W CARBON RES |      |
| △ | R756 | QRD161J-153   | 15K         | 1/6W CARBON RES |      |
| △ | R758 | QRD161J-242   | 2.4K        | 1/6W CARBON RES |      |
| △ | R759 | QRD161J-242   | 2.4K        | 1/6W CARBON RES |      |
| △ | R760 | QRZ0077-4R7   | 4.7         | 1/4W FUSE RESIS | A    |
| △ | R760 | QRZ0077-4R7   | 4.7         | 1/4W FUSE RESIS | BS   |
| △ | R760 | QRZ0077-4R7   | 4.7         | 1/4W FUSE RESIS | EF   |
| △ | R760 | QRZ0077-4R7   | 4.7         | 1/4W FUSE RESIS | EN   |
| △ | R760 | QRZ0077-4R7   | 4.7         | 1/4W FUSE RESIS | G    |
| △ | R760 | QRZ0077-4R7   | 4.7         | 1/4W FUSE RESIS | GI   |
| △ | R760 | QRZ0077-4R7   | 4.7         | 1/4W FUSE RESIS | U    |
| △ | R760 | QRZ0077-4R7   | 4.7         | 1/4W FUSE RESIS | US   |
| △ | R760 | QRZ0077-4R7   | 4.7         | 1/4W FUSE RESIS | UT   |
| △ | R760 | QRZ0077-4R7   | 4.7         | 1/4W FUSE RESIS | VX   |
| △ | R761 | QRD14CJ-681SX | 680         | 1/4W UNF.CARBON |      |
| △ | R762 | QRD14CJ-681SX | 680         | 1/4W UNF.CARBON |      |
| △ | R763 | QRD14CJ-681SX | 680         | 1/4W UNF.CARBON |      |
| △ | R764 | QRD14CJ-681SX | 680         | 1/4W UNF.CARBON |      |
| △ | R767 | QRD14CJ-8R2S  | 8.2         | 1/4W UNF.CARBON | C    |
| △ | R767 | QRD14CJ-8R2S  | 8.2         | 1/4W UNF.CARBON | J    |
| △ | R767 | QRZ0077-8R2   | 8.2         | 1/4W FUSIBLE    | A    |
| △ | R767 | QRZ0077-8R2   | 8.2         | 1/4W FUSIBLE    | BS   |
| △ | R767 | QRZ0077-8R2   | 8.2         | 1/4W FUSIBLE    | EF   |
| △ | R767 | QRZ0077-8R2   | 8.2         | 1/4W FUSIBLE    | EN   |
| △ | R767 | QRZ0077-8R2   | 8.2         | 1/4W FUSIBLE    | G    |
| △ | R767 | QRZ0077-8R2   | 8.2         | 1/4W FUSIBLE    | GI   |
| △ | R767 | QRZ0077-8R2   | 8.2         | 1/4W FUSIBLE    | U    |
| △ | R767 | QRZ0077-8R2   | 8.2         | 1/4W FUSIBLE    | US   |
| △ | R767 | QRZ0077-8R2   | 8.2         | 1/4W FUSIBLE    | UT   |
| △ | R767 | QRZ0077-8R2   | 8.2         | 1/4W FUSIBLE    | VX   |
| △ | R768 | QRD14CJ-8R2S  | 8.2         | 1/4W UNF.CARBON | C    |
| △ | R768 | QRD14CJ-8R2S  | 8.2         | 1/4W UNF.CARBON | J    |
| △ | R768 | QRZ0077-8R2   | 8.2         | 1/4W FUSIBLE    | A    |
| △ | R768 | QRZ0077-8R2   | 8.2         | 1/4W FUSIBLE    | BS   |
| △ | R768 | QRZ0077-8R2   | 8.2         | 1/4W FUSIBLE    | EF   |
| △ | R768 | QRZ0077-8R2   | 8.2         | 1/4W FUSIBLE    | EN   |
| △ | R768 | QRZ0077-8R2   | 8.2         | 1/4W FUSIBLE    | G    |
| △ | R768 | QRZ0077-8R2   | 8.2         | 1/4W FUSIBLE    | GI   |
| △ | R768 | QRZ0077-8R2   | 8.2         | 1/4W FUSIBLE    | U    |
| △ | R768 | QRZ0077-8R2   | 8.2         | 1/4W FUSIBLE    | US   |
| △ | R768 | QRZ0077-8R2   | 8.2         | 1/4W FUSIBLE    | UT   |
| △ | R768 | QRZ0077-8R2   | 8.2         | 1/4W FUSIBLE    | VX   |
| △ | R779 | QRD14CJ-2R2SX | 2.2         | 1/4W UNF.CARBON | C    |
| △ | R779 | QRD14CJ-2R2SX | 2.2         | 1/4W UNF.CARBON | J    |
| △ | R797 | GRX014J-R22   | 0.22        | 1W METAL FILM   | C    |
| △ | R797 | GRX014J-R22   | 0.22        | 1W METAL FILM   | J    |
| △ | R798 | QRD14CJ-2R2SX | 2.2         | 1/4W UNF.CARBON | C    |
| △ | R798 | QRD14CJ-2R2SX | 2.2         | 1/4W UNF.CARBON | J    |
| △ | R799 | QRD14CJ-2R2SX | 2.2         | 1/4W UNF.CARBON | C    |
| △ | R799 | QRD14CJ-2R2SX | 2.2         | 1/4W UNF.CARBON | J    |
| △ | R851 | QRD161J-222   | 2.2K        | 1/6W CARBON RES |      |
| △ | R852 | QRD161J-112   | 1.1K        | 1/6W CARBON RES |      |
| △ | R853 | QRD161J-681   | 680         | 1/6W CARBON RES |      |
| △ | R854 | QRD161J-431   | 430         | 1/6W CARBON RES |      |
| △ | R855 | QRD161J-431   | 430         | 1/6W CARBON RES |      |
| △ | R856 | QRD161J-201   | 200         | 1/6W CARBON RES | A    |
| △ | R856 | QRD161J-201   | 200         | 1/6W CARBON RES | C    |
| △ | R856 | QRD161J-201   | 200         | 1/6W CARBON RES | EF   |
| △ | R856 | QRD161J-201   | 200         | 1/6W CARBON RES | EN   |
| △ | R856 | QRD161J-201   | 200         | 1/6W CARBON RES | G    |
| △ | R856 | QRD161J-201   | 200         | 1/6W CARBON RES | GI   |
| △ | R856 | QRD161J-201   | 200         | 1/6W CARBON RES | J    |

**▲ : SAFETY PARTS**



## RESISTORS

| Δ | ITEM  | PART NUMBER    | DESCRIPTION           | AREA |
|---|-------|----------------|-----------------------|------|
|   | R856  | QRD161J-201    | 200 1/6W CARBON RES   | U    |
|   | R856  | QRD161J-201    | 200 1/6W CARBON RES   | US   |
|   | R856  | QRD161J-201    | 200 1/6W CARBON RES   | UT   |
|   | R856  | QRD161J-201    | 200 1/6W CARBON RES   | VX   |
|   | R856  | QRD161J-221    | 220 1/6W CARBON RES   | BS   |
|   | R857  | QRD161J-103    | 10K 1/6W CARBON RES   |      |
|   | R862  | QRD161J-103    | 10K 1/6W CARBON RES   |      |
|   | R863  | QRD161J-103    | 10K 1/6W CARBON RES   |      |
|   | R864  | QRD161J-103    | 10K 1/6W CARBON RES   |      |
|   | R865  | QRD161J-103    | 10K 1/6W CARBON RES   |      |
|   | R866  | QRD167J-223    | 22K 1/6W CARBON RES   |      |
|   | R867  | QRD167J-223    | 22K 1/6W CARBON RES   |      |
|   | R886  | QRD161J-473    | 47K 1/6W CARBON RES   |      |
|   | R887  | QRD161J-331    | 330 1/6W CARBON RES   |      |
|   | RA800 | QRB049J-222    | 2.2K 1/10W RESISTOR A |      |
|   | RA801 | QRB109J-104    | 100K 1/10W NETWORK RE |      |
|   | VR400 | QVDB71Z-E15CJ3 | 100K VARIABLE R       |      |

Δ SAFETY PARTS

## OTHERS

| Δ | ITEM | PART NUMBER    | DESCRIPTION | AREA |
|---|------|----------------|-------------|------|
|   |      | EMW10516-004   | CIRCUIT BOA | A    |
|   |      | EMW10516-004   | CIRCUIT BOA | EF   |
|   |      | EMW10516-004   | CIRCUIT BOA | EN   |
|   |      | EMW10516-004   | CIRCUIT BOA | G    |
|   |      | EMW10516-004   | CIRCUIT BOA | GI   |
|   |      | EMW10516-004   | CIRCUIT BOA | U    |
|   |      | EMW10516-004   | CIRCUIT BOA | US   |
|   |      | EMW10516-004   | CIRCUIT BOA | UT   |
|   |      | EMW10516-004   | CIRCUIT BOA | VX   |
|   |      | EMW10516-004BS | CIRCUIT BOA | BS   |
|   |      | EMW10516-104   | CIRCUIT BOA | C    |
|   |      | EMW10516-104   | CIRCUIT BOA | J    |
|   |      | E67132-T2R0    | FUSE LABEL  | U    |
|   |      | E67132-T2R0    | FUSE LABEL  | US   |
|   |      | E67132-T2R0    | FUSE LABEL  | UT   |
|   |      | QWE881-24RR    | VINYL WIRE  | U    |
|   |      | QWE881-24RR    | VINYL WIRE  | US   |
|   |      | QWE881-24RR    | VINYL WIRE  | UT   |
|   |      | QWE882-24RR    | VINYL WIRE  | U    |
|   |      | QWE882-24RR    | VINYL WIRE  | US   |
|   |      | QWE882-24RR    | VINYL WIRE  | UT   |
|   |      | QWE883-21RR    | VINYL WIRE  | U    |
|   |      | QWE883-21RR    | VINYL WIRE  | US   |
|   |      | QWE883-21RR    | VINYL WIRE  | UT   |
|   |      | QWE884-25RR    | VINYL WIRE  | U    |
|   |      | QWE884-25RR    | VINYL WIRE  | US   |
|   |      | QWE884-25RR    | VINYL WIRE  | UT   |
|   |      | QWE886-23RR    | VINYL WIRE  | U    |
|   |      | QWE886-23RR    | VINYL WIRE  | US   |
|   |      | QWE886-23RR    | VINYL WIRE  | UT   |
|   |      | QWE888-25RR    | VINYL WIRE  | U    |
|   |      | QWE888-25RR    | VINYL WIRE  | US   |
|   |      | QWE888-25RR    | VINYL WIRE  | UT   |
|   |      | VYH7653-001    | SPRING      |      |
|   | J400 | EMN00TV-222AJ2 | PIN JACK    |      |

Δ SAFETY PARTS

## OTHERS

| Δ | ITEM  | PART NUMBER    | DESCRIPTION | AREA |
|---|-------|----------------|-------------|------|
|   | J741  | EMB90TV-403A   | SPEAKER TER |      |
|   | L701  | EQL0011-R45J1  | INDUCTOR    |      |
|   | L702  | EQL0011-R45J1  | INDUCTOR    |      |
|   | S702  | QSR8001-E01U   | ROTARY SWIT | U    |
|   | S702  | QSR8001-E01U   | ROTARY SWIT | US   |
|   | S702  | QSR8001-E01U   | ROTARY SWIT | UT   |
|   | S800  | ESP0001-023M   | TACT SWITCH |      |
|   | S801  | ESP0001-023M   | TACT SWITCH |      |
|   | S802  | ESP0001-023M   | TACT SWITCH |      |
|   | S803  | ESP0001-023M   | TACT SWITCH |      |
|   | S804  | ESP0001-023M   | TACT SWITCH |      |
|   | S805  | ESP0001-023M   | TACT SWITCH |      |
|   | S806  | ESP0001-023M   | TACT SWITCH |      |
|   | S807  | ESP0001-023M   | TACT SWITCH |      |
|   | S808  | ESP0001-023M   | TACT SWITCH |      |
|   | S809  | ESP0001-023M   | TACT SWITCH |      |
|   | S810  | ESP0001-023M   | TACT SWITCH |      |
|   | S811  | ESP0001-023M   | TACT SWITCH |      |
|   | S813  | ESP0001-023M   | TACT SWITCH |      |
|   | S815  | ESP0001-023M   | TACT SWITCH |      |
|   | S816  | ESP0001-023M   | TACT SWITCH |      |
|   | S817  | ESP0001-023M   | TACT SWITCH |      |
|   | S818  | ESP0001-023M   | TACT SWITCH |      |
|   | X801  | ECX0006-000KNJ | CRYSTAL     |      |
|   | CN102 | EWS267-F932    | SOCKET WIRE |      |
|   | CN103 | EWS268-F925J   | SOCKET WIRE |      |
|   | CN104 | EMV5140-010    | VOLUME SOCK |      |
|   | CN402 | EMV7163-012    | CONNECT TER |      |
|   | CN404 | EMV7163-009    | CONNECT TER |      |
|   | CN410 | EMV5109-003B   | CONNECT TER |      |
|   | CN411 | EWS293-0135    | SOCKET WIRE |      |
|   | CN701 | VMC0107-R10    | CONNECT TER |      |
|   | CN711 | EMV5163-009R   | CONNECT TER |      |
|   | CN721 | EMV5163-011R   | CONNECT TER |      |
|   | CN806 | VMC0161-036    | CONNECT TER |      |
|   | FL800 | ELU0001-201    | FLUORESCENT |      |
|   | FT701 | VMZ0087-001Z   | FUSE HOLDER |      |
|   | FT702 | VMZ0087-001Z   | FUSE HOLDER |      |
|   | FT703 | VMZ0087-001Z   | FUSE HOLDER |      |
|   | FT704 | VMZ0087-001Z   | FUSE HOLDER |      |
|   | FT705 | VMZ0087-001Z   | FUSE HOLDER |      |
|   | FT706 | VMZ0087-001Z   | FUSE HOLDER |      |
|   | FT707 | VMZ0087-001Z   | FUSE HOLDER | U    |
|   | FT707 | VMZ0087-001Z   | FUSE HOLDER | US   |
|   | FT707 | VMZ0087-001Z   | FUSE HOLDER | UT   |
|   | FT708 | VMZ0087-001Z   | FUSE HOLDER | U    |
|   | FT708 | VMZ0087-001Z   | FUSE HOLDER | US   |
|   | FT708 | VMZ0087-001Z   | FUSE HOLDER | UT   |
|   | JS800 | QSJ4002-E02    | PUSH SWITCH |      |
|   | RY701 | ESK7D24-2120   | RELAY       |      |
|   | TB701 | EMZ4001-001    | TAB         |      |
|   | TB702 | EMZ4001-001    | TAB         |      |
|   | TW001 | EWTO11-173     | TERMINAL WI | BS   |
|   | TW001 | EWTO11-173     | TERMINAL WI | EF   |
|   | TW001 | EWTO11-173     | TERMINAL WI | EN   |
|   | TW001 | EWTO11-173     | TERMINAL WI | G    |
|   | TW001 | EWTO11-173     | TERMINAL WI | GI   |
|   | TW001 | EWTO11-173     | TERMINAL WI | VX   |
|   | WR001 | QWE350-058B    | VINYL WIRE  |      |

Δ SAFETY PARTS

# Accessories List

Symbol No. 

|   |   |   |   |
|---|---|---|---|
| M | 5 | M | M |
|---|---|---|---|

| ⚠ | Item | Part Number    | Part Name                | Q'ty | Description | Area                         |
|---|------|----------------|--------------------------|------|-------------|------------------------------|
|   | 1    | E30580-2260A   | INSTRUCTION BOOK         | 1    |             | A                            |
|   |      | E30580-2260ABS | INSTRUCTION BOOK         | 1    |             | BS                           |
|   |      | E30580-2261A   | INSTRUCTION BOOK         | 1    |             | C,EF,G,GI                    |
|   |      | E30580-2262A   | INSTRUCTION BOOK         | 1    |             | EN                           |
|   |      | E30580-2263A   | INSTRUCTION BOOK         | 1    |             | VX                           |
| ⚠ | 2    | E30580-2264A   | INSTRUCTION BOOK         | 1    |             | U,US,UT                      |
| ⚠ |      | E30580-2265B   | INSTRUCTION BOOK         | 1    |             | J                            |
|   |      | ENZ2202-001    | SIEMENS PLUG             | 1    |             | US                           |
|   |      | ENZ2203-001    | ADAPTOR PLUG             | 1    |             | U,UT                         |
|   | 3    | E03614-004     | FM FEEDER ANTENNA        | 1    |             | A,BS,C,EF,EN,GI,J,U,US,UT,VX |
|   | 3    | E67007-001     | ANTENNA WIRE             | 1    |             | G                            |
|   | 4    | EQB4001-015    | LOOP ANTENNA             | 1    |             |                              |
|   | 5    | EMZ2001-014    | ADAPTOR PLUG             | 1    |             | A,BS,C,EF,EN,GI,J,U,US,UT,VX |
|   | 6    | RM-SEC330U     | WIRE-LESS REMOTE CONTROL | 1    |             |                              |
|   | 7    | R6PRPA-2ST     | DRY CELL                 | 2    |             |                              |
|   | 8    | QPGA025-03505  | POLY BAG                 | 1    |             | A,C,EF,EN,G,GI,U,US,UT,VX    |
|   | 8    | QPGA025-03505B | POLY BAG                 | 1    |             | BS,J                         |
|   | -    | BT-20025M      | WARRANTY CARD            | 1    |             | C                            |
|   | -    | BT-20044G      | SAFETY SHEET             | 1    |             | J                            |
|   | -    | BT-20066A      | WARRANTY CARD            | 1    |             | BS                           |
|   | -    | BT-20071B      | SERVICE NETWORK          | 1    |             | C                            |
|   | -    | BT-20134       | WARRANTY CARD            | 1    |             | G                            |
|   | -    | BT-51006-1     | REGISTER CARD            | 1    |             | J                            |
|   | -    | BT-56001-1     | WARRANTY CARD            | 1    |             | A                            |
|   | -    | BT20060        | WARRANTY CARD            | 1    |             | BS                           |
|   | -    | E43486-340A    | SAFETY SHEET             | 1    |             | BS                           |

## The Marks for Designated Areas

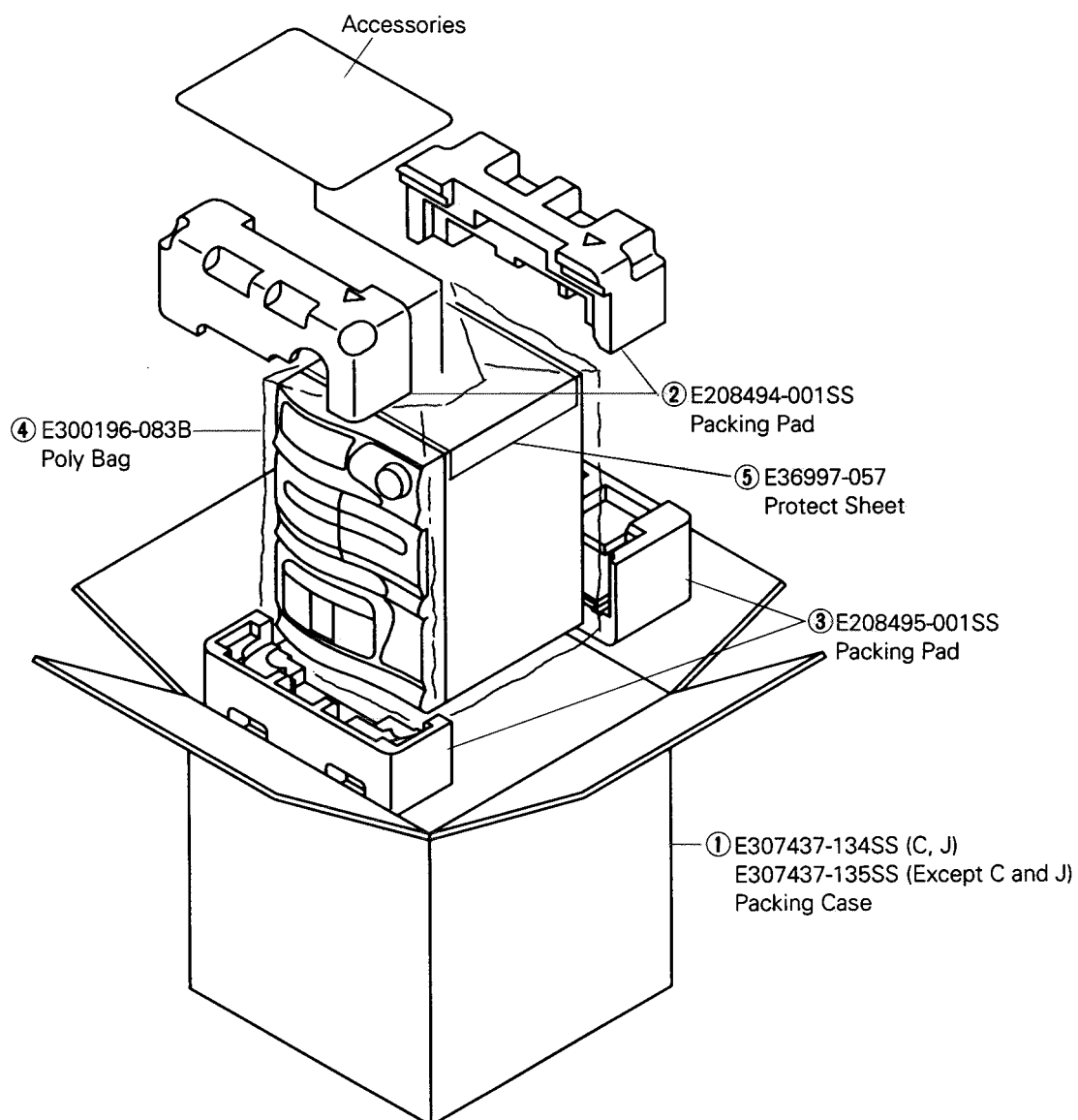
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| G .....  | Germany            | U .....  | Universal   | US ..... | Singapore | UT ..... | Taiwan      |
| EF ..... | Continental Europe | EN ..... | Scandinavia | GI ..... | Italy     | BS ..... | the U.K.    |

No mark indicates all area.

# Packing Materials and Part Numbers

 Symbol No. 

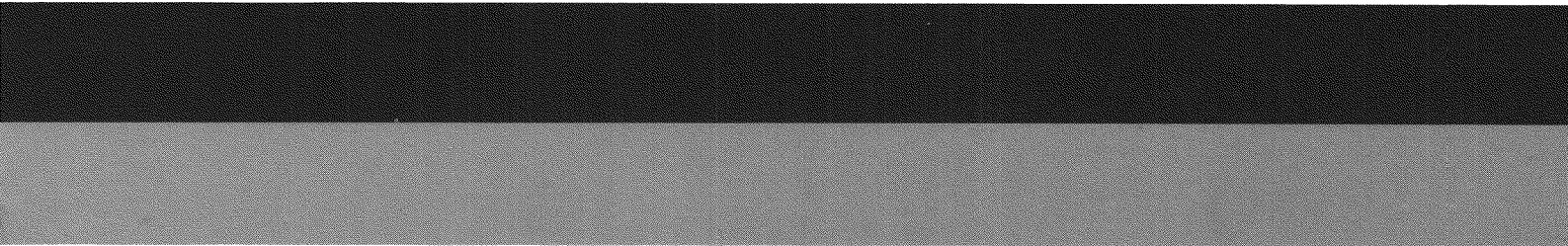
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| M | 6 | M | M |
|---|---|---|---|



## The Marks for Designated Areas

|          |                    |          |             |          |           |          |             |
|----------|--------------------|----------|-------------|----------|-----------|----------|-------------|
| J .....  | the U.S.A.         | A .....  | Australia   | C .....  | Canada    | VX ..... | East Europe |
| G .....  | Germany            | U .....  | Universal   | US ..... | Singapore | UT ..... | Taiwan      |
| EF ..... | Continental Europe | EN ..... | Scandinavia | GI ..... | Italy     | BS ..... | the U.K.    |

No mark indicates all area.



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

