

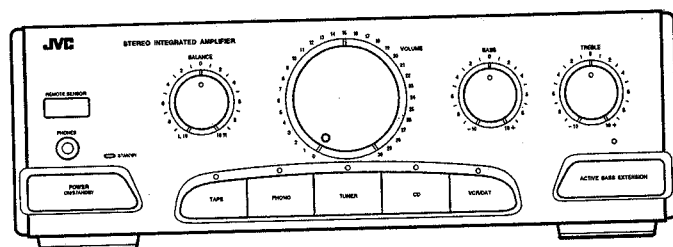
# JVC

## SERVICE MANUAL

### COMPACT COMPONENT SYSTEM

# DX-E78BK/DX-E79TN

## (Unit No. AX-E78BK/AX-E79TN)



Note 1. This manual is for one part of the titled model consisting of the plural units as detailed.

Unit No. Consisted	Part of Model	Manual No.
AX-E78BK/AX-E79TN	AMPLIFIER	20423
XL-E78BK/XL-E79TN	COMPACT DISC PLAYER	20425
TD-WE78BK/TD-WE79TN	CASSETTE DECK	20426
FX-E78BK/FX-E79TN	TUNER	20427

2. AX-E78BK or AX-E79TN is needed for the power supply when servicing the unit not provided with the power (mains) cord.

### Contents

Safety Precautions .....	1-2	Schematic Diagrams .....	Insertion
Instruction Book .....	1-3	Printed Circuit Boards .....	Insertion
Description of ICs .....	1-26	Block Diagram .....	Insertion
Disassembly Procedures .....	1-28	Parts List .....	Separate-volume Insertion

## Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by ( $\Delta$ ) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

### 5. Leakage current check (Electrical shock hazard testing)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

Do not use a line isolation transformer during this check.

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

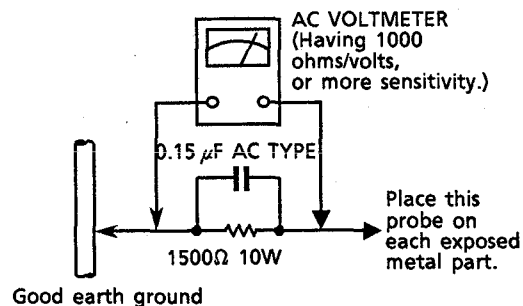
#### ● Alternate check method

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

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

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor.

Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



## Warning

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

## Table of Contents

About this Manual.....	1	Using the Tape Deck.....	12
How This Manual Is Organized.....	1	Playing a Tape.....	12
<b>IMPORTANT CAUTIONS</b> .....	1	Regular Play.....	12
<b>Getting started</b> .....	3	Stopping and Restarting Playback.....	12
How to Put Batteries in the Remote Controller.....	3	Changing the Playback Direction.....	12
Connecting the Speakers.....	3	Fast Left and Fast Right.....	12
Connecting the System Control Cards and Connecting Auxiliary Equipment.....	4	Music Scan.....	12
Laying Out the System.....	4	Searching for Beginning of Current Track.....	13
Connecting the FM and AM Antennas.....	5	Searching for Beginning of Next Track.....	13
FM Antenna Connections.....	5	Listening to Tape Continuously.....	13
AM Antenna Connections.....	5	Auto Reverse mode.....	13
<b>Using the Amplifier</b> .....	6	Non Reverse mode.....	13
Using the Power Switch.....	6	Display.....	13
Adjusting the Volume controls.....	6	Recording a Tape.....	14
Volume Control.....	6	Recording Notes.....	14
Bass Control.....	6	Recording from Various Sources.....	14
Treble Control.....	6	Direct Recording from the CD Player.....	14
Active Bass Extension.....	6	Recording CD Tracks in Auto-Edit Mode.....	14
Listening with Headphones.....	6	Recording CD Tracks in Programmed-Edit Mode.....	15
Selecting the Source.....	7	Dubbing a Tape.....	16
Remote Sensor.....	7	Normal speed Dubbing.....	16
Surround.....	7	High Speed Dubbing.....	16
<b>Using the S.E.A. Graphic Equalizer</b> .....	8	Creating a Blank During Recording.....	16
DEMO.....	8	Recording with the Timer.....	16
Using a Programmed S.E.A. pattern.....	8	<b>Using the Tuner</b> .....	17
Creating your own patterns using the Manual S.E.A. mode.....	8	Listening the Broadcasts.....	17
Calling up a pattern you have created using the Manual S.E.A. mode.....	9	Manual Tuning.....	17
Changing the S.E.A. Display.....	9	Automatic Tuning.....	17
Surround button.....	9	Tuning in Preset Stations.....	17
<b>Using the CD Player</b> .....	10	Presetting Stations in Memory.....	17
Basics of Using the CD Player.....	10	Cancelling Preset Stations.....	18
To load, Play, and Stop a CD.....	10	FM Reception Modes.....	18
How to Find the Track or Particular Point You Want.....	10	<b>Using the Timers</b> .....	19
Locating a Track Directly.....	10	Clock Setting.....	19
Locating a Track with the Remote Directly.....	10	Setting Timer 1, Timer 2, and the Daily Timers.....	19
Programming the Playing Order of the Tracks.....	10	Wake up Timer.....	20
Random Play.....	10	Sleep Timer.....	20
Programmed Play.....	11	Timer Priority.....	21
Repeating a Selection or the Entire Disc.....	11	Checking the Remaining Time.....	21
Displaying the Elapsed and Remaining Playing Time.....	11	Adjusting the Brightness of the Display.....	21
		<b>Using the Remote Controller</b> .....	22
		Operating the Remote Controller.....	22
		<b>Care and Maintenance — General Notes</b> .....	23
		Troubleshooting.....	24
		<b>Specifications</b> .....	24

This instruction manual is applicable to both DX-E78BK and DX-E79TN models. Their operations and functions are identical but as they have different frontpanel colour, they have been given different product names.

### About this Manual

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

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

However before you proceed, please read the **IMPORTANT CAUTIONS** and the set-up directions.

### How This Manual Is Organized

- We have incorporated some special features:
- Names of buttons, controls and function names that light up on the display panel are written in all Capital letters like this: **POWER**.
  - When we are talking about the Function, rather than the **BUTTON** or **DISPLAY**, then we just capitalize the first letter of the words.

The column on the left of the page is a special place to make it easier to find just what you want to know about, with little headlines announcing what each part of the page is about. Sometimes illustrations and helpful hints are placed here also.

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

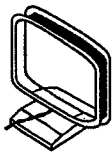
The manual has a table of contents to help you easily look up what you want to know. We've enjoyed making this manual for you, and hope you will use it to enjoy the sound and many features built into your system.

### IMPORTANT CAUTIONS

1. **Installation of the Unit**
  - Select a place which is level, dry and neither too hot nor too cold (Between 5°C and 35°C).
  - Leave sufficient distance between the Unit and your TV.
  - Do not use the Unit in a place subject to vibrations.
2. **Power cord**
  - Do not handle the power cord with wet hands!
  - The small amount of the power (15.5 watts) is always consumed as long as the power cord is connected to the wall outlet.
  - When unplugging from the wall outlet, always pull the plug, not the power cord.
3. **Misfunctions, etc.**
  - There are no user serviceable parts inside. If anything goes wrong, unplug the power cord and consult your dealer.
  - Do not insert any metallic object into the Unit.

## Getting started

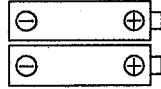
Check to be sure you have all of the following things, which are supplied with the system.



AM(MW/LW)  
Antenna



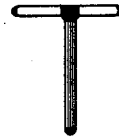
Remote Controller



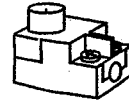
Batteries



FM Wire Antenna  
(only for Germany)



FM Feeder Antenna  
(except for Germany)

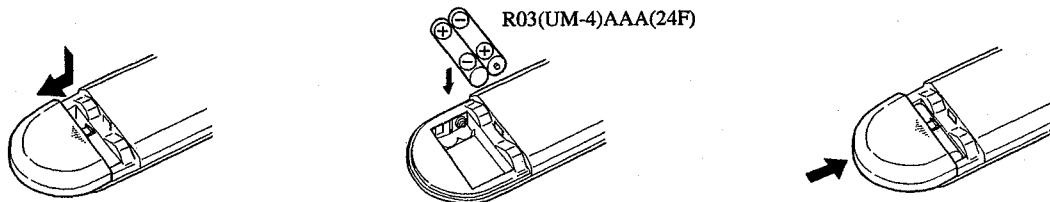


FM Antenna Adaptor  
(except for Germany)

If any are missing, contact your dealer immediately.

### How to Put Batteries in the Remote Controller

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



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

To avoid battery leakage or explosion:

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

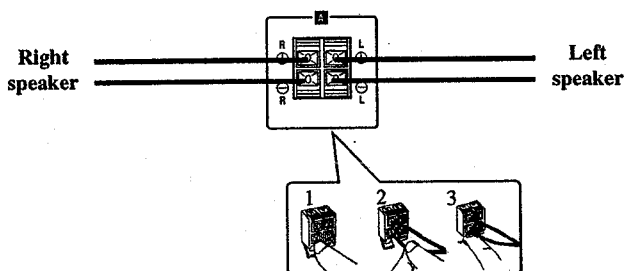
## Connecting the Speakers

### Main Speakers

Connect to SPEAKERS A

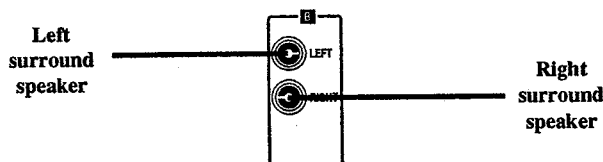
For each speaker connect one end of the speaker wire to the speaker terminals on the back of the amplifier and one end to the speaker. On the back panel:

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



### Surround Speakers

Connect to SPEAKERS B



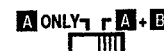
### Important Cautions

#### SPEAKERS CONNECTION switch

If you are connecting the speakers only to the Main Speakers (SPEAKERS A) terminals, set the SPEAKERS CONNECTION switch to the **A ONLY** side.



If you are connecting the speakers to both Main Speakers (SPEAKERS A) and Surround Speakers (SPEAKERS B) terminals, set the SPEAKERS CONNECTION switch to the **A + B** side.

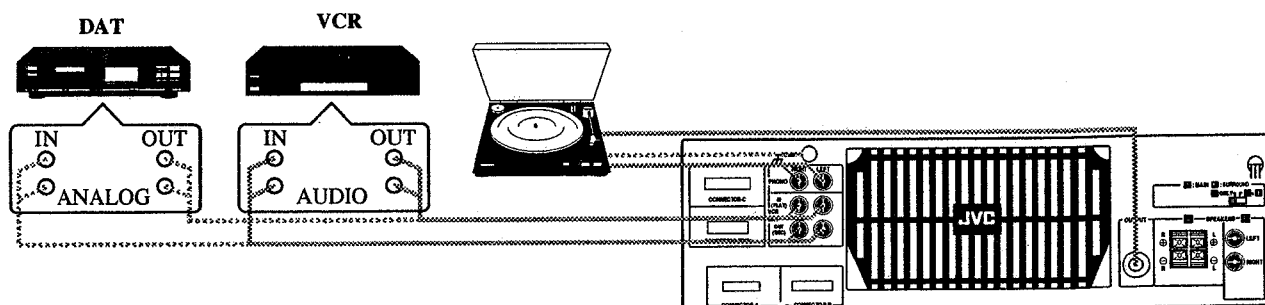
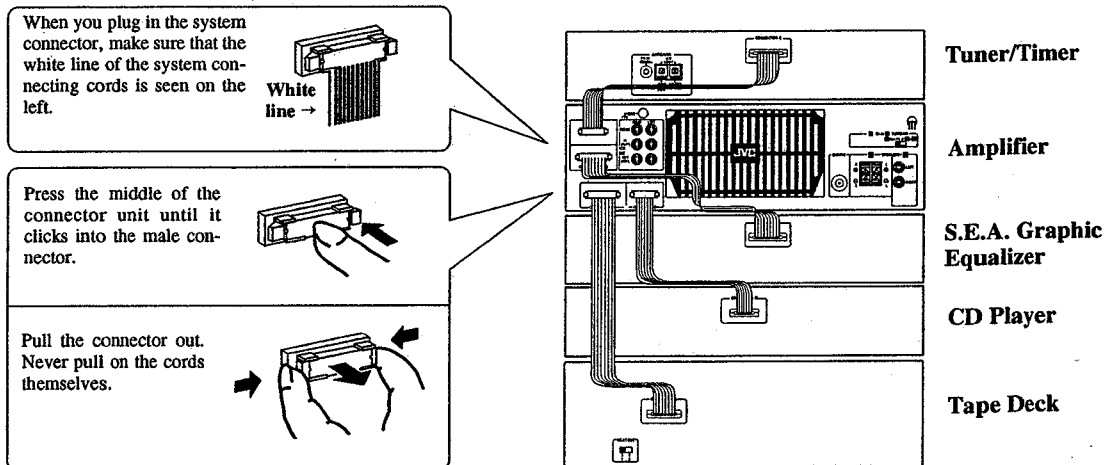


**IMPORTANT:** Use speakers with the correct impedance. The correct impedance is indicated on the rear panel.

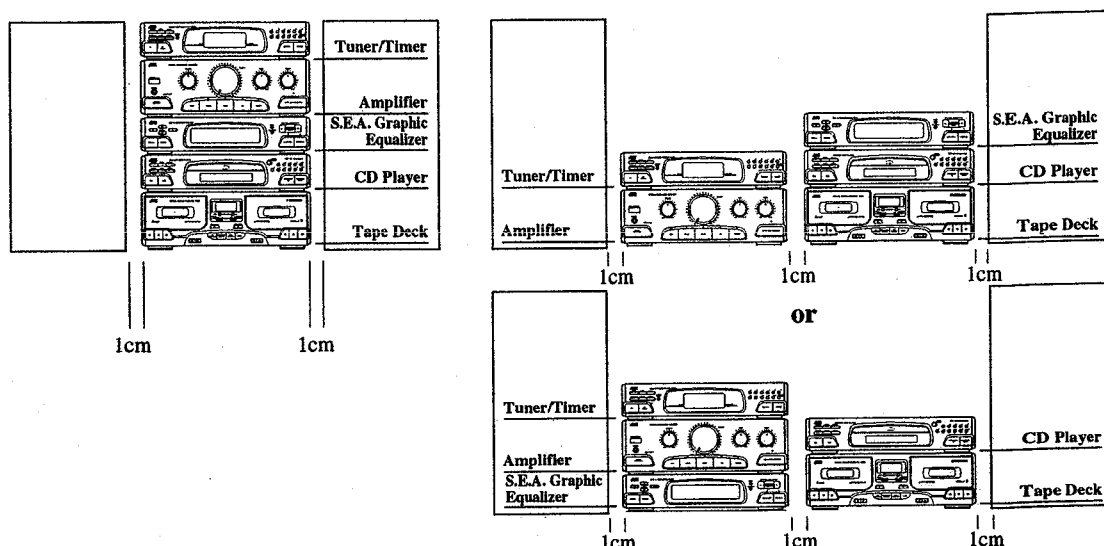
# Connecting the System Control Cards and Connecting Auxiliary Equipment

Connect the components exactly as illustration.

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



## Laying Out the System

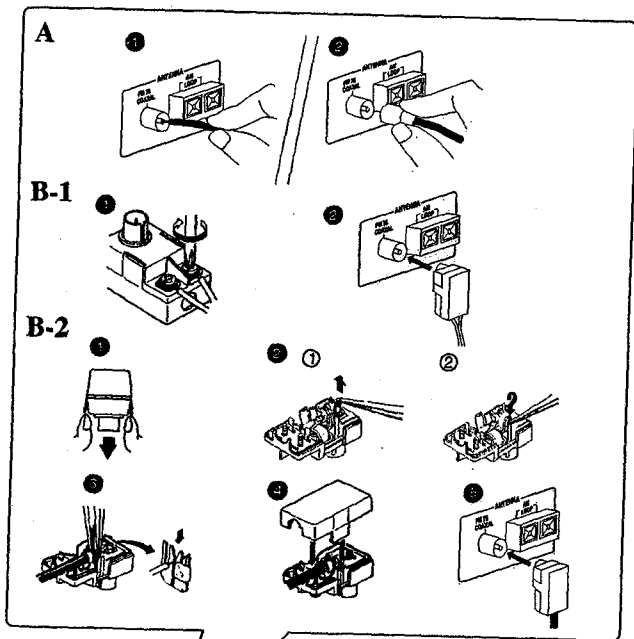


There are three ways to lay out the system as shown above:

- Leave a space of at least 1 cm on both sides of the amplifier and keep the back at least 10 cm from the wall for ventilation.
- If the system does not work will or needs repairing, please take all the components with you to the nearest agent.

# Connecting the FM and AM Antennas

## FM Antenna Connections



### A. For Germany

- ① Using the supplied Wire Antenna  
The FM wire antenna provided can be connected to a FM 75-ohm COAXIAL as a temporary measure.
- ② 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.

### B. For Other Countries

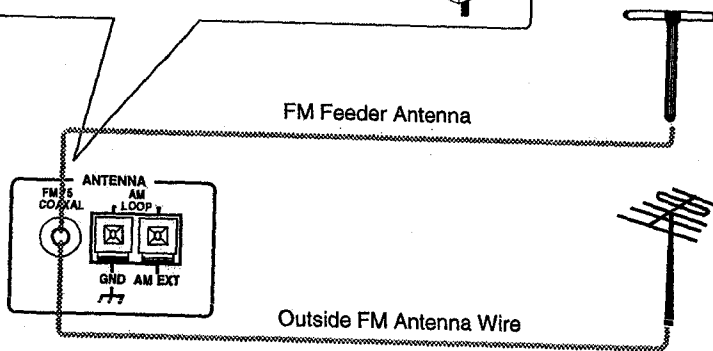
#### B-1. Using the Supplied Feeder Antenna

- ① Attach the feeder antenna to the FM connector as shown in the figure.
- ② Connect the FM connector to the FM 75-ohm COAXIAL terminal.

#### B-2. Using FM 75-ohm antenna Cable (Not Supplied)

- ① Open the claws at both sides and remove the cover.
- ② Move the conductor wire from ① to ② using tweezers or a similar instrument (only when using coaxial cable).
- ③ Fix the coaxial cable and its core.
- ④ Put on the cover.
- ⑤ Connect the FM connector on the FM 75-ohm COAXIAL terminal.

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



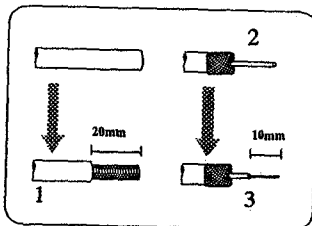
#### For Germany

Extend the supplied wire antenna horizontally.

#### For Other Countries

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

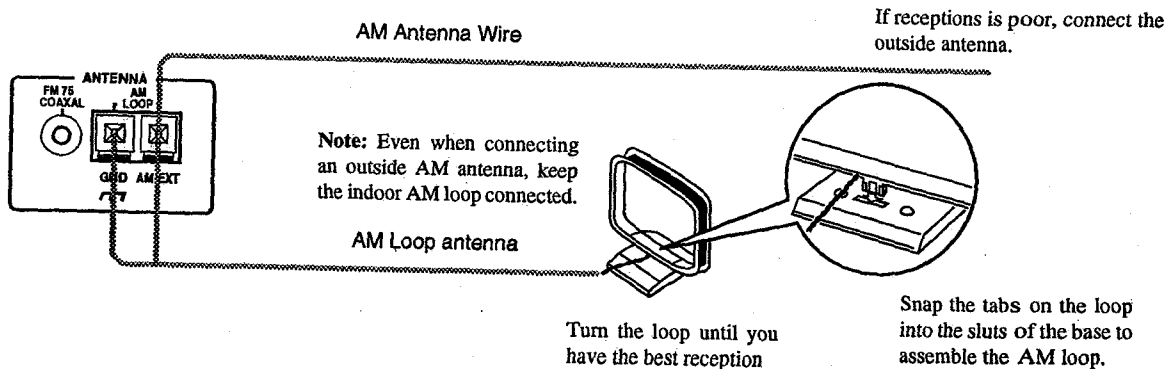
Before attaching a 75 ohm coaxial lead (the kind of round wire going to an outside antenna), disconnect the supplied dipole indoor antenna. If reception is poor, connect the outside antenna.



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

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

## AM Antenna Connections



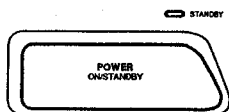
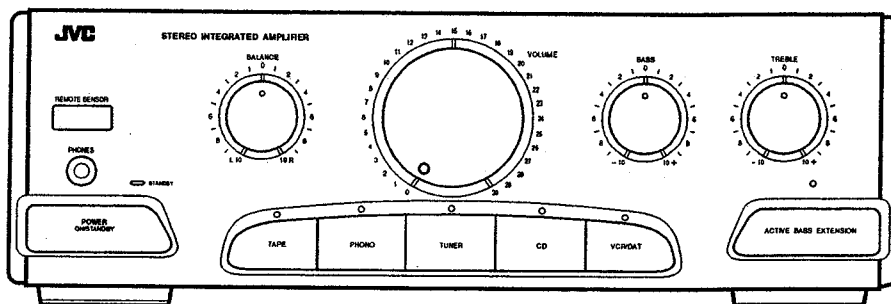
**Note:** Even when connecting an outside AM antenna, keep the indoor AM loop connected.

If reception is poor, connect the outside antenna.

Turn the loop until you have the best reception

Snap the tabs on the loop into the slits of the base to assemble the AM loop.

## Using the Amplifier



### Using the Power Switch

1. Press the **POWER** switch to turn on the stereo system.

When the **POWER** switch is not pressed and the power cord is plugged in, the stereo is in **STANDBY** mode and **STANDBY** indicator lights. In **STANDBY** mode, the stereo uses a small amount of power (15.5 watts) for the clock, memory contents, and any timers which are set.

2. To disconnect power completely, unplug the power cord.

### Adjusting the Volume controls

#### Volume Control

Turn the **VOLUME** knob to adjust the volume level of the speakers or headphones.

**Caution: Too LOUD!**

**CAUTION:** Always set the **VOLUME** control to 0 before turning on a connected source such as a VCR or Record Player, or starting any other of the sound sources such as the radio, tape, or CD player. Otherwise, if the **VOLUME** control is turned up the sudden blast of sound energy can permanently damage your hearing and/or ruin your speakers.

#### Balance Control

Turn the **BALANCE** knob to adjust the left-and-right sound balance in the speakers or headphones.

#### Bass Control

Turn the **BASS** knob to adjust the bass sound quality.

#### Treble Control

Turn the **TREBLE** knob to adjust the treble sound quality.

#### Active Bass Extension

This feature is designed and incorporated to reinforce the bass sound, depending on the volume level to maintain the richness and fullness of the bass. You cannot control it manually.

Press the **ACTIVE BASS EXTENSION** button to light the indicator if you want to use the Active Bass Extension function. To cancel this function, press the **ACTIVE BASS EXTENSION** button again. The indicator will go off.

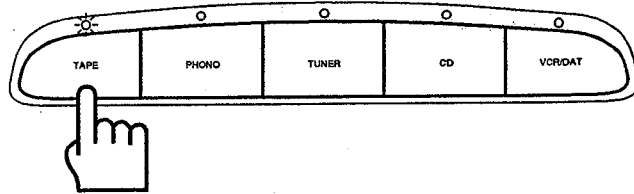


#### Listening with Headphones

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

## Selecting the Source

Press the Source Selector button to select the Source you want to listen to. The indicator for the selected source will light up.



### TAPE

Press to play a tape

- If tapes are already in the Tape Deck, the tape in deck B will be automatically played.

### PHONO

Press to play a record.

### TUNER

Press to listen to a radio.

### CD

Press to play a CD.

- If a CD is already in the CD tray, it will be automatically played back.

### VCR/DAT

Press to play the sound from sources connected to the VCR/DAT terminals on the rear panel.

- See page 4 for connections of record player, VCR, DAT, etc.
- Please make sure to turn on the power of the record player, VCR, DAT, etc., when you want to play back the sound from them.
- We recommend that you carefully read the instruction manual for the record player, VCR, DAT, etc., so that they are operated correctly.

REMOTE SENSOR



### Remote Sensor

Receives the signal for the supplied Remote Controller.

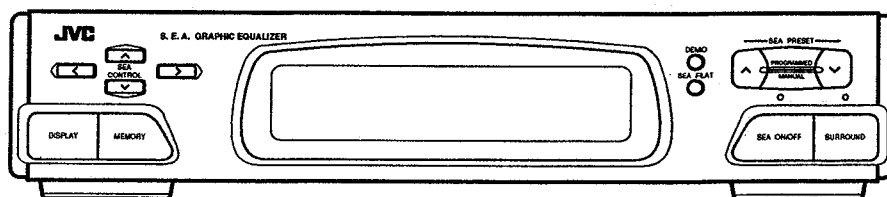
## Surround

You can enjoy the Surround effect during playback when the speakers are connected to both the SPEAKERS A (Main Speakers) and the SPEAKERS B (Surround Speakers) terminals on the rear panel of the amplifier.

- In this case, please set the SPEAKERS CONNECTION switch to the A+B side.



## Using the S.E.A. Graphic Equalizer



S.E.A. (Sound Effect Amplifier) is a function which divides playback sound into 7 frequency ranges; 63Hz, 160Hz, 400Hz, 1 kHz, 2.5kHz, 6.3kHz and 16kHz; it then adjusts the sound quality by increasing and decreasing the level of each frequency range.

The S.E.A. Graphic Equalizer of this unit has Programmed S.E.A. mode and Manual S.E.A. mode. The Programmed S.E.A. mode has 6 patterns - POPS, JAZZ, ROCK, MOVIE, CLASSIC and CAR. With the Manual S.E.A. mode, you can create up to 6 patterns of your preference, which can then be stored in the memory labelled as A to F.

<b>POPS</b>	Good for vocal music.
<b>JAZZ</b>	Gives a feeling of a live atmosphere. Good for acoustic music.
<b>ROCK</b>	Boosted low and high frequencies.
<b>MOVIE</b>	Adds breadth to the sound so you feel like you're in a movie theater.
<b>CLASSIC</b>	Set for wide and dynamic sound stereo systems.
<b>CAR</b>	When creating tapes for use in a car stereo.

## SOUND EFFECT DEMONSTRATION



### DEMO

This will automatically play back all 6 patterns of the Programmed S.E.A. mode, each lasting for a few seconds. At the same time, each frequency curve will be shown on the Display. DEMO playback will be repeated in the following order:

→ POPS → JAZZ → ROCK → MOVIE → CLASSIC → CAR →

Press the DEMO button while playing back a CD, a tape, etc.

- The indicator for the SEA ON/OFF button will light up, turning on the S.E.A. function automatically. "DEMO" will blink on the Display and the DEMO playback will start.

To cancel the DEMO playback, press the DEMO button again.

- "DEMO" on the Display and the indicator for the SEA ON/OFF button will both go off, and the S.E.A. function will be automatically cancelled.

### Using a Programmed S.E.A. pattern

1. Press the SEA ON/OFF button to turn on the S.E.A. function.

The indicator will light up.

Make sure that you see "PROGRAMMED" on the Display. If you see "MANUAL", press the PROGRAMMED button of SEA PRESET to change to the Programmed S.E.A. mode. "PROGRAMMED" will now come on the Display.

2. Select a S.E.A. pattern by pressing either the ^ or v button of SEA PRESET.

← ^  
↔ POPS/A ↔ JAZZ/B ↔ ROCK/C ↔ MOVIE/D ↔ CLASSIC/E ↔ CAR/F ↔  
v →

### Creating your own patterns using the Manual S.E.A. mode

1. Press the SEA ON/OFF button to turn on the S.E.A. function.

The indicator will light up.

2. Press the FLAT button. "MANUAL" will be shown on the Display and a flat line indicating the "0" frequency level will be seen.

3. Press one of the buttons of SEA CONTROL.

The range you have selected from between 63Hz (low) to 16kHz (high) will start blinking.

- If you press the SEA CONTROL button without first pressing the FLAT button, the range for the pattern which is currently being called up will start blinking and the MANUAL S.E.A. mode will be automatically set.





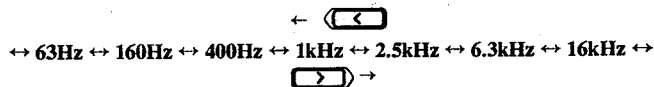
4. Using the SEA CONTROL button, you can now create your own frequency patterns.

: To increase the level of the frequency range which is blinking.

: To decrease the level of the frequency range which is blinking.

, : To select a frequency range.

Every time you press the or button, the frequency range will change in the following order.

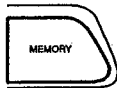


5. Storing frequency patterns you have created with POPS/A ~ CAR/F.

Press the MEMORY button. "MEMORY" will light up on the Display and the frequency pattern by you will blink for a few seconds. (If the pattern stops blinking and lights up instead, press the MEMORY button again.)

While the frequency pattern is blinking, press the or SEA PRESET button to select from POPS/A ~ CAR/F to store it with.

Press the MEMORY button again to memorize.



### Calling up a pattern you have created using the Manual S.E.A. mode

1. Press the SEA ON/OFF button to turn on the S.E.A. function.

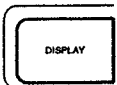
The indicator will light up.

2. Press the MANUAL button of the SEA PRESET button to select the Manual S.E.A. mode. "MANUAL" will light up on the Display.

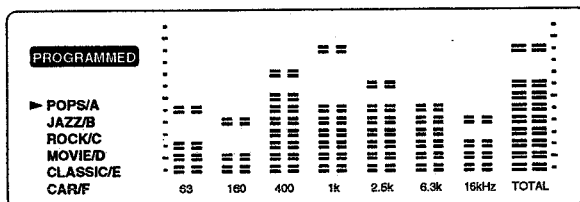
3. Call up the pattern by selecting from POPS/A ~ CAR/F using the SEA PRESET or button.

### Changing the S.E.A. Display

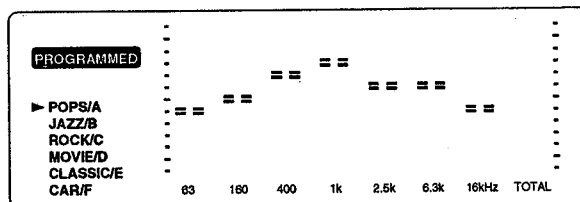
The Display mode has 2 types — PEAKHOLD and EQUALIZING PATTERN. Pressing the DISPLAY button will alternate the type.



#### PEAK HOLD



#### EQUALIZING PATTERN

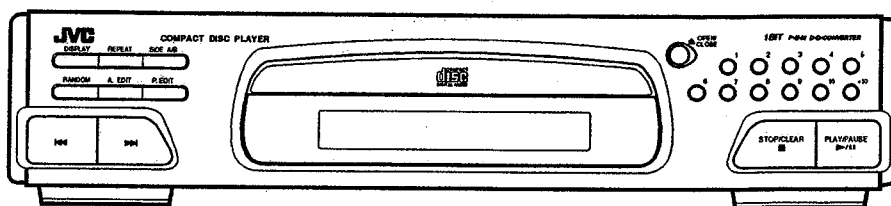


### Surround button

You can get even more profound Surround effect by pressing this button when the speakers are connected to both SPEAKERS A and B terminals on the amplifier rear panel.



## Using the CD Player



### Basics of Using the CD Player

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

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

1. Press the **▲ OPEN/CLOSE** button.
2. Put a CD, printed side up, onto the tray.
3. If you want to listen to the CD now, press **▶/|| PLAY/PAUSE** button and adjust the volume.
  - The CD tray closes automatically.
  - The display shows the track being played and the length of time since it started.
4. To stop the CD, press the **■ STOP/CLEAR** button. When you start again, the CD begins with track 1.
5. To pause the play, press the **▶/|| PLAY/PAUSE** button while the CD is playing so when you press the **▶/|| PLAY/PAUSE** button again the CD starts just where you left off.
6. To remove a CD, press the **▲ OPEN/CLOSE** button, take the CD out, and press the **▲ OPEN/CLOSE** button again to close the tray. Keep the tray closed except during loading and unloading to protect the mechanism from dust and damage.

**Note:** When Tuner is selected as the source, Cd OFF is displayed, and only the **▲ OPEN/CLOSE** disc tray and **▶/|| PLAY/PAUSE** buttons can be used. To use other buttons, press the CD button on the Amplifier or the **▶/|| PLAY/PAUSE** button on the CD Player first.

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

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

#### Locating a Track Directly

You can locate a track directly using the numerical keys on the CD player.

- Example: press 5 for track 5, + 10 then 5 for 15. For track 20, press +10, then 10.

The number of the track you have entered will be searched and playing will start.

#### Locating a Track with the Remote Directly

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

1. Press the CD 10KEY button.
2. Enter the number of the track you want using the numeric key.
  - Example: for track 5, press 5. For track 15, press +10 then 5. For track 20, press +10, then 10.
3. The number of the track you have entered will be searched and playing will start.

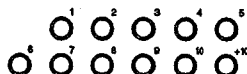
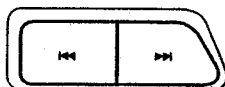
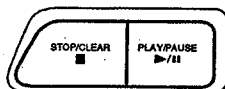
### Programming the Playing Order of the Tracks

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

Before starting a CD, press the RANDOM button on the CD Player. "RANDOM" will light up on the Display.

- The tracks will play in no special order.
- When all of the tracks have been played, the CD shuts off.
- Press REPEAT before or During random play to instruct the CD player to continue with a different random track selection after the last selection is played.
- To cancel random play, press the **■ STOP/CLEAR** button.



#### Using the remote to find a track

#### With programming, you can play back tracks in any order



## Programmed Play

You can arrange the tracks to play in any order you like with the Program function. The Remote is very useful for this because you can select tracks by number with the key pad. You can also use the main Unit.

### How to program

To program the CD track order, follow this procedure:

1. Press the CD PRGM button on the Remote.  
"PRGM" will light up on the Display.
2. Input the track numbers in the order desired using the numeric keys. If you want to use the numeric keys on the Remote controller, first press the CD 10 KEY button.
  - Example: for track 5 press 5. For track 15, press +10 then 5.  
For track 20, press +10 twice. For track 25, press +10 twice then 5. For track 30, press +10 twice then 10. For track 32, press +10 three times then 2.
  - Your program can include up to 32 tracks, and you can repeat tracks if you wish.  
If the total time of all the programmed tracks is 100 minutes or more, the display will show "--:--" (since the highest time the display can show is "99:59".)
3. Press the PLAY/PAUSE ►/|| button (or Play ► button on the Remote) to start to play, followed by the next one you entered until all the selected tracks are played.
4. To stop the CD during Programmed Play, press the Stop ■ button. To cancel the program, press the CD PRGM button on the Remote. "PROGRAM" on the Display will go off.

### Programming Hints

A Few Hints to Make Programming Easier

- To view the order of the tracks in your program when it's playing, press the Stop ■ button, then press ◀◀ or ▶▶ button to display the order of the tracks. Each time you press ▶▶ the next selection in your program is displayed. (Press ◀◀ for the previous selections.)
- To cancel the programmed tracks, press the Stop ■ button, then call up the track numbers you wish to cancel by pressing the ◀◀ or ▶▶ button. Press the CANCEL button on the Remote to remove the tracks you have called up from your program.
- To add a track to your program, just press the number you want to add.
- If you want to change the entire program, press the STOP/CLEAR ■ button twice (once to stop, twice to clear the program from memory) on the CD player, and then you can start over.

### Repeat a selection or the whole CD



### Repeating a Selection or the Entire Disc

You can have either the program or the individual selection currently playing repeat as many times as you like by pressing the REPEAT button. Each time you press the REPEAT button, it cycles for OFF, which turns the REPEAT indication out on the display, To REPEAT which will repeat all tracks in order or according to the program you have set, and REPEAT 1 which will repeat the currently playing track. To cancel Repeat, just press the REPEAT button until the REPEAT indication on the display goes off.



### Displaying the Elapsed and Remaining Playing Time

Using the DISPLAY button, you can display the total time the CD (or current track) has been playing, and the amount of time that remains. This is useful in situations such as recording, when you need to know how long the track or CD has been playing, or the amount of time that remains on the track or CD.

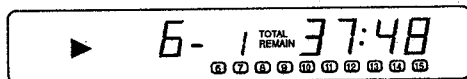
Press the DISPLAY button to show the time you want.

There are four display times:

<b>EACH</b>	The total elapsed playing time since the beginning of playback of the current track
<b>EACH REMAIN</b>	The time remaining until the end of the current track
<b>TOTAL</b>	The total elapsed playing timer since the beginning of playback of the CD
<b>TOTAL REMAIN</b>	The time remaining until the end of the CD

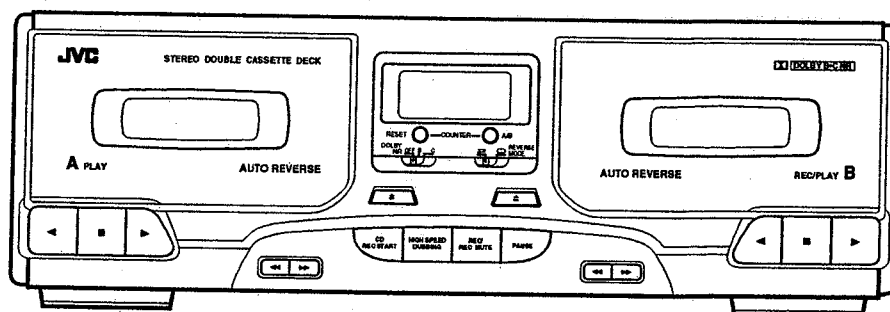
The display changes each time you press the DISPLAY button.

For example:



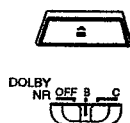
Display mode:	TOTAL REMAIN
Current track:	6th
Total remaining time:	37 minutes 48 seconds

## Using the Tape Deck



The tape deck has an Auto Tape Select feature, which can tell the difference between various types of cassette tape. It can distinguish between Normal (Type I), CrO<sub>2</sub> — High Position (Type II) and Metal (Type IV).

### Playback Procedure



### Playing a Tape

#### Regular Play

1. Press the Eject button to open the cassette holder.
2. Place a tape in the cassette holder and close it gently.
3. If the source was recorded with Dolby noise reduction, turn the Dolby NR switch on, so that you can listen to the playback in the same mode.
4. Press the or button.
  - button: the tape winds from left to right.
  - button: the tape winds from right to left.
5. To stop playing, press the Stop button. To remove the tape, press the Eject button.

**Note:** If the Unit is turned off while a tape is playing, you may not be able to eject tape. You will need to turn the Unit back on and press Eject button to open the cassette holder.

#### Stopping and Restarting Playback

Press the Pause button to stop the tape playing in deck B temporarily. "PAUSE" will be indicated on the Display.

To restart, press either the or button on deck B.

**Note:** The PAUSE button only applies to deck B.

#### Changing the Playback Direction

1. To change the playback direction during playback, press the or button. The other side of the tape will now play.
2. To change the playback direction without starting playback, press the or button while also pressing the Stop button. This allows you to set the tape direction for a timed recording.

#### Fast Left and Fast Right

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

#### Music Scan

The music scan function will detect the black segments between tracks. The blank should be about 4 seconds long for the music scan to be effective.

By pressing the Fast Left or Fast Right button during playback, you can quickly locate the beginning of the current track or of the next track.

#### Searching for Beginning of the Current Track

Press either the Fast Left or Fast Right button in the opposite direction from the tape direction indicated on the Display.

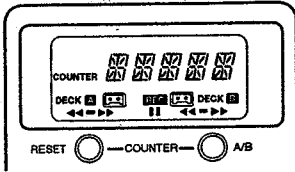
- The tape will fast reverse to the beginning of the current track and start playing it again.



**Finding the place you  
want:**

**Music Scan**

## Display



This is very useful. A quick glance can tell you the current Tape Deck functions.

**COUNTER section:** displays "PLAY", numbers on the counter and "STOP" for deck A or deck B and displays "PAUSE" and "CD REC" for deck B only. Counter number increases with the tape direction ► and decreases with ◀. "SEARCH" will be indicated while Music Scan function is in use.

DECK A , DECK B : indicates that there is a tape in the cassette holder.

◀◀◀▶▶▶ : Slow blinking of ▶▶ or ◀◀ indicates tape direction, fast blinking of ▶▶ or ◀◀ indicates Music Scan, and blinking of ◀◀◀ or ▶▶▶ indicates fast forwarding or rewinding.

REC : deck B is recording.

|| : deck B is on halt.

○<sub>AB</sub> : to change over the counter indication

RESET ○ : resets the current counter(s). If you wish to reset both A and B counters, use the A/B button.

## Searching for Beginning of Next Track

Press either the Fast Left ◀◀ or Fast Right ▶▶ button in the same direction as the tape direction shown on the Display.

- The tape will fast forward to the next track and begin playing it.

The music scan function is not effective:

- When the track being scanned contains an area of low sound level.
- When the blank between tracks is short.
- When there is noise, for example, a hum between tracks.

**Note:** Music scan only works on one tape at a time. If you are recording on deck B, music scan will not work on deck A.

## Listening to Tape Continuously

Continuous playback of tapes in deck A and deck B is possible with the REVERSE MODE switch.



### Auto Reverse mode ( ⇄ )

In this mode, both sides of the currently playing tape will be automatically played, and then both sides of the tape in the other deck will be automatically played. This function will continue until you stop the playback.

- If only deck A or deck B contains a tape, both sides of this tape will be repeatedly played.



### Non Reverse mode ( ⇆ )

In the Non Reverse mode, the tape deck will automatically stop playing as soon as playback of the current side of the tape is finished.

**Note:** Please read the section on "Changing the Playback Direction" if you want to change the tape direction.

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

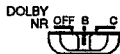
## Recording a Tape

### Recording Notes:

#### Copyright

- It may be unlawful to record or playback copyrighted material without the consent of the copyright owner.

#### Reduce Hiss—Dolby NR



- Deck A is used for playback only, and deck B is used for both recording and playback.
- To reduce hiss, use the Dolby noise reduction system. Select type B (DOLBY B NR) or type C (DOLBY C NR) noise reduction with DOLBY NR switch.
  - B (DOLBY B NR) : Popular noise reduction
  - C (DOLBY C NR) : Highly effective noise reduction

#### Recording Level

- To record on both A and B sides of a tape continuously, set the REVERSE MODE switch to the Auto Reverse mode side.
- 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 system. Thus, you can adjust the sound you are actually listening to without changing the recording. If you don't want to listen to the sound, you can turn the VOLUME control all the way down, or press the FADE/MUTING button on the Remote.
- If the small tabs on cassette tapes to prevent accidental erasure have been removed, the contents of the tape cannot be recorded or erased over. To record or erase, cover the holes with adhesive tape. (The tab in the upper left corner is the tab for the side facing you, and the other tab is for the opposite side.)
- If you are recording an AM broadcast and you hear interference, move BEAT CUT switch on the back of the tape deck from Position 1 (the normal mode) to Position 2.
- To record using S.E.A. effect, turn on the S.E.A. Graphic Equalizer and select a pattern. Please do not change the S.E.A. settings during recording.
  - If you are using the Dubbing function, you cannot record using S.E.A. effect.

### Recording from Various Sources



1. Insert a cassette for recording into deck B.
2. Select the source you are recording from.
3. Press the PAUSE button on the Tape Deck while simultaneously pressing the REC/REC MUTE button. This will set the deck B in the REC/PAUSE mode.
4. Start the source to be recorded.
5. Press the Play ◀ or ▶ button on the deck B to start recording.
6. To stop recording, press the Stop ■ button.
7. To stop recording temporarily, press the PAUSE button. To restart recording again, press the Play button ◀ or ▶.

### Direct Recording from the CD Player

Direct recording permits a tape deck to start recording automatically in synchronism with a CD Player.



1. Insert the cassette for recording into deck B.
2. Put a CD in the CD Player.
3. Press the CD REC START button on the Tape Deck. "CD REC" will be indicated on the Display.
  - The CD Player and the Tape Deck are activated, and recording begins with the first track of the CD.
4. To stop direct recording, press the Stop ■ button on deck B or the STOP/CLEAR ■ button on the CD Player.

#### Auto Edit

### Recording CD Tracks in Auto-Edit Mode

In Auto-Edit mode, tracks from the CD will automatically be selected to determine which tracks should go on side A of the tape and which should go on side B.

The selection is based on the lengths of the tracks and the length of the tape. This ensures a proper "fit" of the tracks recorded on the tape. It prevents a track from being cut off when the end of the tape is reached.



1. Insert the cassette for recording in deck B.
2. Put the CD in the CD Player.
3. Set the sound effects you want now, since the sound environment cannot be changed once recording starts.
4. Press the STOP/CLEAR ■ button on the CD Player. This cancels the previous edit or program setting.
5. Press the A. EDIT button on the CD Player to tell the system the length of the tape in the Tape Deck.
  - The tape length most suitable for CD recording is displayed first. Each time the A. EDIT button is pressed, the next standard tape length blinks, in this order:
    - C46 → C54 → C60 → C74 → C90 → (back to the beginning)



- You can also enter a non-standard tape length using the numeric keys. If you want to use the numeric keys on the Remote controller, first press the CD 10KEY button.  
For example: To enter a tape length of 50 minutes, press the CD 10KEY button on the Remote, then press +10 key four times and the 10 key once.
- 6. Press the SIDE A/B button on the CD Player.
  - Each time you press the SIDE A/B button the display switches between A and B.
  - The CD Player calculates which tracks should be placed on side A and which should be placed on side B.
  - If you do not press the SIDE A/B button, the CD Player automatically decides which tracks should be placed on sides A and B about 4 seconds after the A. EDIT button is pressed.

**Note:** Up to 16 tracks can be allocated for each side of the cassette.

- 7. Press the CD REC START button on the Tape Deck.
  - The tape is automatically rewound to the beginning of side A, and then recording begins.
  - When the Tape Deck is set in the auto reverse mode, after the last track is recorded on side A, the Tape Deck high-speed-erases to the end of side A. Then it changes direction to side B and begins recording the remaining tracks.
- To stop recording, press the Stop ■ button on deck B, or press the STOP/CLEAR ■ button on the CD Player.

**Note:** During recording in the Auto-Edit mode, do not operate the CD Player.

### ***Recording CD Tracks in Programmed-Edit Mode***

In Programmed-Edit mode, you decide which tracks from the CD will be recorded, and in what order.

## **Program Edit**



1. Insert the cassette for recording in deck B.
2. Put the CD in the CD Player.
3. Set the sound effects you want now, since the sound environment cannot be changed once recording starts.
4. Press the STOP/CLEAR ■ button on the CD Player.  
This cancels the previous edit or program setting.
5. Press the P. EDIT button on the CD Player to tell the system the length of the tape in the Tape Deck.
  - The tape length most suitable for CD recording is displayed first. Each time the P. EDIT button is pressed, the next standard tape length blinks, in this order:  
→ C46 → C54 → C60 → C74 → C90 → (back to the beginning)
  - You can also enter a non-standard tape length using the numeric keys. If you want to use the numeric keys on the Remote controller, first press the CD 10KEY button.  
For example: To enter a tape length of 50 minutes, press the CD 10KEY button on the Remote, then press +10 key four times and the 10 key once.
6. Press the SIDE A/B button on the CD Player.
  - This tells the system that you will be choosing tracks to be recorded on side A of the tape.
  - The length of time for one side of the tape is displayed. This is half of the total tape length. The total time for the tracks you choose for each side cannot exceed this time.
  - Each time you press the SIDE A/B button the display switches between A and B.
  - If you do not press the SIDE A/B button, side A is automatically selected.
7. Enter the numbers of the tracks you want recorded on side A of the tape. When you have finished entering the numbers for side A, press the SIDE A/B button and enter the numbers of tracks you want recorded on side B.
  - Use either the numeric keys on the CD player or on the Remote controller to enter the order of the tracks to be recorded. If you are using the Remote controller, press the CD 10KEY button first before using the numeric keys.
  - Tracks on a CD assigned numbers 32 or greater cannot be entered in the program.
  - If the length of a track exceeds the remaining tape length, the time indication blinks on the display. Choose a different track number.
8. Press the CD REC START button on the Tape Deck.
  - The tape is automatically rewound to the beginning of side A, and then recording begins.
  - When the Tape Deck is set in the auto reverse mode, after the last track is recorded on side A, the Tape Deck high-speed-erases to the end of side A. Then it changes direction to side B and begins recording the remaining tracks.
- To stop recording, press the Stop ■ button on deck B, or press the STOP/CLEAR ■ button on the CD Player.
- The program cannot be edited during recording. To change the program, press the STOP/CLEAR ■ button on the CD Player and begin with step 5 of this procedure.

**Note:** During recording in the Programmed-Edit mode, do not operate the CD Player.





## Normal Dubbing, Step by Step

### Dubbing a Tape Normal speed Dubbing

1. Insert the cassette for playback into deck A and the cassette for recording into deck B.
    - The type of tape (Normal, CrO<sub>2</sub> or Metal) used for recording must be the same as that used for playback.
    - DOLBY NR is inactive in dubbing mode regardless of the setting of the NR switch. The dubbed tape automatically contains the same processing as the source tape.
  2. Press the PAUSE button while simultaneously pressing the REC/REC MUTE button.
  3. Press the Play button ◀ or ▶ (depending on which side of the tape you want to record from) on deck A.
  4. Press the Play button ◀ or ▶ (depending on which side of the tape you want to record onto) on deck B. The tape-to-tape recording starts.
- To stop normal speed dubbing before end of either the playback or record tape, press the Stop ■ buttons on decks A and B.

**Note:** During normal speed dubbing you can only listen to the source tape. If you don't want to hear it, turn down the VOLUME control or press the FADE/MUTING button on Remote. Only the sound you hear will be affected; the recording level is controlled automatically.

## High Speed Dubbing, Step by Step

### High Speed Dubbing

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

1. Insert the cassette for playback into deck A and the Cassette for recording into deck B.
2. Press the HIGH SPEED DUBBING button on the Tape Deck.
  - Both decks start, deck A playing and deck B recording.
    - The sound you hear is strange because it is much faster than usual, and you may not want to listen to it. Turn it down with the VOLUME control, or press FADE/MUTING on the Remote.
    - When using high speed dubbing, you can also listen to another source such as the radio or the CD Player, just as if you weren't dubbing.
  - To stop high speed dubbing before reaching the end of either the playback or record tape, press the Stop ■ button on deck B.

**Note:** If nearby television is on during high speed dubbing, beeping noise may be recorded onto the record tape. Turn off the television or move it farther away.

### Recording selections from several different tapes

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

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

### Creating a Blank During Recording

Use the Record Muting function when you do not want to record a section of the source.

1. Press the PAUSE button on the Tape Deck while simultaneously pressing the REC/REC MUTE button. This will set the deck B in the REC PUASE mode.
2. Press the REC/REC MUTE button.
  - A Blank of about 4 seconds is created on the cassette, and then the deck pauses.
  - When the source you are recording from is the CD Player and the CD REC START button is used, the REC/REC MUTE button will not function.

### Recording with the Timer

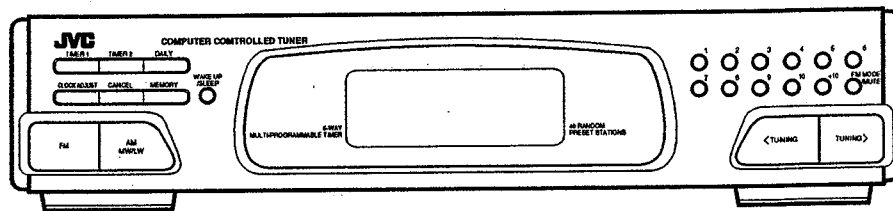
The Tape Deck can be set up to record a tape automatically. This is especially useful for recording broadcasts when you are not around, or late at night when you are asleep.

1. Insert a cassette for recording into deck B
2. Set the timer, by following the steps in "Setting the Timers".
3. Select one of the following sources:
 

TUNER TIMER REC	Records TUNER preset stations
— — TIMER REC	Records from the source selected before turning off the main Unit.



## Using the Tuner

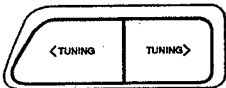
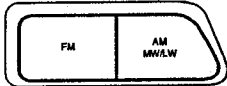


### Listening the Broadcasts

The Tuner can receive FM and AM (MW/LW) broadcasts. Stations can be turned in manually, automatically, or from preset memory storage.

#### Manual Tuning

1. Select the broadcast band you want to tune in by pressing the FM or AM (MW/LW) button on the Tuner.
2. Press the <TUNING or TUNING> button to tune in a station.
3. Hold down the <TUNING or TUNING> button to change the frequency rapidly, then tap the button to set the frequency precisely.



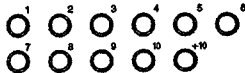
#### Automatic Tuning

1. Select the broadcast band you want to tune in by pressing the FM or AM (MW/LW) button on the Tuner.
2. Hold down the <TUNING or TUNING> button for a moment, and then release the button. When a station is tuned in, the TUNED indicator lights up.

**Note:** The Tuner will tune in the nearest strong station.

#### Tuning in Preset Stations

Call up the preset number of the station you want to listen to by pressing the numeric keys on the Tuner. The Display shows the preset number you have called up and the relevant frequency of the station. (This method is possible after presetting stations by yourself.)



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

- To tune preselected stations with the Remote:
  1. Press the TUNER button so that you can receive the most recent station tuned in.
  2. Select the station by entering the preset number in the numeric key of the Remote.

### Presetting Stations in Memory

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.

1. Select a band by pressing either the FM or AM (MW/LW) button on the Tuner.
2. Press the <TUNING or TUNING> button to tune in a station.
3. Press the MEMORY button on the Tuner. "MEMORY" will come on the Display for 5 seconds.
4. While "MEMORY" is shown on the Display, choose a preset number to register the station using the numeric keys.



#### Example:

To enter 7, press "7".

To enter 17, press "+10", then "7".

To enter 20, press "+10", then "10".

- If you are using the numeric keys on the Remote controller, press the TUNER button first before using the numeric keys.
- If "MEMORY" on the Display goes off, start again from step 3.
- If the preset number you choose already has a station assigned to it, the old station will be replaced by the new one.

5. Repeat steps 1 - 4 for each station you want to store in memory with a preset number.

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

### Canceling Preset Stations



1. Press the CANCEL button on the Tuner. "CANCEL" will blink on the Display for 5 seconds.
2. While "CANCEL" is blinking on the Display, call up the preset number you want to cancel.
  - If "CANCEL" on the Display goes off, start again from the beginning.
3. Press the CANCEL button again. The preset station will be cancelled.

### FM Reception Modes

There are two FM reception modes: AUTO and MONO.

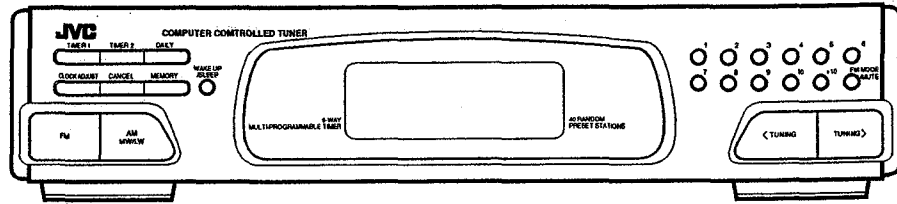


- AUTO:** Stations are tuned in with either stereo or monaural, depending on the FM signal.
- MONO:** Stations are tuned in with monaural only. This will reduce interference noise of weak stations and make the reception sound better.

Press the FM MODE/MUTE button on the Tuner to switch between the AUTO and MONO reception modes.

- If a stereo broadcast is received when the FM band is selected, the STEREO light will be displayed on the Tuner. If the FM reception mode is MONO, the STEREO light will not be displayed.

## Using the Timers



The timers let you control recording and playing functions automatically.

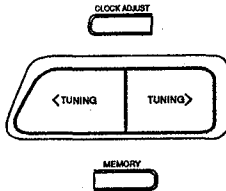
Four types of timers are available:

- Timer 1, Timer 2 — unattended recording of radio broadcasts.
- Daily — recording of a radio broadcast that occurs at the same time every day.
- Wake up Timer — Wake up to music from any source.
- Sleep Timer — Fall asleep and have your system turn off automatically after a certain length of time.

### Clock Setting

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

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



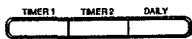
1. Press the **CLOCK ADJUST** button.
2. Set the hour by pressing **<TUNING** or **TUNING>** button. Pressing the **TUNING>** button increase the hour, and pressing the **<TUNING** button decreases it.
3. Press the **MEMORY** button on the Tuner.
4. Set the minutes by pressing **<TUNING** or **TUNING>** button. Pressing the **TUNING>** button increase the minute, and pressing the **<TUNING** button decreases it.
5. Press the **MEMORY** button again and the clock is set and starts from zero second.

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

### Setting Timer 1, Timer 2, and the Daily Timers

With these timers you can make a tape of a radio broadcast (or other sound sources) automatically whether or not you are there to start the system. You can also play the sound source at the specified time without recording them. For the timer to work correctly, you need to make sure of two things in addition to setting the time for the sound source and tape recorder to come on:

- The tape you want to record onto must be in deck B when you want to record.
- The radio station whose program you want to tape must be the last one played before timer comes on.



**Follow this procedure to set Timer 1, Timer 2, and the Daily Timer:**

1. Press the **TIMER 1**, **TIMER 2**, or **DAILY** button to tell the system which timer you are going to set. The corresponding indication (**TIMER 1**, **TIMER 2**, or **DAILY**) flashes in the display. As long as it is flashing, you can continue with the setting process. If you wait too long, and it stops before you are done, just press the button twice and start over.
2. Set the time you want the sound source to come on and the tape in deck B to start recording.
  - Use the **<TUNING** or **TUNING>** button just like setting the clock.
3. Set the time you want the sound source to shut off and the tape in deck B to stop recording.
  - Use the **<TUNING** or **TUNING>** button just like setting the clock.
4. Select the sound source with the **<TUNING** or **TUNING>** button and press the **MEMORY** button to store it.
  - Each time you press the **<TUNING** or **TUNING>** button, the Unit gives you one of the following settings:

Display	What it means
-----	Plays from whichever source was used just before turning off the system.
TUNER	Plays an FM or AM (MW/LW) broadcast
TUNER TIMER REC	Records an FM or AM (MW/LW) broadcast
CD	Plays a CD
TAPE	Plays tape
---- TIMER REC	Records from whichever source was used just before turning off the system.

5. Set the volume level with the <TUNING or TUNING> button and press the MEMORY button to store it.
  - Each time you press the <TUNING or TUNING> button, the Unit gives you one of the following settings:

Display	What it means
VOL - - - -	Volume set to the level used before shut the power off
VOL - - 0	Volume off
VOL - - A	Volume barely on
VOL - - B	Volume at about a 1/4 turn of the volume control
VOL - - C	Volume at about a 3/8 turn of the volume control

These volume settings do not affect your recording because the recording level is automatically set by the system. So if you're not home at the designated time, be sure to set the volume level to minimum.

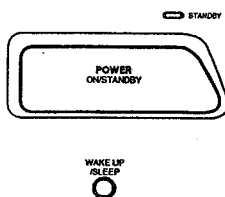
6. Press the TIMER 1, TIMER 2, or DAILY button again, and the system will memorize the setting. Now the system is set to turn on and record the last station set when the system was last turned off.
  - Notice that the TIMER 1, TIMER 2, or DAILY indicator is lighted up on the display whenever the Timer is set.
7. To cancel the Timer setting, press the TIMER 1, TIMER 2, or DAILY button again; the corresponding indicator on the display goes off.

**Note:** If the volume knob has already been turned half a turn or more when you set the volume level, you may not be able to set it to volume position 0, A, B, or C correctly.

*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 sometimes, we hope it won't happen to you!*

### Wake up Timer

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



1. Press the POWER button to shut the Unit off.
2. Press the WAKE UP/SLEEP—The WAKE UP display will light up the display screen.
3. Set the time you want the system to turn on.
  - Each time you press WAKE UP/SLEEP, the wake-up time lapse changes in the following order:  
→ 0:05 → 0:10 → 0:15 → 0:30 → 0:45 → 1:00 → 1:30 → 2:00 → 3:00 → (every hour)  
→ 12:00 → (back to the beginning)
  - The WAKE UP indicator remains lit on the display to let you know that Wake Time is set.
4. To cancel the WAKE UP TIMER setting, press the POWER button to turn on the system.
  - If you select FM or AM (MW/LW) as the source, the last played station is the one which comes on at the Wake Up time set.
  - The volume when the timer turns on the source is the volume last set when the system was turned off. This can be quite a surprise first thing in the morning, so you might want to reset it before going to sleep.
  - If the CD is the source, it starts playing from the first track.

### Sleep Timer

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

- You can only set the Sleep Timer when the system is on and a source is playing.
- To cancel the Sleep Timer, press the POWER button to turn off the Unit.

#### To set the Sleep Timer follow this procedure:

1. With the system on and a source playing, press the WAKE UP/SLEEP button. The SLEEP indicator on the display will start blanking.
2. Set the length of time you want the source to play before shutting off.
  - Each time you press the WAKE UP/SLEEP button while the SLEEP indication is blinking, it changes the number of minutes shown on the display in this sequence:  
→ 0:05 → 0:10 → 0:15 → 0:30 → 0:45 → 1:00 → 1:15 → 1:30 → 1:45 → 2:00 → (back to the beginning)
  - The actual time when the system will shut off shows in the right hand corner of the display where the clock time is usually displayed.
  - When the number of minutes you want shows on the display, just wait 5 seconds until the indicator stops blinking, but remains lighted.

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



### Timer Priority

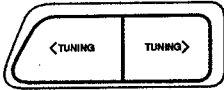
Since each timer can be set independently, you may have wondered what happens if the settings overlap. Here are the priorities for each timer.

- ❑ The Wake Up Timer has priority over TIMER 1, TIMER 2, or DAILY timer. This means that if the start -timer for one of the timers occurs before the wake-up time, the system will wait until the wake-up time to turn on.
- ❑ The Sleep Timer has priority over TIMER 1, TIMER 2, or DAILY timer. This means that if the stop-time for one of the timers occurs before the sleep time, the system will wait until the sleep time before turning itself off.

### Checking the Remaining Time

After setting the Wake Up or Sleep Timer, you can check the time remaining until the system turns on (Wake Up Timer) or shuts off (Sleep Timer).

- ❑ Pressing the WAKE UP/SLEEP button shows you the remaining time on the display for 5 seconds. Then the display returns to the clock time display (Wake Up Timer) or the radio frequency display (Sleep Timer).



### Adjusting the Brightness of the Display

In the stand-by mode, you can adjust the brightness of the clock display.

Pressing the TUNING> button makes the display brighter.

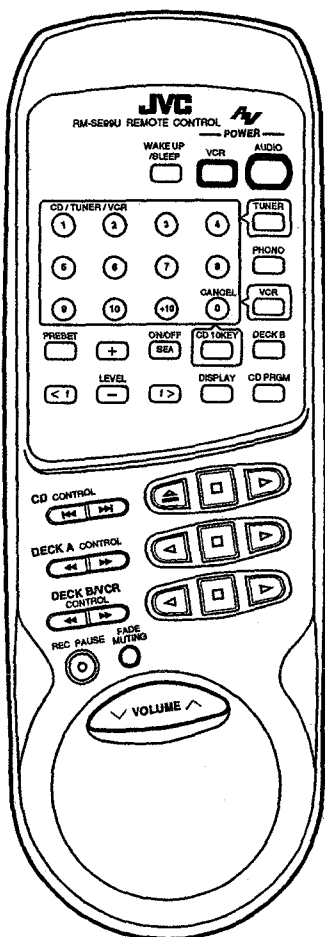
Pressing the <TUNING button makes the display dimmer.

# Using the Remote Controller

## Operating the Remote Controller

You can use the Remote Controller to operate the system without leaving your chair. You can use it up to distance of 23 feet. Point the Remote Controller at the remote sensor on the Amplifier.

**Note:** When the Tuner is selected as the source, and Cd off is displayed, only the Open/Close and Play buttons on the Remote Controller can be used. To use other buttons on the Remote Controller (for programming and other operations), press the CD button on the Amplifier or the CD Play button on the Remote Controller first.



Turn on the main unit	
Turn on the VCR	
<b>Amplifier</b>	
Adjust volume level	
Gradually reduce the volume	
Set the Source Selector of the amplifier to TUNER	

Set the Source Selector of the amplifier to PHONO	
Set the Source Selector of the amplifier to VCR/DAT	
<b>S.E.A.*</b>	
Turning S.E.A. function on or off	
Using a S.E.A. pattern	
SEA CONTROL < or >	
Setting a S.E.A. level	
Changing the S.E.A. display	
<b>CD Player</b>	
Open and close the disc tray	
Play a CD	
Stop playback of a CD	
Place numeric keys in CD mode	
Select track number	
Scanning through the track number	
Program play back order	
Delete programmed tracks	
<b>Tape Deck</b>	
Applicable for both DECK A and DECK B	
Play a tape in forward direction	
Play a tape in reverse direction	
Stop playback	
Fast Left or Fast Right	
Search for beginning of the track while in forward direction	
Search for beginning of the track while in reverse direction	

<b>DECK B only</b>	
Set the DECK B/VCR CONTROL button to the DECK B mode	
Recording in forward direction	
Recording in reverse direction	
Stopping recording	
<b>Tuner</b>	
Selecting Tuner mode	
Selecting a preset station	
<b>Timers</b>	
Setting the Wake up/Sleep timer	
<b>VCR</b>	
Set the DECK B/VCR CONTROL button and the numeric keys to the VCR mode.	
Play a tape	
Stop playback	
Fast forwarding or fast rewinding	
Recording	
Select a TV channel	

- When using the remote controller to operate a VCR, point the controller at the VCR.
- \* For optional "S.E.A. Graphics Equalizer", SE-E78BK/SE-E79TN only.

**Note:** Where "+" is indicated, press and hold the first button illustrated, then press the second.

## Care and Maintenance — General Notes

### Compact Discs

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



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

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



- Put the CD back in its case after use to prevent warping.
- Be careful not to scratch the surface of the CD when placing it back in the case.
- Avoid exposure to direct sunlight, temperature extremes, and moisture.



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

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

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

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

### Cassette Tapes



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



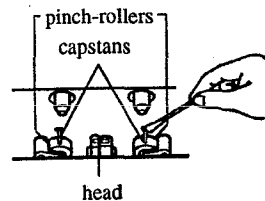
- Do not touch the tape surface.



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

### Tape Deck

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



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



## Troubleshooting

- If you are having a problem with your system, check this list for a possible solution before calling for service.
- If you cannot solve the problem from the hints given here, or the 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.
Impossible to record.	Cassette record protect tabs are removed.	Cover holes on back edge of cassette with tape.
Hard to listen to broadcasts because of noise.	The antenna is disconnected.	Re-connect the antenna securely.
	The loop antenna is too close to the system.	Change the position and direction of the loop antenna.
The CD sound is discontinuous.	The feeder/wire antenna is not properly extended and positioned.	Extend feeder/wire antenna at the best reception position.
	The CD is scratched or dirty.	Clean or replace the CD.
Unable to operate the Remote.	The path between the Remote and the sensor on the Unit is blocked.	Remove the obstruction.
	The batteries are discharged.	Replace the batteries.
The CD tray cannot be operated.	The main AC power cord is not plugged in.	Plug in the AC power plug.
The CD does not play.	The CD is upside down.	Put the CD in with the label side up.
Operations are disabled.	The built in microprocessor may malfunction due to external electrical interference.	Unplug the system then plug it back in.
The cassette holder cannot be opened.	The system was turned off because the timer was operated while the tape was running.	Turn on the system.

## Specifications

### Amplifier

Output Power (IEC 268-3/DIN) : 50 watts per channel min. RMS, both channels driven, into 8 ohms at 1 kHz with no more than 0.9% total harmonic distortion.

Total harmonic distortion at half-rated power : 0.07%

Input sensitivity/impedance (1 kHz)

VCR/DAT : 300 mV/50 k $\Omega$

PHONO : 3 mV/50 k $\Omega$

Dimensions (W x H x D) : 14-3/16" x 4-7/8" x 13-15/16"  
(360 x 123 x 354)

Weight : 14.2 lbs (6.4 kg)

### S.E.A. Graphic Equalizer

Center frequencies : 63 Hz, 160 Hz, 400 Hz, 1 kHz, 2.5 kHz, 6.3 kHz, 16 kHz

Control range : +12 dB  $\pm$  2 dB, -12 dB  $\pm$  2 dB

Dimensions (W x H x D) : 14-3/16" x 3-3/4" x 11-1/4"  
(360 x 80 x 284.4)

Weight : 4.9 lbs (2.2 kg)

### Compact Disc Player

Dynamic Range (1kHz) : 96 dB

Signal-to Noise Ratio : 102 dB

Wow and flutter : Unmeasurable

Dimensions (W x H x D) : 14-3/16" x 3-3/4" x 11-1/8"  
(360 x 80 x 283.5)

Weight : 5.6 lbs (2.5 kg)

### Tape Deck

Frequency Response

Metal : 30 - 17,000 Hz

CrO<sub>2</sub> : 30 - 16,000 Hz

Normal : 30 - 15,000 Hz

Wow and flutter (WRMS/DIN) : 0.09%/0.2%

Dimensions (W x H x D) : 14-3/16" x 4-7/8" x 11-7/16"  
(360 x 123 x 288.5)

Weight : 7.3 lbs (3.3 kg)

### Tuner

#### FM TUNER SECTION

Tuning range : 87.5 MHz - 108.0 MHz

Usable sensitivity : 0.95  $\mu$ V/75 ohms (10.8 dBf)

26 dB Quieting sensitivity : 1.0  $\mu$ V/75 ohms (DIN)

Signal to noise ratio : Mono 80 dB/72 dB

(IHF A-net/DIN) Stereo 73 dB/64 dB

#### AM TUNER SECTION

##### MW

Tuning range : 522 kHz - 1629 kHz

Sensitivity : 300  $\mu$ V/m

##### LW

Tuning range : 144 kHz - 290 kHz

(only for Italy)

144 kHz - 353 kHz

(for other countries)

Sensitivity : 600  $\mu$ V/m

Dimensions (W x H x D) : 14-3/16" x 3-3/16" x 11-13/16"  
(360 x 80 x 299.6)

Weight : 4.5 lbs (2.0 kg)

### GENERAL

Line Voltage & Frequency : AC 230 V  $\sim$  , 50 Hz

Power Consumption : 146 watts

*Design and specifications subject to change without notice.*

# Description of ICs

## ■ UPD75104CW-290(IC801) : System controller

### 1. Terminal Layout

DCS IN	1	64	GND
INH	2	63	
REMOCON IN	3	62	
PROTECT IN	4	61	
	5	60	
	6	59	
	7	58	
	8	57	
	9	56	
	10	55	
DCS OUT	11	54	
MAIN MUTE	12	53	
ABX MUTE	13	52	
SW STB	14	51	
	15	50	
SW DATA	16	49	
SW SCK	17	48	
	18	47	ABX ON/OFF
TAPE LED	19	46	OSC1
PHONO LED	20	45	OSC2
TUNER LED	21	44	RESET IN
CD LED	22	43	VOL. UP
VCR/DAT LED	23	42	VOL. DOWN
ABX LED	24	41	SPK RELAY
STAND-BY LED	25	40	NC
VOLUME LED	26	39	AC CONTROL
KEY OUT3	27	38	POWER ON/OFF
KEY OUT2	28	37	SEA INH
KEY OUT1	29	36	SEA RESET
KEY OUT0	30	35	SEA CONNECT
	31	34	KEY IN0
VDD	32	33	KEY IN1

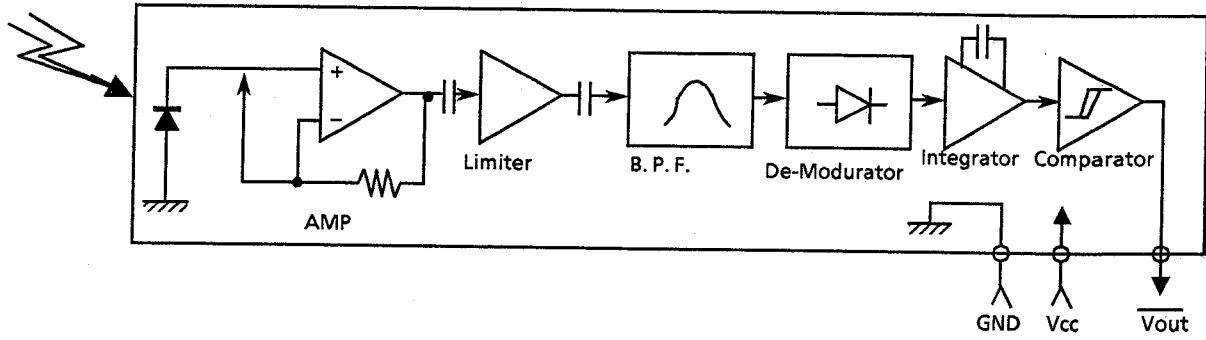
### 2. Key Matrix

	KEY IN0 (PIN 34)	KEY IN1 (PIN 33)
KEY OUT0 (PIN 30)	TAPE	VCR/DAT
KEY OUT1 (PIN 29)	PHONO	ACTIVE BASS EXTENSION
KEY OUT2 (PIN 28)	TUNER	POWER
KEY OUT3 (PIN 27)	CD	—

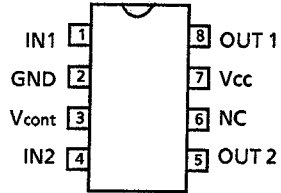
### 3. Terminal Description

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	DCS IN	I	Compulink signal input	33	KEY IN0	I	Key matrix in
2	INH	I	Inhibit signal input	34	KEY IN1	I	Key matrix in
3	REMOCON IN	I	Remote control signal input	35	—	--	Connected to GND
4	PROTECT IN	I	Protection	36	SEA CONNEC.	I	Detection for connecting SE-E78/79
5	—	--	Connected to GND	37	SEA RESET	O	Reset signal for SEA
6	—	--	Connected to GND	38	SEA INH	O	Inhibit signal for SEA
7	—	--	Connected to GND	39	POW. ON/OFF	O	Power control for cassette deck
8	—	--	Connected to GND	40	AC CONT.	O	Power supply control signal
9	—	--	Connected to GND	41	NC	--	Non connection
10	—	--	Connected to GND	42	SPK RELAY	O	Speaker relay control
11	DCS OUT	O	Compulink signal output	43	VOL. DOWN	O	Volume control signal
12	MAIN MUTE	O	Muting control signal	44	VOL. UP	O	Volume control signal
13	ABX MUTE	O	Non connection	45	RESET IN	I	Reset signal input
14	SW STB	O	Strobe signal for input selector	46	osc2	--	Oscillation terminal
15	—	--	Connected to GND	47	osc1	--	Oscillation terminal
16	SW DATA	O	Data for input selector	48	ABX ON/OFF	O	Active bass extension control signal
17	SW SCK	O	Clock for data transfer to input selector	49	—	--	Connected to GND
18	—	--	Connected to GND	50	—	--	Connected to GND
19	TAPE LED	O	Indication control for 'TAPE'	51	—	--	Connected to GND
20	PHONO LED	O	Indication control for 'PHONO'	52	—	--	Connected to GND
21	TUNER LED	O	Indication control for 'TUNER'	53	—	--	Connected to GND
22	CD LED	O	Indication control for 'CD'	54	—	--	Connected to GND
23	VCR/DAT LED	O	Indication control for 'VCR/DAT'	55	—	--	Connected to GND
24	ABX LED	O	Indication control for 'A.B.X.'	56	—	--	Connected to GND
25	ST-BY LED	O	Indication control for 'STAND-BY'	57	—	--	Connected to GND
26	VOLUME LED	O	Indication control for 'VOLUME'	58	—	--	Connected to GND
27	KEY OUT3	O	Key matrix out	59	—	--	Connected to GND
28	KEY OUT2	O	Key matrix out	60	—	--	Connected to GND
29	KEY OUT1	O	Key matrix out	61	—	--	Connected to GND
30	KEY OUT0	O	Key matrix out	62	—	--	Connected to GND
31	—	--	Connected to power supply	63	—	--	Connected to GND
32	VDD	--	Power supply	64	GND	--	GND

■ SPS-420-1 (IC101) : Receiver for Remote Control



■ LB1639-CV (IC802) : 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

# Disassembly Procedures

## ■ Removing the metal cover

1. Remove the 6 screws (A) fastening the both sides and rear of the cover to remove the cover.

## ■ Removing the front panel assembly

1. Remove the metal cover.
2. Disconnect the connectors J102, J152, J153, J154, J911 and JA101. Cut the tie bands to make the wires free.
3. Remove the 5 screws (B) on the bottom of front panel to remove the assembly.

## ■ Removing the heat sink

1. Remove the 2 screws (D) fixing the heat sink cover to remove the cover.
2. Remove the 2 screws (C) to remove the bracket holding the power amplifier ic.
3. Remove the 4 screws (E) to remove the heat sink.

## ■ Removing the rear panel

1. Remove the heat sink.
2. Remove the 16 screws (D), (C) and (F). (The 2 screws (D) fixing voltage selector are for the versions except universal and Taiwan.)
3. Release the 2 hooks to remove the rear panel.

## ■ Removing the main circuit board

1. Remove the front panel assembly.
2. Remove the rear panel.
3. Remove the 4 screws (H) fixing the main circuit board to remove the circuit board.

## ■ Servicing the main circuit board

1. Remove the 4 screws (C) on the rear panel.
2. Remove the 4 screws (H) fixing the main circuit board and cut the tie bands.
3. Lift the back of the circuit board with the rear panel and heat sink as shown in figure 4.

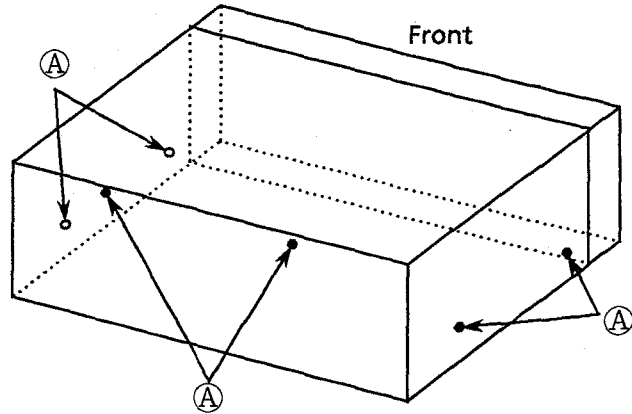


Figure 1

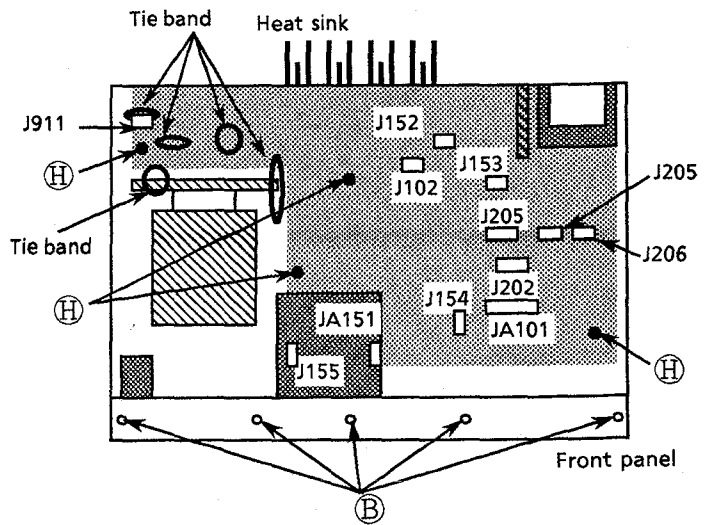


Figure 2 Top view

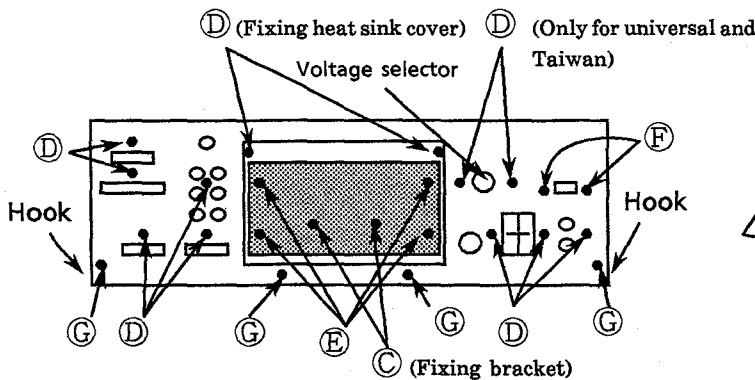


Figure 3 Rear view

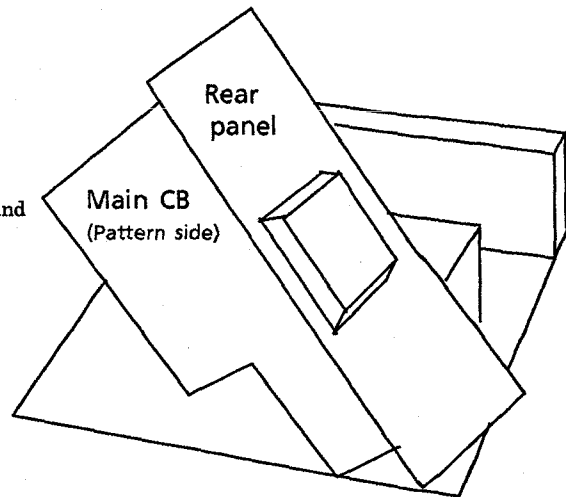


Figure 4

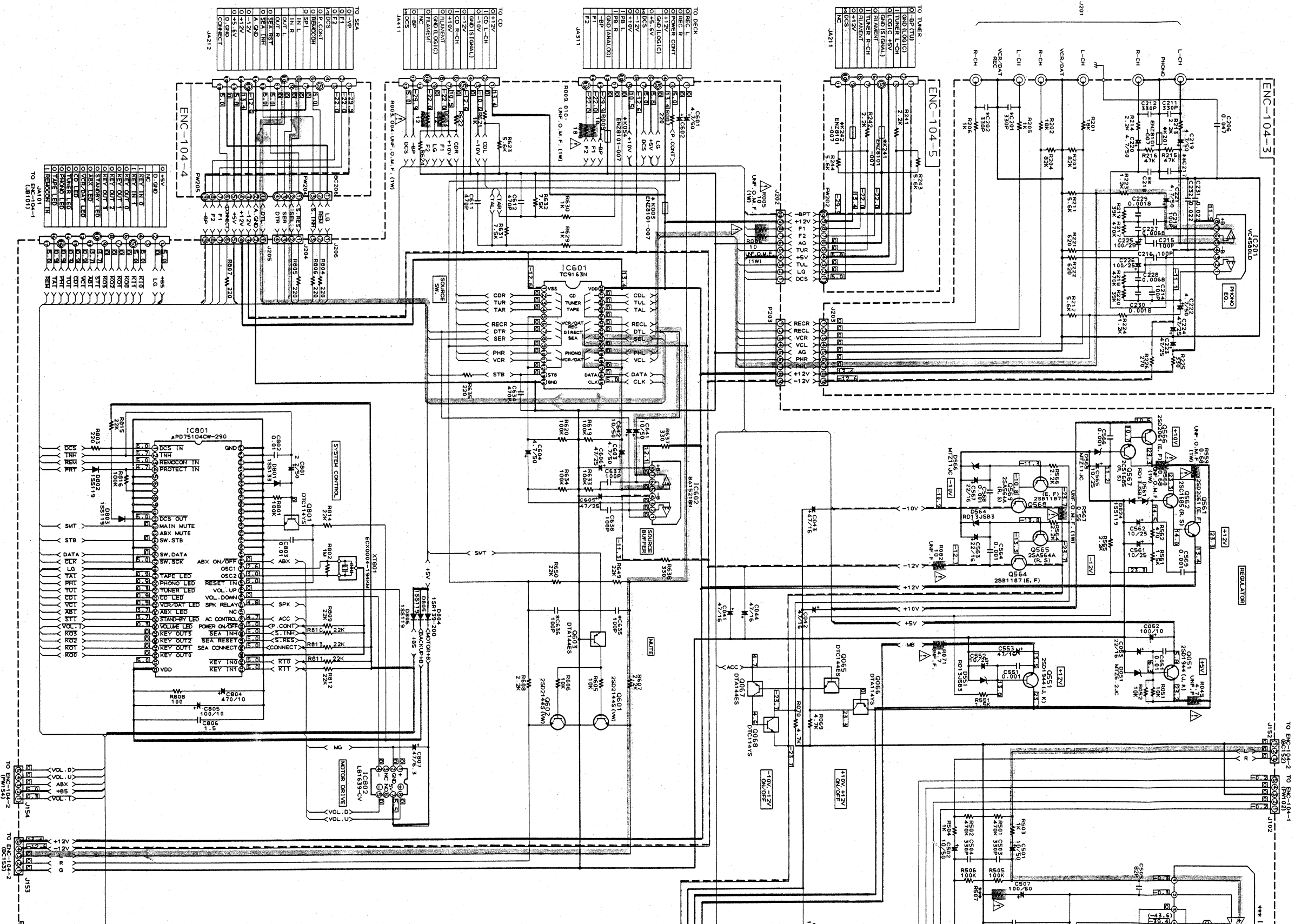
# MEMO

AX-E78BK  
AX-E79TN

# MEMO

# Schematic Diagrams

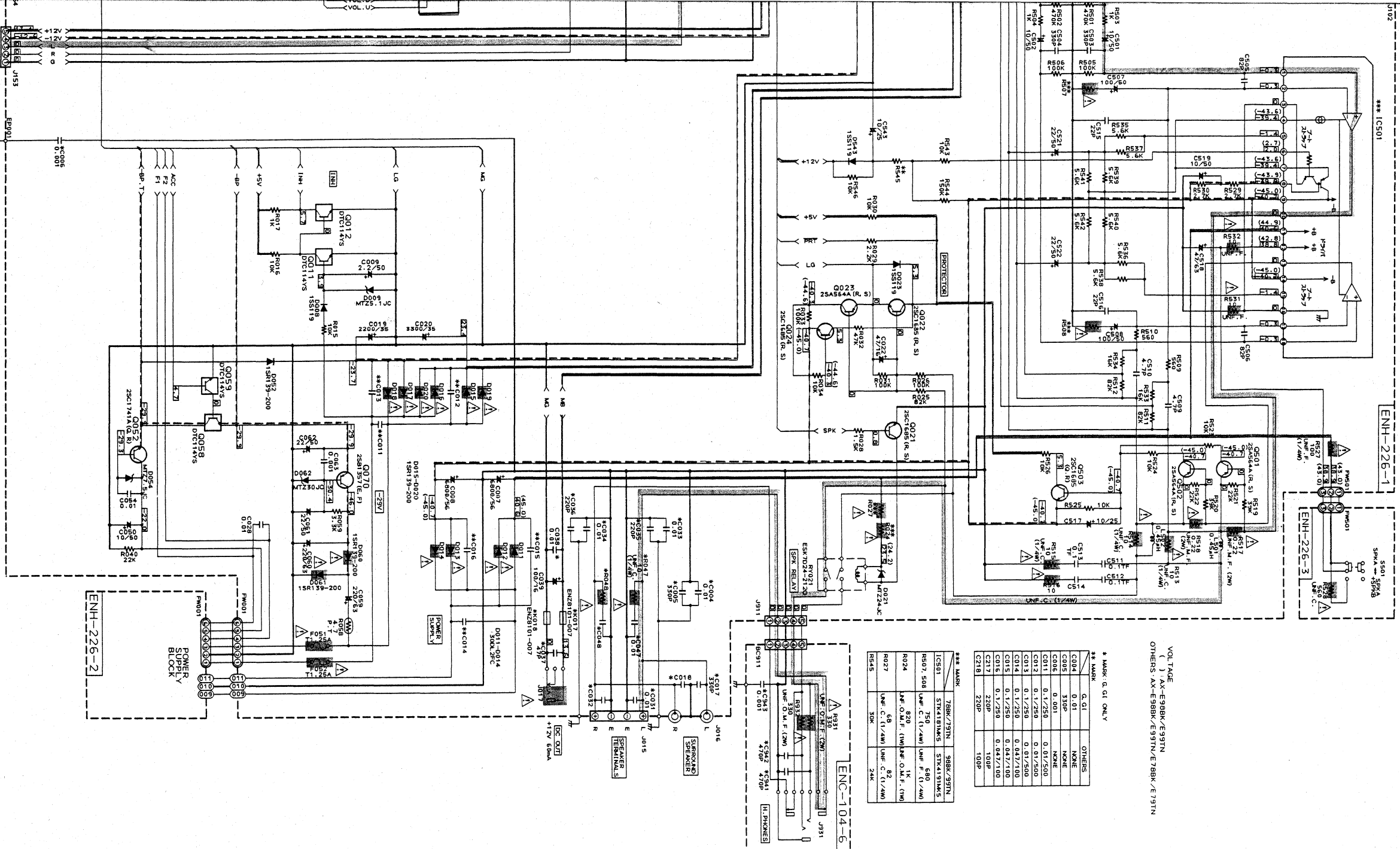
## Audio Section



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13

A B C D E F G H I J K

K L M N O P Q R S



VOL. TAPE  
( ) AX-E98BK/E991N  
OTHERS AX-E98BK/E991N/E78BK/E791N

\* MARK Q, Q1 ONLY

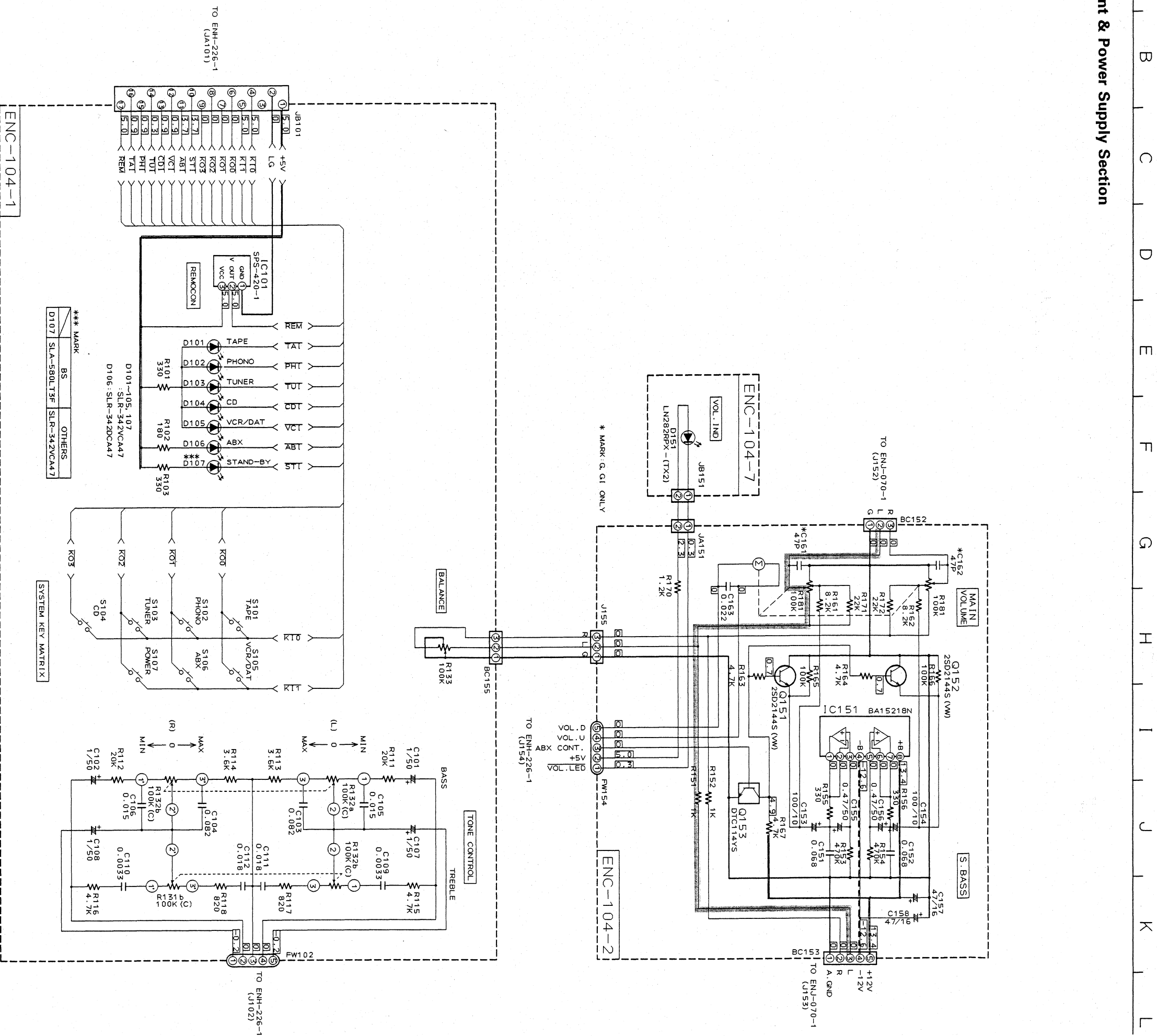
MARK	Q, Q1	OTHERS
CG04	0.01	NONE
CG08	330P	NONE
CG09	0.001	NONE
CG11	0.1/250	0.01/500
CG12	0.1/250	0.01/500
CG13	0.1/250	0.01/500
CG14	0.1/250	0.047/100
CG15	0.1/250	0.047/100
CG16	0.1/250	0.047/100
CG17	220P	100P
CG18	220P	100P

\*\*\* MARK

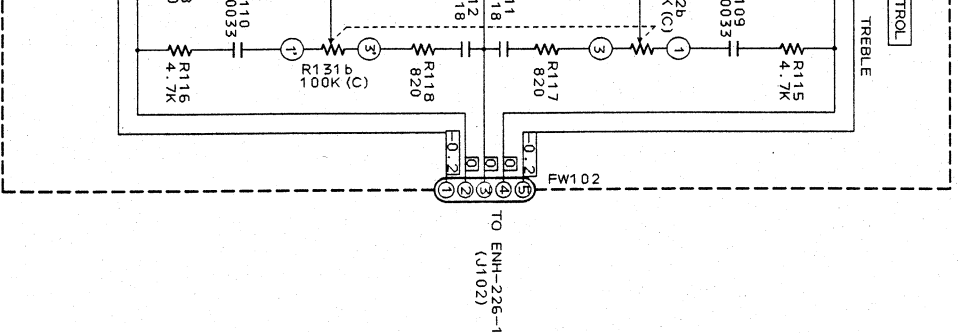
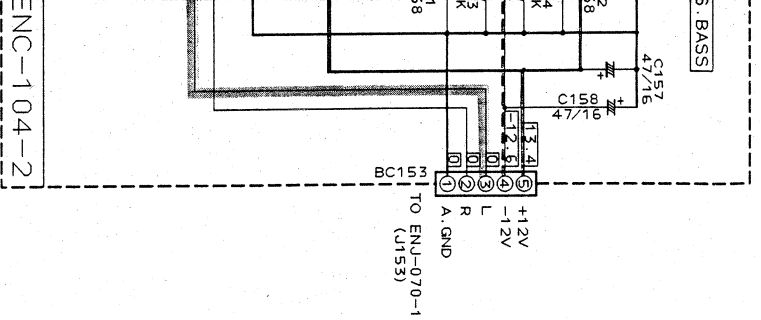
IC501	7808/791N	988K/991N
IC501	5TK4181AKS	5TK4191AKS
HS07-508	750	580
RO24	WPC-C (1/4W)	WPC-F (1/4W)
RO24	820	1K
RO27	WPC-O.M.F. (2W)	WPC-O.M.F. (1W)
RS45	WPC-C (1/4W)	WPC-F (1/4W)
RS45	10K	24K



Front & Power Supply Section

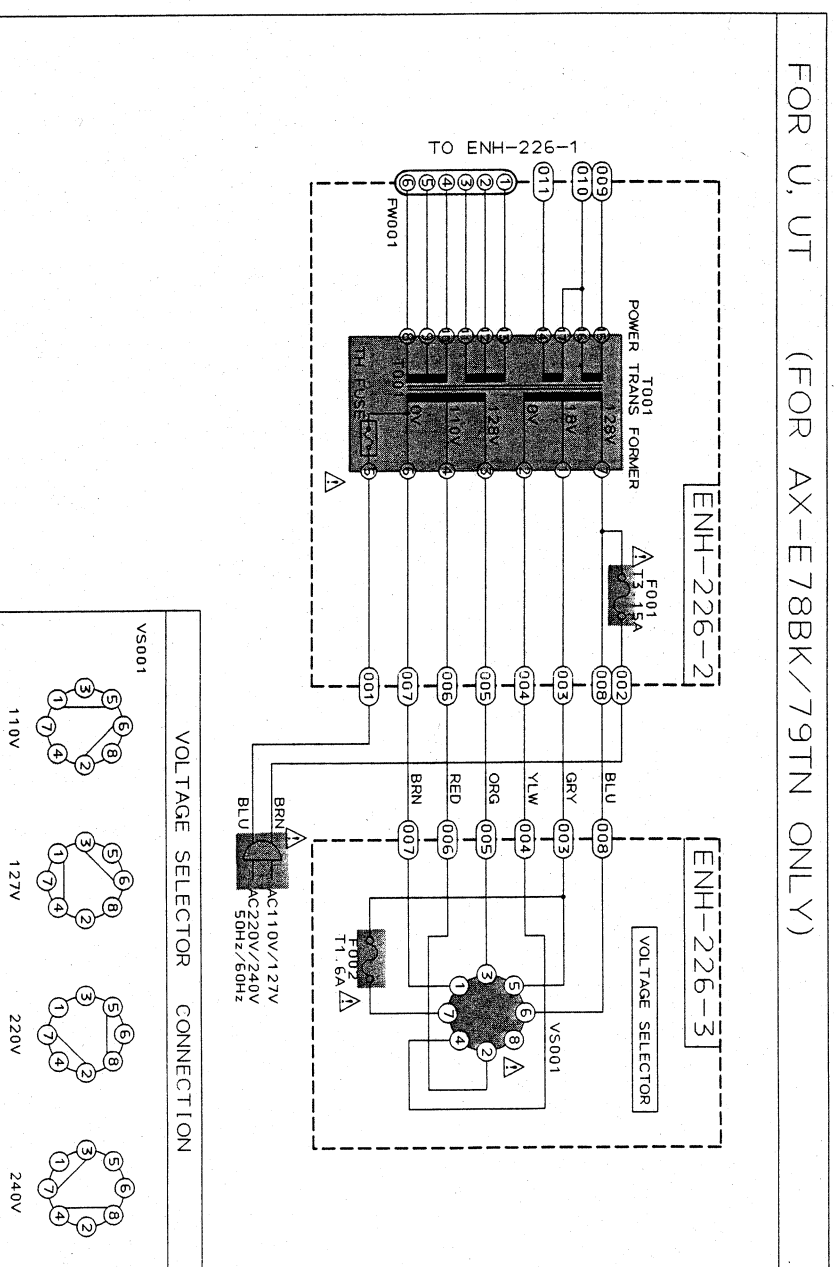
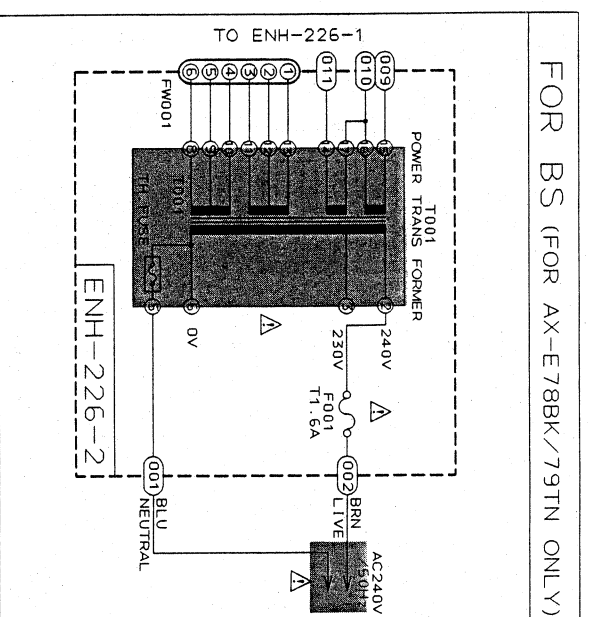
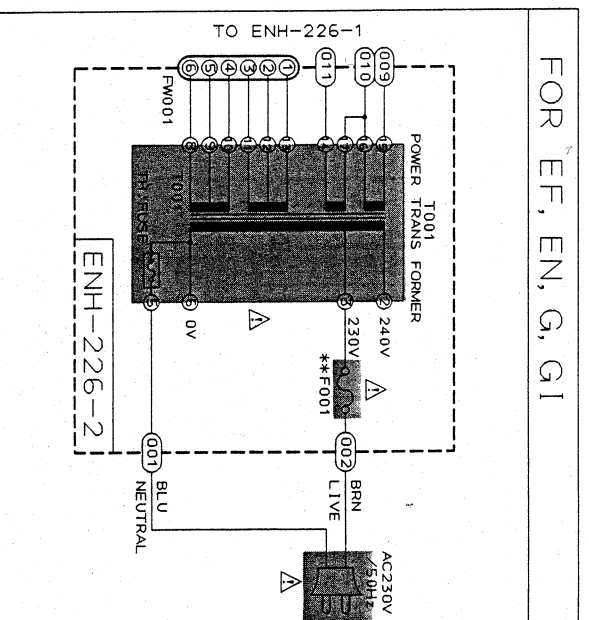


K L M N O P Q R S



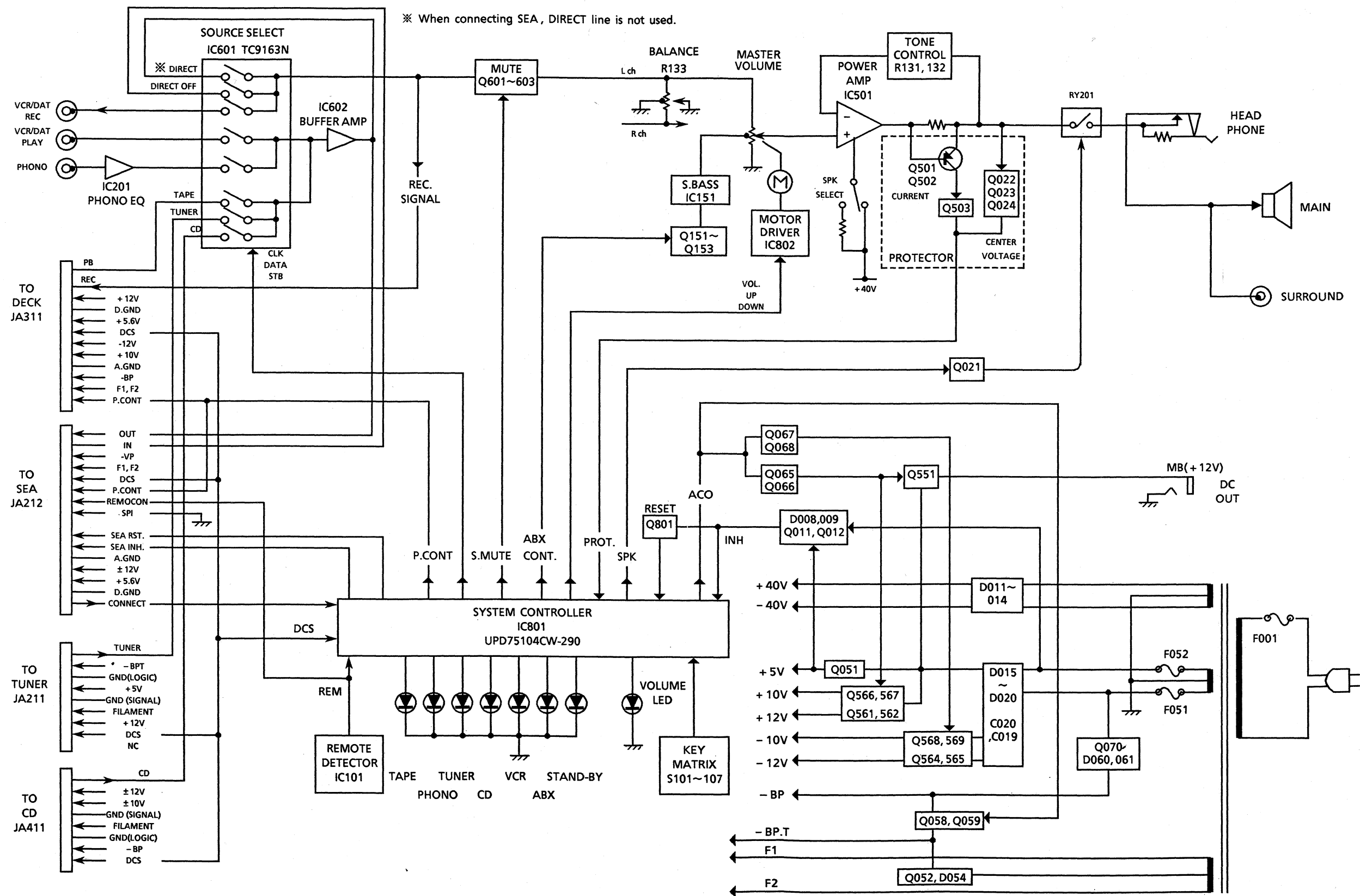
\*\* MARK

AX-E78BK/79TN	AX-E98BK/99TN
F001	T1.6A
	T2A



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

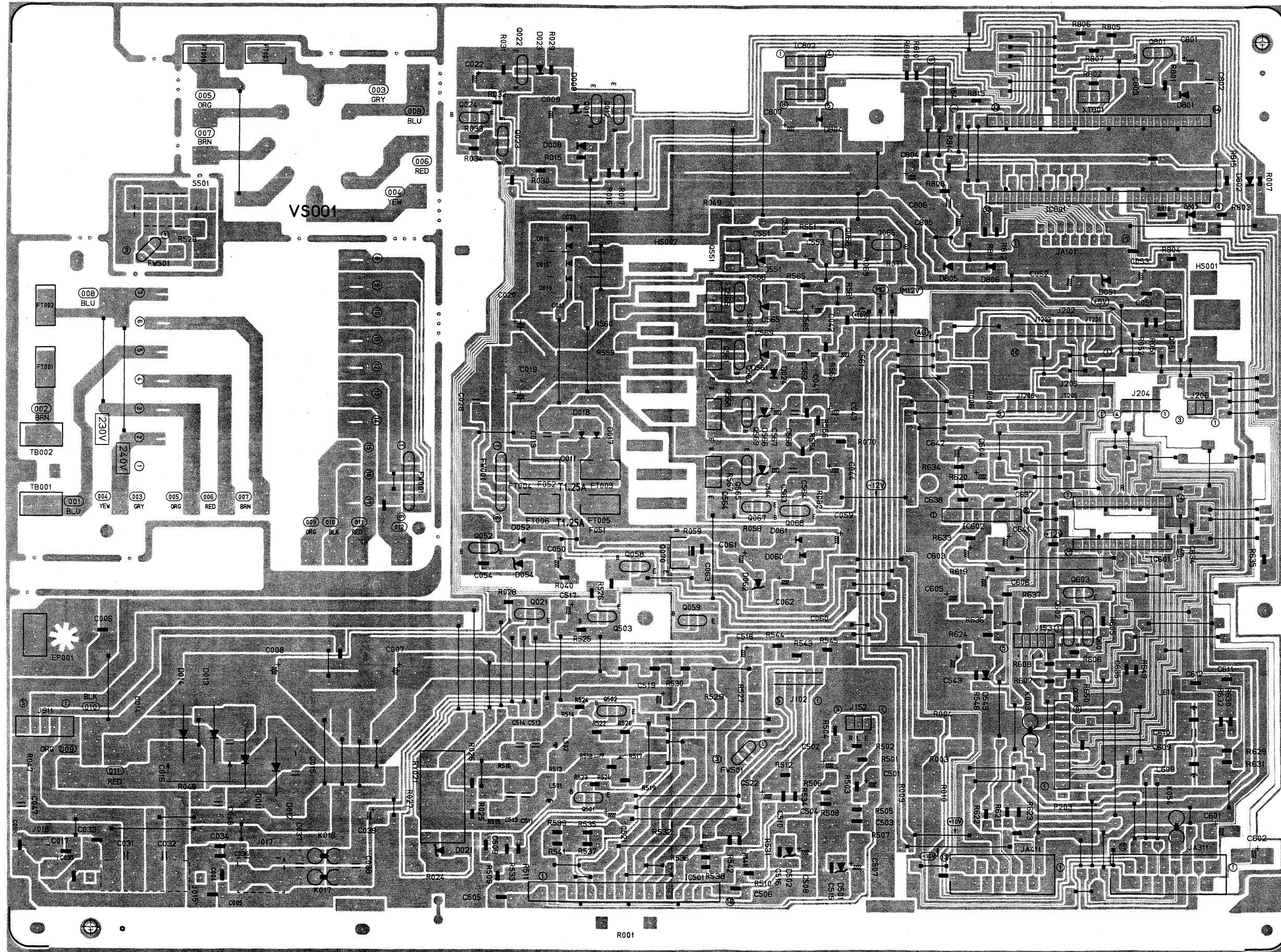
# Block Diagram



# Printed Circuit Boards

■ Main CB (ENH-226)

AX-E78BK  
AX-E79TN

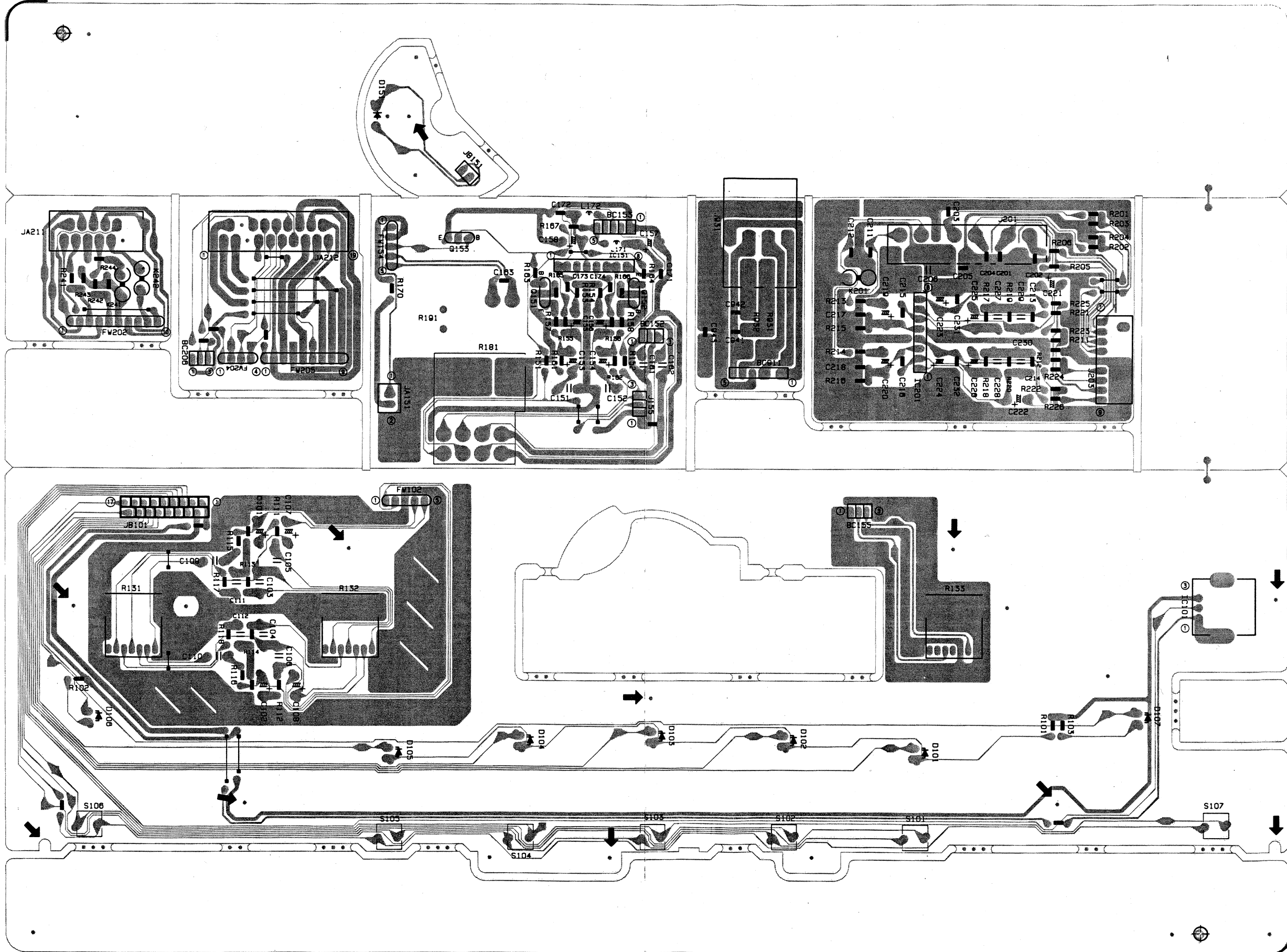


(No.20423)

AX-E78BK  
AX-E79TN

AX-E78BK  
AX-E79TN

■ Front, Phono EQ & Volume CB (ENC-104)



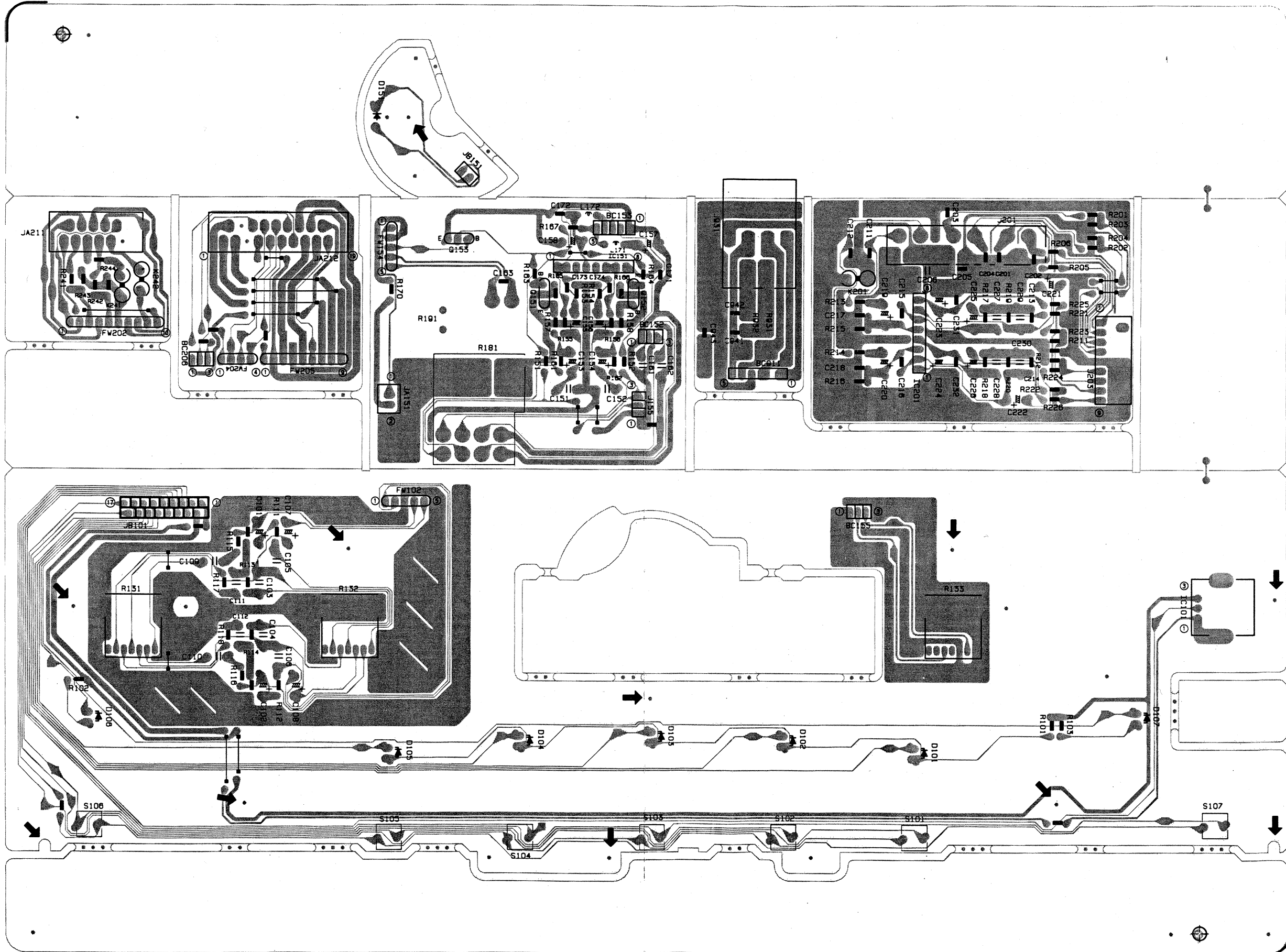
(No.20423)

(No.20423)

AX-E78BK  
AX-E79TN

AX-E78BK  
AX-E79TN

■ Front, Phono EQ & Volume CB (ENC-104)



(No.20423)

(No.20423)

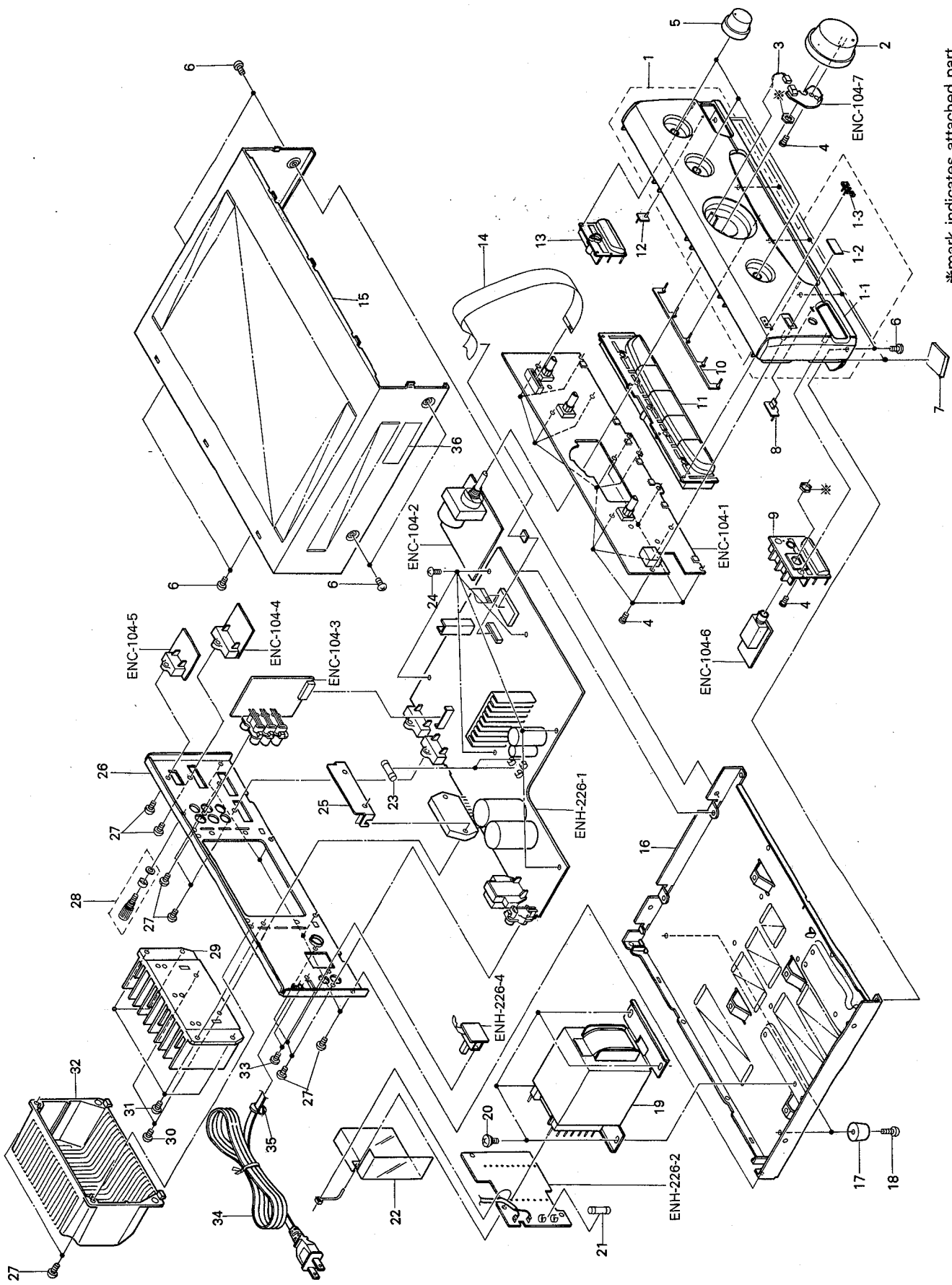
# PARTS LIST

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

## Contents

General Exploded View and Parts List .....	2 - 2
Printed Circuit Board Ass'y and Parts List .....	2 - 5
■ ENH-226 <input type="checkbox"/> Main PC Board Ass'y .....	2 - 5
■ ENC-104 <input type="checkbox"/> Front, Phono EQ & Volume PC Board Ass'y .....	2 - 9
Accessories List .....	2-11
Packing Materials and Part Numbers .....	2-12

# General Exploded View and Parts List





■ Parts List

△	Item	Part Number	Part Name	Q'ty	Description	Areas
	1	EFP-AXE78BKE (S)	FRONT PANEL ASSY	1		EN
	1-1	E102720-002SM	FRONT PANEL	1		
	1-2	E407335-001SS	REMOTE PLATE	1		
	1-3	E406971-221	JVC MARK	1		
	2	E308266-002	VOLUME KNOB	1		
	3	EWS142-002B	SOCKET WIRE	1	EW900	
	4	SDSF2608Z	SCREW	12		
	5	E308550-002	KNOB	3		
	6	SDSG3008M	SCREW	11		
	7	E75896-001	SPACER	2	FRONT FOOT	
	8	E407598-001	INDICATOR	1		
	9	E308291-002SS	PUSH BUTTON	1	POWER	
	10	E308549-001	INDICATOR	1		
	11	E207861-002SM	PUSH BUTTON	1	SOURCE	
	12	E407599-001	INDICATOR	1		
	13	E308294-006SS	PUSH BUTTON	1	BASS EXT.	
	14	EWR617K-18TTJ3	FLAT WIRE	1		
	15	E207457-003	METAL COVER	1		
	16	E102582-001SM	CHASSIS BASE	1		
	17	E47227-030	FOOT	2	REAR	
	18	SBSG3010Z	SCREW	2	FOR FOOT	
△	19	ETP1150-52EAJ	POWER TRANSFORMER	1		EF
△		ETP1150-52EAJ	POWER TRANSFORMER	1		EN
△		ETP1150-52EAJ	POWER TRANSFORMER	1		G
△		ETP1150-52EAJ	POWER TRANSFORMER	1		GI
△	20	ETP1150-52EAJBS	POWER TRANSFORMER	1		BS
		E65389-004	SPECIAL SCREW	4		
△	21	QMF51E2-1R6J1	FUSE	1	F001 (T1.6A/250V)	EF
△		QMF51E2-1R6J1	FUSE	1	F001 (T1.6A/250V)	EN
△		QMF51E2-1R6J1	FUSE	1	F001 (T1.6A/250V)	G
△		QMF51E2-1R6J1	FUSE	1	F001 (T1.6A/250V)	GI
△		QMF51E2-1R6J1BS	FUSE	1	F001 (T1.6A/250V)	BS
	22	E308251-001SM	PROTECT COVER	1		
△	23	QMF51E2-1R25J1	FUSE	2	F051 , F052 (T1.25A/250V)	EF
△		QMF51E2-1R25J1	FUSE	2	F051 , F052 (T1.25A/250V)	EN
△		QMF51E2-1R25J1	FUSE	2	F051 , F052 (T1.25A/250V)	G
△		QMF51E2-1R25J1	FUSE	2	F051 , F052 (T1.25A/250V)	GI
△		QMF51E2-1R2J1BS	FUSE	2	F051 , F052 (T1.25A/250V)	BS
	24	SBSG3008CC	SCREW	6		
	25	E308062-001SM	BRACKET	1		
	26	E207863-003SM	REAR PANEL	1		EF
		E207863-003SM	REAR PANEL	1		EN
		E207863-003SM	REAR PANEL	1		G
		E207863-003SM	REAR PANEL	1		GI
		E207863-004SM	REAR PANEL	1		BS
	27	E73273-003	SPECIAL SCREW	14		
	28	E70078-003	GND TERMINAL	1		
	29	E308061-001SM	HEAT SINK	1		
	30	SBSG3020Z	SCREW	2		
	31	SBSG3010CC	SCREW	4		
	32	E207466-001SM	REAR COVER	1		
	33	SDST2604M	SCREW	2		
△	34	QMP3900-200	POWER CORD	1		EF
△		QMP3900-200	POWER CORD	1		EN
△		QMP39A0-200	POWER CORD	1		G

⚠	Item	Part Number	Part Name	Q'ty	Description	Areas
⚠		QMP39A0-200	POWER CORD	1		GI
⚠		QMP5530-0085BS	POWER CORD	1		BS
⚠	35	QHS3876-162	CORD STOPPER	1		EF
⚠		QHS3876-162	CORD STOPPER	1		EN
⚠		QHS3876-162	CORD STOPPER	1		G
⚠		QHS3876-162	CORD STOPPER	1		GI
⚠		QHS3876-162BS	CORD STOPPER	1		BS
	36	E67000-019	CAUTION LABEL	1		
	-	E61029-005	NUMBER LABEL	1		
	-	QZL1031-101	SEV LABEL	1		EF
	-	E70027-001	APPROVAL LABEL	1		EN

**⚠ SAFETY PARTS**

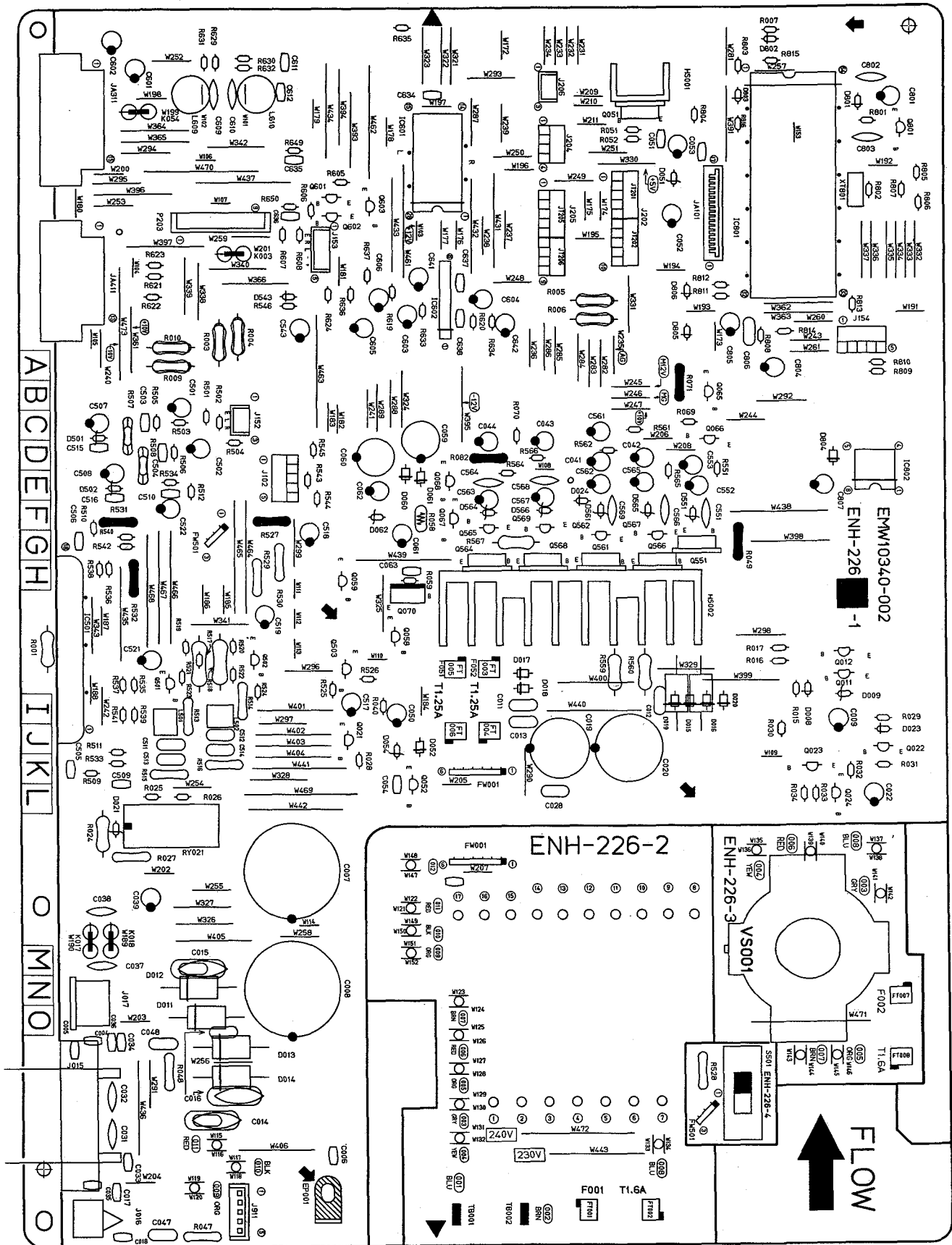
**The Marks for Designated Areas**

EN .... Scandinavia      EF ..... Continental Europe      BS ..... the U.K.  
 G ..... Germany      GI ..... Italy      No mark indicates all areas.

# Printed Circuit Board Ass'y and Parts List

## ■ ENH-226 □ Main PC Board Ass'y

Note: ENH-226 □ varies according to the areas employed. See note (1) when placing an order.



Note (1)

PC Board Ass'y	Version	Designated Areas
ENH-226 [E] BS	BS	the U.K.
ENH-226 [F]	EN EF	Scandinavia Continental Europe
ENH-226 [G]	G GI	Germany Italy

Diodes

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D565	MTZ11JC	ZENER ROHM	
	D566	MTZ11JC	ZENER ROHM	
	D801	1SS119	SILICON HITACHI	
	D802	1SS119	SILICON HITACHI	
	D803	1SS119	SILICON HITACHI	
	D804	1SR139-200	SILICON ROHM	
	D805	1SS119	SILICON HITACHI	
	D806	1SS119	SILICON HITACHI	

Δ (SAFETY PARTS)

Transistors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q011	DTC114YS	SILICON ROHM	
	Q012	DTC114YS	SILICON ROHM	
	Q021	2SC1685(R,S)	SILICON MATSUSHITA	
	Q022	2SC1685(R,S)	SILICON MATSUSHITA	
	Q023	2SA564A(R,S)	SILICON	
	Q024	2SC1685(R,S)	SILICON MATSUSHITA	
	Q051	2SD1944(J,K)	SILICON ROHM	
	Q052	2SC1741A(Q,R)	SILICON ROHM	
	Q058	DTC114YS	SILICON ROHM	
	Q059	DTC114YS	SILICON ROHM	
	Q065	DTC144ES	SILICON ROHM	
	Q066	DTA114YS	SILICON ROHM	
	Q067	DTA144ES	SILICON ROHM	
	Q068	DTC114YS	SILICON ROHM	
	Q070	2SB1357(E,F)	SILICON ROHM	
	Q501	2SA564A(R,S)	SILICON	
	Q502	2SA564A(R,S)	SILICON	
	Q503	2SC1685(Q,R)	SILICON MATSUSHITA	
	Q551	2SD1944(J,K)	SILICON ROHM	
	Q561	2SD2061(E,F)	SILICON ROHM	
	Q562	2SC1685(R,S)	SILICON MATSUSHITA	
	Q564	2SB1187(E,F)	SILICON	
	Q565	2SA564A(R,S)	SILICON	
	Q566	2SD2061(E,F)	SILICON ROHM	
	Q567	2SC1685(R,S)	SILICON MATSUSHITA	
	Q568	2SB1187(E,F)	SILICON	
	Q569	2SA564A(R,S)	SILICON	
	Q601	2SD2144S(VW)	SILICON ROHM	
	Q602	2SD2144S(VW)	SILICON ROHM	
	Q603	DTA144ES	SILICON ROHM	
	Q801	DTC114YS	SILICON ROHM	

Δ (SAFETY PARTS)

I.C.s

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC501	STK4181MK5	I.C. SANYO	
	IC601	TC9163N	I.C. TOSHIBA	
	IC602	BA15218N	I.C. ROHM	
	IC801	UPD75104CW-290	I.C. NEC	
	IC802	LB1639-CV	I.C. SANYO	

Δ (SAFETY PARTS)

Diodes

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D008	1SS119	SILICON HITACHI	
	D009	MTZ5.1JC	ZENER ROHM	
Δ	D011	30DL2FC	SILICON NIHONINTER	
Δ	D012	30DL2FC	SILICON NIHONINTER	
Δ	D013	30DL2FC	SILICON NIHONINTER	
Δ	D014	30DL2FC	SILICON NIHONINTER	
	D015	1SR139-200	SILICON ROHM	
	D016	1SR139-200	SILICON ROHM	
	D017	1SR139-200	SILICON ROHM	
	D018	1SR139-200	SILICON ROHM	
	D019	1SR139-200	SILICON ROHM	
	D020	1SR139-200	SILICON ROHM	
	D021	MTZ24JC	ZENER ROHM	
	D023	1SS119	SILICON HITACHI	
	D024	1SS119	SILICON HITACHI	
	D051	MTZ6.2JC	ZENER ROHM	
	D052	1SR139-200	SILICON ROHM	
	D054	MTZ7.5JC	ZENER ROHM	
	D060	1SR139-200	SILICON ROHM	
	D061	1SR139-200	SILICON ROHM	
	D062	MTZ30JC	ZENER ROHM	
	D543	1SS119	SILICON HITACHI	
	D551	RD13JSB3	ZENER NEC	
	D561	RD13JSB3	ZENER NEC	
	D564	RD13JSB3	ZENER NEC	

Δ (SAFETY PARTS)

Capacitors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C004	QCVB1CM-103	0.01MF 16V CERAMIC	G
	C004	QCVB1CM-103	0.01MF 16V CERAMIC	GI
	C005	QCBB1HK-331	330PF 50V CERAMIC	G
	C005	QCBB1HK-331	330PF 50V CERAMIC	GI
	C006	QCGB1HK-102	1000PF 50V CERAMIC	G
	C006	QCGB1HK-102	1000PF 50V CERAMIC	GI
	C007	EEW5615-688J6	6800MF ELECTRO	
	C008	EEW5615-688J6	6800MF ELECTRO	
	C009	QETB1HM-225	2.2MF 50V ELECTRO	
	C011	QFLB2AJ-103	0.01MF 100V MYLAR	BS
	C011	QFLB2AJ-103	0.01MF 100V MYLAR	EF
	C011	QFLB2AJ-103	0.01MF 100V MYLAR	EN
	C011	QFV82AJ-104	0.1MF 100V T.FILM	G
	C011	QFV82AJ-104	0.1MF 100V T.FILM	GI
	C012	QFLB2AJ-103	0.01MF 100V MYLAR	BS
	C012	QFLB2AJ-103	0.01MF 100V MYLAR	EF
	C012	QFLB2AJ-103	0.01MF 100V MYLAR	EN
	C012	QFV82AJ-104	0.1MF 100V T.FILM	G
	C012	QFV82AJ-104	0.1MF 100V T.FILM	GI
	C013	QFLB2AJ-103	0.01MF 100V MYLAR	BS
	C013	QFLB2AJ-103	0.01MF 100V MYLAR	EF
	C013	QFLB2AJ-103	0.01MF 100V MYLAR	EN
	C013	QFV82AJ-104	0.1MF 100V T.FILM	G
	C013	QFV82AJ-104	0.1MF 100V T.FILM	GI
	C014	QFN82AJ-473	0.047MF 100V MYLAR	
	C015	QFN82AJ-473	0.047MF 100V MYLAR	
	C016	QFN82AJ-473	0.047MF 100V MYLAR	
	C017	QCBB1HK-331	330PF 50V CERAMIC	G
	C017	QCBB1HK-331	330PF 50V CERAMIC	GI
	C018	QCBB1HK-331	330PF 50V CERAMIC	G
	C018	QCBB1HK-331	330PF 50V CERAMIC	GI
	C019	QETB1VM-228N	2200MF 35V ELECTRO	
	C020	QETB1VM-338	3300MF 35V ELECTRO	
	C022	QET41CM-476	47MF 16V ELECTRO	
	C028	QFLB1HJ-103	0.01MF 50V MYLAR	
	C031	QCF21HP-102	1000PF 50V CERAMIC	G
	C031	QCF21HP-102	1000PF 50V CERAMIC	GI
	C032	QCF21HP-102	1000PF 50V CERAMIC	G
	C032	QCF21HP-102	1000PF 50V CERAMIC	GI
	C033	QCVB1CM-103	0.01MF 16V CERAMIC	G
	C033	QCVB1CM-103	0.01MF 16V CERAMIC	GI
	C034	QCVB1CM-103	0.01MF 16V CERAMIC	G
	C034	QCVB1CM-103	0.01MF 16V CERAMIC	GI
	C035	QCBB1HK-221	220PF 50V CERAMIC	G
	C035	QCBB1HK-221	220PF 50V CERAMIC	GI
	C036	QCBB1HK-221	220PF 50V CERAMIC	G
	C036	QCBB1HK-221	220PF 50V CERAMIC	GI
	C037	QCS11HJ-470	47PF 50V CERAMIC	G
	C037	QCS11HJ-470	47PF 50V CERAMIC	GI
	C038	QCF11HP-103	0.01MF 50V CERAMIC	G
	C038	QCF11HP-103	0.01MF 50V CERAMIC	GI
	C039	QET41CM-107	100MF 16V ELECTRO	
	C041	EETB1CM-476E	47MF 16V ELECTRO	
	C042	EETB1CM-476E	47MF 16V ELECTRO	
	C043	EETB1CM-476E	47MF 16V ELECTRO	
	C044	EETB1CM-476E	47MF 16V ELECTRO	
	C047	QFLB1HJ-103	0.01MF 50V MYLAR	G
	C047	QFLB1HJ-103	0.01MF 50V MYLAR	GI
	C048	QFLB1HJ-103	0.01MF 50V MYLAR	G
	C048	QFLB1HJ-103	0.01MF 50V MYLAR	GI
	C050	QETB1HM-106	10MF 50V ELECTRO	
	C051	QCVB1CM-103	0.01MF 16V CERAMIC	
	C052	QET41AM-107	100MF 10V ELECTRO	
	C053	QET41CM-226	22MF 16V ELECTRO	
	C054	QCVB1CM-103	0.01MF 16V CERAMIC	
	C059	QETB1JM-227	220MF 63V ELECTRO	
	C060	QETB1JM-227	220MF 63V ELECTRO	
	C061	QET41HM-226	22MF 50V ELECTRO	
	C062	QET41HM-226	22MF 50V ELECTRO	
	C063	QCGB1HK-102	1000PF 50V CERAMIC	
	C501	EETB1HM-106E	10MF ELECTRO	
	C502	EETB1HM-106E	10MF ELECTRO	
	C503	QCBB1HK-331	330PF 50V CERAMIC	
	C504	QCBB1HK-331	330PF 50V CERAMIC	
	C505	QCBB1HK-820	82PF 50V CERAMIC	
	C506	QCBB1HK-820	82PF 50V CERAMIC	
	C507	EET2501-107E	100MF ELECTRO	
	C508	EET2501-107E	100MF ELECTRO	
	C509	QCSB1HK-4R7	4.7PF 50V CERAMIC	
	C510	QCSB1HK-4R7	4.7PF 50V CERAMIC	

Δ (SAFETY PARTS)

Capacitors

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	C511	QFV81HJ-104	0.1MF	50V	T. FILM	
	C512	QFV81HJ-104	0.1MF	50V	T. FILM	
	C513	QFV81HJ-104	0.1MF	50V	T. FILM	
	C514	QFV81HJ-104	0.1MF	50V	T. FILM	
	C515	QCT30UJ-220	22PF	50V	CERAMIC	
	C516	QCT30UJ-220	22PF	50V	CERAMIC	
	C517	QET41EM-106	10MF	25V	ELECTRO	
	C518	QETB1JM-476	47MF	63V	ELECTRO	
	C519	QETB1HM-106	10MF	50V	ELECTRO	
	C521	QET41HM-226	22MF	50V	ELECTRO	
	C522	QET41HM-226	22MF	50V	ELECTRO	
	C543	QET41EM-106	10MF	25V	ELECTRO	
	C551	QCF21HP-102	1000PF	50V	CERAMIC	
	C552	QET41EM-106	10MF	25V	ELECTRO	
	C553	QET41CM-476	47MF	16V	ELECTRO	
	C561	QET41EM-106	10MF	25V	ELECTRO	
	C562	QET41EM-106	10MF	25V	ELECTRO	
	C563	QET41CM-226	22MF	16V	ELECTRO	
	C564	QCF21HP-102	1000PF	50V	CERAMIC	
	C565	QET41EM-106	10MF	25V	ELECTRO	
	C566	QCF21HP-102	1000PF	50V	CERAMIC	
	C567	QET41CM-226	22MF	16V	ELECTRO	
	C568	QCF21HP-102	1000PF	50V	CERAMIC	
	C569	QCF21HP-102	1000PF	50V	CERAMIC	
	C601	QET41HM-475	4.7MF	50V	ELECTRO	
	C602	QET41HM-475	4.7MF	50V	ELECTRO	
	C603	QET41HM-475	4.7MF	50V	ELECTRO	
	C604	QET41HM-475	4.7MF	50V	ELECTRO	
	C605	QET41EM-476	47MF	25V	ELECTRO	
	C606	QET41EM-476	47MF	25V	ELECTRO	
	C611	QCBB1HK-471	470PF	50V	CERAMIC	
	C612	QCBB1HK-471	470PF	50V	CERAMIC	
	C635	QCBB1HK-101	100PF	50V	CERAMIC	G
	C635	QCBB1HK-101	100PF	50V	CERAMIC	GI
	C636	QCBB1HK-101	100PF	50V	CERAMIC	G
	C636	QCBB1HK-101	100PF	50V	CERAMIC	GI
	C637	QCBB1HK-101	100PF	50V	CERAMIC	G
	C637	QCBB1HK-101	100PF	50V	CERAMIC	GI
	C638	QCBB1HK-101	100PF	50V	CERAMIC	G
	C638	QCBB1HK-101	100PF	50V	CERAMIC	GI
	C641	QETB1HM-106	10MF	50V	ELECTRO	
	C642	QETB1HM-106	10MF	50V	ELECTRO	
	C801	QETB1HM-225	2.2MF	50V	ELECTRO	
	C802	QCF11HP-103	0.01MF	50V	CERAMIC	
	C803	QCF11HP-103	0.01MF	50V	CERAMIC	
	C804	QET41AM-477	470MF	10V	ELECTRO	
	C805	EETB1AM-107E	100MF	10V	ELECTRO	
	C806	QCZ0205-155	1.5MF	25V	CERAMIC	
	C807	QET41AM-476	47MF	10V	ELECTRO	

△ IS SAFETY PARTS

Resistors

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	R082	QRZ0077-100	10	1/4W	FUSIBLE	
	R501	QRD167J-474	470K	1/6W	CARBON	
	R502	QRD167J-474	470K	1/6W	CARBON	
	R503	QRD167J-102	1K	1/6W	CARBON	
	R504	QRD167J-102	1K	1/6W	CARBON	
	R505	QRD167J-104	100K	1/6W	CARBON	
	R506	QRD167J-104	100K	1/6W	CARBON	
	R507	QRD14CJ-751S	750	1/4W	UNF. CARBON	
	R508	QRD14CJ-751S	750	1/4W	UNF. CARBON	
	R509	QRD167J-561	560	1/6W	CARBON	
	R510	QRD167J-561	560	1/6W	CARBON	
	R511	QRD167J-823	82K	1/6W	CARBON	
	R512	QRD167J-823	82K	1/6W	CARBON	
	R513	QRD148J-100	10	1/4W	CARBON	
	R514	QRD148J-100	10	1/4W	CARBON	
	R515	QRD148J-100	10	1/4W	CARBON	
	R516	QRD148J-100	10	1/4W	CARBON	
	R517	QRX022J-R22A	0.22	2W	M. FILM	
	R518	QRX022J-R22A	0.22	2W	M. FILM	
	R519	QRD167J-393	39K	1/6W	CARBON	
	R520	QRD167J-393	39K	1/6W	CARBON	
	R521	QRD167J-223	22K	1/6W	CARBON	
	R522	QRD167J-223	22K	1/6W	CARBON	
	R523	QRD167J-103	10K	1/6W	CARBON	
	R524	QRD167J-103	10K	1/6W	CARBON	
	R525	QRD167J-103	10K	1/6W	CARBON	
	R526	QRD167J-103	10K	1/6W	CARBON	
	R527	QRZ0077-101	100	1/4W	FUSIBLE	
	R528	QRD148J-561	560	1/4W	CARBON	
	R529	QRD148J-272	2.7K	1/4W	CARBON	
	R530	QRD148J-272	2.7K	1/4W	CARBON	
	R531	QRZ0077-100	10	1/4W	FUSIBLE	
	R532	QRZ0077-100	10	1/4W	FUSIBLE	
	R533	QRD167J-163	16K	1/6W	CARBON	
	R534	QRD167J-163	16K	1/6W	CARBON	
	R535	QRD167J-562	5.6K	1/6W	CARBON	
	R536	QRD167J-562	5.6K	1/6W	CARBON	
	R537	QRD167J-562	5.6K	1/6W	CARBON	
	R538	QRD167J-562	5.6K	1/6W	CARBON	
	R539	QRD167J-562	5.6K	1/6W	CARBON	
	R540	QRD167J-562	5.6K	1/6W	CARBON	
	R541	QRD167J-562	5.6K	1/6W	CARBON	
	R542	QRD167J-562	5.6K	1/6W	CARBON	
	R543	QRD167J-103	10K	1/6W	CARBON	
	R544	QRD167J-154	150K	1/6W	CARBON	
	R545	QRD167J-303	30K	1/6W	CARBON	
	R546	QRD167J-103	10K	1/6W	CARBON	
	R551	QRD167J-152	1.5K	1/6W	CARBON	
	R559	QRX012J-R68A	0.68	1W	M. FILM	
	R560	QRX012J-R68A	0.68	1W	M. FILM	
	R561	QRD167J-152	1.5K	1/6W	CARBON	
	R562	QRD167J-471	470	1/6W	CARBON	
	R564	QRD167J-222	2.2K	1/6W	CARBON	
	R565	QRD167J-222	2.2K	1/6W	CARBON	
	R566	QRD167J-222	2.2K	1/6W	CARBON	
	R567	QRX012J-R56A	0.56	1W	M. FILM	
	R605	QRD167J-103	10K	1/6W	CARBON	
	R606	QRD167J-103	10K	1/6W	CARBON	
	R607	QRD167J-222	2.2K	1/6W	CARBON	
	R608	QRD167J-222	2.2K	1/6W	CARBON	
	R619	QRD167J-104	100K	1/6W	CARBON	
	R620	QRD167J-104	100K	1/6W	CARBON	
	R621	QRD167J-102	1K	1/6W	CARBON	
	R622	QRD167J-102	1K	1/6W	CARBON	
	R623	QRD167J-562	5.6K	1/6W	CARBON	
	R624	QRD167J-562	5.6K	1/6W	CARBON	
	R629	QRD167J-102	1K	1/6W	CARBON	
	R630	QRD167J-102	1K	1/6W	CARBON	
	R631	QRD167J-752	7.5K	1/6W	CARBON	
	R632	QRD167J-752	7.5K	1/6W	CARBON	
	R633	QRD167J-104	100K	1/6W	CARBON	
	R634	QRD167J-104	100K	1/6W	CARBON	
	R635	QRD167J-221	220	1/6W	CARBON	
	R636	QRD167J-331	330	1/6W	CARBON	
	R637	QRD167J-331	330	1/6W	CARBON	
	R649	QRD167J-223	22K	1/6W	CARBON	
	R650	QRD167J-223	22K	1/6W	CARBON	
	R801	QRD167J-104	100K	1/6W	CARBON	
	R802	QRD167J-105	1M	1/6W	CARBON	
	R803	QRD167J-221	220	1/6W	CARBON	
	R804	QRD167J-221	220	1/6W	CARBON	
	R805	QRD167J-221	220	1/6W	CARBON	
	R806	QRD167J-221	220	1/6W	CARBON	
	R807	QRD167J-221	220	1/6W	CARBON	
	R808	QRD167J-101	100	1/6W	CARBON	
	R809	QRD167J-223	22K	1/6W	CARBON	
	R810	QRD167J-223	22K	1/6W	CARBON	
	R811	QRD167J-223	22K	1/6W	CARBON	
	R812	QRD167J-223	22K	1/6W	CARBON	
	R813	QRD167J-223	22K	1/6W	CARBON	
	R814	QRD167J-223	22K	1/6W	CARBON	
	R815	QRD167J-223	22K	1/6W	CARBON	
	R816	QRD167J-104	100K	1/6W	CARBON	

△ IS SAFETY PARTS

Resistors

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	R001	QRX022J-R22A	0.22	2W	M. FILM	
	R003	QRG012J-120A	12	1W	O.M. FILM	
	R004	QRG012J-120A	12	1W	O.M. FILM	
	R005	QRG012J-100AM	10	1W	O.M. FILM	
	R006	QRG012J-100AM	10	1W	O.M. FILM	
	R007	QRD167J-221	220	1/6W	CARBON	
	R009	QRG012J-180A	18	1W	O.M. FILM	
	R010	QRG012J-180A	18	1W	O.M. FILM	
	R015	QRD167J-103	10K	1/6W	CARBON	
	R016	QRD167J-103	10K	1/6W	CARBON	
	R017	QRD167J-102	1K	1/6W	CARBON	
	R024	QRG012J-821AM	820	1W	O.M. FILM	
	R025	QRD167J-823	82K	1/6W	CARBON	
	R026	QRD167J-104	100K	1/6W	CARBON	
	R027	QRD148J-680	68	1/4W	CARBON	
	R028	QRD167J-152	1.5K	1/6W	CARBON	
	R029	QRD167J-222	2.2K	1/6W	CARBON	
	R030	QRD167J-103	10K	1/6W	CARBON	
	R031	QRD167J-104	100K	1/6W	CARBON	
	R032	QRD167J-473	47K	1/6W	CARBON	
	R033	QRD167J-104	100K	1/6W	CARBON	
	R034	QRD167J-103	10K	1/6W	CARBON	
	R040	QRD167J-223	22K	1/6W	CARBON	
	R047	QRD148J-100	10	1/4W	CARBON	G
	R047	QRD148J-100	10	1/4W	CARBON	GI
	R048	QRD148J-100	10	1/4W	CARBON	G
	R048	QRD148J-100	10	1/4W	CARBON	GI
	R049	QRZ0077-4R7	4.7	1/4W	FUSIBLE	
	R051	QRD167J-103	10K	1/6W	CARBON	
	R052	QRD167J-103	10K	1/6W	CARBON	
	R058	PTH61625AR4R7M			POSISTOR	
	R059	QRD167J-332	3.3K	1/6W	CARBON	
	R069	QRD167J-472	4.7K	1/6W	CARBON	
	R070	QRD167J-472	4.7K	1/6W	CARBON	
	R071	QRZ0077-4R7	4.7	1/4W	FUSIBLE	

△ IS SAFETY PARTS

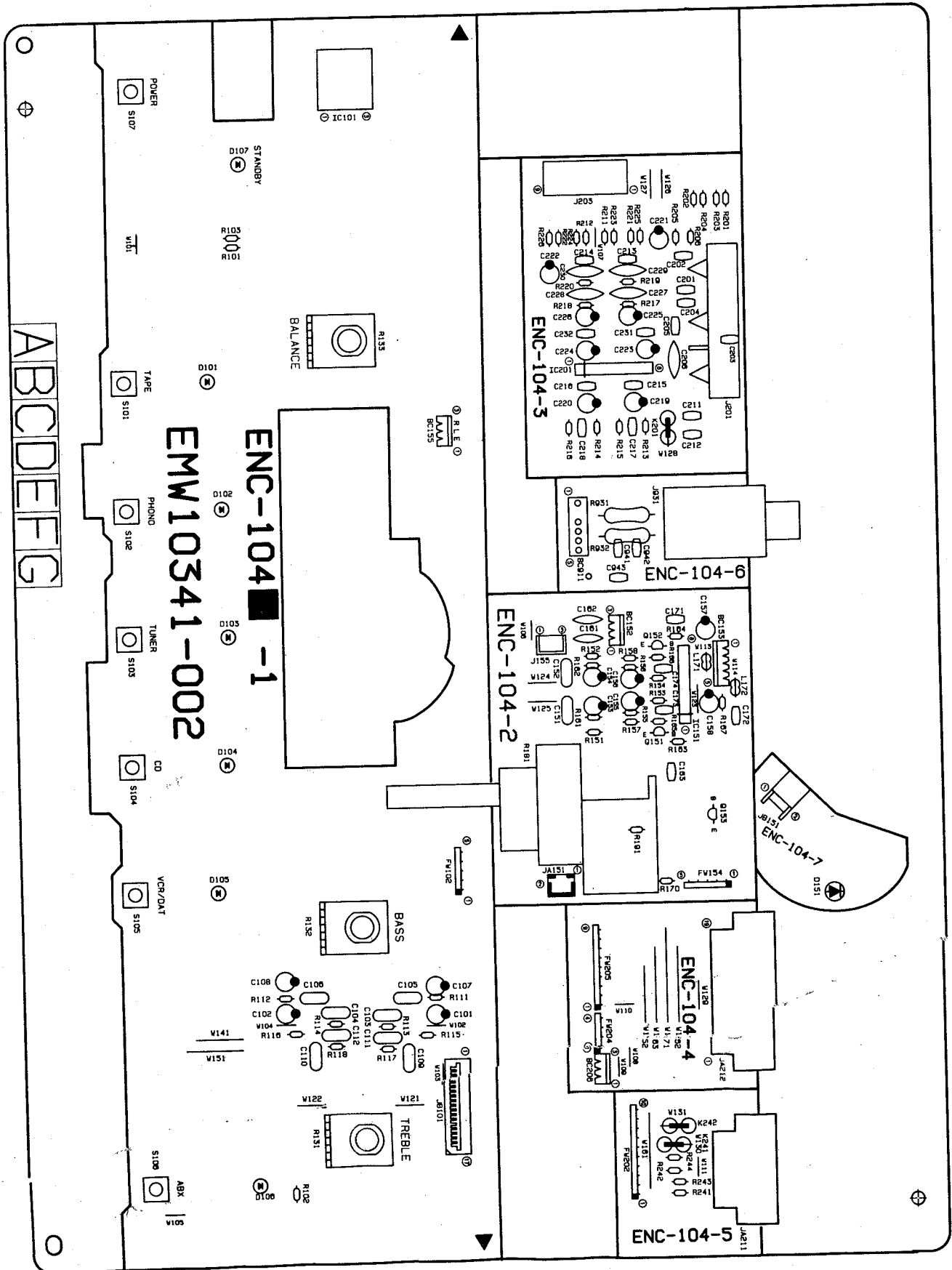
Others

ITEM	PART NUMBER	DESCRIPTION	AREA
	SBSG3008Z	SCREW	
J015	EMB90TV-401A	SPEAKER TERMINAL	BS
J015	EMB90TV-401A	SPEAKER TERMINAL	EF
J015	EMB90TV-401A	SPEAKER TERMINAL	EN
J015	EMB90TV-402A	SPEAKER TERMINAL	G
J015	EMB90TV-402A	SPEAKER TERMINAL	GI
J016	EMN00TV-218AJ2	2P PIN JACK	
J017	QMA1221-009	DC JACK	
J102	EMV7122-005	CONNECTOR(5PIN)	
J152	EMV5109-003A	PLUG ASSY(3PIN)	
J153	EMV5109-005A	PLUG ASSY(5PIN)	
J154	EMV7122-005	CONNECTOR(5PIN)	
J204	EMV7122-004	CONNECTOR(4PIN)	
J206	EMV5109-003A	PLUG ASSY(3PIN)	
J911	EMV5133-005K	PLUG ASSY(5PIN)	
K003	ENZ8101-007	INDUCTOR	G
K003	ENZ8101-007	INDUCTOR	GI
K017	ENZ8101-007	INDUCTOR	G
K017	ENZ8101-007	INDUCTOR	GI
K018	ENZ8101-007	INDUCTOR	G
K018	ENZ8101-007	INDUCTOR	GI
K054	ENZ8101-007	INDUCTOR	G
K054	ENZ8101-007	INDUCTOR	GI
L501	EQL0011-R45J1	INDUCTOR	
L502	EQL0011-R45J1	INDUCTOR	
P203	EMV5125-009	PLUG ASSY(9PIN)	
S501	QSS2201-005	SLIDE SWITCH	
EP001	EMZ4002-001	IM EARTH PLATE	G
EP001	EMZ4002-001	IM EARTH PLATE	GI
FS801	E3400-431	SPACER	
FT001	VMZ0087-001	FUSE CLIP	
FT002	VMZ0087-001	FUSE CLIP	
FT003	VMZ0087-001	FUSE CLIP	
FT004	VMZ0087-001	FUSE CLIP	
FT005	VMZ0087-001	FUSE CLIP	
FT006	VMZ0087-001	FUSE CLIP	
FW001	EWR36D-20SS	FLAT WIRE(6PIN)	
FW501	EWR33D-30SS	FLAT WIRE(3PIN)	
HS001	E70306-005	HEAT SINK	
HS002	E75085-001	HEAT SINK	
JA101	EMV7123-017	CONNECTOR(17PIN)	
JA311	EMV7127-015	CONNECTOR(15PIN)	
JA411	EMV7127-013	CONNECTOR(13PIN)	
JT201	EMV7122-005	CONNECTOR(5PIN)	
JT202	EMV7122-005	CONNECTOR(5PIN)	
JT205	EMV7122-005	CONNECTOR(5PIN)	
JT206	EMV7122-004	CONNECTOR(4PIN)	
RY021	ESK7D24-2120	RELAY	
TB001	EMZ4001-001	TAB	
TB002	EMZ4001-001	TAB	
XT801	ECX0004-194KM	RESONATOR	

△ IS SAFETY PARTS

# ENC-104 Front, Phono EQ & Volume PC Board Ass'y

Note : ENC-104 varies according to the areas employed. See note (1) when placing an order.



Note (1)

PC Board Ass'y	Version	Designated Areas
ENC-104 <b>A</b>	EN EF	Scandinavia Continental Europe
ENC-104 <b>B</b>	G GI	Germany Italy
ENC-104 <b>C</b>	BS	the U.K.

Transistors

ITEM	PART NUMBER	DESCRIPTION	AREA
Q151	2SD2144S(VW)	SILICON ROHM	
Q152	2SD2144S(VW)	SILICON ROHM	
Q153	DTC114YS	SILICON ROHM	

△ (SAFETY PARTS)

I.C.s

ITEM	PART NUMBER	DESCRIPTION	AREA
IC101	SPS-420-1	I.C. SANYO	
IC151	BA15218N	I.C. ROHM	
IC201	NJM4580LD	I.C. DAINICHI	

△ (SAFETY PARTS)

Diodes

ITEM	PART NUMBER	DESCRIPTION	AREA
D101	SLR-342VC3F	L.E.D. ROHM	
D102	SLR-342VC3F	L.E.D. ROHM	
D103	SLR-342VC3F	L.E.D. ROHM	
D104	SLR-342VC3F	L.E.D. ROHM	
D105	SLR-342VC3F	L.E.D. ROHM	
D106	SLR-342DCA47	L.E.D. ROHM	
D107	SLA-580LT3F	L.E.D. ROHM	BS
D107	SLR-342VC3F	L.E.D. ROHM	EF
D107	SLR-342VC3F	L.E.D. ROHM	EN
D107	SLR-342VC3F	L.E.D. ROHM	G
D107	SLR-342VC3F	L.E.D. ROHM	GI
D151	LN282RPX	L.E.D.	

△ (SAFETY PARTS)

Capacitors

ITEM	PART NUMBER	DESCRIPTION	AREA
C101	QET41HM-105	1MF 50V ELECTRO	
C102	QET41HM-105	1MF 50V ELECTRO	
C103	QFLB1HJ-823	0.082MF 50V MYLAR	
C104	QFLB1HJ-823	0.082MF 50V MYLAR	
C105	QFLB1HJ-153	0.015MF 50V MYLAR	
C106	QFLB1HJ-153	0.015MF 50V MYLAR	
C107	QET41HM-105	1MF 50V ELECTRO	
C108	QET41HM-105	1MF 50V ELECTRO	
C109	QFLB1HJ-332	3300PF 50V MYLAR	
C110	QFLB1HJ-332	3300PF 50V MYLAR	
C111	QFLB1HJ-183	0.018MF 50V MYLAR	
C112	QFLB1HJ-183	0.018MF 50V MYLAR	
C115	QFLB1HJ-683	0.068MF 50V MYLAR	
C115	QFLB1HJ-683	0.068MF 50V MYLAR	
C153	QET41EM-107	100MF 10V ELECTRO	
C154	QET41EM-107	100MF 10V ELECTRO	
C155	QET41HM-474	0.47MF 50V ELECTRO	
C156	QET41HM-474	0.47MF 50V ELECTRO	
C157	QET41CM-476	47MF 16V ELECTRO	
C158	QET41CM-476	47MF 16V ELECTRO	
C161	QCS11HJ-470	47PF 50V CERAMIC	G
C161	QCS11HJ-470	47PF 50V CERAMIC	GI
C162	QCS11HJ-470	47PF 50V CERAMIC	G
C162	QCS11HJ-470	47PF 50V CERAMIC	GI
C163	QCHB1EZ-223	0.022MF 25V CERAMIC	
C201	QCBB1HK-331	330PF 50V CERAMIC	
C202	QCBB1HK-331	330PF 50V CERAMIC	
C206	QCC21EM-473	0.047MF 25V CERAMIC	
C211	QCBB1HK-331	330PF 50V CERAMIC	
C212	QCBB1HK-331	330PF 50V CERAMIC	
C213	QCBB1HK-101	100PF 50V CERAMIC	
C214	QCBB1HK-101	100PF 50V CERAMIC	
C215	QCBB1HK-101	100PF 50V CERAMIC	
C216	QCBB1HK-101	100PF 50V CERAMIC	BS
C217	QCBB1HK-101	100PF 50V CERAMIC	

△ (SAFETY PARTS)

Capacitors

ITEM	PART NUMBER	DESCRIPTION	AREA
C217	QCBB1HK-101	100PF 50V CERAMIC	EF
C217	QCBB1HK-101	100PF 50V CERAMIC	EN
C217	QCBB1HK-221	220PF 50V CERAMIC	G
C217	QCBB1HK-221	220PF 50V CERAMIC	GI
C218	QCBB1HK-101	100PF 50V CERAMIC	BS
C218	QCBB1HK-101	100PF 50V CERAMIC	EF
C218	QCBB1HK-101	100PF 50V CERAMIC	EN
C218	QCBB1HK-221	220PF 50V CERAMIC	G
C218	QCBB1HK-221	220PF 50V CERAMIC	GI
C219	QET41HM-475	4.7MF 50V ELECTRO	
C220	QET41HM-475	4.7MF 50V ELECTRO	
C221	QET41HM-475	4.7MF 50V ELECTRO	
C222	QET41HM-475	4.7MF 50V ELECTRO	
C223	QET41EM-476	47MF 25V ELECTRO	
C224	QET41EM-476	47MF 25V ELECTRO	
C225	QET41EM-107	100MF 25V ELECTRO	
C226	QET41EM-107	100MF 25V ELECTRO	
C227	QCY21HK-682	6800PF 50V CERAMIC	
C228	QCY21HK-682	6800PF 50V CERAMIC	
C229	QCY21HK-182	1800PF 50V CERAMIC	
C230	QCY21HK-182	1800PF 50V CERAMIC	
C231	QCHB1EZ-223	0.022MF 25V CERAMIC	
C232	QCHB1EZ-223	0.022MF 25V CERAMIC	
C941	QCBB1HK-471	470PF 50V CERAMIC	G
C941	QCBB1HK-471	470PF 50V CERAMIC	GI
C942	QCBB1HK-471	470PF 50V CERAMIC	G
C942	QCBB1HK-471	470PF 50V CERAMIC	GI
C943	QCGB1HK-102	1000PF 50V CERAMIC	G
C943	QCGB1HK-102	1000PF 50V CERAMIC	GI

△ (SAFETY PARTS)

Resistors

ITEM	PART NUMBER	DESCRIPTION	AREA
R101	QRD167J-331	330 1/6W CARBON	
R102	QRD167J-181	180 1/6W CARBON	
R103	QRD167J-331	330 1/6W CARBON	
R111	QRD167J-203	20K 1/6W CARBON	
R112	QRD167J-203	20K 1/6W CARBON	
R113	QRD167J-362	3.6K 1/6W CARBON	
R114	QRD167J-362	3.6K 1/6W CARBON	
R115	QRD167J-472	4.7K 1/6W CARBON	
R116	QRD167J-472	4.7K 1/6W CARBON	
R117	QRD167J-821	820 1/6W CARBON	
R118	QRD167J-821	820 1/6W CARBON	
R131	QVJB84C-E15BJ3	100K VARIABLE	
R132	QVJB84C-E15BJ3	100K VARIABLE	
R133	QVJA84W-E15CJ3	100K VARIABLE	
R151	QRD167J-102	2.2K 1/6W CARBON	
R152	QRD167J-102	2.2K 1/6W CARBON	
R153	QRD167J-474	470K 1/6W CARBON	
R154	QRD167J-474	470K 1/6W CARBON	
R155	QRD167J-331	330 1/6W CARBON	
R156	QRD167J-331	330 1/6W CARBON	
R157	QRD167J-472	4.7K 1/6W CARBON	
R158	QRD167J-472	4.7K 1/6W CARBON	
R161	QRD167J-822	8.2K 1/6W CARBON	
R162	QRD167J-822	8.2K 1/6W CARBON	
R163	QRD167J-472	4.7K 1/6W CARBON	
R164	QRD167J-472	4.7K 1/6W CARBON	
R165	QRD167J-104	100K 1/6W CARBON	
R166	QRD167J-104	100K 1/6W CARBON	
R167	QRD167J-472	4.7K 1/6W CARBON	
R170	QRD167J-122	1.2K 1/6W CARBON	
R171	QRD167J-223	22K 1/6W CARBON	
R172	QRD167J-223	22K 1/6W CARBON	
R181	QVDB91B-E15F	100K VARIABLE	
R191	QRD167J-104	100K 1/6W CARBON	
R201	QRD167J-183	18K 1/6W CARBON	
R202	QRD167J-183	18K 1/6W CARBON	
R203	QRD167J-823	82K 1/6W CARBON	
R204	QRD167J-823	82K 1/6W CARBON	
R205	QRD167J-102	1K 1/6W CARBON	
R206	QRD167J-102	1K 1/6W CARBON	
R211	QRD167J-562	5.6K 1/6W CARBON	
R212	QRD167J-562	5.6K 1/6W CARBON	
R213	QRD167J-222	2.2K 1/6W CARBON	
R214	QRD167J-222	2.2K 1/6W CARBON	
R215	QRD167J-473	47K 1/6W CARBON	
R216	QRD167J-473	47K 1/6W CARBON	
R217	QRD167J-474	470K 1/6W CARBON	
R218	QRD167J-474	470K 1/6W CARBON	
R219	QRD167J-393	39K 1/6W CARBON	
R220	QRD167J-393	39K 1/6W CARBON	
R221	QRD167J-621	620 1/6W CARBON	
R222	QRD167J-621	620 1/6W CARBON	
R223	QRD167J-122	1.2K 1/6W CARBON	
R224	QRD167J-122	1.2K 1/6W CARBON	
R225	QRD167J-331	330 1/6W CARBON	
R226	QRD167J-271	270 1/6W CARBON	
R241	QRD167J-222	2.2K 1/6W CARBON	

△ (SAFETY PARTS)



**Resistors**

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	R242	QRD167J-222	2.2K 1/6W CARBON	
	R243	QRD167J-562	5.6K 1/6W CARBON	
	R244	QRD167J-562	5.6K 1/6W CARBON	
△	R931	QRG022J-331A	330 2W O.M.FILM	
△	R932	QRG022J-331A	330 2W O.M.FILM	

△ SAFETY PARTS

**Others**

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	J155	EMV5109-003A	PLUG ASSY(3PIN)	
	J201	EMN00TV-608A	6P PIN JACK	
	J203	EMV7125-009R	CONNECTOR(9PIN)	
	J931	QMS6312-024	HEADPHONE JACK	
	K201	ENZ8101-007	INDUCTOR	G
	K201	ENZ8101-007	INDUCTOR	GI
	K241	ENZ8101-007	INDUCTOR	G
	K241	ENZ8101-007	INDUCTOR	GI
	K242	ENZ8101-007	INDUCTOR	G
	K242	ENZ8101-007	INDUCTOR	GI

△ SAFETY PARTS

**Others**

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	S101	ESP0001-023J5	TACT SWITCH(TAPE)	
	S102	ESP0001-023J5	TACT SWITCH(PHONO)	
	S103	ESP0001-023J5	TACT SWITCH(TUNER)	
	S104	ESP0001-023J5	TACT SWITCH(CD)	
	S105	ESP0001-023J5	TACT SWITCH(VCR/DAT)	
	S106	ESP0001-023J5	TACT SWITCH(ABX)	
	S107	ESP0001-023J5	TACT SWITCH(POWER)	
	BC152	EWS293-0130	SOCKET WIRE(3PIN)	
	BC153	EWS295-0730	SOCKET WIRE(5PIN)	
	BC155	EWS293-0110	SOCKET WIRE(3PIN)	
	BC206	EWS293-0112	SOCKET WIRE(3PIN)	
	BC911	EWS245-011T	SOCKET WIRE(5PIN)	
	FW102	EWR35D-30LS	FLAT WIRE(5PIN)	
	FW154	EWR35D-13LS	FLAT WIRE(5PIN)	
	FW202	EWR3AD-20LS	FLAT WIRE(10PIN)	
	FW204	EWR3AD-13LS	FLAT WIRE(4PIN)	
	FW205	EWR39D-16LS	FLAT WIRE(9PIN)	
	JA151	EMV5103-002A	PLUG ASSY(2PIN)	
	JA211	EMV7127-011	CONNECTOR(11PIN)	
	JA212	EMV7127-019	CONNECTOR(19PIN)	
	JB101	EMV7123-017	CONNECTOR(17PIN)	
	JB151	EMV5103-002B	PLUG ASSY(2PIN)	

△ SAFETY PARTS

**Accessories List**

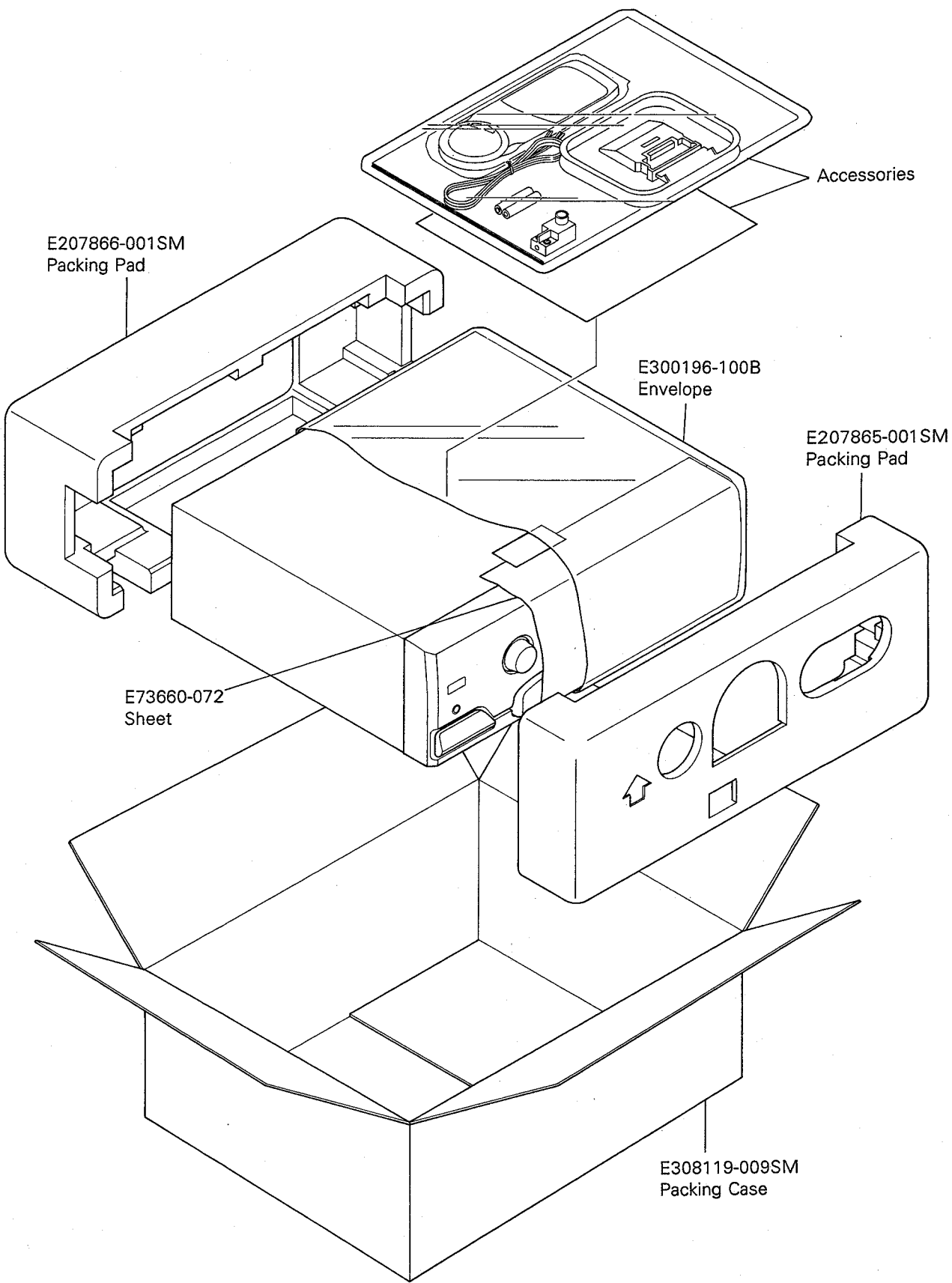
△	Part Number	Part Name	Q'ty	Description	Areas
	E30580-2008ABS	INSTRUCTION BOOK	1		BS
	E30580-2009A	INSTRUCTION BOOK	1		EN
	E30580-2010A	INSTRUCTION BOOK	1		EF
	E30580-2010A	INSTRUCTION BOOK	1		G
	E30580-2010A	INSTRUCTION BOOK	1		GI
	BT-20134	WARRANTY CARD	1		G
	BT20060	WARRANTY CARD	1		BS
	BT-20066A	EEC AGENCY	1		BS
	E43486-340A	SAFETY SHEET	1		BS
	EWP502-005K	BILT-IN ANTENNA	1		BS
	EWP502-005K	BILT-IN ANTENNA	1		EF
	EWP502-005K	BILT-IN ANTENNA	1		EN
	EWP502-005K	BILT-IN ANTENNA	1		GI
	E67007-001	ANTENNA WIRE	1		G
	E35497-019	CAUTION SHEET	1	220V	BS
△	E04056	SIEMENS PLUG	1		BS
	EQB4001-015	LOOP ANTENNA	1		
	EMZ2001-014	ADAPTOR	1		BS
	EMZ2001-014	ADAPTOR	1		EF
	EMZ2001-014	ADAPTOR	1		EN
	EMZ2001-014	ADAPTOR	1		GI
	RM-SE99U	REMOTE CONTROLLER	1		
	UM-4NJ-2PSA	BATTERY	2		
	E43486-519A	CAUTION SHEET	1		
	QPGA020-02505B	ENVELOPE	1		BS
	QPGA025-03505	ENVELOPE	1		EF
	QPGA025-03505	ENVELOPE	1		EN
	QPGA025-03505	ENVELOPE	1		G
	QPGA025-03505	ENVELOPE	1		GI
	QPGA025-03505B	ENVELOPE	1		BS

△ SAFETY PARTS

**The Marks for Designated Areas**

EN ..... Scandinavia    EF ..... Continental Europe    BS ..... the U.K.  
 G ..... Germany    GI ..... Italy    No mark indicates all areas.

# Packing Materials and Part Numbers



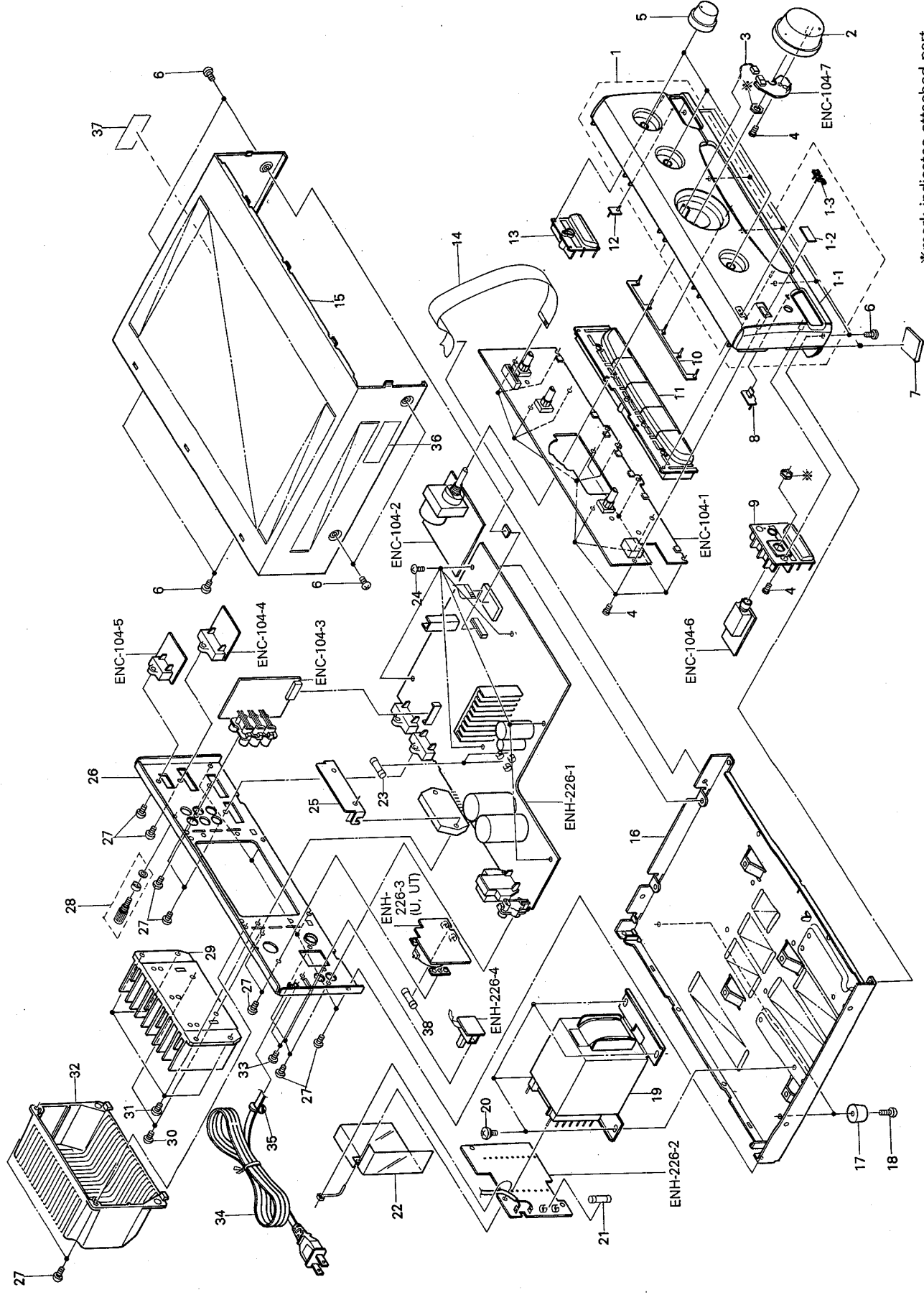
# PARTS LIST

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

## Contents

General Exploded View and Parts List .....	3-2
Printed Circuit Board Ass'y and Parts List .....	3-5
■ ENH-226 <input type="checkbox"/> Main PC Board Ass'y .....	3-5
■ ENC-104 <input type="checkbox"/> A Front, Phono EQ & Volume PC Board Ass'y .....	3-8
Accessories List .....	3-10
Packing Materials and Part Numbers .....	3-11

# General Exploded View and Parts List



## ■ Parts List

△	Item	Part Number	Part Name	Q'ty	Description	Areas
	1	EFP-AXE79TNE (S)	FRONT PANEL ASSY	1		
	1-1	E102720-001SM	FRONT PANEL	1		
	1-2	E407335-001SS	REMOTE PLATE	1		
	1-3	E406971-221	JVC MARK	1		
	2	E308266-004SM	VOLUME KNOB	1		
	3	EWS142-002B	SOCKET WIRE	1	EW900	
	4	SDSF2608Z	SCREW	12		
	5	E308550-001	KNOB	3		
	6	SDSG3008M	SCREW	11		
	7	E75896-001	SPACER	2	FRONT FOOT	
	8	E407598-001	INDICATOR	1		
	9	E308291-001SS	PUSH BUTTON	1	POWER	
	10	E308549-001	INDICATOR	1		
	11	E207861-001SM	PUSH BUTTON	1	SOURCE	
	12	E407599-001	INDICATOR	1		
	13	E308294-005SM	PUSH BUTTON	1	BASS EXT.	
	14	EWR617K-18TTJ3	FLAT WIRE	1		
	15	E207457-003	METAL COVER	1		
	16	E102582-001SM	CHASSIS BASE	1		
	17	E47227-030	FOOT	2	REAR	
	18	SBSG3010Z	SCREW	2	FOR FOOT	
△	19	ETP1150-52EAJ	POWER TRANSFORMER	1		EF
△		ETP1150-52EAJ	POWER TRANSFORMER	1		EN
△		ETP1150-52FAJ	POWER TRANSFORMER	1		U
△		ETP1150-52FAJ	POWER TRANSFORMER	1		UT
	20	E65389-004	SPECIAL SCREW	4		
△	21	QMF51E2-1R6J1	FUSE	1	F001 (T1.6A / 250V)	EF
△		QMF51E2-1R6J1	FUSE	1	F001 (T1.6A / 250V)	EN
△		QMF51E2-3R15J1	FUSE	1	F001 (T3.15A / 250V)	U
△		QMF51E2-3R15J1	FUSE	1	F001 (T3.15A / 250V)	UT
△	22	E308251-001SM	PROTECT COVER	1		
	23	QMF51E2-1R25J1	FUSE	2	F051, F052 (T1.25A / 250V)	
	24	SBSG3008CC	SCREW	6		
	25	E308062-001SM	BRACKET	1		
	26	E207863-001SM	REAR PANEL	1		U
		E207863-001SM	REAR PANEL	1		UT
		E207863-002SM	REAR PANEL	1		EF
		E207863-002SM	REAR PANEL	1		EN
	27	E73273-003	SPECIAL SCREW	14		
		E73273-003	SPECIAL SCREW	2		U
		E73273-003	SPECIAL SCREW	2		UT
	28	E70078-003	GND TERMINAL	1		
	29	E308061-001SM	HEAT SINK	1		
	30	SBSG3020Z	SCREW	2		
	31	SBSG3010CC	SCREW	4		
	32	E207466-001SM	REAR COVER	1		
	33	SDST2604M	SCREW	2		
△	34	QMP3900-200	POWER CORD	1		EF
△		QMP3900-200	POWER CORD	1		EN
△		QMP7520-200	POWER CORD	1		U
△		QMP7520-200	POWER CORD	1		UT
△	35	QHS3876-162	CORD STOPPER	1		
	36	E67000-019	CAUTION LABEL	1		
	37	E308522-033	RATING LABEL	1		UT
△	38	QMF51E2-1R6J1	FUSE	1	F002 (T1.6A / 250V)	U

△	Item	Part Number	Part Name	Q'ty	Description	Areas
△		QMF51E2-1R6J1	FUSE	1	F002 (T1.6A/250V)	UT
	-	E61029-005	NUMBER LABEL	1		
	-	QZL1031-101	SEV LABEL	1		EF
	-	E70027-001	APPROVAL LABEL	1		EN
	-	E67132-T3R15	FUSE LABE	1		U
	-	E67132-T3R15	FUSE LABE	1		UT
	-	E75139-003	LABEL	1	MADE IN MALAYSIA	U

△ SAFETY PARTS

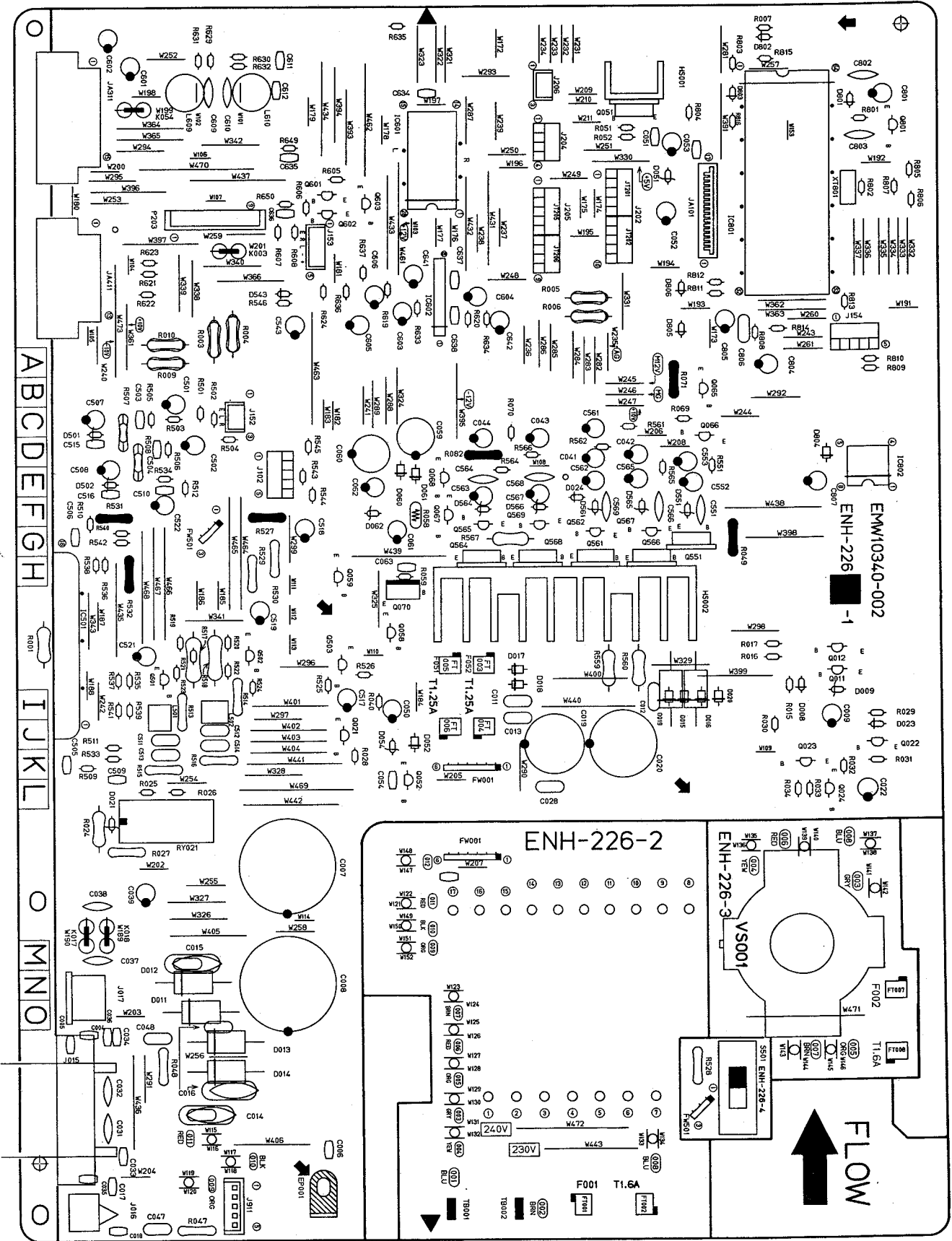
**The Marks for Designated Areas**

EN ..... Scandinavia      EF ..... Continental Europe  
 U ..... Universal Type      UT ..... Taiwan  
 No mark indicates all areas.

# Printed Circuit Board Ass'y and Parts List

## ■ ENH-226 □ Main PC Board Ass'y

Note : ENH-226 □ varies according to the areas employed. See note (1) when placing an order.



Note (1)

PC Board Ass'y	Version	Designated Areas
ENH-226 <b>D</b>	U UT	Universal Type Taiwan
ENH-226 <b>F</b>	EN EF	Scandinavia Continental Europe

Transistors

ITEM	PART NUMBER	DESCRIPTION	AREA
Q011	DTC114YS	SILICON ROHM	
Q012	DTC114YS	SILICON ROHM	
Q021	2SC1685(R,S)	SILICON MATSUSHITA	
Q022	2SC1685(R,S)	SILICON MATSUSHITA	
Q023	2SA564A(R,S)	SILICON	
Q024	2SC1685(R,S)	SILICON MATSUSHITA	
Q051	2SD1944(J,K)	SILICON ROHM	
Q052	2SC1741A(Q,R)	SILICON ROHM	
Q058	DTC114YS	SILICON ROHM	
Q059	DTC114YS	SILICON ROHM	
Q065	DTC114ES	SILICON ROHM	
Q066	DTA114YS	SILICON ROHM	
Q067	DTA114ES	SILICON ROHM	
Q068	DTC114YS	SILICON ROHM	
Q070	2SB1357(E,F)	SILICON ROHM	
Q501	2SA564A(R,S)	SILICON	
Q502	2SA564A(R,S)	SILICON	
Q503	2SC1685(Q,R)	SILICON MATSUSHITA	
Q551	2SD1944(J,K)	SILICON ROHM	
Q561	2SD2061(E,F)	SILICON ROHM	
Q562	2SC1685(R,S)	SILICON MATSUSHITA	
Q564	2SB1187(E,F)	SILICON	
Q565	2SA564A(R,S)	SILICON	
Q566	2SD2061(E,F)	SILICON ROHM	
Q567	2SC1685(R,S)	SILICON MATSUSHITA	
Q568	2SB1187(E,F)	SILICON	
Q569	2SA564A(R,S)	SILICON	
Q601	2SD2144S(V,W)	SILICON ROHM	
Q602	2SD2144S(V,W)	SILICON ROHM	
Q603	DTA114ES	SILICON ROHM	
Q801	DTC114YS	SILICON ROHM	

△ HSAFETY PARTS

I.C.s

ITEM	PART NUMBER	DESCRIPTION	AREA
IC501	STK4181MK5	I.C. SANYO	
IC601	TC9163N	I.C. TOSHIBA	
IC602	BA15218N	I.C. ROHM	
IC801	UPD75104CW-290	I.C. NEC	
IC802	LB1639-CV	I.C. SANYO	

△ HSAFETY PARTS

Diodes

ITEM	PART NUMBER	DESCRIPTION	AREA
D008	1SS119	SILICON HITACHI	
D009	MTZ5.1JC	ZENER ROHM	
D011	30DL2FC	SILICON NIIHONINTER	
D012	30DL2FC	SILICON NIIHONINTER	
D013	30DL2FC	SILICON NIIHONINTER	
D014	30DL2FC	SILICON NIIHONINTER	
D015	1SR139-200	SILICON ROHM	
D016	1SR139-200	SILICON ROHM	
D017	1SR139-200	SILICON ROHM	
D018	1SR139-200	SILICON ROHM	
D019	1SR139-200	SILICON ROHM	
D020	1SR139-200	SILICON ROHM	
D021	MTZ24JC	ZENER ROHM	
D023	1SS119	SILICON HITACHI	
D024	1SS119	SILICON HITACHI	
D051	MTZ6.2JC	ZENER ROHM	
D052	1SR139-200	SILICON ROHM	
D054	MTZ7.5JC	ZENER ROHM	
D060	1SR139-200	SILICON ROHM	
D061	1SR139-200	SILICON ROHM	
D062	MTZ30JC	ZENER ROHM	
D543	1SS119	SILICON HITACHI	
D551	RD13JSB3	ZENER NEC	
D561	RD13JSB3	ZENER NEC	
D564	RD13JSB3	ZENER NEC	
D565	MTZ11JC	ZENER ROHM	
D566	MTZ11JC	ZENER ROHM	
D801	1SS119	SILICON HITACHI	
D802	1SS119	SILICON HITACHI	
D803	1SS119	SILICON HITACHI	

△ HSAFETY PARTS

Diodes

ITEM	PART NUMBER	DESCRIPTION	AREA
D804	1SR139-200	SILICON ROHM	
D805	1SS119	SILICON HITACHI	
D806	1SS119	SILICON HITACHI	

△ HSAFETY PARTS

Capacitors

ITEM	PART NUMBER	DESCRIPTION	AREA
C007	EEW5615-688J6	6800MF ELECTRO	
C008	EEW5615-688J6	6800MF ELECTRO	
C009	QETB1HM-225	2.2MF 50V ELECTRO	
C011	QFLB2AJ-103	0.01MF 100V MYLAR	
C012	QFLB2AJ-103	0.01MF 100V MYLAR	
C013	QFLB2AJ-103	0.01MF 100V MYLAR	
C014	QFN82AJ-473	0.047MF 100V MYLAR	
C015	QFN82AJ-473	0.047MF 100V MYLAR	
C016	QFN82AJ-473	0.047MF 100V MYLAR	
C019	QETB1VM-228N	2200MF 35V ELECTRO	
C020	QETB1VM-338	3300MF 35V ELECTRO	
C022	QET41CM-476	47MF 16V ELECTRO	
C028	QFLB1HJ-103	0.01MF 50V MYLAR	
C039	QET41CM-107	100MF 16V ELECTRO	
C041	EETB1CM-476E	47MF 16V ELECTRO	
C042	EETB1CM-476E	47MF 16V ELECTRO	
C043	EETB1CM-476E	47MF 16V ELECTRO	
C044	EETB1CM-476E	47MF 16V ELECTRO	
C050	QETB1HM-106	10MF 50V ELECTRO	
C051	QCVB1CM-103	0.01MF 16V CERAMIC	
C052	QET41AM-107	100MF 10V ELECTRO	
C053	QET41CM-226	22MF 16V ELECTRO	
C054	QCVB1CM-103	0.01MF 16V CERAMIC	
C059	QETB1JM-227	220MF 63V ELECTRO	
C060	QETB1JM-227	220MF 63V ELECTRO	
C061	QET41HM-226	22MF 50V ELECTRO	
C062	QET41HM-226	22MF 50V ELECTRO	
C063	QCGB1HK-102	1000PF 50V CERAMIC	
C501	EETB1HM-106E	10MF 50V ELECTRO	
C502	EETB1HM-106E	10MF 50V ELECTRO	
C503	QCBB1HK-331	330PF 50V CERAMIC	
C504	QCBB1HK-331	330PF 50V CERAMIC	
C505	QCBB1HK-820	82PF 50V CERAMIC	
C506	QCBB1HK-820	82PF 50V CERAMIC	
C507	EET2501-107E	100MF ELECTRO	
C508	EET2501-107E	100MF ELECTRO	
C509	QCSB1HK-4R7	4.7PF 50V CERAMIC	
C510	QCSB1HK-4R7	4.7PF 50V CERAMIC	
C511	QFV81HJ-104	0.1MF 50V T.FILM	
C512	QFV81HJ-104	0.1MF 50V T.FILM	
C513	QFV81HJ-104	0.1MF 50V T.FILM	
C514	QFV81HJ-104	0.1MF 50V T.FILM	
C515	QCT30UJ-220	22PF 50V CERAMIC	
C516	QCT30UJ-220	22PF 50V CERAMIC	
C517	QET41EM-106	10MF 25V ELECTRO	
C518	QETB1JM-476	47MF 63V ELECTRO	
C519	QETB1HM-106	10MF 50V ELECTRO	
C521	QET41HM-226	22MF 50V ELECTRO	
C522	QET41HM-226	22MF 50V ELECTRO	
C543	QET41EM-106	10MF 25V ELECTRO	
C551	QCF21HP-102	1000PF 50V CERAMIC	
C552	QET41EM-106	10MF 25V ELECTRO	
C553	QET41CM-476	47MF 16V ELECTRO	
C561	QET41EM-106	10MF 25V ELECTRO	
C562	QET41EM-106	10MF 25V ELECTRO	
C563	QET41CM-226	22MF 16V ELECTRO	
C564	QCF21HP-102	1000PF 50V CERAMIC	
C565	QET41EM-106	10MF 25V ELECTRO	
C566	QCF21HP-102	1000PF 50V CERAMIC	
C567	QET41CM-226	22MF 16V ELECTRO	
C568	QCF21HP-102	1000PF 50V CERAMIC	
C569	QCF21HP-102	1000PF 50V CERAMIC	
C601	QET41HM-475	4.7MF 50V ELECTRO	
C602	QET41HM-475	4.7MF 50V ELECTRO	
C603	QET41HM-475	4.7MF 50V ELECTRO	
C604	QET41HM-475	4.7MF 50V ELECTRO	
C605	QET41EM-476	47MF 25V ELECTRO	
C606	QET41EM-476	47MF 25V ELECTRO	
C611	QCBB1HK-471	470PF 50V CERAMIC	
C612	QCBB1HK-471	470PF 50V CERAMIC	
C641	QETB1HM-106	10MF 50V ELECTRO	
C642	QETB1HM-106	10MF 50V ELECTRO	
C801	QETB1HM-225	2.2MF 50V ELECTRO	
C802	QCF11HP-103	0.01MF 50V CERAMIC	
C803	QCF11HP-103	0.01MF 50V CERAMIC	
C804	QET41AM-477	470MF 10V ELECTRO	
C805	EETB1AM-107E	100MF 10V ELECTRO	
C806	QCZ0205-155	1.5MF 25V CERAMIC	
C807	QET41AM-476	47MF 10V ELECTRO	

△ HSAFETY PARTS



Resistors

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
Δ	R001	QRX022J-R22A	0.22	2W	M.FILM	
Δ	R003	QRG012J-120A	12	1W	O.M.FILM	
Δ	R004	QRG012J-120A	12	1W	O.M.FILM	
Δ	R005	QRG012J-100AM	10	1W	O.M.FILM	
Δ	R006	QRG012J-100AM	10	1W	O.M.FILM	
	R007	QRD167J-221	220	1/6W	CARBON	
Δ	R009	QRG012J-180A	18	1W	O.M.FILM	
Δ	R010	QRG012J-180A	18	1W	O.M.FILM	
	R015	QRD167J-103	10K	1/6W	CARBON	
	R016	QRD167J-103	10K	1/6W	CARBON	
	R017	QRD167J-102	1K	1/6W	CARBON	
Δ	R024	QRG012J-821AM	820	1W	O.M.FILM	
	R025	QRD167J-823	82K	1/6W	CARBON	
	R026	QRD167J-104	100K	1/6W	CARBON	
	R027	QRD148J-680	68	1/4W	CARBON	
	R028	QRD167J-152	1.5K	1/6W	CARBON	
	R029	QRD167J-222	2.2K	1/6W	CARBON	
	R030	QRD167J-103	10K	1/6W	CARBON	
	R031	QRD167J-104	100K	1/6W	CARBON	
	R032	QRD167J-473	47K	1/6W	CARBON	
	R033	QRD167J-104	100K	1/6W	CARBON	
	R034	QRD167J-103	10K	1/6W	CARBON	
	R040	QRD167J-223	22K	1/6W	CARBON	
Δ	R049	QRZ0077-4R7	4.7	1/4W	FUSIBLE	
	R051	QRD167J-103	10K	1/6W	CARBON	
	R052	QRD167J-103	10K	1/6W	CARBON	
Δ	R058	PTH61G25AR47M			POSISTOR	
	R059	QRD167J-332	3.3K	1/6W	CARBON	
	R069	QRD167J-472	4.7K	1/6W	CARBON	
	R070	QRD167J-472	4.7K	1/6W	CARBON	
Δ	R071	QRZ0077-4R7	4.7	1/4W	FUSIBLE	
Δ	R082	QRZ0077-100	10	1/4W	FUSIBLE	
	R501	QRD167J-474	470K	1/6W	CARBON	
	R502	QRD167J-474	470K	1/6W	CARBON	
	R503	QRD167J-102	1K	1/6W	CARBON	
	R504	QRD167J-102	1K	1/6W	CARBON	
	R505	QRD167J-104	100K	1/6W	CARBON	
	R506	QRD167J-104	100K	1/6W	CARBON	
Δ	R507	QRD14CJ-751S	750	1/4W	UNF. CARBON	
Δ	R508	QRD14CJ-751S	750	1/4W	UNF. CARBON	
	R509	QRD167J-561	560	1/6W	CARBON	
	R510	QRD167J-561	560	1/6W	CARBON	
	R511	QRD167J-823	82K	1/6W	CARBON	
	R512	QRD167J-823	82K	1/6W	CARBON	
	R513	QRD148J-100	10	1/4W	CARBON	
	R514	QRD148J-100	10	1/4W	CARBON	
	R515	QRD148J-100	10	1/4W	CARBON	
	R516	QRD148J-100	10	1/4W	CARBON	
Δ	R517	QRX022J-R22A	0.22	2W	M.FILM	
Δ	R518	QRX022J-R22A	0.22	2W	M.FILM	
	R519	QRD167J-393	39K	1/6W	CARBON	
	R520	QRD167J-393	39K	1/6W	CARBON	
	R521	QRD167J-223	22K	1/6W	CARBON	
	R522	QRD167J-223	22K	1/6W	CARBON	
	R523	QRD167J-103	10K	1/6W	CARBON	
	R524	QRD167J-103	10K	1/6W	CARBON	
	R525	QRD167J-103	10K	1/6W	CARBON	
	R526	QRD167J-103	10K	1/6W	CARBON	
Δ	R527	QRZ0077-101	100	1/4W	FUSIBLE	
	R528	QRD148J-561	560	1/4W	CARBON	
	R529	QRD148J-272	2.7K	1/4W	CARBON	
	R530	QRD148J-272	2.7K	1/4W	CARBON	
Δ	R531	QRZ0077-100	10	1/4W	FUSIBLE	
Δ	R532	QRZ0077-100	10	1/4W	FUSIBLE	
	R533	QRD167J-163	16K	1/6W	CARBON	
	R534	QRD167J-163	16K	1/6W	CARBON	
	R535	QRD167J-562	5.6K	1/6W	CARBON	
	R536	QRD167J-562	5.6K	1/6W	CARBON	
	R537	QRD167J-562	5.6K	1/6W	CARBON	
	R538	QRD167J-562	5.6K	1/6W	CARBON	
	R539	QRD167J-562	5.6K	1/6W	CARBON	
	R540	QRD167J-562	5.6K	1/6W	CARBON	
	R541	QRD167J-562	5.6K	1/6W	CARBON	
	R542	QRD167J-562	5.6K	1/6W	CARBON	
	R543	QRD167J-103	10K	1/6W	CARBON	
	R544	QRD167J-154	150K	1/6W	CARBON	
	R545	QRD167J-303	30K	1/6W	CARBON	
	R546	QRD167J-103	10K	1/6W	CARBON	
	R551	QRD167J-152	1.5K	1/6W	CARBON	
	R559	QRX012J-R68A	0.68	1W	M.FILM	
	R560	QRX012J-R68A	0.68	1W	M.FILM	
	R561	QRD167J-152	1.5K	1/6W	CARBON	
	R562	QRD167J-471	470	1/6W	CARBON	
	R564	QRD167J-222	2.2K	1/6W	CARBON	
	R565	QRD167J-222	2.2K	1/6W	CARBON	
	R566	QRD167J-222	2.2K	1/6W	CARBON	
	R567	QRX012J-R56A	0.56	1W	M.FILM	
	R605	QRD167J-103	10K	1/6W	CARBON	
	R606	QRD167J-103	10K	1/6W	CARBON	
	R607	QRD167J-222	2.2K	1/6W	CARBON	
	R608	QRD167J-222	2.2K	1/6W	CARBON	
	R619	QRD167J-104	100K	1/6W	CARBON	
	R620	QRD167J-104	100K	1/6W	CARBON	
	R621	QRD167J-102	1K	1/6W	CARBON	
	R622	QRD167J-102	1K	1/6W	CARBON	

Δ (SAFETY) PARTS

Resistors

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	R623	QRD167J-562	5.6K	1/6W	CARBON	
	R624	QRD167J-562	5.6K	1/6W	CARBON	
	R629	QRD167J-102	1K	1/6W	CARBON	
	R630	QRD167J-102	1K	1/6W	CARBON	
	R631	QRD167J-752	7.5K	1/6W	CARBON	
	R632	QRD167J-752	7.5K	1/6W	CARBON	
	R633	QRD167J-104	100K	1/6W	CARBON	
	R634	QRD167J-104	100K	1/6W	CARBON	
	R635	QRD167J-221	220	1/6W	CARBON	
	R636	QRD167J-331	330	1/6W	CARBON	
	R637	QRD167J-331	330	1/6W	CARBON	
	R649	QRD167J-223	22K	1/6W	CARBON	
	R650	QRD167J-223	22K	1/6W	CARBON	
	R801	QRD167J-104	100K	1/6W	CARBON	
	R802	QRD167J-105	1M	1/6W	CARBON	
	R803	QRD167J-221	220	1/6W	CARBON	
	R804	QRD167J-221	220	1/6W	CARBON	
	R805	QRD167J-221	220	1/6W	CARBON	
	R806	QRD167J-221	220	1/6W	CARBON	
	R807	QRD167J-221	220	1/6W	CARBON	
	R808	QRD167J-101	100	1/6W	CARBON	
	R809	QRD167J-223	22K	1/6W	CARBON	
	R810	QRD167J-223	22K	1/6W	CARBON	
	R811	QRD167J-223	22K	1/6W	CARBON	
	R812	QRD167J-223	22K	1/6W	CARBON	
	R813	QRD167J-223	22K	1/6W	CARBON	
	R814	QRD167J-223	22K	1/6W	CARBON	
	R815	QRD167J-223	22K	1/6W	CARBON	
	R816	QRD167J-104	100K	1/6W	CARBON	

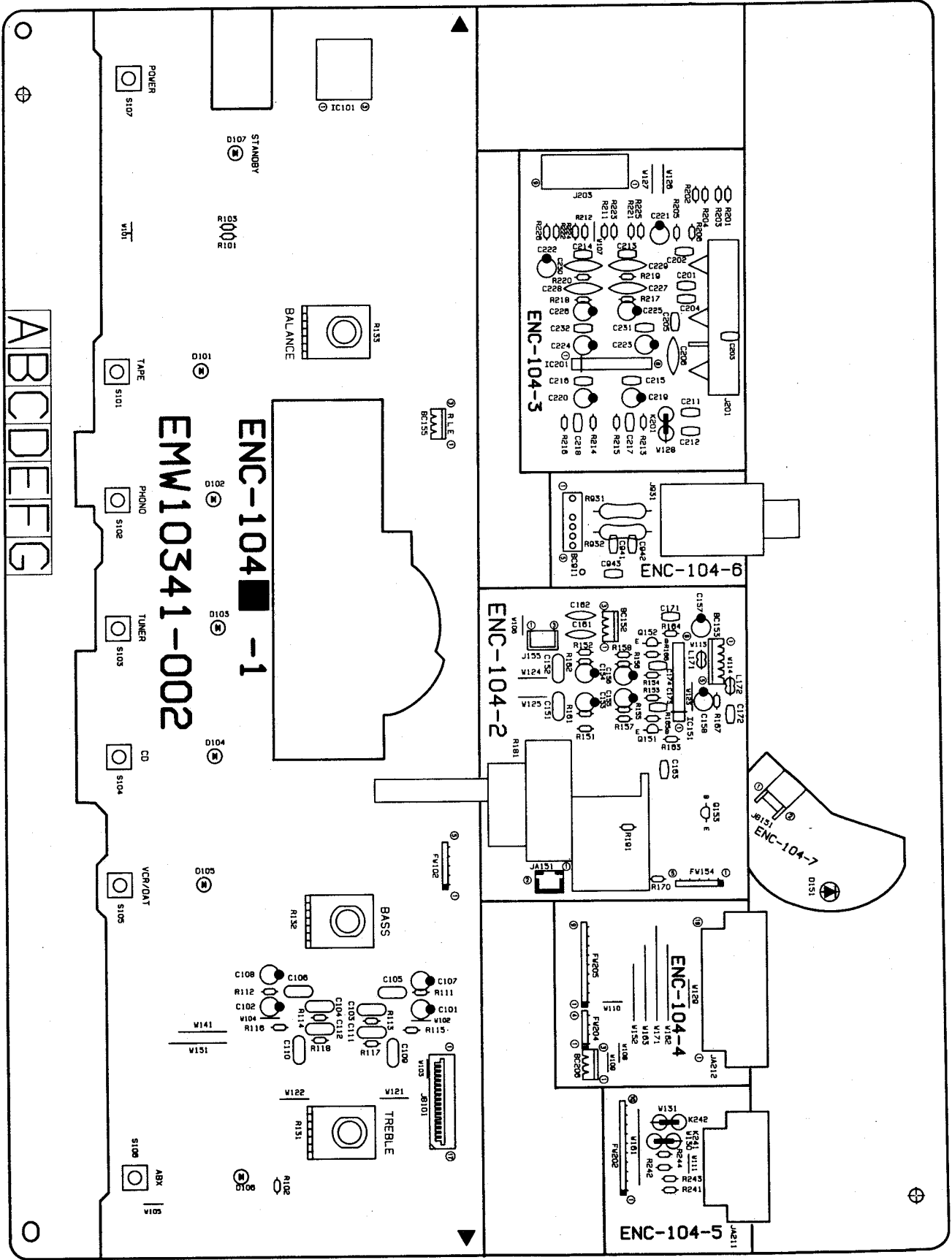
Δ (SAFETY) PARTS

Others

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	J015	SBSG3008Z			SCREW	
	J016	EMB90TV-401A			SPEAKER TERMINAL	
	J017	EMN00TV-218AJ2			2P PIN JACK	
	J102	QMA1221-009			DC JACK	
	J152	EMV7122-005			CONNECTOR(5PIN)	
	J152	EMV5109-003A			PLUG ASSY(3PIN)	
	J153	EMV5109-005A			PLUG ASSY(5PIN)	
	J154	EMV7122-005			CONNECTOR(5PIN)	
	J204	EMV7122-004			CONNECTOR(4PIN)	
	J206	EMV5109-003A			PLUG ASSY(3PIN)	
	J911	EMV5133-005K			PLUG ASSY(5PIN)	
	L501	EQL0011-R45J1			INDUCTOR	
	L502	EQL0011-R45J1			INDUCTOR	
	P203	EMV5125-009			PLUG ASSY(9PIN)	
	S501	QSS2201-005			SLIDE SWITCH	
	FS801	E3400-431			SPACER	
	FT001	VMZ0087-001			FUSE CLIP	
	FT002	VMZ0087-001			FUSE CLIP	
	FT003	VMZ0087-001			FUSE CLIP	
	FT004	VMZ0087-001			FUSE CLIP	
	FT005	VMZ0087-001			FUSE CLIP	
	FT006	VMZ0087-001			FUSE CLIP	
	FT007	VMZ0087-001			FUSE CLIP	U
	FT007	VMZ0087-001			FUSE CLIP	UT
	FT008	VMZ0087-001			FUSE CLIP	U
	FT008	VMZ0087-001			FUSE CLIP	UT
	FW001	EWR36D-20SS			FLAT WIRE(6PIN)	
	FW501	EWR33D-30SS			FLAT WIRE(3PIN)	
	HS001	E70306-005			HEAT SINK	
	HS002	E75085-001			HEAT SINK	
	JA101	EMV7123-017			CONNECTOR(17PIN)	
	JA311	EMV7127-015			CONNECTOR(15PIN)	
	JA411	EMV7127-013			CONNECTOR(13PIN)	
	JT201	EMV7122-005			CONNECTOR(5PIN)	
	JT202	EMV7122-005			CONNECTOR(5PIN)	
	JT205	EMV7122-005			CONNECTOR(5PIN)	
	JT206	EMV7122-004			CONNECTOR(4PIN)	
	RY021	ESK7D24-2120			RELAY	
	TB001	EMZ4001-001			TAB	
	TB002	EMZ4001-001			TAB	
Δ	VS001	QSR0085-018			VOLTAGE SELECTOR	U
Δ	VS001	QSR0085-018			VOLTAGE SELECTOR	UT
	XT801	ECX0004-194KM			RESONATOR	

Δ (SAFETY) PARTS

ENC-104 A Front, Phono EQ & Volume PC Board Ass'y



**Transistors**

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q151	2SD2144S(VW)	SILICON ROHM	
	Q152	2SD2144S(VW)	SILICON ROHM	
	Q153	DTC114YS	SILICON ROHM	

Δ (ISIA)FETTYL (PARTS)

**I.C.s**

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC101	SPS-420-1	I.C. SANYO	
	IC151	BA15218N	I.C. ROHM	
	IC201	NJM4580LD	I.C. DAINICHI	

Δ (ISIA)FETTYL (PARTS)

**Diodes**

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D101	SLR-342VC3F	L.E.D. ROHM	
	D102	SLR-342VC3F	L.E.D. ROHM	
	D103	SLR-342VC3F	L.E.D. ROHM	
	D104	SLR-342VC3F	L.E.D. ROHM	
	D105	SLR-342VC3F	L.E.D. ROHM	
	D106	SLR-342DCA47	L.E.D. ROHM	
	D107	SLR-342VC3F	L.E.D. ROHM	
	D151	LN282RPX	L.E.D.	

Δ (ISIA)FETTYL (PARTS)

**Capacitors**

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C101	QET41HM-105	1MF 50V ELECTRO	
	C102	QET41HM-105	1MF 50V ELECTRO	
	C103	QFLB1HJ-823	0.082MF 50V MYLAR	
	C104	QFLB1HJ-823	0.082MF 50V MYLAR	
	C105	QFLB1HJ-153	0.015MF 50V MYLAR	
	C106	QFLB1HJ-153	0.015MF 50V MYLAR	
	C107	QET41HM-105	1MF 50V ELECTRO	
	C108	QET41HM-105	1MF 50V ELECTRO	
	C109	QFLB1HJ-332	3300PF 50V MYLAR	
	C110	QFLB1HJ-332	3300PF 50V MYLAR	
	C111	QFLB1HJ-183	0.018MF 50V MYLAR	
	C112	QFLB1HJ-183	0.018MF 50V MYLAR	
	C151	QFLB1HJ-683	0.068MF 50V MYLAR	
	C152	QFLB1HJ-683	0.068MF 50V MYLAR	
	C153	QET41AM-107	100MF 10V ELECTRO	
	C154	QET41AM-107	100MF 10V ELECTRO	
	C155	QET41HM-474	0.47MF 50V ELECTRO	
	C156	QET41HM-474	0.47MF 50V ELECTRO	
	C157	QET41CM-476	47MF 16V ELECTRO	
	C158	QET41CM-476	47MF 16V ELECTRO	
	C163	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C201	QCBB1HK-331	330PF 50V CERAMIC	
	C202	QCBB1HK-331	330PF 50V CERAMIC	
	C206	QCC21EM-473	0.047MF 25V CERAMIC	
	C211	QCBB1HK-331	330PF 50V CERAMIC	
	C212	QCBB1HK-331	330PF 50V CERAMIC	
	C213	QCBB1HK-101	100PF 50V CERAMIC	
	C214	QCBB1HK-101	100PF 50V CERAMIC	
	C215	QCBB1HK-101	100PF 50V CERAMIC	
	C216	QCBB1HK-101	100PF 50V CERAMIC	
	C217	QCBB1HK-101	100PF 50V CERAMIC	
	C218	QCBB1HK-101	100PF 50V CERAMIC	
	C219	QET41HM-475	4.7MF 50V ELECTRO	
	C220	QET41HM-475	4.7MF 50V ELECTRO	
	C221	QET41HM-475	4.7MF 50V ELECTRO	
	C222	QET41HM-475	4.7MF 50V ELECTRO	
	C223	QET41EM-476	47MF 25V ELECTRO	
	C224	QET41EM-476	47MF 25V ELECTRO	
	C225	QET41EM-107	100MF 25V ELECTRO	
	C226	QET41EM-107	100MF 25V ELECTRO	
	C227	QCY21HK-682	6800PF 50V CERAMIC	
	C228	QCY21HK-682	6800PF 50V CERAMIC	
	C229	QCY21HK-182	1800PF 50V CERAMIC	
	C230	QCY21HK-182	1800PF 50V CERAMIC	
	C231	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C232	QCHB1EZ-223	0.022MF 25V CERAMIC	

Δ (ISIA)FETTYL (PARTS)

**Resistors**

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R101	QRD167J-331	330 1/6W CARBON	
	R102	QRD167J-181	180 1/6W CARBON	
	R103	QRD167J-331	330 1/6W CARBON	
	R111	QRD167J-203	20K 1/6W CARBON	
	R112	QRD167J-203	20K 1/6W CARBON	
	R113	QRD167J-362	3.6K 1/6W CARBON	
	R114	QRD167J-362	3.6K 1/6W CARBON	
	R115	QRD167J-472	4.7K 1/6W CARBON	
	R116	QRD167J-472	4.7K 1/6W CARBON	
	R117	QRD167J-821	820 1/6W CARBON	
	R118	QRD167J-821	820 1/6W CARBON	
	R131	QVJB84C-E15BJ3	100K VARIABLE	
	R132	QVJB84C-E15BJ3	100K VARIABLE	
	R133	QVJB84W-E15CJ3	100K VARIABLE	
	R151	QRD167J-102	2.2K 1/6W CARBON	
	R152	QRD167J-102	2.2K 1/6W CARBON	
	R153	QRD167J-474	470K 1/6W CARBON	
	R154	QRD167J-474	470K 1/6W CARBON	
	R155	QRD167J-331	330 1/6W CARBON	
	R156	QRD167J-331	330 1/6W CARBON	
	R161	QRD167J-822	8.2K 1/6W CARBON	
	R162	QRD167J-822	8.2K 1/6W CARBON	
	R163	QRD167J-472	4.7K 1/6W CARBON	
	R164	QRD167J-472	4.7K 1/6W CARBON	
	R165	QRD167J-104	100K 1/6W CARBON	
	R166	QRD167J-104	100K 1/6W CARBON	
	R167	QRD167J-472	4.7K 1/6W CARBON	
	R170	QRD167J-122	1.2K 1/6W CARBON	
	R171	QRD167J-223	22K 1/6W CARBON	
	R172	QRD167J-223	22K 1/6W CARBON	
	R181	QVDB91B-E15F	100K VARIABLE	
	R191	QRD167J-104	100K 1/6W CARBON	
	R201	QRD167J-183	18K 1/6W CARBON	
	R202	QRD167J-183	18K 1/6W CARBON	
	R203	QRD167J-823	82K 1/6W CARBON	
	R204	QRD167J-823	82K 1/6W CARBON	
	R205	QRD167J-102	1K 1/6W CARBON	
	R206	QRD167J-102	1K 1/6W CARBON	
	R211	QRD167J-562	5.6K 1/6W CARBON	
	R212	QRD167J-562	5.6K 1/6W CARBON	
	R213	QRD167J-222	2.2K 1/6W CARBON	
	R214	QRD167J-222	2.2K 1/6W CARBON	
	R215	QRD167J-473	47K 1/6W CARBON	
	R216	QRD167J-473	47K 1/6W CARBON	
	R217	QRD167J-474	470K 1/6W CARBON	
	R218	QRD167J-474	470K 1/6W CARBON	
	R219	QRD167J-393	39K 1/6W CARBON	
	R220	QRD167J-393	39K 1/6W CARBON	
	R221	QRD167J-621	620 1/6W CARBON	
	R222	QRD167J-621	620 1/6W CARBON	
	R223	QRD167J-122	1.2K 1/6W CARBON	
	R224	QRD167J-122	1.2K 1/6W CARBON	
	R225	QRD167J-331	330 1/6W CARBON	
	R226	QRD167J-271	270 1/6W CARBON	
	R241	QRD167J-222	2.2K 1/6W CARBON	
	R242	QRD167J-222	2.2K 1/6W CARBON	
	R243	QRD167J-562	5.6K 1/6W CARBON	
	R244	QRD167J-562	5.6K 1/6W CARBON	
	R931	QRG022J-331A	330 2W O.M.FILM	
Δ	R932	QRG022J-331A	330 2W O.M.FILM	

Δ (ISIA)FETTYL (PARTS)

**Others**

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	J155	EMV5109-003A	PLUG ASSY(3PIN)	
	J201	EMNO0TV-608A	6P PIN JACK	
	J203	EMV7125-009R	CONNECTOR(9PIN)	
	J931	QMS6312-024	HEADPHONE JACK	
	S101	ESP0001-023J5	TACT SWITCH(TAPE)	
	S102	ESP0001-023J5	TACT SWITCH(PHONO)	
	S103	ESP0001-023J5	TACT SWITCH(TUNER)	
	S104	ESP0001-023J5	TACT SWITCH(CD)	
	S105	ESP0001-023J5	TACT SWITCH(VCR/DAT)	
	S106	ESP0001-023J5	TACT SWITCH(ARX)	
	S107	ESP0001-023J5	TACT SWITCH(POWER)	
	BC152	EMS293-0130	SOCKET WIRE(3PIN)	
	BC153	EMS293-0730	SOCKET WIRE(5PIN)	
	BC155	EMS293-0110	SOCKET WIRE(3PIN)	
	BC206	EMS293-0112	SOCKET WIRE(3PIN)	
	BC911	EMS245-011T	SOCKET WIRE(5PIN)	
	FW102	EWR35D-30LS	FLAT WIRE(5PIN)	
	FW154	EWR35D-13LS	FLAT WIRE(5PIN)	
	FW202	EWR34D-20LS	FLAT WIRE(10PIN)	
	FW204	EWR34D-13LS	FLAT WIRE(4PIN)	
	FW205	EWR39D-16LS	FLAT WIRE(9PIN)	
	JA151	EMV5103-002A	PLUG ASSY(2PIN)	
	JA211	EMV7127-011	CONNECTOR(11PIN)	
	JA212	EMV7127-019	CONNECTOR(19PIN)	
	JB101	EMV7123-017	CONNECTOR(17PIN)	
	JB151	EMV5103-002B	PLUG ASSY(2PIN)	

Δ (ISIA)FETTYL (PARTS)

## Accessories List

⚠	Part Number	Part Name	Q'ty	Description	Areas
	E30580-2009A	INSTRUCTION BOOK	1		EN
	E30580-2010A	INSTRUCTION BOOK	1		EF
	E30580-2011A	INSTRUCTION BOOK	1		U
	E30580-2011A	INSTRUCTION BOOK	1		UT
	EWP502-005K	BILT-IN ANTENNA	1		
	E35497-019	CAUTION SHEET	1	220V	U
	E35497-019	CAUTION SHEET	1	220V	UT
⚠	E04056	SIEMENS PLUG	1		U
⚠	E04056	SIEMENS PLUG	1		UT
	EQB4001-015	LOOP ANTENNA	1		
	EMZ2001-014	ADAPTOR	1		
	RM-SE99U	REMOTE CONTROLLER	1		
	UM-4NJ-2PSA	BATTERY	2		
	E43486-519A	CAUTION SHEET	1		
	QPGA025-03505	ENVELOPE	1		

⚠ SAFETY PARTS

### The Marks for Designated Areas

EN ..... Scandinavia      EF ..... Continental Europe

U ..... Universal Type      UT ..... Taiwan

No mark indicates all areas.

# Packing Materials and Part Numbers

