

# JVC

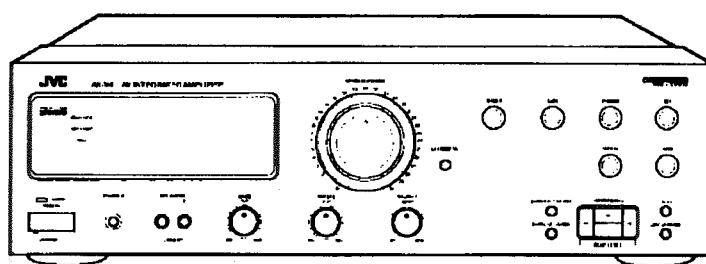
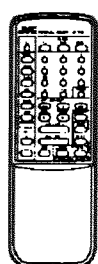
## SERVICE MANUAL

### AV INTEGRATED AMPLIFIER

## AX-V4BK

#### Area Suffix

EF	.....	Continental Europe Except Germany & Italy
Bs	.....	the U.K.
EN	.....	Nordic Countries
G	.....	Germany
GI	.....	Italy
UB	.....	Hong Kong
US	.....	Singapore
UT	.....	Taiwan
U	.....	Universal Except All of Above




**COMPU LINK**  
 Remote Control Component

## Contents

<i>Safety Precautions</i> .....	1-2	<i>Adjustment Procedures</i> .....	1-23
<i>Instruction Book</i> .....	1-3	<i>Block Diagrams</i> .....	1-24
<i>Description of Major ICs</i> .....	1-13	<i>Schematic Diagrams</i> .....	1-25
<i>Internal Connection of FL Display</i> .....	1-19	<i>Printed Circuit Boards</i> .....	1-28
<i>Disassembly Procedures</i> .....	1-20	<i>Parts List</i> .....	2-1

### **Safety Precautions**

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorised in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits.
2. Any unauthorised design alterations or additions will void the manufacturer's guarantee ; furthermore the manufacturer cannot accept responsibility for personal injury or property damage resulting therefrom.
3. Essential safety critical components are identified by (  ) on the Parts List and by shading on the schematics ,and must never be replaced by parts other than those listed in the manual. Please note however that many electrical and mechanical parts in the product have special safety related characteristics . These characteristics are often not evident from visual inspection . Parts other than specified by the manufacturer may not have the same safety characteristics as the recommended replacement parts shown in the Parts List of the service manual and may create shock , fire , or other hazards .
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

### **Warning**

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

**Table of Contents**

**Getting Started** ..... 2

    Before Installation ..... 2

    Checking the Supplied Accessories ..... 2

    Switches, Buttons and Controls ..... 3

    Connecting the Speakers ..... 5

    Connecting Audio/Video Components ..... 7

    Connecting Audio Components for the COMPU LINK-3 Remote Control System ..... 8

    Power Supply through the AX-V4BK to a Connected Component ..... 8

    Connecting the Power Cord ..... 9

    Putting Batteries in the Remote Control ..... 9

**Basic Operations** ..... 10

    Turning the Power On and Off ..... 10

    Selecting the Source to Play ..... 10

    Selecting the Front Speakers ..... 11

    Adjusting the Volume ..... 11

    Adjusting the Front-Speaker Output Balance ..... 11

    Adjusting the Tone ..... 11

    Listening at Low Volume (Loudness) ..... 12

    Muting the Sound ..... 12

    Recording a Source ..... 12

    Listening with Headphones ..... 12

**Using the Surround Processor** ..... 13

    Using JVC's Hall Surround ..... 13

    Preparing for Dolby Surround ..... 15

    Using Dolby Surround ..... 16

**COMPU LINK Remote Control System** ..... 17

**Using the Remote Control** ..... 18

**Troubleshooting** ..... 19

**Specifications** ..... 20

**Getting Started**

This section explains how to connect stereo components and speakers to the AX-V4BK, and how to connect the power supply.

**Before Installation**

**General**

- Be sure your hands are dry.
- Turn the power off to all components.
- Read the manuals supplied with the components you are going to connect.

**Locations**

- Install the AX-V4BK in a location that is level and protected from moisture.
- The temperature around the AX-V4BK must be between 23° and 104° F (-5° and 40° C).
- Make sure there is good ventilation around the AX-V4BK. Poor ventilation could cause overheating and damage the AX-V4BK.

**Handling the AX-V4BK**

- Do not insert any metal object into the AX-V4BK.
- Do not disassemble the AX-V4BK or remove screws, covers, or cabinet.
- Do not expose the AX-V4BK to rain or moisture.

**Checking the Supplied Accessories**

Check to be sure you have all of the following items, which are supplied with the AX-V4BK. The number in the parentheses indicates quantity of the pieces supplied.

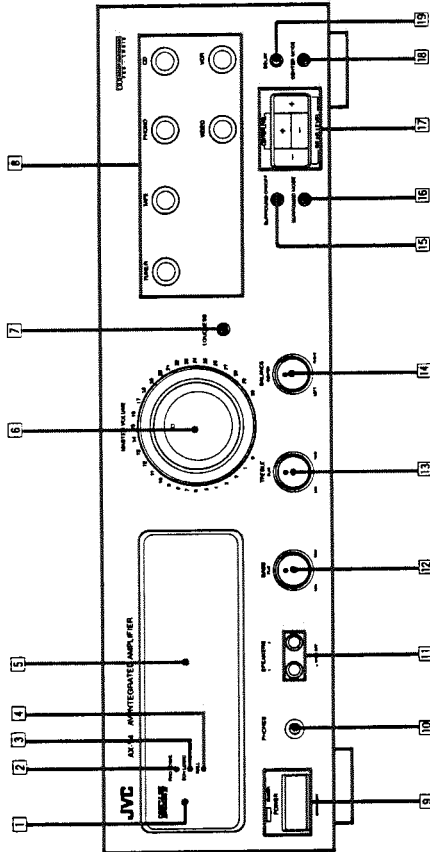
- Remote Control (1)
- Batteries (2)
- Mains Plug (only for the U.K.) (1)

If anything is missing, contact your dealer immediately.

**Switches, Buttons and Controls**

Become familiar with the buttons and controls on the AX-V4BK before use.

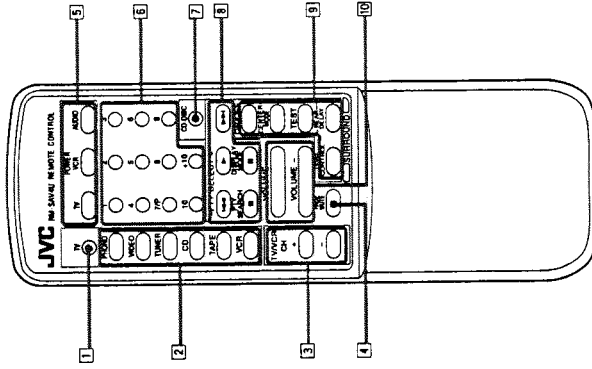
**Front Panel**



Refer to the pages in parentheses for details.

- 1 Remote sensor
- 2 PRO LOGIC indicator (15, 16)
- 3 3CH LOGIC indicator (15, 16)
- 4 HALL indicator (13)
- 5 Display (10)
- 6 MASTER VOLUME control (11)
- 7 LOUDNESS button (12)
- 8 Source selecting buttons (TUNER, TAPE, PHONO, CD, VIDEO, VCR) (10)
- 9 POWER button and STANDBY indicator (10)
- 10 PHONES jack (12)
- 11 SPEAKERS 1/2 buttons (11)
- 12 BASS control (11)
- 13 TREBLE control (11)
- 14 BALANCE control (11)
- 15 SURROUND ON/OFF button (13, 15, 16)
- 16 SURROUND MODE button (13, 15, 16)
- 17 CENTER LEVEL/REAR LEVEL buttons (+/-) (16)
- 18 CENTER MODE button (15)
- 19 DELAY button (15)

**Remote Control**



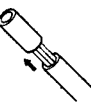
Refer to the pages in parentheses for details.

- 1 TV button (18)
- 2 Source selecting buttons (PHONO, VIDEO, TUNER, CD, TAPE, VCR) (10, 18)
- 3 TV/VCR CH buttons (+/-) (18)
- 4 FADE MUTE button (12)
- 5 POWER buttons (TV, VCR, AUDIO) (10, 18)
- 6 10 keys (18)
- 7 CD-DISC button (18)
- 8 Operating buttons for JVC audio/video components (18)
- 9 Surround adjustment buttons (13, 15, 16)
- 10 VOLUME buttons (+/-) (11)

**Connecting the Speakers**

You can connect the following speakers:

- Two sets of front speakers to produce normal stereo sound
- One set of rear speakers to enjoy the surround effect
- One center speaker to produce more effective surround effect (to make human voices outstanding)



For each speaker, connect one end of the speaker signal cable (not supplied) to the speaker terminal on the rear panel and the other end to the speaker.

1. Open each terminal.
2. Insert the end of the speaker signal cable as shown (be sure to remove the insulation at the end of each wire first).
3. Close the terminals to clamp the speaker signal cables firmly in place.
4. Connect the black (-) and red (+) terminals on the rear panel to the black (-) and red (+) terminals marked on the speakers.

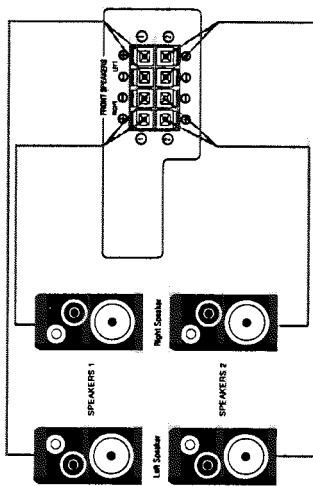


**CAUTION:**

Use speakers with the same impedance as marked near the terminals on the rear panel.

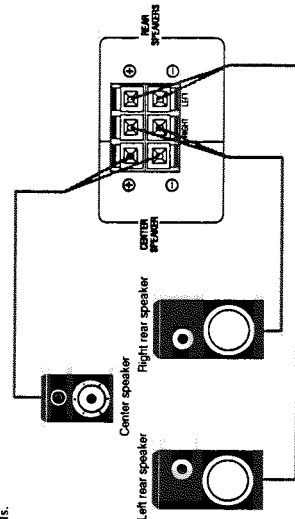
**Connecting the front speakers**

Connect the front speakers to the FRONT SPEAKERS terminals.



**Connecting the rear and center speakers**

Connect rear speakers to the REAR SPEAKERS terminals and a center speaker to the CENTER SPEAKER terminals.



**Note:**

When you connect rear speakers, make sure that both left and right speakers are connected; otherwise, no sound will come out of the rear speakers.

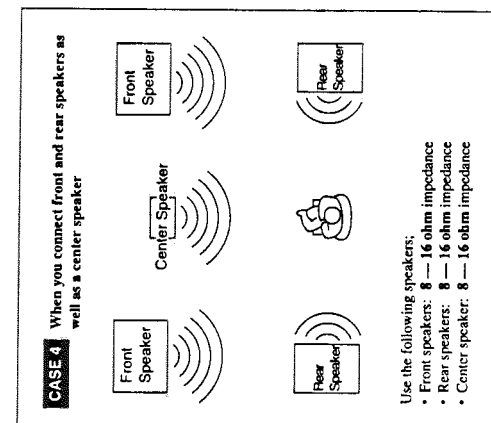
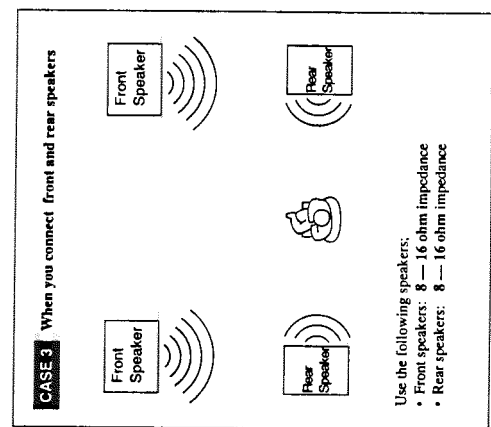
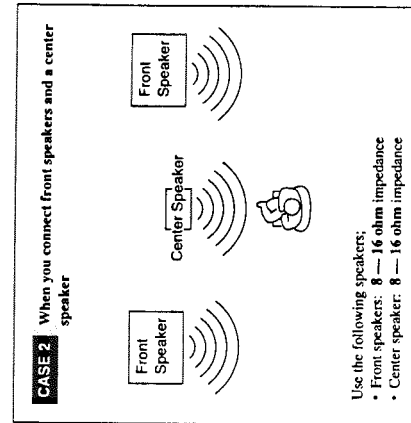
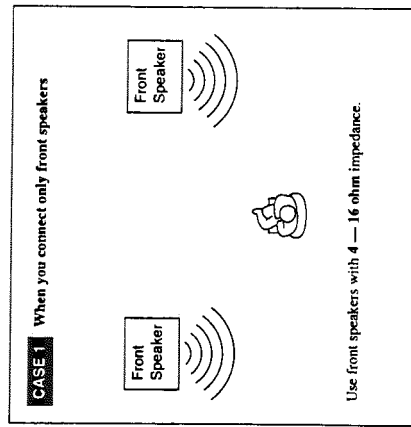
**About the speaker impedance of the speakers**

**CAUTION:**

When connecting speakers, use speakers with the same SPEAKER IMPEDANCE indicated by the speaker terminals.

**Notes:**

- The required speaker impedance of the front speakers differs depending on whether or not a center and/or rear speakers are connected at the same time. Since there are four possible speaker connections with the AX-V4BK, check which one fits your case and use the speaker with the impedance described below.
- The required speaker impedance of the front speakers does not differ depending on whether both the FRONT SPEAKERS (1) and FRONT SPEAKERS (2) terminals are used or only one of them is used.



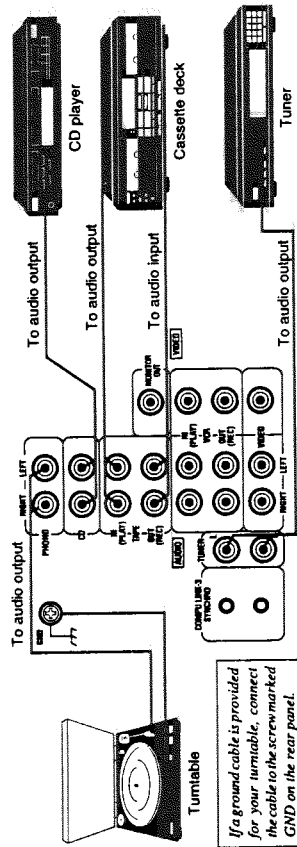
**Connecting Audio/Video Components**

You can connect the following components to the AX-V4BK using cables with RCA pin plugs.

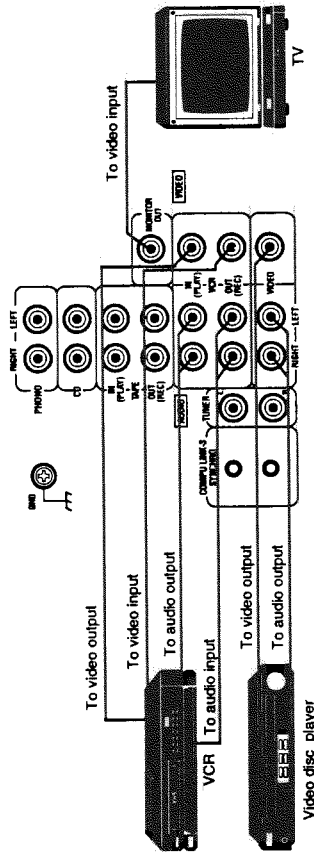
Audio Components	Video Components
• Turntable	• VCR
• CD player	• Video disc player
• Cassette deck	• TV
• Tuner	

- Notes:**
- Both plugs and jacks are color-coded; the red ones are for right audio signals, the white ones for left audio signals, and yellow ones for video signals.
  - Any turntables incorporating a small-output cartridge such as an MC (moving-coil type) must be connected to the AX-V4BK through a commercial head amplifier or step-up transformer. Direct connection may result in insufficient volume.

**Audio component connections**



**Video component connections**



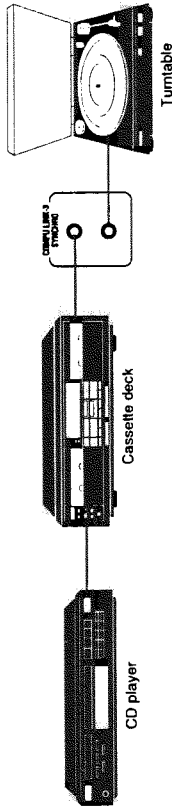
**CAUTION:** If you connect a sound-increasing device such as a graphic equalizer between the source components and the AX-V4BK, the sound output through the AX-V4BK may be distorted.

**Connecting Audio Components for the COMPU LINK-3 Remote Control System**

The COMPU LINK-3 remote control system allows you to control other JVC audio components from the AX-V4BK or vice versa. To use this system, connect your JVC audio components and the AX-V4BK with the cable (monaural mini-plug) supplied with those components.

If your audio component has two COMPU LINK-3 SYNCHRO jacks, you can use either one. If it has only one COMPU LINK-3 SYNCHRO jack, connect it so that it is the last item in the series of components. (for example, the turntable in the diagram below)

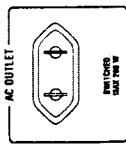
- Notes:**
- The COMPU LINK-3 remote control system is the upgraded version of the COMPU LINK-1 and COMPU LINK-2. Even if your component has the COMPU LINK-1 or COMPU LINK-2 jacks, you can still connect it in the COMPU LINK-3 remote control system, but some functions may not work correctly.
  - For more information about the COMPU LINK-3 (1 and 2) remote control system, see page 17.



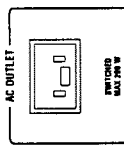
**Power Supply through the AX-V4BK to a Connected Component**

You can use the AC outlet on the rear of the AX-V4BK to supply power to an audio component. This AC outlet is a "switched" outlet. So when the AX-V4BK is off (that is, in standby mode), power is not supplied through this outlet. By turning the AX-V4BK on and off, you can turn the connected component on and off at the same time.

**Note:** Do not use the AC outlet on the rear of the AX-V4BK to supply power to the component in the COMPU LINK remote control system; otherwise, the COMPU LINK remote control system may not work correctly.



For Continental Europe



For the U.K.

**CAUTION:** Do not plug the component to the AC outlet on the rear if the maximum consumption is greater than indicated by the AC outlet.

**Connecting the Power Cord**

Before plugging the AX-V4BK into an AC outlet, make sure that all connections have been made. When the power cord is connected, the STANDBY indicator above the POWER button lights up. Keep the power cord away from the connecting cables for the TV, VCR, and antenna. The power cord may cause noise or screen interference.

- Notes:**
- A small amount of power is always consumed even in standby mode. To switch off the power completely, unplug the power cord from the AC outlet.
  - If the power cord is unplugged or a power failure occurs, preset settings will be erased in a few days.

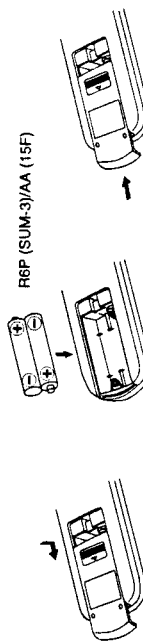
**CAUTIONS:**

- Do not touch the power cord with wet hands.
- Do not pull on the power cord to unplug the AX-V4BK. When unplugging the AX-V4BK, always grasp the plug itself so as not to damage the cord.

**Putting Batteries in the Remote Control**

Before using the remote control, put two supplied batteries first. When using the remote control, aim the remote control directly at the remote sensor on the AX-V4BK.

1. On the back of the remote control, press down on the battery cover and slide it out.
2. Insert batteries. Make sure to observe the proper polarity: (+) to (+) and (-) to (-).
3. Slide the cover in.



If the range or effectiveness of the remote control decreases, replace the batteries. Use two R6P (SUM-3)/AA (15F) type dry-cell batteries.

**CAUTIONS:**

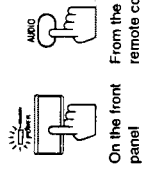
Follow these precautions to avoid leaking or cracking cells:

- Place batteries in the remote control so they match the polarity indicated: (+) to (+) and (-) to (-).
- Use the correct type of batteries. Batteries that look similar may differ in voltage.
- Always replace both batteries at the same time.
- Do not expose batteries to heat or flame.

**Basic Operations**

The following operations are commonly used when you play any sound source.

**Turning the Power On and Off**



To turn on the power, press the POWER button on the front panel or the AUDIO button on the remote control. The STANDBY indicator goes off.

To turn off the power, press the POWER button or AUDIO button on the remote control again. The STANDBY indicator lights up.

On the front panel

**Selecting the Source to Play**

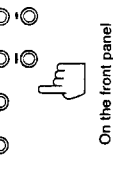
You need to select the source to listen before you start playing any source.

Press one of the source selecting buttons so that the source name appears on the display.



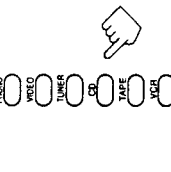
Selected source name appears

**On the front panel:**



- TUNER Listen to the tuner.
- TAPE Listen to the cassette deck connected to the TAPE jacks.
- PHONO Listen to a record.
- CD Listen to the CD player.
- VIDEO View the video component connected to the VIDEO jacks.
- VCR View the video component connected to the VCR jacks.

**From the remote control:**



- PHONO\* Listen to a record.
- VIDEO View the video component connected to the VIDEO jacks.
- TUNER\* Listen to the tuner.
- CD\* Listen to the CD player.
- TAPE\* Listen to the cassette deck connected to the TAPE jacks.
- VCR View the video component connected to the VCR jacks.

**Note:**

- When you press one of the source selecting buttons on the remote control marked above with an asterisk, the AX-V4BK automatically turns on.

From the remote control

**Selecting different sources for picture and sound**

You can watch picture from video equipment while listening to sound from audio equipment.

To listen to the sound from audio equipment while watching the picture from video equipment, press one of the source selecting buttons for the video equipment (TUNER, TAPE, PHONO or CD), then press one of the source selecting buttons for the audio equipment (VIDEO or VCR).

**Selecting the Front Speakers**

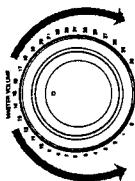
When you have connected two sets of front speakers, you can select which to use. Pressing in the SPEAKERS 1 or SPEAKERS 2 button activates the respective set of speakers.



To use the set of speakers connected to the FRONT SPEAKERS ① terminals, press in the SPEAKERS 1 button (=ON), and press out the SPEAKERS 2 button (=OFF).  
 To use the set of speakers connected to the FRONT SPEAKERS ② terminals, press in the SPEAKERS 2 button (=ON), and press out the SPEAKERS 1 button (=OFF).  
 To use both sets of speakers, press in both the SPEAKERS 1 and 2 buttons (=ON).  
 To use neither set of speakers, press out both the SPEAKERS 1 and 2 buttons (=OFF).

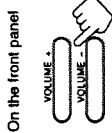
**Note:** When only one set of the front speakers is connected to either the FRONT SPEAKERS ① or ② terminals, do not press in both SPEAKERS 1 and 2 buttons (=ON). If you do, no sound comes out of the front speakers.

**Adjusting the Volume**



**On the front panel:**  
 To increase the volume, turn the MASTER VOLUME control clockwise.  
 To decrease the volume, turn it counterclockwise.

**From the remote control:**  
 To increase the volume, press the VOLUME + button.  
 To decrease the volume, press the VOLUME - button.



From the remote control

**CAUTION:** Always set the MASTER VOLUME control to the minimum before starting any source. If the MASTER VOLUME control is left turned up, the sudden blast of sound energy can permanently damage your hearing and/or ruin your speakers.

**Adjusting the Front Speaker Output Balance**



If the sounds you hear from the front right and left speakers are unequal, you can adjust the speaker output balance with the BALANCE control.

To decrease the left channel sound, turn the BALANCE control clockwise.  
 To decrease the right channel sound, turn the BALANCE control counterclockwise.  
 When set to the CENTER position, no adjustment is applied.

**Adjusting the Tone**

**Adjusting the bass**



To increase the bass reinforcement, turn the BASS control clockwise.  
 To decrease the bass reinforcement, turn the BASS control counterclockwise.  
 When set to the FLAT position, no bass reinforcement is applied.

**Adjusting the treble**



To increase the treble reinforcement, turn the TREBLE control clockwise.  
 To decrease the treble reinforcement, turn the TREBLE control counterclockwise.  
 When set to the FLAT position, no treble reinforcement is applied.

**Listening at Low Volume (Loudness)**

Human ears are not sensitive to bass at low volume. To compensate for this, the loudness function automatically boosts the bass level as you lower the volume.



To use the loudness function, press the LOUDNESS button on the front panel. The LOUDNESS indicator lights up on the display.

To turn the function off, press the LOUDNESS button again. The LOUDNESS indicator goes off.

**Muting the Sound**



You can easily turn down the volume by pressing the FADE MUTE button on the remote control.

To mute the sound through all speakers and headphones connected, press the FADE MUTE button so that the VOLUME control turns down.

To cancel the mute, press the VOLUME + button (or the VOLUME - button) on the remote control.

**Recording a Source**

You can record any source playing through the AX-V4BK to the cassette deck connected to the TAPE jacks and the VCR connected to the VCR jacks at the same time. While recording, you can listen to the selected sound source at whatever sound and tone settings you like, without affecting the sound levels of the recording.

**Note:** The output volume level, tone adjustments, as well as surround effects cannot affect the recording.

**Listening with Headphones**

A standard pair of headphones can be connected to the PHONES jack on the front panel. To listen with only headphones, press out both the SPEAKERS 1 and 2 buttons (=OFF).

**CAUTION:** Be sure to turn down the volume before connecting or putting on headphones, as high volume can damage both the headphones and your hearing.

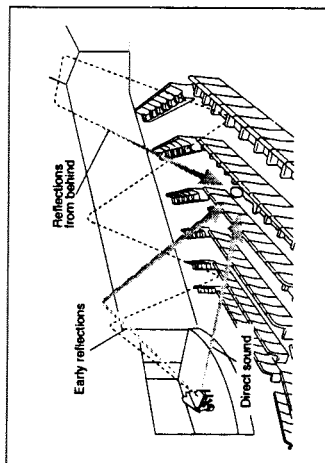


## Using the Surround Processor

The built-in surround processor provides three types of surround programs — Dolby Pro Logic, Dolby 3-Channel Logic, and JVC's Hall Surround.

### What is surround?

The sound heard in a concert hall or a movie theater consists of direct sound and indirect sound: early reflections and reflections from behind. The reflected sounds are always delayed by the distances of the ceiling and walls from the listener. These reflections are some of the most important elements of the acoustic surround.



### On JVC's Hall Surround

In order to reproduce a more realistic sound field in your listening room while playing an ordinary stereo source, JVC's Hall Surround has been designed to give you clear vocals and to create the feeling of a concert hall. The sound is reproduced through the front speakers and rear speakers.

### On Dolby Surround

Dolby Surround has been also developed to reproduce the important elements of the acoustic surround at home.

To watch the soundtracks of video software bearing the mark **Dolby Surround** which includes the same encoded surround information as found in Dolby Stereo films, the AX-V4BK can provide you with 2 Dolby Surround programs (Dolby Pro Logic and Dolby 3ch Logic).

**Dolby Pro Logic:** Select this mode when the optional rear speakers are connected.

**Dolby 3ch Logic:** Select this mode when a center speaker is connected without rear speakers.

**Notes:**

- Manufactured under license from Dolby Laboratories Licensing Corporation. DOLBY, the double-D symbol and "PRO LOGIC" are trademarks of Dolby Laboratories Licensing Corporation.
- The surround processor has no effect on monaural sources.
- The surround processor cannot be used for recording.

### Using JVC's Hall Surround

You need to connect one set of rear speakers to obtain the full effect.



1. Press the **SURROUND ON/OFF** button (or the **ON/OFF** button on the remote control). One of the surround program indicators (**PRO LOGIC**, **3CH LOGIC**, or **HALL**) lights up on the display.
  2. Press the **SURROUND MODE** button (or the **MODE** button on the remote control) repeatedly until the **HALL** indicator lights up on the display.
- To cancel Hall Surround, press the **SURROUND ON/OFF** button (or the **ON/OFF** button on the remote control) again.

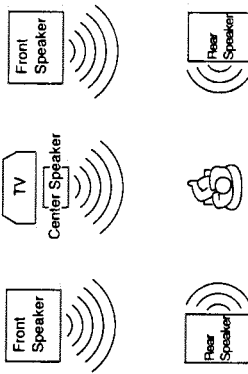
### Note:

You can also adjust the delay time (see Step 4 on page 15) and the sound level of the rear speakers (see Step 6 on page 16) for Hall Surround. Once you have adjusted the delay time for the Hall Surround, the AX-V4BK memorizes the setting.

## Speaker arrangements for Dolby Surround

The following illustrations show how to obtain the optimum sound environment for various Dolby Surround settings. Try to find the speaker direction and location to create the optimum sound field.

### CASE 1 When you have added a center speaker and rear speakers

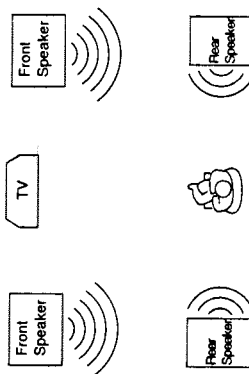


#### In this case:

1. Select **PRO LOGIC**.
2. Select **NORMAL** or **WIDE** for center mode.

See pages 15 and 16 for more details.

### CASE 2 When you have added rear speakers

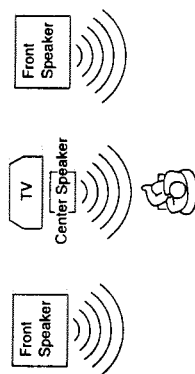


#### In this case:

1. Select **PRO LOGIC**.
2. Select **PHANTOM** for center mode.

See pages 15 and 16 for more details.

### CASE 3 When you have added a center speaker (without rear speakers)



#### In this case:

1. Select **3CH LOGIC**.
2. Select **NORMAL** or **WIDE** for center mode.

See pages 15 and 16 for more details.

**Preparing for Dolby Surround**

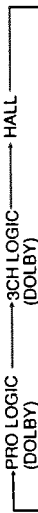
The AX-V4BK memorizes two sets of Dolby Surround adjustments; one for Pro Logic and the other for 3ch Logic. However, the sound levels of center and rear speakers cannot be stored separately.

1. Press the **SURROUND ON/OFF** button (or the **ON/OFF** button on the remote control).

One of the surround program indicators lights up on the display.

2. Press the **SURROUND MODE** button (or the **MODE** button on the remote control).

Each time you press the button, the surround program changes as follows:



**PRO LOGIC:** Select this mode when you use the rear speakers

**3CH LOGIC:** Select this mode when you use no rear speakers

**HALL:** This is JVC's original surround program, and is different from Dolby Surround. To use this, see page 13.

3. Press the **CENTER MODE** button on the front panel.

Each time you press the **CENTER MODE** button, the mode changes as follows.



**PHANTOM:** Select this mode when you have not connected a center speaker.

**NORMAL:** Select this mode when the size of the center speaker is smaller than that of the front speakers.

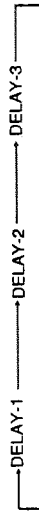
**WIDE:** Select this mode when the size of the center speaker is the same as that of the front speakers.

**OFF:** Select this mode to shut off the output of the center channel signal.

**Note:** When you have selected 3CH LOGIC in Step 2 above, you cannot select PHANTOM.

4. Press the **DELAY** button to set the delay time of the delayed sound.

Each time you press the button, the delay time changes among 3 levels.



**DELAY-1:** When your distance to your rear speakers is greater than that to the front speakers.

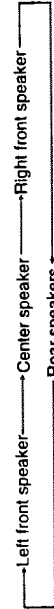
**DELAY-2:** When your distance to your rear speakers is almost equal to that to the front speakers.

**DELAY-3:** When your distance to your rear speakers is less than that to the front speakers.

**Note:** When you have selected 3CH LOGIC in Step 2 above, you cannot adjust the delay time.

5. Press the **TEST** button on the remote control to check your setting.

When you press the button, "TEST" starts flashing and a test tone comes out of the speakers in the following order:



**Notes:**

- No test tone comes out of the rear speakers when you have selected 3CH LOGIC.
- No test tone comes out of the center speaker when you select PHANTOM or OFF for the center mode.

6. Set the levels of the center and rear speakers.

On the front panel:

Press the **CENTER LEVEL +/-** button to set the sound level of the center speaker.

Press the **REAR LEVEL +/-** button to set the sound level of the rear speakers.

From the remote control:

Press the **CENTER +/-** button while pressing the **LEVEL CONTROL** button to set the sound level of the center speaker.

Press the **REAR +/-** button while pressing the **LEVEL CONTROL** button to set the sound level of the rear speakers.

**Notes:**

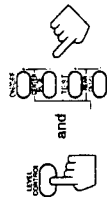
- You can adjust these levels in 1dB steps within the range of ±10dB. The sound levels of the left and right rear speakers will be the same.
- It is recommended that you adjust the output levels of all the speakers so that their sound levels become identical when they reach your listening point.
- You cannot set the sound level of the rear speakers when you have selected 3CH LOGIC.
- You cannot set the sound level of the center speaker when you select PHANTOM or OFF for the center mode.
- Although the sound levels of the center and rear speakers can be stored, they are not stored separately for each surround program.

7. Press the **TEST** button on the remote control again to finish the preparation.

The test tone stops.



On the front panel



From the remote control

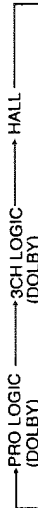


**Using Dolby Surround**

Once you have set the Dolby Surround adjustments you can use the same adjustments every time you want to enjoy Dolby Surround.

1. Press the **SURROUND ON/OFF** button (or the **ON/OFF** button on the remote control) so that one of the surround program indicator lights up on the display.

2. Press the **SURROUND MODE** button (or the **MODE** button on the remote control) repeatedly if the surround program indicator (PRO LOGIC or 3CH LOGIC) you want does not light up. Each time you press the button, the display changes to show the following:



3. Play a sound source which was processed with Dolby Surround and is labeled with the **DOLBY SURROUND** mark.

To cancel Dolby Surround, press the **SURROUND ON/OFF** button (or the **ON/OFF** button on the remote control) again.





The COMPU LINK remote control system allows you to operate JVC audio components through the remote sensor on the AX-V4BK.

To use this remote control system, you need to connect JVC audio components through the COMPU LINK-3 SYNCHRO jacks (see page 8) in addition to the connections using cables with RCA pin plugs (see page 7). This remote control system allows you to use four functions listed below.

- **Remote Control through the Remote Sensor on the AX-V4BK**  
You can control all audio components through the remote sensor on the AX-V4BK using this remote control. For details, see page 18.
- Note:*  
Aim the remote control directly at the remote sensor on the AX-V4BK.

- **Automatic Source Selection**  
When you press the play button on a connected component or on its own remote control, the AX-V4BK automatically turns on and changes the source to the component. On the other hand, if you select a new source on the AX-V4BK or the remote control, the selected component begins playing immediately. In both cases, the previously selected source continues playing without sound for a few seconds.

- **Automatic Power On/Off (only possible with the COMPU LINK-3 connection)**  
The audio components (tuner, CD player and cassette deck) connected to the AX-V4BK automatically turn on and off with the AX-V4BK.
- When you turn on the AX-V4BK, one of the connected components will turn on automatically, depending which component has been previously selected.
- When you turn off the AX-V4BK, these components connected will turn off.

- **Synchronized Recording**  
Synchronized recording means the cassette deck starts recording as soon as a CD or record begins playing.
- To use synchronized recording, follow these steps:
- 1 Put a tape in the cassette deck, and a disc in the CD player (or a record on the turntable).
  - 2 Press the record (●) button and the pause (II) button on the cassette deck at the same time. This puts the cassette deck into recording pause.

*Note:*  
If you do not press the record (●) button and pause (II) button at the same time, the synchronized recording feature will not operate.

- 3 Press the play (▶) button on the CD player or on the turntable.  
The source changes on the AX-V4BK, and as soon as play starts, the cassette deck starts recording. When the play ends, the cassette deck enters recording pause, and stops 4 seconds later.

- Notes:*
- During synchronized recording, the selected source cannot be changed.
  - If your CD player is playing in program mode, a 4-second blank is recorded between tracks so that the music scan feature of your cassette deck can be used on the recorded tape.
  - If the power of any component is shut off during synchronized recording, the COMPU LINK remote control system may not operate properly. In this case, you must start again from the beginning.
  - Refer also to the manuals supplied with your CD player and cassette deck.

## Using the Remote Control

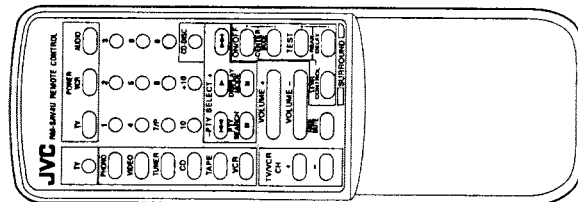
You can operate JVC's audio and video components with this AX-V4BK's remote control, since control signals for JVC components are preset in the remote control.

To operate these components with the remote control, first select a source with the source selecting buttons on the remote control. Then, operate that source using the remote control.

*Note:*  
If you choose a source on the front panel directly, the remote control will not operate that source. To operate a source with the remote control, the source must be selected using buttons on the remote control.

### IMPORTANT:

- To operate JVC's audio components using this remote control:
  - You need to connect JVC audio components through the COMPU LINK-3 SYNCHRO jacks (see page 8) in addition to the connections using cables with RCA pin plugs (see page 7).
  - Aim the remote control directly at the remote sensor on the AX-V4BK.
- To operate JVC's video components using this remote control:
  - Aim the remote control directly at the remote sensor on the VCR or TV, not on the AX-V4BK.



After pressing the TUNER button, you can perform the following operations on a tuner:

- ▶ 1 — 10, +10  
To select a preset channel number directly
- ▶ To select channel number 5, press 5. For channel number 15, press +10, then 5. For channel number 20, press +10, then 10.

#### RDS (Radio Data System) operating buttons:

- ▶ PTY SEARCH Starts PTY (programme type) Search.
- ▶ PTY SELECT +/- Select programme type you want.
- ▶ DISPLAY MODE Changes the RDS information shown on the display.

After pressing the CD button, you can perform the following operations on a CD player:

- ▶ Starts playing
- ▶ Returns to the beginning of the current (or previous) track
- ▶ Skips to the beginning of the next track
- ▶ Stops playing
- ▶ Pauses
- ▶ Selects a track number directly
- ▶ 1 — 10, +10  
To select track number 5, press 5. For track number 15, press +10, then 5. For track number 20, press +10, then 10.

After pressing the CD-DISC button, you can perform the following operations on a CD player-changer:

- ▶ 1 — 6, 7P  
To select the number of a disc installed in a CD player-changer. Then continue to operate the CD player as described above.

*Note:*  
If you have the CD player-changer XL-MC100C and XL-MC100M, 1 — 6 buttons function as the DISC SKIP button.

- Press 2, 4, or 6 to skip to the next disc.
- Press 1, 3, or 5 to skip back to the previous disc.

After pressing the TAPE button, you can perform the following operations on a cassette deck:

- ▶ Starts playback
- ▶ Fast winds a tape from right to left
- ▶ Fast winds a tape from left to right
- ▶ Stops operation
- ▶ Pauses

After pressing the VCR button, you can perform the following operations on a VCR:

- ▶ Starts playback
- ▶ Rewinds a video tape
- ▶ Fast winds a video tape
- ▶ Stops operation
- ▶ Pauses
- ▶ TV/VCR CH+/- Changes TV channels on a VCR

*Note:*  
While you are playing the source other than VCR—such as the CD player or cassette deck, you cannot operate the VCR using the remote control.

After pressing the TV button (located at the upper leftmost portion of the remote control, not the one in the POWER section), you can perform the following operations on TV:

- ▶ TV/VCR CH+/- Changes TV channels

#### Notes:

- When you press the TV button (located at the upper leftmost portion of the remote control, not the one in the POWER section), the TV's input mode changes to TV.
- You can also turn the VCR or TV on and off by pressing the VCR or TV button in the POWER section of the remote control.

**Troubleshooting**

Use this chart to help you solve daily operational problems. If there is any problem you cannot solve, contact your JVC service center.

PROBLEM	POSSIBLE CAUSE	SOLUTION
The display does not light up	The power cord not plugged in	Plug the power cord into an AC outlet
No sound from speakers	Speaker signal cables not connected The SPEAKERS buttons are not set correctly An incorrect source is selected	Check speaker wiring and reconnect if necessary Press the SPEAKERS buttons in or out correctly Select the correct source
Sound from one speaker only	Speaker signal cables are not connected properly The BALANCE control is set to one extreme	Check speaker wiring and reconnect if necessary Adjust the BALANCE control properly
Howling during record playing	Your turntable is too close to speakers	Move speakers away from the turntable
Remote control does not work	There is an obstruction in front of the remote sensor on the AX-V4BK Batteries are weak	Remove the obstruction Replace batteries

**Specifications**

**Amplifier**

Output Power	AI Stereo operation Front Channels	40 watts per channel, min. RMS, driven into 4 ohms at 1 kHz, with no more than 0.9% total harmonic distortion. (IEC268-3/DIN)
	AI Surround operation Front Channels	30 watts per channel, min. RMS, driven into 8 ohms at 1 kHz, with no more than 0.9% total harmonic distortion. (IEC268-3/DIN)
	Center channel	30 watts per channel, min. RMS, driven into 8 ohms, 40 Hz to 20 kHz with no more than 0.8% total harmonic distortion.
	Rear channels	30 watts per channel, min. RMS, driven into 8 ohms at 1 kHz, with no more than 0.8% total harmonic distortion.
Total Harmonic Distortion (8 ohms, 1 kHz)		0.8%* at 30 watts output (* Measured by JVC Audio Analysis System)
Frequency Response (8 ohms)	PHONO CD, TUNER, TAPE, VCR, VIDEO	20 Hz to 20 kHz (±1 dB) 20 Hz to 20 kHz (±1 dB)
Audio Input Sensitivity/Impedance (1 kHz)	PHONO CD, TUNER, TAPE, VCR, VIDEO	2.5 mV/47 k ohms 200 mV/47 k ohms
Audio Output Level	TAPE, VCR	200 mV
Signal-to-Noise Ratio (66 IHFDIN)	PHONO CD, TUNER, TAPE, VCR, VIDEO	70 dB/66 dB 87 dB/67 dB
RJAA Phono Equalization		±0.5 dB (20 Hz to 20 kHz)
LOUDNESS control (Volume Control at -30 dB)		+5 ±2 dB at 100 Hz
Tone Control Range	BASS TREBLE	+8 ±2 dB, -8 ±2 dB (at 100 Hz) +8 ±2 dB, -8 ±2 dB (at 10 kHz)
Video Input Sensitivity/Impedance	VCR, VIDEO	1 Vp-p/75 ohms
Video Output Level	VCR, MONITOR OUT	1 Vp-p (at 1 Vp-p input)
Synchronization		negative
Signal-to-Noise Ratio		45 dB

**General**

Power Requirements	AC 230V <sub>~</sub> , 50 Hz
Power Consumption	190 watts 5 watts (in standby mode)
Dimensions (W x H x D)	435 x 147 x 346 mm (17 7/16 x 5 13/16 x 13 5/16 inches)
Mass	7.4 kg (16.4 lbs)

Design & specifications are subject to change without notice

# Description of Major LSIs

## ■ MN171202K8F (IC401) : SYSTEM CONTROLLER 1

### 1. Terminal Layout

VDD	1	<b>MN171202K8F</b>	64	OSC1
KI0	2		63	OSC2
KI1	3		62	GND
KI2	4		61	
KI3	5		60	
D1/KO0	6		59	T.MUTE
D2/KO1	7		58	LOUDNESS
D3/KO2	8		57	POWER/STANDBY LED
D4/KO3	9		56	HALL LED
D5/KO4	10		55	3CH LED
D6/KO5	11		54	PROLOGIC LED
D7/KO6	12		53	SOURCE MUTE
D8/KO7	13		52	VOL. LED
S0	14		51	VOL +
S1	15		50	VOL-
S2	16		49	COMPLINK OUT
S3	17		48	COMPLINK IN
VPP	18		47	TUNED
S4	19		46	STEREO
S5	20		45	INH IN
S6	21		44	RM IN
S7	22		43	RESET
S8	23		42	DO
S9	24		41	DI
S10	25		40	CK
S11	26		39	CE
S12	27		38	DATA
S13	28		37	STB1
S14	29		36	CLK
S15	30		35	STB2
VIDEO1	31		34	TV
VIDEO2	32		33	SOURROUND ON/OFF

### 2. Key Matrix

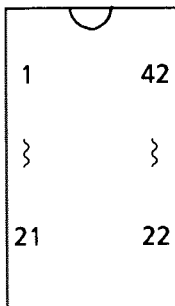
	KI0 (PIN2)	KI1 (PIN3)	KI2 (PIN4)	KI3 (PIN5)
KO0 (PIN6)	PHONO (S401)	CD (S402)	TUNER (S405)	TAPE (S406)
KO1 (PIN7)	VIDEO (S403)	VCR (S404)	TV (S407)	LOUDNESS (S408)
KO3 (PIN9)	POWER (S413)			
KO4 (PIN10)	SURR. (S417)	SURR. MODE (S418)	REAR LEVEL- (S419)	REAR LEVEL + (S420)
KO5 (PIN11)	DELAY (S421)	CENTER MODE (S422)	CENTER LEVEL- (S423)	CENTER LEVEL + (S424)

### 3. Description

Pin No.	Symbol	I/O	Description	Pin No.	Symbol	I/O	Description
1	VDD	--	Power supply	33	SURR.ON/OFF	O	SURROUND ON/OFF control
2	KI0	I	Key matrix Input	34	TV	O	TV sound select control signal
3	KI1	I	Key matrix Input	35	STB2	O	Strobe signal to IC641,601
4	KI2	I	Key matrix Input	36	CLK	O	Clock output
5	KI3	I	Key matrix Input	37	STB1	O	Strobe signal to IC321
6	D1/KO0	O	Grid control signal/Key matrix output	38	DATA	O	Data output
7	D2/KO1	O	Grid control signal/Key matrix output	39	CE	O	Chip enable output
8	D3/KO2	O	Grid control signal/Key matrix output	40	CK	O	CLOCK signal output
9	D4/KO3	O	Grid control signal/Key matrix output	41	DI	I	Tuner data input
10	D5/KO4	O	Grid control signal/Key matrix output	42	DO	O	Tuner data output
11	D6/KO5	O	Grid control signal/Key matrix output	43	RESET	O	RESET signal input
12	D7/KO6	O	Grid control signal/Key matrix output	44	RM IN	I	Remote signal input
13	D8/KO7	O	Grid control signal/Key matrix output	45	INH IN	I	Inhibit signal input
14	S0	O	Segment control signal	46	STEREO	I	STEREO signal input
15	S1	O	Segment control signal	47	TUNED	I	TUNED signal input
16	S2	O	Segment control signal	48	COMPULINK IN	I	COMPULINK signal input
17	S3	O	Segment control signal	49	COMPULINKOUT	O	COMPLINK signal output
18	VPP	O	Power supply	50	VOL-	O	VOL. control signal
19	S4	O	Segment control signal	51	VOL +	O	VOL. control signal
20	S5	O	Segment control signal	52	VOL LED	O	VOL. indication control
21	S6	O	Segment control signal	53	SOURCE MUTE	O	SOURCE MUTE control signal
22	S7	O	Segment control signal	54	PROLOGIC LED	O	PROLOGIC indication control
23	S8	O	Segment control signal	55	3CH LED	O	3CH indication control
24	S9	O	Segment control signal	56	HALL LED	O	HALL indication control
25	S10	O	Segment control signal	57	P/STANDBY LED	O	STANDBY indication control
26	S11	O	Segment control signal	58	LOUDNESS	O	LOUDNESS control signal
27	S12	O	Segment control signal	59	T.MUTE	O	TUNER MUTE control signal
28	S13	O	Segment control signal	60	X1	--	GND
29	S14	O	Segment control signal	61	X2	--	Not used
30	S15	O	Segment control signal	62	VSS	--	GND
31	VIDEO1	O	Control signal to IC661	63	OSC2	--	Oscillation terminal
32	VIDEO2	O	Control signal to IC661	64	OSC1	--	Oscillation terminal

■ LA2785 (IC601) : Dolby Pro Logic Surround Signal Processor

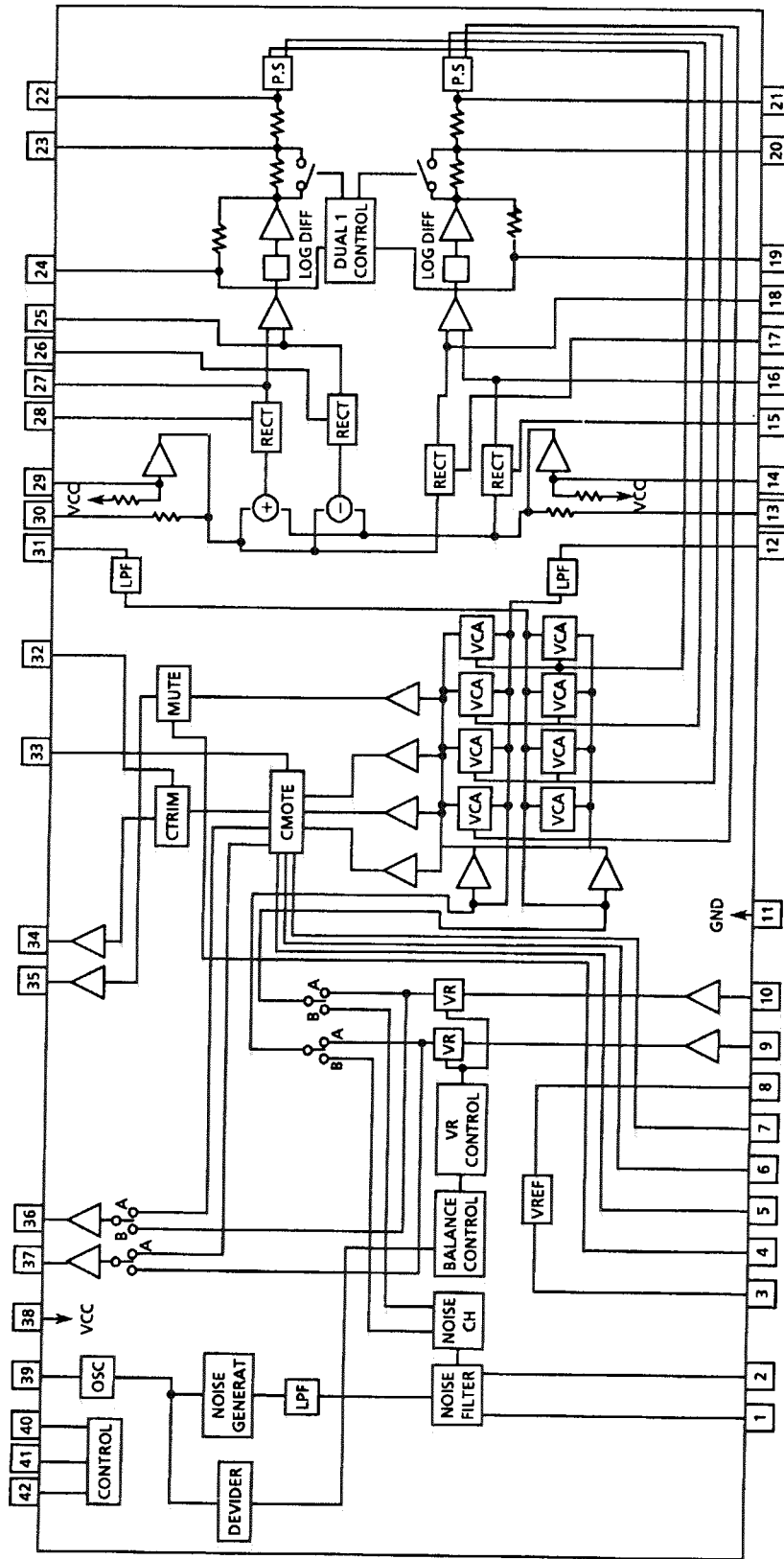
1. Terminal Layout



2. Pin Functions

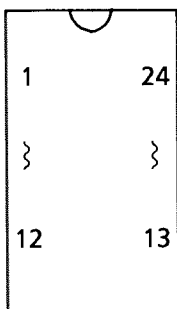
Pin No	Symbol	I/O	Functions	Pin No	Symbol	I/O	Functions
1	NS-BPF1	--	Capacitor for spectrum filter in noise sequencer	22	VCS-1	--	Capacitor for time constant (in log differential area)
2	NS-BPF2	--	Capacitor for spectrum filter in noise sequencer	23	VCS-2	--	Capacitor for time constant (in log differential area)
3	VREF	--	Analog reference voltage	24	VCS-TH	--	Capacitor for time constant (in log differential area)
4	S-DC-OUT	--	Capacitor for DC-cut Sch	25	L+R RECT	--	Capacitor for Center channel detection
5	C-DC-OUT	--	Capacitor for DC-cut Cch	26	DC-CUT	--	Capacitor for DC-cut at detection circuit
6	L-DC-OUT	--	Capacitor for DC-cut Lch	27	L-R RECT	--	Capacitor for Surround channel detection
7	R-DC-OUT	--	Capacitor for DC-cut Rch	28	DC-CUT	--	Capacitor for DC-cut at detection circuit
8	VREF-BUFFER	--	VREF low impedance	29	R-BPF3	--	LPF,HPF for Right channel control circuit
9	L-IN	I	Left channel signal input	30	R-BPF2	--	LPF,HPF for Right channel control circuit
10	R-IN	I	Right channel signal input	31	R-BPF1	--	LPF,HPF for Right channel control circuit
11	GND	--	Ground	32	C-TRIM DC-CUT	--	Capacitor for DC-cut Center channel
12	L-BPF1	--	LPF,HPF for Lch control circuit	33	C-MODE-CAP	--	Capacitor for Center channel output low-pass filter
13	L-BPF2	--	LPF,HPF Left channel control circuit	34	C-OUT	O	Center signal output
14	L-BPF3	--	LPF,HPF Left channel control circuit	35	S-OUT	O	Surround signal output
15	DC-CUT	--	Capacitor for DC-cut at detection circuit	36	R-OUT	O	Right channel signal output
16	R RECT	--	Capacitor for Right channel detection	37	L-OUT	O	Left channel signal output
17	DC-CUT	--	Capacitor for DC-cut at detection circuit	38	VCC	--	power supply
18	L RECT	--	Capacitor for Left channel detection	39	OSC	--	Oscillation for noise sequencer and auto balance
19	VLR-TH	--	Capacitor for time constant (in log differential area)	40	/STB	I	Strobe signal input
20	VLR-2	--	Capacitor for time constant (in log differential area)	41	DATA	I	Serial interface data input
21	VLR-1	--	Capacitor for time constant (in log differential area)	42	CLK	I	Serial interface clock

3. Block Diagram

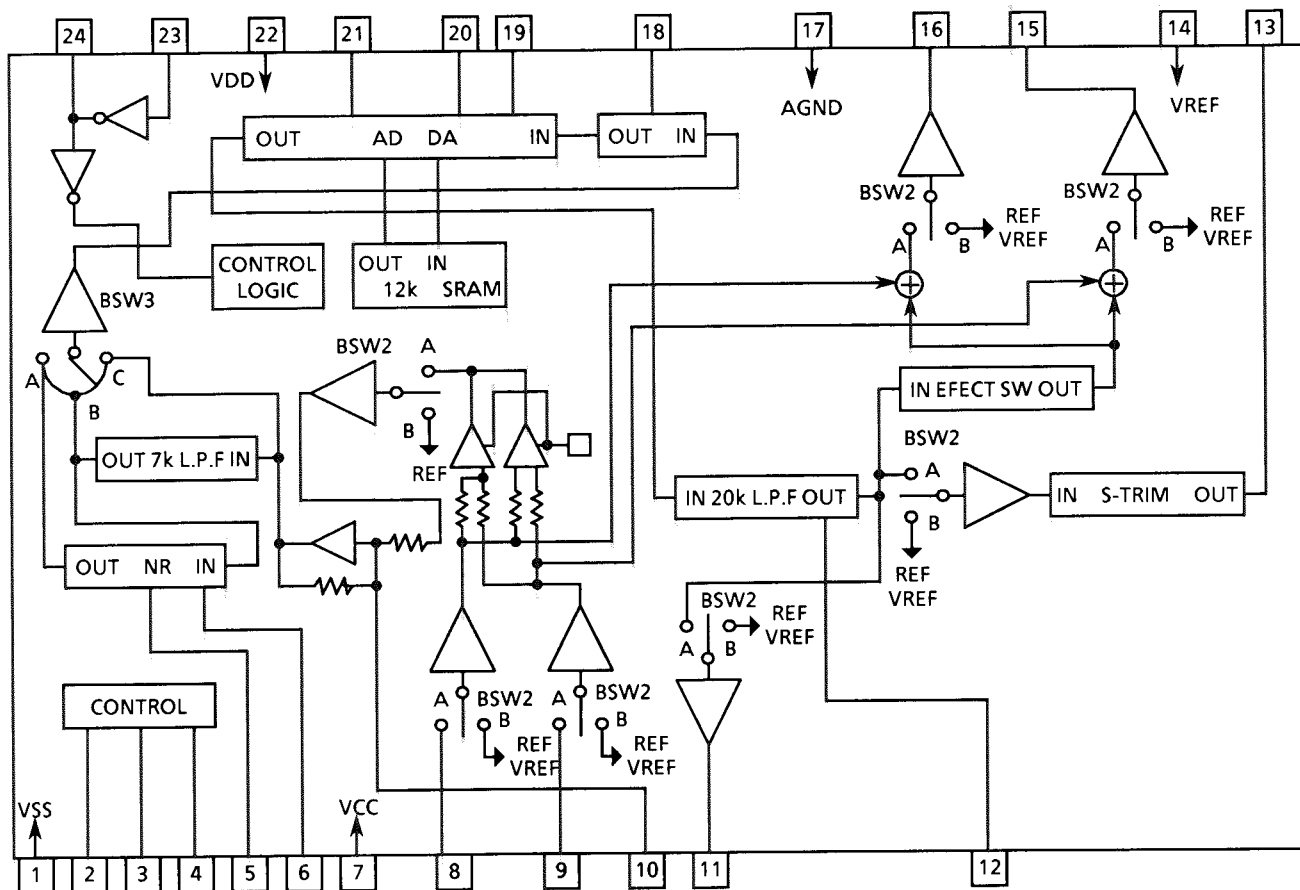


■ LV1011 (IC641) : Dolby Surround Passive Decoder

1. Terminal Layout



2. Block Diagram

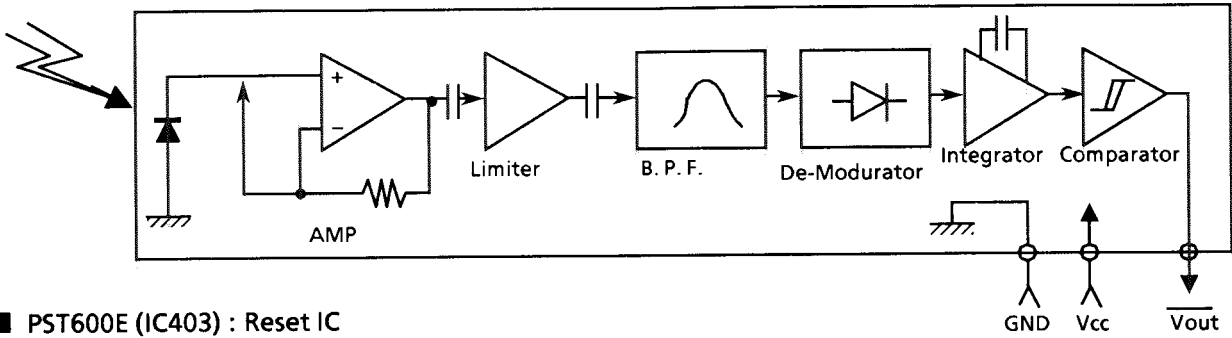




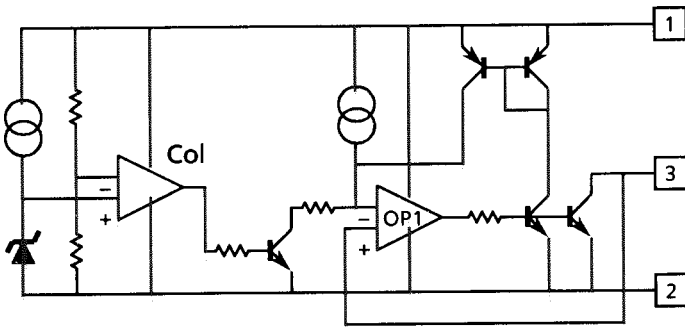
## 3. Pin Functions

Pin No.	Symbol	I/O	Functions
1	DGND	--	Digital GND
2	CLK	I	Serial interface clock
3	DATA	I	Serial interface data input
4	STB	I	Strobe signal input
5	NR-DET	--	Capacitor for noise reduction detection
6	NR-IREF	--	Resistor for noise reduction reference current
7	VCC	--	Supply
8	L-IN	I	Left channel signal input
9	R-IN	I	Right channel signal input
10	S-IN	I	Surround signal input
11	DELAY-OUT	--	Not used
12	DC-CUT	--	Capacitor for DC-cut
13	S-OUT	O	Surround signal output
14	VREF	--	Analog reference voltage
15	R-MIX-OUT	--	Not used
16	L-MIX-OUT	--	Not used
17	ADND	--	Analog ground
18	DC-CUT	--	Capacitor for DC-cut
19	D/A	--	Capacitor for integrator
20	NOISE SHAPER	--	Capacitor for noise shaper
21	A/D	--	Capacitor for integrator
22	VDD	--	Supply for the digital section
23	OSC	--	Oscillation terminal
24	OSC	--	Oscillation terminal

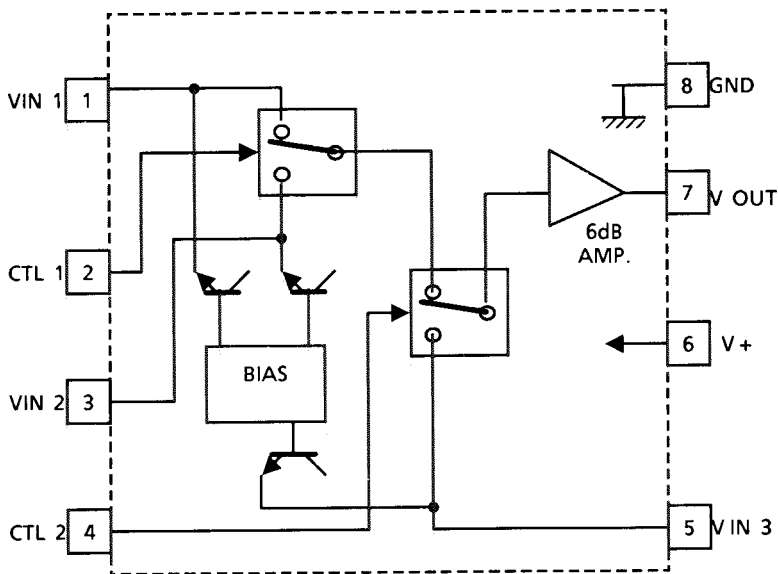
■ SPS-420-1 (IC402) : Remocon Module IC



■ PST600E (IC403) : Reset IC



■ NJM2246D (IC661) : Video Switch

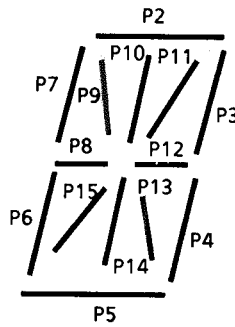
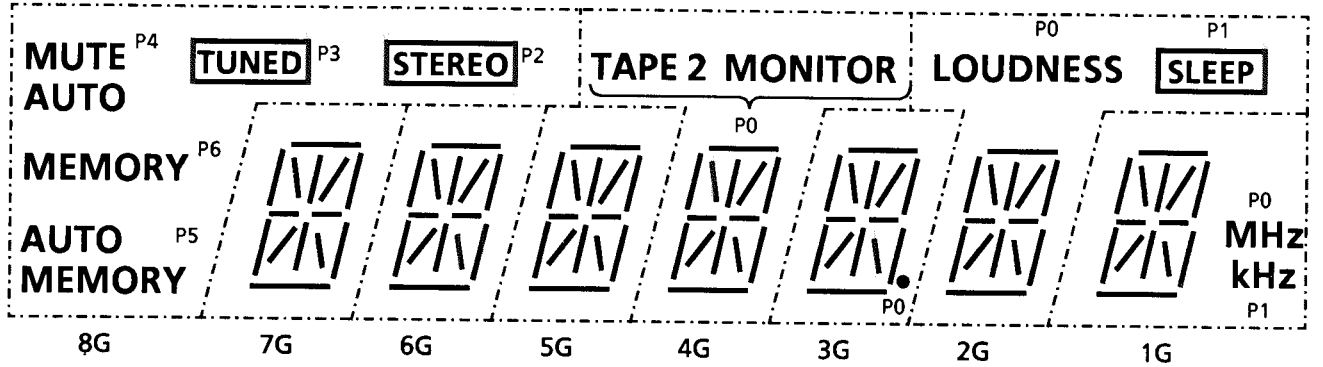


Control Signal – OutputSignal

CTL 1	CTL 2	Output
L	L	V IN 1
H	L	V IN 2
L/H	H	V IN 3

# Internal Connections of the FL Display

■ ELU0001-144 : FL401



## Pin Connection

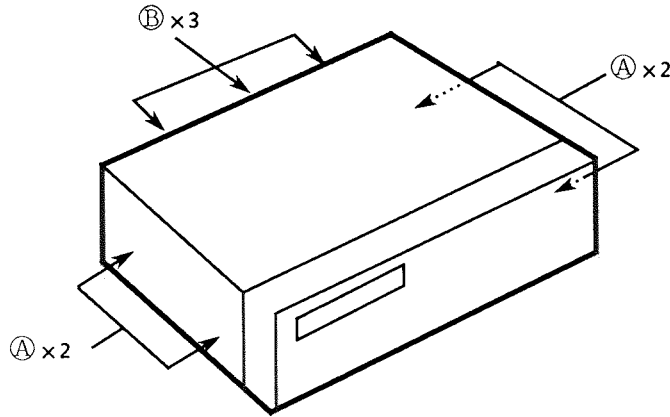
PIN NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
ELECTRODE	F1	F1	F1	NP	NP	NP	NP	NP	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6		
PIN NUMBER			19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
ELECTRODE			P5	P4	P3	P2	P1	P0	8G	7G	6G	5G	4G	3G	2G	1G	NP	F2	F2	F2

Note F : Filament, G : Grid, P : Element, NP : No Pin, NC : No Connection

# Disassembly Procedures

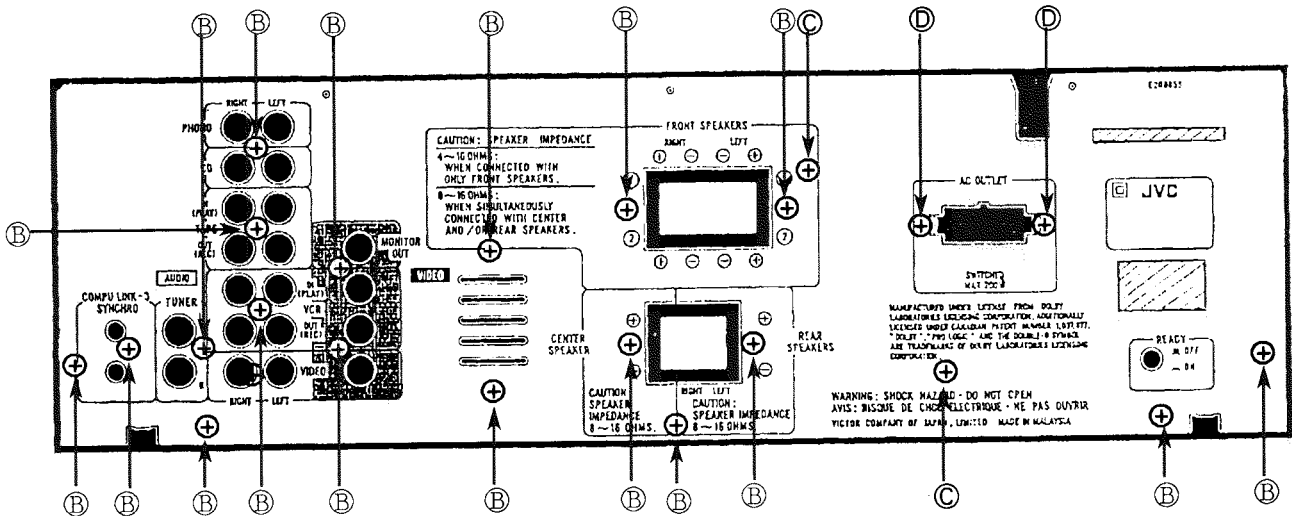
## (1) Removing the top cover

1. Remove 4 screws **A** fastening both sides of top cover, and 3 screws **B** fastening the rear side.
2. Remove the top cover.



## (2) Removing the rear panel

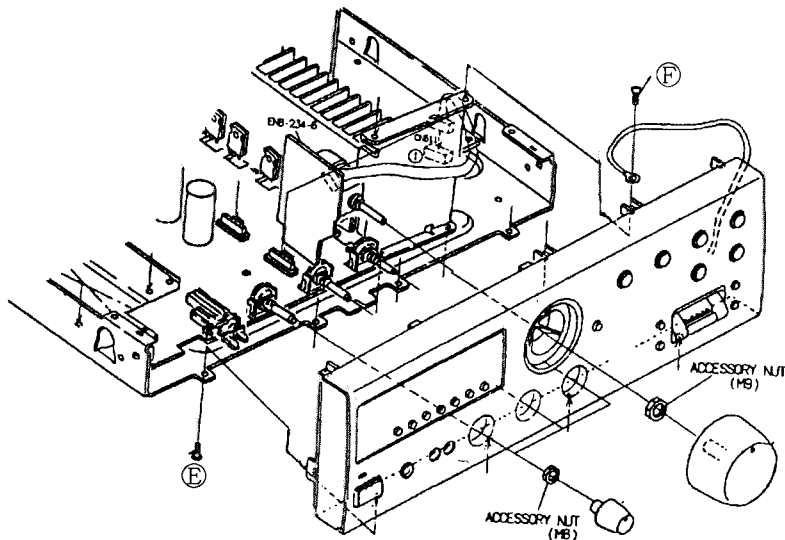
1. Remove the top cover
2. Remove the 18 screws **B**, 2 screws **C** and 2 screws **D**.
3. Remove the rear panel.



- A** .. E406308-001    **B** ... E73273-006    **C** ... SBST3006M    **D** ... SD5G3006M

(2) Removing the Front panel Ass'y

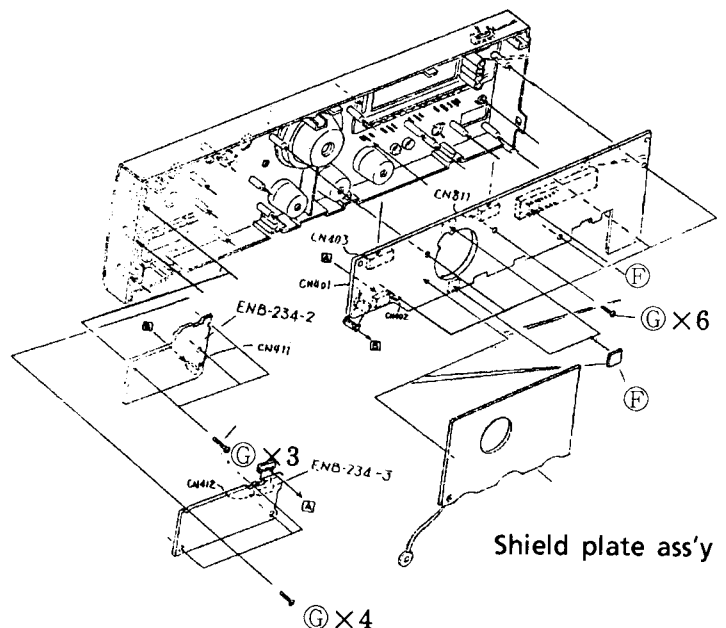
1. Remove the top cover.
2. Remove the Master volume knob, bass knob, treble knob and balance knob.
3. Remove the nut fastening the Master volume knob, bass knob, treble knob and balance knob.
4. Remove the 4 screws (E) fastening bottom side of front panel ass'y.
5. Remove the 2 screws (F) fastening top side of front panel ass'y.
6. Cut the tie band of the FW901 and FW961, Disconnect the CN961, CN801 and CN413.
6. Remove it.



(3) Removing the Front P.C. Board

1. Removing the top cover. 5.
2. Removing the front panel assembly.
3. Removing the shield plate ass'y.
4. Removing the 13 screws (G).
5. Remove it.

\* Assembling the 3 spacer (F) (E306805-122) fixing the shield plate ass'y.



(E) SDSF3008M

(F) SBSG3008CC

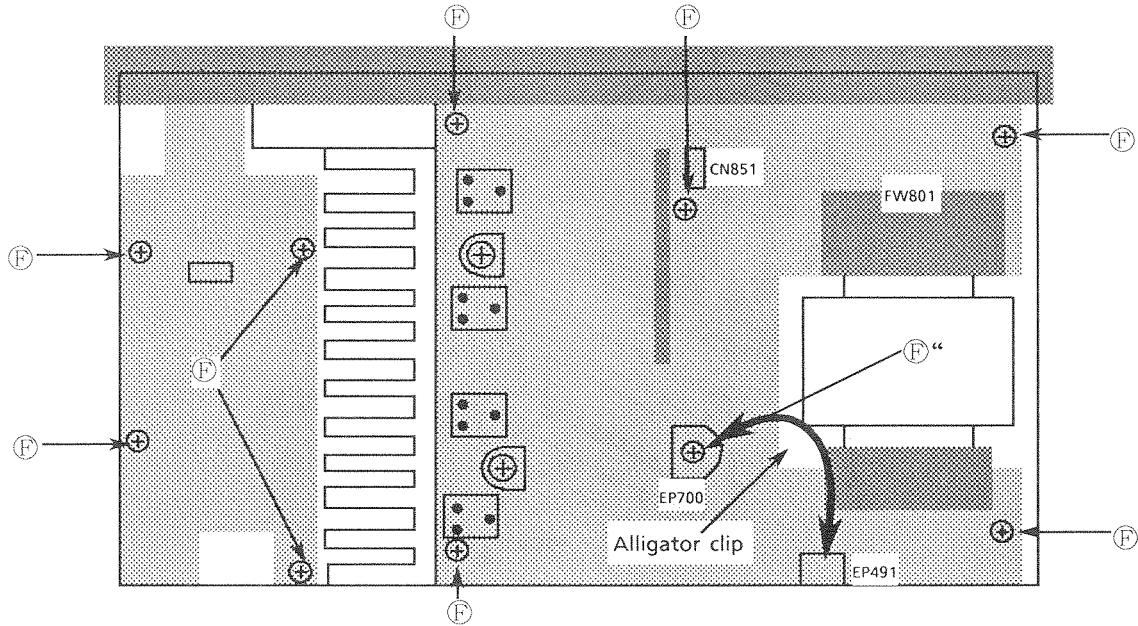
(D) SDSF3008M

(G) SDSF2608Z

(5) Removing the main PCB(ENH-290-1) and SOURCE select PCB (ENB-234-4/5 ,ENH-290-4)

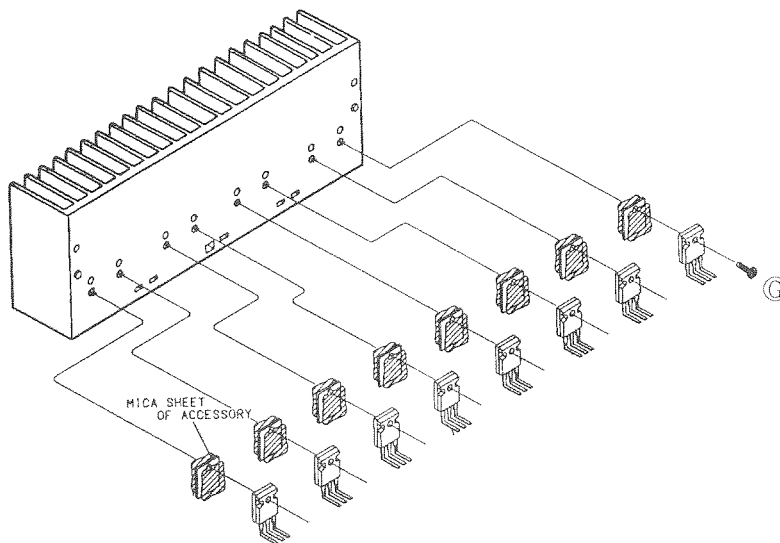
1. Removing the top cover.
2. Removing the rear panel.
3. Removing the front panel ass,y.
4. Disconnect the CN611,CN851.
5. Removing the 10 screws (F) and (F'')
6. Remove the PCB.

※ The screw (F'') which secures the bottom cover is also used for ground.  
It is necessary to ground before checking after the bottom cover is removed.



(6) Removing the Power Transistor

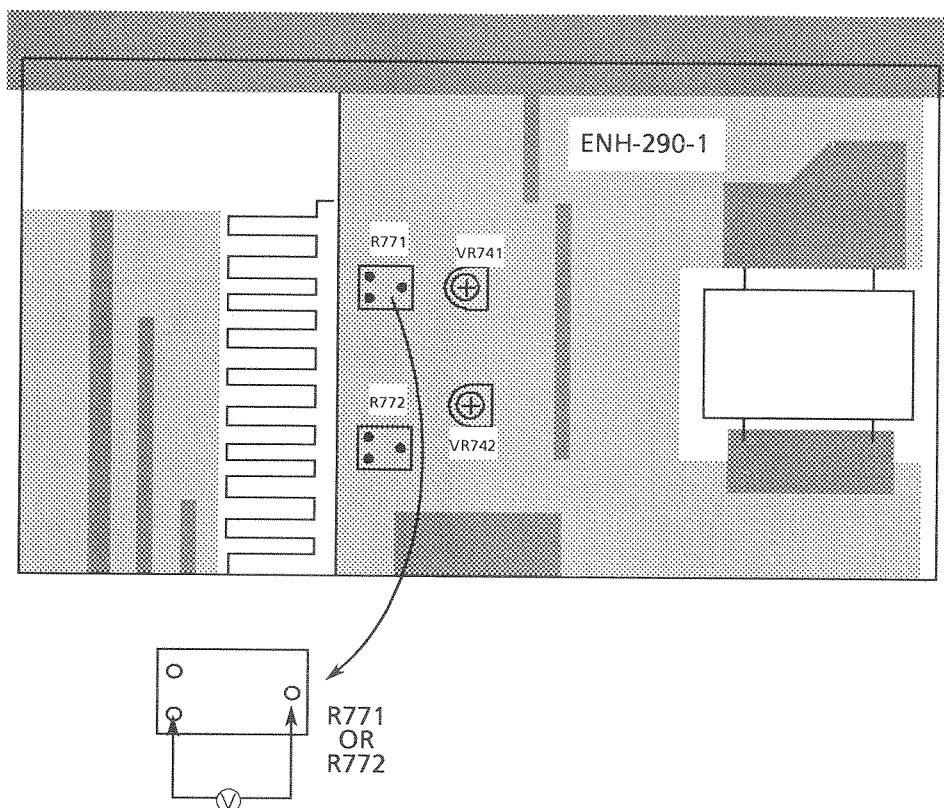
1. Remove the (1) and (4).
2. Unsolder the broken transistor.
3. Remove the some screws (G) fastening it.
4. Remove it.



(F) .. SBSG3008CC

(G) ... E73525-003

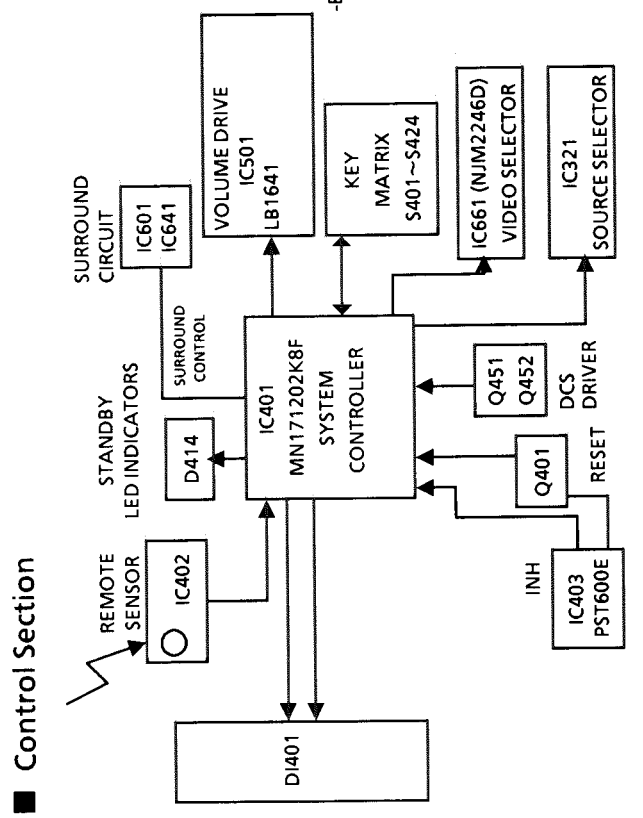
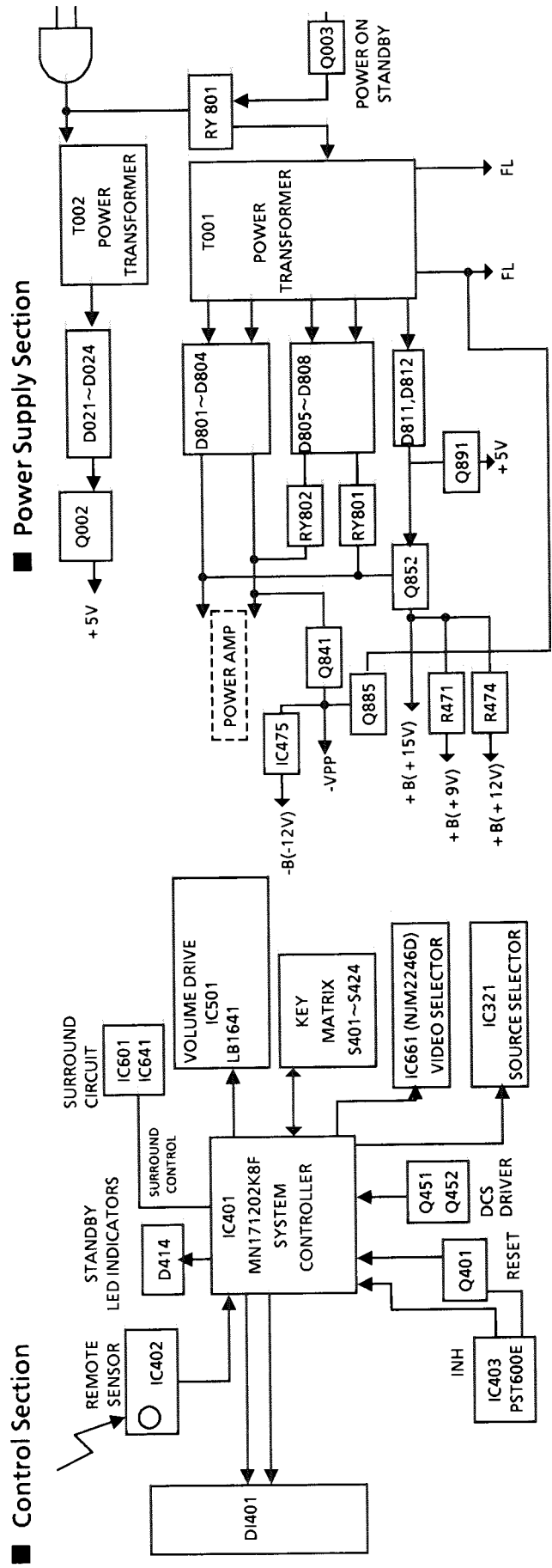
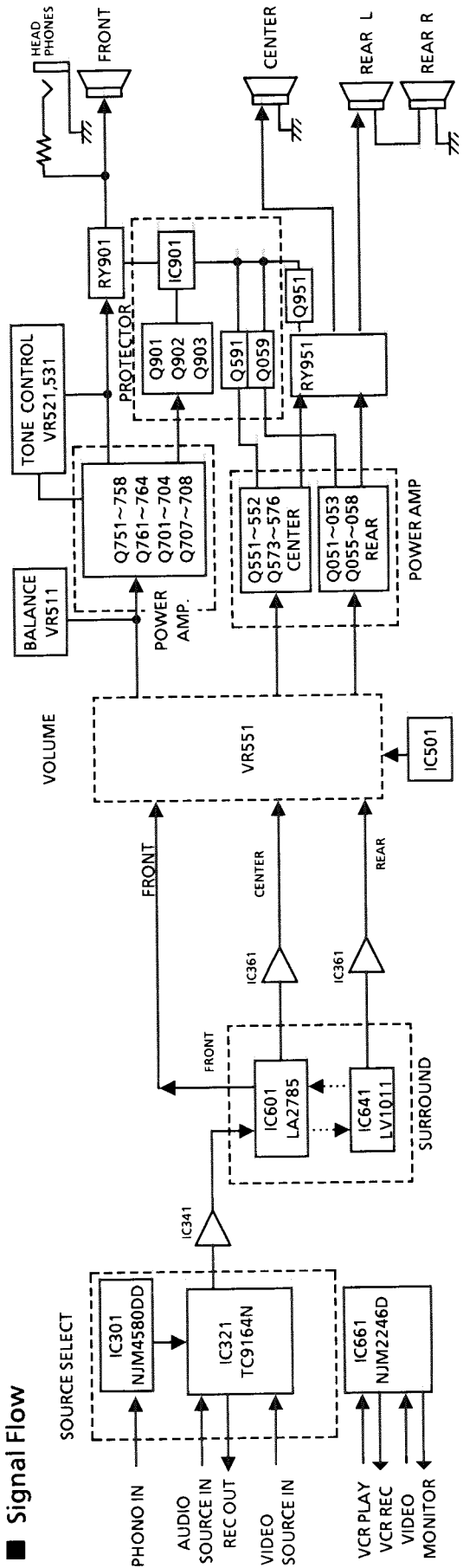
## ■ Adjustments



### ■ Idling current

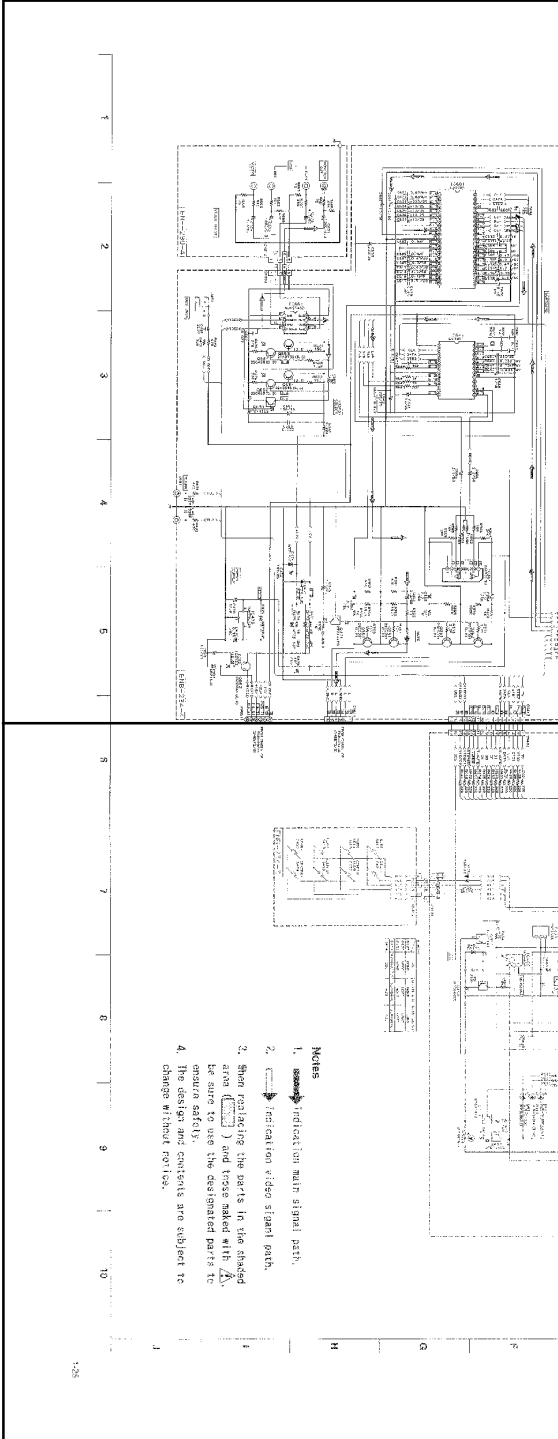
- (1) Set the volume control to minimum during this adjustment. And set surround mode "OFF".
- (2) Turn VR741 and VR742 fully counterclockwise to warm up before adjustment.  
If the heatsink is already warm from previous use the correct adjustment can not be made.
- (3) Connect a DC voltmeter to R771 resistor's leads for left channel, or to R772 for right channel.
- (4) Adjust R771 for left channel, or R772 for right channel, so that the DC voltmeter becomes 1mV~10mV.

# Block Diagrams

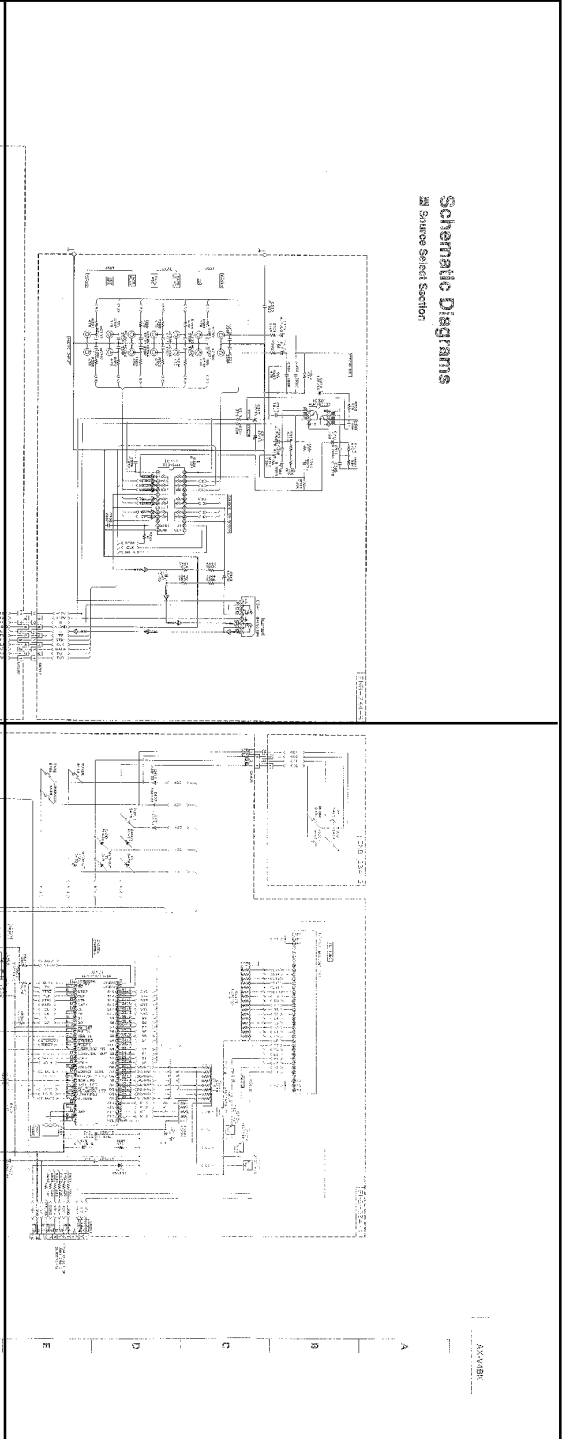




P1-25-a



P1-25-b



P1-25-c

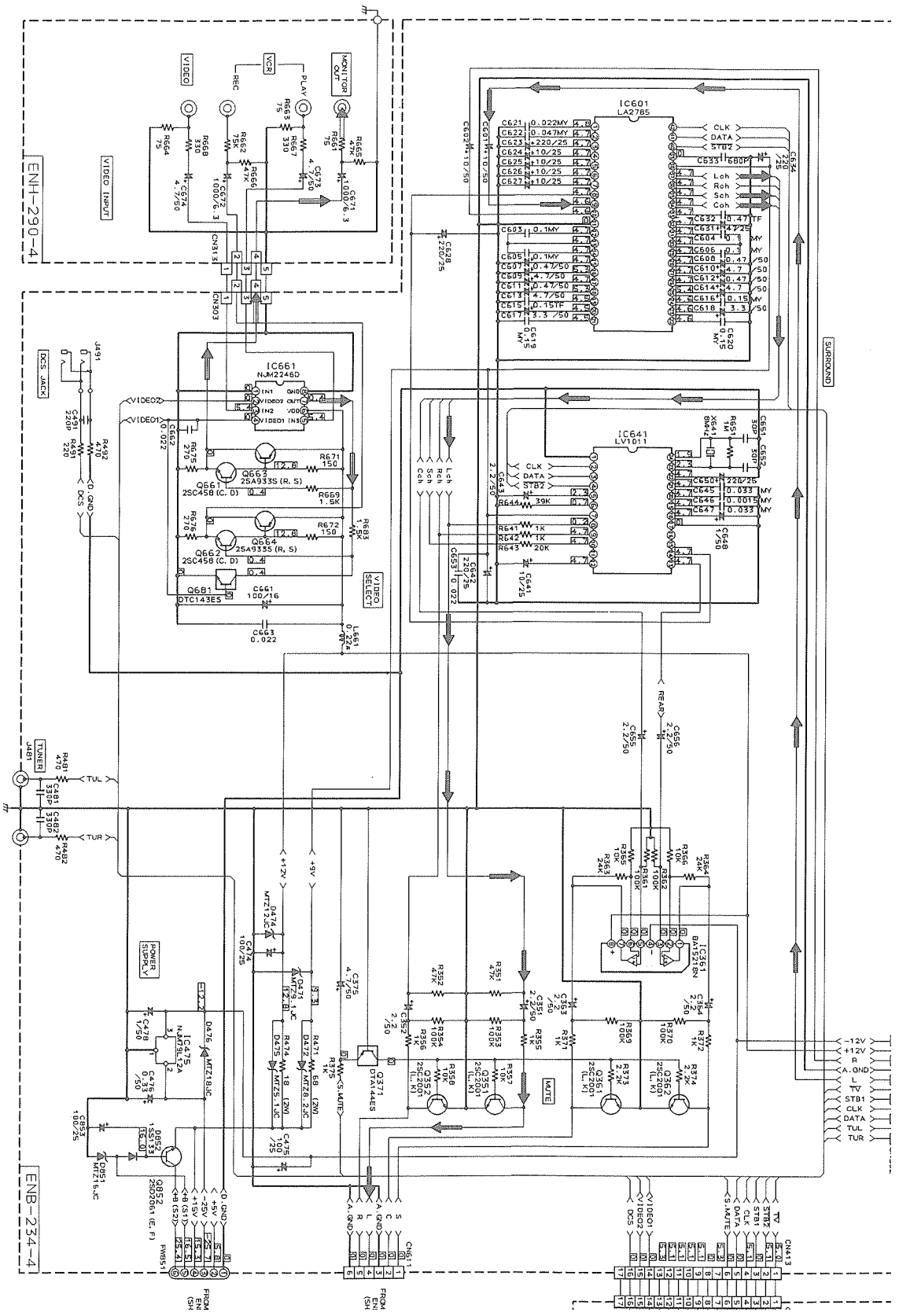


P1-25-d



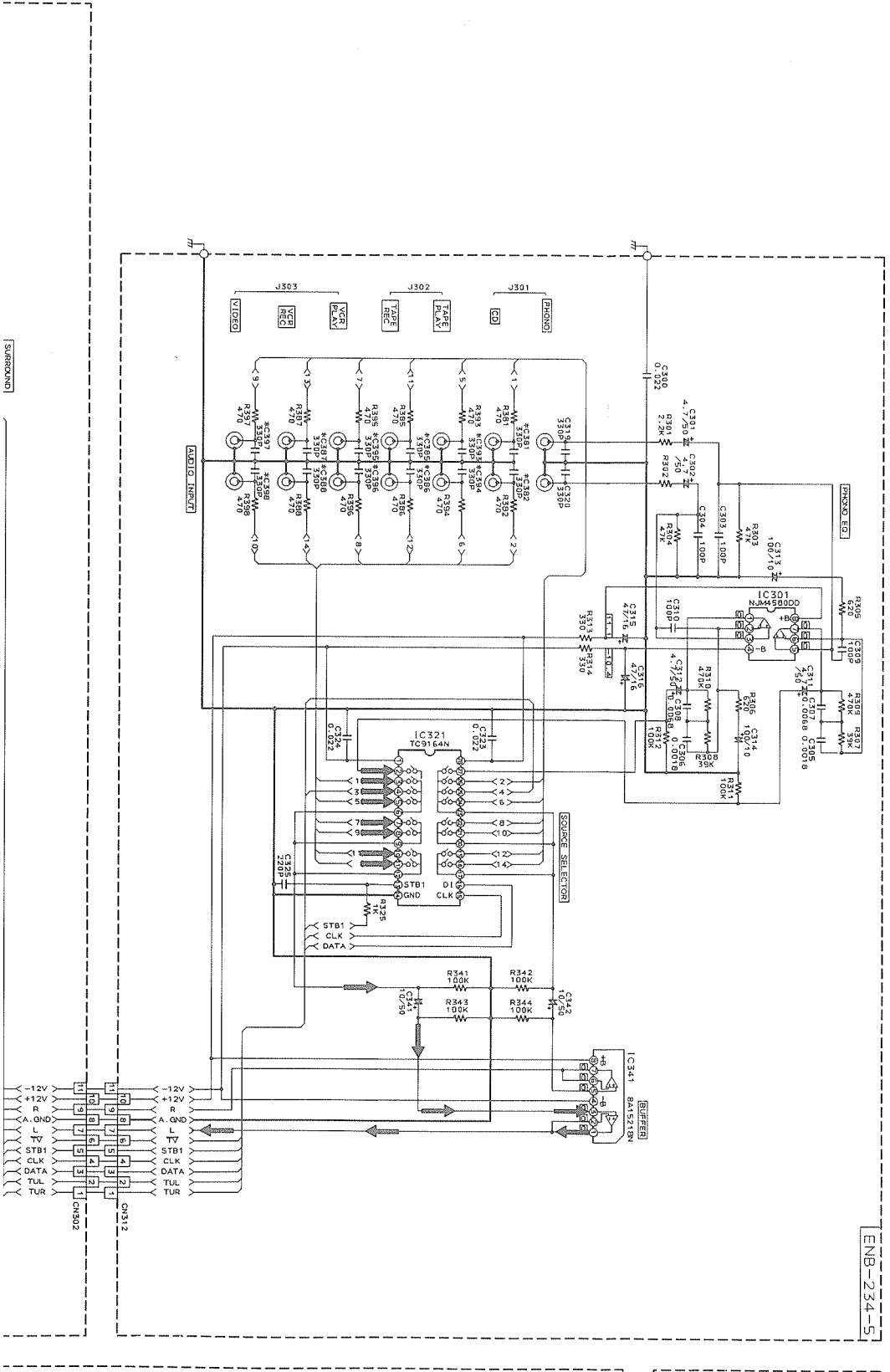
**Schematic Diagrams**  
24 Series Select Section

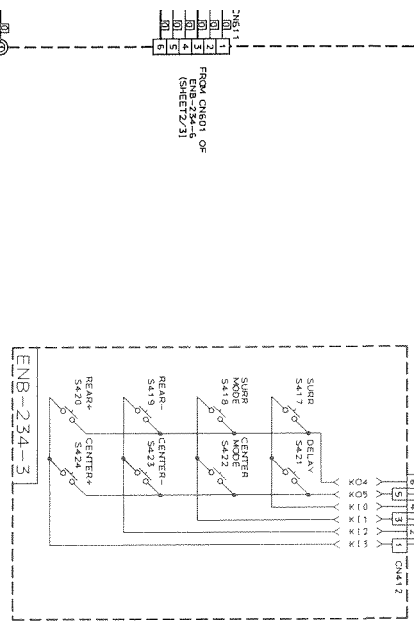
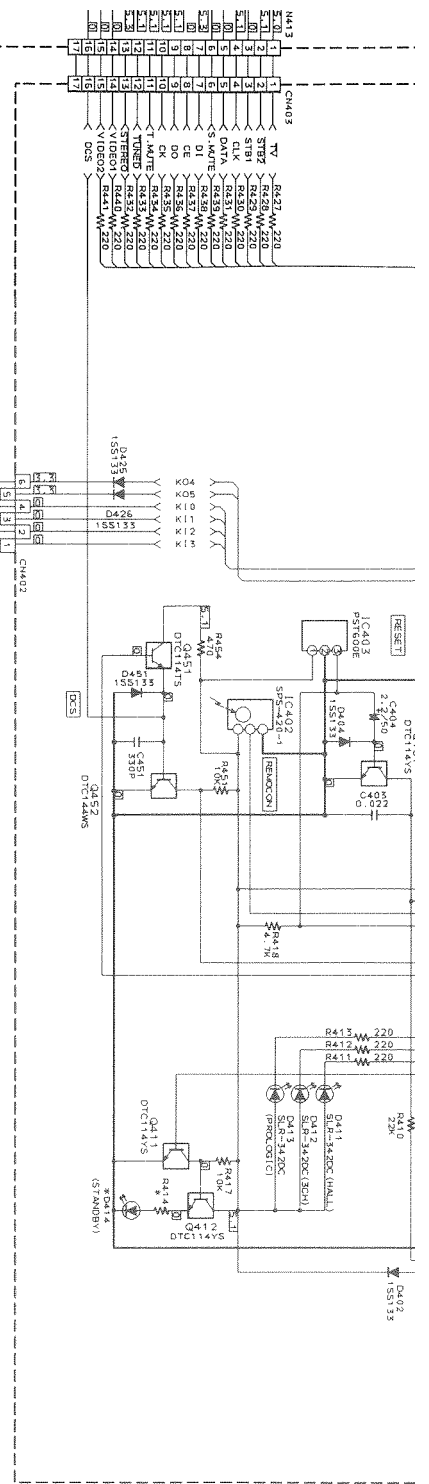
- Notes**
1. Indication main signal path.
  2. Indication video signal path.
  3. Show packing the parts in the shaded area ( ) and cross marked with A. Be sure to use the designated parts to ensure safety.
  4. The design and contents are subject to change without notice.



# Schematic Diagrams

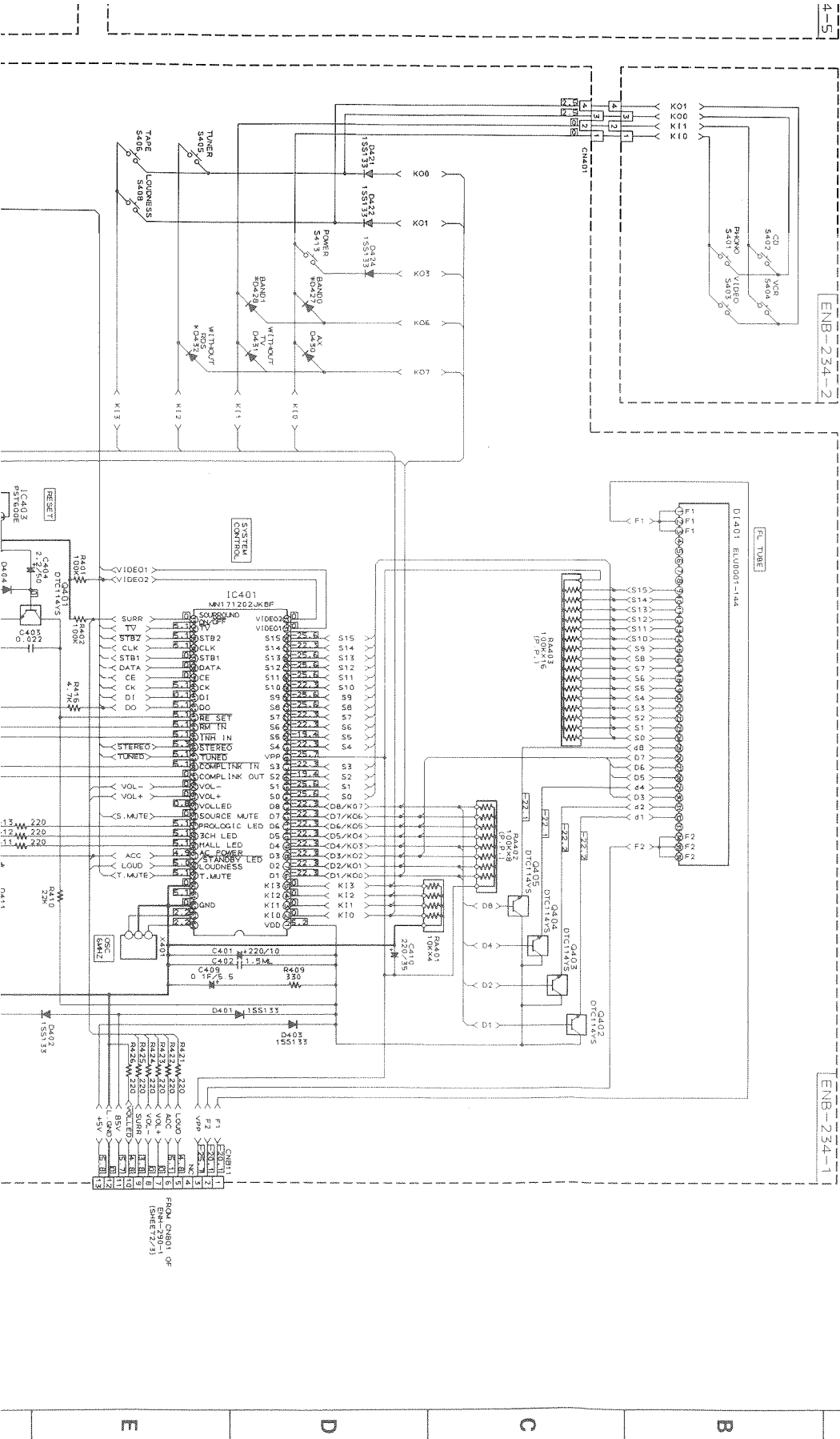
## Source Select Section





**Notes**

1. indication main signal path.
2. indication video signal path.
3. When replacing the parts in the shaded area ( ) and those marked with , be sure to use the designated parts to ensure safety.
4. The design and contents are subject to change without notice.



4-5

ENB-234-2

ENB-234-1

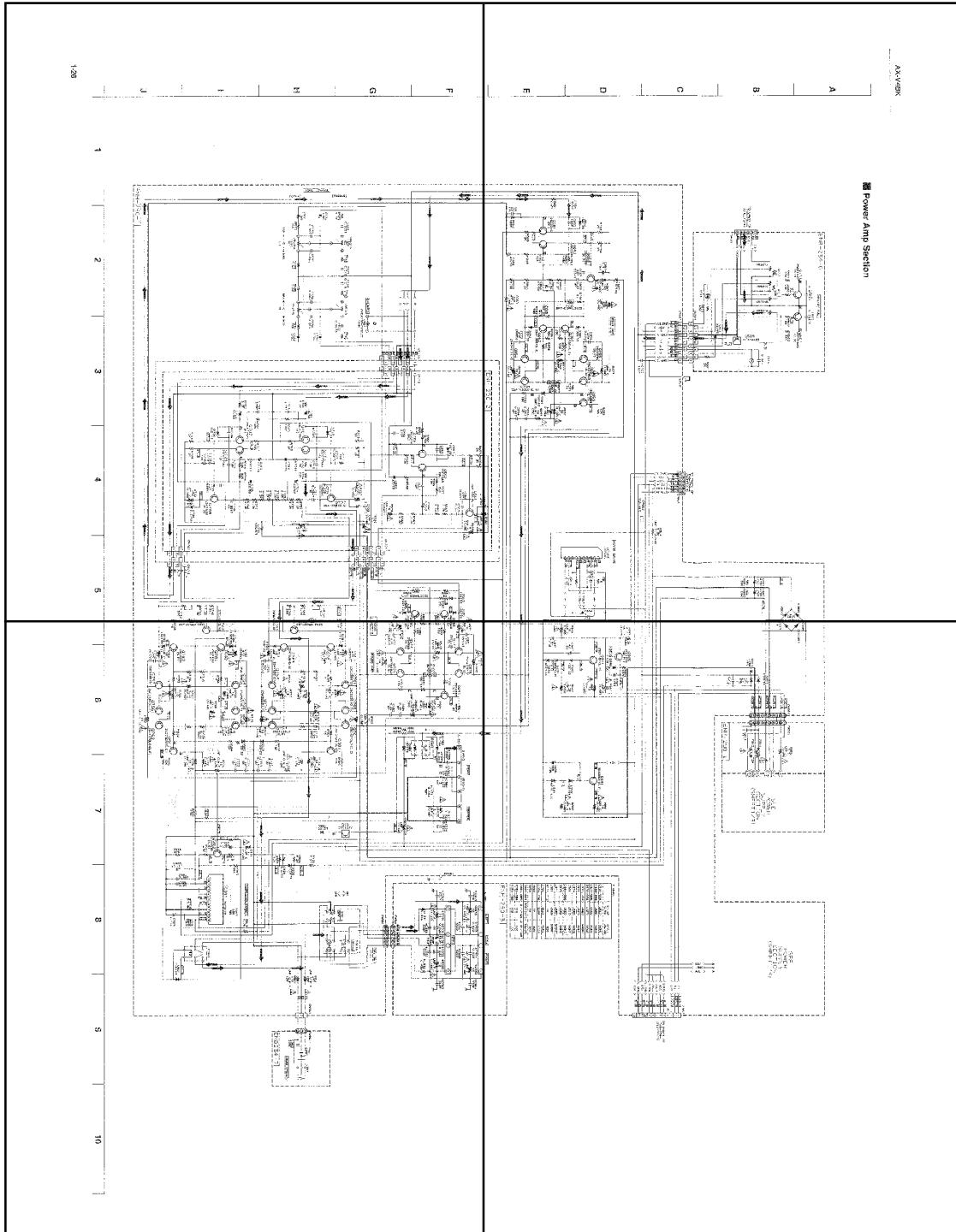
A B C D E

FROM CN801 OF ENB-230-1 (SHEET 2/3)



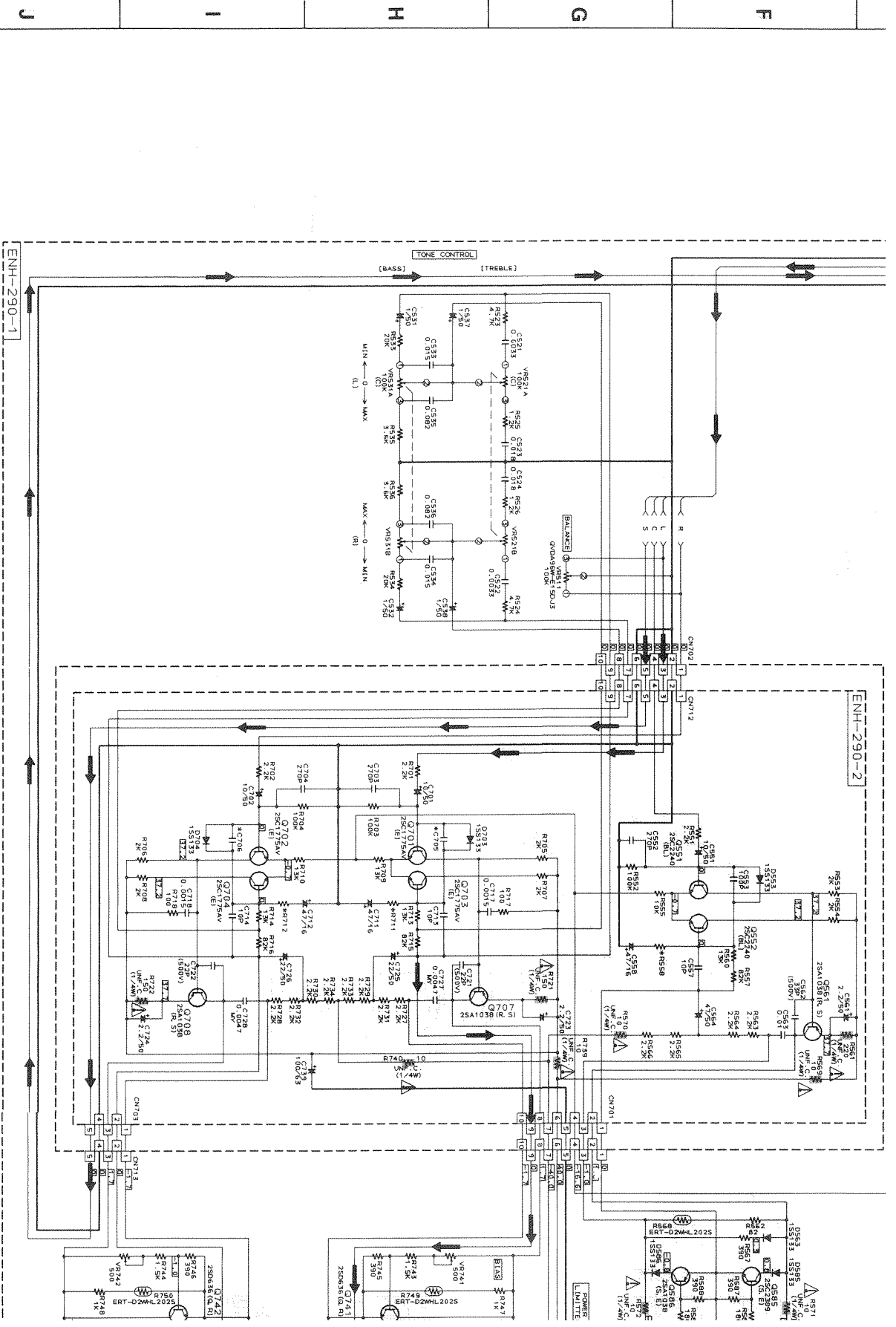
P1-26-a

P1-26-b



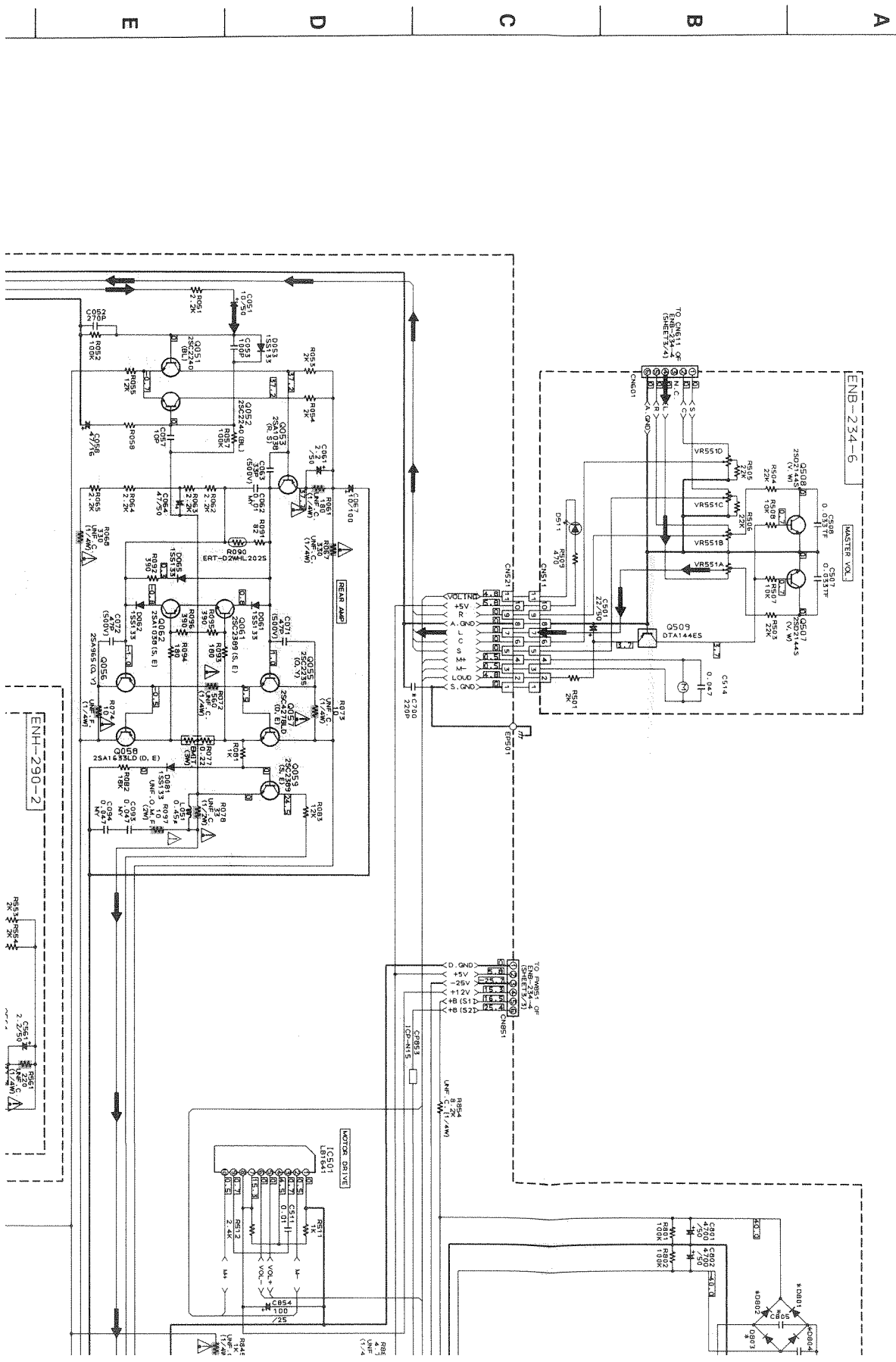
P1-26-c

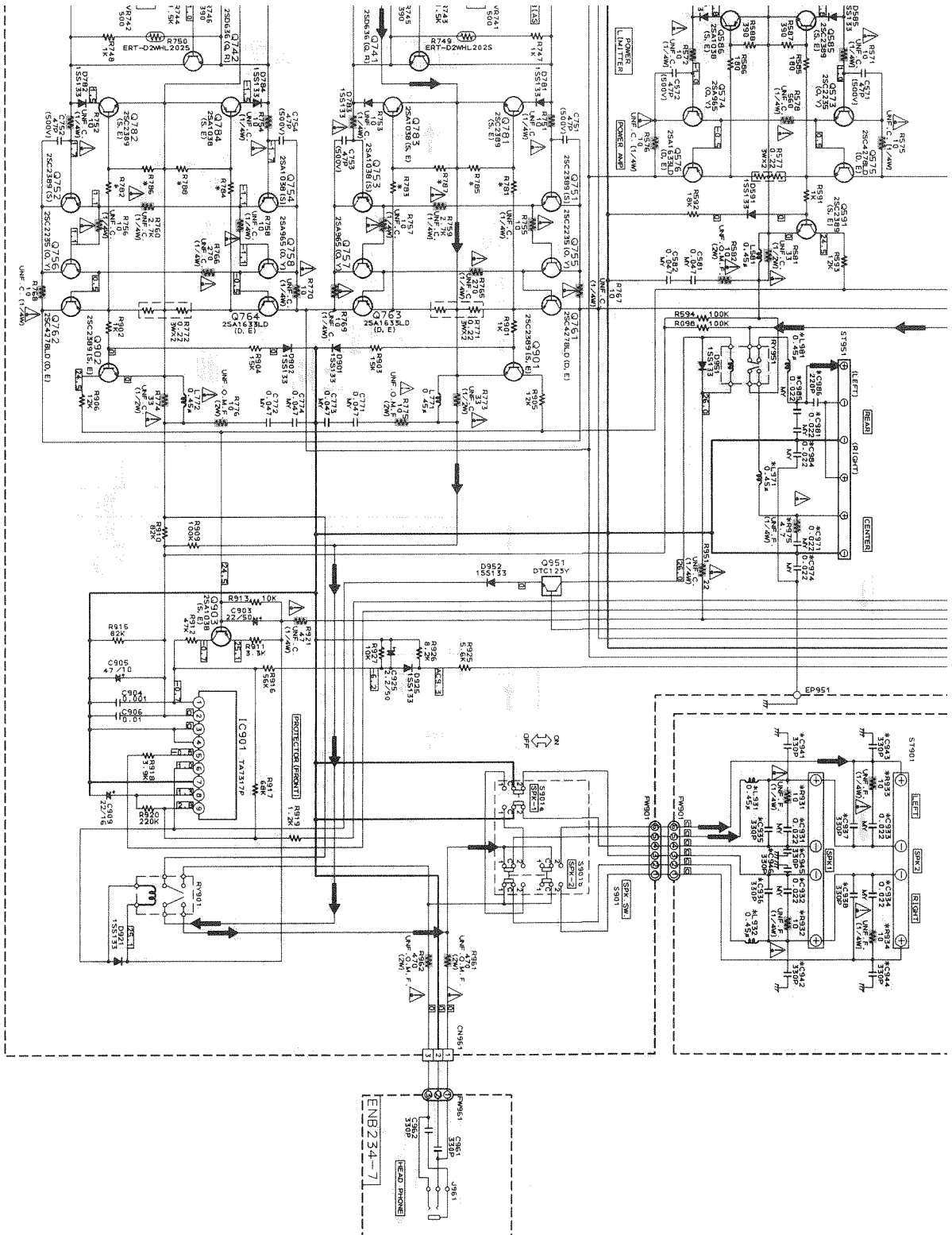
P1-26-d





### Power Amp Section





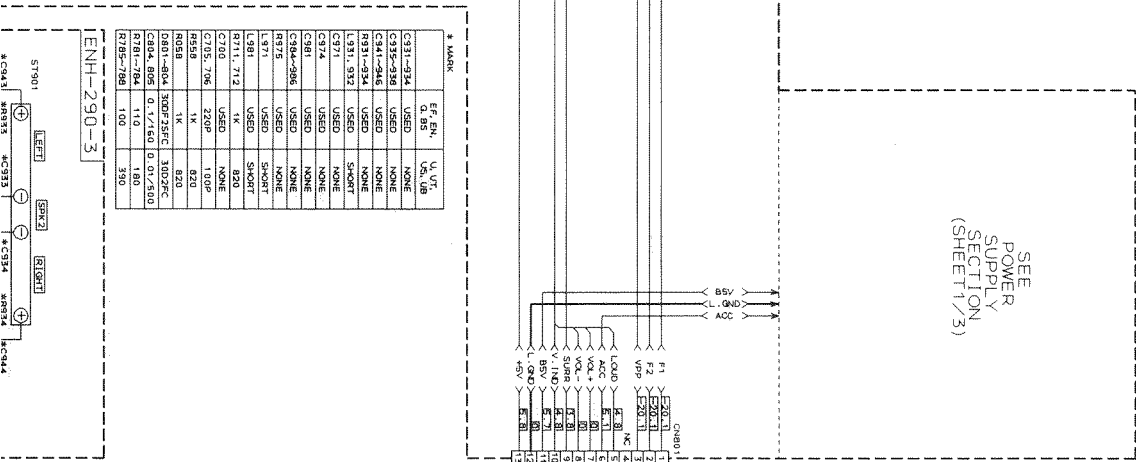
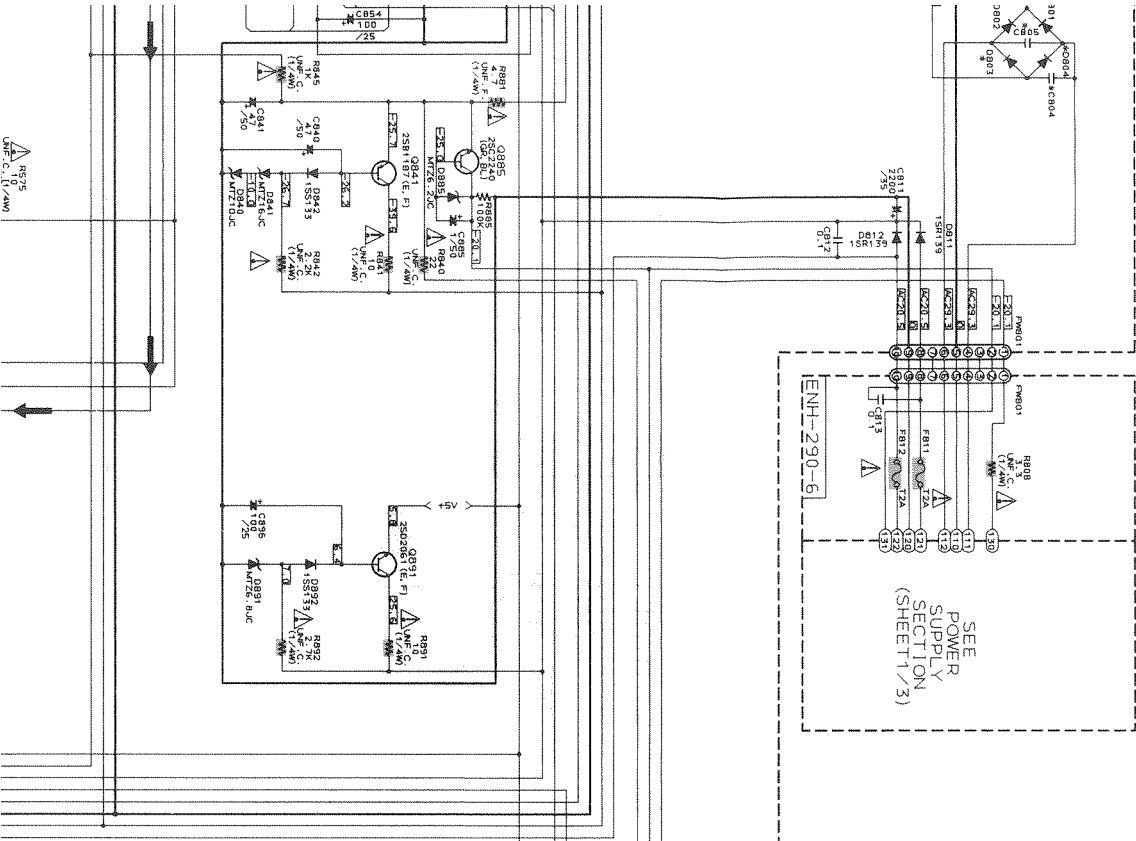
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7

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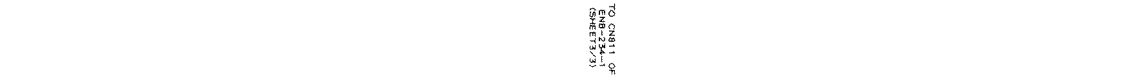
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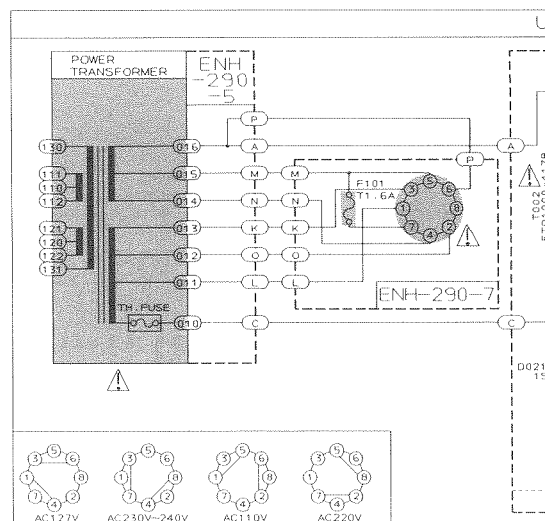
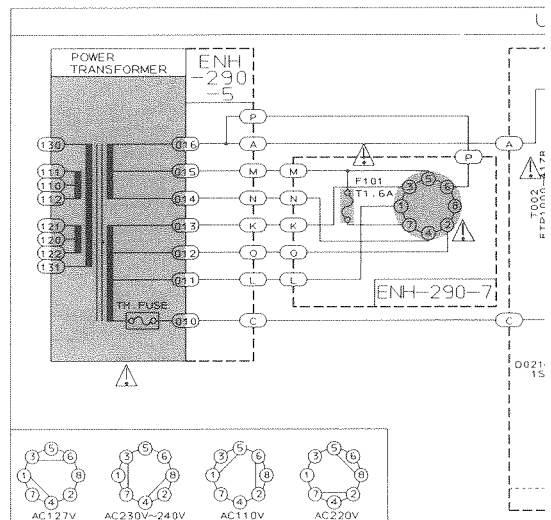
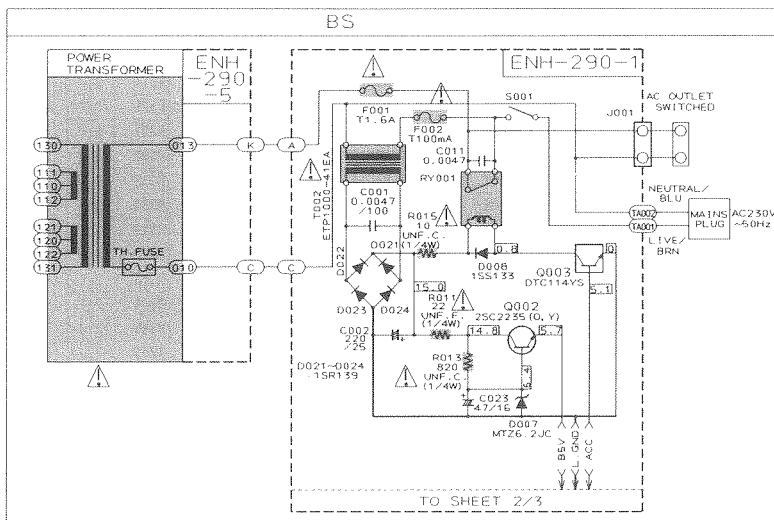
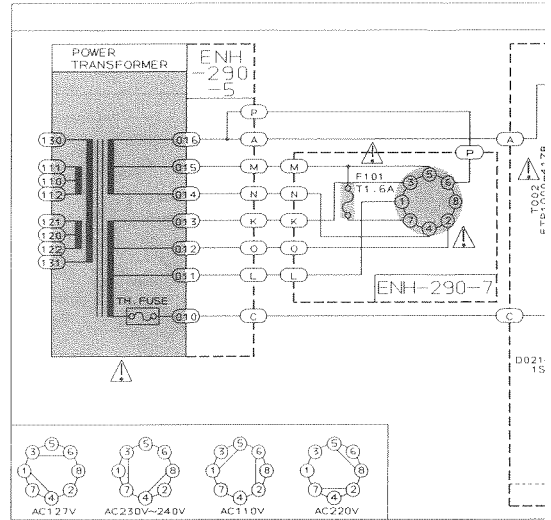
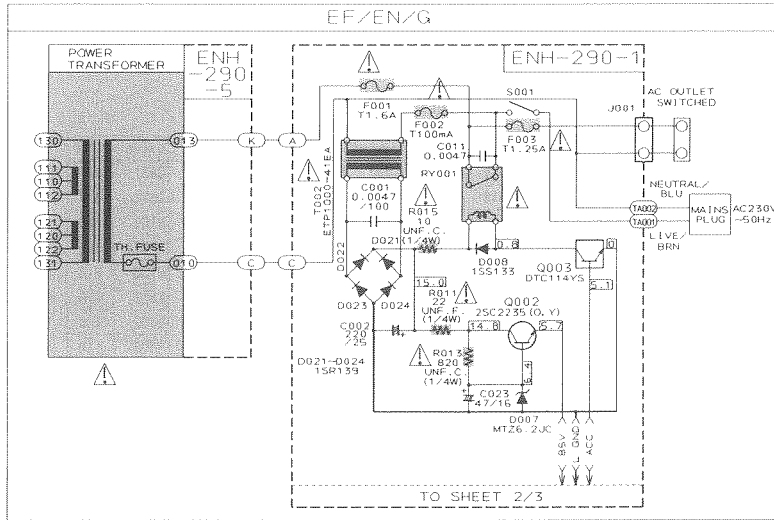
# MARK

MARK	DESCRIPTION	UNIT	VALUE
C9801-9804	USED	U, UT	100
C9805-9808	USED	U, UB	100
C9809-9810	USED	NONE	NONE
R9801-9810	USED	NONE	NONE
L9811-9815	USED	NONE	NONE
L9816-9820	USED	NONE	NONE
L9821-9825	USED	NONE	NONE
L9826-9830	USED	NONE	NONE
L9831-9835	USED	NONE	NONE
L9836-9840	USED	NONE	NONE
L9841-9845	USED	NONE	NONE
L9846-9850	USED	NONE	NONE
L9851-9855	USED	NONE	NONE
L9856-9860	USED	NONE	NONE
L9861-9865	USED	NONE	NONE
L9866-9870	USED	NONE	NONE
L9871-9875	USED	NONE	NONE
L9876-9880	USED	NONE	NONE
L9881-9885	USED	NONE	NONE
L9886-9890	USED	NONE	NONE
L9891-9895	USED	NONE	NONE
L9896-9900	USED	NONE	NONE
L9901-9905	USED	NONE	NONE
L9906-9910	USED	NONE	NONE
L9911-9915	USED	NONE	NONE
L9916-9920	USED	NONE	NONE
L9921-9925	USED	NONE	NONE
L9926-9930	USED	NONE	NONE
L9931-9935	USED	NONE	NONE
L9936-9940	USED	NONE	NONE
L9941-9945	USED	NONE	NONE
L9946-9950	USED	NONE	NONE
L9951-9955	USED	NONE	NONE
L9956-9960	USED	NONE	NONE
L9961-9965	USED	NONE	NONE
L9966-9970	USED	NONE	NONE
L9971-9975	USED	NONE	NONE
L9976-9980	USED	NONE	NONE
L9981-9985	USED	NONE	NONE
L9986-9990	USED	NONE	NONE
L9991-9995	USED	NONE	NONE
L9996-10000	USED	NONE	NONE



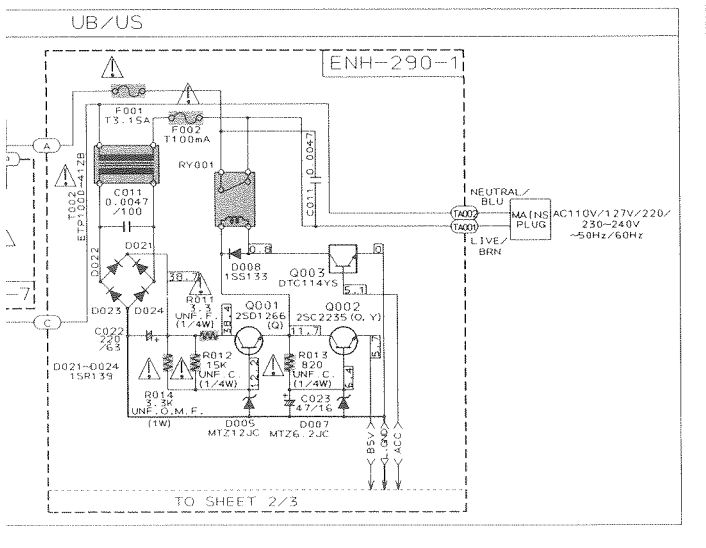
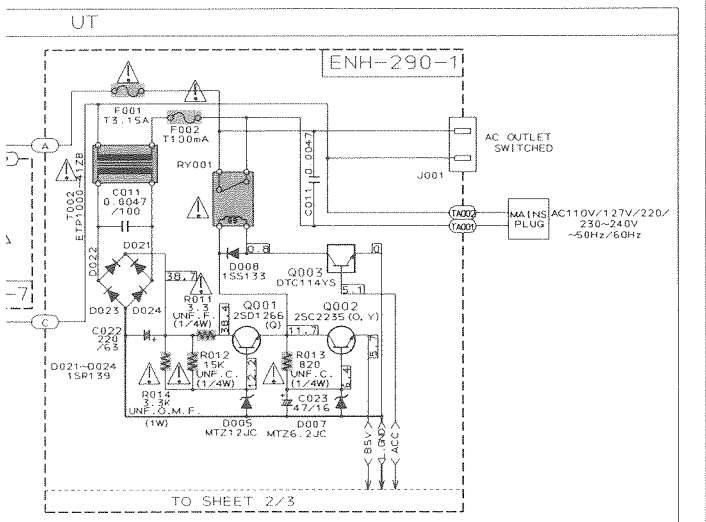
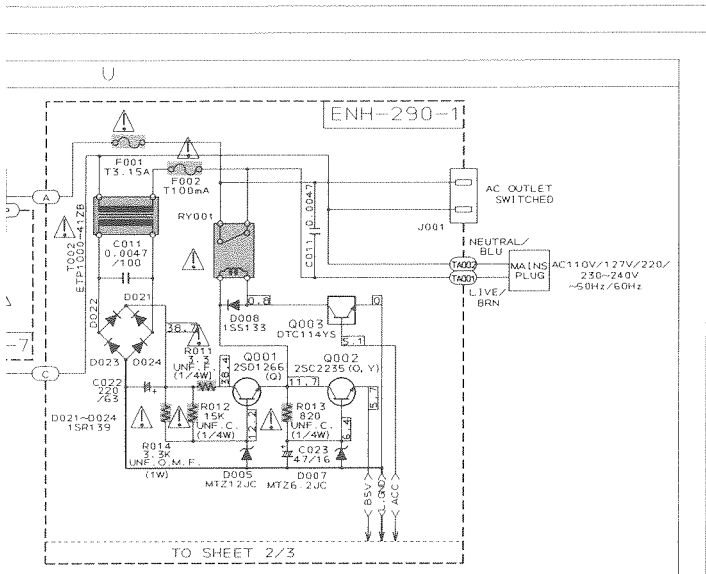
# Power Supply Section

## POWER SUPPLY SECTION



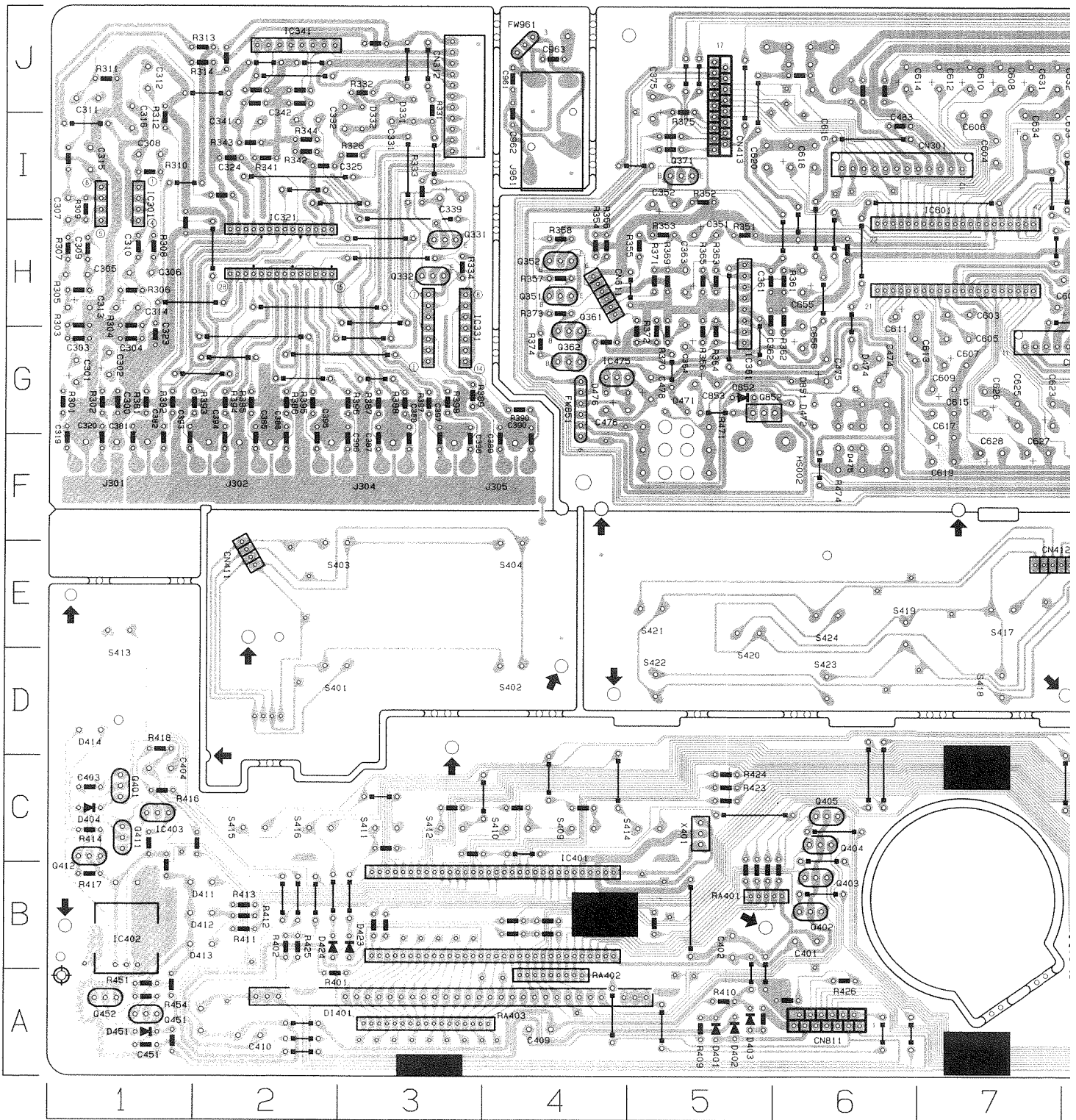
VERSION CODES

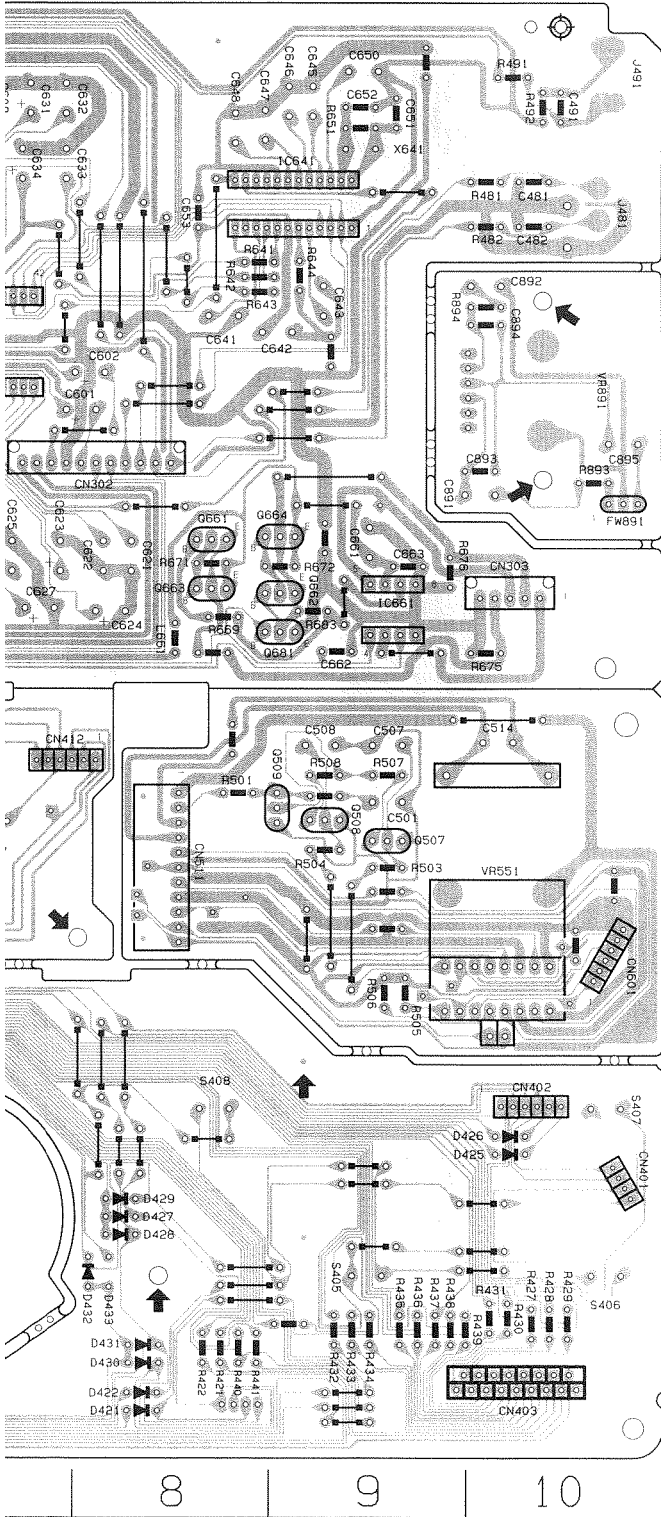
- EN: NORDIC COUNTRIES
- EF: CONTINENTAL EUROPE EXCEPT GERMANY
- G: GERMANY
- BS: U.K.
- UB: HONGKONG
- US: SINGAPORE
- UT: TAIWAN
- U: UNIVERSAL EXCEPT ALL OF ABOVE'S



# Printed Circuit Boards

## System Control / Input Selector and Surround P.C. Board (ENB-234)





Location List (ENB234)

Symbol	X	Y	Symbol	X	Y	Symbol	X	Y	Symbol	X	Y	Symbol	X	Y	Symbol	X	Y	Symbol	X	Y
C300	1	G	C411	2	A	C651	9	J	D451	1	A	Q681	8	F	R388	3	G	R501	8	E
C301	1	G	C412	1	B	C652	9	J	D471	5	G	Q852	6	G	R389	3	G	R503	9	E
C302	1	G	C451	1	A	C653	8	I	D472	6	G	R101	6	G	R390	4	G	R504	9	E
C303	1	G	C474	6	G	C655	6	H	D474	6	G	R102	6	G	R393	1	G	R505	9	D
C304	1	G	C475	6	G	C656	6	G	D475	6	G	R103	6	G	R394	2	G	R506	9	D
C305	1	H	C476	4	G	C661	9	G	D476	4	G	R301	1	G	R395	2	G	R507	9	E
C306	1	H	C477	6	J	C662	9	F	D477	6	J	R302	1	G	R396	3	G	R508	9	E
C307	1	I	C478	5	G	C663	9	G	D851	6	G	R303	1	H	R397	3	G	R641	8	I
C308	1	I	C481	10	I	C853	5	G	D852	5	G	R304	1	H	R398	3	G	R642	8	I
C309	1	H	C482	10	I	C891	9	G	D1401	2	A	R305	1	H	R401	2	A	R643	8	I
C310	1	H	C483	6	I	C892	10	I	FW851	4	G	R306	1	H	R402	2	B	R644	9	I
C311	1	J	C491	10	J	C893	10	G	FW891	10	G	R307	1	H	R409	5	A	R651	9	J
C312	1	J	C501	9	E	C894	10	H	FW961	4	J	R308	1	H	R410	5	A	R669	8	F
C313	1	H	C507	9	E	C895	10	G	IC301	1	I	R309	1	I	R411	2	B	R671	8	G
C314	1	H	C508	9	E	C961	4	J	IC321	2	H	R310	1	I	R412	2	B	R672	8	G
C315	1	I	C514	10	E	C962	4	J	IC331	3	G	R311	1	J	R413	2	B	R675	10	F
C316	1	I	C601	7	H	C963	4	J	IC341	2	J	R312	1	J	R414	1	C	R676	9	F
C319	1	F	C602	8	H	CN301	7	I	IC361	5	G	R313	2	J	R416	1	C	R683	9	F
C320	1	G	C603	7	H	CN302	8	G	IC401	4	B	R314	2	J	R417	1	B	R893	10	G
C323	1	G	C604	7	I	CN303	10	F	IC402	1	B	R325	3	I	R418	1	D	R894	10	H
C324	2	I	C605	7	G	CN312	3	I	IC403	1	C	R331	3	J	R421	8	A	RA401	6	B
C325	2	I	C606	7	I	CN401	10	B	IC475	4	G	R332	3	J	R422	8	A	RA402	4	A
C331	3	I	C607	7	G	CN401A	8	A	IC601	7	H	R333	3	I	R423	5	C	RA403	3	A
C332	3	I	C608	7	J	CN402	10	C	IC641	9	I	R334	3	H	R424	5	C	S401	2	D
C339	3	I	C609	7	G	CN403	10	A	IC661	9	F	R341	2	I	R425	2	B	S402	4	D
C341	2	I	C610	7	J	CN411	2	E	J301	1	F	R342	2	I	R426	6	A	S403	2	E
C342	2	I	C611	6	H	CN411A	2	D	J302	2	F	R343	2	I	R427	10	A	S404	4	E
C343	2	J	C612	7	J	CN412	8	E	J304	2	F	R344	2	I	R428	10	A	S405	9	B
C344	2	J	C613	6	G	CN413	5	I	J305	3	F	R345	2	J	R429	10	A	S406	10	B
C351	5	H	C614	6	J	CN511	8	E	J481	10	I	R346	2	J	R430	10	A	S407	10	C
C352	5	I	C615	7	G	CN601	10	D	J491	10	J	R351	5	H	R431	10	A	S408	8	C
C361	5	H	C616	6	I	CN611	4	H	J961	4	I	R352	5	I	R432	9	A	S409	4	C
C362	5	G	C617	7	F	CN811	6	A	L661	8	F	R353	5	H	R433	9	A	S410	4	C
C363	5	H	C618	6	I	D331	3	J	Q331	3	H	R354	4	H	R434	9	A	S411	3	C
C364	5	G	C619	7	F	D332	3	J	Q332	3	H	R355	5	H	R435	9	A	S412	3	C
C375	5	I	C620	5	I	D401	5	A	Q351	4	H	R356	4	H	R436	9	A	S413	1	E
C381	1	F	C621	8	G	D402	5	A	Q352	4	H	R357	4	H	R437	9	A	S414	5	C
C382	1	G	C622	8	G	D403	5	A	Q361	4	G	R358	4	H	R438	9	A	S415	2	C
C385	2	F	C623	7	G	D404	1	C	Q362	4	G	R361	6	H	R439	9	A	S416	2	C
C386	2	G	C624	8	F	D411	1	B	Q371	5	I	R362	6	H	R440	8	A	S417	7	E
C387	3	F	C625	7	G	D412	1	B	Q401	1	C	R363	5	H	R441	8	A	S418	7	D
C388	3	G	C626	7	G	D413	1	B	Q402	6	B	R364	5	H	R451	1	A	S419	6	E
C389	4	F	C627	7	F	D414	1	D	Q403	6	B	R365	5	H	R454	1	A	S420	5	E
C390	4	G	C628	7	F	D421	8	A	Q404	6	C	R366	5	H	R471	5	G	S421	5	E
C393	1	F	C631	7	J	D422	8	A	Q405	6	C	R369	5	H	R472	5	F	S422	5	D
C394	2	G	C632	7	J	D423	3	B	Q411	1	C	R370	5	H	R473	5	F	S423	6	D
C395	2	F	C633	7	I	D424	2	B	Q412	1	C	R371	5	H	R474	6	G	S424	6	E
C396	3	G	C634	7	I	D425	10	C	Q451	1	A	R372	5	H	R475	6	G	X401	5	C
C397	3	F	C641	8	H	D426	10	C	Q452	1	A	R373	4	H	R476	6	G	X641	9	I
C398	3	G	C642	8	H	D427	8	B	Q507	9	E	R374	4	G	R477	6	J			
C401	6	B	C643	9	H	D428	8	B	Q508	9	E	R375	5	J	R478	6	J			
C402	5	B	C645	9	J	D429	8	B	Q509	9	E	R381	1	G	R479	5	J			
C403	1	C	C646	9	J	D430	8	A	Q661	8	G	R382	1	G	R481	10	I			
C404	1	C	C647	8	J	D431	8	A	Q662	8	F	R385	2	G	R482	10	I			
C409	4	A	C648	8	J	D432	8	B	Q663	8	F	R386	2	G	R491	10	J			
C410	2	A	C650	9	J	D433	8	B	Q664	8	G	R387	3	G	R492	10	J			

8

9

10









AX-V4BK



# PARTS LIST

## < AX-V4BK >

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

### The Marks for Designated Areas

BS . . . the U. K.                      EF . . . Continental Europe                      EN . . . Scandinavia  
GI . . . Italy                              G . . . Germany                              U . . . Universal Type                      UB . . . Hong Kong  
UP . . . Korea  
No marks indicates all areas.

### - Contents -

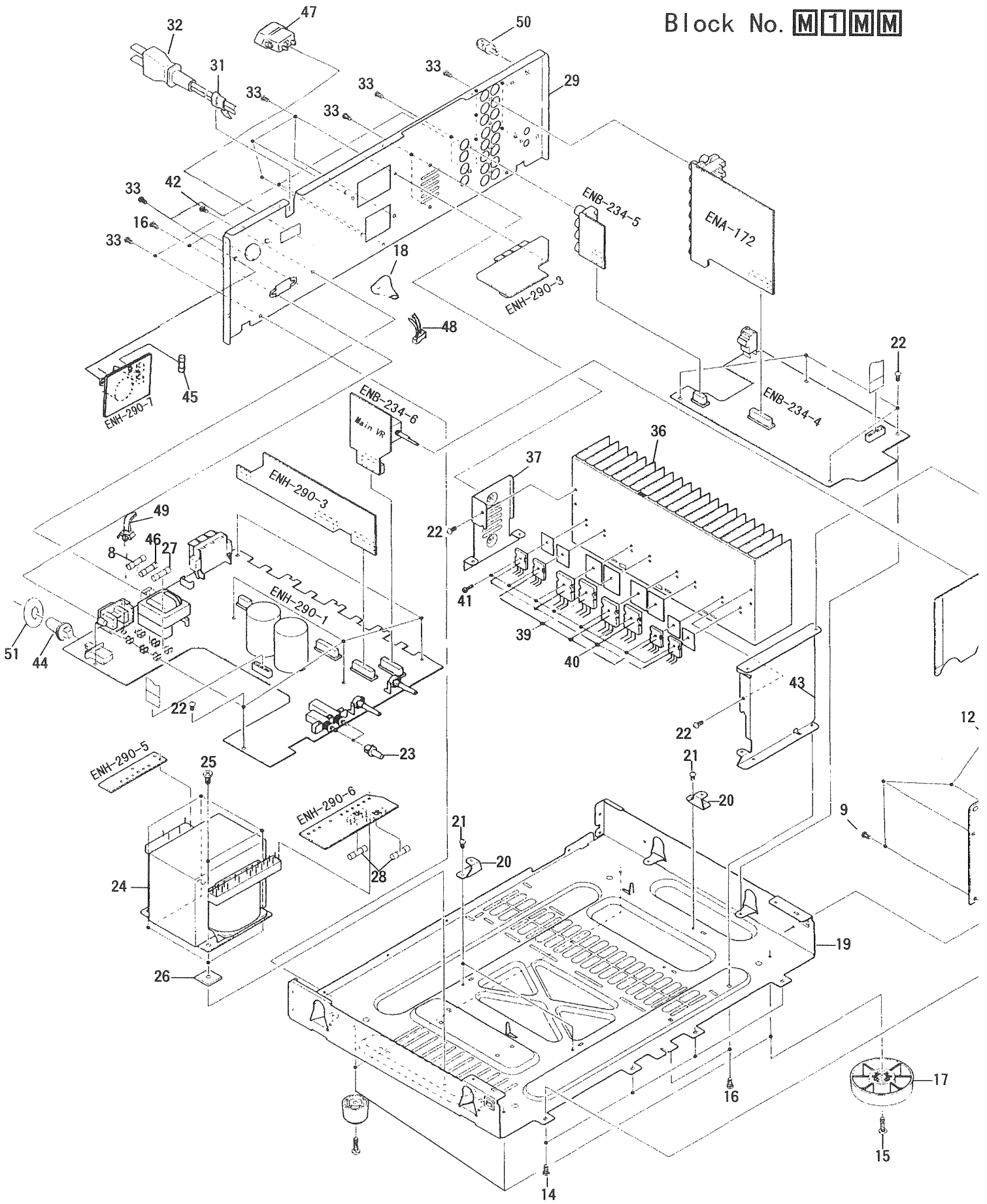
General Exploded View and Parts List . . . . .	2-3
Electrical Parts List . . . . .	2-7
(ENB-234) . . . . .	2-7
(ENH-290) . . . . .	2-10
Accessories List . . . . .	2-14
Packing Materials and Part Numbers . . . . .	2-15



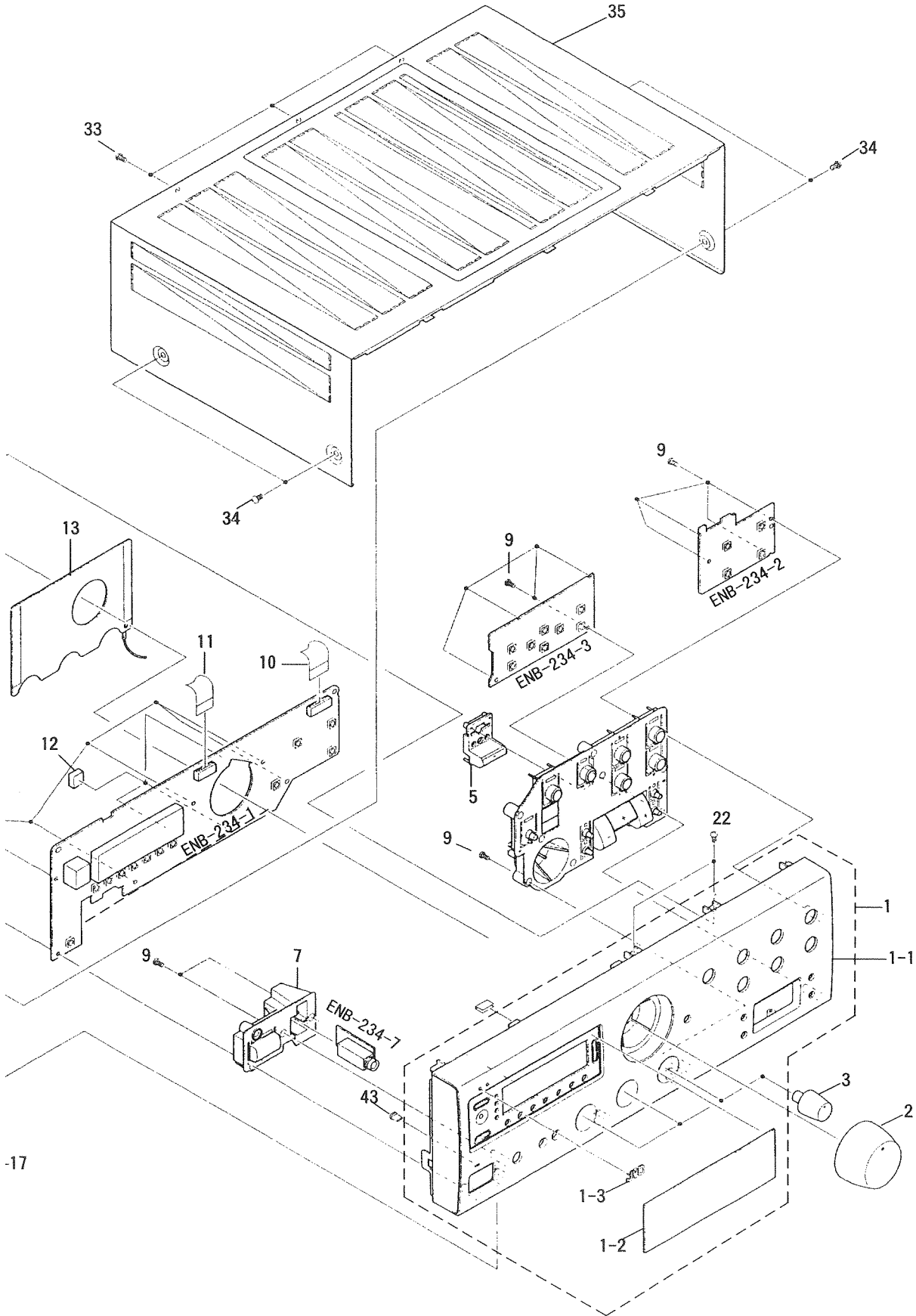


# General Exploded View and Parts List

Block No. **M1MM**







-17

## PARTS LIST

Item	Parts Number	Parts Name	Q'ty	Description	Area
1	EFP-AXV4BKE(S)	FRONT PANEL ASSY	1		
1-1	E103158-005SM	FRONT PANEL	1		
1-2	E309419-002SM	WINDOW SCREEN	1		
1-3	VJD5429-001	JVC MARK	1		
2	E309465-001SM	VOLUME KNOB	1	MAIN VOLUME	
3	E309111-003SM	VOLUME KNOB	3	BALANCE/BASS/TRABLE	
4	E208859-001SM	PUSH BUTTON ASSY	1		
5	E409170-001SM	PUSH BUTTON	1	CENTER LEVEL "--"	
7	E208860-001SM	POWER BUTTON	1		
8	QMF51A2-R10S	FUSE	1	F002	EF EN G U UB UP US UT
8	QMF51E2-R10SBS	FUSE	1	F002	BS
9	SDSF2608Z	SCREW	16		
10	VWF1217-25TTB	FLAT WIRE ASSY	1	FW403	
11	VWF1213-25TTB	FLAT WIRE ASSY	1	FW801	
12	E308805-122	SPACER	3	FIX THE SHIELD PLATE	
13	E309955-001	SHIELD PLATE	1	FIX ON TO FRONT PCB	
14	SDSF3008M	WOOD SCREW	4		
15	SBST3010Z	TAPPING SCREW	4		
16	SDSG3008M	TAPPING SCREW	2	SC SUHET	U UB UP
17	VJF4039-00MSM	FOOT ASSY	4		
18	E406079-001	COVER	1		BS
19	E103157-001SM	CHASSIS BASE	1		
20	E68587-223SM	P. W. BOARD BRACKET	3		
21	SBST3006CC	TAPPING SCREW	3		
22	SBSG3008CC	TAPPING SCREW	14		
23	E407321-002SM	PUSH BUTTON	2	SPEAKER OUT SELECT	BS EF EN GI
24	ETP1200-72EAJ	POWER TRANSFORMER	1		
25	E65389-006	SPECIAL SCREW	4		
26	E406309-002	SPACER	4	POWER TRANSFORMER BOTTOM SIDE	
27	QMF51E2-1R6J1	FUSE	1	F001	BS EF EN G
27	QMF51E2-3R15J1	FUSE	1	F001	U UB UP US UT
28	QMF51E2-2R0	FUSE	2	F811/F812	
29	E208855-027SM	REAR PANEL	1		BS EF EN G
29	E208855-028SM	REAR PANEL	1		U UT UB UP
29	E208855-029SM	REAR PANEL	1		US U UB
31	QHS3771-108	CORD STOPPER	1		
32	QMP39E0-200	POWER CORD	1		EN EF G
32	QMP5530-0085BS	POWER CORD	1		U UT UB UP
32	QMP7520-200	POWER CORD	1		US UB
33	E73273-006	SPECIAL SCREW	3		
33	E73273-006	SPECIAL SCREW	18		GU UB UP
34	E406308-001	SPECIAL SCREW	4		
35	E208858-001SM	METAL COVER	1		
36	E309840-003SM	HEAT SINK	1		
37	E208857-001SM	HEAT SINK BRACKET	1	FRONT SIDE	
38	E309841-001SM	HEAT SINK BRACKET	1	REAR SIDE	
39	2SA1633LD (D, E)	SI. TRANSISTOR	4		
40	2SC4278LD (D, E)	SI. TRANSISTOR	4		
41	E73525-003	SCREW	8	FIX THE SI. TRANSISTOR	
42	SBST3006M	TAPPING SCREW	1		BS EF EN GI
43	FSJD4001-002	INDICATOR	1	POWER	
44	E407321-002SM	PUSH BUTTON	1	POWER (REAR SIDE)	

■ PARTS LIST

Item	Parts Number	Parts Name	Q'ty	Description	Area
46	QMF51E2-1R25	FUSE	1	F003	EF EN G
47	EMC0236-001	AC OUTLET	1		EF EN GI
47	EMC0237-001BS	AC OUTLET	1		BS
48	EWS282-002	SOCKET WIRE	1		EF EN GI BS
49	E307572-001	VINYL TIE	1		
50	E409257-001	EARTH TERMINAL	1		
51	E73968-008SM	SPACER	1	FIX THE POWER SWITCH	BS EF EN GI
-	E408919-001	RATING LABEL	1		BS
-	E409395-001	CAUTION LABEL	1		
-	E409396-001	CAUTION LABEL	1		U G



## ■ Electrical Parts List (ENB-234)

△	Item	Parts Number	Description	Area	△	Item	Parts Number	Description	Area
		I. C. S							
	IC301	NJM4580DD	I. C (MONO-ANALOG)			Q663	2SA933S (RS)	SI. TRANSISTOR	
	IC321	TC9164N	I. C (DIGI-MOS)			Q664	2SA933S (RS)	SI. TRANSISTOR	
	IC341	BA15218N	I. C (MONO-ANALOG)			Q681	DTC143ES	DIGITAL TRANSISTOR	
	IC361	BA15218N	I. C (MONO-ANALOG)			Q852	2SD2061 (F, G)	SI. TRANSISTOR	
	IC401	MN171202K8F	I. C (MICRO-COMPUTER)				CAPACITORS		
	IC402	SPS-420-1	INFRARED DETECT UNIT			C300	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	IC403	PST600E-T	I. C (MONO-ANALOG)			C301	QETB1HM-475E	4.7MF 50V E. CAP.	
	IC475	NJM79L12A	I. C (MONO-ANALOG)			C302	QETB1HM-475E	4.7MF 50V E. CAP.	
	IC601	LA2785	I. C (MONO-ANALOG)			C303	QCBBIHK-101Y	100PF 50V CER. CAP.	
	IC641	LV1011	I. C (MONO-ANALOG)			C304	QCBBIHK-101Y	100PF 50V CER. CAP.	
	IC661	NJM2246D	I. C (MONO-ANALOG)			C305	QFN81HK-182	1800PF 50V METAL. MYLAR	
		DIODES				C306	QFN81HK-182	1800PF 50V METAL. MYLAR	
	D401	1SS133	SI. DIODE			C307	QFN31HK-682Z	6800PF 50V MYLAR CAP.	
	D402	1SS133	SI. DIODE			C308	QFN31HK-682Z	6800PF 50V MYLAR CAP.	
	D403	1SS133	SI. DIODE			C309	QCBBIHK-101Y	100PF 50V CER. CAP.	
	D404	1SS133	SI. DIODE			C310	QCBBIHK-101Y	100PF 50V CER. CAP.	
	D411	SLR-342DCTE7	L. E. D.			C311	QETB1HM-475E	4.7MF 50V E. CAP.	
	D412	SLR-342DCTE7	L. E. D.			C312	QETB1HM-475E	4.7MF 50V E. CAP.	
	D413	SLR-342DCTE7	L. E. D.			C313	QETB1AM-107	100MF 10V AL. E. CAP.	
	D414	SLA-580LT70F124	L. E. D.	BS		C314	QETB1AM-107	100MF 10V AL. E. CAP.	
	D414	SLR-56VCTB7	L. E. D.	EF		C315	QETB1CM-476	47MF 16V AL. E. CAP.	
	D414	SLR-56VCTB7	L. E. D.	EN		C316	QETB1CM-476	47MF 16V AL. E. CAP.	
	D414	SLR-56VCTB7	L. E. D.	G		C319	QCBBIHK-331Y	330PF 50V CER. CAP.	
	D414	SLR-56VCTB7	L. E. D.	GI		C320	QCBBIHK-331Y	330PF 50V CER. CAP.	
	D414	SLR-56VCTB7	L. E. D.	U		C323	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	D414	SLR-56VCTB7	L. E. D.	UB		C324	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	D414	SLR-56VCTB7	L. E. D.	UP		C325	QCBBIHK-221Y	220PF 50V CER. CAP.	
	D421	1SS133	SI. DIODE			C341	QETB1HM-106	10MF 50V E. CAP.	
	D422	1SS133	SI. DIODE			C342	QETB1HM-106	10MF 50V E. CAP.	
	D424	1SS133	SI. DIODE			C351	QETB1HM-225	2.2MF 50V AL. E. CAP.	
	D425	1SS133	SI. DIODE			C352	QETB1HM-225	2.2MF 50V AL. E. CAP.	
	D426	1SS133	SI. DIODE			C363	QETB1HM-225	2.2MF 50V AL. E. CAP.	
	D430	1SS133	SI. DIODE			C364	QETB1HM-225	2.2MF 50V AL. E. CAP.	
	D431	1SS133	SI. DIODE			C375	QETB1HM-475E	4.7MF 50V E. CAP.	
	D432	1SS133	SI. DIODE	G		C381	QCBBIHK-331Y	330PF 50V CER. CAP.	
	D432	1SS133	SI. DIODE	U		C382	QCBBIHK-331Y	330PF 50V CER. CAP.	
	D432	1SS133	SI. DIODE	UB		C385	QCBBIHK-331Y	330PF 50V CER. CAP.	
	D432	1SS133	SI. DIODE	UP		C386	QCBBIHK-331Y	330PF 50V CER. CAP.	
	D451	1SS133	SI. DIODE			C387	QCBBIHK-331Y	330PF 50V CER. CAP.	
	D471	MTZ9.1JC	ZENER DIODE			C388	QCBBIHK-331Y	330PF 50V CER. CAP.	
	D472	MTZ8.2JC	ZENER DIODE			C393	QCBBIHK-331Y	330PF 50V CER. CAP.	
	D474	MTZ12JC	ZENER DIODE			C394	QCBBIHK-331Y	330PF 50V CER. CAP.	
	D475	MTZ5.1JC	ZENER DIODE			C395	QCBBIHK-331Y	330PF 50V CER. CAP.	
	D476	MTZ18JC	ZENER DIODE			C396	QCBBIHK-331Y	330PF 50V CER. CAP.	
	D851	MTZ16JC	ZENER DIODE			C397	QCBBIHK-331Y	330PF 50V CER. CAP.	
	D852	1SS133	SI. DIODE			C398	QCBBIHK-331Y	330PF 50V CER. CAP.	
		TRANSISTORS				C401	QETB1AM-227	220MF 10V E. CAP.	
	Q351	2SC2001 (L, K)	SI. TRANSISTOR			C402	QCZ0202-155	1.5MF 25V CER. RES.	
	Q352	2SC2001 (L, K)	SI. TRANSISTOR			C403	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	Q361	2SC2001 (L, K)	SI. TRANSISTOR			C404	QETB1HM-225	2.2MF 50V AL. E. CAP.	
	Q362	2SC2001 (L, K)	SI. TRANSISTOR			C409	QEADOHZ-10AZM	AL. E. CAP.	
	Q371	DTA144ES	DIGITAL TRANSISTOR			C410	QETB1VM-227	220MF 35V AL. E. CAP.	
	Q401	DTC114YS	DIGITAL TRANSISTOR			C451	QCBBIHK-331Y	330PF 50V CER. CAP.	
	Q402	DTC114YS	DIGITAL TRANSISTOR			C474	QETB1EM-107	100MF 25V AL. E. CAP.	
	Q403	DTC114YS	DIGITAL TRANSISTOR			C475	QETB1EM-107	100MF 25V AL. E. CAP.	
	Q404	DTC114YS	DIGITAL TRANSISTOR			C476	QEK51HM-334G	0.33MF 50V AL. E. CAP.	
	Q405	DTC114YS	DIGITAL TRANSISTOR			C478	QETB1HM-105	1MF 50V AL. E. CAP.	
	Q411	DTC114YS	DIGITAL TRANSISTOR			C481	QCBBIHK-221Y	220PF 50V CER. CAP.	
	Q412	DTC114YS	DIGITAL TRANSISTOR			C482	QCBBIHK-221Y	220PF 50V CER. CAP.	
	Q451	DTC114TN	DIGITAL TRANSISTOR			C483	QCF21HP-103A	0.01MF 50V CER. CAP.	
	Q452	DTC144WS	DIGITAL TRANSISTOR			C491	QCBBIHK-331Y	330PF 50V CER. CAP.	
	Q507	2SC2001 (L, K)	SI. TRANSISTOR			C501	QETB1HM-226E	22MF 50V E. CAP.	
	Q508	2SC2001 (L, K)	SI. TRANSISTOR			C507	QFN81HJ-333	0.033MF 50V MYLAR CAP.	
	Q509	DTA144ES	DIGITAL TRANSISTOR			C508	QFN81HJ-333	0.033MF 50V MYLAR CAP.	
	Q661	2SC458 (C, D)	SI. TRANSISTOR			C514	QCF21HP-473A	0.047MF 50V CER. CAP.	
	Q662	2SC458 (C, D)	SI. TRANSISTOR			C601	QETB1HM-105	1MF 50V AL. E. CAP.	
						C602	QETB1HM-105	1MF 50V AL. E. CAP.	

■ Electrical Parts List (ENB-234)

△	Item	Parts Number	Description	Area
	C603	QFLB1HJ-104	0.1MF 50V MYLAR CAP.	
	C604	QFLB1HJ-104	0.1MF 50V MYLAR CAP.	
	C605	QFLB1HJ-104	0.1MF 50V MYLAR CAP.	
	C606	QFLB1HJ-104	0.1MF 50V MYLAR CAP.	
	C607	QETB1HM-474	0.47MF 50V E. CAP.	
	C608	QETB1HM-474	0.47MF 50V E. CAP.	
	C609	QETB1HM-475E	4.7MF 50V E. CAP.	
	C610	QETB1HM-475E	4.7MF 50V E. CAP.	
	C611	QETB1HM-474	0.47MF 50V E. CAP.	
	C612	QETB1HM-474	0.47MF 50V E. CAP.	
	C613	QETB1HM-475E	4.7MF 50V E. CAP.	
	C614	QETB1HM-475E	4.7MF 50V E. CAP.	
	C615	QFV81HJ-154	0.15MF 50V THIN FILM CAP.	
	C616	QFV81HJ-154	0.15MF 50V THIN FILM CAP.	
	C617	QETB1HM-335	3.3MF 50V AL E. CAP.	
	C618	QETB1HM-335	3.3MF 50V AL E. CAP.	
	C619	QFV81HJ-154	0.15MF 50V THIN FILM CAP.	
	C620	QFV81HJ-154	0.15MF 50V THIN FILM CAP.	
	C621	QFN81HJ-223	0.022MF 50V METAL. MYLAR	
	C622	QFN81HJ-473	0.047MF 50V METAL. MYLAR	
	C623	QETB1EM-227	220MF 25V AL E. CAP.	
	C624	QETB1EM-106	10MF 25V AL E. CAP.	
	C625	QETB1EM-106	10MF 25V AL E. CAP.	
	C626	QETB1EM-106	10MF 25V AL E. CAP.	
	C627	QETB1EM-106	10MF 25V AL E. CAP.	
	C628	QETB1EM-227	220MF 25V AL E. CAP.	
	C631	QETB1EM-476	47MF 25V AL E. CAP.	
	C632	QFV71HJ-4742M	0.47MF 50V THIN FILM CAP.	
	C633	QCS31HJ-681Z	680PF 50V CER. CAP.	
	C634	QETB1EM-227	220MF 25V AL E. CAP.	
	C641	QETB1EM-106	10MF 25V AL E. CAP.	
	C642	QETB1EM-227	220MF 25V AL E. CAP.	
	C643	QETB1HM-225	2.2MF 50V AL E. CAP.	
	C645	QFN81HJ-333	0.033MF 50V MYLAR CAP.	
	C646	QFN81HJ-152	1500PF 50V METAL. MYLAR	
	C647	QFN81HJ-333	0.033MF 50V MYLAR CAP.	
	C648	QETB1HM-105	1MF 50V AL E. CAP.	
	C650	QETB1EM-227	220MF 25V AL E. CAP.	
	C651	QCSB1HJ-330Y	33PF 50V CER. CAP.	
	C652	QCSB1HJ-330Y	33PF 50V CER. CAP.	
	C653	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C655	QETB1HM-225	2.2MF 50V AL E. CAP.	
	C656	QETB1HM-225	2.2MF 50V AL E. CAP.	
	C661	QETB1CM-107	100MF 16V AL E. CAP.	
	C662	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C663	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C853	QETB1EM-107	100MF 25V AL E. CAP.	
	C961	QCBB1HK-331Y	330PF 50V CER. CAP.	
	C962	QCBB1HK-331Y	330PF 50V CER. CAP.	
		RESISTORS		
	R301	QRD161J-222	2.2K 1/6W CARBON RES.	
	R302	QRD161J-222	2.2K 1/6W CARBON RES.	
	R303	QRD161J-473	47K 1/6W CARBON RES.	
	R304	QRD161J-473	47K 1/6W CARBON RES.	
	R305	QRD161J-621	620 1/6W CARBON RES.	
	R306	QRD161J-621	620 1/6W CARBON RES.	
	R307	QRD161J-393	39K 1/6W CARBON RES.	
	R308	QRD161J-393	39K 1/6W CARBON RES.	
	R309	QRD161J-474	470K 1/6W CARBON RES.	
	R310	QRD161J-474	470K 1/6W CARBON RES.	
	R311	QRD161J-104	100K 1/6W CARBON RES.	
	R312	QRD161J-104	100K 1/6W CARBON RES.	
	R313	QRD161J-331	330 1/6W CARBON RES.	
	R314	QRD161J-331	330 1/6W CARBON RES.	
	R325	QRD161J-102	1K 1/6W CARBON RES.	
	R341	QRD161J-104	100K 1/6W CARBON RES.	
	R342	QRD161J-104	100K 1/6W CARBON RES.	

△	Item	Parts Number	Description	Area
	R343	QRD161J-104	100K 1/6W CARBON RES.	
	R344	QRD161J-104	100K 1/6W CARBON RES.	
	R351	QRD161J-473	47K 1/6W CARBON RES.	
	R352	QRD161J-473	47K 1/6W CARBON RES.	
	R353	QRD161J-104	100K 1/6W CARBON RES.	
	R354	QRD161J-104	100K 1/6W CARBON RES.	
	R355	QRD161J-102	1K 1/6W CARBON RES.	
	R356	QRD161J-102	1K 1/6W CARBON RES.	
	R357	QRD161J-103	10K 1/6W CARBON RES.	
	R358	QRD161J-103	10K 1/6W CARBON RES.	
	R361	QRD161J-104	100K 1/6W CARBON RES.	
	R362	QRD161J-104	100K 1/6W CARBON RES.	
	R363	QRD161J-243	24K 1/6W CARBON RES.	
	R364	QRD161J-243	24K 1/6W CARBON RES.	
	R365	QRD161J-103	10K 1/6W CARBON RES.	
	R366	QRD161J-103	10K 1/6W CARBON RES.	
	R369	QRD161J-104	100K 1/6W CARBON RES.	
	R370	QRD161J-104	100K 1/6W CARBON RES.	
	R371	QRD161J-102	1K 1/6W CARBON RES.	
	R372	QRD161J-102	1K 1/6W CARBON RES.	
	R373	QRD161J-222	2.2K 1/6W CARBON RES.	
	R374	QRD161J-103	10K 1/6W CARBON RES.	
	R374	QRD161J-222	2.2K 1/6W CARBON RES.	
	R375	QRD161J-102	1K 1/6W CARBON RES.	
	R381	QRD161J-471	470 1/6W CARBON RES.	
	R382	QRD161J-471	470 1/6W CARBON RES.	
	R385	QRD161J-471	470 1/6W CARBON RES.	
	R386	QRD161J-471	470 1/6W CARBON RES.	
	R387	QRD161J-471	470 1/6W CARBON RES.	
	R388	QRD161J-471	470 1/6W CARBON RES.	
	R393	QRD161J-471	470 1/6W CARBON RES.	
	R394	QRD161J-471	470 1/6W CARBON RES.	
	R395	QRD161J-471	470 1/6W CARBON RES.	
	R396	QRD161J-471	470 1/6W CARBON RES.	
	R397	QRD161J-471	470 1/6W CARBON RES.	
	R398	QRD161J-471	470 1/6W CARBON RES.	
	R401	QRD161J-104	100K 1/6W CARBON RES.	
	R402	QRD161J-104	100K 1/6W CARBON RES.	
	R409	QRD161J-331	330 1/6W CARBON RES.	
	R410	QRD161J-223	22K 1/6W CARBON RES.	
	R411	QRD161J-221	220 1/6W CARBON RES.	
	R412	QRD161J-221	220 1/6W CARBON RES.	
	R413	QRD161J-221	220 1/6W CARBON RES.	
	R414	QRD161J-221	220 1/6W CARBON RES.	BS
	R414	QRD161J-431	430 1/6W CARBON RES.	EF
	R414	QRD161J-431	430 1/6W CARBON RES.	EN
	R414	QRD161J-431	430 1/6W CARBON RES.	G
	R414	QRD161J-431	430 1/6W CARBON RES.	G1
	R414	QRD161J-431	430 1/6W CARBON RES.	U
	R414	QRD161J-431	430 1/6W CARBON RES.	UB
	R414	QRD161J-431	430 1/6W CARBON RES.	UP
	R416	QRD161J-472	4.7K 1/6W CARBON RES.	
	R417	QRD161J-103	10K 1/6W CARBON RES.	
	R418	QRD161J-472	4.7K 1/6W CARBON RES.	
	R421	QRD161J-221	220 1/6W CARBON RES.	
	R422	QRD161J-221	220 1/6W CARBON RES.	
	R423	QRD161J-221	220 1/6W CARBON RES.	
	R424	QRD161J-221	220 1/6W CARBON RES.	
	R425	QRD161J-221	220 1/6W CARBON RES.	
	R426	QRD161J-221	220 1/6W CARBON RES.	
	R427	QRD161J-221	220 1/6W CARBON RES.	
	R428	QRD161J-221	220 1/6W CARBON RES.	
	R429	QRD161J-221	220 1/6W CARBON RES.	
	R430	QRD161J-221	220 1/6W CARBON RES.	
	R431	QRD161J-221	220 1/6W CARBON RES.	
	R432	QRD161J-221	220 1/6W CARBON RES.	
	R433	QRD161J-221	220 1/6W CARBON RES.	

■ Electrical Parts List (ENB-234)

△	Item	Parts Number	Description	Area
	R434	QRD161J-221	220 1/6W CARBON RES.	
	R435	QRD161J-221	220 1/6W CARBON RES.	
	R436	QRD161J-221	220 1/6W CARBON RES.	
	R437	QRD161J-221	220 1/6W CARBON RES.	
	R438	QRD161J-221	220 1/6W CARBON RES.	
	R439	QRD161J-221	220 1/6W CARBON RES.	
	R440	QRD161J-221	220 1/6W CARBON RES.	
	R441	QRD161J-221	220 1/6W CARBON RES.	
	R451	QRD161J-103	10K 1/6W CARBON RES.	
	R454	QRD161J-471	470 1/6W CARBON RES.	
△	R471	QRG022J-680AM	68 2W OXIDE METAL	
	R474	QRG022J-180AF	18 2W OXIDE METAL	
	R481	QRD161J-471	470 1/6W CARBON RES.	
	R482	QRD161J-471	470 1/6W CARBON RES.	
	R491	QRD161J-221	220 1/6W CARBON RES.	
	R492	QRD161J-471	470 1/6W CARBON RES.	
	R501	QRD161J-202	2K 1/6W CARBON RES.	
	R503	QRD167J-223	22K 1/6W CARBON RES.	
	R504	QRD167J-223	22K 1/6W CARBON RES.	
	R505	QRD167J-223	22K 1/6W CARBON RES.	
	R506	QRD167J-223	22K 1/6W CARBON RES.	
	R507	QRD161J-103	10K 1/6W CARBON RES.	
	R508	QRD161J-103	10K 1/6W CARBON RES.	
	R641	QRD161J-102	1K 1/6W CARBON RES.	
	R642	QRD161J-102	1K 1/6W CARBON RES.	
	R643	QRD161J-203	20K 1/6W CARBON RES.	
	R644	QRD161J-393	39K 1/6W CARBON RES.	
	R651	QRD161J-105	1M 1/6W CARBON RES.	
	R669	QRD167J-152	1.5K 1/6W CARBON RES.	
	R671	QRD167J-151	150 1/6W CARBON RES.	
	R672	QRD167J-151	150 1/6W CARBON RES.	
	R675	QRD161J-271	270 1/6W CARBON RES.	
	R676	QRD161J-271	270 1/6W CARBON RES.	
	R683	QRD167J-152	1.5K 1/6W CARBON RES.	
	RA401	QRB049J-103	10K 1/10WRES.	
	VR551	QVDC94Z-E15FJ5	100K VARIABLE RES.	
		OTHERS		
		EMW10625-003	PRINTED BOARD	
		SBSG3008CC	TAPPING SCREW	
		SBST3008CC	TAPPING SCREW	
	J301	EMN00TV-422AJ2	PIN JACK	
	J302	EMN00TV-422AJ2	PIN JACK	
	J303	EMN00TV-615AJ2	PIN JACK	
	J481	EMN00TV-227AJ2	PIN JACK	
	J491	QMS3501-021	PIN JACK	
	J961	QMS6022-V01	MICROPHONE JACK	
	L661	EQL4007-R22T	INDUCTOR	
	S401	ESP0001-023M	TACT SWITCH	
	S402	ESP0001-023M	TACT SWITCH	
	S403	ESP0001-023M	TACT SWITCH	
	S404	ESP0001-023M	TACT SWITCH	
	S405	ESP0001-023M	TACT SWITCH	
	S406	ESP0001-023M	TACT SWITCH	
	S408	ESP0001-023M	TACT SWITCH	
	S413	ESP0001-023M	TACT SWITCH	
	S417	ESP0001-023M	TACT SWITCH	
	S418	ESP0001-023M	TACT SWITCH	
	S419	ESP0001-023M	TACT SWITCH	
	S420	ESP0001-023M	TACT SWITCH	
	S421	ESP0001-023M	TACT SWITCH	
	S422	ESP0001-023M	TACT SWITCH	
	S423	ESP0001-023M	TACT SWITCH	
	S424	ESP0001-023M	TACT SWITCH	
	X401	ECXP6R0-001ZA	CRYSTAL	
	X641	ECXP8R0-001Z	CRYSTAL	
	CN302	EMV7163-011	CONNECT TERMINAL	
	CN303	EMV7163-005	CONNECTOR	

△	Item	Parts Number	Description	Area
	CN312	EMV5163-011R	CONNECT TERMINAL	
	CN401	VMC0194-P04	CONNECT TERMINAL	
	CN402	VMC0194-S06	CONNECT TERMINAL	
	CN403	VMC0163-R17	CONNECT TERMINAL	
	CN411	VMC0194-S04	CONNECT TERMINAL	
	CN412	VMC0194-P06	CONNECT TERMINAL	
	CN413	EMV7123-017	CONNECTOR	
	CN511	EMV5163-011R	CONNECT TERMINAL	
	CN601	EWS296-0125	SOCKET WIRE ASSY	
	CN611	EMV5109-006A	CONNECT TERMINAL	
	CN811	VMC0163-R13	CONNECT TERMINAL	
	D1401	ELU0001-144	FLUORESCENT DISPLAY TUBE	
	FH001	E308270-002SM	FL HOLDER	
	FH002	E308270-002SM	FL HOLDER	
	FS483	E3400-431	FELT SPACER	
	FW851	EWR36D-35LS	FLAT WIRE ASSY	
	FW961	EWR33D-35LS	FLAT WIRE ASSY	
	HS002	E70945-H40B	HEAT SINK	
	SP001	E3400-444	FELT SPACER	
	SP002	E3400-444	FELT SPACER	

■ Electrical Parts List (ENH-290)

△	Item	Parts Number	Description	Area
		I. C. S		
	IC501	LB1641	I. C (DIGI-OTHER)	
	IC901	TA7317P	I. C (MONO-ANALOG)	
		DIODES		
	D005	MTZ12JC	ZENER DIODE	G U UB UP
	D007	MTZ6. 2JC	ZENER DIODE	
	D008	1SS133	SI. DIODE	
	D021	1SR139-200	SI. DIODE	
	D022	1SR139-200	SI. DIODE	
	D023	1SR139-200	SI. DIODE	
	D024	1SR139-200	SI. DIODE	
	D053	1SS133	SI. DIODE	
	D061	1SS133	SI. DIODE	
	D062	1SS133	SI. DIODE	
	D065	1SS133	SI. DIODE	
	D081	1SS133	SI. DIODE	
	D553	1SS133	SI. DIODE	
	D563	1SS133	SI. DIODE	
	D585	1SS133	SI. DIODE	
	D586	1SS133	SI. DIODE	
	D591	1SS133	SI. DIODE	
	D703	1SS133	SI. DIODE	
	D704	1SS133	SI. DIODE	
	D781	1SS133	SI. DIODE	
	D782	1SS133	SI. DIODE	
	D783	1SS133	SI. DIODE	
	D784	1SS133	SI. DIODE	
△	D801	30DF2SFC	SI. DIODE	BS EF EN GI
	D801	30D2FC	GE. DIODE	G U UB UP
△	D802	30DF2SFC	SI. DIODE	BS EF EN GI
	D802	30D2FC	GE. DIODE	G U UB UP
△	D803	30DF2SFC	SI. DIODE	BS EF EN GI
	D803	30D2FC	GE. DIODE	G U UB UP
△	D804	30DF2SFC	SI. DIODE	BS EF EN GI
	D804	30D2FC	GE. DIODE	G U UB UP
	D811	1SR139-200	SI. DIODE	
	D812	1SR139-200	SI. DIODE	
	D840	MTZ10JC	ZENER DIODE	
	D841	MTZ16JC	ZENER DIODE	
	D842	1SS133	SI. DIODE	
	D885	MTZ6. 2JC	ZENER DIODE	
	D891	MTZ6. 8JC	ZENER DIODE	
	D892	1SS133	SI. DIODE	
	D901	1SS133	SI. DIODE	
	D902	1SS133	SI. DIODE	
	D921	1SS133	SI. DIODE	
	D925	1SS133	SI. DIODE	
	D951	1SS133	SI. DIODE	
	D952	1SS133	SI. DIODE	
		TRANSISTORS		
	Q001	2SD1266	SI. TRANSISTOR	G U UB UP
	Q002	2SC2235 (O, Y)	SI. TRANSISTOR	
	Q003	DTC114ES	DIGITAL TRANSISTOR	
	Q051	2SC2240 (BL)	SI. TRANSISTOR	
	Q052	2SC2240 (BL)	SI. TRANSISTOR	
	Q053	2SA1038 (R, S)	SI. TRANSISTOR	
	Q055	2SC2235 (O, Y)	SI. TRANSISTOR	
	Q056	2SA965 (Y)	SI. TRANSISTOR	
	Q059	2SC2389 (S, E)	SI. TRANSISTOR	

△	Item	Parts Number	Description	Area
	Q061	2SC2389 (S, E)	SI. TRANSISTOR	
	Q062	2SA1038 (R, S)	SI. TRANSISTOR	
	Q551	2SC2240 (BL)	SI. TRANSISTOR	
	Q552	2SC2240 (BL)	SI. TRANSISTOR	
	Q561	2SA1038 (R, S)	SI. TRANSISTOR	
	Q573	2SC2235 (O, Y)	SI. TRANSISTOR	
	Q574	2SA965 (Y)	SI. TRANSISTOR	
	Q585	2SC2389 (S, E)	SI. TRANSISTOR	
	Q586	2SA1038 (R, S)	SI. TRANSISTOR	
	Q591	2SC2389 (S, E)	SI. TRANSISTOR	
	Q701	2SC1775AV (F1)	SI. TRANSISTOR	
	Q702	2SC1775AV (F1)	SI. TRANSISTOR	
	Q703	2SC1775AV (F1)	SI. TRANSISTOR	
	Q704	2SC1775AV (F1)	SI. TRANSISTOR	
	Q707	2SA1038 (R, S)	SI. TRANSISTOR	
	Q708	2SA1038 (R, S)	SI. TRANSISTOR	
	Q741	2SD636	SI. TRANSISTOR	
	Q742	2SD636	SI. TRANSISTOR	
	Q751	2SC2389 (S, E)	SI. TRANSISTOR	
	Q752	2SC2389 (S, E)	SI. TRANSISTOR	
	Q753	2SA1038 (R, S)	SI. TRANSISTOR	
	Q754	2SA1038 (R, S)	SI. TRANSISTOR	
	Q755	2SC2235 (O, Y)	SI. TRANSISTOR	
	Q756	2SC2235 (O, Y)	SI. TRANSISTOR	
	Q757	2SA965 (Y)	SI. TRANSISTOR	
	Q758	2SA965 (Y)	SI. TRANSISTOR	
	Q781	2SC2389 (S, E)	SI. TRANSISTOR	
	Q782	2SC2389 (S, E)	SI. TRANSISTOR	
	Q783	2SA1038 (R, S)	SI. TRANSISTOR	
	Q784	2SA1038 (R, S)	SI. TRANSISTOR	
	Q841	2SB1187 (F, G)	SI. TRANSISTOR	
	Q885	2SC2240 (GR, BL)	SI. TRANSISTOR	
	Q891	2SD2061 (F, G)	SI. TRANSISTOR	
	Q901	2SC2389 (S, E)	SI. TRANSISTOR	
	Q902	2SC2389 (S, E)	SI. TRANSISTOR	
	Q903	2SA1038 (R, S)	SI. TRANSISTOR	
	Q951	DTC123YS	SI. TRANSISTOR	
		CAPACITORS		
	C001	QFN82AK-472	4700PF 100V META	
	C002	QETB1EM-227	220MF 25V AL E.	BS EF EN GI
	C002	QETB1JM-227	220MF 63V AL E.	G U UB UP
△	C011	QC29019-472	4700PF C. CA	
	C023	QETB1CM-476	47MF 16V AL E.	
	C051	QETB1HM-106	10MF 50V E. CA	
	C052	QCS21HJ-271A	270PF 50V CER. C	
	C053	QCS21HJ-101A	100PF 50V CER. C	
	C057	QCS21HJ-100	10PF 50V CER. C	
	C058	QETB1CM-476	47MF 16V AL E.	
	C061	QETB1HM-225	2. 2MF 50V AL E.	
	C062	QFLB1HJ-103	0. 01MF 50V MYLAR	
	C063	QCS22HJ-330	33PF 500V CER. C	
	C064	QETB1HM-476	47MF 50V E. CA	
	C067	QETB2AM-106	10MF 100V AL E.	
	C071	QCS22HJ-470A	47PF 500V CER. C	
	C072	QCS22HJ-470A	47PF 500V CER. C	
	C093	QFLB1HJ-473	0. 047MF 50V MYLAR	
	C094	QFLB1HJ-473	0. 047MF 50V MYLAR	
	C511	QCHB1EZ-223	0. 022MF 25V CER. C	
	C521	QFLB1HJ-332	3300PF 50V MYLAR	



■ Electrical Parts List (ENH-290)

△	Item	Parts Number	Description	Area
	C522	QFLB1HJ-332	3300PF 50V MYLAR	
	C523	QFLB1HJ-183	0.018MF 50V MYLAR	
	C524	QFLB1HJ-183	0.018MF 50V MYLAR	
	C531	QETB1HM-105	1MF 50V AL E.	
	C532	QETB1HM-105	1MF 50V AL E.	
	C533	QFLB1HJ-153	0.015MF 50V MYLAR	
	C534	QFLB1HJ-153	0.015MF 50V MYLAR	
	C535	QFLB1HJ-823	0.082MF 50V MYLAR	
	C536	QFLB1HJ-823	0.082MF 50V MYLAR	
	C537	QETB1HM-105	1MF 50V AL E.	
	C538	QETB1HM-105	1MF 50V AL E.	
	C551	QETB1HM-106	10MF 50V E. CA	
	C552	QCS21HJ-271A	270PF 50V CER. C	
	C553	QCS21HJ-101A	100PF 50V CER. C	
	C557	QCS21HJ-100	10PF 50V CER. C	
	C558	QETB1CM-476	47MF 16V AL E.	
	C561	QETB1HM-225	2.2MF 50V AL E.	
	C562	QCS22HJ-330	33PF 500V CER. C	
	C563	QFLB1HJ-103	0.01MF 50V MYLAR	
	C564	QETB1HM-476	47MF 50V E. CA	
	C571	QCS22HJ-470A	47PF 500V CER. C	
	C572	QCS22HJ-470A	47PF 500V CER. C	
	C581	QFLB1HJ-473	0.047MF 50V MYLAR	
	C582	QFLB1HJ-473	0.047MF 50V MYLAR	
	C599	QETB1HM-476	47MF 50V E. CA	
	C671	QETB0JM-108N	1000MF 6.3V E. CA	
	C672	QETB0JM-108N	1000MF 6.3V E. CA	
	C673	QETB1HM-475E	4.7MF 50V E. CA	
	C674	QETB1HM-475E	4.7MF 50V E. CA	
	C700	QCS21HJ-221	220PF 50V CER. C	BS EF EN GI
	C701	QETB1HM-106	10MF 50V E. CA	
	C702	QETB1HM-106	10MF 50V E. CA	
	C703	QCS21HJ-271A	270PF 50V CER. C	
	C704	QCS21HJ-271A	270PF 50V CER. C	
	C705	QCS21HJ-101A	100PF 50V CER. C	G U UB UP
	C705	QCS21HJ-221	220PF 50V CER. C	BS EF EN GI
	C706	QCS21HJ-101A	100PF 50V CER. C	G U UB UP
	C706	QCS21HJ-221	220PF 50V CER. C	BS EF EN GI
	C711	QETB1CM-476	47MF 16V AL E.	
	C712	QETB1CM-476	47MF 16V AL E.	
	C713	QCS21HJ-100	10PF 50V CER. C	
	C714	QCS21HJ-100	10PF 50V CER. C	
	C717	QCY31HK-152Z	1500PF 50V CER. C	
	C718	QCY31HK-152Z	1500PF 50V CER. C	
	C721	QCS22HJ-220	22PF 500V CER. C	
	C722	QCS22HJ-220	22PF 500V CER. C	
	C723	QETB1HM-225	2.2MF 50V AL E.	
	C724	QETB1HM-225	2.2MF 50V AL E.	
	C725	QETB1HM-226E	22MF 50V E. CA	
	C726	QETB1HM-226E	22MF 50V E. CA	
	C727	QFLB1HJ-472	4700PF 50V MYLAR	
	C728	QFLB1HJ-472	4700PF 50V MYLAR	
	C739	QETB1JM-107	100MF 63V AL E.	
	C751	QCS22HJ-470A	47PF 500V CER. C	
	C752	QCS22HJ-470A	47PF 500V CER. C	
	C753	QCS22HJ-470A	47PF 500V CER. C	
	C754	QCS22HJ-470A	47PF 500V CER. C	
	C771	QFLB1HJ-473	0.047MF 50V MYLAR	
	C772	QFLB1HJ-473	0.047MF 50V MYLAR	

△	Item	Parts Number	Description	Area
	C773	QFLB1HJ-473	0.047MF 50V MYLAR	
	C774	QFLB1HJ-473	0.047MF 50V MYLAR	
	C801	QEZO223-478	4700MF E. CA	
	C802	QEZO223-478	4700MF E. CA	
	C804	QFN82CK-104	0.1MF 160V META	
	C805	QFN82CK-104	0.1MF 160V META	
	C811	QETB1VM-228N	2200MF 35V E. CA	
	C812	QFN82AJ-104	0.1MF 100V MYLAR	
	C813	QFN82AJ-104	0.1MF 100V MYLAR	
	C840	QETB1HM-476	47MF 50V E. CA	
	C841	QETB1HM-476	47MF 50V E. CA	
	C854	QETB1EM-107	100MF 25V AL E.	
	C885	QETB1HM-105	1MF 50V AL E.	
	C896	QETB1EM-107	100MF 25V AL E.	
	C903	QETB1HM-226E	22MF 50V E. CA	
	C904	QCY31HK-102Z	1000PF 50V CER. C	
	C905	QETB1AM-476	47MF 10V E. CA	
	C906	QCF21HP-103A	0.01MF 50V CER. C	
	C909	QETB1CM-226	22MF 16V E. CA	
	C925	QETB1HM-225	2.2MF 50V AL E.	
	C931	QFLB1HJ-223	0.022MF 50V MYLAR	BS EF EN GI
	C932	QFLB1HJ-223	0.022MF 50V MYLAR	BS EF EN GI
	C933	QFLB1HJ-223	0.022MF 50V MYLAR	BS EF EN GI
	C934	QFLB1HJ-223	0.022MF 50V MYLAR	BS EF EN GI
	C935	QCS31HJ-331Z	330PF 50V CER. C	BS EF EN GI
	C936	QCS31HJ-331Z	330PF 50V CER. C	BS EF EN GI
	C937	QCS31HJ-331Z	330PF 50V CER. C	BS EF EN GI
	C938	QCS31HJ-331Z	330PF 50V CER. C	BS EF EN GI
	C941	QCS31HJ-331Z	330PF 50V CER. C	BS EF EN GI
	C942	QCS31HJ-331Z	330PF 50V CER. C	BS EF EN GI
	C943	QCS31HJ-331Z	330PF 50V CER. C	BS EF EN GI
	C944	QCS31HJ-331Z	330PF 50V CER. C	BS EF EN GI
	C945	QCS31HJ-331Z	330PF 50V CER. C	BS EF EN GI
	C946	QCS31HJ-331Z	330PF 50V CER. C	BS EF EN GI
	C971	QFLB1HJ-223	0.022MF 50V MYLAR	BS EF EN GI
	C974	QFLB1HJ-223	0.022MF 50V MYLAR	BS EF EN GI
	C981	QFLB1HJ-223	0.022MF 50V MYLAR	BS EF EN GI
	C984	QFLB1HJ-223	0.022MF 50V MYLAR	BS EF EN GI
	C985	QFLB1HJ-223	0.022MF 50V MYLAR	BS EF EN GI
	C986	QCS21HJ-221	220PF 50V CER. C	BS EF EN GI
		RESISTORS		
△	R011	QRZ0076-3R3	3.3 1/4W FUSIB	G U UB UP
	R011	QRZ0077-220X	22 1/4W FUSIB	BS EF EN GI
△	R012	QRD145J-153S	15K 1/4W UNF. C	G U UB UP
	R013	QRD14CJ-821SX	820 1/4W CARBO	
△	R014	QRG012J-332A	3.3K 1W OXIDE	G U UB UP
△	R015	QRD14CJ-100SX	10 1/4W UNF. C	BS EF EN GI
	R051	QRD161J-222	2.2K 1/6W CARBO	
	R052	QRD161J-104	100K 1/6W CARBO	
	R053	QRD161J-202	2K 1/6W CARBO	
	R054	QRD161J-202	2K 1/6W CARBO	
	R055	QRD161J-123	12K 1/6W CARBO	
	R057	QRD161J-104	100K 1/6W CARBO	
	R058	QRD161J-102	1K 1/6W CARBO	BS EF EN GI
	R058	QRD161J-821	820 1/6W CARBO	G U UB UP
△	R061	QRD14CJ-181S	180 1/4W UNF. C	
	R062	QRD161J-222	2.2K 1/6W CARBO	
	R063	QRD161J-222	2.2K 1/6W CARBO	
	R064	QRD161J-222	2.2K 1/6W CARBO	

■ Electrical Parts List (ENH-290)

△	Item	Parts Number	Description	Area
	R065	QRD161J-222	2.2K 1/6W CARBO	
	R067	QRD14CJ-331SX	330 1/4W UNF. C	
	R068	QRD14CJ-331SX	330 1/4W UNF. C	
△	R072	QRD14CJ-561SX	560 1/4W UNF. C	
△	R073	QRD14CJ-100SX	10 1/4W UNF. C	
△	R074	QRD14CJ-100SX	10 1/4W UNF. C	
△	R077	ERF032K-R22	0.22 3W CEM. R	
△	R078	QRD125J-330	33 1/2W UNF. C	
	R081	QRD161J-102	1K 1/6W CARBO	
	R082	QRD161J-183	18K 1/6W CARBO	
	R083	QRD161J-123	12K 1/6W CARBO	
	R090	ERT-D2WHL202S	2K 1/4W NEGAT	
	R091	QRD161J-820	82 1/6W CARBO	
	R092	QRD161J-391	390 1/6W CARBO	
	R093	QRD161J-181	180 1/6W CARBO	
	R094	QRD161J-181	180 1/6W CARBO	
	R095	QRD161J-391	390 1/6W CARBO	
	R096	QRD161J-391	390 1/6W CARBO	
△	R097	QRG022J-100A	10 2W OXIDE	
	R098	QRD161J-104	100K 1/6W CARBO	
	R511	QRD161J-102	1K 1/6W CARBO	
	R512	QRD161J-242	2.4K 1/6W CARBO	
	R523	QRD161J-472	4.7K 1/6W CARBO	
	R524	QRD161J-472	4.7K 1/6W CARBO	
	R525	QRD161J-122	1.2K 1/6W CARBO	
	R526	QRD161J-122	1.2K 1/6W CARBO	
	R533	QRD161J-203	20K 1/6W CARBO	
	R534	QRD161J-203	20K 1/6W CARBO	
	R535	QRD161J-362	3.6K 1/6W CARBO	
	R536	QRD161J-362	3.6K 1/6W CARBO	
	R551	QRD161J-222	2.2K 1/6W CARBO	
	R552	QRD161J-104	100K 1/6W CARBO	
	R553	QRD161J-202	2K 1/6W CARBO	
	R554	QRD161J-202	2K 1/6W CARBO	
	R555	QRD161J-103	10K 1/6W CARBO	
	R557	QRD161J-823	82K 1/6W CARBO	
	R558	QRD161J-102	1K 1/6W CARBO	BS EF EN GI
	R558	QRD161J-821	820 1/6W CARBO	G U UB UP
	R560	QRD161J-133Y	13K 1/6W CARBO	
△	R561	QRD14CJ-221S	220 1/4W UNF. C	
	R562	QRD161J-820	82 1/6W CARBO	
	R563	QRD161J-222	2.2K 1/6W CARBO	
	R564	QRD161J-222	2.2K 1/6W CARBO	
	R565	QRD161J-222	2.2K 1/6W CARBO	
	R566	QRD161J-222	2.2K 1/6W CARBO	
	R567	QRD161J-391	390 1/6W CARBO	
	R568	ERT-D2WHL202S	2K 1/4W NEGAT	
△	R569	QRD14CJ-100SX	10 1/4W UNF. C	
△	R570	QRD14CJ-100SX	10 1/4W UNF. C	
△	R571	QRD14CJ-100SX	10 1/4W UNF. C	
△	R572	QRD14CJ-100SX	10 1/4W UNF. C	
△	R575	QRD14CJ-100SX	10 1/4W UNF. C	
△	R576	QRD14CJ-100SX	10 1/4W UNF. C	
△	R577	ERF032K-R22	0.22 3W CEM. R	
△	R578	QRD14CJ-561SX	560 1/4W UNF. C	
△	R581	QRD125J-330	33 1/2W UNF. C	
△	R582	QRG022J-100A	10 2W OXIDE	
	R585	QRD161J-181	180 1/6W CARBO	
	R586	QRD161J-181	180 1/6W CARBO	

△	Item	Parts Number	Description	Area
	R587	QRD161J-391	390 1/6W CARBO	
	R588	QRD161J-391	390 1/6W CARBO	
	R591	QRD161J-102	1K 1/6W CARBO	
	R592	QRD161J-183	18K 1/6W CARBO	
	R593	QRD161J-123	12K 1/6W CARBO	
	R594	QRD161J-104	100K 1/6W CARBO	
	R661	QRD161J-750	75 1/6W CARBO	
	R662	QRD161J-750	75 1/6W CARBO	
	R663	QRD161J-750	75 1/6W CARBO	
	R664	QRD161J-750	75 1/6W CARBO	
	R665	QRD161J-473	47K 1/6W CARBO	
	R666	QRD161J-473	47K 1/6W CARBO	
	R667	QRD161J-331	330 1/6W CARBO	
	R668	QRD161J-331	330 1/6W CARBO	
	R701	QRD161J-222	2.2K 1/6W CARBO	
	R702	QRD161J-222	2.2K 1/6W CARBO	
	R703	QRD161J-104	100K 1/6W CARBO	
	R704	QRD161J-104	100K 1/6W CARBO	
	R705	QRD161J-202	2K 1/6W CARBO	
	R706	QRD161J-202	2K 1/6W CARBO	
	R707	QRD161J-202	2K 1/6W CARBO	
	R708	QRD161J-202	2K 1/6W CARBO	
	R709	QRD161J-133Y	13K 1/6W CARBO	
	R710	QRD161J-133Y	13K 1/6W CARBO	
	R711	QRD161J-102	1K 1/6W CARBO	BS EF EN GI
	R711	QRD161J-821	820 1/6W CARBO	G U UB UP
	R712	QRD161J-102	1K 1/6W CARBO	BS EF EN GI
	R712	QRD161J-821	820 1/6W CARBO	G U UB UP
	R713	QRD161J-133Y	13K 1/6W CARBO	
	R714	QRD161J-133Y	13K 1/6W CARBO	
	R715	QRD161J-823	82K 1/6W CARBO	
	R716	QRD161J-823	82K 1/6W CARBO	
	R717	QRD161J-101	100 1/6W CARBO	
	R718	QRD161J-101	100 1/6W CARBO	
	R721	QRD14CJ-151SX	150 1/4W UNF. C	
	R722	QRD14CJ-151SX	150 1/4W UNF. C	
	R727	QRD161J-222	2.2K 1/6W CARBO	
	R728	QRD161J-222	2.2K 1/6W CARBO	
	R729	QRD161J-222	2.2K 1/6W CARBO	
	R730	QRD161J-222	2.2K 1/6W CARBO	
	R731	QRD161J-222	2.2K 1/6W CARBO	
	R732	QRD161J-222	2.2K 1/6W CARBO	
	R733	QRD161J-222	2.2K 1/6W CARBO	
	R734	QRD161J-222	2.2K 1/6W CARBO	
△	R739	QRD14CJ-100SX	10 1/4W UNF. C	
△	R740	QRD14CJ-100SX	10 1/4W UNF. C	
	R743	QRD167J-152	1.5K 1/6W CARBO	
	R744	QRD167J-152	1.5K 1/6W CARBO	
	R745	QRD161J-391	390 1/6W CARBO	
	R746	QRD161J-391	390 1/6W CARBO	
	R747	QRD161J-102	1K 1/6W CARBO	
	R748	QRD161J-102	1K 1/6W CARBO	
	R749	ERT-D2WHL202S	2K 1/4W NEGAT	
	R750	ERT-D2WHL202S	2K 1/4W NEGAT	
△	R751	QRD14CJ-100SX	10 1/4W UNF. C	
△	R752	QRD14CJ-100SX	10 1/4W UNF. C	
△	R753	QRD14CJ-100SX	10 1/4W UNF. C	
△	R754	QRD14CJ-100SX	10 1/4W UNF. C	
△	R755	QRD14CJ-100SX	10 1/4W UNF. C	

■ Electrical Parts List (ENH-290)

△	Item	Parts Number	Description	Area
△	R756	QRD14CJ-100SX	10 1/4W UNF. C	
△	R757	QRD14CJ-100SX	10 1/4W UNF. C	
△	R758	QRD14CJ-100SX	10 1/4W UNF. C	
△	R759	QRD14CJ-272S	2.7K 1/4W UNF. C	
△	R760	QRD14CJ-272S	2.7K 1/4W UNF. C	
△	R765	QRD14CJ-271S	270 1/4W UNF. C	
△	R766	QRD14CJ-271S	270 1/4W UNF. C	
△	R767	QRD14CJ-100SX	10 1/4W UNF. C	
△	R768	QRD14CJ-100SX	10 1/4W UNF. C	
△	R769	QRD14CJ-100SX	10 1/4W UNF. C	
△	R770	QRD14CJ-100SX	10 1/4W UNF. C	
△	R771	ERF032K-R22	0.22 3W CEM. R	
△	R772	ERF032K-R22	0.22 3W CEM. R	
△	R773	QRD125J-330	33 1/2W UNF. C	
△	R774	QRD125J-330	33 1/2W UNF. C	
△	R775	QRG022J-100A	10 2W OXIDE	
△	R776	QRG022J-100A	10 2W OXIDE	
	R781	QRD161J-181	180 1/6W CARBO	G U UB UP
	R781	QRD167J-111	110 1/6W CARBO	BS EF EN GI
	R782	QRD161J-181	180 1/6W CARBO	G U UB UP
	R782	QRD167J-111	110 1/6W CARBO	BS EF EN GI
	R783	QRD161J-181	180 1/6W CARBO	G U UB UP
	R783	QRD167J-111	110 1/6W CARBO	BS EF EN GI
	R784	QRD161J-181	180 1/6W CARBO	G U UB UP
	R784	QRD167J-111	110 1/6W CARBO	BS EF EN GI
	R785	QRD161J-101	100 1/6W CARBO	BS EF EN GI
	R785	QRD161J-391	390 1/6W CARBO	G U UB UP
	R786	QRD161J-101	100 1/6W CARBO	BS EF EN GI
	R786	QRD161J-391	390 1/6W CARBO	G U UB UP
	R787	QRD161J-101	100 1/6W CARBO	BS EF EN GI
	R787	QRD161J-391	390 1/6W CARBO	G U UB UP
	R788	QRD161J-101	100 1/6W CARBO	BS EF EN GI
	R788	QRD161J-391	390 1/6W CARBO	G U UB UP
	R801	QRD161J-104	100K 1/6W CARBO	
	R802	QRD161J-104	100K 1/6W CARBO	
△	R808	QRD14CJ-3R3S	3.3 1/4W UNF. C	
	R840	QRZ0077-220X	22 1/4W FUSIB	
△	R841	QRZ0077-100	10 1/4W FUSIB	
△	R842	QRD14CJ-222SX	2.2K 1/4W UNF. C	
	R845	QRD14CJ-102SX	1K 1/4W UNF. C	
	R854	QRD14CJ-822S	8.2K 1/4W UNF. C	
△	R881	QRZ0077-4R7	4.7 1/4W FUSE	
	R885	QRD161J-104	100K 1/6W CARBO	
△	R891	QRZ0077-100	10 1/4W FUSIB	
△	R892	QRD14CJ-272S	2.7K 1/4W UNF. C	
	R901	QRD161J-102	1K 1/6W CARBO	
	R902	QRD161J-102	1K 1/6W CARBO	
	R903	QRD167J-153	15K 1/6W CARBO	
	R904	QRD167J-153	15K 1/6W CARBO	
	R905	QRD161J-123	12K 1/6W CARBO	
	R906	QRD161J-123	12K 1/6W CARBO	
	R909	QRD161J-104	100K 1/6W CARBO	
	R910	QRD161J-823	82K 1/6W CARBO	
	R911	QRD167J-332	3.3K 1/6W CARBO	
	R912	QRD161J-473	47K 1/6W CARBO	
	R913	QRD161J-103	10K 1/6W CARBO	
	R915	QRD161J-823	82K 1/6W CARBO	
	R916	QRD161J-563	56K 1/6W CARBO	
	R917	QRD161J-683	68K 1/6W CARBO	

△	Item	Parts Number	Description	Area
	R918	QRD161J-392	3.9K 1/6W CARBO	
	R919	QRD161J-122	1.2K 1/6W CARBO	
	R920	QRD161J-224	220K 1/6W CARBO	
△	R921	QRD14CJ-470SX	47 1/4W UNF. C	
	R925	QRD167J-562	5.6K 1/6W CARBO	
	R926	QRD167J-822	8.2K 1/6W CARBO	
	R927	QRD161J-103	10K 1/6W CARBO	
△	R931	QRZ0077-100	10 1/4W FUSIB	BS EF EN GI
△	R932	QRZ0077-100	10 1/4W FUSIB	BS EF EN GI
△	R933	QRZ0077-100	10 1/4W FUSIB	BS EF EN GI
△	R934	QRZ0077-100	10 1/4W FUSIB	BS EF EN GI
△	R951	QRD14CJ-220S	22 1/4W UNF. C	
△	R961	QRG022J-471A	470 2W OXIDE	
△	R962	QRG022J-471A	470 2W OXIDE	
△	R975	QRZ0077-4R7	4.7 1/4W FUSE	BS EF EN GI
	R997	QRD161J-103	10K 1/6W CARBO	G U UB UP
	R998	QRD161J-103	10K 1/6W CARBO	G U UB UP
	R999	QRD161J-103	10K 1/6W CARBO	G U UB UP
	VR511	QVDA96W-E15DJ3	100K VARIABLE R	
	VR521	QVDB96C-E15CJ3	100K VARIABLE R	
	VR531	QVDB96C-E15CJ3	100K VARIABLE R	
	VR741	QVPA601-501A	500 TRIMMER RE	
	VR742	QVPA601-501A	500 TRIMMER RE	
		OTHERS		
		EMW10626-102	PRINTED BOARD	
	J001	EMV5137-002	CONNECT TERMINAL	BS EF EN GI
	J661	EMN00YV-406AJ1	PIN JACK	
	L051	EQL0011-R45J1	INDUCTOR	
	L581	EQL0011-R45J1	INDUCTOR	
	L771	EQL0011-R45J1	INDUCTOR	
	L772	EQL0011-R45J1	INDUCTOR	
	L931	EQL0011-R45J1	INDUCTOR	BS EF EN GI
	L932	EQL0011-R45J1	INDUCTOR	BS EF EN GI
	L971	EQL0011-R45J1	INDUCTOR	BS EF EN GI
	L981	EQL0011-R45J1	INDUCTOR	BS EF EN GI
△	S001	QSP4C11-E01	PUSH SWITCH	BS EF EN GI
	S901	QSP6002-E02J2	PUSH SWITCH	
△	T002	ETP1000-41EA	POWER TRANSFORMER	EF EN GI
△	T002	ETP1000-41EABS	POWER TRANSFORMER	BS
△	T002	ETP1000-41ZB	POWER TRANSFORMER	G U UB UP
	AC001	QMCA001-E02S	AC OUTLET	UB UP
	CN313	EMV5163-005R	CONNECTOR	
	CN521	EMV7163-011	CONNECT TERMINAL	
	CN701	EMV5163-010R	CONNECT TERMINAL	
	CN702	EMV5163-010R	CONNECT TERMINAL	
	CN703	EMV5163-005R	CONNECTOR	
	CN711	EMV7163-010	CONNECT TERMINAL	
	CN712	EMV7163-010	CONNECT TERMINAL	
	CN713	EMV7163-005	CONNECTOR	
	CN801	VMC0163-013	CONNECT TERMINAL	
	CN852	EMV7122-103	CONNECT TERMINAL	
	CN853	EMV7122-103	CONNECT TERMINAL	
	CN961	EMV7122-103	CONNECT TERMINAL	
	EP491	E409182-001SM	EARTH TERMINAL	
	EP501	EMZ4002-001Z	EARTH PLATE	
	EP700	EMZ4002-001Z	EARTH PLATE	
	EP901	E409182-001SM	EARTH TERMINAL	BS EF EN GI
	FC101	EMG7331-003Z	FUSE CLIP	
	FC102	EMG7331-003Z	FUSE CLIP	

### ■ Electrical Parts List (ENH-290)

△	Item	Parts Number	Description	Area
	FC111	EMG7331-003Z	FUSE CLIP	G U UB UP
	FC112	EMG7331-003Z	FUSE CLIP	G U UB UP
	FC201	EMG7331-003Z	FUSE CLIP	
	FC202	EMG7331-003Z	FUSE CLIP	
	FC301	EMG7331-003Z	FUSE CLIP	EF EN GI
	FC302	EMG7331-003Z	FUSE CLIP	EF EN GI
	FC810	EMG7331-003Z	FUSE CLIP	
	FC811	EMG7331-003Z	FUSE CLIP	
	FC812	EMG7331-003Z	FUSE CLIP	
	FC813	EMG7331-003Z	FUSE CLIP	
	FW801	EWR3AD-13SS	FLAT WIRE ASSY	
	FW901	EWR36D-40SS	CORD	
	HS001	E70945-H40B	HEAT SINK	G U UB UP
	HS003	E70306-001	HEAT SINK	
△	IP853	ICP-N15	I. C. PROTECTOR	
	LA001	E67132-T3R15	FUSE LABEL	G U UB UP
	RY001	ESK1D12-119J3	RELAY	
	RY901	ESK7D24-213R	RELAY	
	RY951	ESK7D24-213R	RELAY	
	ST901	FMMJ4002-001	SPEAKER TERMINAL	
	ST951	EMB90TV-601G	SPEAKER TERMINAL	G U UB UP
	ST951	EMB90TV-602G	SPEAKER TERMINAL	BS EF EN GI
	TA001	EMZ4001-001	TAB	
	TA002	EMZ4001-001	TAB	
	TP001	QMV5005-004K	PLUG ASSY	
	VS001	QSR8001-E01U	ROTARY SWITCH	G U UB UP

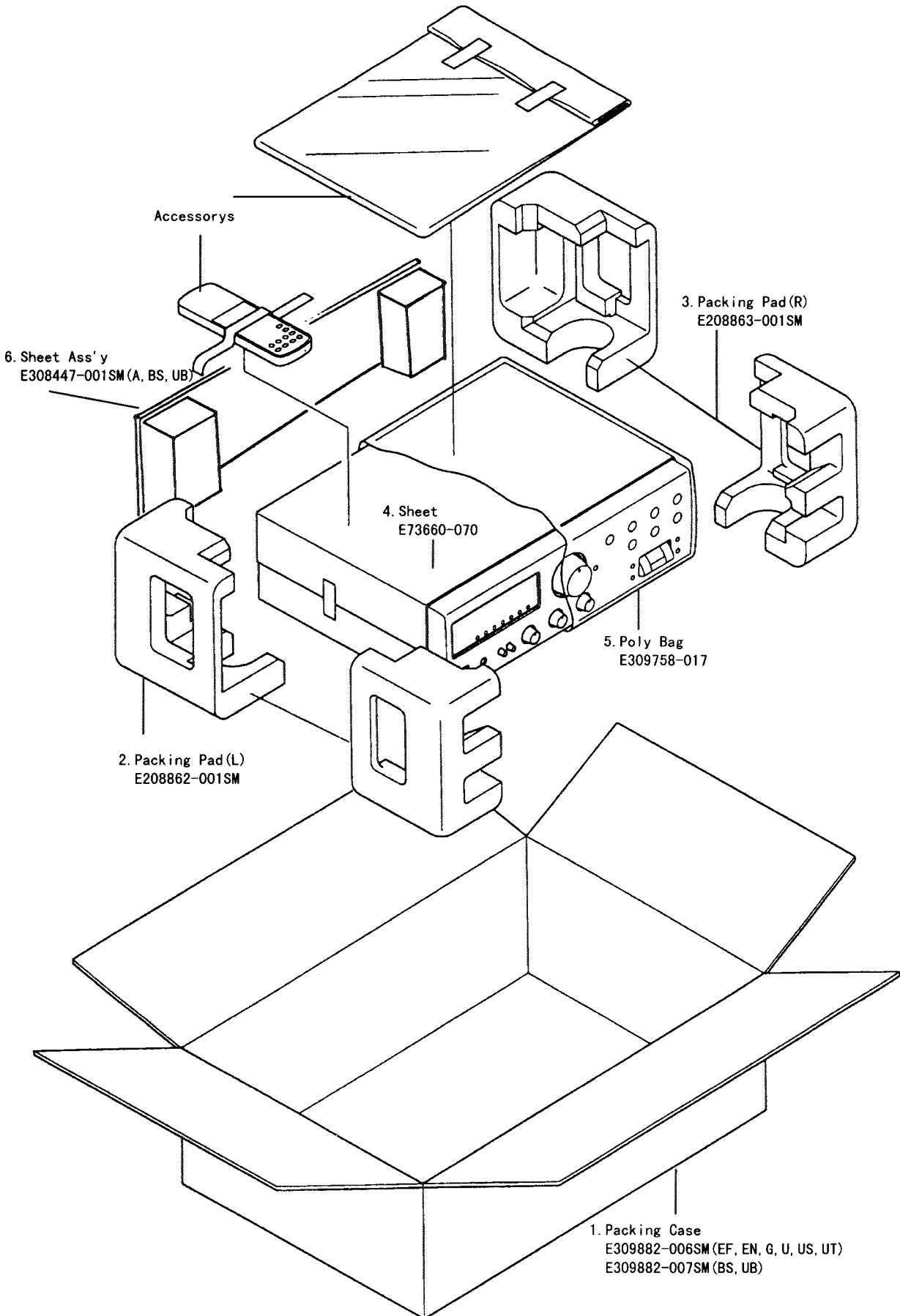
### ■ Accessories List

△	Item	Parts Number	Parts Name	Qty	Description	Area
	1	E30580-2462A	INSTRUCTION BOOK	1		EF G BS
	1	E30580-2463A	INSTRUCTION BOOK	1		EN
	1	E30580-2464A	INSTRUCTION BOOK	1		U UB US UT
	2	E43486-371A	INSTRUCTION SHEET	1		BS
	3	BT-20066A	DISTRIBUTOR LIST	1		BS
	4	BT-20134	WARRANTY CARD	1		G
	5	BT-54003-1	WARRANTY CARD	1		BS
△	6	EMC0202-001BS	AC PLUG	1		BS
	7	ENZ2202-001	SIEMENS PLUG	1		US
	8	ENZ2203-001	ADAPTOR PLUG	1		U UT
	9	E309758-001	POLY BAG	2		
	9	E43486-340A	SAFETY SHEET	1		BS
	9	RM-SAV4U	WIRE-LESS REMOTE CONTROL	1		BS EF EN G
	9	RM-SA4U	WIRE-LESS REMOTE CONTROL	1		U UB US UT
	9	UM-3(DJ)-2PSA	BATTERY	2		

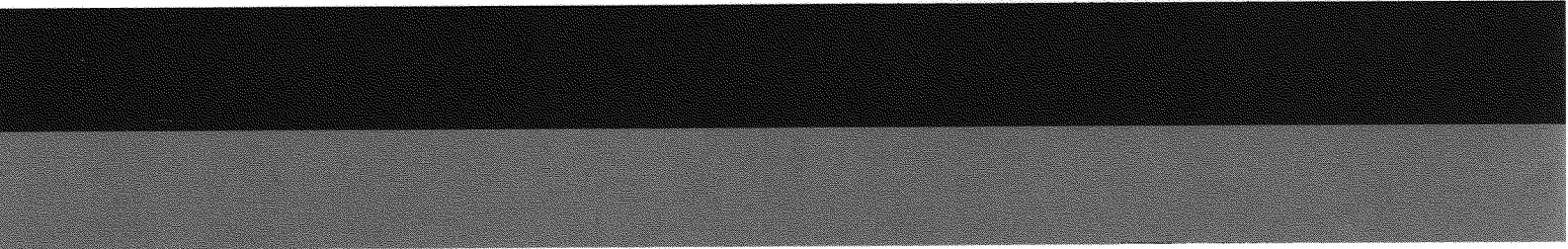
# Packing Materials and Part Numbers

Block No. 

M	2	M	M
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AX-V4BK



**JVC**

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