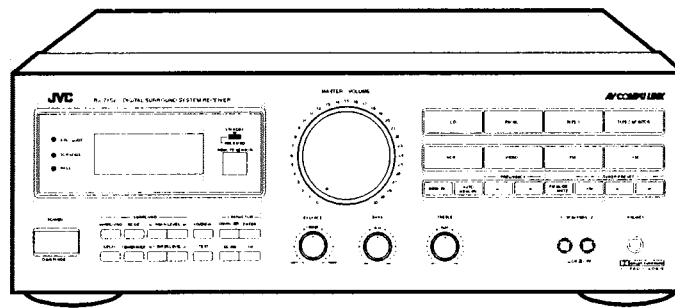
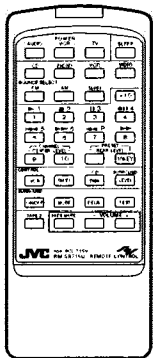


# JVC

## SERVICE MANUAL

### STEREO RECEIVER

# RX-715VTN



**AV COMPU LINK**

**COMPU LINK**  
**/// Remote ///**  
 Control Component

## Contents

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## Safety Precautions

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

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

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

Do not use a line isolation transformer during this check.

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

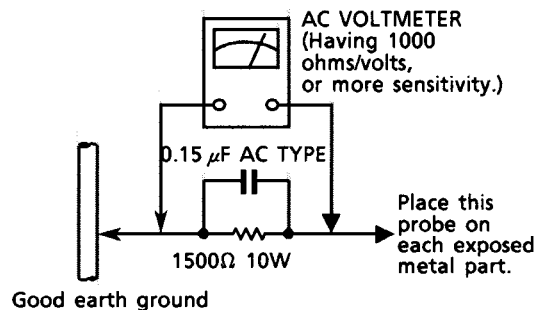
#### ● Alternate check method

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

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

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

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



## Warning

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

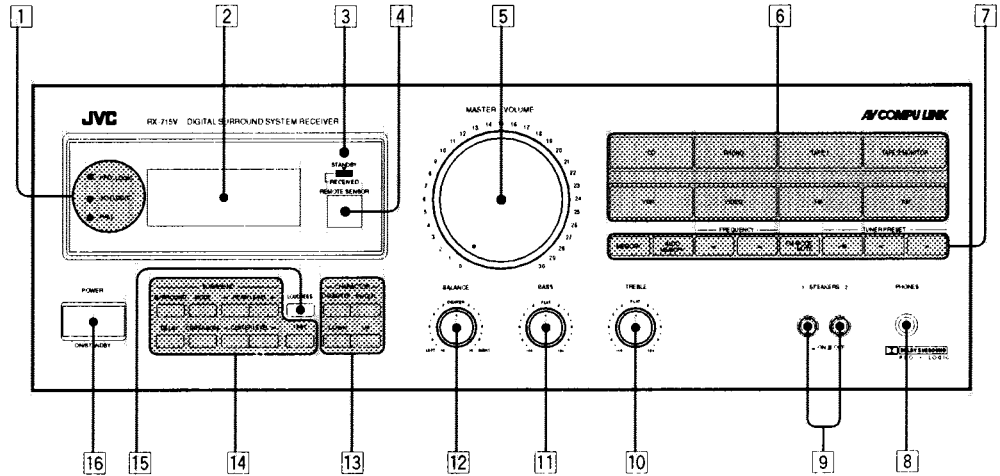
# Instruction Book

## Contents

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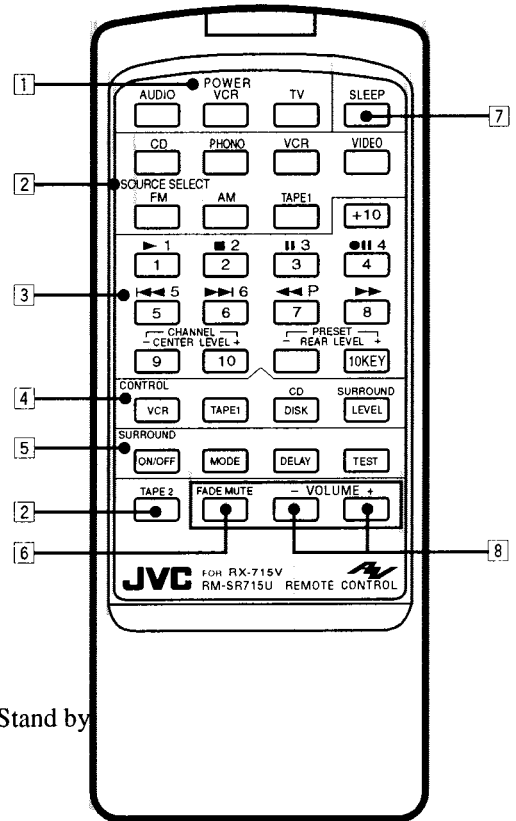
# Switches and Controls

Familiarize yourself with the main switches and controls on your JVC RX-715VTN receiver.



## Receiver

- 1 SURROUND indicator
- 2 Display window
- 3 RECEIVED/STANDBY indicator
- 4 REMOTE SENSOR window
- 5 MASTER VOLUME control
- 6 SOURCE SELECT buttons
- 7 TUNER buttons
- 8 PHONES jack
- 9 SPEAKERS buttons
- 10 TREBLE control
- 11 BASS control
- 12 BALANCE control
- 13 CHARACTER buttons
- 14 SURROUND processor buttons
- 15 LOUDNESS switch
- 16 POWER switch  
Turns power On or Stand by



## Remote Control

- 1 POWER switch  
Turns power On the RX-715VTN or Stand by
- 2 SOURCE SELECT buttons
- 3 Buttons for operating components
- 4 CONTROL buttons
- 5 SURROUND processor buttons
- 6 FADE MUTE button
- 7 SLEEP button
- 8 VOLUME button

# Installation

This section explains how to connect the receiver to other stereo equipment and speakers, and how to connect the power supply.

---

## ⚠ Cautions

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### Before Installation

⚠ CAUTION! Before installing your receiver:

- Make sure your hands are dry.
- Turn the power off to all components.
- Read the installation instructions for all components you are going to connect.

### Positioning the Receiver

⚠ CAUTION!

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

### Making Power Connections

⚠ CAUTION!

- Do not handle the power cord with wet hands.
- Do not pull on the power cord to unplug the receiver. Always grab the plug directly so as not to damage the cord.

### Handling the Receiver

⚠ CAUTION!

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

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## Connecting Stereo Components

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### Before Starting

You can connect the following components to the receiver:

#### Audio components

- Turntable
- CD player
- Two tape decks

#### Video components

- VCR
- Video disc player
- TV

**IMPORTANT!** The left channel of any audio component must be connected to the left-channel jack of the receiver, and the right channel to the right-channel jack. If they are reversed, the stereophonic image will not be correct.

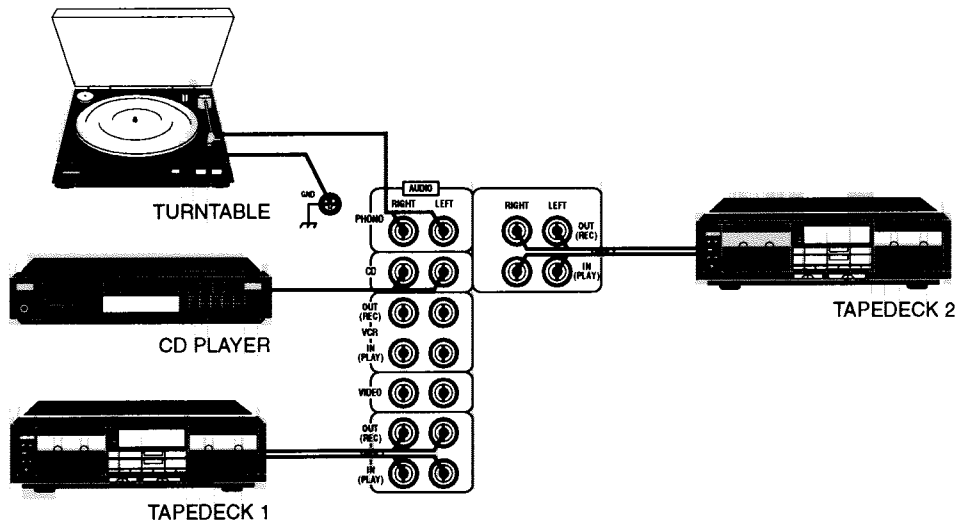
**NOTE:** To ensure correct connections, insert the red plug into the right channel.

### Basic Connections for Audio Equipment

Connect stereo components to the amplifier using cables with RCA PIN plugs. If you are connecting a tape deck, connect the output jacks on the tape deck to the jacks marked IN (PLAY) on the receiver, and the input jacks to those marked OUT (REC).

#### NOTES:

- Any turntables incorporating a small-output cartridge such as an MC (moving-coil type) must be connected to this amplifier through a commercial head amplifier or step-up transformer. Direct connection may result in insufficient volume.
- If a ground cable is fitted to your turntable, connect the cable to the screw marked GND on the rear panel.



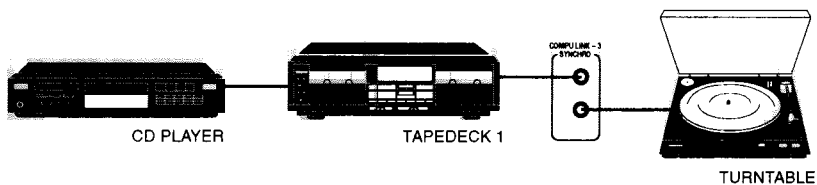
## COMPU LINK-3 Connections

COMPU LINK-3 SYNCHRO jacks on the back of the receiver connect the COMPU LINK remote control system. This system connects other JVC audio components with the receiver to make listening and recording more convenient. To use this system, attach the cables provided with your JVC components to the COMPU LINK-3 SYNCHRO jacks on the rear panel of each component. Then connect the cables to the receiver.

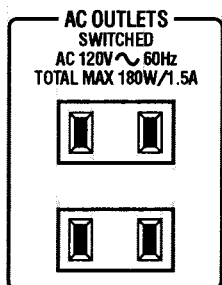
### NOTES:

- *COMPU LINK-3 is an upgraded version of COMPU LINK-1. If your equipment provides COMPU LINK-1 jacks, you can still connect your equipment, but slight imperfections may result. Automatic Power ON/OFF, for example, may not always function properly.*
- *Refer to page 24 for details about the COMPU LINK remote control system.*

**⚠ CAUTION!** Do not connect Tape Deck 2 to the COMPU LINK jacks. It may cause the COMPU LINK system to malfunction.



## Other Audio Connections



Use the socket on the back of the receiver to connect the power supply of any audio components. By pressing the POWER switch on the remote control, you can turn the receiver, and all connected components, on or off at the same time.

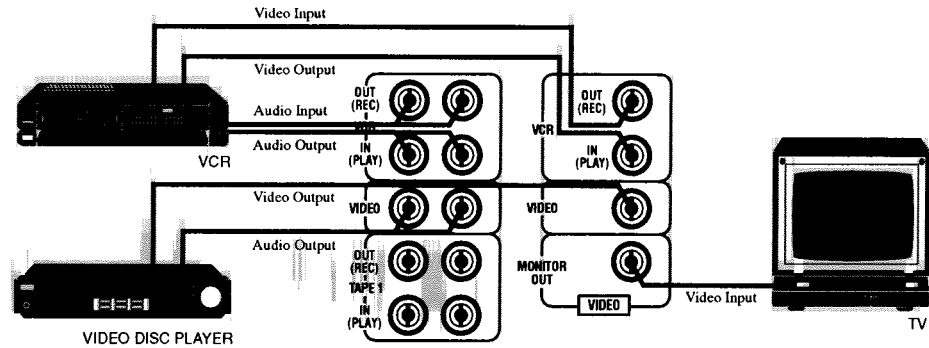
In the United States, AC outlets have a capacity of 180 watts.

**⚠ CAUTION!** Do not connect any components that consume more power than the capacity of the AC outlet. This capacity is indicated above the socket on the back of the receiver.

## Basic Connections for Video Components

Connect the audio signal jacks of your video components to the **AUDIO** jacks on the receiver. Connect the video signal (composite) jacks to the **VIDEO** jacks. If you are connecting a VCR, connect the output jacks on the VCR to the jacks marked IN (PLAY) on the receiver, and the input jacks to those marked OUT (REC).

**NOTE:** Keep the connecting cables for your TV, VCR, and antenna away from the power cord leading from the back of the receiver. The power cord may cause noise or screen interference. We recommend that you use coaxial cable to connect the antenna, since it is well-shielded against interference.

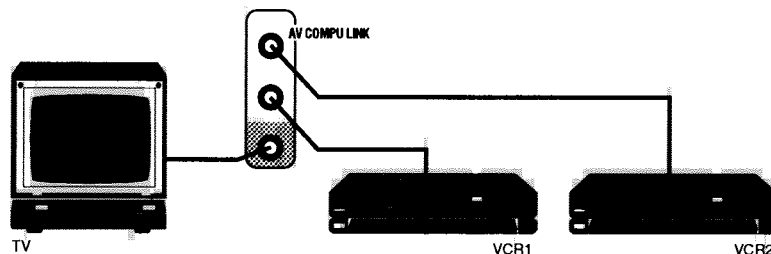


## AV COMPU LINK Connection

The AV COMPU LINK jacks on the back of the receiver connect the AV COMPU LINK system. This system connects other JVC video components with the receiver to make viewing and recording more convenient. To use this system, attach the shielded audio cable with the monaural mini plug (3.5 mm diameter) to the AV COMPU LINK jacks on the back of each component. Then connect the cable to the receiver.

**IMPORTANT!** There are three AV COMPU LINK jacks on the back of the receiver. Connect your TV to the jack marked TV. Connect your VCR to either of the remaining two jacks.

**IMPORTANT!** After connecting your VCRs to the AV COMPU LINK jacks, set the remote control codes before trying to operate them. Set the VCR connected to the VCR 1 jacks to remote control code A. Set the VCR connected to the VCR 2 jacks to code B. For details on how to set the remote control code, refer to your VCR user manual.



### NOTES:

- Make connections to the AV COMPU LINK jacks, not the COMPU LINK-3 SYNCHRO jacks.
- Some VCRs use the same jack for both AV COMPU LINK and SWAP editing. In such a case, you can't use SWAP editing function after connecting the AV COMPU LINK.



## Connecting Speakers

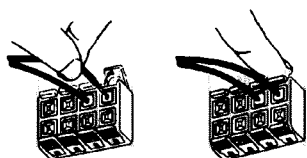
### Before Starting

You can connect the following combinations of speakers:

- two pairs of front speakers to produce normal stereo sound
- one pair of rear speakers to produce the surround sound effect
- one center speaker for more effective surround sound

**⚠ CAUTION!** Use speakers with the impedance marked near the terminals.

### Connecting Speakers



To connect each speaker, follow these steps:

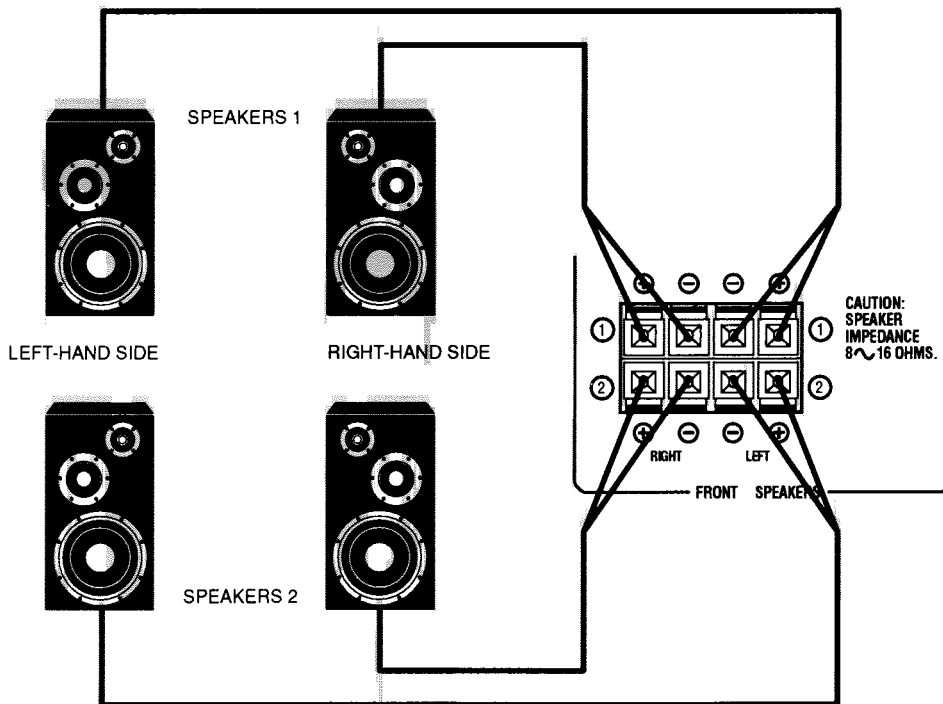
**Step 1** Open each terminal on the back of the receiver and insert the end of the speaker wire, as shown.

**Step 2** Close the terminals to clamp the speaker wires in place, as shown.

*NOTE:* Use the wire supplied with the speakers.

### Connecting the Front Speakers

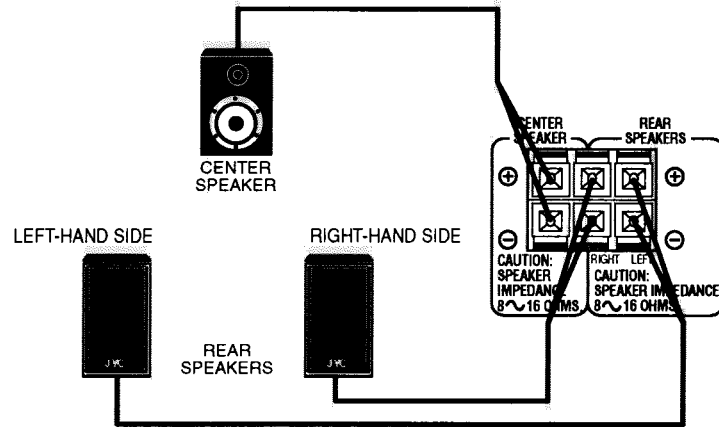
Connect the front speakers to the FRONT SPEAKERS terminals. Up to two sets of front speakers can be connected.



## Connecting the Rear Speakers and Center Speakers

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

**IMPORTANT!** Make sure that both rear speakers are connected. Otherwise, you will hear no sound from the rear speakers.



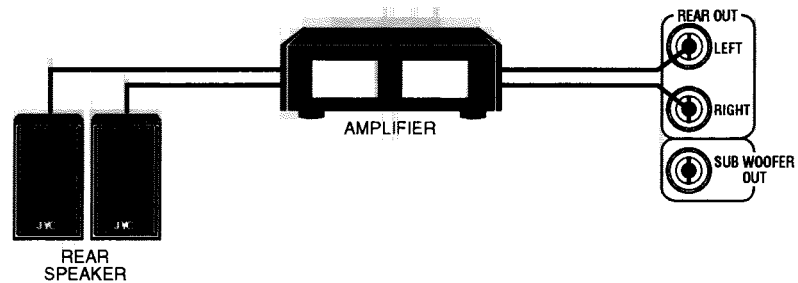
**NOTE:** It is recommended to use an antimagnetic speaker for the center speaker. Position the center speaker near the TV monitor.

## Increasing Power for the Rear Speakers

To increase power for the rear speakers, you can use a separate amplifier.

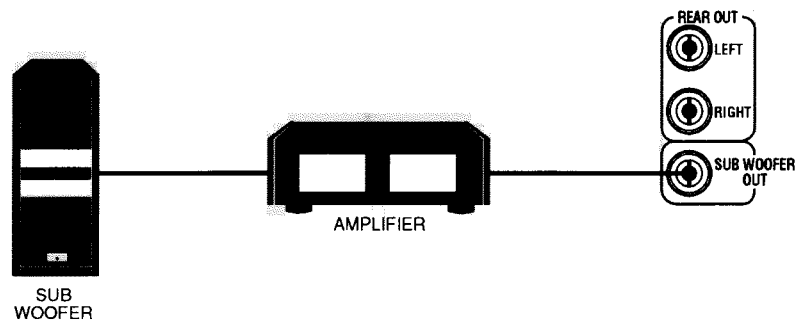
**Step 1** Connect the input terminals of the power amplifier to the REAR OUT terminal on the back of the receiver.

**Step 2** Connect the rear speakers to the speaker terminals of the connected amplifier.



## Enhancing Lower Frequencies

Connect the input terminal of the amplifier to the SUBWOOFER jack of the receiver. Then connect a subwoofer to the speaker terminals of the connected power amplifier.



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## Connecting an AM Antenna

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### Before Starting

One AM loop antenna is supplied with your receiver.

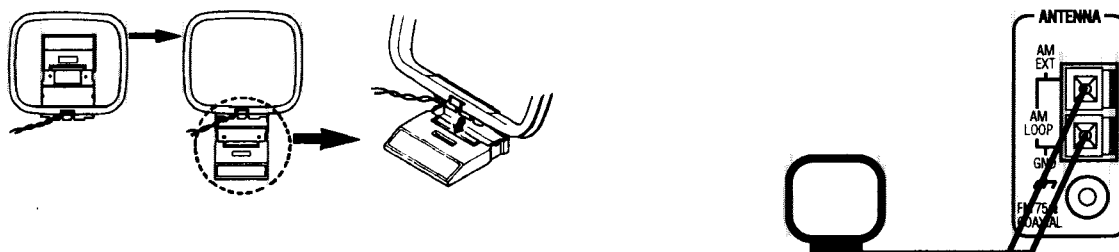
### Basic Connections

To connect the AM loop antenna to the AM LOOP terminals, follow these steps:

**Step 1** Open each terminal and insert one of the two ends of the AM antenna wire.

**Step 2** Close the terminals to clamp the antenna wires in place.

**Step 3** Stand the AM loop antenna on its own base, as shown. Set it on any flat surface.



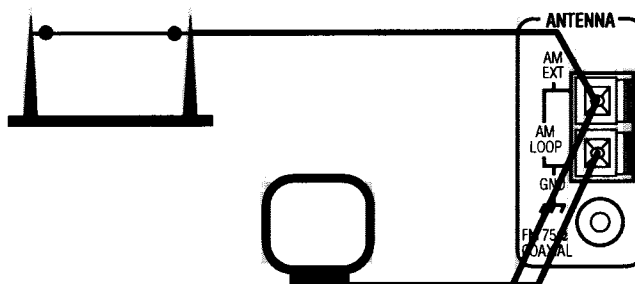
### AM Outdoor Antenna

If your AM broadcast reception is unsatisfactory, you should connect an AM outdoor antenna in addition to the loop antenna. The antenna wire should be 16 to 40 feet (5 to 13 meters) long.

Connect one end of the outdoor single vinyl-covered antenna wire to the AM LOOP terminal marked AM EXT.

**IMPORTANT!** The AM loop antenna must be installed to receive AM broadcasts. Do not disconnect the loop antenna when installing an outdoor antenna.

**IMPORTANT!** Except for the connection, make sure no uninsulated antenna wire touches the rear panel of the receiver. Otherwise, the receiver might not pick up AM broadcasts.



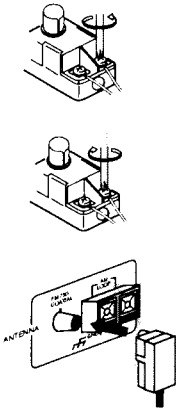
## Connecting an FM Antenna

### Before Starting

A temporary FM antenna and cable is supplied with your receiver. If reception with this antenna is not satisfactory, you may consider purchasing a 300-ohm feeder-cable antenna or a 75-ohm coaxial-cable antenna:

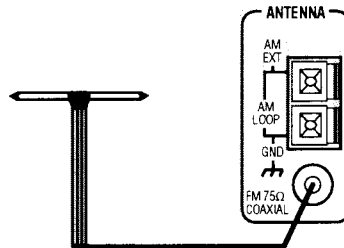
**⚠ CAUTION!** Before connecting the new FM antenna, disconnect any other FM antenna.

### Connecting the Temporary FM Antenna



To connect the supplied antenna, follow these steps:

- Step 1** Loosen the two screws on the matching transformer.
- Step 2** Connect the two conductors of the antenna cable to the terminals on the matching transformer.
- Step 3** Tighten the two screws.
- Step 4** Connect the matching transformer to the FM 75Ω COAXIAL terminal.



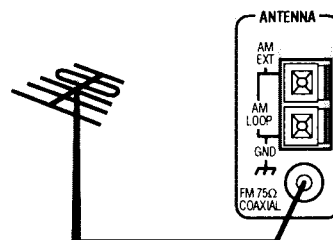
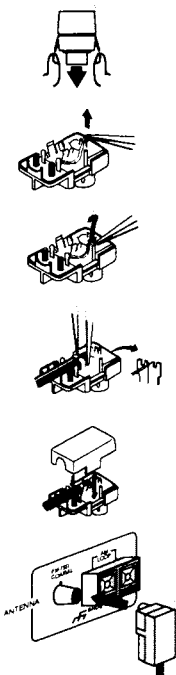
### Connecting a 300-Ohm FM Antenna

To connect a 300-ohm feeder-cable antenna, use the same steps as for the temporary FM antenna.

### Connecting a 75-Ohm FM Antenna

To connect a 75-ohm coaxial-cable antenna, follow these steps.

- Step 1** Remove the cover of the matching transformer by lifting the tabs on both sides.
- Step 2** Remove the jumper wire from the notch in the center of the fitting.
- Step 3** Wind the wire securely around the plastic pole next to the fitting.
- Step 4** Insert the center conductor of the coaxial cable into the notch.
- Step 5** Using a pair of pliers, secure the fitting in the center of the matching transformer so that the shield braid of the coaxial cable is held tightly in the fitting.
- Step 6** Snap the cover back onto the matching transformer.



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## Connecting the Power

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### Connecting the Power Supply

After checking all connections, insert the power cord plug into an outlet.

When the power supply is connected correctly, the POWER STANDBY indicator lights on the front of the receiver.

#### ⚠ CAUTION!

- Do not handle the power cord with wet hands.
- Do not pull on the power cord to unplug the receiver. Always grasp the plug directly so as not to damage the cord.
- Do not plug the power cord into a socket until all components are connected correctly.

**IMPORTANT!** *If the power cord is disconnected or a power failure occurs, the receiver settings in memory are retained for 2 or 3 days.*

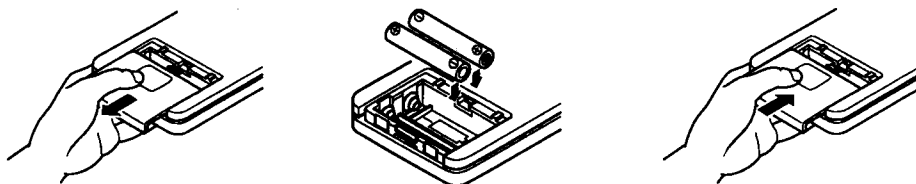
### Inserting Batteries into the Remote Control

The remote control requires two batteries (supplied). To insert batteries, follow these steps:

**Step 1** On the back side of the remote control, press down on the battery cover and slide it out.

**Step 2** Insert batteries. Make sure to observe the proper polarity: (+) to (+) and (-) to (-).

**Step 3** Slide the cover in.



### Replacing Batteries

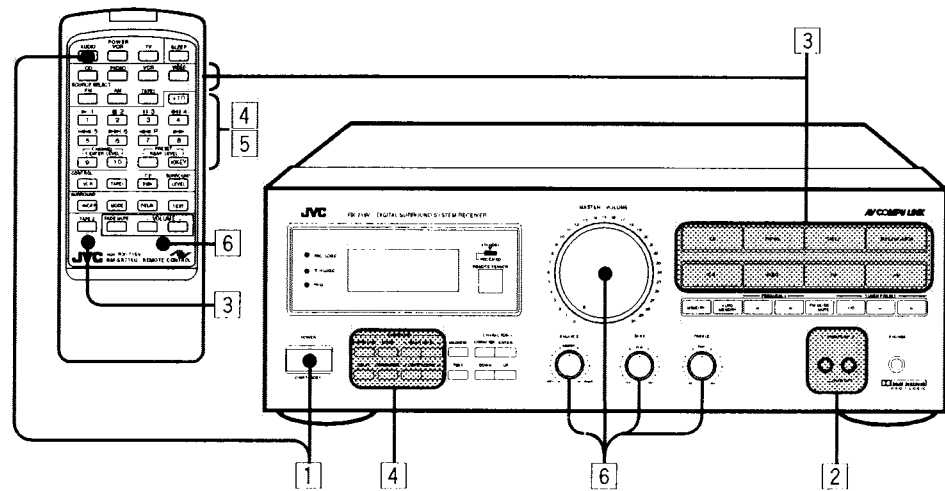
If the range or effectiveness of the remote control decreases, replace the batteries. Use two (2) AAA (24F) dry-cell batteries of the R03/UM-4 type.

#### ⚠ CAUTION! Follow these precautions to avoid leaking or cracking cells:

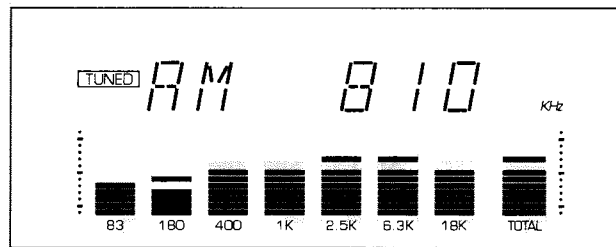
- Place batteries in the remote control so they match the polarity indicated: (+) to (+) and (-) to (-).
- Use the correct type of batteries. Batteries that look similar may differ in voltage.
- Always replace both batteries at the same time.
- Do not expose batteries to heat or flame.

# Operation Outline

## Basic Operation Reference



- 1 Turn on the power** Push the POWER switch to turn on the receiver. The display lights:



**NOTE:** Pushing the POWER switch again turns off this unit and lights the STANDBY light. A small amount of power (5 watts) is consumed under these conditions, even if the receiver is turned off. To shut off the power completely, unplug the power cord from the outlet.

- 2 Select speakers (page 19)**

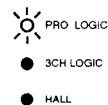
Use the SPEAKERS switch to choose between the two sets of speakers. To use your headphones, insert the headphone plug into the PHONES jack on the receiver.

- 3 Choose an audio source (page 14)**

To choose an audio source, press one of the SOURCE SELECT buttons.

- 4 Turn the surround sound effect on or off (pages 21-23)**

To turn the surround sound effect on or off, press the SURROUND button on the receiver or ON/OFF button on the remote control. When the surround processor is activated, one of the effect program indicators (PRO LOGIC, 3CH LOGIC, or HALL) lights up.



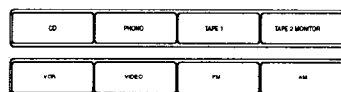
- 5 Operate the audio source (pages 24-27)**

Refer to the manual provided with each component. If your JVC components are connected to the COMPU LINK jack of the receiver, you can operate them using the remote control.

- 6 Adjust volume and tone (pages 19-20)**

Rotate the MASTER VOLUME control on the receiver or press the VOLUME button on the remote control to adjust volume. See pages 19-20 for other ways to change the volume or tone.

# Selecting the Source

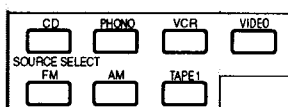


## Listening or Viewing

Press one of the SOURCE SELECT buttons on the receiver or the remote control.

CD*	Listen to the CD player.
PHONO*	Listen to a record.
TAPE 1*	Listen to the tape deck connected to the TAPE 1 jacks.
TAPE 2 MONITOR	Listen to the tape deck connected to the TAPE 2 jacks.
VCR	View a TV program or pre-recorded video tape.
VIDEO	View a video disc.
FM*	Listen to an FM broadcast.
AM*	Listen to an AM broadcast.

**IMPORTANT!** The TAPE 2 MONITOR button has a different function from other source selector buttons, because it allows you to monitor the quality of the recording. For more details, see *Monitoring* below.



**\*NOTE:** On the remote, when you press one of the SOURCE buttons marked above with an asterisk, the receiver automatically turns ON (even if it was OFF before).

## Recording

The source being played is automatically selected as the source to be recorded. While recording, you can listen to the selected source at any desired volume and tone settings.

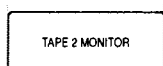
**NOTE:** Volume and Tone adjustments and the surround sound effect do not affect recording.

**IMPORTANT!** When recording from TAPE 2 to TAPE 1, press the TAPE 2 MONITOR button and another button other than TAPE 1.

## Monitoring

Using the Monitor feature, you can compare the sound quality of the source to the sound quality of the recording being made.

To use the Monitor feature while recording onto a cassette deck connected to the TAPE 2 jacks, follow these steps:



**Step 1** Press the TAPE 2 MONITOR button on the receiver or TAPE 2 button on the remote control.

The "TAPE 2 MONITOR" light appears and you can listen to the sound of the cassette deck connected to the TAPE 2 jacks. You are now hearing the quality of the recording, not the quality of the source.



**Step 2** Press the TAPE 2 MONITOR button on the receiver or TAPE 2 button on the remote control again.

This turns off the "TAPE 2 MONITOR" light, and the speakers play the previously selected source.

**NOTE:** If the cassette deck has three heads, you can hear the sound of the recording at the same time as it records on the tape.

## Receiving an AM/FM Broadcast

To receive an AM/FM broadcast, select either AM or FM using the AM button or FM button. Then tune to the precise frequency using the FREQUENCY buttons.




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### Tuning

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Tune to the frequency of a desired station using the FREQUENCY buttons. Pressing the right button increases the frequency, and pressing the left button decreases the frequency. Tapping the FREQUENCY button once changes the frequency in steps of 10 kHz for AM and 0.1 MHz for FM.

There are two tuning modes: Manual and Automatic.

#### Manual Tuning

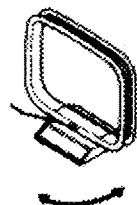
If you know the frequency of a desired station, hold down the FREQUENCY button to start the frequency changing quickly. Release the FREQUENCY button near the desired station and tap it repeatedly until you arrive at the correct frequency.

#### Automatic Tuning

If you want to scan frequencies for a desired station, hold down the FREQUENCY button to start the frequency changing quickly. When you release the FREQUENCY button, the frequency continues to change until it reaches a station.

When a station is correctly tuned, the “TUNED” light appears on the display window.

Once a tuned frequency is preset, it can be directly recalled using the TUNER buttons. For details, see pages 16–17.



**NOTE:** When you use automatic tuning, weak stations are ignored. To pick up weak stations, use manual tuning.

**IMPORTANT!** If the receiver is tuned to a station but the “TUNED” light does not appear, try rotating the antenna for better reception.

---

### Selecting an FM Reception Mode

---

Pressing the FM MODE/MUTE switch switches between these modes.



The “MUTE-AUTO” light appears in the display window. You hear either stereo sound or monaural sound, depending on the broadcast. If it is a stereo broadcast, the “STEREO” light appears. This mode is also useful for suppressing static “noise” between stations.

The “MUTE-AUTO” light disappears. You hear monaural sound even if a broadcast is in stereo. This mode is also useful when a stereo broadcast is noisy because of a weak signal.

**NOTE:** Using the Automatic Tuning mode, the sound of a broadcast with a weak signal may be muted. In this case, select the monaural mode.



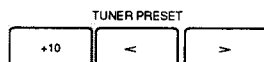
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## Presetting Tuned Frequencies

---

You can preset up to 40 radio stations by assigning channel numbers (1 through 40) to them. Once a station is preset, you can listen to it by entering the preset number. There are two ways to preset: manual or automatic.

### Entering Channel Numbers



To select numbers, use the TUNER PRESET buttons on the receiver, or the PRESET buttons on the remote control.

Press > (PRESET + on the remote) to increase the selected number, and press < (PRESET – on the remote) to lower the selected number.

To select numbers from 11 through 40, using the +10 button is more convenient. Each time you press the +10 button, the number will increase by a multiple of 10.

**IMPORTANT!** Before you use the PRESET buttons on the remote, press the AM or FM button on the remote.

### Manual Presetting



To use manual presetting to assign channel numbers to your favorite stations, follow these steps:

**Step 1** Tune to a station. If necessary, follow the procedure on page 15.

**Step 2** Press the MEMORY button.

The “MEMORY” light appears in the display window.

**Step 3** Using the TUNER PRESET buttons, select a number (1 through 40), then press the MEMORY button to enter the selected number. This number is the channel number you are assigning to the station.

**IMPORTANT!** You must enter the channel number while the “MEMORY” light is on. You have about 5 seconds to do this. If the light disappears before you enter the channel number, press the MEMORY button again.

**Step 4** When the MEMORY light disappears and the channel number is displayed, presetting is completed.

## Automatic Presetting



To use automatic presetting to preset up to 40 stations automatically, follow these steps:

- Step 1** Press the AM or FM button to select AM or FM.
- Step 2** Using the FREQUENCY buttons, move to the lowest frequency from which you want scanning to begin.
- Step 3** Press the AUTO MEMORY button.  
The “AUTO MEMORY” light appears in the display window.
- Step 4** Using the TUNER PRESET buttons, select a channel number (1 through 40) to the first tuned station, then press the AUTO MEMORY button to enter the selected number. From that point, scanning starts and stations are assigned channel numbers in ascending order.

**IMPORTANT!** You must enter the channel number while the “AUTO MEMORY” light appears. If this light disappears before you enter the channel number, press the AUTO MEMORY button again.

Frequencies are scanned in ascending order. When a station is tuned in, scanning stops and the “TUNED” light and preset number appear. The station is preset about 4 seconds later and the “MEMORY” light appears. If you do not want to preset this station, press the AUTO MEMORY button within 4 seconds. Scanning restarts without presetting that station.

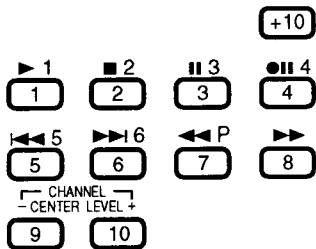
When the MEMORY light disappears, scanning continues until one of the following occurs:

- Another station is tuned in
- The upper limit of the tuning range is reached
- All 40 channel numbers have been assigned

When Auto Presetting is completed, the last preset station is received.

**NOTE:** To stop scanning at any time, press either TUNING button once.

## Recalling a preset Channel



You can recall a preset channel using the TUNER PRESET buttons on the receiver or the PRESET buttons on the remote control (see page 16).

You can also recall a preset channel by specifying the number directly, using the remote control. First press the AM or FM button on the remote, then enter the channel number using 1-10, and the +10 button. To choose numbers from 1 through 10, press the appropriate buttons. To choose number from 11 through 40, press the +10 button and one other button.

For example:

- To choose 17 Press +10, then 7.
- To choose 20 Press +10, then 10.
- To choose 25 Press +10 twice, then 5.
- To choose 40 Press +10 three times, then 10.

Your channel number will appear.

## Assigning Names to Preset Stations

### Entering Title Characters

You can assign a title of up to four characters (for example, a station name) to each preset station (1-20). When a preset station is called, its title is displayed in the display window.

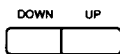
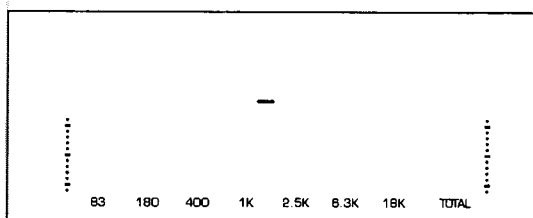
After selecting the preset channel (1-20), enter title characters as follows:



**Step 1** Press the CHARACTER button.

The cursor appears at the first character position.

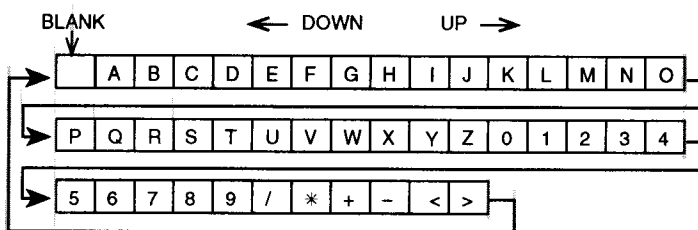
**IMPORTANT!** You must press the CHARACTER button while a preset number appears. You have about 4 seconds to do this. If the display returns to tuning frequencies before you press the CHARACTER button, select the preset channel again.



If a title has already been assigned, the first character blinks. If you are not changing this character, press the CHARACTER button.

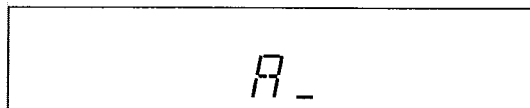
**Step 2** Using the DOWN and UP buttons, select the character to be entered.

You can choose from the characters shown below. Pressing the DOWN or UP button selects the next character in the sequence.

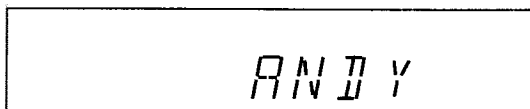


**Step 3** When the desired character appears, press the CHARACTER button.

The cursor moves to the next character position. You can enter up to four characters by repeating Steps 2 and 3.



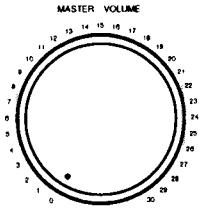
**Step 4** Press the ENTER button to save the selected characters.



# Adjusting the Volume and Tone

## Adjusting the Volume

### Using the MASTER VOLUME Control



Use the MASTER VOLUME control to adjust the volume from the left and right speakers. Rotating the dial to the right increases the volume. The volume from the speakers and the headphones increases simultaneously.

**NOTE:** Volume can also be adjusted using the remote control. Press the VOLUME button marked + to increase the volume, or the VOLUME button marked – to decrease the volume.

**⚠ CAUTION!** Listening to extremely loud sound may damage your hearing. Be especially careful when using headphones.

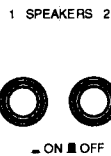
### Muting the Sound



Press the FADE MUTE button on the remote control to decrease the volume easily when you receive a phone call or a visitor.

**IMPORTANT!** If you are listening at very high volume, you may need to press FADE MUTING a second or third time to reduce volume completely.

### Selecting the Speakers



Pushing in SPEAKER button 1 or 2 activates that pair of speakers. Pressing either button again deactivates that pair of speakers. When the button is in, that pair is activated. You can listen to both pairs, pair 1, pair 2, or neither pair.

**IMPORTANT!** If only one set of speakers is connected, pressing "in" both speaker buttons will produce no sound.

### Listening to Headphones

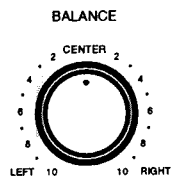
PHONES



Insert the headphone plug into the PHONES jack. To limit sound to the headphones (no sound from the speakers), press SPEAKER buttons 1 and 2 to deactivate all speakers.

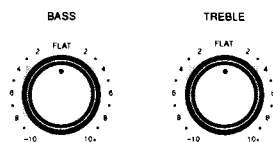
**⚠ CAUTION!** To avoid hearing damage, turn the volume down before plugging in the headphones, then gradually increase the volume.

### Adjusting the Left-Right Balance

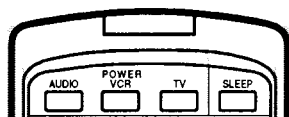


Use the BALANCE control to adjust the balance between the left and right channels. Rotating the dial to the right increases the right-channel volume, and rotating it to the left increases the left-channel volume. The BALANCE control affects both sets of speakers and the headphones.

## Adjusting Bass and Treble



## Listening at Low Volume



## Adjusting the Tone

Use the BASS control to adjust low pitches and the TREBLE control to adjust high pitches. Turn either control to the right for intensified pitch. Set both controls at the FLAT position for normal listening.

Human ears are not sensitive to low-frequency sounds 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 switch. The "LOUDNESS" indicator lights in the display window. Press the switch again to turn the feature off.

## Using the Sleep Timer

The sleep timer lets you listen to any program for up to 80 minutes before it automatically shuts off. The receiver goes back to standby mode (off) after the time period that you specify. To use the sleep timer:

**Step 1** Press the SLEEP button on the remote control.

"SLEEP" appears in the display window.

**IMPORTANT!** You have 5 seconds to proceed to the next step. If you wait more than 5 seconds, return to step 1.

**Step 2** Press the SLEEP button again to set the timer.

Each time you press the SLEEP button, the time limit is extended 10 more minutes. You can set up to 80 minutes.

**Step 3** Stop when you reach the desired time period.

The set time indicator disappears after a few seconds. The receiver will automatically return to standby mode (off) after the time period you specified.

### NOTES:

- After setting the sleep timer, you can change sources as often as you wish within the specified time period.
- After setting the sleep timer, you can check the remaining time in minutes by pressing the SLEEP button. You can extend the time period further, in 10-minute increments, by pressing the SLEEP button again.

# Using the Surround Processor

The built-in surround processor enables you to enjoy a 3-dimensional sound effect.

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## Overview


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### Types of Sound Effects

The surround sound processor provides three types of sound effects — Dolby Pro Logic Surround, Dolby 3-Channel logic, and JVC's Hall surround — so that you can experiment with a variety of sources and surround sound effects.

**IMPORTANT!** The surround processor has no effect on monaural (non-stereo) sources.

### What is Dolby Pro Logic Surround?

The soundtracks of video software bearing the  **DOLBY SURROUND** mark\* include the same encoded surround information as found in Dolby Stereo films. The Dolby Pro Logic Surround decoder is a consumer version of the decoding process used in professional Dolby Stereo equipment, and it lets you recreate the theater ambience and effects of Dolby Stereo at home.

Dolby Pro Logic Surround decoder provides these features:

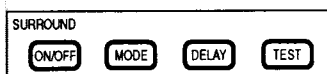
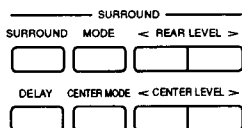
- four primary sound channels – Left, Right, Surround, and additional Center channel
- adaptive matrix to actively derive each channel

The result is that Dolby Pro Logic Surround has the effect of widening the useful listening area and enhancing directional effects, while at the same time locking center channel information onscreen for the home audience.

*\*Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under one or more of the following patents: U.S. number 3,959,590; Canadian numbers 1,004,603 and 1,037,877. "Dolby", "Pro Logic", and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.*

### Turning On or Off the Surround Processor

To operate the surround processor, press the SURROUND button on the receiver or ON/OFF button on the remote control. One of the surround program indicators lights. Then press the desired operation buttons.



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## Adjusting the Surround Sound Effect

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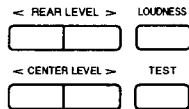
The surround processor requires the following two adjustments to produce the maximum surround sound effect:

- center channel level and rear channel level
- delay time

**NOTE:** With conventional surround processors, you must adjust the input signal balance. The RX-715VTN, however, adjusts this balance automatically. When you set the center mode to "OFF", you can check the effect of this automatic balancing.

After selecting "PRO LOGIC" program, make adjustment as follows:

### Adjusting Center Channel Level and Rear Channel Level



**Step 1** Press the TEST button.

The test tone will move clockwise from speaker to speaker.

**Step 2** Adjust the center channel level using the CENTER LEVEL buttons. Adjust the rear channel level using the REAR LEVEL buttons.

You can adjust these levels in 2 dB units within a range of  $\pm 20$  dB. The sound levels of the left and right speakers should be the same.

**IMPORTANT!** Before you use the CENTER LEVEL buttons or the REAR LEVEL buttons on the remote, press the SURROUND LEVEL button on the remote.

**Step 3** Press the TEST button.

The test tone will cease.

#### NOTES:

- If "PHANTOM" is selected as the center channel mode, the CENTER LEVEL button is disabled.
- When you are not using rear speakers, you can adjust the center channel level after selecting "3CH LOGIC" program. In this case, the REAR LEVEL button is disabled.
- It is convenient to use the remote while sitting in your listening position.

### Adjusting Delay Time



Use the DELAY buttons to compensate for variations in the distance between your listening position and different sets of speakers. Delay time can be set in 3 steps.

"DELAY-1" When the distance to your surround speakers is greater than the distance to your main speakers.

"DELAY-2" When the distance to your surround speakers is almost equal to the distance to your main speakers.

"DELAY-3" When the distance to your surround speakers is less than the distance to your main speakers.

**NOTE:** You can customize the "DELAY" settings for "HALL" program.

# Operating Source Components

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## COMPU LINK Remote Control System

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The COMPU LINK remote control system lets you operate the receiver and JVC components from the remote supplied with this receiver. Control signals for JVC audio components are preset in the receiver's remote control.

Connecting the COMPU LINK-3 SYNCHRO jacks on the back of the receiver will allow you to use the four functions listed in the left column.

### Remote Control

You can control all components via the REMOTE SENSOR on the receiver using the receiver's remote control. For details, see page 25.

**IMPORTANT!** Point the remote control directly at the REMOTE SENSOR on the receiver.

### Automatic Source Selection

When you *press play* on a component or the remote, the component begins playing immediately. On the other hand, if you select a *new source* on the receiver or the remote, the component begins playing immediately, but the previously selected source continues playing without sound for a few seconds.

### Synchronized Recording

Synchronized recording means the tape deck starts recording as soon as a CD or record begins playing. To use synchronized recording, follow these steps:

**Step 1** Put a tape in the deck, and a disc in the CD player or on the turntable.

**Step 2** Press the REC and PAUSE button on the tape deck at the same time. This puts the tape deck in the REC/PAUSE state.

**IMPORTANT!** If you do not press the REC button and PAUSE button together, the synchronized recording feature will not operate.

**Step 3** Press the PLAY button on the CD player or turntable.

As soon as the disc starts playing, the tape deck starts recording. When the disc ends, the tape deck switches back to the REC/PAUSE mode, and stops 4 seconds later.

#### NOTES:

- During synchronized recording, the CD or PHONO button is activated. Other SOURCE SELECT buttons are disabled to prevent recording failure.
- If your CD player is operated in the PROGRAM mode, a 4-second mute is recorded between tracks to enable the music scan feature of your tape deck to work.
- If the power of any component is shut off during synchronized recording, the system will not operate properly. In this case, you must start again with step 1.

### Automatic Power ON/OFF

The CD player and cassette deck turn on and off along with the receiver. When you turn on the receiver (using either the remote or the receiver's POWER switch), the CD player or cassette deck will turn on automatically, depending which component was previously selected.

**NOTE:** This function has been added to COMPU LINK-3 (Enhanced COMPU LINK), an upgraded version of COMPU LINK-1. Refer to your JVC component manual for details.



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## AV COMPU LINK System

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### AV COMPU LINK

The AV COMPU LINK system interlocks the receiver with your JVC video components for simple operation. Connecting the AV COMPU LINK jacks on the back of the receiver will allow you to use the four functions listed in the left column.

#### Remote Control

You can control your TV via the REMOTE SENSOR on the receiver using the receiver's remote control. For details, see page 26.

***IMPORTANT!** Point the remote control at the REMOTE SENSOR on the receiver.*

***IMPORTANT!** You can operate the VCR with this receiver's remote. When operating the VCR by remote control, point at the VCR directly, not at the receiver.*

#### One-Touch Video Play

When a video cassette with its safety tab removed is loaded into the VCR, you can enjoy the video playback without setting the various switches manually.

***NOTE:** Even if your video cassette still has its safety tab, you can use this function by pressing the PLAY button on the VCR.*

#### Automatic Power ON/OFF

The VCR and TV are automatically turned on or off along with the receiver. When you turn on the receiver with previously selected source VCR, the VCR and TV will turn on automatically. When you turn off the receiver, the VCR and TV will turn off automatically. When you turn on the receiver with previously selected source VIDEO, TV will turn on automatically. When you turn off the receiver, TV will turn off automatically.

#### Selecting the TV Input

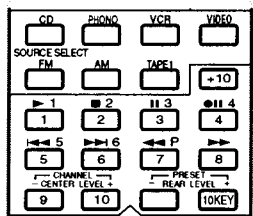
When you turn on the receiver, the TV input (TV/VIDEO) is automatically changed to VIDEO to allow you to see the VCR's picture.

## Using the Remote Control

By connecting the COMPU LINK jack to this receiver, you can operate the audio stereo component with this receiver's remote control. In addition, if your VCR is a JVC product, you can operate it with this receiver's remote control.

**NOTE:** The VCR does not work with the COMPU LINK remote control system. When you operate the VCR, you must aim the remote control at the VCR instead of the receiver.

### Operating the Component Already Selected



Select a source with the SOURCE SELECT buttons on the remote control. Operate that source using the buttons just below the SOURCE SELECT buttons.

**IMPORTANT!** If you choose a source on the receiver directly, the remote control will not operate that source. To operate a source with the remote control, the source must be selected using the remote control.

**IMPORTANT!** When you select CD or TAPE 1 on the remote control, the component will turn on and start playing automatically.

### Turntable

After pressing the PHONO button, you can perform the following operations on the remote:

- ▶ Starts playing
- Stops playing

### CD Player

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

- ▶ Starts playing
- Stops playing
- || Stops playing temporarily. To release it, press ▶
- ◀◀ Skips to the beginning of the previous track
- ▶▶ Skips to the beginning of the next track
- ◀◀ Moves backward quickly during play
- ▶▶ Moves forward quickly during play

**NOTE:** You can also select a track by specifying the track number directly using the numeric buttons 1-10, and +10. To use the numeric buttons, you must press 10 KEY button first.

When you wish to select one of the discs installed in the CD player-changer, press the CD DISC button in the CONTROL section of the remote. After pressing the CD DISC button, you can perform the following operations on the remote.

1-6 and P Selects the number of the disc installed in the CD player-changer.

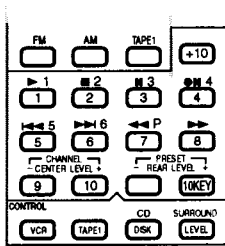
**NOTE:** If you have a CD player-changer XL-MC100C and XL-MC100M, 1-6 and P buttons function as DISC SKIP button. Press 1, 3, or 5 button to skip to the next disc. Press 2, 4, or 6 button to skip back to the previous disc.

## Cassette Deck

After pressing the TAPE 1 button, you can perform the following operations on the remote:

- ▶ Starts playback
- Stops operation
- || Stops playback or recording temporarily. To release it, press ▶
- o|| Press to enter record-standby mode  
To start recording, press ▶ .
- ⏮ Skips to the beginning of the previous tune
- ⏭ Skips to the beginning of the next tune
- ⏪ Fast wind the tape from right to left
- ⏩ Fast wind the tape from left to right

## Operating the Component Not Currently Selected



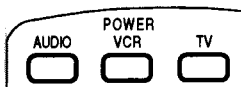
When you want to operate one component while listening to another component (e.g., recording from a CD), use the buttons in the CONTROL section of the remote control. The CONTROL buttons allow you to use the operation buttons for the new component without affecting the component already playing.

## VCR

After pressing VCR (in the CONTROL section of the remote control), you can perform the following operations on the remote:

- ▶ Starts playback
- Stops operation
- || Stops playback temporarily or freezes the picture. To release it, press ▶
- o|| Press to enter record-standby mode  
To start recording, press ▶ .
- ⏮ Rewinds video tape
- ⏩ Fast winds video tape

CHANNEL Scans to higher or lower TV channels



**NOTE:** You can also turn the VCR and TV on and off by pressing the VCR or TV button in the POWER section of the remote control.

**NOTE:** You can also select a TV channel by specifying the channel number directly using the numeric buttons 1-10, and +10. To use the numeric buttons, you must press 10 KEY button first.

**IMPORTANT!** Aim the remote control at the VCR or TV, not at the receiver.

## Cassette Deck

Pressing TAPE 1 in the CONTROL section of the remote allows you to perform the same functions as pressing TAPE 1 in the SOURCE SELECT section of the remote.

# Troubleshooting

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

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
Display window does not light up	Power cord not plugged in	Plug power cord into AC socket
No sound from speakers	Speaker wires not connected	Check speaker wiring and reconnect if necessary
	SPEAKERS buttons not set correctly	Push the SPEAKERS buttons in or out as desired
	Incorrect SOURCE button was pressed	Select the correct audio source
Sound from one speaker only	Speaker wires not connected properly	Check speaker wiring and reconnect if necessary
	Balance control is set to one extreme	Adjust BALANCE control so that both speakers have sound
Continuous hiss or buzzing during FM reception	Incoming signal is too weak	Adjust antenna
	Station is too far away	Select a new station
	Incorrect antenna used	Check with your dealer to be sure you have the correct antenna
	Antenna not connected properly	Check connections
Occasional cracking noise during FM reception	Ignition noise from automobiles	Move the antenna farther from automobile traffic
Howling during record playing	Turntable too close to speaker	Move speakers away from turntable
Remote control does not work	There is an obstruction in front of the REMOTE SENSOR on the receiver	Remove the obstruction
	Batteries are weak	Replace batteries

# Specifications

## Amplifier

<b>Output Power (2-channel operation)</b> Front Channel	<b>120 watts per channel, min. RMS, both channels driven into 8 ohms from 20 Hz to 20 kHz with no more than 0.06 % total harmonic distortion.</b>
<b>Output Power (4-channel operation)</b> Front Channel	70 watts per channel, min. RMS, both channels driven into 8 ohms at 1kHz with no more than 0.7% total harmonic distortion.
Center channel	70 watts, min. RMS, into 8 ohms at 1 kHz, with no more than 0.7% total harmonic distortion
Rear channel	20 watts per channel, min. RMS, both channels driven into 8 ohms at 1KHz, with no more than 0.7% total harmonic distortion
<b>Total Harmonic Distortion (8 ohms, 1 kHz)</b>	0.06 %* at 120 watts output
<b>Frequency Response (8 ohms)</b> PHONO CD / TAPE 1 / TAPE 2 / VCR / VIDEO	20 Hz to 20 kHz ( $\pm 0.5$ dB) 10 Hz to 30 kHz ( $\pm 1$ dB)
<b>Signal-to-Noise Ratio ('66 IHF / '78 IHF)</b> PHONO CD / TAPE 1 / TAPE 2 / VCR / VIDEO	70 dB / 78 dB (REC OUT) 91 dB / 80 dB
<b>RIAA Phono Equalization</b>	$\pm 0.5$ dB (20 Hz to 20 kHz)
<b>Input Sensitivity / Impedance (1 kHz)</b> PHONO CD / TAPE 1 / TAPE 2 / VCR / VIDEO	2.5 mV / 47 k ohms 230 mV / 47 k ohms
<b>Output Level</b> TAPE 1 / TAPE 2 / VCR	230 mV
<b>Tone Control Range</b>	BASS $+8 \pm 2$ dB $-8 \pm 2$ dB at 100 Hz TREBLE $+8 \pm 2$ dB $-8 \pm 2$ dB at 10 kHz

<b>FM Tuner (IHF)</b>	<b>Tuning Range</b>	87.5 MHz to 108.0 MHz	
	<b>Usable Sensitivity</b>	10.8 dBf (0.95 $\mu$ V / 75 ohms)	
	<b>50 dB Quieting Sensitivity</b>	Monaural	16.3 dBf (1.8 $\mu$ V / 75 ohms)
		Stereo	38.3 dBf (22.5 $\mu$ V / 75 ohms)
	<b>Signal-to-Noise Ratio (IHF-A weighted)</b>	Monaural	80 dB at 85 dBf
		Stereo	73 dB at 85 dBf
	<b>Total Harmonic Distortion</b>	Monaural	0.15 % at 1 kHz
		Stereo	0.2 % at 1 kHz
	<b>Stereo Separation at REC OUT</b>	40 dB at 1 kHz	
	<b>Capture Ratio</b>	1.5 dB (10 mV / 300 ohms)	
	<b>Alternate Channel Selectivity</b>	60 dB: ( $\pm$ 400 kHz)	
<b>Frequency Response</b>	30 Hz to 15 kHz: (+0.5 dB, -3 dB)		
<b>AM Tuner</b>	<b>Tuning Range</b>	530 kHz to 1,710 kHz	
	<b>Usable Sensitivity</b>	Loop antenna	300 $\mu$ V/m at 1,000 kHz
		External antenna	30 $\mu$ V at 1,000 kHz
<b>Signal-to-Noise Ratio</b>	50 dB (100mV / m, at 1,000 kHz)		
<b>General</b>	<b>Power Requirements</b>	AC 120V $\sim$ , 60 Hz	
	<b>Power Consumption</b>	320 watts, 440 VA	
	<b>Dimensions (W x H x D)</b>	17-3/16 x 5 x 13-7/16 inches	
		435 x 156 x 396 mm	
<b>Weight</b>	27.6 lbs (12.5 kg)		

\*Measured by JVC Audio Analysis System  
 Designs & specifications subject to change without notice

## Description of Major ICs

### ■ MN171602JHP(IC401) : System Controller

#### 1. Terminal Layout

VDD	1	64	OSC
KIN0	2	63	OSC
KIN1	3	62	GND
KIN2	4	61	NC
KIN3	5	60	GND
D0	6	59	T.MUTE
D1	7	58	VCR IN
D2	8	57	AC
D3	9	56	HALL LED
D4	10	55	3CH LOGIC
D5	11	54	PROLOGIC LED
D6	12	53	RECEIVED
D7	13	52	VOL LED
KOUT8	14	51	VOL +
VCR OUT	15	50	VOL -
TV OUT	16	49	COMPULINK OUT
TV CONT.	17	48	COMPULINK IN
VPP	18	47	TUNED
S0	19	46	STEREO
S1	20	45	INH IN
S2	21	44	RM IN
S3	22	43	RESET
S4	23	42	DO
S5	24	41	DI
S6	25	40	CK
S7	26	39	CE
S8	27	38	DATA
S9	28	37	STB1
S10	29	36	CLK
S11	30	35	STB2
S12	31	34	S15
S13	32	33	S14

#### 2. Key Matrix

	KEY IN0 (pin2)	KEY IN1 (pin3)	KEY IN2 (pin4)	KEY IN3 (pin5)
KEY OUT 0 (pin6)	TAPE1	TAPE2 MONITOR	FM	AM
KEY OUT 1 (pin7)	FM MODE	+ 10	PRESET DOWN	PRESET UP
KEY OUT 2 (pin8)	CD	PHONO	VCR	VIDEO
KEY OUT 3 (pin9)	MEMORY	AUTO MEMORY	F. DOWN	F. UP
KEY OUT 4 (pin10)	SURROUND	SURROUND MODE	REAR DOWN	REAR UP
KEY OUT 5 (pin11)	DELAY	CENTER MODE	POWER	—
KEY OUT 6 (pin12)	LOUDNESS	TEST TONE	CENTER DOWN	CENTER UP
KEY OUT 7 (pin13)	CHARACTER	CHARACTER ENTER	CHARACTER DOWN	CHARACTER UP

#### 3. Terminal Description

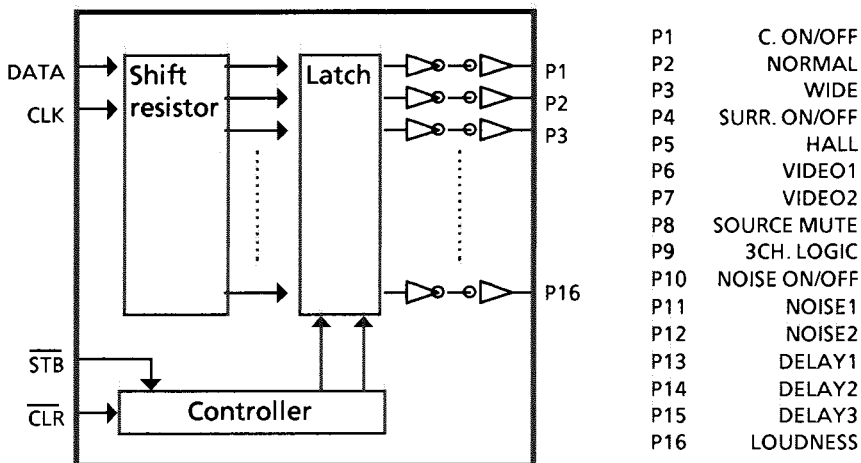
Pin	symbol	I/O	Function and Operations	Pin	symbol	I/O	Function and Operations
1	VDD	--	Power supply	33	S14	O	FL segment control output
2	KIN0	I		34	S15	O	FL segment control output
3	KIN1	I	Key matrix input	35	STB2	O	Strobe signal output (To IC605)
4	KIN2	I	Key matrix input	36	CLK	O	Clock for data transmission (To IC605,341,321)
5	KIN3	I	Key matrix input	37	STB1	O	Strobe signal (To IC341, 321)
6	D0	O	FL grid control output (Key matrix out0)	38	DATA	O	Data output (To IC605, 341, 321)
7	D1	O	FL grid control output (Key matrix out1)	39	CE	O	Chip select signal (To IC102)
8	D2	O	FL grid control output (Key matrix out2)	40	CK	O	Clock output (To IC102)
9	D3	O	FL grid control output (Key matrix out3)	41	DI	I	Data from PLL synthesizer (From IC102)
10	D4	O	FL grid control output (Key matrix out4)	42	DO	O	PLL synthesizer control data (To IC102)
11	D5	O	FL grid control output (Key matrix out5)	43	RESET	I	Reset signal input
12	D6	O	FL grid control output (Key matrix out6)	44	RM IN	I	Remote control signal input
13	D7	O	FL grid control output (Key matrix out7)	45	INH IN	I	Inhibit signal input
14	KOUT8	O	Key matrix out	46	STEREO	I	Stereo indication signal input
15	VCR OUT	O	AV COMPULINK	47	TUNED	I	Tuned indication signal input
16	TV OUT	O	AV COMPULINK	48	COMP.IN	I	DCS signal input
17	TV CONT.	O	AV COMPULINK	49	COMP.OUT	O	DCS signal output
18	VPP	--	Power supply for FL Display	50	VOL -	O	Volume control signal
19	S0	O	FL segment control output	51	VOL +	O	Volume control signal
20	S1	O	FL segment control output	52	VOL LED	O	Indicator drive
21	S2	O	FL segment control output	53	RECEIVED	O	Indicator drive
22	S3	O	FL segment control output	54	PRO. LED	O	Indicator drive
23	S4	O	FL segment control output	55	3CH LED	O	Indicator drive
24	S5	O	FL segment control output	56	HALL LED	O	Indicator drive
25	S6	O	FL segment control output	57	AC	O	Power primary control signal
26	S7	O	FL segment control output	58	VCR IN	I	AV COMPULINK
27	S8	O	FL segment control output	59	T.MUTE	O	Tuner muting control
28	S9	O	FL segment control output	60	GND	--	Connected to GND
29	S10	O	FL segment control output	61	NC	--	Non connection
30	S11	O	FL segment control output	62	GND	--	GND
31	S12	O	FL segment control output	63	OSC	--	Clock oscillation output
32	S13	O	FL segment control output	64	OSC	--	Clock oscillation input

■ NJU3715L (IC605) : 16-BIT Serial-parallel converter

1. Terminal layout

VIDEO2	1	22	VDD
SOURCE MUTE	2	21	VIDEO1
3CH LOGIC	3	20	HALL
NOISE ON/OFF	4	19	S. ON/OFF
NOISE 1	5	18	WIDE
VSS	6	17	NORMAL
NOISE2	7	16	C. ON/OFF
DELAY1	8	15	CLR
DELAY2	9	14	STB
DELAY3	10	13	CLK
LOUDNESS	11	12	DATA

2. Internal Block Diagram



3. Terminal Description

Pin No.	Function
1~5, 7~11, 16~21	Parallel data output
12	Serial data input
13	Clock input (When this terminal is set low level, all of the output become low.)
14	Strobe signal input
15	Clear signal input

4. Function

CLK	STB	CLR	Function
X	X	L	All the data stored in the latch circuit are eliminated. (The data in the shift resistor are not eliminated.)
↑	H	H	Data are inputed synchronizing the rising edge of the clock.
L	L	H	The data in the shift resistor are transmitted to the latch circuit. The data outputed from parallel outputs.
↑	L	H	The data in the shift resistor are shifted synchronizing the rising edge of the clock. (The data outputed from the latch circuit are changed.)

5. Function Table

SURROUND MODE							VOLUME CONTROL			VIDEO CONTROL			
MODE	Port of IC605						MODE	Port of IC605			MODE	Port of IC605	
	SURROUND ON/OFF	3ch LOGIC	HALL OUT	PRO LOGIC LED	3ch LOGIC LED	HALL LED		VOLUME UP	VOLUME DOWN	VOLUME LED		VIDEO 1	VIDEO 2
PRO LOGIC	H	L	L	L	H	H	UP	H	L	L	VCR	H	H
3CH LOGIC	H	H	L	H	L	H	DOWN	L	H	L	VIDEO	L	H
HALL	H	L	H	H	H	L	STOP	L	L	L	EXCEPT VCR, VIDEO	L	L
OFF	L	L	L	H	H	H	MUTE	L	H	BLINKLING	STAND BY	L	L

CENTER MODE				TEST TONE			DELAY TIME			
MODE	Port of IC605			MODE (NOISE OUT)	Port of IC605		MODE	Port of IC605		
	CENTER ON/OFF	NORMAL	WIDE		NOISE 1	NOISE 2		DELAY 1	DELAY 2	DELAY 3
PHANTOM	H	H	H	L-ch	L	L	DELAY-1	H	L	L
NORMAL	H	L	H	C-ch	L	H	DELAY-2	L	H	L
WIDE	H	H	L	R-ch	H	L	DELAY-3	L	L	H
OFF	L	L	L	S-ch	H	H				

DOLBY TEST		LOUDNESS	
MODE	Port of IC605	MODE	Port of IC605
	NOISE ON/OFF		LOUDNESS
ON	L	ON	L
OFF	H	OFF	H

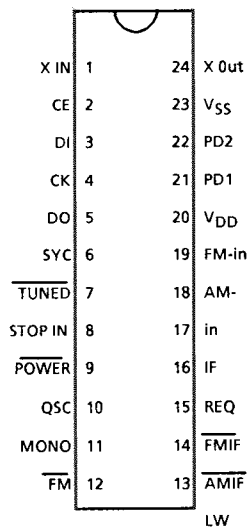


■ LC7218 (IC102) : PLL Synthesizer

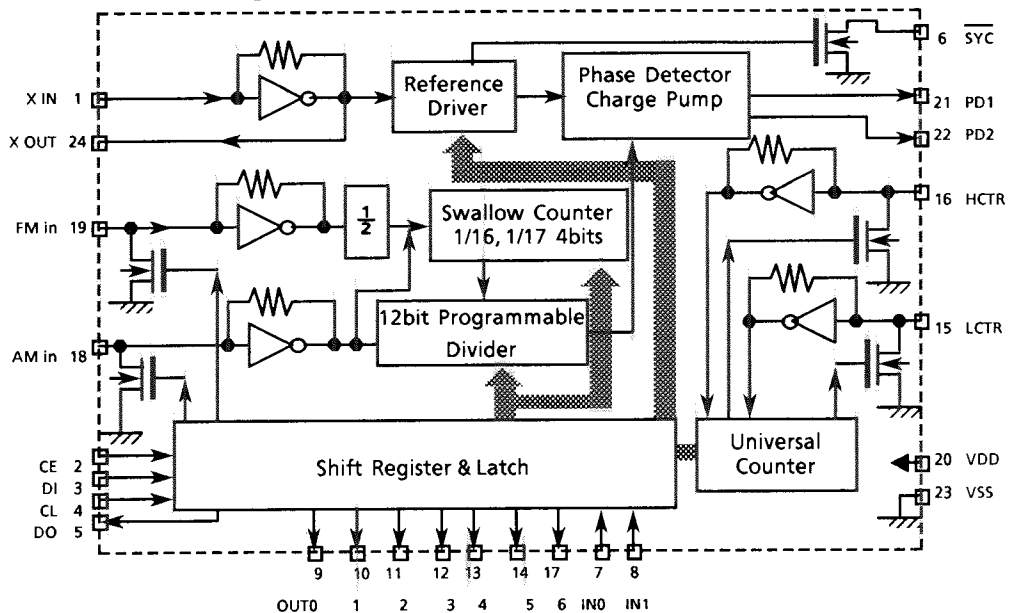
1. The main function descriptions

- (1) It makes the local oscillation frequency by the control data from IC401.
- (2) Decode the control signal and transmit the signal for receiving conditions.
- (3) For the best tuning, count the internal-frequency and transmit the data to IC401.

2. Terminal Layout



3. Block Diagram



4. Pin Function Description

Pin No.	Symbol	I/O	Functions and Operations
1,24	X in , X out	I/O	Crystal oscillator (7.2MHz).
2	CE	I	Fix the chip enable to "H" when inputting (DI) and outputting (DO) the serial data.
3	DI	I	Receive the control data from the controller (IC401).
4	CL	I	This clock is used to synchronize data when transmitting the data of DI and DO.
5	DO	O	Transmit the data from LC7218 to the controller which is synchronized with CL.
6	SYC	--	Not used.
7	TUNED	I	Receive the tuned signal from IC104 (LA1266A).
8	STOP IN	--	Not used.
9	POWER	--	Non connection
10	QSC	--	ON mode with "H" and OFF mode with "L". (Non connection)
11	MONO	O	It is "H" on FM-monoaural, "L" on FM-Stereo.
12	FM	O	It is "L" on FM mode.
13	MW	O	It is "L" on MW mode.
14	LW	O	It is "L" on LW mode.
15	AM-IF	I	Universal counter input for AM-IF from IC104 (LA1266A).
16	FM-IF	I	Universal counter input for FM-IF from IC104(LA1266A).
17	IF REQ	O	Output the "IF-signal request" to IC104 when the pin-7 (tuned in) go to "H".
18	AM in	I	Input the local oscillation signal of AM.
19	FM in	I	Input the local oscillation signal of FM.
20	V <sub>DD</sub>	--	Power supply terminal.
21	PD1	O	PLL charge pump output: When the local oscillation signal frequency is higher than the reference frequency high level signals will output. When it is lower than the reference frequency, low level signals will output. When it is same as reference frequency signals, it will be floating.
22	PD2	--	Non connection
23	V <sub>SS</sub>	--	Power supply.

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

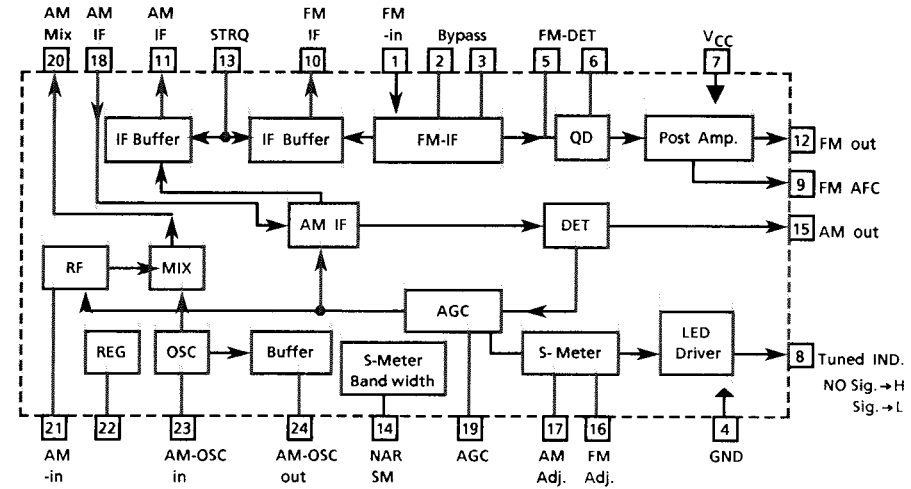
1. The main function descriptions

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

2. Top View

FM-in	1	24	AM-OSC out
BYPASS	2	23	AM-OSC
BYPASS	3	22	V.ref
GND	4	21	AM-in
FM-DET	5	20	AM-Mix
FM-DET	6	19	AM-AGC
V <sub>CC</sub>	7	18	AM-IF
SIG	8	17	AM Adj.
FM-AFC	9	16	FM Adj.
FM-IF	10	15	AM out
AM-IF	11	14	NAR SM
FM-OUT	12	13	STRQ

3. Block Diagram



4. Pin Function Description

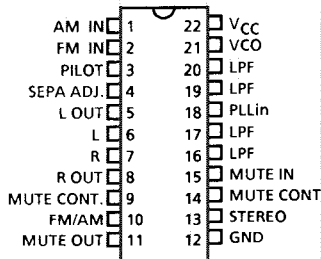
Pin No.	Symbol	I/O	Functions and Operations
1	FM in	I	Input terminal for FM signal.
2,3	BYPASS	--	Bypass of FM IF Amp.
4	GND	--	Device ground terminal.
5,6	FM DET	--	FM detect transformer.
7	V <sub>CC</sub>	--	Power supply terminal.
8	SIG	O	When the set is tuning, this terminal becomes "L".
9	FM AFC	O	Output terminal of voltage for FM - AFC.
10	FM IF	O	When the signal of IF REQ of IC102(LC7218) applied to pin17, the signal of FM IF does output.
11	AM IF	O	When the signal of IF REQ of IC102(LC7218) applied to pin17, the signal of AM IF does output.
12	FM OUT	O	FM detection output.
13	STRQ	I	The IF-signals come out from pin10 (FM-IF) or pin11 (AM-IF) while this terminal going to "High".
14	NAR SM	--	Control the Band-width of signal meter.
15	AM out	O	AM detection output.
16	FM Adj.	--	FM stop level (or mute level) adjust.
17	AM Adj.	--	AM stop level (or mute level) adjust.
18	AM-IF	I	AM IF Signal input.
19	AM-AGC	I	AGC voltage Input terminal for AM.
20	AM-MIX	O	Output terminal for AM mixer.
21	AM-IN	I	Input terminal for AM RF Signal.
22	V.REF	--	Band-width control of FM signal meter.
23	AM-OSC	--	AM Local oscillation circuit.
24	AM-OSC OUT	O	AM Local Oscillation Signal output.

■ LA3401 (IC105) : FM MPX Detector

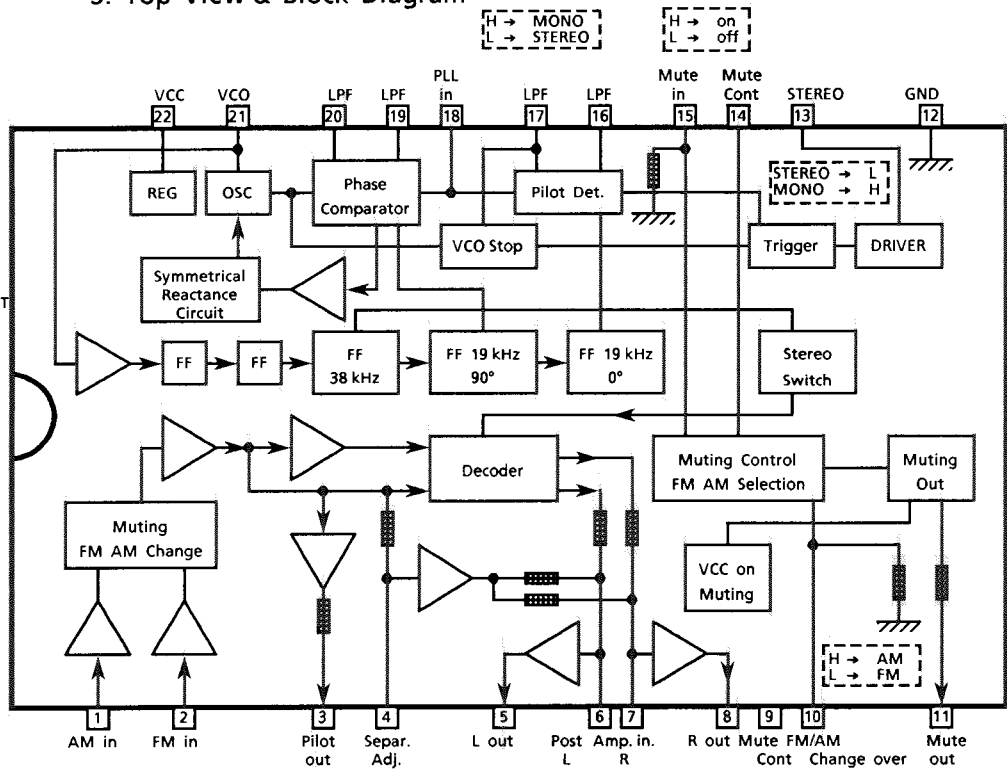
1. The main function descriptions

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

2. Terminal Layout



3. Top View & Block Diagram



4. Pin Function Description

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

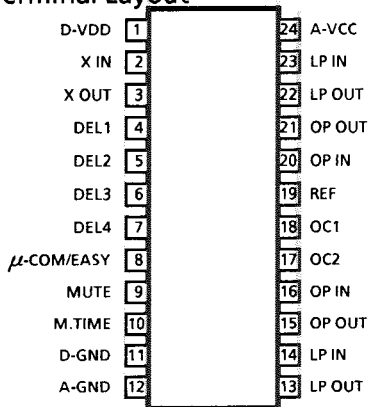
■ M50198P(IC602) : Digital Delay IC

1. Explanation of the operation

Audio signal is input to LPF1 to reduce the high frequency components. The output from LPF1 is coded to 1 bit signal by ADM modulator and comparator with inside .This digital signal is input to main control logic. And this signal obtain various effect,and is written in SRAM .At the same time main control logic read the data from SRAM ,and input it to ADM demodulator .The ADM demodulator converts 1bit signal to analog signal.The analog signal is input to LPF2 to reduce the suprius components,and output to Pin 13.

- LPF1            Reject the high frequency components which is contained the input signal and unnecessary.
- LPF2            Reject the suprius components which is generated by the ADM demodulation by using with comparator.
- OP1,CC1        For ADM modulator.
- OP2,CC2        For ADM demodulator.

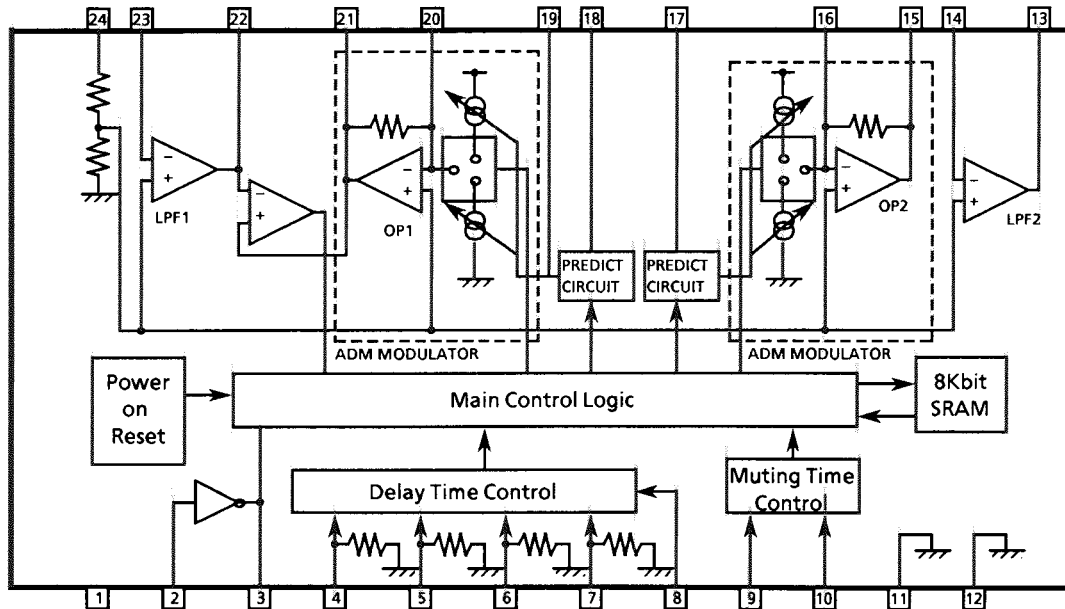
2. Terminal Layout



3.P in function

Pin No	Symbol	Function	Pin No	Symbol	Function
1	D-VDD	Power Supply	13	LP OUT	Output of LPF
2	X IN	Oscillation Terminal	14	LP IN	Input of LPF
3	X OUT	Oscillation Terminal	15	OP OUT	Integrator output
4	DEL1	Delay time control	16	OP IN	Integrator input
5	DEL2	∕	17	OC2	Current control
6	DEL3	∕	18	OC1	∕
7	DEL4	∕	19	REF	1/2 Vcc
8	μCOM/EASY	Connected to GND	20	OP IN	Integrator input
9	MUTE	∕	21	OP OUT	Integrator output
10	M.TIME	∕	22	LP OUT	Output of LPF
11	D-GND	∕	23	LP IN	Input of LPF
12	A-GND	∕	24	A-VCC	Power supply

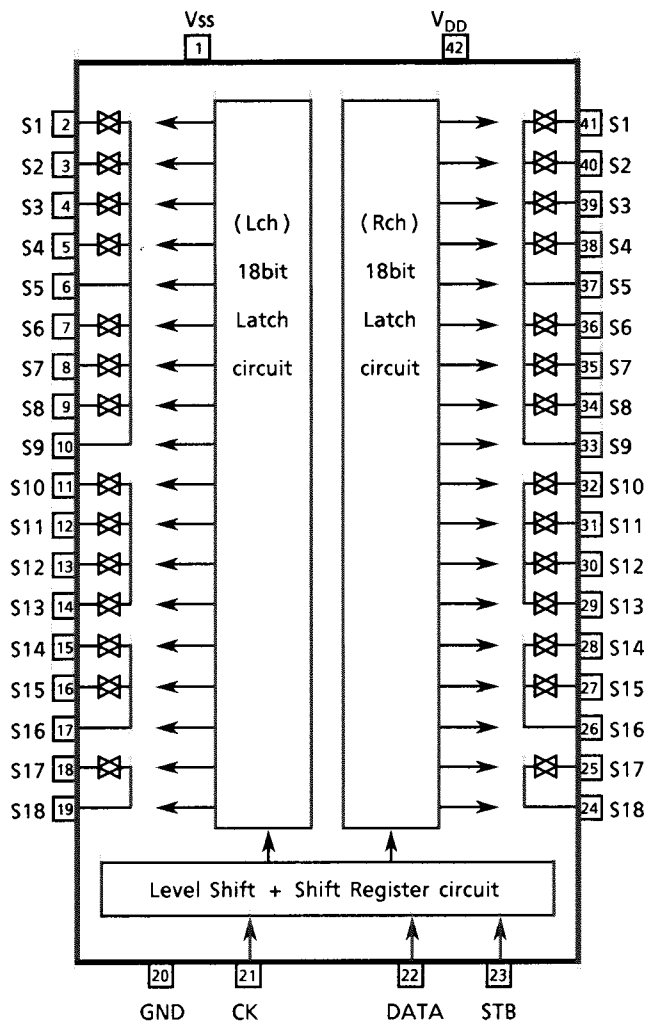
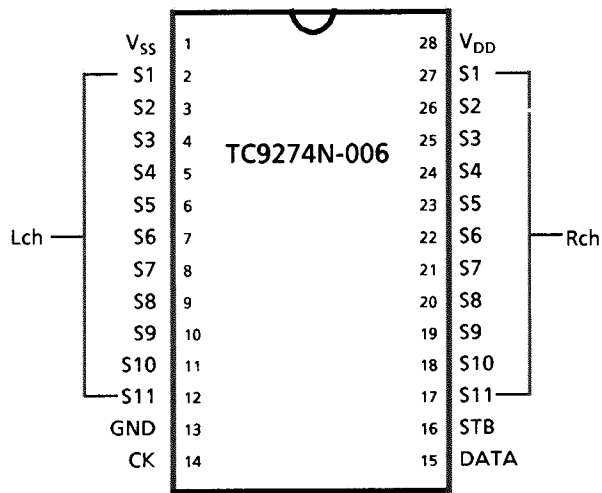
4. Block Diagram



■ TC9274N - 006 (IC321) : Analog Switch Array

1. Terminal Layout

2. Block Diagram



3. Pin Functions

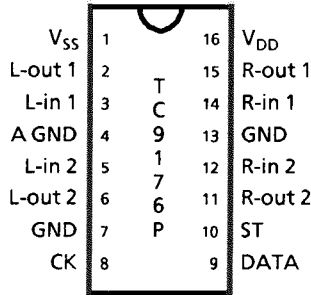
Pin No.	Symbol	I/O	Functions and Operations
1	V <sub>SS</sub>	--	Power Supply .
2~19	S1~S18	I/O	Input / Output Terminal.
20	GND	--	Digital Ground.
21	CK	I	Clock Input Terminal.
22	DATA	I	Data Input Terminal.
23	STB	I	Strobe Input Terminal.
24~41	S18~S1	I/O	Input / Output Terminal.
42	V <sub>DD</sub>	--	Power Supply .

TC9176P (IC341) : Volume Control

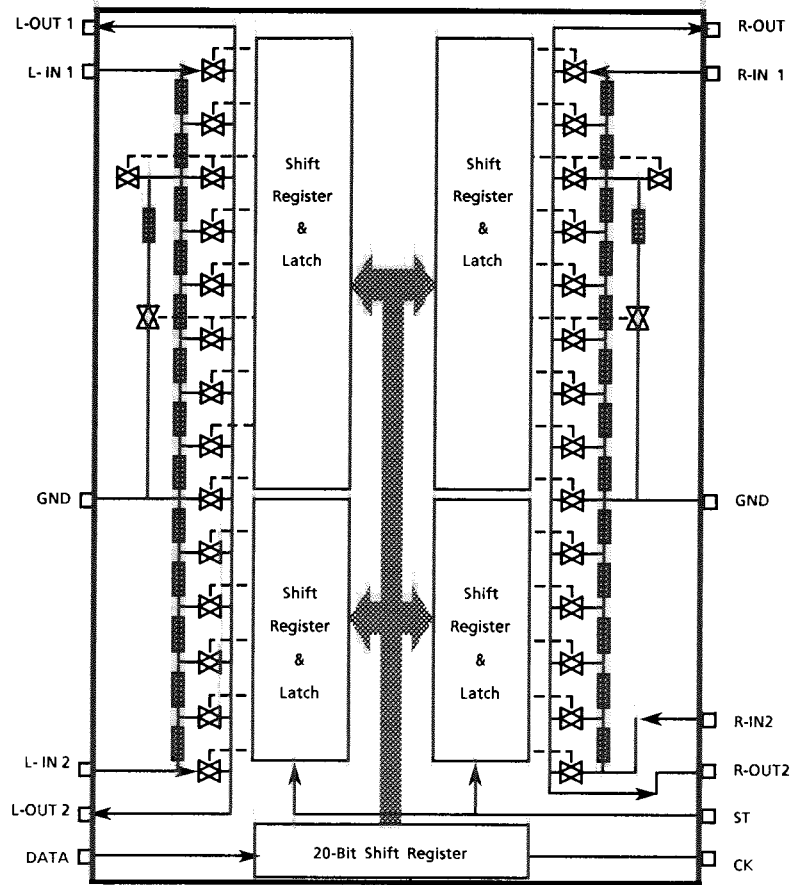
1. Functions

This is used for Volume Control.  
The attenuation levels are 0 to -76dB, with 2dB step.

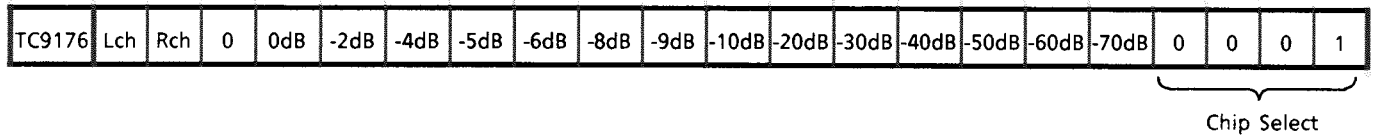
2. Terminal Layout



3. Block Diagram



Arrangement of data

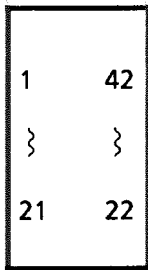


4. Pin Functions

Pin No.	Symbol	I/O	Functions and Operations
1	V <sub>SS</sub>		Power Supply -15V.
2	L-out1	O	10dB step attenuator output.
3	L-in1	I	10dB step attenuator input.
4	A GND		Ground.
5	L-in2	I	2dB step attenuator input (left).
6	L-out2	O	2dB step attenuator output (left).
7	GND		Ground.
8	CK	I	Clock input.
9	DATA	I	Serial data input is to decide the level of attenuation.
10	ST	I	Strobe input.
11	R-out2	O	2dB step attenuator output (Right).
12	R-in2	I	2dB step attenuator input (Right).
13	GND		Ground.
14	R-in1	I	10dB step attenuator input.
15	R-out1	O	10dB step attenuator output.
16	V <sub>DD</sub>		Power Supply +15V.

■ XR1095CP (IC404): Graphic Equalizer Filter & Display driver

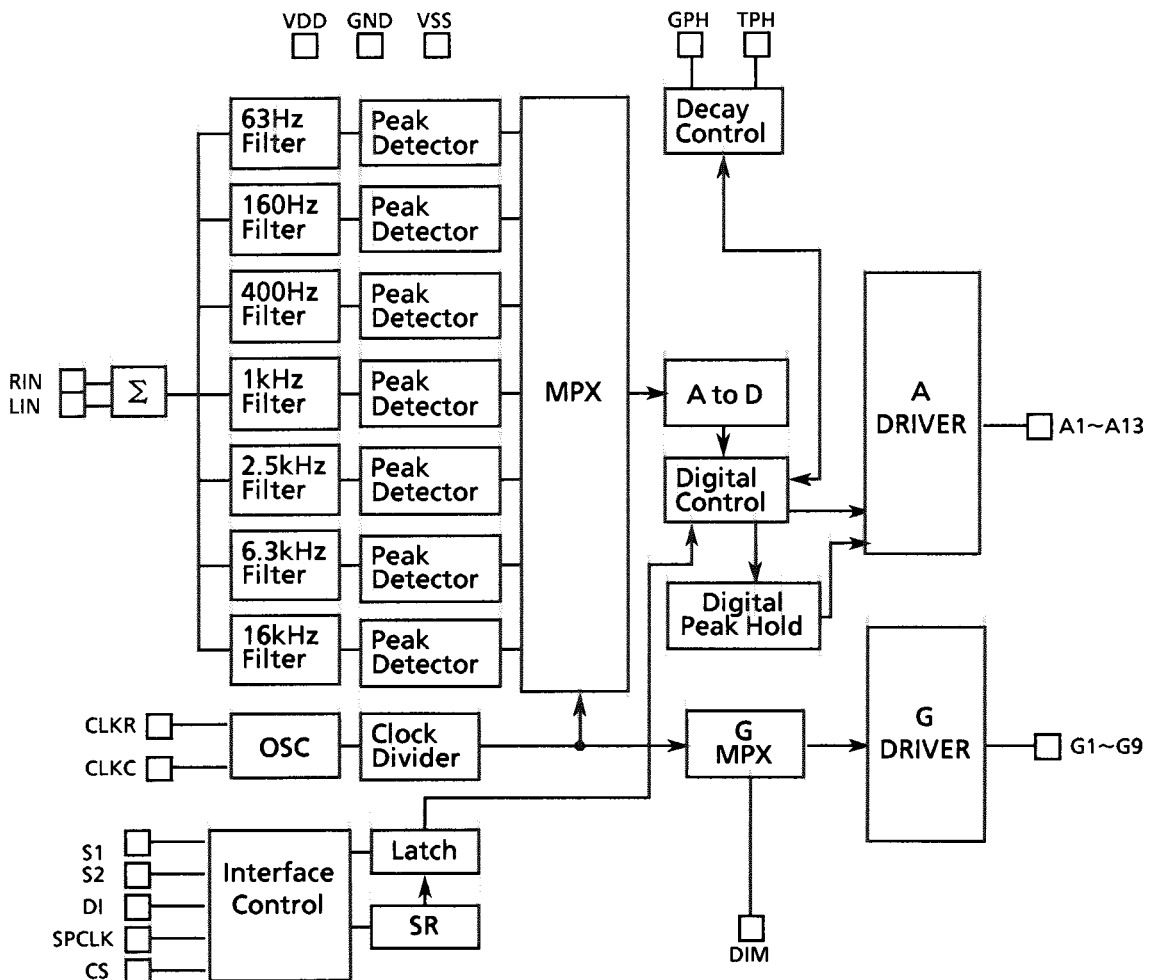
1. Terminal Layout



2. Pin function

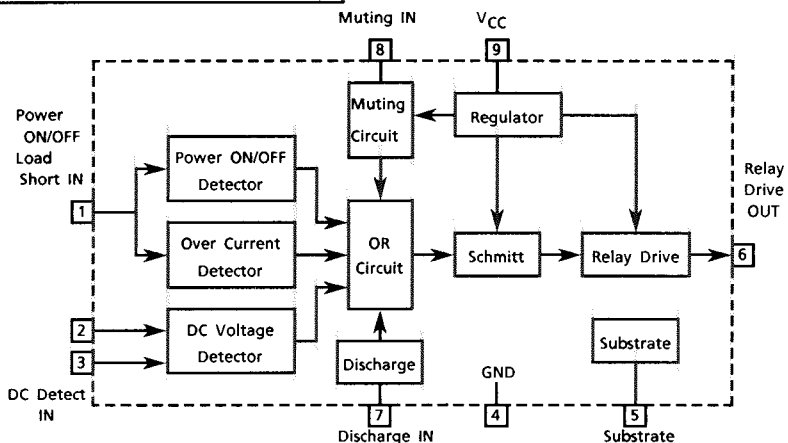
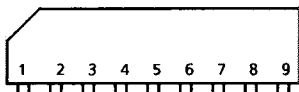
Pin No.	Symbol	Function
1~5,9~16	A1~A13	Anode terminal
30~38	G1~G9	Grid terminal
25	RIN	Right channel input
26	LIN	Left channel input
22	DIM	Brightness control varies width of G outputs.
27	GPH	Filter amplitude display duration control. A resistor and timing capacitor from this pin to VSS adjust Peak Hold Decay Time.
28	TPH	Total output display on/off control.
40	CLKR	Oscillator timing resistor between this pin and CLKC pin.
41	CLKC	Oscillator timing capacitor between this pin and VSS.
20	S1	Chip select 1 pin.
21	S1	Chip select 2 pin.
19	DI	Serial port data.
18	SPCLK	Serial port clock.
17	CS	Chip Select.
42	VDD	Plus supply, nominally 5VDC.
23	VSS	Minus supply, nominally -5VDC.
24	GND	Analog input reference.

3. Block Diagram

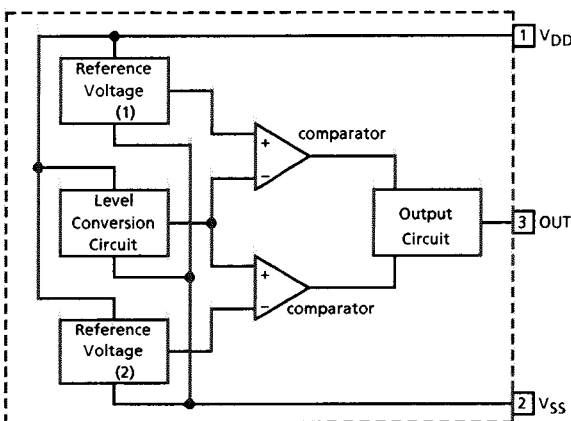


# Internal Block Diagram of the Other ICs

## TA7317P (IC901) : Protector

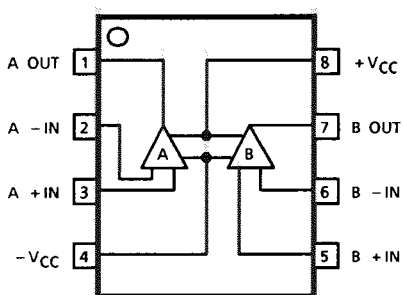


## MN1281(P.Q) (IC403) : Reset IC

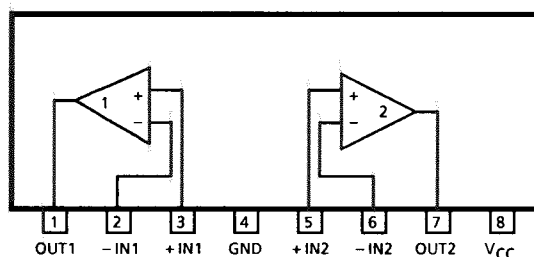


Pin No.	Pin Name	Functions
1	V <sub>DD</sub>	Power supply
2	V <sub>SS</sub>	Ground
3	OUT	Reset signal output : Low level is output when resetting : High level is output when cancelling the reset.

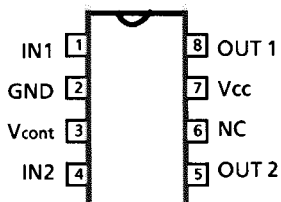
## NJM4580DD (IC301) : Dual OP Amplifier NJM4560DD (IC701) :



## BA15218N (IC311) : Dual OP Amplifier



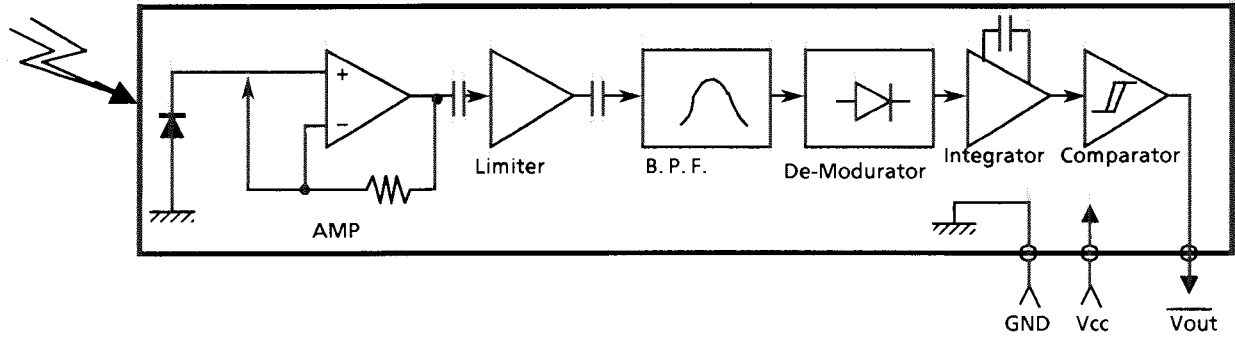
## LB1639-CV (IC361) : Motor Driver



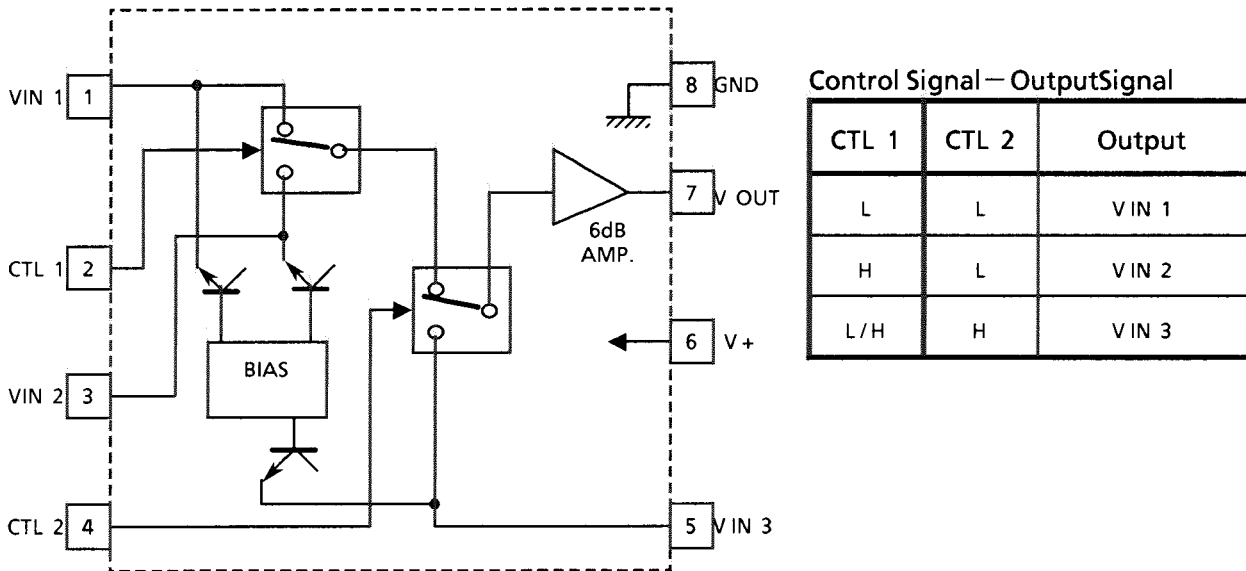
IN 1	IN 2	OUT 1	OUT 2	MOTOR
H	L	H	L	CLOCKWISE
L	H	L	H	COUNTER-CLOCKWISE
H	H	OFF	OFF	WAITING
L	L	OFF	OFF	WAITING



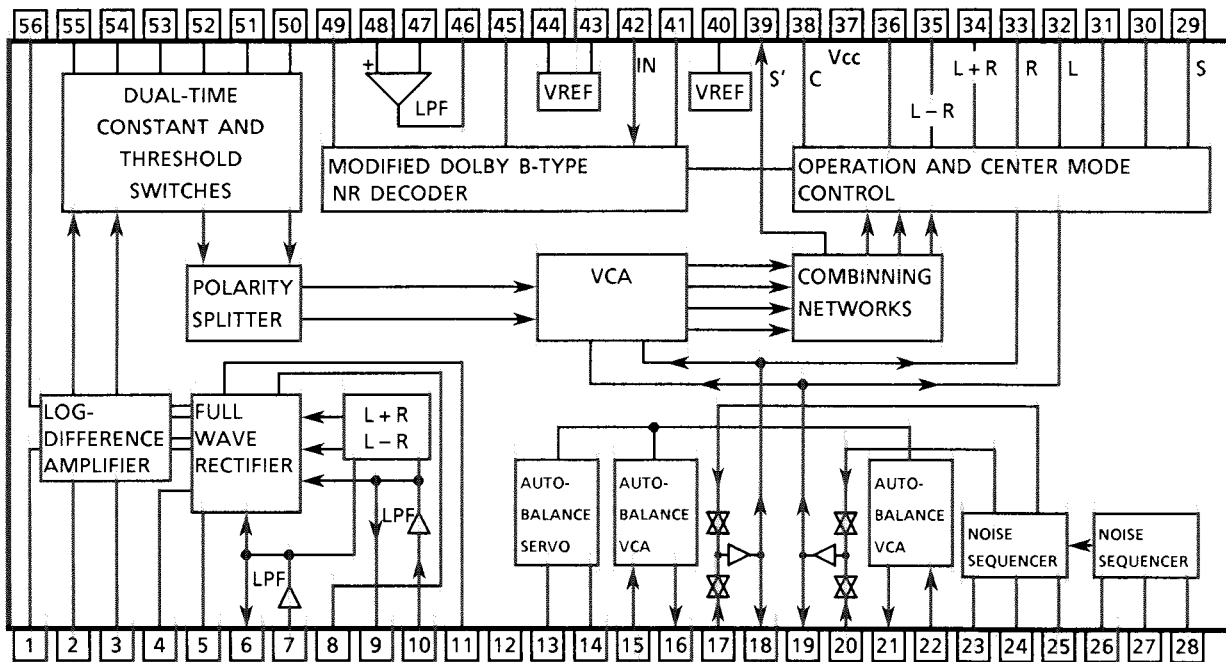
■ SPS-420-1 (IC402) : Remote Control Module IC



■ NJM2246D (IC561) : Video Switch

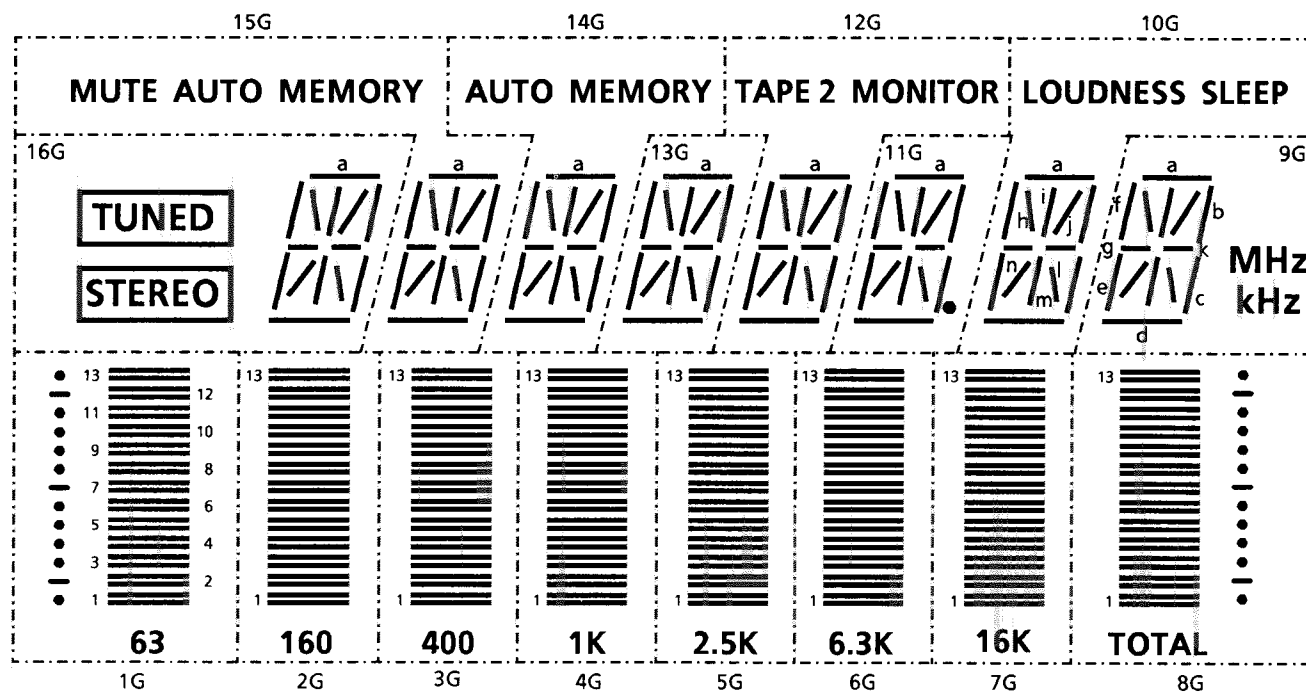


■ NJM2177L (IC601) : Dolby Pro Logic



# Internal Connections of the FL Display

■ ELU0001-170 : FL401



## Pin Connection

( Lower )

PIN NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
ELECTRODE	F1	F1	F1	NP	P17	P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	P28	P29	1G	2G
PIN NUMBER	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
ELECTRODE	3G	4G	5G	6G	7G	8G	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	F2	F2	F2

( Upper )

PIN NUMBER	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
ELECTRODE	F2	F2	F2	NP	NP	NP	NP	NP	NP	NP	9G	10G	11G	12G	13G	14G	15G	16G	P16
PIN NUMBER	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76
ELECTRODE	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NP	F1	F1	F1

Note F : Filament, G : Grid, P : Anode, NP : No Pin

## Grid - Anode Assignment ( 9G~16G )

	16G	15G	14G	13G	12G	11G	10G	9G
P1	a	a	a	a	a	a	a	a
P2	b	b	b	b	b	b	b	b
P3	i	i	i	i	i	i	i	i
P4	j	j	j	j	j	j	j	j
P5	h	h	h	h	h	h	h	h
P6	f	f	f	f	f	f	f	f
P7	k	k	k	k	k	k	k	k
P8	g	g	g	g	g	g	g	g
P9	c	c	c	c	c	c	c	c
P10	l	l	l	l	l	l	l	l
P11	n	n	n	n	n	n	n	n
P12	m	m	m	m	m	m	m	m
P13	e	e	e	e	e	e	e	e
P14	d	d	d	d	d	d	d	d
P15	TUNED	MUTE AUTO	AUTO MEMORY		TAPE2 MONITOR	. (DOT)	LOUDNESS	MHz
P16	STEREO	MEMORY					SLEEP	KHZ

## Grid - Anode Assignment ( 1G~8G )

	8G	7G	6G	5G	4G	3G	2G	1G
P17	1	1	1	1	1	1	1	1
P18	2	2	2	2	2	2	2	2
P19	3	3	3	3	3	3	3	3
P20	4	4	4	4	4	4	4	4
P21	5	5	5	5	5	5	5	5
P22	6	6	6	6	6	6	6	6
P23	7	7	7	7	7	7	7	7
P24	8	8	8	8	8	8	8	8
P25	9	9	9	9	9	9	9	9
P26	10	10	10	10	10	10	10	10
P27	11	11	11	11	11	11	11	11
P28	12	12	12	12	12	12	12	12
P29	13	13	13	13	13	13	13	13

## Disassembly Procedures

### ■ Removing the Top Cover

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

### ■ Removing the Bottom Cover

1. Remove the 13 screws ①.
2. Remove the bottom cover.

### ■ Removing the Front Panel

1. Remove the 3 screws ② fastening top of the front panel, and the 4 screws ③ fastening bottom of the front panel.
2. Remove the master volume knob.
3. Remove the nut fastening the volume.
4. Remove the front panel disconnecting some wires.

### ■ Removing the Tuner P.C. Board

1. Remove all screws installed at rear panel.
2. Take it out.

### ■ Removing the Power Transistor

1. Remove the bottom cover
2. Unsolder the broken transistor.
3. Remove the screw fastening it.
4. Remove it.

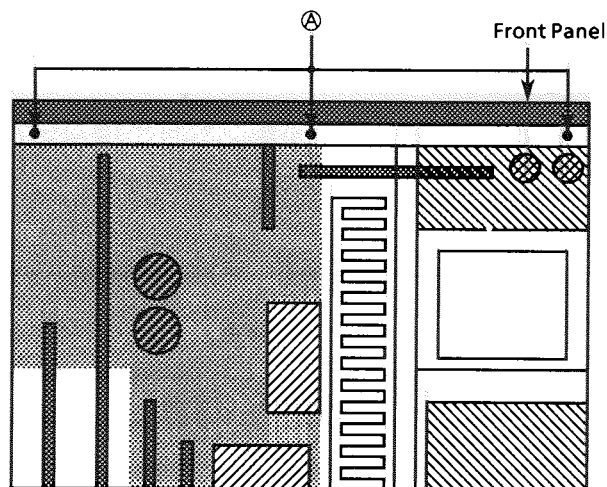


Fig 1. Top View

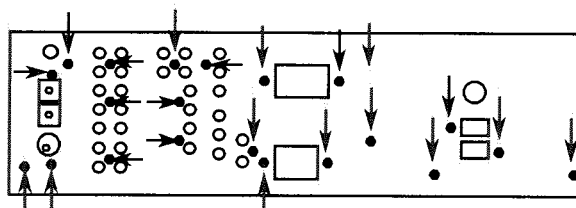


Fig 2. Rear View

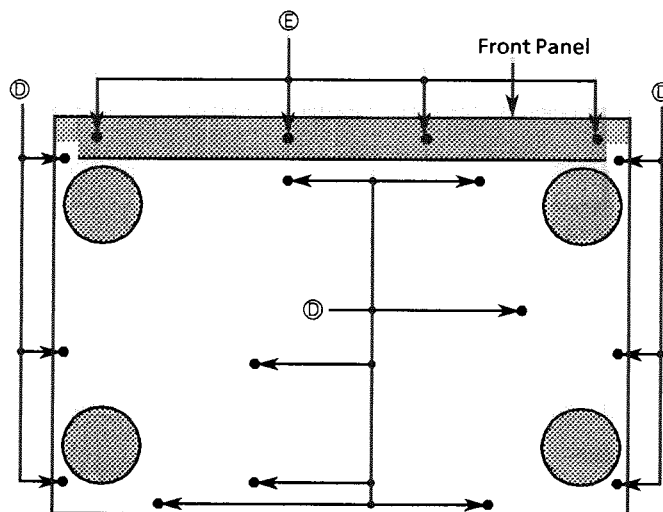


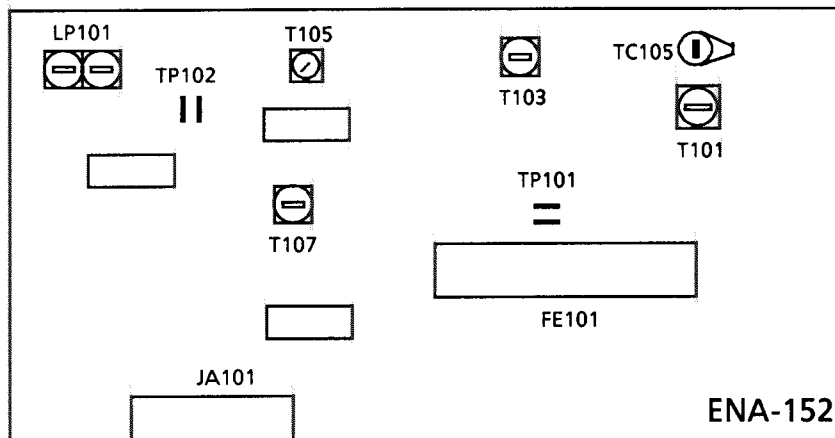
Fig 3. Bottom Cover

## Adjustment Procedures

### ■ Tuner section

Tuning range

Area	Range	
	MW (kHz)	FM (MHz)
the U.S.A., Canada	530~1710	87.5~108



#### (1) Tuning voltage

Confirm the voltages in the table below at TP101. If the voltages are not satisfied, replace T101 and T103 for MW, T102 and FE101 for FM.

FM Tuning voltage (Unit : V)

Area	Frequency	
	87.5MHz	108MHz
the U.S.A., Canada	$1.6 \pm 1.0$ (V)	$8.0 \pm 2.0$ (V)

AM Tuning voltage (Unit : V)

Area	Frequency (MW)	
	530kHz	1710kHz
the U.S.A., Canada	$1.0 \pm 0.2$	$8.0 \pm 0.8$

#### (2) FM center meter

Receive a broadcast by using the function of 'AUTO STOP'.

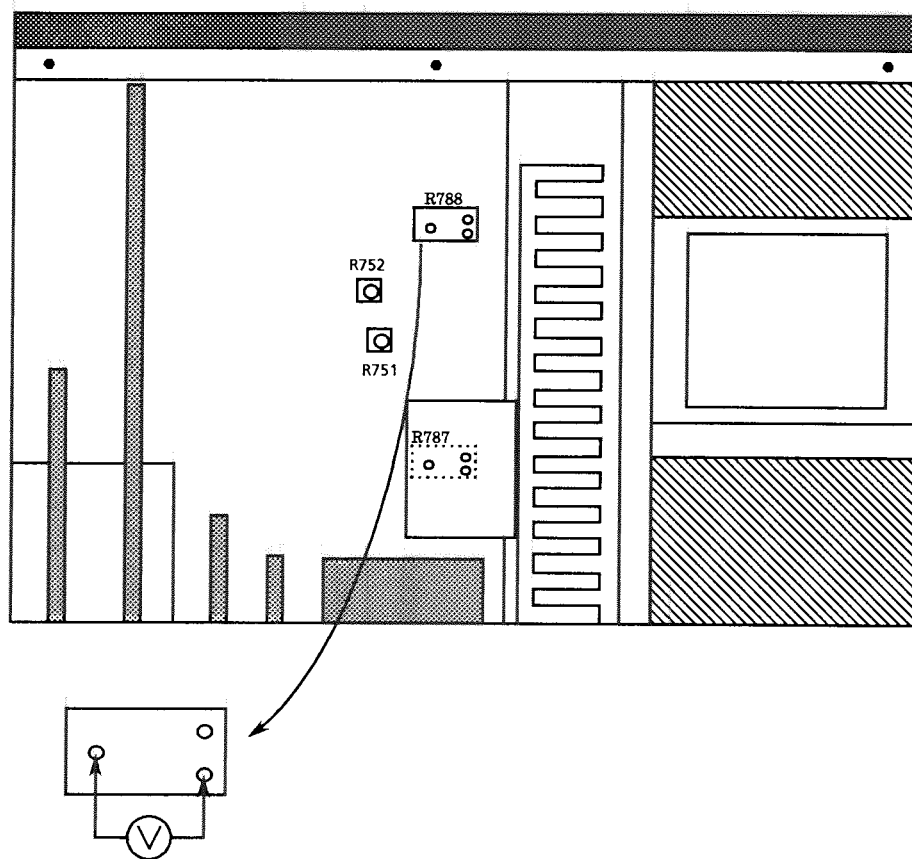
Adjust T105 (detector coil) so that the voltage at TP102 becomes  $0 \pm 1.5$  mV.

#### (3) MW Tracking

Adjust T101 (antenna coil) to obtain the best receiving sensitivity on 600kHz.

Adjust TC105 (antenna trimmer) to obtain the best receiving sensitivity on 1400kHz.

## ■ Power Amplifier section

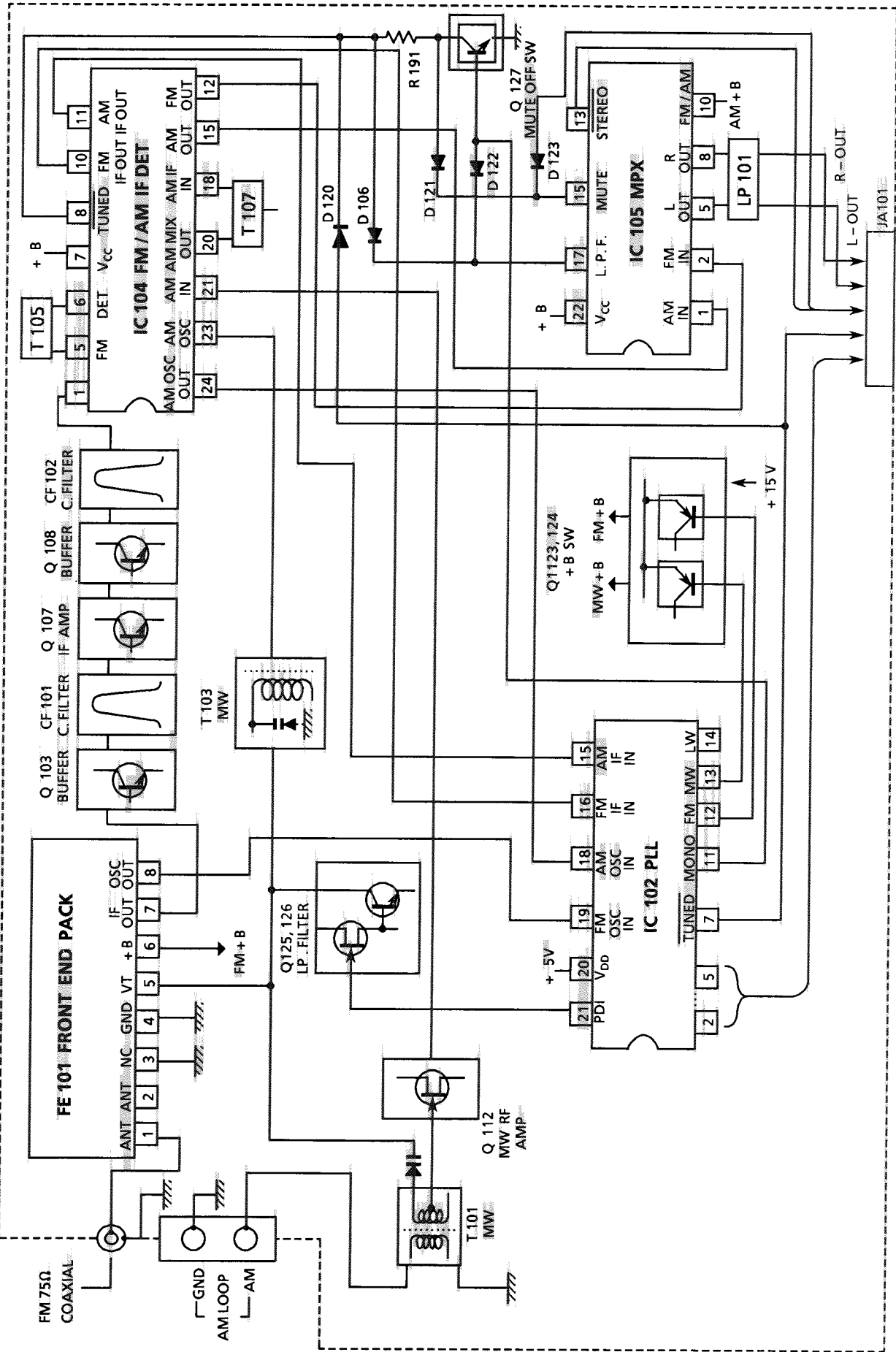


### ■ Idling Current

- (1) Set the volume control to minimum during this adjustment.
- (2) Turn R751 and R752 fully counterclockwise before the power switch on.
- (3) Always start from cold, and allow 10 minutes to warm up before adjustment. If the heatsink is already warm from previous use the correct adjustment can not be made.
- (5) Connect a DC voltmeter to R787 resistor's leads for left channel, or to R788 for right channel.
- (6) Adjust R751 for left channel, or R752 for right channel, so that the DC voltmeter becomes 2mV ~ 7mV



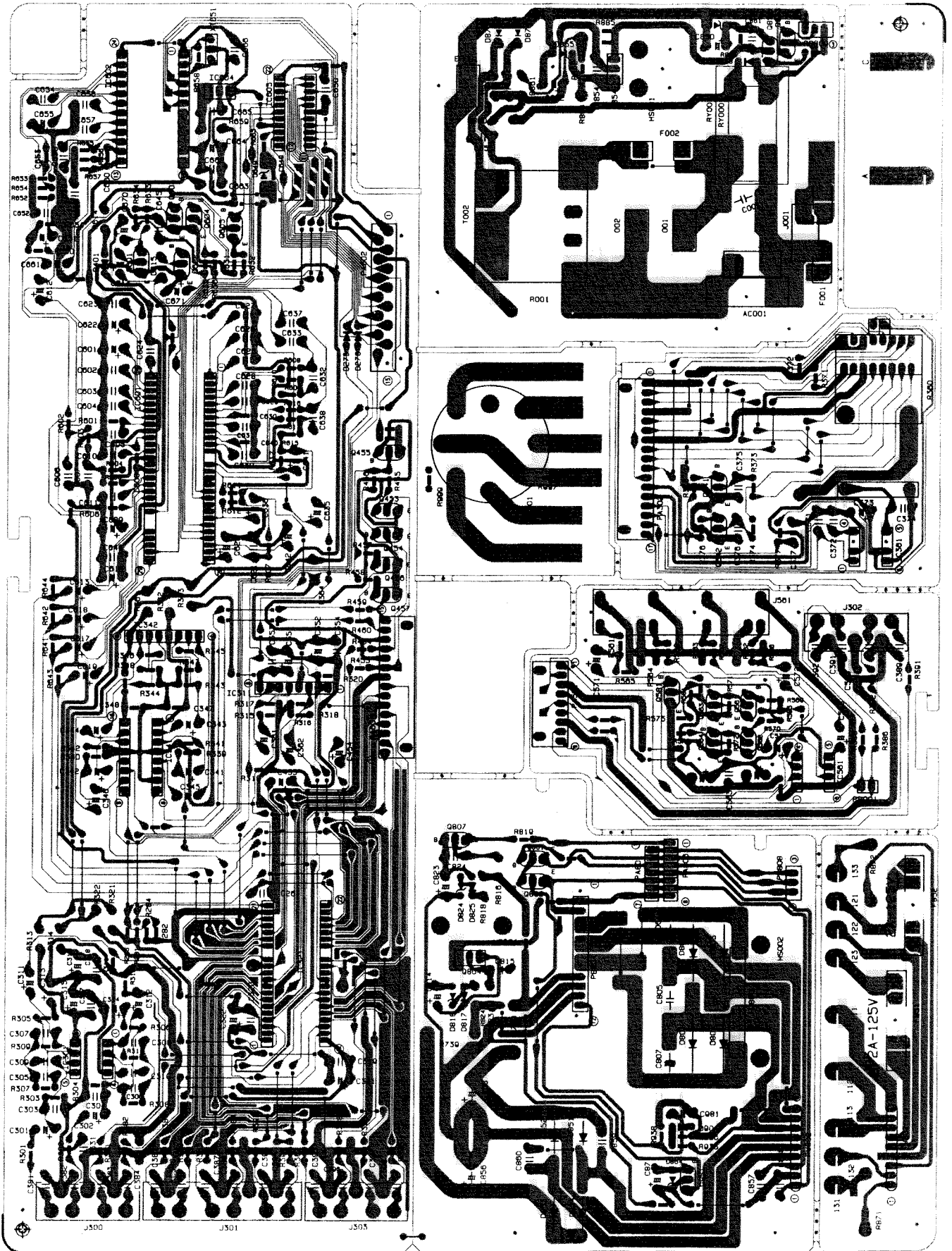
■ Tuner Section





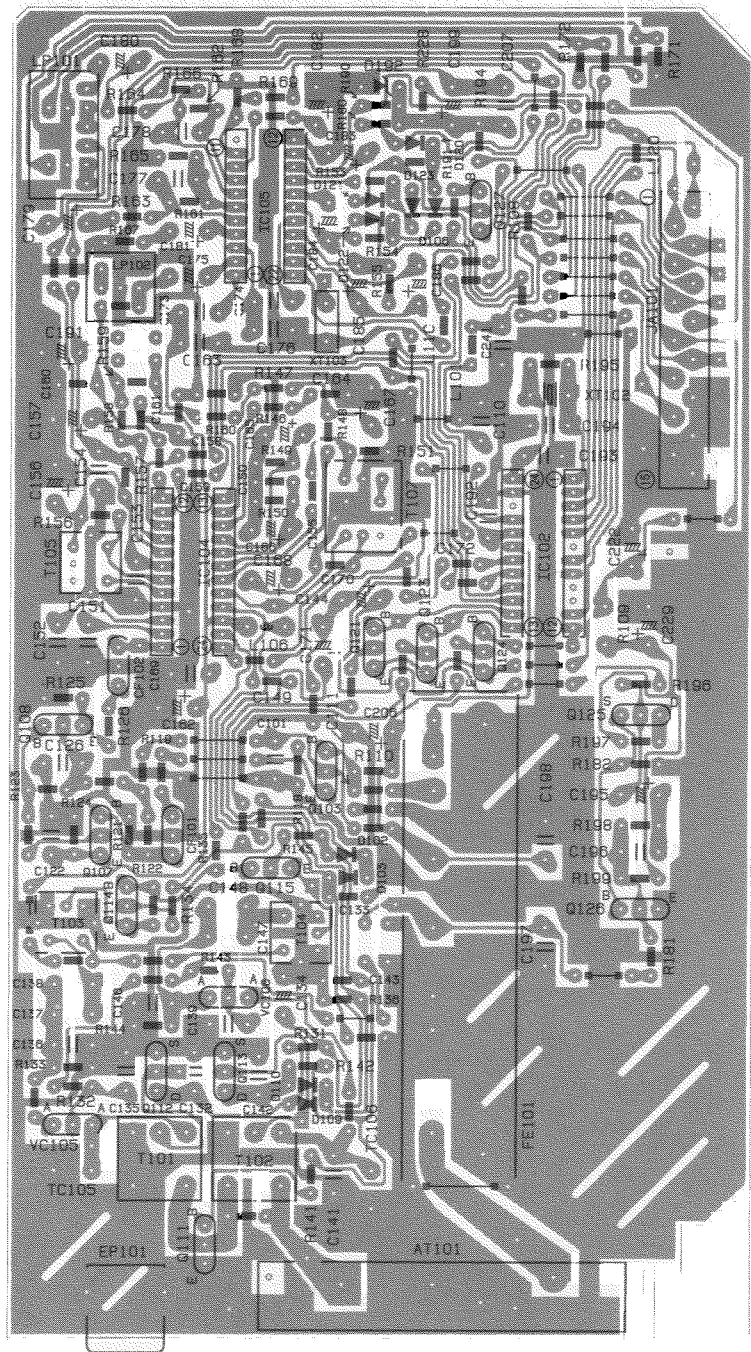


(2) Input Selector and Power Supply P.C.Board (ENC-110)





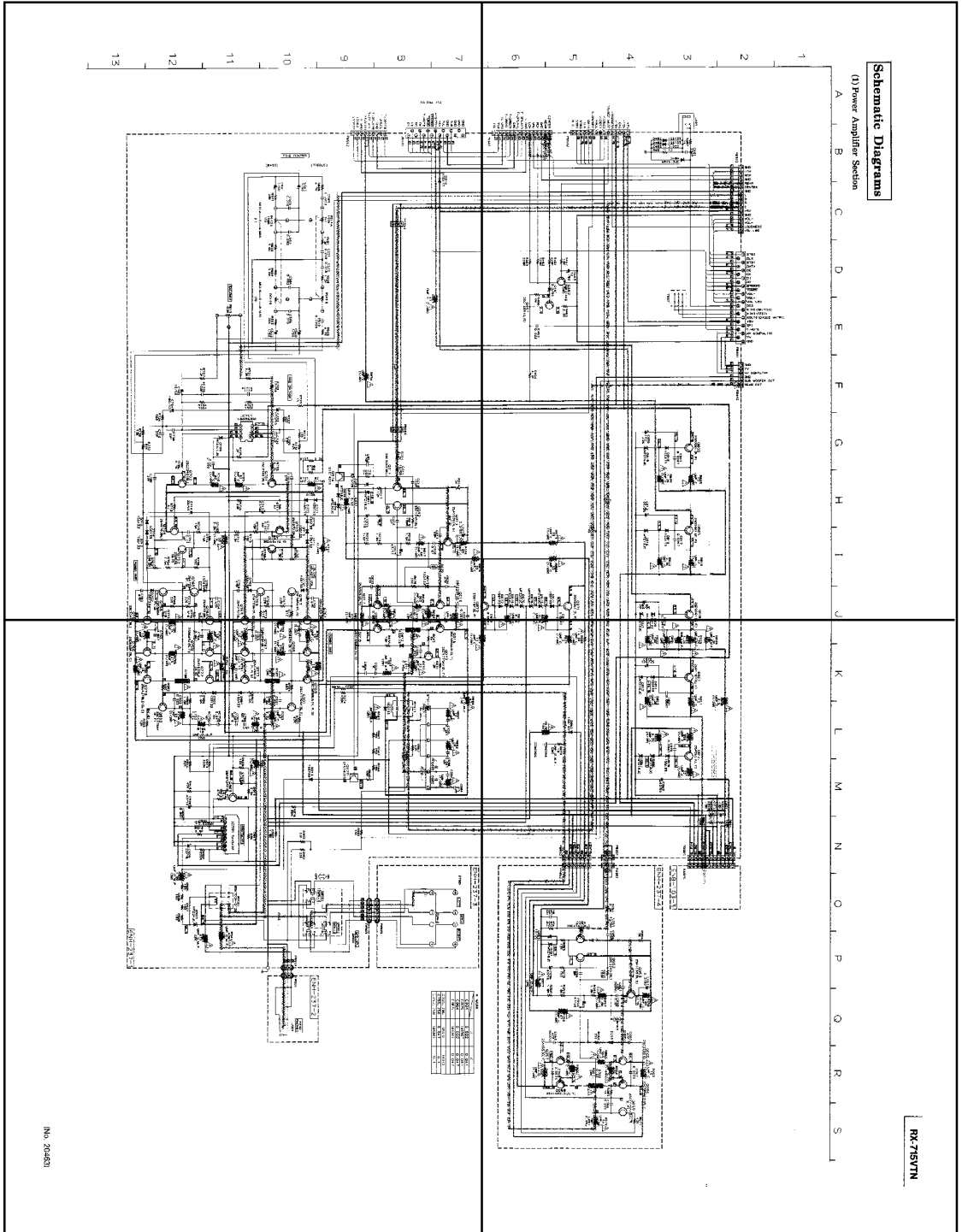
(4) Tuner P.C.Board (ENA-152)



— MEMO —

SD-(1)-a

SD-(1)-b



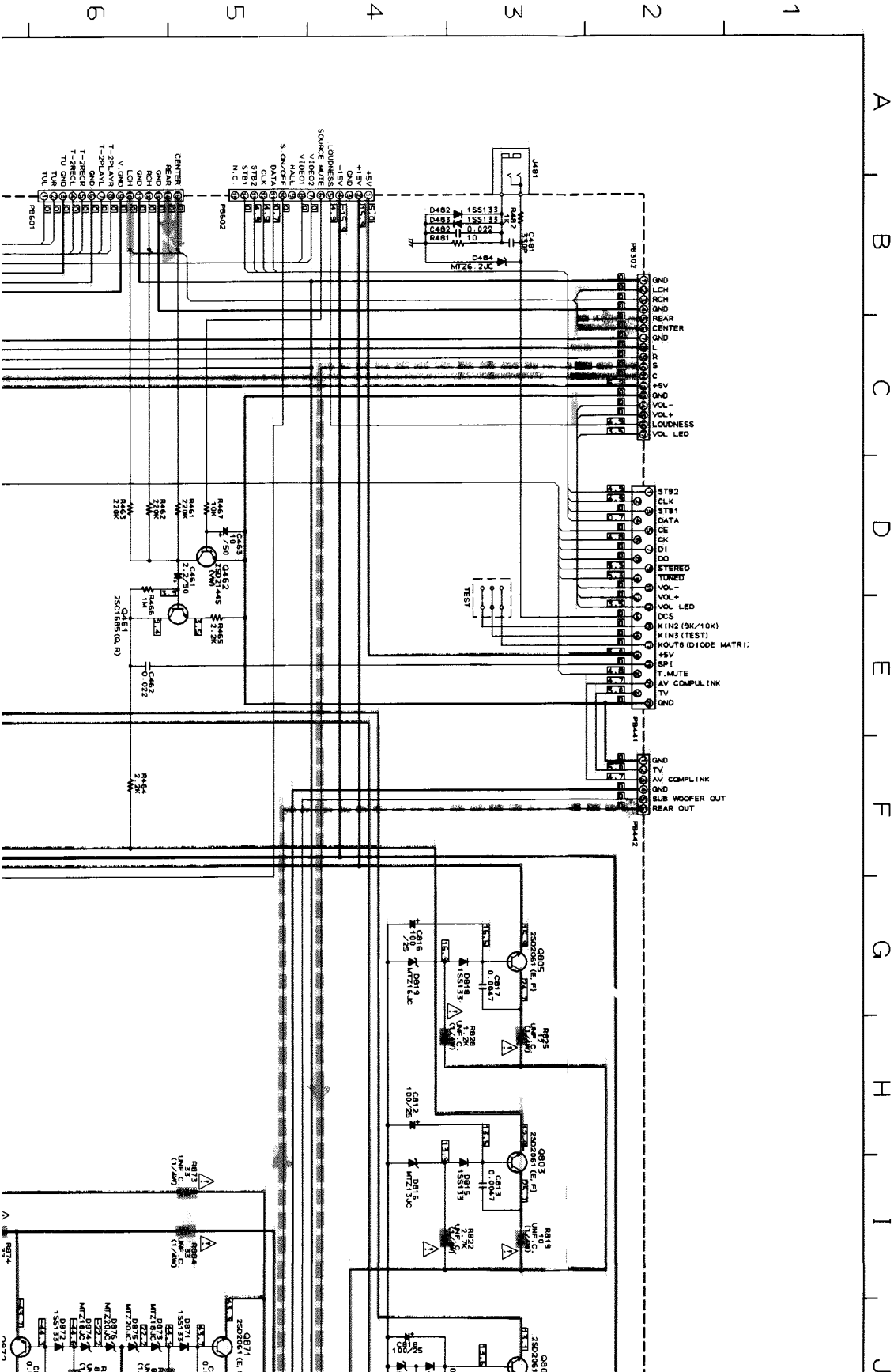
SD-(1)-c

SD-(1)-d

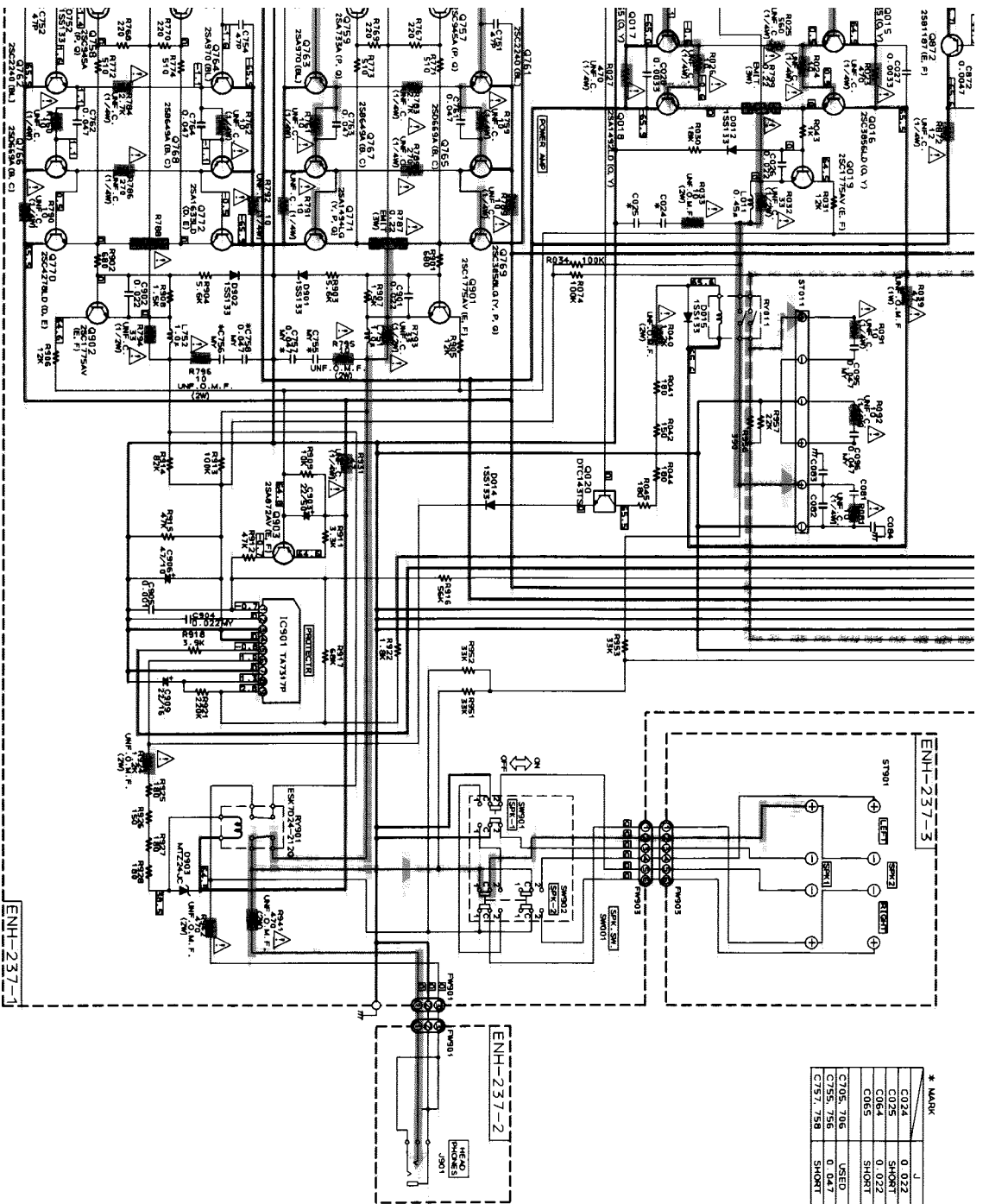


# Schematic Diagrams

(1) Power Amplifier Section





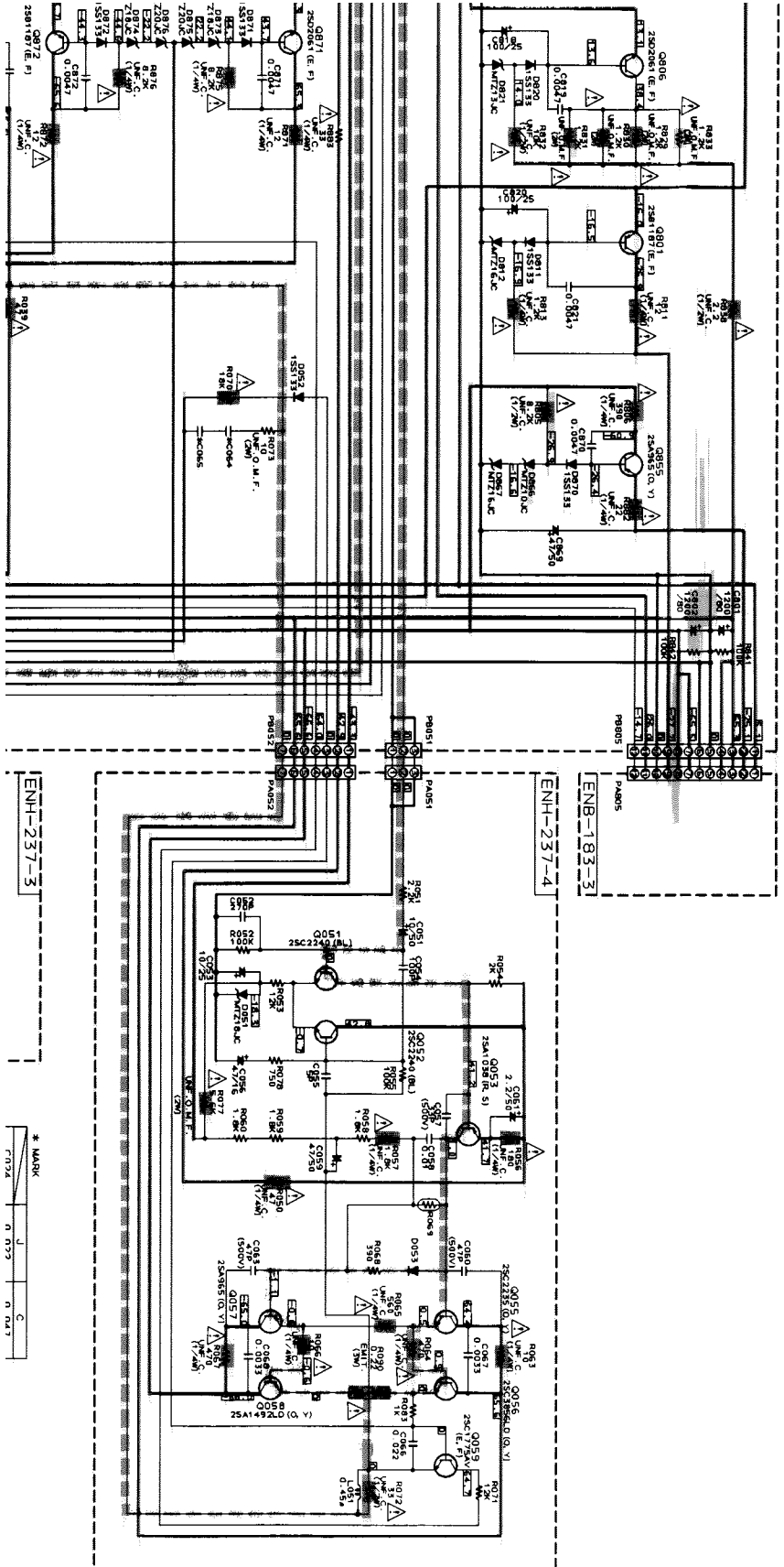


\* MARK

	J	C
C024	0.022	0.047
C025	SHORT	0.047
C064	0.022	0.047
C065	SHORT	0.047
C706, 706	USED	USED
C705, 705	0.047	0.1
C757, 758	SHORT	0.1

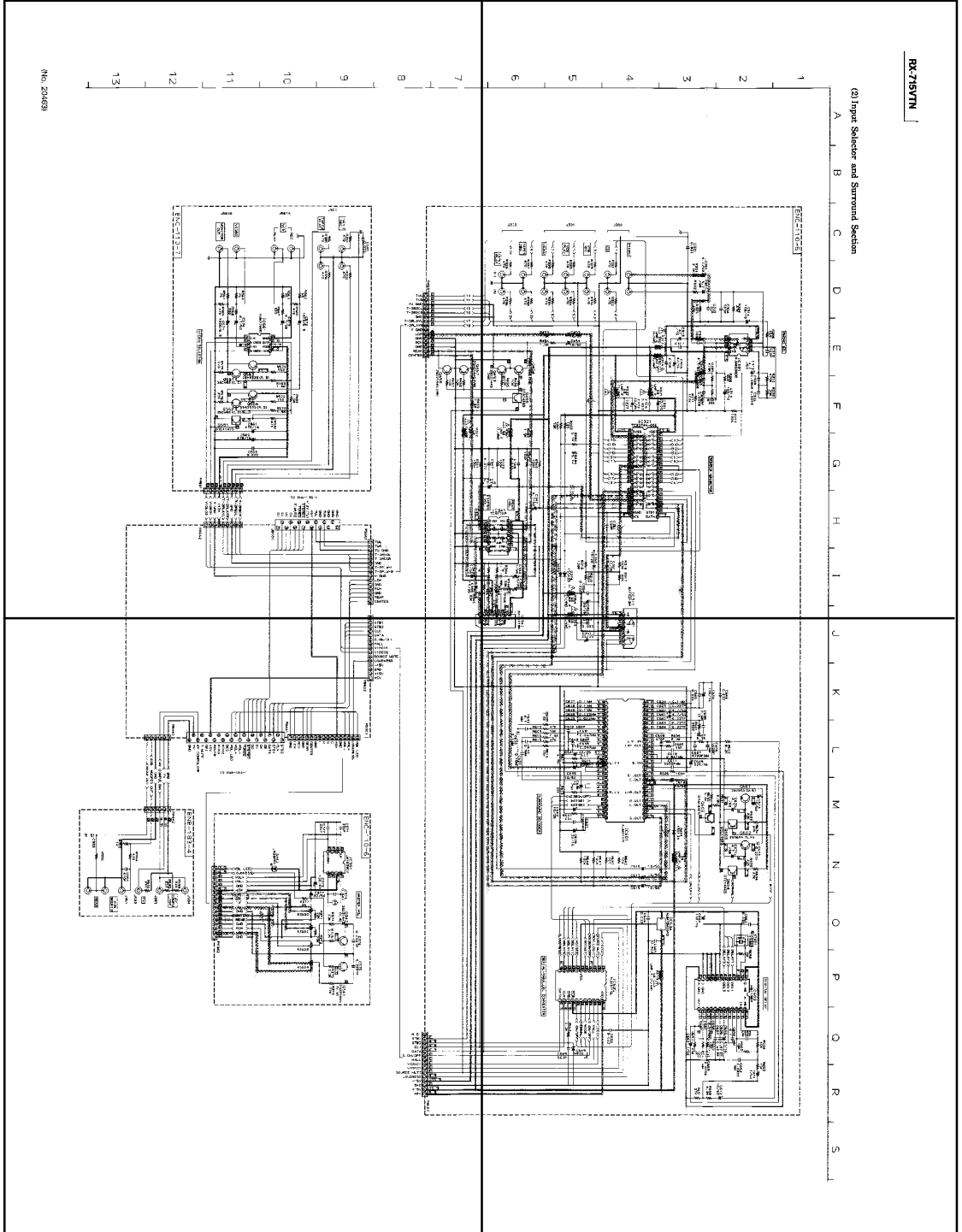
RX-715VTN

J K L M N O P Q R S





SD-(2)-a



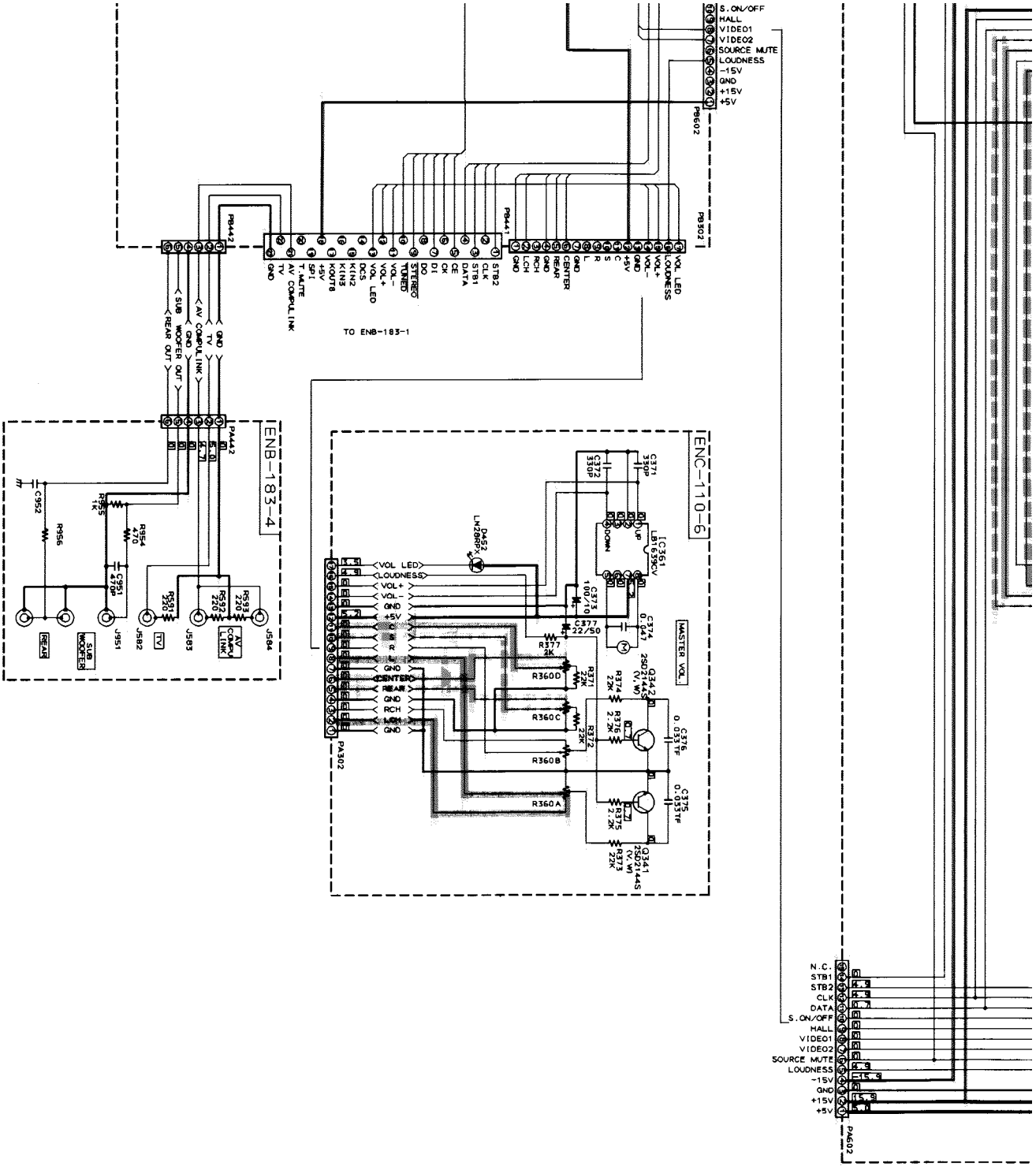
SD-(2)-b

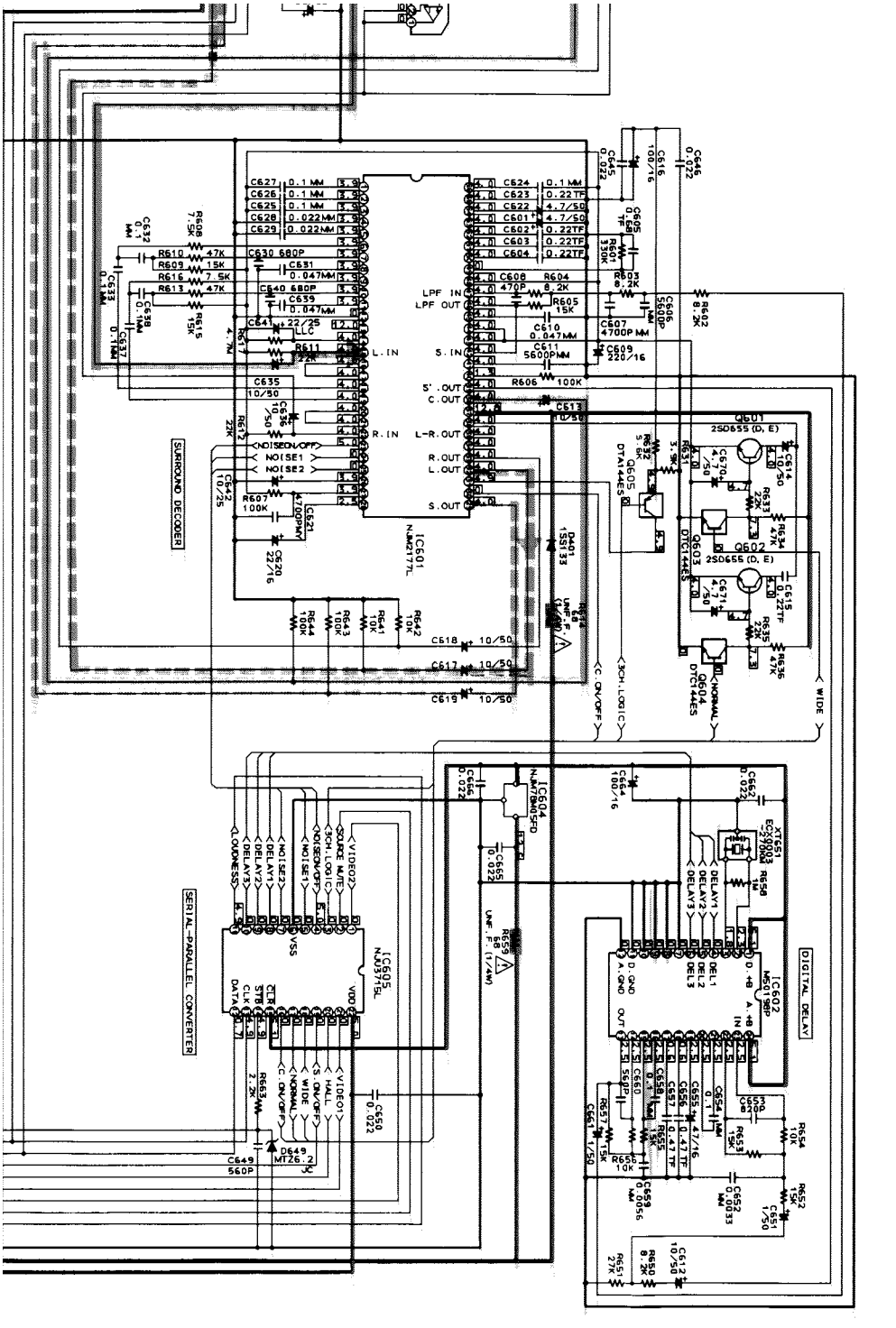
SD-(2)-c

SD-(2)-d







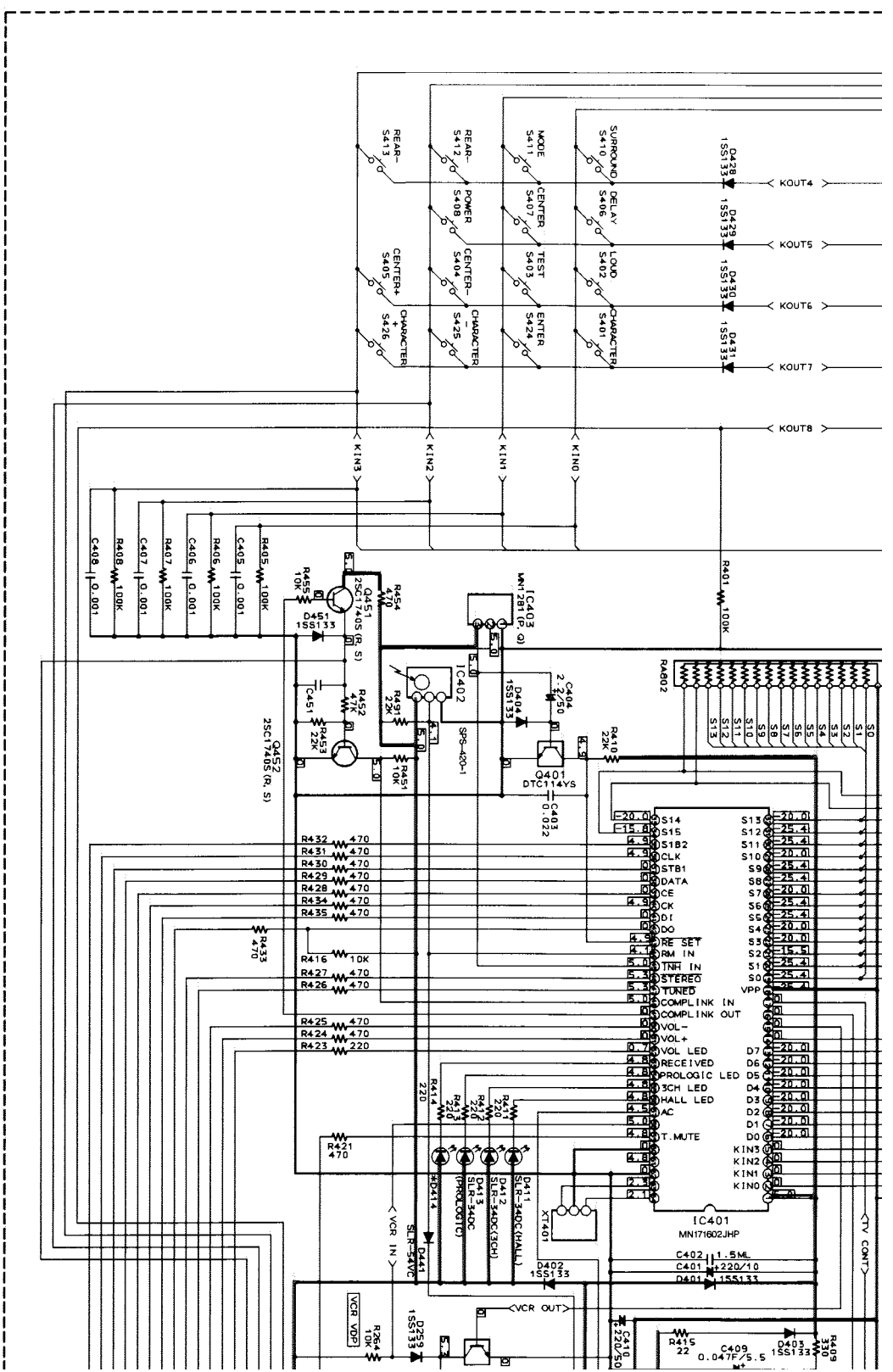


K L M N O P Q R S

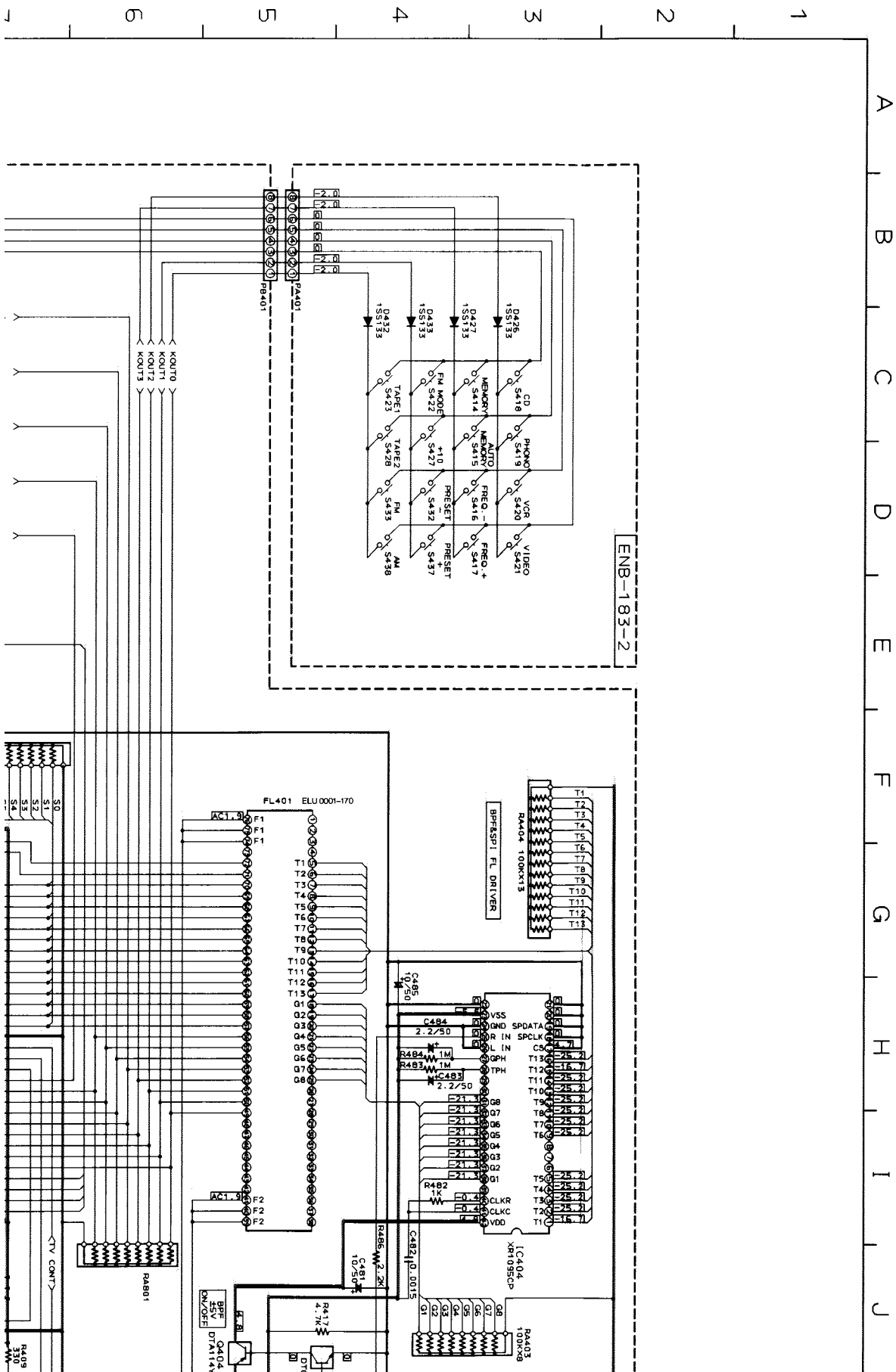


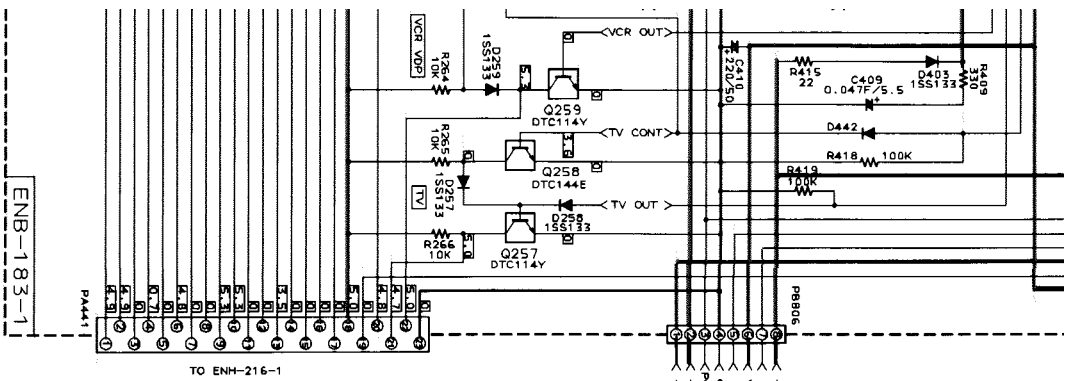




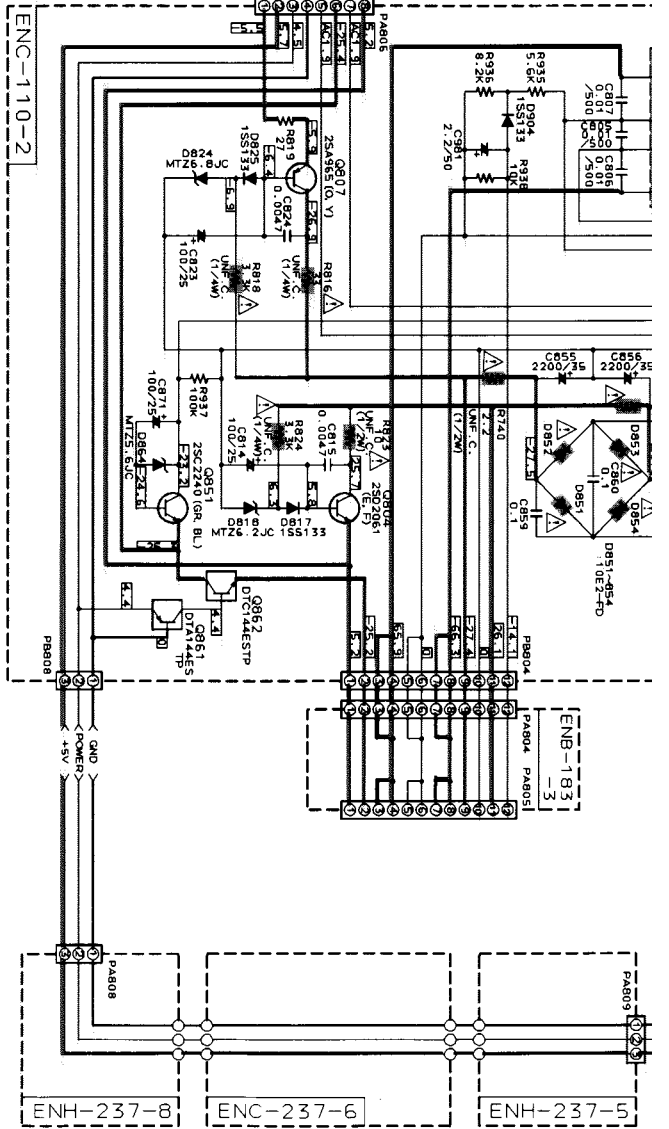


(3) FL Display and Power Supply Section



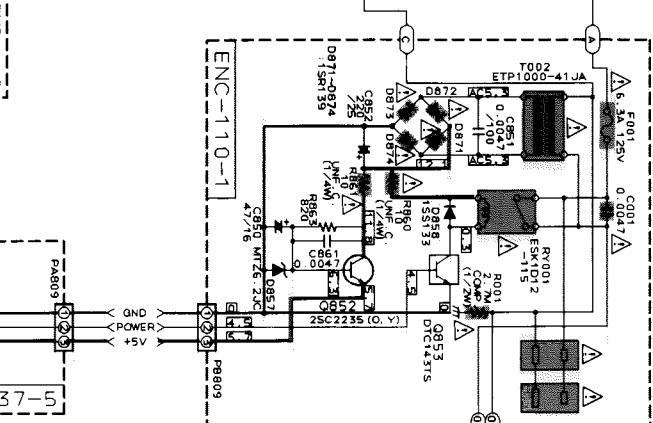
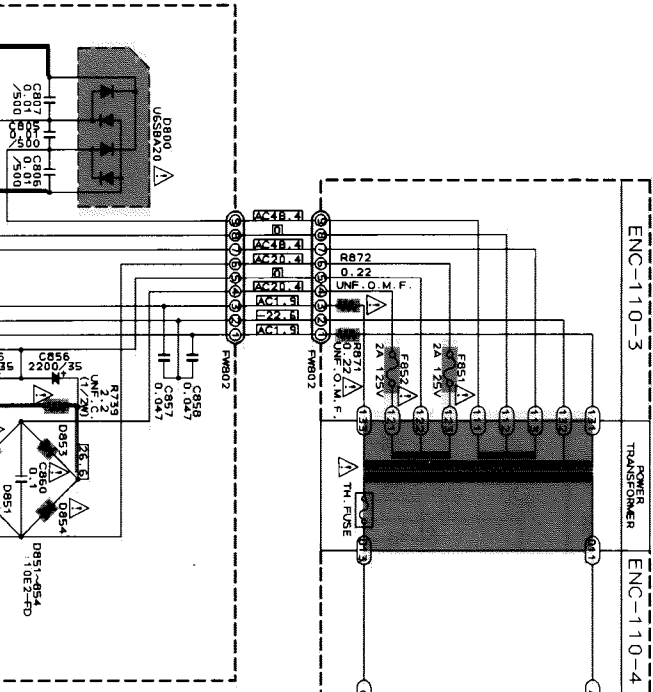
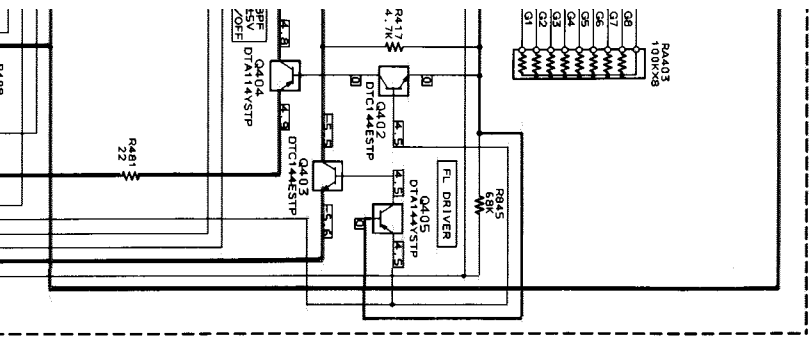


TO ENH-216-1



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

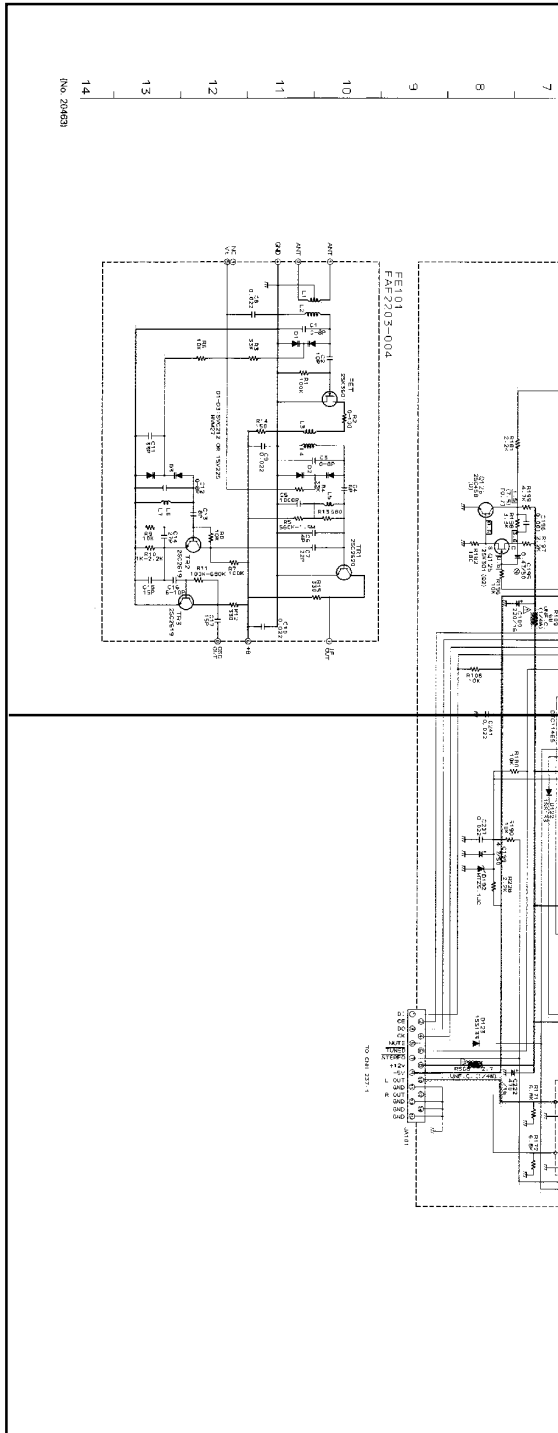
J K L M N O P Q R S T



(U, C) FOR USA&CANADA

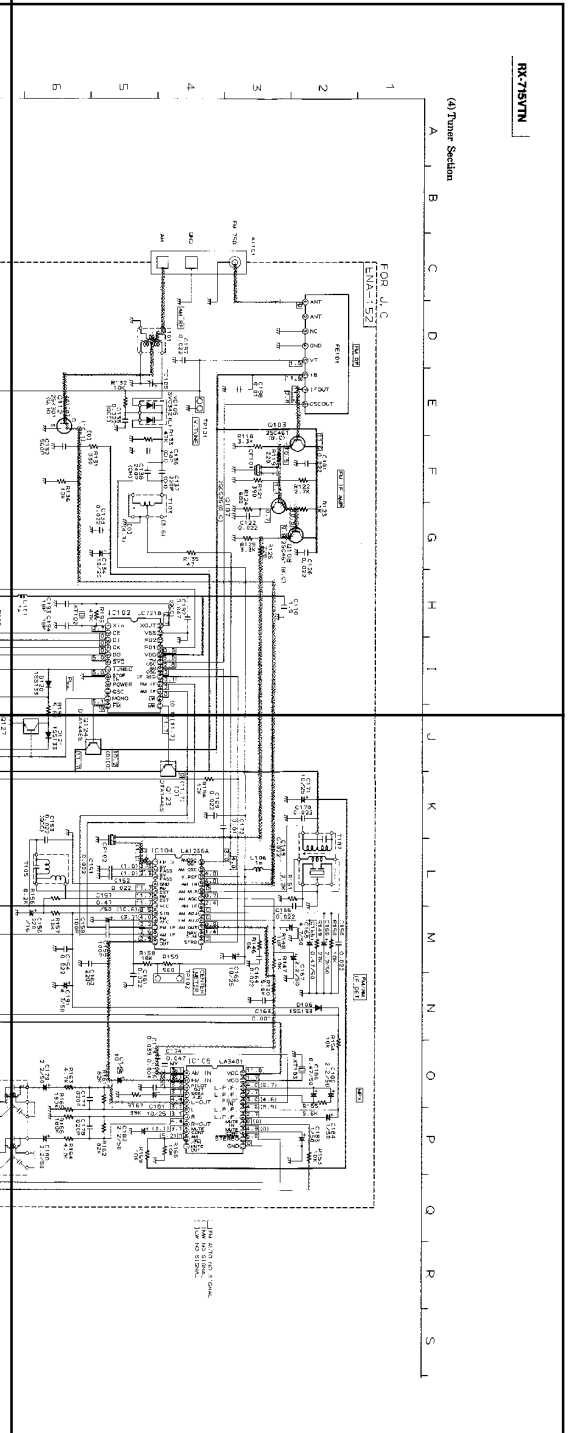


SD-(4)-a



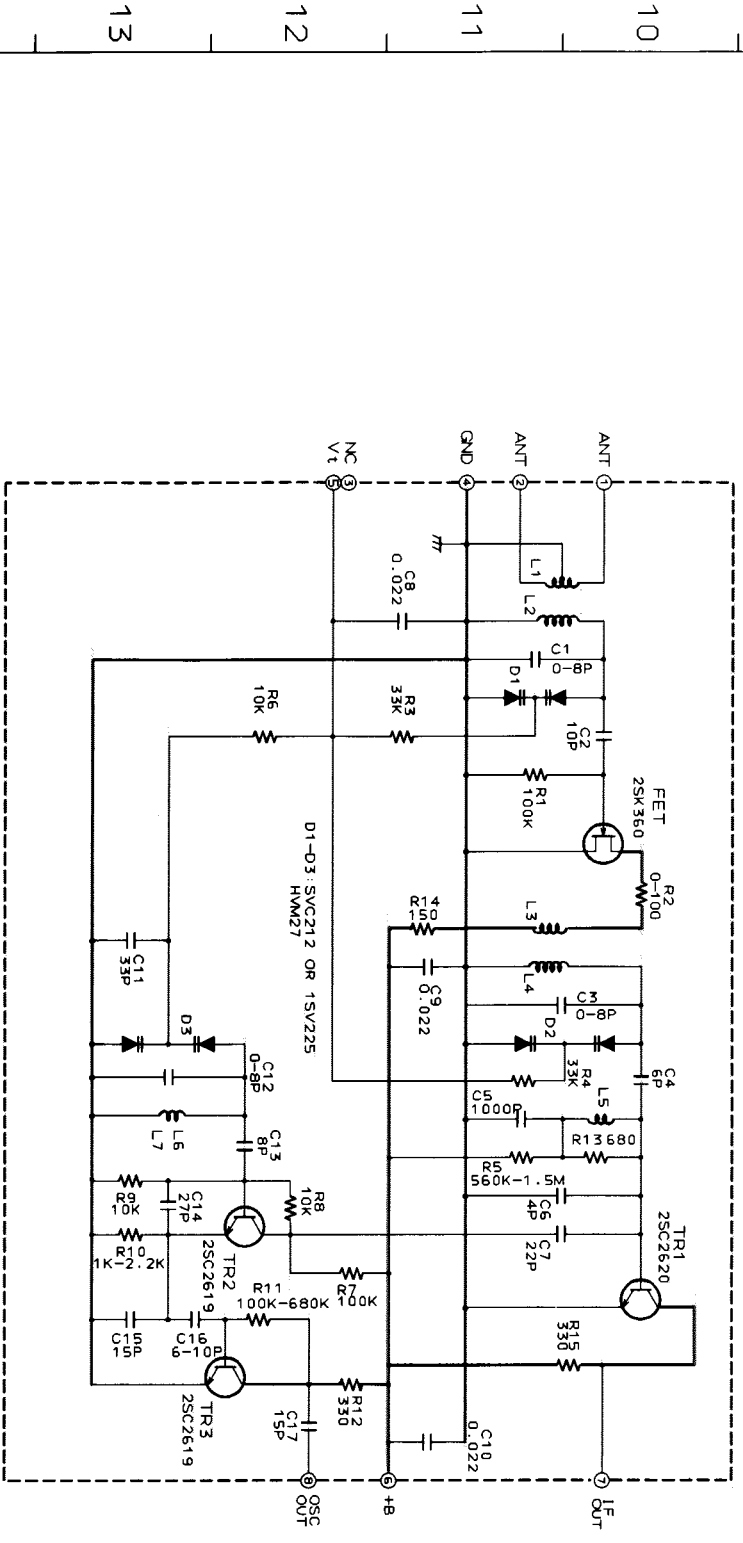
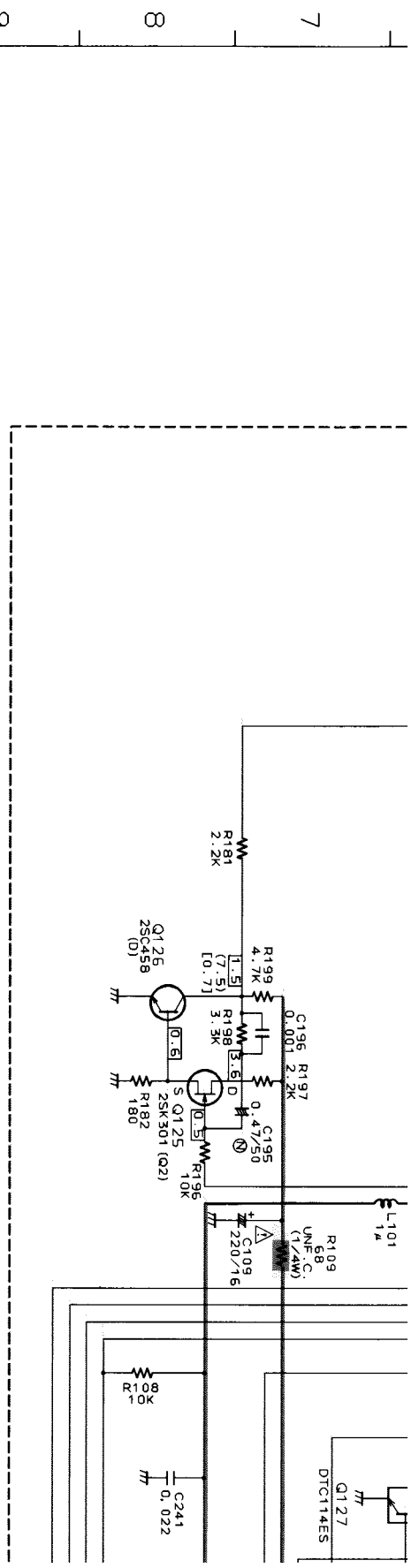
SD-(4)-c

SD-(4)-b



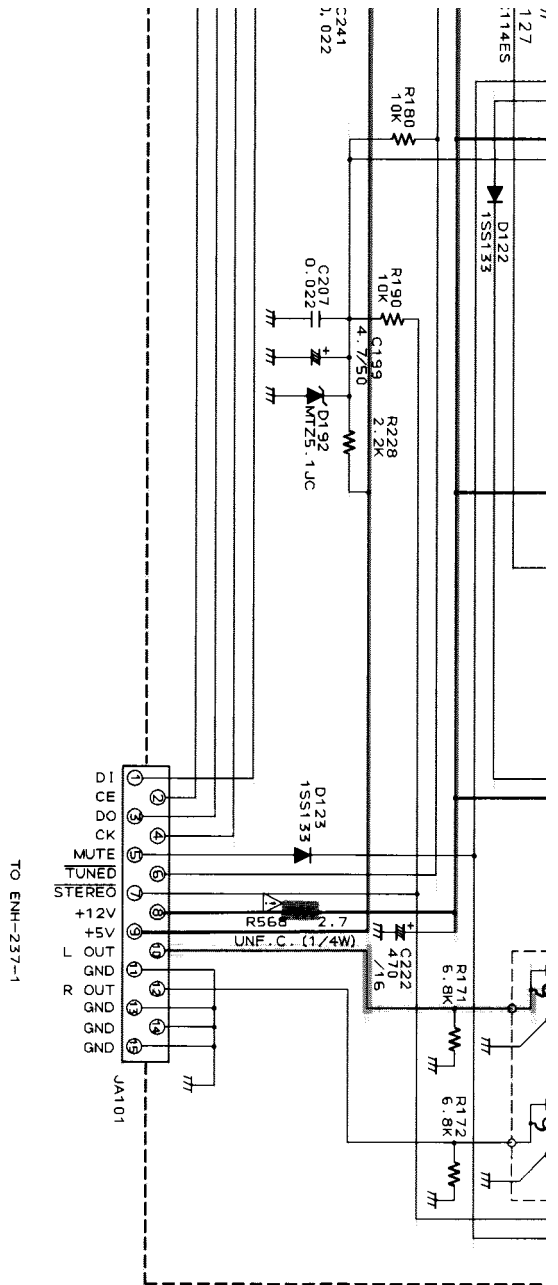
SD-(4)-d



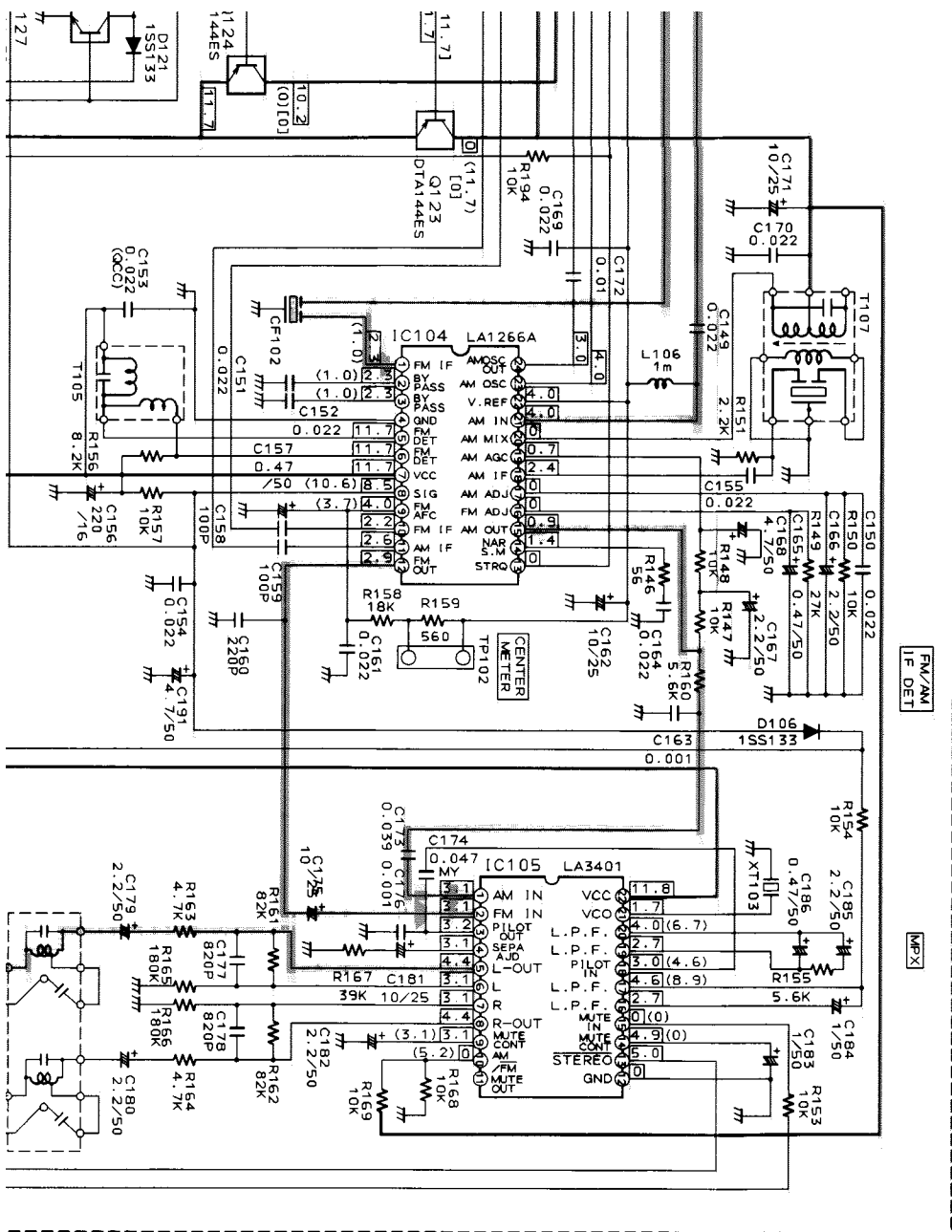


14  
13  
12  
11  
10  
9  
8  
7





J K L M N O P Q R S



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



# PARTS LIST

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

## Contents

- General Exploded View and Parts List ..... 2-2
- Printed Circuit Board Ass'y and Parts List ..... 2-4
  - ENH-237  Amplifier PC Board Ass'y ..... 2-4
  - ENC-110  Selector & Power Supply PC Board Ass'y ..... 2-8
  - ENB-183  FL Display PC Board Ass'y ..... 2-12
  - ENA-152  Tuner PC Board Ass'y ..... 2-14
- Accessories List ..... 2-16
- Packing Materials and Part Numbers ..... 2-16



## ■ Parts List

Symbol No. 

M	1	M	M
---	---	---	---

△	Item	Part Number	Part Name	Q'ty	Description	Areas
	1	FFP-RX715VTNJ(S)	FRONT PANEL ASSY	1		
	1-1	E102817-002SM	FRONT PANEL	1		
	1-2	E308385-008SM	WINDOW SCREEN	1		
	1-3	E407400-001	FL SCREEN	1		
	1-4	E72436-006	REMOTE SCREEN	1		
	1-5	VJD5429-001	JVC MARK	1		
	2	E308842-001SM	VOLUME ASSY	1		
	3	SDSG3008M	SCREW	6		
	4	SBSG3008CC	SCREW	35		
	5	E407320-001SM	PUSH BUTTON	1	POWER	
	6	E208078-001SM	PUSH BUTTON	1	SURROUND	
	7	E208076-001SM	PUSH BUTTON	1	SOURCE	
	8	E407321-001SM	SPEAKER BUTTON	2		
	9	E407983-001SM	PUSH SHAFT	2		
	10	EWR623K-40TT	FLAT WIRE	1	FW441	
	11	E308267-003SM	TONE KNOB	3		
	12	SDSF2608Z	SCREW	8		
	13	E407323-002SM	HEADPHONE BRACKET	1		
	14	E102819-002SM	FRONT BRACKET	1		
	15	E102820-001SM	CHASSIS BASE	1		
	16	E70115-002	CAUTION LABEL	1		C
		E70281-001	CAUTION LABEL	1		J
	17	VJF4039-00G	FOOT	4		
	18	SBST3010Z	SCREW	4	FOR FOOT	
	19	E208081-001SM	SIDE BRACKET	2		
	20	E308837-003SM	TRANS BRACKET	1		
△	21	ETP1200-63JAJ	POWER TRANSFORMER	1		
	22	E65389-004	SPECIAL SCREW	4		
△	23	QMF0007-2R0J1	FUSE	2	F851 , F852 ( T2.0A / 125V )	
	24	E208082-001SM	CENTER BRACKET	1		
	25	E407984-001SM	CIRCUIT BOARD HOLDER	1		
	26	E308836-002SM	HEAT SINK BRACKET	2		
	27	E308835-004SM	HEAT SINK	1		
	28	2SA1494LG(Y,P,G)	SILICON TRANSISTOR	2	Q771 , Q772	
	29	2SC3858LG(Y,P,G)	SILICON TRANSISTOR	2	Q769 , Q779	
	30	2SC3856LD(O,Y)	SILICON TRANSISTOR	2	Q016 , Q056	
	31	2SA1492LD(O,Y)	SILICON TRANSISTOR	2	Q018 , Q058	
	32	E73525-003	SCREW	12		
	33	E406084-002	FASTENER	1		
	34	E61660-004	SPECIAL SCREW	4		
	35	E207377-221	METAL COVER	1		
	36	E73273-006	SCREW	20		
△	37	QMF0007-6R3J1	FUSE	1	F001 ( T6.3A / 125V )	
	38	E102821-004SM	REAR PANEL	1		
	39	SBST3006M	SCREW	1		
	40	E408091-001	GND TERMINAL	1		
△	41	QMP1480-200	POWER CORD	1		
△	42	QHS3876-162	CORD STOPPER	1		
	43	SBST3010CC	SCREW	4	FOR TRANS BRACKET	
	-	E61029-005	NUMBER LABEL	1		
	-	E72430-002	LABEL	1		
	-	E65507-001	CAUTION LABEL	1		C
	-	E45858-002	CSA LABEL	1		C
	-	E75139-001	NAME LABEL	1		J
	-	E67199-001	CAUTION LABEL	1		J

△ SAFETY PARTS

## The Marks for Designated Areas

J ..... the U.S.A.    C ..... Canada

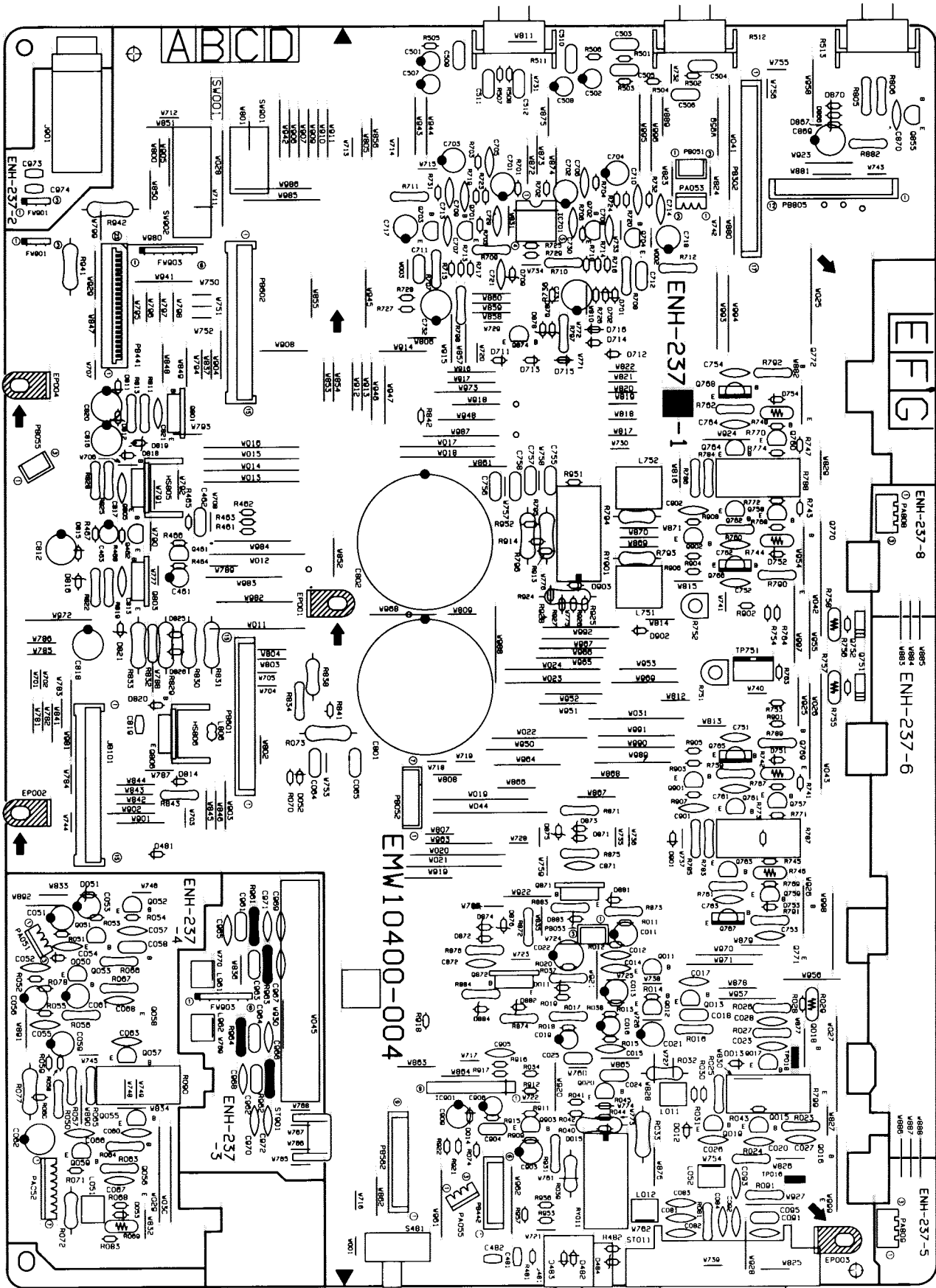
No mark indicates all areas.



# Printed Circuit Board Ass'y and Parts List

## ■ ENH-237 □ Amplifier PC Board Ass'y

Note : ENH-237 □ varies according to the areas employed. See note (1) when placing an order.



Note (1)

PC Board Ass'y	Version	Designated Areas
ENH-237 <b>C</b>	J	the U.S.A.
ENH-237 <b>D</b>	C	Canada

Transistors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q011	2SC2240(BL)	SI.TRANSIST	
	Q012	2SC2240(BL)	SI.TRANSIST	
	Q013	2SA1038(R,S)	SI.TRANSIST	
	Q015	2SC2235(O,Y)	SI.TRANSISTTOSHIBA	
	Q017	2SA965(Y)	SI.TRANSIST	
	Q019	2SC1775AV(F1)	SI.TRANSISTHITACHI	
	Q020	DTC143TS	DIGITAL TRAROHM	
	Q051	2SC2240(BL)	SI.TRANSIST	
	Q052	2SC2240(BL)	SI.TRANSIST	
	Q053	2SA1038(R,S)	SI.TRANSIST	
	Q055	2SC2235(O,Y)	SI.TRANSISTTOSHIBA	
	Q057	2SA965(Y)	SI.TRANSIST	
	Q059	2SC1775AV(F1)	SI.TRANSISTHITACHI	
	Q461	2SC1685	SI.TRANSIST	
	Q462	2SD2144S(VW)	SI.TRANSISTROHM	
	Q701	2SC2240(BL)	SI.TRANSIST	
	Q702	2SC2240(BL)	SI.TRANSIST	
	Q703	2SA970(GR)	SI.TRANSISTMATSUSHITA	
	Q704	2SA970(GR)	SI.TRANSISTMATSUSHITA	
	Q751	2SD636(Q,R)	SI.TRANSIST	
	Q752	2SD636(Q,R)	SI.TRANSIST	
	Q757	2SC945A	SI.TRANSISTNEC	
	Q758	2SC945A	SI.TRANSISTNEC	
	Q759	2SA733A(P,K)	SI.TRANSIST	
	Q760	2SA733A(P,K)	SI.TRANSIST	
	Q761	2SC2240(BL)	SI.TRANSIST	
	Q762	2SC2240(BL)	SI.TRANSIST	
	Q763	2SA970(GR)	SI.TRANSISTMATSUSHITA	
	Q764	2SA970(GR)	SI.TRANSISTMATSUSHITA	
	Q765	2SD669A(B,C)	SI.TRANSISTHITACHI	
	Q766	2SD669A(B,C)	SI.TRANSISTHITACHI	
	Q767	2SB649A(B,C)	SI.TRANSIST	
	Q768	2SB649A(B,C)	SI.TRANSIST	
	Q801	2SB1187(E,F)	SI.TRANSIST	
	Q803	2SD2061(E,F)	SI.TRANSIST	
	Q805	2SD2061(E,F)	SI.TRANSIST	
	Q806	2SD2061(E,F)	SI.TRANSIST	
	Q855	2SA965(Y)	SI.TRANSIST	
	Q871	2SD2061(E,F)	SI.TRANSIST	
	Q872	2SB1187(E,F)	SI.TRANSIST	
	Q874	DTC143TS	DIGITAL TRAROHM	
	Q901	2SC1775AV(F1)	SI.TRANSISTHITACHI	
	Q902	2SC1775AV(F1)	SI.TRANSISTHITACHI	
	Q903	2SA872AV(D,E)	SI.TRANSIST	

Δ : SAFETY PARTS

I.C.s

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC701	NJM4560DD	I.C(MONO-ANDAINICHI	
	IC901	TA7317P	I.C(MONO-ANTOSHIBA	

Δ : SAFETY PARTS

Diodes

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D011	MTZ18JC	ZENER DIODEROHM	
	D012	1SS133	SI.DIODE ROHM	
	D013	1SS133	SI.DIODE ROHM	
	D014	1SS133	SI.DIODE ROHM	
	D015	MTZ24JC	ZENER DIODEROHM	
	D051	MTZ18JC	ZENER DIODEROHM	
	D052	1SS133	SI.DIODE ROHM	
	D053	1SS133	SI.DIODE ROHM	
	D482	1SS133	SI.DIODE ROHM	
	D483	1SS133	SI.DIODE ROHM	
	D484	MTZ6.2JC	ZENER DIODEROHM	
	D701	1SS133	SI.DIODE ROHM	
	D702	1SS133	SI.DIODE ROHM	
	D709	MTZ3.0JB	ZENER DIODEROHM	
	D711	1SS133	SI.DIODE ROHM	
	D712	1SS133	SI.DIODE ROHM	
	D713	1SS133	SI.DIODE ROHM	
	D714	1SS133	SI.DIODE ROHM	
	D715	1SS133	SI.DIODE ROHM	
	D716	1SS133	SI.DIODE ROHM	

Δ : SAFETY PARTS

Diodes

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D751	1SS133	SI.DIODE ROHM	
	D752	1SS133	SI.DIODE ROHM	
	D753	1SS133	SI.DIODE ROHM	
	D754	1SS133	SI.DIODE ROHM	
	D811	1SS133	SI.DIODE ROHM	
	D812	MTZ16JC	ZENER DIODEROHM	
	D814	1SS133	SI.DIODE ROHM	
	D815	1SS133	SI.DIODE ROHM	
	D816	MTZ13JC	ZENER DIODEROHM	
	D818	1SS133	SI.DIODE ROHM	
	D819	MTZ16JC	ZENER DIODEROHM	
	D820	1SS133	SI.DIODE ROHM	
	D821	MTZ13JC	ZENER DIODEROHM	
	D866	MTZ10JC	ZENER DIODEROHM	
	D867	MTZ16JC	ZENER DIODEROHM	
	D870	1SS133	SI.DIODE ROHM	
	D871	1SS133	SI.DIODE ROHM	
	D872	1SS133	SI.DIODE ROHM	
	D873	MTZ22JC	ZENER DIODEROHM	
	D874	MTZ22JC	ZENER DIODEROHM	
	D875	MTZ22JC	ZENER DIODEROHM	
	D876	MTZ22JC	ZENER DIODEROHM	
	D878	MTZ16JC	ZENER DIODEROHM	
	D879	MTZ20JC	ZENER DIODEROHM	
	D901	1SS133	SI.DIODE ROHM	
	D902	1SS133	SI.DIODE ROHM	
	D903	MTZ24JC	ZENER DIODEROHM	

Δ : SAFETY PARTS

Capacitors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C011	QETB1HM-106	10MF 50V E.CAPACITO	R
	C012	QCS21HJ-271A	270PF 50V CER.CAPACI	TO
	C013	QETB1EM-106	10MF 25V AL E.CAPAC	IT
	C014	QCS21HJ-101A	100PF 50V CER.CAPACI	TO
	C015	QCS21HJ-5R0	5PF 50V CER.CAPACI	TO
	C016	QETB1CM-476	47MF 16V AL E.CAPAC	IT
	C017	QCS21HJ-330	33PF 50V CER.CAPACI	TO
	C018	QFLB1HJ-103	0.01MF 50V MYLAR CAPA	CI
	C019	QETB1HM-476	47MF 50V E.CAPACITO	R
	C020	QCS22HJ-470A	47PF 500V CER.CAPACI	TO
	C021	QETB1HM-225	2.2MF 50V E.CAPACITO	R
	C022	QETB2AM-476	47MF 100V AL E.CAPAC	IT
	C023	QCS22HJ-470A	47PF 500V CER.CAPACI	TO
	C024	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CI C
	C024	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	CI J
	C025	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CI C
	C026	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
	C027	QCY31HK-3322	3300PF 50V CER.CAPACI	TO
	C028	QCY31HK-3322	3300PF 50V CER.CAPACI	TO
	C051	QETB1HM-106	10MF 50V E.CAPACITO	R
	C052	QCS21HJ-271A	270PF 50V CER.CAPACI	TO
	C053	QETB1EM-106	10MF 25V AL E.CAPAC	IT
	C054	QCS21HJ-101A	100PF 50V CER.CAPACI	TO
	C055	QCS21HJ-5R0	5PF 50V CER.CAPACI	TO
	C056	QETB1CM-476	47MF 16V AL E.CAPAC	IT
	C057	QCS22HJ-330	33PF 500V CER.CAPACI	TO
	C058	QFLB1HJ-103	0.01MF 50V MYLAR CAPA	CI
	C059	QETB1HM-476	47MF 50V E.CAPACITO	R
	C060	QCS22HJ-470A	47PF 500V CER.CAPACI	TO
	C061	QETB1HM-225	2.2MF 50V E.CAPACITO	R
	C062	QETB1JM-476	47MF 63V AL E.CAPAC	IT
	C063	QCS22HJ-470A	47PF 500V CER.CAPACI	TO
	C064	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CI C
	C064	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	CI J
	C065	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CI C
	C066	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
	C067	QCY31HK-3322	3300PF 50V CER.CAPACI	TO
	C068	QCY31HK-3322	3300PF 50V CER.CAPACI	TO
	C461	QETB1HM-225	2.2MF 50V E.CAPACITO	R
	C462	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	CI
	C463	QETB1HM-106	10MF 50V E.CAPACITO	R
	C481	QCSB1HK-331Y	330PF 50V CER.CAPACI	TO
	C482	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
	C501	QETB1HM-105	1MF 50V AL E.CAPAC	IT
	C502	QETB1HM-105	1MF 50V AL E.CAPAC	IT
	C503	QFLB1HJ-823	0.082MF 50V MYLAR CAPA	CI
	C504	QFLB1HJ-823	0.082MF 50V MYLAR CAPA	CI
	C505	QFLB1HJ-153	0.015MF 50V MYLAR CAPA	CI
	C506	QFLB1HJ-153	0.015MF 50V MYLAR CAPA	CI
	C507	QETB1HM-105	1MF 50V AL E.CAPAC	IT
	C508	QETB1HM-105	1MF 50V AL E.CAPAC	IT
	C509	QFLB1HJ-332	3300PF 50V MYLAR CAPA	CI
	C510	QFLB1HJ-332	3300PF 50V MYLAR CAPA	CI
	C511	QFLB1HJ-183	0.018MF 50V MYLAR CAPA	CI
	C512	QFLB1HJ-183	0.018MF 50V MYLAR CAPA	CI
	C701	QETB1HM-106	10MF 50V E.CAPACITO	R
	C702	QETB1HM-106	10MF 50V E.CAPACITO	R
	C703	QETB1AM-107	100MF 10V AL E.CAPAC	IT
	C704	QETB1AM-107	100MF 10V AL E.CAPAC	IT
	C705	QCS21HJ-101A	100PF 50V CER.CAPACI	TO

Δ : SAFETY PARTS

Capacitors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C706	QCS21HJ-101A	100PF 50V CER.CAPACI	TO
	C707	QCS21HJ-270	27PF 50V CER.CAPACI	TO
	C708	QCS21HJ-270	27PF 50V CER.CAPACI	TO
	C709	QCS21HJ-330	33PF 50V CER.CAPACI	TO
	C710	QCS21HJ-330	33PF 50V CER.CAPACI	TO
	C711	QFLB1HJ-103	0.01MF 50V MYLAR CAPA	CI
	C712	QFLB1HJ-103	0.01MF 50V MYLAR CAPA	CI
	C717	QETB1JM-226	22MF 63V AL E.CAPAC	IT
	C718	QETB1JM-226	22MF 63V AL E.CAPAC	IT
	C721	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
	C729	QCS21HJ-220	22PF 50V CER.CAPACI	TO
	C730	QCS21HJ-220	22PF 50V CER.CAPACI	TO
	C751	QCS22HJ-470A	47PF 500V CER.CAPACI	TO
	C752	QCS22HJ-470A	47PF 500V CER.CAPACI	TO
	C753	QCS22HJ-470A	47PF 500V CER.CAPACI	TO
	C754	QCS22HJ-470A	47PF 500V CER.CAPACI	TO
	C755	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI C
	C755	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CI C
	C756	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI C
	C756	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CI C
	C757	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI C
	C758	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI C
	C761	QCF21HP-473A	0.047MF 50V CER.CAPACI	TO
	C762	QCF21HP-473A	0.047MF 50V CER.CAPACI	TO
	C763	QCF21HP-473A	0.047MF 50V CER.CAPACI	TO
	C764	QCF21HP-473A	0.047MF 50V CER.CAPACI	TO
	C801	EEW8003-109T	10000MF E.CAPACITO	R
	C802	EEW8003-109T	10000MF E.CAPACITO	R
	C812	QETB1EM-107	100MF 25V AL E.CAPAC	IT
	C813	QCF21HP-472	4700PF 50V CER.CAPACI	TO
	C816	QETB1EM-107	100MF 25V AL E.CAPAC	IT
	C817	QCF21HP-472	4700PF 50V CER.CAPACI	TO
	C818	QETB1EM-107	100MF 25V AL E.CAPAC	IT
	C819	QCGB1HK-102	1000PF 50V CER.CAPACI	TO
	C820	QETB1EM-107	100MF 25V AL E.CAPAC	IT
	C821	QCF21HP-472	4700PF 50V CER.CAPACI	TO
	C869	QETB1HM-476	47MF 50V E.CAPACITO	R
	C870	QCF21HP-472	4700PF 50V CER.CAPACI	TO
	C871	QCF21HP-472	4700PF 50V CER.CAPACI	TO
	C872	QCF21HP-472	4700PF 50V CER.CAPACI	TO
	C901	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
	C902	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
	C903	QETB1HM-226	22MF 50V AL E.CAPAC	IT
	C904	QFLB1HK-223	0.022MF 50V MYLAR CAPA	CI
	C905	QCY21HK-102	1000PF 50V CER.CAPACI	TO
	C906	QETB1AM-476	47MF 10V E.CAPACITO	R
	C909	QETB1CM-226	22MF 16V E.CAPACITO	R

Δ ISIAFETY PARTS

Resistors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R054	QRD161J-202	2K 1/6W CARBON RES	IS
	R055	QRD167J-104	100K 1/6W CARBON RES	IS
Δ	R056	QRD14CJ-181S	180 1/4W UNF.CARBON	R
Δ	R057	QRD14CJ-182S	1.8K 1/4W UNF.CARBON	R
	R058	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R059	QRD167J-202	2K 1/6W CARBON RES	IS
	R060	QRD167J-202	2K 1/6W CARBON RES	IS
Δ	R063	QRD14CJ-471S	470 1/4W CARBON RES	IS
Δ	R064	QRD14CJ-100S	10 1/4W UNF.CARBON	R
Δ	R065	QRD14CJ-561S	560 1/4W UNF.CARBON	R
Δ	R066	QRD14CJ-100S	10 1/4W UNF.CARBON	R
Δ	R067	QRD14CJ-471S	470 1/4W CARBON RES	IS
	R068	QRD167J-391	390 1/6W CARBON RES	IS
	R069	ERT-D2WHL202S	2K 1/4W NEGATIVE T	HE
	R070	QRD161J-183	18K 1/6W CARBON RES	IS
	R071	QRD167J-123	12K 1/6W CARBON RES	IS
Δ	R072	QRD125J-330	33 1/2W UNF.CARBON	R
Δ	R073	QRG022J-100AM	10 2W OXIDE META	L
	R074	QRD167J-104	100K 1/6W CARBON RES	IS
Δ	R077	QRG022J-562AM	5.6K 2W OXIDE META	L
	R078	QRD167J-751	750 1/6W CARBON RES	IS
	R083	QRD167J-102	1K 1/6W CARBON RES	IS
Δ	R090	ERF032K-R22	0.22 3W CEM.RESIST	OR
	R461	QRD167J-105	1M 1/6W CARBON RES	IS
	R462	QRD167J-684	680K 1/6W CARBON RES	IS
	R463	QRD167J-684	680K 1/6W CARBON RES	IS
	R464	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R465	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R466	QRD161J-105	1M 1/6W CARBON RES	IS
	R467	QRD167J-103	10K 1/6W CARBON RES	IS
	R481	QRD167J-100	10 1/6W CARBON	IS
	R482	QRD167J-102	1K 1/6W CARBON RES	IS
	R501	QRD161J-203	20K 1/6W CARBON RES	IS
	R502	QRD161J-203	20K 1/6W CARBON RES	IS
	R503	QRD161J-362	3.6K 1/6W CARBON RES	IS
	R504	QRD161J-362	3.6K 1/6W CARBON RES	IS
	R505	QRD167J-472	4.7K 1/6W CARBON RES	IS
	R506	QRD167J-472	4.7K 1/6W CARBON RES	IS
	R507	QRD161J-122	1.2K 1/6W CARBON RES	IS
	R508	QRD161J-122	1.2K 1/6W CARBON RES	IS
	R511	QVDB96C-E15CJ3	100K VARIABLE R	ES
	R512	QVDB96C-E15CJ3	100K VARIABLE R	ES
	R513	QVDA96W-E15DJ3	100K VARIABLE R	ES
	R701	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R702	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R703	QRD167J-104	100K 1/6W CARBON RES	IS
	R704	QRD167J-104	100K 1/6W CARBON RES	IS
	R705	QRD167J-472	4.7K 1/6W CARBON RES	IS
	R706	QRD167J-472	4.7K 1/6W CARBON RES	IS
Δ	R707	QRD14CJ-820S	82 1/4W UNF.CARBON	R
Δ	R708	QRD14CJ-820S	82 1/4W UNF.CARBON	R
Δ	R709	QRD14CJ-820S	82 1/4W UNF.CARBON	R
Δ	R710	QRD14CJ-820S	82 1/4W UNF.CARBON	R
Δ	R711	QRD14CJ-470S	47 1/4W UNF.CARBON	R
Δ	R712	QRD14CJ-470S	47 1/4W UNF.CARBON	R
	R713	QRD161J-273	27K 1/6W CARBON RES	IS
	R714	QRD161J-273	27K 1/6W CARBON RES	IS
	R715	QRD161J-273	27K 1/6W CARBON RES	IS
	R716	QRD161J-273	27K 1/6W CARBON RES	IS
	R717	QRD167J-332	3.3K 1/6W CARBON RES	IS
	R718	QRD167J-332	3.3K 1/6W CARBON RES	IS
	R719	QRD167J-133	13K 1/6W CARBON RES	IS
	R720	QRD167J-133	13K 1/6W CARBON RES	IS
	R723	QRD161J-561	560 1/6W CARBON RES	IS
	R724	QRD161J-561	560 1/6W CARBON RES	IS
	R725	QRD161J-202	2K 1/6W CARBON RES	IS
	R726	QRD167J-473	47K 1/6W CARBON RES	IS
	R727	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R728	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R729	QRD167J-102	1K 1/6W CARBON RES	IS
	R731	QRD167J-823	82K 1/6W CARBON RES	IS
	R732	QRD167J-823	82K 1/6W CARBON RES	IS
	R736	QRD167J-473	47K 1/6W CARBON RES	IS
	R751	QVPA601-501A	500 TRIMMER RE	SI
	R752	QVPA601-501A	500 TRIMMER RE	SI
	R753	QRD161J-132	1.3K 1/6W CARBON RES	IS
	R754	QRD161J-132	1.3K 1/6W CARBON RES	IS
	R755	QRD167J-391	390 1/6W CARBON RES	IS
	R756	QRD167J-391	390 1/6W CARBON RES	IS
	R759	QRD14CJ-100S	10 1/4W UNF.CARBON	R
Δ	R760	QRD14CJ-100S	10 1/4W UNF.CARBON	R
Δ	R761	QRD14CJ-100S	10 1/4W UNF.CARBON	R
Δ	R762	QRD14CJ-100S	10 1/4W UNF.CARBON	R
	R767	QRD161J-221	220 1/6W CARBON RES	IS
	R768	QRD161J-221	220 1/6W CARBON RES	IS
	R769	QRD161J-221	220 1/6W CARBON RES	IS
	R770	QRD161J-221	220 1/6W CARBON RES	IS
	R771	QRD167J-511	510 1/6W CARBON RES	IS
	R772	QRD167J-511	510 1/6W CARBON RES	IS
	R773	QRD167J-511	510 1/6W CARBON RES	IS

Δ ISIAFETY PARTS

Δ ISIAFETY PARTS

Resistors

Δ	ITEM	PART NUMBER	DESCRIPTION		AREA
Δ	R774	QRD167J-511	510	1/6W CARBON RES	IS
Δ	R783	QRD14CJ-272S	2.7K	1/4W UNF. CARBON	R
Δ	R784	QRD14CJ-272S	2.7K	1/4W UNF. CARBON	R
Δ	R785	QRD14CJ-271S	270	1/4W UNF. CARBON	R
Δ	R786	QRD14CJ-271S	270	1/4W UNF. CARBON	R
Δ	R787	ERF032K-R22	0.22	3W CEM. RESIST	OR
Δ	R788	ERF032K-R22	0.22	3W CEM. RESIST	OR
Δ	R789	QRD14CJ-100S	10	1/4W UNF. CARBON	R
Δ	R790	QRD14CJ-100S	10	1/4W UNF. CARBON	R
Δ	R791	QRD14CJ-100S	10	1/4W UNF. CARBON	R
Δ	R792	QRD14CJ-100S	10	1/4W UNF. CARBON	R
Δ	R793	QRD125J-330	33	1/2W UNF. CARBON	R
Δ	R794	QRD125J-330	33	1/2W UNF. CARBON	R
Δ	R795	QRG022J-100AM	10	2W OXIDE META	L
Δ	R796	QRG022J-100AM	10	2W OXIDE META	L
Δ	R797	QRD14CJ-330S	33	1/4W UNF. CARBON	R
Δ	R798	QRD14CJ-330S	33	1/4W UNF. CARBON	R
Δ	R799	ERF032K-R22	0.22	3W CEM. RESIST	OR
Δ	R805	QRD12CJ-822S	8.2K	1/2W NETWORK RE	SI
Δ	R806	QRD14CJ-391S	390	1/4W UNF. CARBON	R
Δ	R811	QRD14CJ-120S	12	1/4W UNF. CARBON	R
Δ	R813	QRD14CJ-122S	1.2K	1/4W UNF. CARBON	R
Δ	R819	QRD14CJ-100S	10	1/4W UNF. CARBON	R
Δ	R822	QRD14CJ-272S	2.7K	1/4W UNF. CARBON	R
Δ	R825	QRD14CJ-120S	12	1/4W UNF. CARBON	R
Δ	R828	QRD14CJ-122S	1.2K	1/4W UNF. CARBON	R
Δ	R829	QRG022J-122AM	1.2K	2W OXIDE META	L
Δ	R830	QRG022J-122AM	1.2K	2W OXIDE META	L
Δ	R831	QRG022J-122AM	1.2K	2W OXIDE META	L
Δ	R832	QRD12CJ-103S	10K	1/2W R-NETWORK	L
Δ	R833	QRG022J-122AM	1.2K	2W OXIDE META	L
Δ	R834	QRD14CJ-220S	22	1/4W UNF. CARBON	R
Δ	R838	QRD125J-2R2	2.2	1/2W UNF. CARBON	R
Δ	R841	QRD167J-104	100K	1/6W CARBON RES	IS
Δ	R842	QRD167J-104	100K	1/6W CARBON RES	IS
Δ	R843	QRD14CJ-4R7S	4.7	1/4W UNF. CARBON	R
Δ	R871	QRD14CJ-120S	12	1/4W UNF. CARBON	R
Δ	R872	QRD14CJ-120S	12	1/4W UNF. CARBON	R
Δ	R873	QRD14CJ-471S	470	1/4W CARBON RES	IS
Δ	R874	QRD14CJ-471S	470	1/4W CARBON RES	IS
Δ	R875	QRD14CJ-822S	8.2K	1/4W UNF. CARBON	R
Δ	R876	QRD14CJ-822S	8.2K	1/4W UNF. CARBON	R
Δ	R882	QRD14CJ-220S	22	1/4W UNF. CARBON	R
Δ	R883	QRD14CJ-100S	10	1/4W UNF. CARBON	R
Δ	R884	QRD14CJ-100S	10	1/4W UNF. CARBON	R
Δ	R901	QRD161J-681	680	1/6W CARBON RES	IS
Δ	R902	QRD161J-681	680	1/6W CARBON RES	IS
Δ	R903	QRD167J-562	5.6K	1/6W CARBON RES	IS
Δ	R904	QRD167J-562	5.6K	1/6W CARBON RES	IS
Δ	R905	QRD167J-123	12K	1/6W CARBON RES	IS
Δ	R906	QRD167J-123	12K	1/6W CARBON RES	IS
Δ	R907	QRD167J-152	1.5K	1/6W CARBON RES	IS
Δ	R908	QRD167J-152	1.5K	1/6W CARBON RES	IS
Δ	R909	QRD167J-103	10K	1/6W CARBON RES	IS
Δ	R911	QRD167J-332	3.3K	1/6W CARBON RES	IS
Δ	R912	QRD167J-473	47K	1/6W CARBON RES	IS
Δ	R913	QRD167J-104	100K	1/6W CARBON RES	IS
Δ	R914	QRD167J-823	82K	1/6W CARBON RES	IS
Δ	R915	QRD167J-473	47K	1/6W CARBON RES	IS
Δ	R916	QRD167J-563	56K	1/6W CARBON RES	IS
Δ	R917	QRD167J-683	68K	1/6W CARBON RES	IS
Δ	R918	QRD167J-392	3.9K	1/6W CARBON RES	IS
Δ	R921	QRD167J-224	220K	1/6W CARBON RES	IS
Δ	R922	QRD167J-182	1.8K	1/6W CARBON RES	IS
Δ	R924	QRG022J-122AM	1.2K	2W OXIDE META	L
Δ	R925	QRD161J-181	180	1/6W CARBON RES	IS
Δ	R926	QRD167J-151	150	1/6W CARBON RES	IS
Δ	R927	QRD161J-181	180	1/6W CARBON RES	IS
Δ	R928	QRD161J-181	180	1/6W CARBON RES	IS
Δ	R931	QRD14CJ-470S	47	1/4W UNF. CARBON	R
Δ	R941	QRG022J-471AM	470	2W OXIDE META	L
Δ	R942	QRG022J-471AM	470	2W OXIDE META	L
Δ	R951	QRD161J-333	33K	1/6W CARBON RES	IS
Δ	R952	QRD161J-333	33K	1/6W CARBON RES	IS
Δ	R953	QRD161J-333	33K	1/6W CARBON RES	IS
Δ	R956	QRD167J-223	22K	1/6W CARBON RES	IS
Δ	R957	QRD167J-391	390	1/6W CARBON RES	IS

Δ : SAFETY PARTS

Others

Δ	ITEM	PART NUMBER	DESCRIPTION		AREA
	J481	SBSG3008CC	TAPPING SCREW		
	J901	QMS3501-021	PIN JACK (COMPULINK)		
	L011	QMS6022-V01	HEADPHONE JACK		
	L051	EGL0001-R45	INDUCTOR		
	L051	EGL0001-R45	INDUCTOR		
	L751	EGL0001-1R0	INDUCTOR		
	L752	EGL0001-1R0	INDUCTOR		
	EP001	EMZ4002-001Z	EARTH PLATE		
	EP002	EMZ4002-001Z	EARTH PLATE		
	EP003	EMZ4002-001Z	EARTH PLATE		
	EP004	EMZ4002-001Z	EARTH PLATE		
	FW901	EWR33B-08SST	FLAT WIRE ASSY (3PIN)		
	FW903	EWR36B-45SST	FLAT WIRE ASSY (6PIN)		
	HS805	E70306-001	HEAT SINK		
	HS806	E70306-001	HEAT SINK		
	JB101	EMV5140-015	CONNECT TERMINAL (15PIN)		
	PA051	EWS293-0133	SOCKET WIRE ASSY (3PIN)		
	PA052	EWS267-A414	SOCKET WIRE ASSY (7PIN)		
	PA053	EWS293-0133	SOCKET WIRE ASSY (3PIN)		
	PA055	EWS293-0145	SOCKET WIRE (3PIN)		
	PA808	VMC0178-003L	CONNECT TERMINAL (3PIN)		
	PA809	VMC0178-003L	CONNECT TERMINAL (3PIN)		
	PB051	EMV5109-003A	MALE CONNECTOR (3PIN)		
	PB052	EMV5109-007A	MALE CONNECTOR (7PIN)		
	PB053	EMV5109-003A	MALE CONNECTOR (3PIN)		
	PB055	EMV5109-003A	MALE CONNECTOR (3PIN)		
	PB302	EMV5125-017	CONNECTOR (17PIN)		
	PB441	EMV7123-023	MALE CONNECTOR (23PIN)		
	PB442	EMV5125-006	CONNECT TERMINAL (6PIN)		
	PB562	EMV5125-009	CONNECT TERMINAL (9PIN)		
	PB601	EMV5125-015	MALE CONNECTOR (15PIN)		
	PB602	EMV5140-015	CONNECT TERMINAL (15PIN)		
	PB805	EMV5125-012	CONNECT TERMINAL (12PIN)		
	RY011	ESK7D24-2120	RELAY		
	RY901	ESK7D24-2120	RELAY		
	ST011	EMB90TV-601G	SPEAKER TERMINAL (CENTER/REAR SPK.)		
	ST901	EMB90TV-801A	SPEAKER TERMINAL (FRONT SPK.)		
	SW001	QSP6002-E02J2	PUSH SWITCH (SPK. SW.)		
	TP751	QMV5005-004K	PLUG ASSY		

Δ : SAFETY PARTS



Note (1)

PC Board Ass'y	Version	Designated Areas
ENC-110 <b>C</b>	J	the U.S.A.
ENC-110 <b>D</b>	C	Canada

Transistors

ITEM	PART NUMBER	DESCRIPTION	AREA
Q341	2SD2144S(VW)	SI. TRANSISTROHM	
Q342	2SD2144S(VW)	SI. TRANSISTROHM	
Q453	2SD2144S(VW)	SI. TRANSISTROHM	
Q454	2SD2144S(VW)	SI. TRANSISTROHM	
Q455	DTA144ES	DIGITAL TRAROHM	
Q456	2SD2144S(VW)	SI. TRANSISTROHM	
Q457	2SD2144S(VW)	SI. TRANSISTROHM	
Q561	2SC458(C,D)	SI. TRANSISTHITACHI	
Q562	2SC458(C,D)	SI. TRANSISTHITACHI	
Q563	2SA933S(R,S)	SI. TRANSIST	
Q564	2SA933S(R,S)	SI. TRANSIST	
Q581	DTC114YS	DIGITAL TRAROHM	
Q601	2SD655(D,E)	SI. TRANSIST	
Q602	2SD655(D,E)	SI. TRANSIST	
Q603	DTC144ES	DIGITAL TRAROHM	
Q604	DTC144ES	DIGITAL TRAROHM	
Q605	DTA144ES	DIGITAL TRAROHM	
Q804	2SD2061(E,F)	SI. TRANSIST	
Q807	2SA965(Y)	SI. TRANSIST	
Q851	2SC2240(GR,BL)	SI. TRANSISTTOSHIBA	
Q852	2SC2235(O,Y)	SI. TRANSISTTOSHIBA	
Q853	DTC143TS	DIGITAL TRAROHM	
Q861	DTA144ES	DIGITAL TRAROHM	
Q862	DTC144ES	DIGITAL TRAROHM	

△ IS SAFETY PARTS

I.C.s

ITEM	PART NUMBER	DESCRIPTION	AREA
IC301	NJM4580DD	I.C(MONO-ANDAINICHI	
IC311	BA15218N	I.C(MONO-ANROHM	
IC321	TC9274N-006	I.C(M) TOSHIBA	
IC341	TC9176P	I.C(DIGI-MOTOSHIBA	
IC342	BA15218N	I.C(MONO-ANROHM	
IC361	LB1639-CV	I.C(DIGI-OTSANYO	
IC561	NJM2246D	I.C(MONO-ANDAINICHI	
IC601	NJM2177L	I.C(MONO-ANDAINICHI	
IC602	M50198P	I.C(DIGI-MOMITSUBISHI	
IC604	NJM78M05FA	I.C(MONO-ANDAINICHI	
IC605	NJU3715L	I.C(MONO-ANDAINICHI	

△ IS SAFETY PARTS

Diodes

ITEM	PART NUMBER	DESCRIPTION	AREA
D275	1S5133	SI. DIODE ROHM	
D276	1S5133	SI. DIODE ROHM	
D401	1S5133	SI. DIODE ROHM	
D649	MTZ6.2JC	ZENER DIODEROHM	
D800	U6SBA20	DIODE	
D817	1S5133	SI. DIODE ROHM	
D818	MTZ6.2JC	ZENER DIODEROHM	
D824	MTZ6.8JC	ZENER DIODEROHM	
D825	1S5133	SI. DIODE ROHM	
D851	10E2-FD	DIODE NIHONINTER	
D852	10E2-FD	DIODE NIHONINTER	
D853	10E2-FD	DIODE NIHONINTER	
D854	10E2-FD	DIODE NIHONINTER	
D857	MTZ6.2JC	ZENER DIODEROHM	
D858	1S5133	SI. DIODE ROHM	
D864	MTZ5.6JC	ZENER DIODEROHM	
D871	1SR139-200	SI. DIODE ROHM	
D872	1SR139-200	SI. DIODE ROHM	
D873	1SR139-200	SI. DIODE ROHM	
D874	1SR139-200	SI. DIODE ROHM	
D904	1S5133	SI. DIODE ROHM	

△ IS SAFETY PARTS

Capacitors

ITEM	PART NUMBER	DESCRIPTION	AREA
C001	QCZ9019-472	4700PF C.CAPACITO	R
C261	QCS21HJ-561	560PF 50V CER.CAPACI	TO
C301	QETB1HM-475	4.7MF 50V AL E.CAPAC	IT
C302	QETB1HM-475	4.7MF 50V AL E.CAPAC	IT
C303	QCS21HJ-101A	100PF 50V CER.CAPACI	TO
C304	QCS21HJ-101A	100PF 50V CER.CAPACI	TO
C305	QCY31HK-182Z	1800PF 50V CER.CAPACI	TO
C306	QCY31HK-182Z	1800PF 50V CER.CAPACI	TO
C307	QCY31HK-682Z	6800PF 50V CER.CAPACI	TO
C308	QCY31HK-682Z	6800PF 50V CER.CAPACI	TO
C309	QCS21HJ-101A	100PF 50V CER.CAPACI	TO
C310	QCS21HJ-101A	100PF 50V CER.CAPACI	TO
C311	QETB1HM-475	4.7MF 50V AL E.CAPAC	IT
C312	QETB1HM-475	4.7MF 50V AL E.CAPAC	IT
C313	QETB1AM-107	100MF 10V AL E.CAPAC	IT
C314	QETB1AM-107	100MF 10V AL E.CAPAC	IT
C315	QETB1CM-476	47MF 16V AL E.CAPAC	IT
C316	QETB1CM-476	47MF 16V AL E.CAPAC	IT
C319	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
C320	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
C321	QETB1EM-226	22MF 25V E.CAPACITO	R
C322	QETB1EM-226	22MF 25V E.CAPACITO	R
C331	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
C332	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
C333	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
C334	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
C341	QETB1HM-475	4.7MF 50V AL E.CAPAC	IT
C342	QETB1HM-475	4.7MF 50V AL E.CAPAC	IT
C343	QETB1HM-105	1MF 50V AL E.CAPAC	IT
C344	QETB1HM-105	1MF 50V AL E.CAPAC	IT
C345	QETB1EM-106	10MF 25V AL E.CAPAC	IT
C346	QETB1EM-106	10MF 25V AL E.CAPAC	IT
C347	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
C348	QCHB1EZ-223	0.022MF 25V CER.CAPACI	TO
C351	QETB1EM-226	22MF 25V E.CAPACITO	R
C352	QETB1EM-226	22MF 25V E.CAPACITO	R
C353	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
C354	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
C361	QETB1EM-106	10MF 25V AL E.CAPAC	IT
C362	QETB1EM-106	10MF 25V AL E.CAPAC	IT
C371	QCY21HK-331	330PF 50V CER.CAPACI	TO
C372	QCY21HK-331	330PF 50V CER.CAPACI	TO
C373	QETB1AM-107	100MF 10V AL E.CAPAC	IT
C374	QCF21HP-473A	0.047MF 50V CER.CAPACI	TO
C375	QFLB1HJ-333	0.033MF 50V MYLAR CAPA	CI
C376	QFLB1HJ-333	0.033MF 50V MYLAR CAPA	CI
C377	QETB1HM-226	22MF 50V AL E.CAPAC	IT
C453	QETB1HM-106	10MF 50V E.CAPACITO	R
C454	QER51VM-106	10MF 35V AL E.CAPAC	IT
C561	QETB1CM-477	470MF 16V AL E.CAPAC	IT
C562	QETB1CM-477	470MF 16V AL E.CAPAC	IT
C563	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
C571	QETBOJM-108	1000MF 6.3V AL E.CAPAC	IT
C572	QETBOJM-108	1000MF 6.3V AL E.CAPAC	IT
C573	QETB1HM-475	4.7MF 50V AL E.CAPAC	IT
C574	QETB1HM-475	4.7MF 50V AL E.CAPAC	IT
C580	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
C581	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
C585	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
C601	QETB1HM-475	4.7MF 50V AL E.CAPAC	IT
C602	QFV81HJ-224	0.22MF 50V THIN FILM	CA
C603	QFV81HJ-224	0.22MF 50V THIN FILM	CA
C604	QFV81HJ-224	0.22MF 50V THIN FILM	CA
C605	QFV81HJ-684	0.68MF 50V THIN FILM	CA
C606	QFLB1HJ-562	5600PF 50V MYLAR CAPA	CI
C607	QFLB1HJ-472	4700PF 50V MYLAR CAPA	CI
C608	QCB81HK-471Y	470PF 50V CER.CAPACI	TO
C609	QETB1CM-227	220MF 16V AL E.CAPAC	IT
C610	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CI
C611	QFLB1HJ-562	5600PF 50V MYLAR CAPA	CI
C612	QETB1HM-106	10MF 50V E.CAPACITO	R
C613	QETB1HM-106	10MF 50V E.CAPACITO	R
C614	QETB1HM-106	10MF 50V E.CAPACITO	R
C615	QFV81HJ-224	0.22MF 50V THIN FILM	CA
C616	QETB1CM-107	100MF 16V AL E.CAPAC	IT
C617	QETB1HM-106	10MF 50V E.CAPACITO	R
C618	QETB1HM-106	10MF 50V E.CAPACITO	R
C619	QETB1HM-106	10MF 50V E.CAPACITO	R
C620	QETB1CM-226	22MF 16V E.CAPACITO	R
C621	QFN81HJ-472	4700PF 50V MYLAR CAPA	CI
C622	QETB1HM-475	4.7MF 50V AL E.CAPAC	IT
C623	QFV81HJ-224	0.22MF 50V THIN FILM	CA
C624	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI
C625	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI
C626	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI
C627	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI
C628	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	CI
C629	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	CI
C630	QCB81HK-681Y	680PF 50V CER.CAPACI	TO
C631	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CI

△ IS SAFETY PARTS

Capacitors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C632	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI
	C633	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI
	C635	QETB1HM-106	10MF 50V E.CAPACITO	R
	C636	QETB1HM-106	10MF 50V E.CAPACITO	R
	C637	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI
	C638	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI
	C639	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CI
	C640	QCBB1HK-681Y	680PF 50V CER.CAPACI	TO
	C641	QEBC1EM-2262	22MF 25V LLC ELECTR	O
	C642	QETB1EM-106	10MF 25V AL E.CAPAC	IT
	C645	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
	C646	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
	C649	QCBB1HK-561Y	560PF 50V CER.CAPACI	TO
	C650	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
	C651	QETB1HM-105	1MF 50V AL E.CAPAC	IT
	C652	QFLB1HJ-332	3300PF 50V MYLAR CAPA	CI
	C653	QCGB1HK-821	820PF 50V CER.CAPACI	TO
	C654	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI
	C655	QETB1CM-476	47MF 16V AL E.CAPAC	IT
	C656	QFV81HJ-474	0.47MF 50V THIN FILM	CA
	C657	QFV81HJ-474	0.47MF 50V THIN FILM	CA
	C658	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI
	C659	QFLB1HJ-562	5600PF 50V MYLAR CAPA	CI
	C660	QCBB1HK-561Y	560PF 50V CER.CAPACI	TO
	C661	QETB1HM-105	1MF 50V AL E.CAPAC	IT
	C662	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
	C663	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
	C664	QETB1CM-107	100MF 16V AL E.CAPAC	IT
	C665	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
	C666	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
	C670	QETB1HM-475	4.7MF 50V AL E.CAPAC	IT
	C671	QETB1HM-475	4.7MF 50V AL E.CAPAC	IT
	C805	QCE22HP-103A	0.01MF 500V CER.CAPACI	TO
	C806	QCE22HP-103A	0.01MF 500V CER.CAPACI	TO
	C807	QCE22HP-103A	0.01MF 500V CER.CAPACI	TO
	C814	QETB1EM-107	100MF 25V AL E.CAPAC	IT
	C815	QCF21HP-472	4700PF 50V CER.CAPACI	TO
	C823	QETB1EM-107	100MF 25V AL E.CAPAC	IT
	C824	QCF21HP-472	4700PF 50V CER.CAPACI	TO
	C850	QETB1CM-476	47MF 16V AL E.CAPAC	IT
	C851	QFN82AK-472	4700PF 100V METAL.MYLA	R
	C852	QETB1EM-227	220MF 25V AL E.CAPAC	IT
	C855	QETB1VM-228N	2200MF 35V E.CAPACITO	R
	C856	QETB1VM-228N	2200MF 35V E.CAPACITO	R
	C857	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CI
	C858	QFLB1HJ-473	0.047MF 50V MYLAR CAPA	CI
	C859	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI
	C860	QFLB1HJ-104	0.1MF 50V MYLAR CAPA	CI
	C861	QCF21HP-472	4700PF 50V CER.CAPACI	TO
	C871	QETB1EM-107	100MF 25V AL E.CAPAC	IT
	C981	QETB1HM-225	2.2MF 50V E.CAPACITO	R

Δ SAFETY PARTS

Resistors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R001	QRC128K-27SEM	2.7M 1/2W COMPOSITIO	N
	R281	QRD167J-103	10K 1/6W CARBON RES	IS
	R282	QRD161J-512	5.1K 1/6W CARBON RES	IS
	R283	QRD167J-103	10K 1/6W CARBON RES	IS
	R284	QRD161J-512	5.1K 1/6W CARBON RES	IS
	R301	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R302	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R303	QRD167J-473	47K 1/6W CARBON RES	IS
	R304	QRD167J-473	47K 1/6W CARBON RES	IS
	R305	QRD161J-561	560 1/6W CARBON RES	IS
	R306	QRD161J-561	560 1/6W CARBON RES	IS
	R307	QRD167J-393	39K 1/6W CARBON RES	IS
	R308	QRD167J-393	39K 1/6W CARBON RES	IS
	R309	QRD167J-474	470K 1/6W CARBON RES	IS
	R310	QRD167J-474	470K 1/6W CARBON RES	IS
	R311	QRD167J-104	100K 1/6W CARBON RES	IS
	R312	QRD167J-104	100K 1/6W CARBON RES	IS
	R313	QRD14CJ-391S	390 1/4W UNF. CARBON	R
	R314	QRD14CJ-391S	390 1/4W UNF. CARBON	R
	R315	QRD167J-104	100K 1/6W CARBON RES	IS
	R316	QRD167J-104	100K 1/6W CARBON RES	IS
	R317	QRD167J-104	100K 1/6W CARBON RES	IS
	R318	QRD167J-104	100K 1/6W CARBON RES	IS
	R321	QRZ0077-680	68 1/4W FUSIBLE RE	SI
	R322	QRZ0077-680	68 1/4W FUSIBLE RE	SI
	R339	QRD167J-104	100K 1/6W CARBON RES	IS
	R340	QRD167J-104	100K 1/6W CARBON RES	IS
	R341	QRD167J-104	100K 1/6W CARBON RES	IS
	R342	QRD167J-104	100K 1/6W CARBON RES	IS
	R343	QRD161J-105	1M 1/6W CARBON RES	IS
	R344	QRD161J-105	1M 1/6W CARBON RES	IS
	R345	QRD161J-303Y	30K 1/6W CARBON RES	IS
	R346	QRD161J-303Y	30K 1/6W CARBON RES	IS
	R347	QRD167J-103	10K 1/6W CARBON RES	IS
	R348	QRD167J-103	10K 1/6W CARBON RES	IS

Δ SAFETY PARTS

Resistors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R360	QVDC94Z-E15CJ5	100K	VARIABLE R ES
	R361	QRZ0077-680	68 1/4W FUSIBLE RE	SI
	R362	QRZ0077-680	68 1/4W FUSIBLE RE	SI
	R363	QRZ0077-680	68 1/4W FUSIBLE RE	SI
	R364	QRZ0077-680	68 1/4W FUSIBLE RE	SI
	R371	QRD167J-223	22K 1/6W CARBON RES	IS
	R372	QRD167J-223	22K 1/6W CARBON RES	IS
	R373	QRD167J-223	22K 1/6W CARBON RES	IS
	R374	QRD167J-223	22K 1/6W CARBON RES	IS
	R375	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R376	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R377	QRD161J-202	2K 1/6W CARBON RES	IS
	R381	QRD167J-471	470 1/6W CARBON RES	IS
	R382	QRD167J-471	470 1/6W CARBON RES	IS
	R383	QRD167J-471	470 1/6W CARBON RES	IS
	R384	QRD167J-471	470 1/6W CARBON RES	IS
	R385	QRD167J-471	470 1/6W CARBON RES	IS
	R386	QRD167J-471	470 1/6W CARBON RES	IS
	R387	QRD167J-471	470 1/6W CARBON RES	IS
	R388	QRD167J-471	470 1/6W CARBON RES	IS
	R389	QRD167J-471	470 1/6W CARBON RES	IS
	R390	QRD167J-471	470 1/6W CARBON RES	IS
	R391	QRD167J-471	470 1/6W CARBON RES	IS
	R392	QRD167J-471	470 1/6W CARBON RES	IS
	R393	QRD167J-471	470 1/6W CARBON RES	IS
	R394	QRD167J-471	470 1/6W CARBON RES	IS
	R395	QRD167J-471	470 1/6W CARBON RES	IS
	R396	QRD167J-471	470 1/6W CARBON RES	IS
	R453	QRD167J-152	1.5K 1/6W CARBON RES	IS
	R454	QRD167J-152	1.5K 1/6W CARBON RES	IS
	R455	QRD167J-103	10K 1/6W CARBON RES	IS
	R456	QRD167J-103	10K 1/6W CARBON RES	IS
	R457	QRD167J-103	10K 1/6W CARBON RES	IS
	R458	QRD167J-103	10K 1/6W CARBON RES	IS
	R459	QRD167J-152	1.5K 1/6W CARBON RES	IS
	R460	QRD167J-152	1.5K 1/6W CARBON RES	IS
	R561	QRD167J-750	75 1/6W CARBON RES	IS
	R562	QRD167J-680	68 1/6W CARBON RES	IS
	R563	QRD167J-750	75 1/6W CARBON RES	IS
	R564	QRD167J-750	75 1/6W CARBON RES	IS
	R565	QRD167J-473	47K 1/6W CARBON RES	IS
	R566	QRD167J-473	47K 1/6W CARBON RES	IS
	R567	QRD161J-331	330 1/6W CARBON RES	IS
	R568	QRD161J-331	330 1/6W CARBON RES	IS
	R569	QRD167J-152	1.5K 1/6W CARBON RES	IS
	R570	QRD167J-152	1.5K 1/6W CARBON RES	IS
	R571	QRD167J-151	150 1/6W CARBON RES	IS
	R572	QRD167J-151	150 1/6W CARBON RES	IS
	R575	QRD167J-271	270 1/6W CARBON RES	IS
	R576	QRD167J-271	270 1/6W CARBON RES	IS
	R581	QRD167J-473	47K 1/6W CARBON RES	IS
	R583	QRD167J-152	1.5K 1/6W CARBON RES	IS
	R601	QRD167J-334	330K 1/6W CARBON RES	IS
	R602	QRD167J-822	8.2K 1/6W CARBON RES	IS
	R603	QRD167J-822	8.2K 1/6W CARBON RES	IS
	R604	QRD167J-822	8.2K 1/6W CARBON RES	IS
	R605	QRD167J-153	15K 1/6W CARBON RES	IS
	R606	QRD167J-104	100K 1/6W CARBON RES	IS
	R607	QRD167J-104	100K 1/6W CARBON RES	IS
	R608	QRD161J-752	7.5K 1/6W CARBON RES	IS
	R609	QRD167J-153	15K 1/6W CARBON RES	IS
	R610	QRD167J-473	47K 1/6W CARBON RES	IS
	R611	QRD167J-223	22K 1/6W CARBON RES	IS
	R612	QRD167J-223	22K 1/6W CARBON RES	IS
	R613	QRD167J-473	47K 1/6W CARBON RES	IS
	R614	QRZ0077-680	68 1/4W FUSIBLE RE	SI
	R615	QRD167J-153	15K 1/6W CARBON RES	IS
	R616	QRD161J-752	7.5K 1/6W CARBON RES	IS
	R617	QRD167J-475	4.7M 1/6W CARBON	IS
	R631	QRD167J-392	3.9K 1/6W CARBON RES	IS
	R632	QRD167J-562	5.6K 1/6W CARBON RES	IS
	R633	QRD167J-223	22K 1/6W CARBON RES	IS
	R634	QRD167J-473	47K 1/6W CARBON RES	IS
	R635	QRD167J-223	22K 1/6W CARBON RES	IS
	R636	QRD167J-473	47K 1/6W CARBON RES	IS
	R641	QRD167J-103	10K 1/6W CARBON RES	IS
	R642	QRD167J-103	10K 1/6W CARBON RES	IS
	R643	QRD167J-104	100K 1/6W CARBON RES	IS
	R644	QRD167J-104	100K 1/6W CARBON RES	IS
	R650	QRD167J-822	8.2K 1/6W CARBON RES	IS
	R651	QRD161J-273	27K 1/6W CARBON RES	IS
	R652	QRD167J-153	15K 1/6W CARBON RES	IS
	R653	QRD167J-153	15K 1/6W CARBON RES	IS
	R654	QRD167J-103	10K 1/6W CARBON RES	IS
	R655	QRD167J-153	15K 1/6W CARBON RES	IS
	R656	QRD167J-103	10K 1/6W CARBON RES	IS
	R657	QRD167J-153	15K 1/6W CARBON RES	IS
	R658	QRD161J-105	1M 1/6W CARBON RES	IS
	R659	QRZ0077-680	68 1/4W FUSIBLE RE	SI
	R663	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R739	QRD125J-2R2	2.2 1/2W UNF. CARBON	IS
	R740	QRD125J-2R2	2.2 1/2W UNF. CARBON	IS
	R816	QRD14CJ-330S	33 1/4W UNF. CARBON	R
	R818	QRD14CJ-332S	3.3K 1/4W UNF. CARBON	R
	R819	QRD167J-270	27 1/6W CARBON	IS

Δ SAFETY PARTS

## Resistors

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	R823	QRD12CJ-100SX	10	1/2W	CARBON RES	IS
Δ	R824	QRD14CJ-332S	3.3K	1/4W	UNF.CARBON	R
Δ	R860	QRD14CJ-100S	10	1/4W	UNF.CARBON	R
Δ	R861	QRD14CJ-100S	10	1/4W	UNF.CARBON	R
	R863	QRD161J-821	820	1/6W	CARBON RES	IS
Δ	R871	QRX022J-R22AM	0.22	2W	METAL FILM	R
Δ	R872	QRX022J-R22AM	0.22	2W	METAL FILM	R
	R935	QRD167J-562	5.6K	1/6W	CARBON RES	IS
	R936	QRD167J-822	8.2K	1/6W	CARBON RES	IS
	R937	QRD167J-104	100K	1/6W	CARBON RES	IS
	R938	QRD167J-103	10K	1/6W	CARBON RES	IS

Δ : SAFETY PARTS

## Others

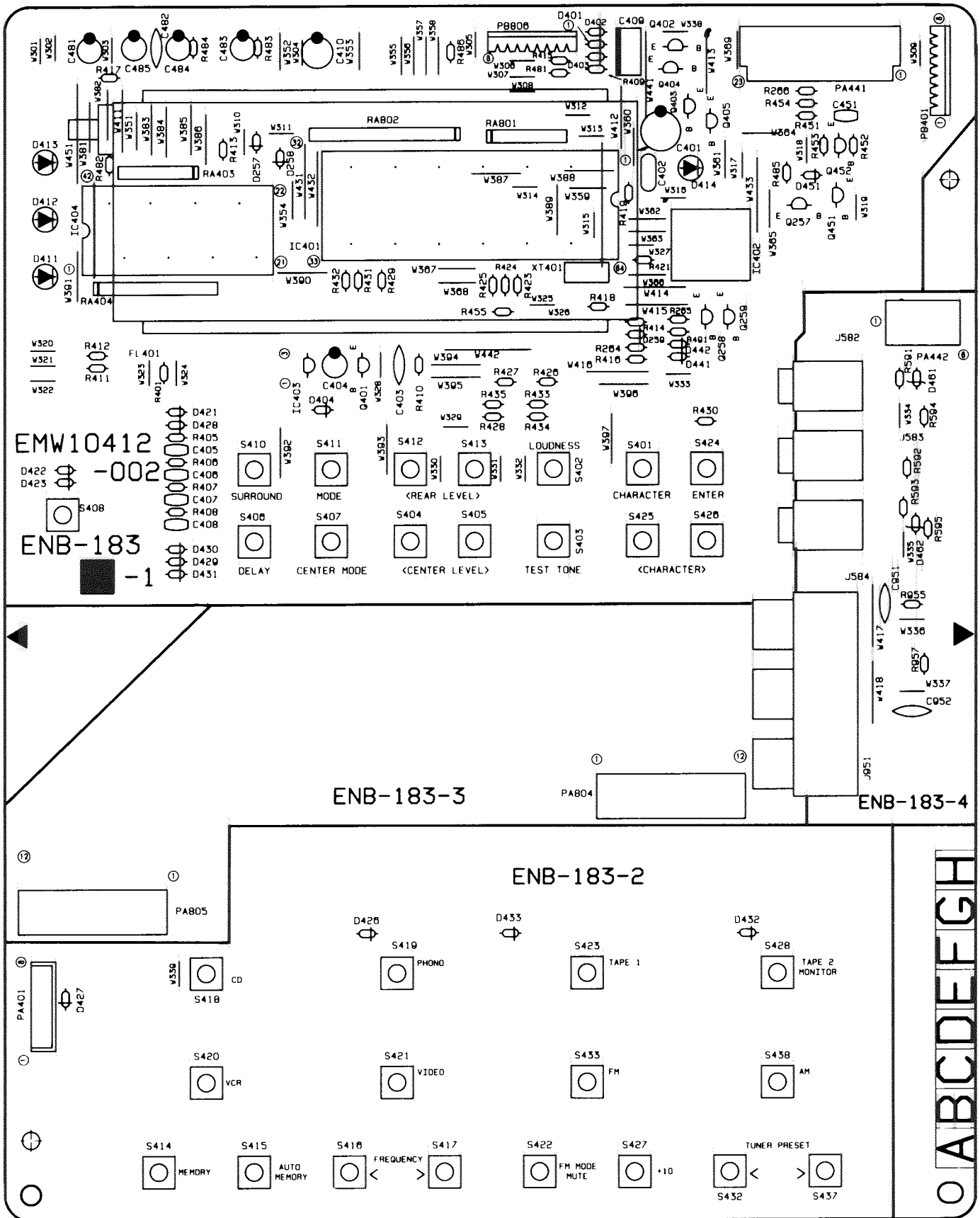
Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
		SBST3008CC	TAPPING SCREW			
		QWE881-14RR	VINYL WIRE			
		QWE882-14RR	VINYL WIRE			
	J300	EMN00TV-422AJ2	PIN JACK(PHONO/CD)			
	J301	EMN00TV-615AJ2	PIN JACK(VCR REC/PLAY/VIDEO)			
	J302	EMN00TV-422AJ2	PIN JACK(TAPE 2 REC/PLAY)			
	J303	EMN00TV-422AJ2	PIN JACK(TAPE 1 REC/PLAY)			
	J561	EMN00YV-406AJ1	PIN JACK(VCR/VIDEO/MONITOR OUT)			
Δ	T002	ETP1000-41JA	POWER TRANSFORMER			
Δ	AC001	QMCA002-E02S	AC OUTLET			
	EP001	EMZ4002-001Z	EARTH PLATE			
	FC002	VMZ0087-001	FUSE CLIP			
	FC101	VMZ0087-001	FUSE CLIP			
	FC102	VMZ0087-001	FUSE CLIP			
	FC801	VMZ0087-001	FUSE CLIP			
	FC802	VMZ0087-001	FUSE CLIP			
	FC803	VMZ0087-001	FUSE CLIP			
	FC804	VMZ0087-001	FUSE CLIP			
	FW802	EWR39B-08SST	FLAT WIRE ASSY(9PIN)			
	HS002	E408032-002SS	H.SINK			
	LA001	E61380-030	FUSE LABEL			
	PA302	EMV7125-017R	CONNECTOR(17PIN)			
	PA561	EMV7125-009R	CONNECT TERMINAL(9PIN)			
	PA601	EMV7125-015R	P.W.BOARD CONNECTOR(15PIN)			
	PA602	EMV7140-L15R	CONNECT TERMINAL(15PIN)			
	PB806	EMV5109-008A	MALE CONNECTOR(8PIN)			
	PB804	EMV5125-012	CONNECT TERMINAL(12PIN)			
	PB808	VMC0177-003	CONNECT TERMINAL(3PIN)			
	PB809	VMC0177-003	CONNECT TERMINAL(3PIN)			
Δ	RY001	ESK1D12-115	RELAY			
	SP858	E3400-431	FELT SPACER			
	TA001	EMZ4001-001	TAB			
	TA002	EMZ4001-001	TAB			
	TW001	EWTO11-098	TERMINAL WIRE ASSY			
	XT651	ECXP3R3-001ZA	RESONATOR			

Δ : SAFETY PARTS



■ ENB-183 □ FL Display PC Board Ass'y

Note : ENB-183 □ varies according to the areas employed. See note (1) when placing an order.



Note (1)

PC Board Ass'y	Version	Designated Areas
ENB-183 <b>A</b>	J	the U.S.A.
ENB-183 <b>B</b>	C	Canada

Transistors

ITEM	PART NUMBER	DESCRIPTION	AREA
Q257	DTC114YS	DIGITAL TRAROHM	
Q258	DTC144ES	DIGITAL TRAROHM	
Q259	DTC114YS	DIGITAL TRAROHM	
Q401	DTC114YS	DIGITAL TRAROHM	
Q402	DTC144ES	DIGITAL TRAROHM	
Q403	DTC144ES	DIGITAL TRAROHM	
Q404	DTA114YS	DIGITAL TRAROHM	
Q405	DTA114YS	DIGITAL TRAROHM	
Q451	2SC1740S(R,S)	SI.TRANSISTROHM	
Q452	2SC1740S(R,S)	SI.TRANSISTROHM	

△ SAFETY PARTS

I.C.s

ITEM	PART NUMBER	DESCRIPTION	AREA
IC401	MN171602JHP	I.C.	
IC402	SPS-420-1	INFRARED DESANYO	
IC403	MN1281(P,Q)	I.C.(DIGI-MOMATSUSHITA	
IC404	XR1095CP	I.C.(MONO-ANEXAR JAPAN	

△ SAFETY PARTS

Diodes

ITEM	PART NUMBER	DESCRIPTION	AREA
D257	1SS133	SI.DIODE ROHM	
D258	1SS133	SI.DIODE ROHM	
D259	1SS133	SI.DIODE ROHM	
D401	1SS133	SI.DIODE ROHM	
D402	1SS133	SI.DIODE ROHM	
D403	1SS133	SI.DIODE ROHM	
D404	1SS133	SI.DIODE ROHM	
D411	SLR-34DC50F124	L.E.D.	
D412	SLR-34DC50F124	L.E.D.	
D413	SLR-34DC50F124	L.E.D.	
D414	SLR-54VC50F124	L.E.D.	
D426	1SS133	SI.DIODE ROHM	
D427	1SS133	SI.DIODE ROHM	
D428	1SS133	SI.DIODE ROHM	
D429	1SS133	SI.DIODE ROHM	
D430	1SS133	SI.DIODE ROHM	
D431	1SS133	SI.DIODE ROHM	
D432	1SS133	SI.DIODE ROHM	
D433	1SS133	SI.DIODE ROHM	
D441	1SS133	SI.DIODE ROHM	
D442	1SS133	SI.DIODE ROHM	
D451	1SS133	SI.DIODE ROHM	
D461	MTZ6.2JC	ZENER DIODEROHM	
D462	MTZ6.2JC	ZENER DIODEROHM	

△ SAFETY PARTS

Capacitors

ITEM	PART NUMBER	DESCRIPTION	AREA
C401	QE61AM-2272M	220MF 10V AL.E.CAPAC	IT
C402	QCZ0202-155	1.5MF 25V CER.RESIST	OR
C403	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
C404	QEK51HM-225GE	2.2MF 50V E.CAPACITO	R
C405	QCB1HK-102Y	1000PF 50V CER.CAPACI	TO
C406	QCB1HK-102Y	1000PF 50V CER.CAPACI	TO
C407	QCB1HK-102Y	1000PF 50V CER.CAPACI	TO
C408	QCB1HK-102Y	1000PF 50V CER.CAPACI	TO
C409	QEAD0HZ-479ZB	47000MF E.CAPACITO	R
C421	QCS21HJ-470	47PF 50V CERAMIC	
C481	QETB1HM-106	10MF 50V E.CAPACITO	R
C482	QCY21HK-102	1000PF 50V CER.CAPACI	TO
C483	QETB1HM-225	2.2MF 50V E.CAPACITO	R
C484	QETB1HM-225	2.2MF 50V E.CAPACITO	R
C485	QETB1HM-106	10MF 50V E.CAPACITO	R
C951	QCS21HJ-471	470PF 50V CERAMIC	
C952	QCS21HJ-471	470PF 50V CERAMIC	

△ SAFETY PARTS

Resistors

ITEM	PART NUMBER	DESCRIPTION	AREA
R264	QRD167J-103	10K 1/6W CARBON RES	IS
R265	QRD167J-103	10K 1/6W CARBON RES	IS
R266	QRD167J-103	10K 1/6W CARBON RES	IS
R401	QRD167J-104	100K 1/6W CARBON RES	IS
R405	QRD167J-104	100K 1/6W CARBON RES	IS
R406	QRD167J-104	100K 1/6W CARBON RES	IS
R407	QRD167J-104	100K 1/6W CARBON RES	IS
R408	QRD167J-104	100K 1/6W CARBON RES	IS
R409	QRD161J-331	330 1/6W CARBON RES	IS
R410	QRD167J-223	22K 1/6W CARBON RES	IS
R411	QRD161J-221	220 1/6W CARBON RES	IS
R412	QRD161J-221	220 1/6W CARBON RES	IS
R413	QRD161J-221	220 1/6W CARBON RES	IS
R414	QRD161J-221	220 1/6W CARBON RES	IS
R415	QRD161J-220	22 1/6W CARBON RES	IS
R416	QRD167J-472	4.7K 1/6W CARBON RES	IS
R417	QRD167J-472	4.7K 1/6W CARBON RES	IS
R418	QRD167J-104	100K 1/6W CARBON RES	IS
R419	QRD167J-104	100K 1/6W CARBON RES	IS
R421	QRD167J-471	470 1/6W CARBON RES	IS
R423	QRD161J-221	220 1/6W CARBON RES	IS
R424	QRD167J-471	470 1/6W CARBON RES	IS
R425	QRD167J-471	470 1/6W CARBON RES	IS
R426	QRD167J-471	470 1/6W CARBON RES	IS
R427	QRD167J-471	470 1/6W CARBON RES	IS
R428	QRD167J-471	470 1/6W CARBON RES	IS
R429	QRD167J-471	470 1/6W CARBON RES	IS
R430	QRD167J-471	470 1/6W CARBON RES	IS
R431	QRD167J-471	470 1/6W CARBON RES	IS
R432	QRD167J-471	470 1/6W CARBON RES	IS
R433	QRD167J-471	470 1/6W CARBON RES	IS
R434	QRD167J-471	470 1/6W CARBON RES	IS
R435	QRD167J-471	470 1/6W CARBON RES	IS
R451	QRD167J-103	10K 1/6W CARBON RES	IS
R452	QRD167J-473	47K 1/6W CARBON RES	IS
R453	QRD167J-223	22K 1/6W CARBON RES	IS
R454	QRD167J-471	470 1/6W CARBON RES	IS
R455	QRD167J-103	10K 1/6W CARBON RES	IS
R481	QRD161J-220	22 1/6W CARBON RES	IS
R482	QRD161J-122	1.2K 1/6W CARBON RES	IS
R483	QRD161J-105	1M 1/6W CARBON RES	IS
R484	QRD161J-105	1M 1/6W CARBON RES	IS
R485	QRD167J-683	68K 1/6W CARBON RES	IS
R486	QRD167J-222	2.2K 1/6W CARBON RES	IS
R491	QRD167J-223	22K 1/6W CARBON RES	IS
R591	QRD161J-221	220 1/6W CARBON RES	IS
R592	QRD161J-221	220 1/6W CARBON RES	IS
R593	QRD161J-221	220 1/6W CARBON RES	IS
R594	QRD167J-102	1K 1/6W CARBON RES	IS
R595	QRD167J-102	1K 1/6W CARBON RES	IS
RA403	QRB089J-104	100K 1/10W NETWORK RE	SI
RA404	QRB139J-104	100K 1/10W RESISTOR	
RA801	QRB089J-104	100K 1/10W NETWORK RE	SI
RA802	QRB169J-104	100K 1/10W RESISTOR A	RR

△ SAFETY PARTS

Others

ITEM	PART NUMBER	DESCRIPTION	AREA
J582	QMS3L10-0A0	MICROPHONE JACK(AV COMPULINK TV)	
J583	QMS3L10-0A0	MICROPHONE JACK(AV COMPULINK)	
J584	QMS3L10-0A0	MICROPHONE JACK(AV COMPULINK)	
J951	EMN00YV-319AJ1	3P PIN JACK(SUB WOOFER/REAR OUT)	
S401	ESPO001-023M	TACT SWITCH(CHARACTER)	
S402	ESPO001-023M	TACT SWITCH(LOUD)	
S403	ESPO001-023M	TACT SWITCH(TEST)	
S404	ESPO001-023M	TACT SWITCH(CENTER -)	
S405	ESPO001-023M	TACT SWITCH(CENTER +)	
S406	ESPO001-023M	TACT SWITCH(DELAY)	
S407	ESPO001-023M	TACT SWITCH(CENTER)	
S408	ESPO001-023M	TACT SWITCH(POWER)	
S410	ESPO001-023M	TACT SWITCH(SURROUND)	
S411	ESPO001-023M	TACT SWITCH(MODE)	
S412	ESPO001-023M	TACT SWITCH(REAR -)	
S413	ESPO001-023M	TACT SWITCH(REAR +)	
S414	ESPO001-023M	TACT SWITCH(MEMORY)	
S415	ESPO001-023M	TACT SWITCH(AUTO MEMORY)	
S416	ESPO001-023M	TACT SWITCH(FREQ. -)	
S417	ESPO001-023M	TACT SWITCH(FREQ. +)	
S418	ESPO001-023M	TACT SWITCH(CD)	
S419	ESPO001-023M	TACT SWITCH(PHONO)	
S420	ESPO001-023M	TACT SWITCH(VCR)	
S421	ESPO001-023M	TACT SWITCH(VIDEO)	
S422	ESPO001-023M	TACT SWITCH(FM MODE)	
S423	ESPO001-023M	TACT SWITCH(TAPE 1)	
S424	ESPO001-023M	TACT SWITCH(CENTER)	
S425	ESPO001-023M	TACT SWITCH(CHARACTER -)	
S426	ESPO001-023M	TACT SWITCH(CHARACTER +)	
S427	ESPO001-023M	TACT SWITCH(+10)	

△ SAFETY PARTS

Others

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	S428	ESP0001-023M	TACT SWITCH(TAPE2)	
	S432	ESP0001-023M	TACT SWITCH(PRESET-)	
	S433	ESP0001-023M	TACT SWITCH(FM)	
	S437	ESP0001-023M	TACT SWITCH(PRESET+)	
	S438	ESP0001-023M	TACT SWITCH(AM)	
	FL401	ELU0001-170	FL TUBE	
	PA401	EMV5109-008A	MALE CONNECTOR(8PIN)	
	PA441	EMV7123-023R	MALE CONNECTOR(23PIN)	
	PA442	EMV7125-006R	CONNECT TERMINAL(6PIN)	
	PA804	EMV7125-012R	CONNECT TERMINAL(12PIN)	

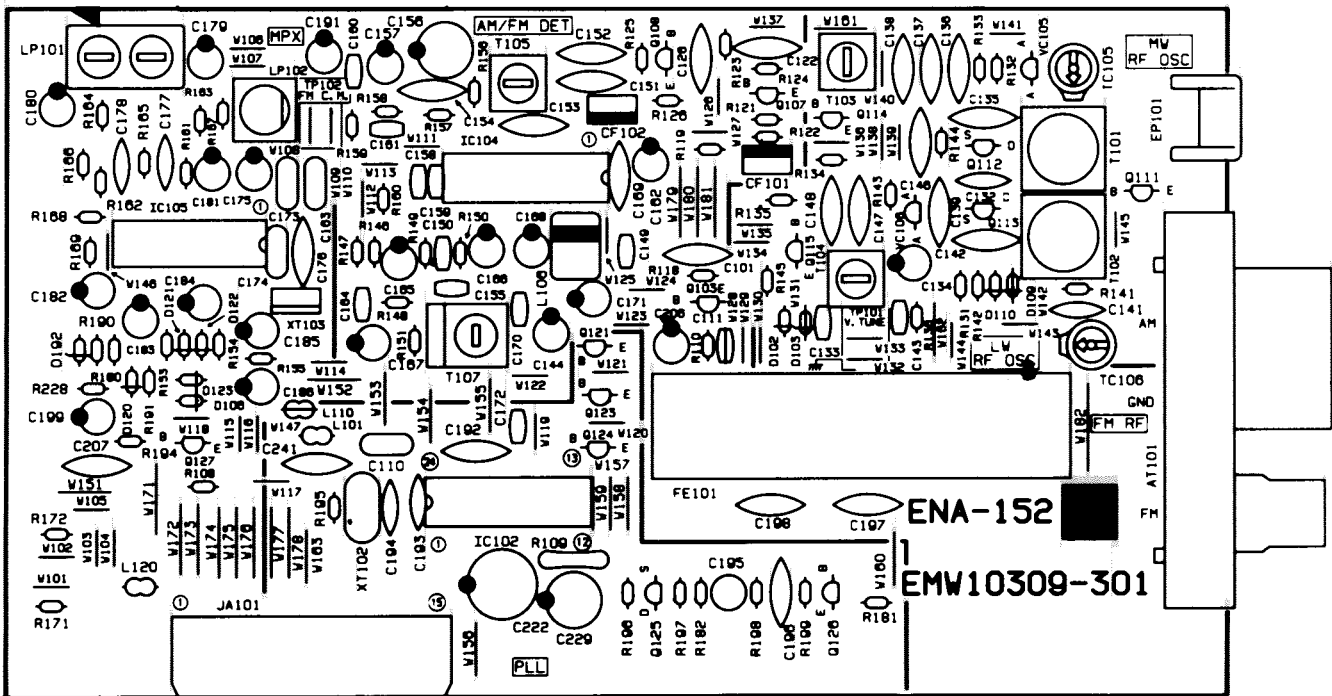
Δ ISIA:FIETIYI IPIARTIS

Others

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	PA805	EMV7125-012R	CONNECT TERMINAL(12PIN)	
	PB401	EWS268-A408	SOCKET WIRE ASSY(8PIN)	
	PB806	EWS268-A416	SOCKET WIRE ASSY(8PIN)	
	SH001	E308132-001	SHIELD COVER	
	SH002	E308133-001	SHIELD PLATE	
	XT401	ECX0060-000EM	CERAMIC RESONATOR	

Δ ISIA:FIETIYI IPIARTIS

■ENA-152 A Tuner PC Board Ass'y



Transistors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q103	2SC461(B,C)	SI.TRANSISTHITACHI	
	Q107	2SC535(B,C)	SI.TRANSIST	
	Q108	2SC461(B,C)	SI.TRANSISTHITACHI	
	Q112	2SK301(Q,R)	F.E.T.	
	Q123	DTA144ES	DIGITAL TRAROHM	
	Q124	DTA144ES	DIGITAL TRAROHM	
	Q125	2SK301(Q2)	F.E.T.	
	Q126	2SC458(D)	SI.TRANSIST	
	Q127	DTC144ES	DIGITAL TRAROHM	

Δ ISIA:FIETIYI IPIARTIS

Diodes

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D106	1SS119	SI.DIODE	
	D120	1SS119	SI.DIODE	
	D121	1SS119	SI.DIODE	
	D122	1SS119	SI.DIODE	
	D123	1SS119	SI.DIODE	
	D192	MTZ5.1JC	ZENER DIODEROHM	
	VC105	SVC342(L)	VARI-CAPA DSANYO	

Δ ISIA:FIETIYI IPIARTIS

I.C.s

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC102	LC7218	I.C(DIGI-MO)	
	IC104	LA1266A	I.C(MONO-ANSANYO)	
	IC105	LA3401	I.C(MONO-ANSANYO)	

Δ ISIA:FIETIYI IPIARTIS

Capacitors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C101	QCF21HP-223A	0.022MF 50V	CER.CAPACI TO
	C110	QC20202-155	1.5MF 25V	CER.RESIST OR
	C122	QCF21HP-223A	0.022MF 50V	CER.CAPACI TO
	C126	QCF21HP-223A	0.022MF 50V	CER.CAPACI TO
	C132	QCS21HJ-561	560PF 50V	CER.CAPACI TO
	C133	QCHB1E7-223	0.022MF 25V	CER.CAPACI TO
	C134	QETB1EM-106	10MF 25V	AL.E.CAPAC IT
	C135	QCC21EM-223	0.022MF 25V	CER.CAPACI TO
	C136	QCT26CH-180	18PF 50V	CER.CAPACI TO
	C137	QCT26CH-221	220PF 50V	CER.CAPACI TO

Δ ISIA:FIETIYI IPIARTIS

**Capacitors**

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	C138	QCT26CH-241	240PF	50V	CER.CAPACI	TO
	C149	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO
	C150	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO
	C151	QCF21HP-223A	0.022MF	50V	CER.CAPACI	TO
	C152	QCF21HP-223A	0.022MF	50V	CER.CAPACI	TO
	C153	QCC21EM-223	0.022MF	25V	CER.CAPACI	TO
	C154	QCF21HP-223A	0.022MF	50V	CER.CAPACI	TO
	C155	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO
	C156	QETB1CM-227	220MF	16V	AL E.CAPAC	IT
	C157	QETB1HM-474	0.47MF	50V	ELECTRO	
	C158	QCBB1HK-101Y	100PF	50V	CER.CAPACI	TO
	C159	QCBB1HK-101Y	100PF	50V	CER.CAPACI	TO
	C160	QCBB1HK-221Y	220PF	50V	CER.CAPACI	TO
	C161	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO
	C162	QETB1EM-106	10MF	25V	AL E.CAPAC	IT
	C163	QFLB1HJ-102	1000PF	50V	MYLAR CAPA	CI
	C164	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO
	C165	QETB1HM-474	0.47MF	50V	ELECTRO	
	C166	QETB1HM-225	2.2MF	50V	E.CAPACITO	R
	C167	QETB1HM-225	2.2MF	50V	E.CAPACITO	R
	C168	QETB1HM-475	4.7MF	50V	AL E.CAPAC	IT
	C169	QCF21HP-223A	0.022MF	50V	CER.CAPACI	TO
	C170	QCHB1EZ-223	0.022MF	25V	CER.CAPACI	TO
	C171	QETB1EM-106	10MF	25V	AL E.CAPAC	IT
	C172	QCVB1CM-103Y	0.01MF	16V	CER.CAPACI	TO
	C173	QFLB1HJ-393	0.039MF	50V	MYLAR CAPA	CI
	C174	QFLB1HJ-473	0.047MF	50V	MYLAR CAPA	CI
	C175	QETB1EM-106	10MF	25V	AL E.CAPAC	IT
	C176	QCY21HK-102	1000PF	50V	CER.CAPACI	TO
	C177	QCS21HJ-821	820PF	50V	CER.CAPACI	TO
	C178	QCS21HJ-821	820PF	50V	CER.CAPACI	TO
	C179	QETB1HM-225	2.2MF	50V	E.CAPACITO	R
	C180	QETB1HM-225	2.2MF	50V	E.CAPACITO	R
	C181	QETB1EM-106	10MF	25V	AL E.CAPAC	IT
	C182	QETB1HM-225	2.2MF	50V	E.CAPACITO	R
	C183	QETB1HM-105	1MF	50V	AL E.CAPAC	IT
	C184	QETB1HM-105	1MF	50V	AL E.CAPAC	IT
	C185	QETB1HM-225	2.2MF	50V	E.CAPACITO	R
	C186	QETB1HM-474	0.47MF	50V	ELECTRO	
	C191	QETB1HM-475	4.7MF	50V	AL E.CAPAC	IT
	C192	QCC21EM-473	0.047MF	25V	CER.CAPACI	TO
	C193	QCS21HJ-180A	18PF	50V	CER.CAPACI	TO
	C194	QCS21HJ-180A	18PF	50V	CER.CAPACI	TO
	C195	QENB1HM-474	0.47MF	50V	NON POLE	
	C196	QCY21HK-102	1000PF	50V	CER.CAPACI	TO
	C197	QCF21HP-223A	0.022MF	50V	CER.CAPACI	TO
	C198	QCF21HP-103A	0.01MF	50V	CER.CAPACI	TO
	C199	QETB1HM-475	4.7MF	50V	AL E.CAPAC	IT
	C207	QCF21HP-223A	0.022MF	50V	CER.CAPACI	TO
	C222	QETB1CM-477	470MF	16V	AL E.CAPAC	IT
	C229	QETB1CM-227	220MF	16V	AL E.CAPAC	IT
	C241	QCF21HP-223A	0.022MF	50V	CER.CAPACI	TO

Δ ISIAFETY PARTS

**Resistors**

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	R167	QRD167J-393	39K	1/6W	CARBON RES	IS
	R168	QRD167J-103	10K	1/6W	CARBON RES	IS
	R169	QRD167J-103	10K	1/6W	CARBON RES	IS
	R171	QRD167J-682	6.8K	1/6W	CARBON RES	IS
	R172	QRD167J-682	6.8K	1/6W	CARBON RES	IS
	R180	QRD167J-103	10K	1/6W	CARBON RES	IS
	R181	QRD167J-222	2.2K	1/6W	CARBON RES	IS
	R182	QRD161J-181	180	1/6W	CARBON RES	IS
	R190	QRD167J-103	10K	1/6W	CARBON RES	IS
	R191	QRD167J-562	5.6K	1/6W	CARBON RES	IS
	R194	QRD167J-103	10K	1/6W	CARBON RES	IS
	R195	QRD167J-473	47K	1/6W	CARBON RES	IS
	R196	QRD167J-103	10K	1/6W	CARBON RES	IS
	R197	QRD167J-222	2.2K	1/6W	CARBON RES	IS
	R198	QRD167J-332	3.3K	1/6W	CARBON RES	IS
	R199	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R228	QRD167J-222	2.2K	1/6W	CARBON RES	IS

Δ ISIAFETY PARTS

**Others**

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	L101	EQL4007-1ROT	INDUCTOR			
	L106	EQL3001-102K	INDUCTOR			
	L120	EQL4007-1ROT	INDUCTOR			
	T101	EQR1111-014	RF COIL			
	T103	EQR1207-017	RF COIL			
	T105	EQT2140-017	I.F. TRANSFORMER			
	T107	ECB1560-010	CERAMIC FILTER			
	AT101	EMB41YV-301K	ANTENNA TERMINAL			
	CF101	ECB2123-006R	CERAMIC FILTER			
	CF102	ECB2123-006R	CERAMIC FILTER			
	EP101	E70225-001	EARTH PLATE			
	FE101	EAF2203-004	FRONT END			
	JA101	EMV7140-L15R	CONNECT TERMINAL(15PIN)			
	LP101	EQF0101-002	LOWPASS FILTER			
	TC105	ENZ1003-006	TRIMMER CAPACITOR			
	XT102	ECX0007-200KC	CRYSTAL			
	XT103	ECX0000-456KR	CERAMIC RESONATOR			

Δ ISIAFETY PARTS

**Resistors**

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	R108	QRD167J-103	10K	1/6W	CARBON RES	IS
	R109	QRD14CJ-680S	68	1/4W	UNF.CARBON	R
	R118	QRD167J-332	3.3K	1/6W	CARBON RES	IS
	R119	QRD161J-221	220	1/6W	CARBON RES	IS
	R121	QRD167J-391	390	1/6W	CARBON RES	IS
	R122	QRD167J-272	2.7K	1/6W	CARBON RES	IS
	R123	QRD167J-102	1K	1/6W	CARBON RES	IS
	R124	QRD161J-681	680	1/6W	CARBON RES	IS
	R125	QRD167J-332	3.3K	1/6W	CARBON RES	IS
	R126	QRD161J-221	220	1/6W	CARBON RES	IS
	R131	QRD161J-331	330	1/6W	CARBON RES	IS
	R132	QRD167J-103	10K	1/6W	CARBON RES	IS
	R133	QRD167J-473	47K	1/6W	CARBON RES	IS
	R135	QRD167J-470	47	1/6W	CARBON RES	IS
	R136	QRD167J-103	10K	1/6W	CARBON RES	IS
	R146	QRD167J-560	56	1/6W	CARBON RES	IS
	R147	QRD167J-103	10K	1/6W	CARBON RES	IS
	R148	QRD167J-103	10K	1/6W	CARBON RES	IS
	R149	QRD167J-223	22K	1/6W	CARBON RES	IS
	R150	QRD167J-103	10K	1/6W	CARBON RES	IS
	R151	QRD167J-222	2.2K	1/6W	CARBON RES	IS
	R153	QRD167J-103	10K	1/6W	CARBON RES	IS
	R154	QRD167J-103	10K	1/6W	CARBON RES	IS
	R155	QRD167J-562	5.6K	1/6W	CARBON RES	IS
	R156	QRD167J-822	8.2K	1/6W	CARBON RES	IS
	R157	QRD167J-103	10K	1/6W	CARBON RES	IS
	R158	QRD161J-183	18K	1/6W	CARBON RES	IS
	R159	QRD161J-561	560	1/6W	CARBON RES	IS
	R160	QRD167J-562	5.6K	1/6W	CARBON RES	IS
	R161	QRD167J-823	82K	1/6W	CARBON RES	IS
	R162	QRD167J-823	82K	1/6W	CARBON RES	IS
	R163	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R164	QRD167J-472	4.7K	1/6W	CARBON RES	IS
	R165	QRD161J-184	180K	1/6W	CARBON RES	IS
	R166	QRD161J-184	180K	1/6W	CARBON RES	IS

Δ ISIAFETY PARTS

# Accessories List

Symbol No. 

M	2	M	M
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Item	Part Number	Part Name	Q'ty	Description	Areas
1	E30580-2066B	INSTRUCTION BOOK	1		J
	E30580-2067A	INSTRUCTION BOOK	1		C
2	BT-20025K	WARRANTY CARD	1		C
3	BT-51006-1	REGISTER CARD	1		J
4	BT-20044G	SAFETY INSTRUCTION SHEET	1		J
5	BT20071A	SERVICE CENTER LIST	1		C
6	RM-SR715U	REMOTE CONTROLLER	1		
7	EWP502-005K	BUILT-IN ANTENNA	1		
8	EQB4001-015	LOOP ANTENNA	1		
9	EMZ2001-014	ADAPTOR PLUG	1		
10	R03BPA-2STSA	BATTERY	1		
11	QPGA025-03505B	ENVELOPE	1		

SAFETY PARTS

**The Marks for Designated Areas**

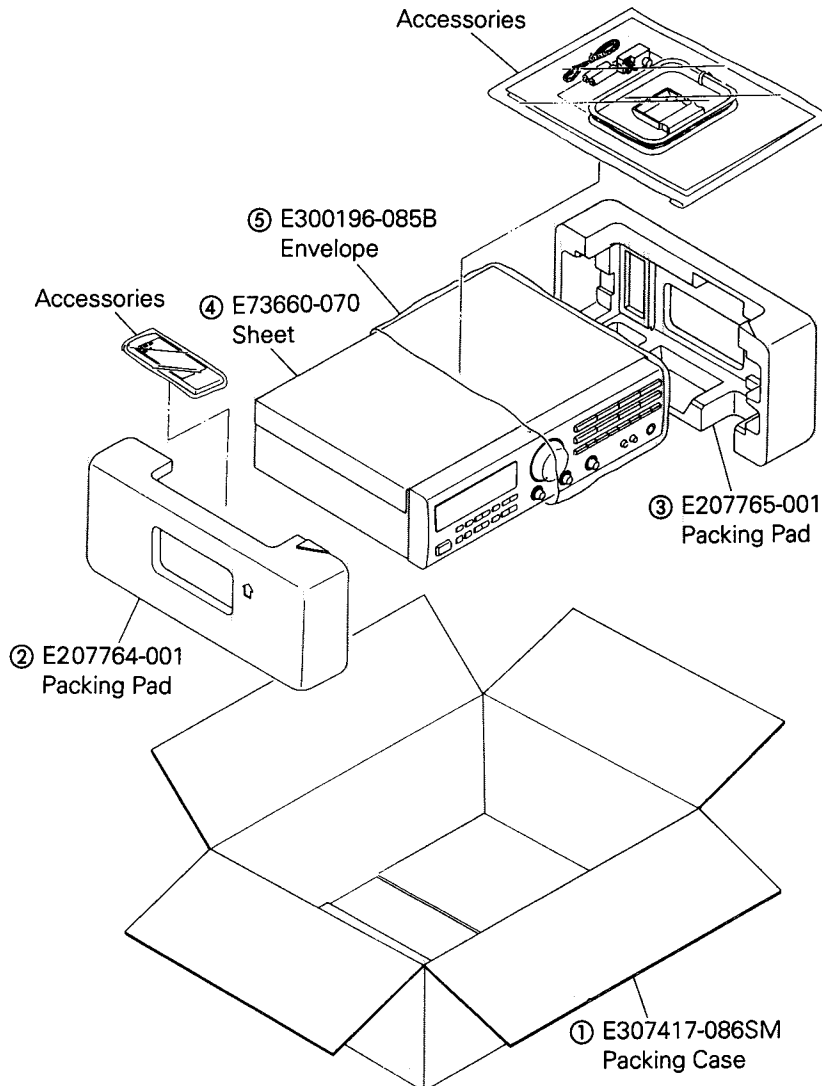
J ..... the U.S.A.    C ..... Canada

No mark indicates all areas.

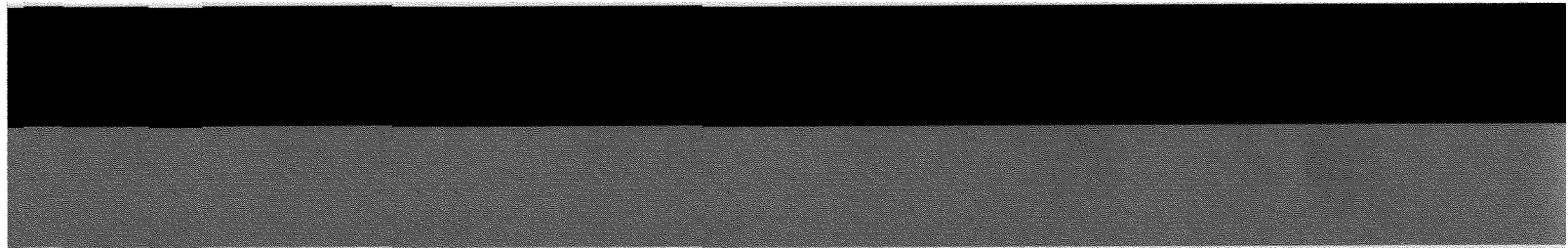
# Packing Materials and Part Numbers

Symbol No. 

M	3	M	M
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— MEMO —



**JVC**

VICTOR COMPANY OF JAPAN, LIMITED  
AUDIO PRODUCTS DIVISION, 1644, Shimotsuruma, Yamato-shi, Kanagawa-ken, 242, JAPAN