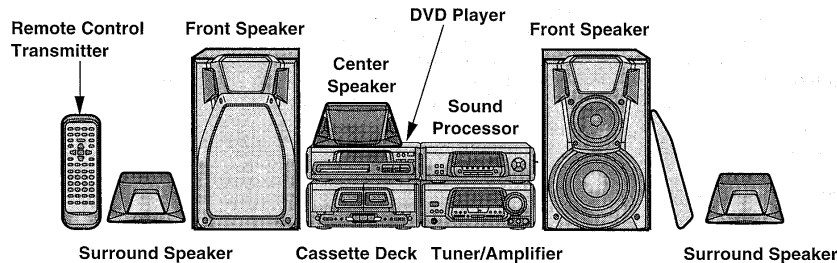


Service Manual

Tuner/Amplifier
SA-EH1000



Colour
(S) Silver Type.

Area
(GK) China.

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

System	SC-VC1000
Sound Processor	SH-EH1000
Tuner/Amplifier	SA-EH1000
DVD Player	SL-EH1000
Cassette Deck	RS-EH1000
Front Speakers*	SB-VC1000
Center Speaker*	SB-PC600X
Surround Speakers*	SB-PS600X

Specifications

Amplifier Section

Power output :

DIN 1 kHz, THD 1%, both channels driven $2 \times 70 \text{ W}(6 \Omega)$
RMS 1 kHz, THD 10%, both channels driven $2 \times 100 \text{ W}(6 \Omega)$

PRO LOGIC mode (at HIGH terminal) :

DIN 1 kHz, THD 1%
MAIN (both channels driven) $2 \times 50 \text{ W}(6 \Omega)$
SURROUND $50 \text{ W}(4 \Omega + 4 \Omega)$
CENTER $50 \text{ W}(8 \Omega)$

RMS 1 kHz, THD 10%
MAIN (both channels driven) $2 \times 70 \text{ W}(6 \Omega)$
SURROUND $70 \text{ W}(4 \Omega + 4 \Omega)$
CENTER $70 \text{ W}(8 \Omega)$

PMPO 1 kHz : 2800 W
(MAIN 6Ω , CENT. 8Ω , SURR. $4 \Omega + 4 \Omega$)

S.WOOFER :

Center frequency 70 Hz
LEVEL (VOL -20 dB) MID +8 dB
MAX +12 dB

Total harmonic distortion :

Rated power at 1 kHz $1 \%(6 \Omega)$
Half power at 1 kHz $0.09 \%(6 \Omega)$

Load impedance :

MAIN (HIGH/LOW) total impedance 6Ω
SURROUND $4 - 8 \Omega$
CENTER 8Ω

Input sensitivity/impedance :

PHONO $2.5 \text{ mV}/47 \text{ k}\Omega$
EXTERNAL $250 \text{ mV}/15 \text{ k}\Omega$

Output level :

EXTERNAL REC OUT $250 \text{ mV}/1.5 \text{ k}\Omega$

FM Tuner Section

Frequency range :

$87.50 - 108.00 \text{ MHz}$ (0.05 MHz steps)

Sensitivity :

$1.8 \mu\text{V}$ (IHF usable)

S/N 26 dB

$1.5 \mu\text{V}$

S/N :

MONO

70 dB (75 dB, IHF)

Antenna terminal(s) :

75Ω (unbalanced)

AM Tuner Section

Frequency range :

$522 - 1611 \text{ kHz}$ (9 kHz steps)

$530 - 1620 \text{ kHz}$ (10 kHz steps)

Sensitivity (S/N 20 dB) :

$500 \mu\text{V/m}$

Timer Section

Clock :

Quartz-lock type

Functions :

Play timer (1 time), REC timer (1 time),

Sleep (120 min, 30 min intervals)

Setting :

1 minute - 23 hours 59 minutes

(1 min intervals)

General

Power supply :

AC 220 V, 50/60 Hz

Power consumption :

220 W

Dimensions :

$287 \text{ (W)} \times 118.5 \text{ (H)} \times 343.5 \text{ (D)} \text{ mm}$

Weight :

5.1 kg

Notes : Specifications are subject to change without notice.

Weight and dimensions are approximate.

* : Made in Singapore.

WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic®

© 1998 Matsushita Electric Industrial Co., Ltd.
All rights reserved. Unauthorized copying and distribution is a violation of law.

Contents

	Page		Page
Before Repair	2	Introducing the Initial Settings	
Protection Circuitry	2	for DVD/ VIDEO CD/ CD player	26 – 28
Accessories	2	Troubleshooting Guide	29, 30
Location of Controls	3	Language Code	31
Suggestions for Safety	4	Operation Checks and	
Speaker Caution	4	Component Replacement Procedures	32 – 35
Concerning the Remote Control	5	To Supply Power Source	36
Installation	5	To Check Operation	36
Connections	6 – 8	To Check KARAOKE Function	36
Demo Function	9	About the Self-Diagnostic Mode	37
Setting the time	9	Schematic Diagram	38 – 53
Type of Discs	10	Printed Circuit Board Diagram	54 – 60
Region Management information	10	Wiring Connection Diagram	61
Selecting the type of disc for the type of connected TV	10	Type Illustration of IC's, Transistors and Diodes	62
Playing DVDs and Video CDs	11, 12	Terminal Function of IC's	63
Listening to Audio CDs	13	Block Diagram	64 – 69
Other Playback Methods	14 – 21	Replacement Parts List	70 – 75
Using GUI Screens	22 – 24	Cabinet Parts Location	76
Enjoying KARAOKE with DVDs, Video CDs and CDs	25	Packaging	77

Before Repair

- (1) Turn off the power supply. Using a 10 Ω , 10 W resistor, connect both ends of power supply capacitors (C701, C703 and C702, C704) in order to discharge the voltage.
- (2) Before turning the power supply on, after completion of repair, slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current at 50/60 Hz in NO SIGNAL mode should be shown below with respect to supply voltage 220V.

Power supply voltage	AC 220 V
Consumed current 50 Hz	140 ~ 400 mA

Protection Circuitry

The protection circuitry may have operated if either of the following conditions is noticed:

No sound is heard when the power is switched ON.

Sound stops during a performance.

The functions of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.

If this occurs, follow the procedure outlined below:

1. Switch OFF the power.
2. Determine the cause of the problem and correct it.
3. Switch ON the power once again.

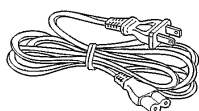
Note:

When the protection circuitry functions, the unit will not operate unless the power is first switched OFF and then ON again.

Accessories

• AC power supply cord

(RJA0055-K) 1 pc.



• Remote control transmitter

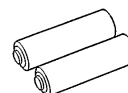
(EUR646476) 1 pc.



• Batteries

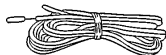
(UM-3, AA, R6/LR6) 2 pcs.

Note: These are available on sales route.



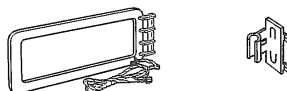
• FM indoor antenna

(RSA0006) 1 pc.



• AM loop antenna set

(RSA0022-J) 1pc.



• Flat cable

(REX0941) 1pc.



• Speaker cords

(REE0393) 2 pcs.

(REE0853) 2 pcs.

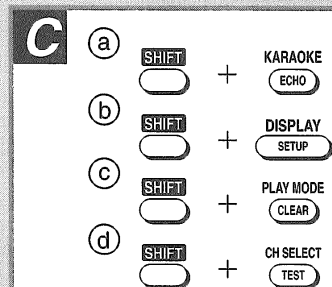
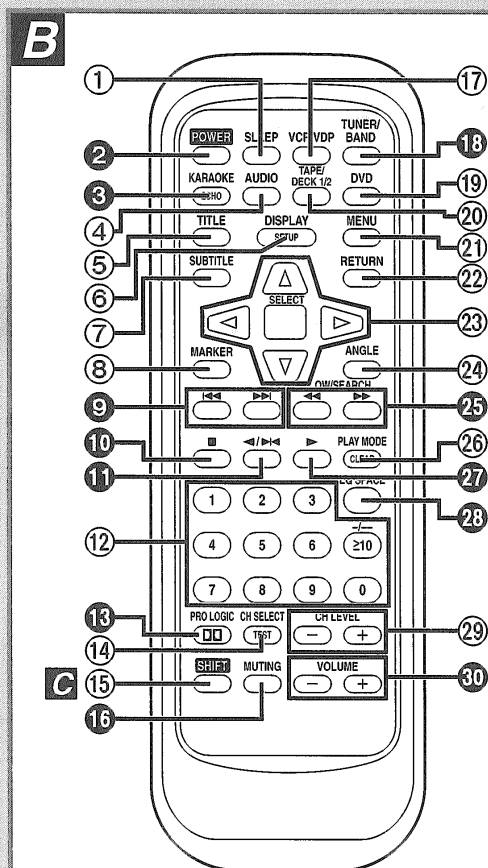
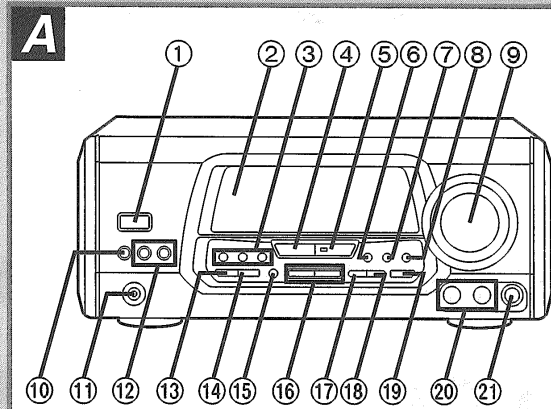


• Video connection cable

(RJL1P019B15) 2 pcs.



Location of Controls



Tuner/amplifier

- ① **Power "STANDBY ⏻/ON" switch (POWER, STANDBY ⏻/ON)**
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
- ② **Display and remote control signal sensor (SENSOR)**
- ③ **Key control buttons [KEY CON (DVD), b, □, #]**
- ④ **Source input select button (INPUT SELECTOR)**
- ⑤ **Tuner/band select button and indicator (TUNER/BAND)**
- ⑥ **Guide melody button (G.MELODY)**
- ⑦ **Voice select button (VOICE)**
- ⑧ **Echo select button (ECHO)**
- ⑨ **Volume control (VOLUME)**
- ⑩ **Clock/timer button (CLOCK/TIMER)**
- ⑪ **Headphones jack (PHONES)**
- ⑫ **Timer on/off buttons (PLAY, REC)**
- ⑬ **Tuning mode select button (TUNING MODE)**
- ⑭ **Set button (SET)**
- ⑮ **FM mode select button (FM AUTO/MONO)**
- ⑯ **Tuning buttons (TUNING, v, ^)**
- ⑰ **Karaoke button (KARAOKE)**
- ⑱ **Voice muting button (V.MUTE)**
- ⑲ **Muting button (MUTING)**
- ⑳ **Microphone jacks (MIC 1, 2)**
- ㉑ **Microphone volume control (MIC VOL)**

Remote control

Buttons such as ② function in exactly the same way as the buttons on the main unit.

- ① **Sleep timer button (SLEEP)**
- ② **Power button (POWER)**
- ③ **Karaoke button (KARAOKE)**
- ④ **Audio select button (AUDIO)**
- ⑤ **Title select button (TITLE)**
- ⑥ **Display button (DISPLAY)**
- ⑦ **Subtitle select button (SUBTITLE)**
- ⑧ **Marker button (MARKER)**
- ⑨ **Skip buttons (◀◀, ▶▶)**
- ⑩ **Stop button (■)**
- ⑪ **Reverse playback/still button (◀/▶)**
- ⑫ **Numeric buttons (≥10, 1~0)**
- ⑬ **DOLBY PRO LOGIC on/off button (□□ PRO LOGIC)**
- ⑭ **Channel select button (CH SELECT)**
- ⑮ **Shift button (SHIFT) [G]**
- ⑯ **Muting button (MUTING)**
- ⑰ **VCR/VDP select button (VCR/VDP)**
- ⑱ **Tuner/band select button (TUNER/BAND)**
- ⑲ **DVD select button (DVD)**
- ⑲ **Tape/deck 1/2 select button (TAPE/DECK 1/2)**
- ㉑ **Menu button (MENU)**
- ㉒ **Return button (RETURN)**
- ㉓ **Cursor buttons and select button (◀, ▶, △, ▽, SELECT)**
- ㉔ **Angle select button (ANGLE)**
- ㉕ **Slow-motion/search buttons (◀◀, ▶▶ SLOW/SEARCH)**
- ㉖ **Play mode select button (PLAY MODE)**
- ㉗ **Play/forward playback button (▶)**
- ㉘ **EQ SPACE on/flat button (EQ SPACE)**
- ㉙ **Channel level adjust buttons (CH LEVEL, -, +)**
- ㉚ **Volume adjust buttons (VOLUME, -, +)**

To use each button in conjunction with SHIFT



Following functions are supported by holding down SHIFT, and then pressing another button.

- ㉓ **Echo function: SHIFT+KARAOKE**
- ㉔ **Set up function: SHIFT+DISPLAY**
- ㉕ **Clear function: SHIFT+PLAY MODE**
- ㉖ **Test function: SHIFT+CH SELECT**

■ Suggestions for Safety

Placement

Avoid placing the unit in areas of:

- direct sunlight
- high temperature
- high humidity
- excessive vibration
- uneven surfaces (Place the unit on a flat level surface.)

Such conditions might damage the cabinet and/or other component parts and thereby shorten the unit's service life.

To protect the unit against sound distortion and acoustical effects, please place the unit at least 15 cm away from wall surfaces etc.

Stacking

Never place heavy items on top of the unit or the power cord.

Voltage

- It is very dangerous to use an AC power source of high voltage such as for an air conditioner.
- A fire might be caused by such a connection.
- A DC power source can not be used.
- Be sure to check the power source carefully, especially if on a ship or other place where DC is used.

Power cord protection

- Avoid cuts, scratches or poor connection of the AC main cord, as this may result in fire or electric shock.
- Excessive bending, pulling or slicing of the cord should also be avoided.
- Do not pull on the cord when you are disconnecting the power, as this could cause an electric shock. Grasp the plug firmly when you disconnect the power supply.
- Never touch the plug with wet hands or a serious electric shock could result.

Foreign materials

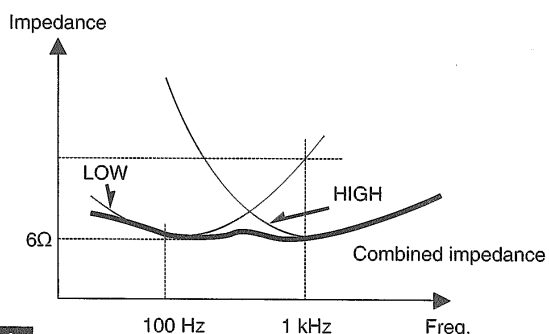
- Ensure that no foreign objects, such as needles, coins, screwdrivers etc., accidentally fall into the unit or through the ventilation holes.
- Otherwise, a serious electric shock or malfunction could occur.
- Be extremely careful about spilling water or liquid on/into the unit, as a fire or electric shock could occur.
- Avoid spraying insecticides onto the unit as they contain flammable gases which can be ignited.
- Insecticides, alcohol, paint thinner and similar chemicals should never be used to clean the unit as they can cause flaking or cloudiness to the cabinet finish.

■ Speaker Caution

Use the speakers only with the recommended system.

Failure to do so may lead to damage to the amplifier and/or the speakers, and may result in the risk of fire.

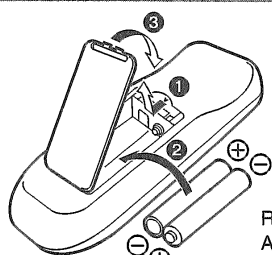
When speakers are connected to the low and high terminals on the back of the main unit. They are designed to have a combined impedance of 6Ω .



Note

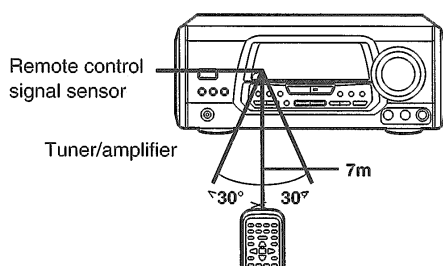
Never use speakers other than those supplied. For instance, if you connect speakers with an impedance of 6Ω each and plug them into the low and high terminals, you will only have a combined impedance of 3Ω .

Concerning the Remote Control

A

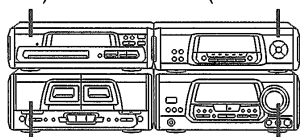
Insert the batteries in the correct polarities (+, -).

R6/LR6
AA, UM-3

B**C**

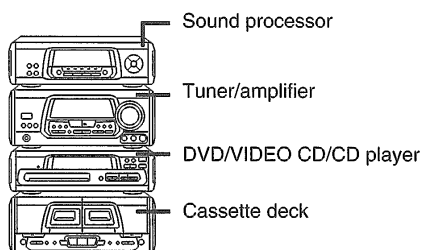
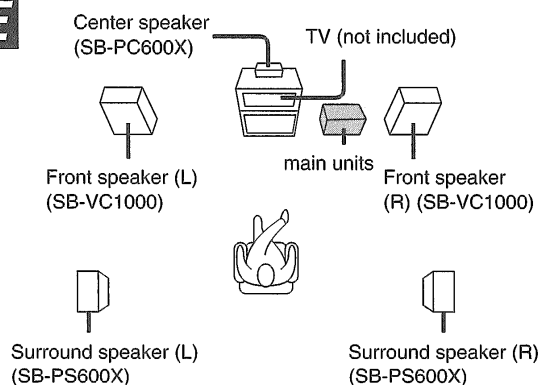
DVD/VIDEO CD/CD player
(SL-EH1000)

Sound processor
(SH-EH1000)



Cassette deck
(RS-EH1000)

Tuner/amplifier
(SA-EH1000)

D**E**

Battery installation

A

- Do not mix old and new batteries, or batteries of different types (manganese and alkaline, etc.).
- Never subject batteries to excessive heat or flame; do not attempt to disassemble them; and be sure they are not short-circuited.
- If the remote control is not to be used for a long period of time, remove the batteries and store them in a cool, dark place.
- Do not attempt to recharge alkaline or manganese batteries.
- Do not use rechargeable type batteries.

Correct method of use

B

- Aim the remote control's transmission window toward the unit's sensor. Avoid any obstacles.
- The maximum distance is within 7 meters directly facing toward the remote control signal sensor.
- Be sure the transmission window and the unit's sensor are free from dust. Excessive dust might affect its performance.
- The operation may not be correct if direct sunlight or other strong light source strikes the receiving sensor of this unit. If there is a problem, place the unit away from the light source.
- If this system is installed in a rack with glass doors, the glass doors' thickness or color might make it necessary to use the remote control a shorter distance from the system.
- Never place heavy items.
- Do not spill water or other liquids.

Installation

Locating the components

Side-by-side set-up **C**

Stacking **D**

Placement of speakers

E

Speakers are designed identically so that no left or right channel orientation is necessary.

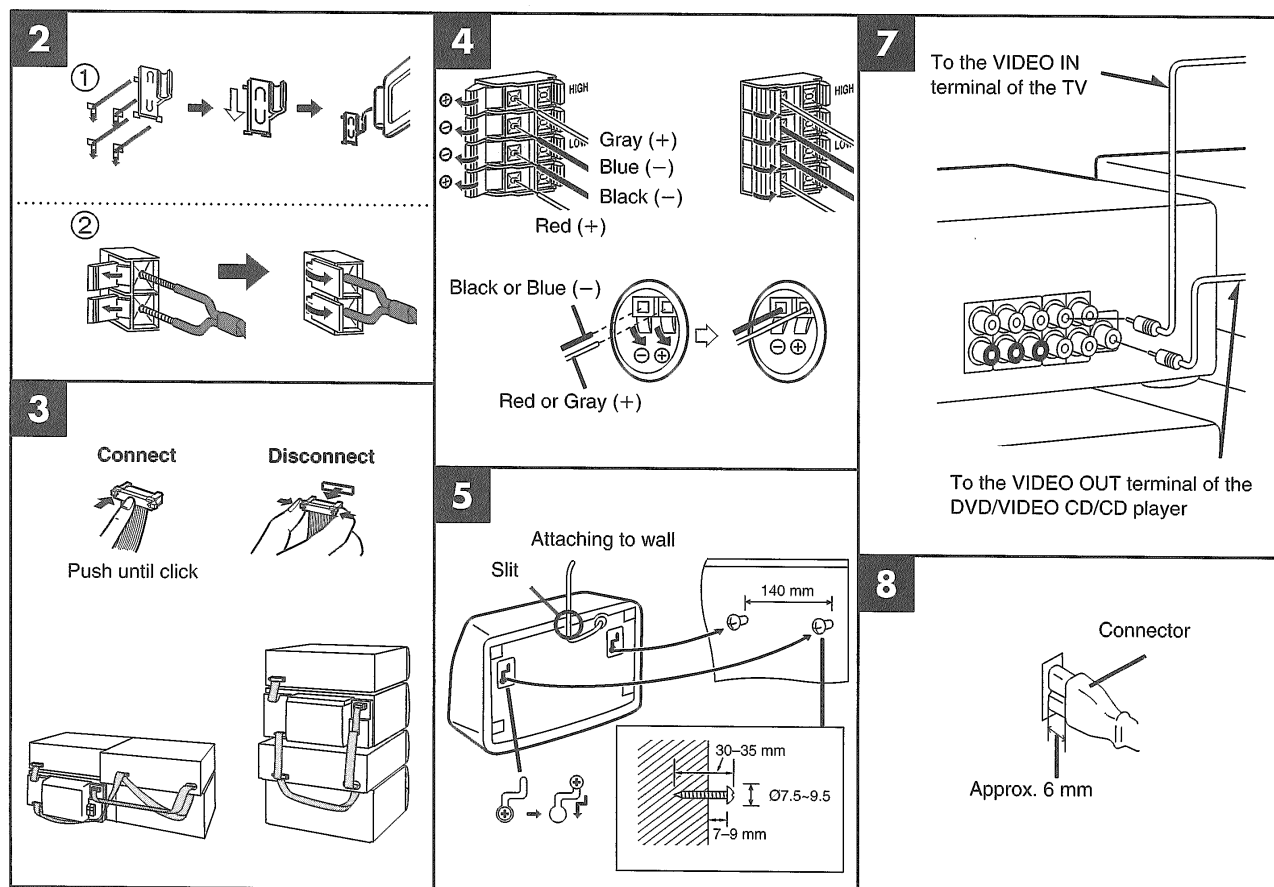
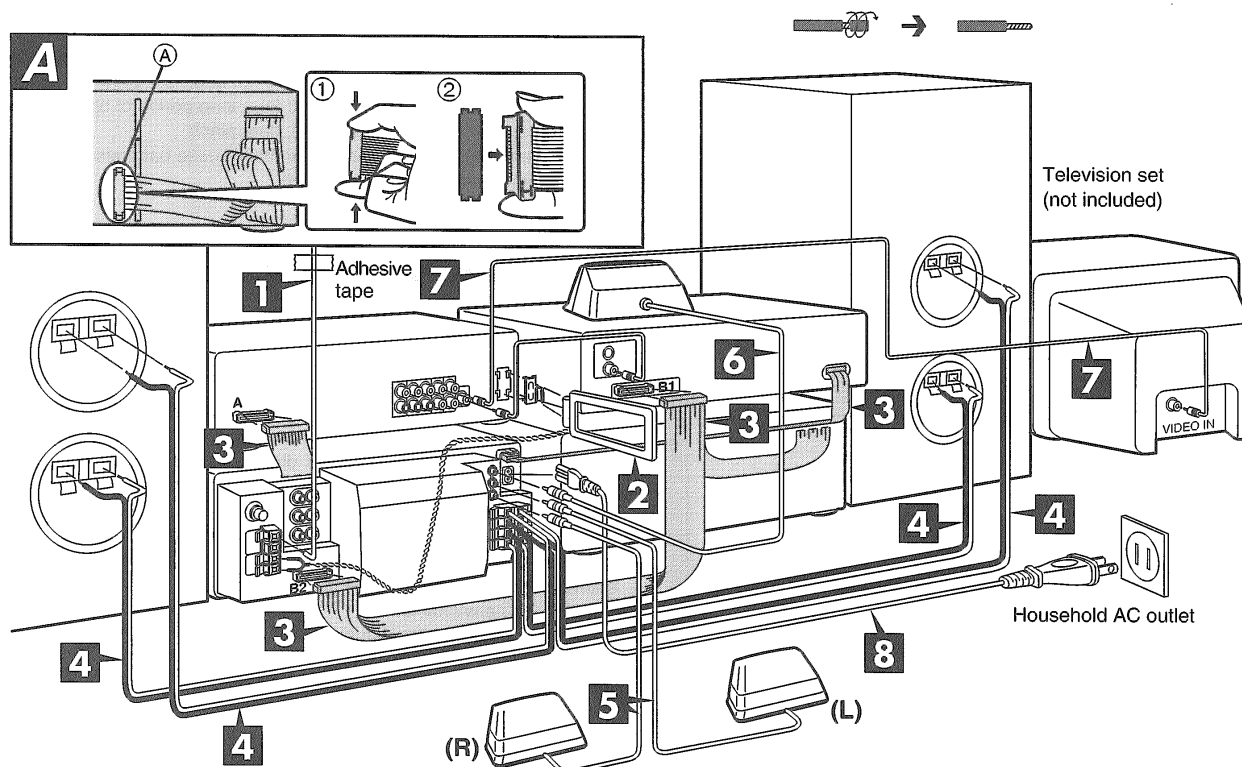
As well as enjoying normal stereo reproduction with the left and right front speakers, a center speaker and surround speakers are included in order to enjoy the sound performance of DOLBY PRO LOGIC systems.

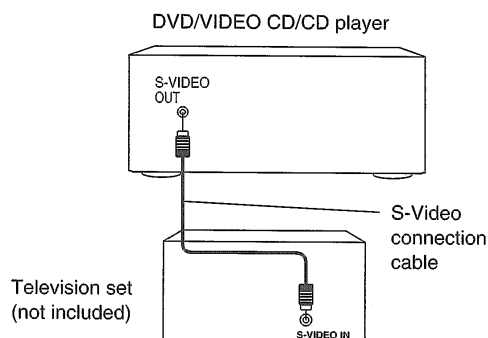
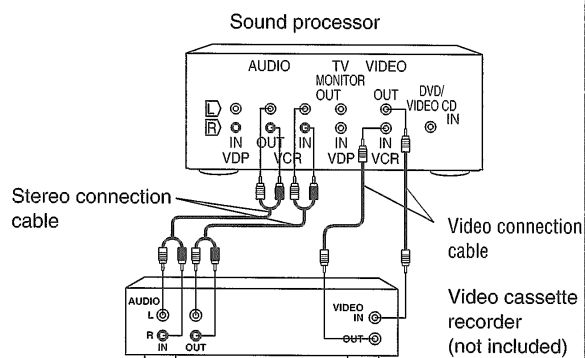
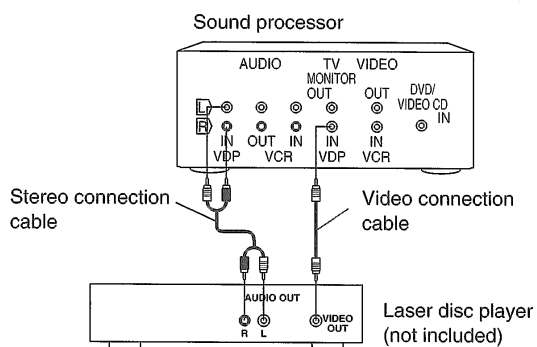
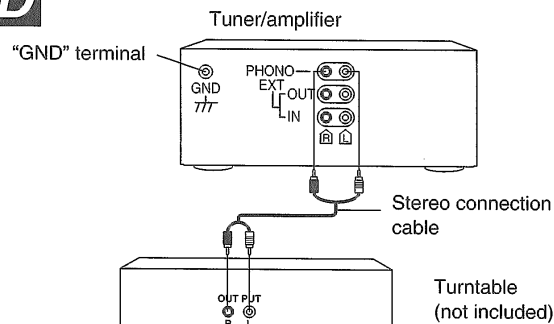
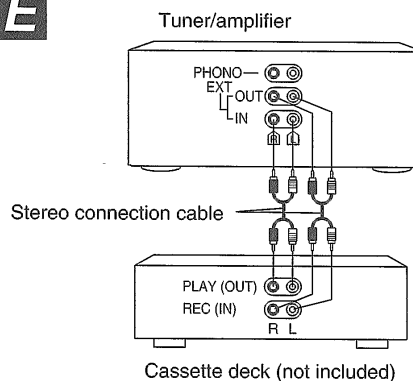
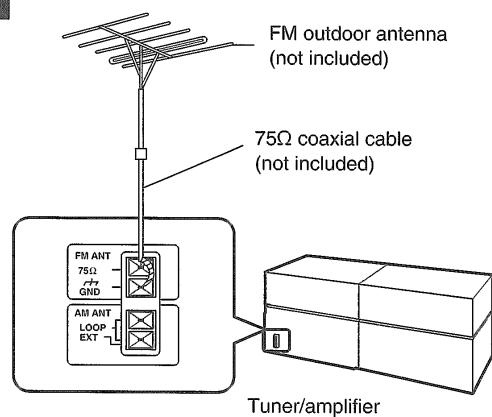
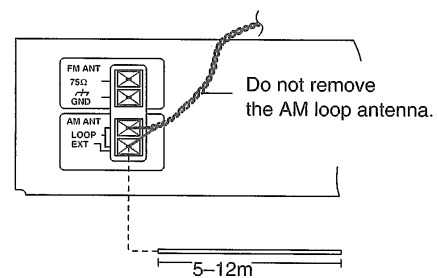
We recommend that surround speakers be placed on the side of or slightly behind the listener, about one meter higher than ear level. The effect varies with the type of music and source, so adjust the position to suit your presence and circumstances.

■ Connections

Connect the AC power supply cord after you have connected all other cables.

To prepare the AM loop antenna wire, FM indoor antenna and speaker cords, twist the vinyl cover tip and pull off.



A**B****C****D****E****F****G**

Supplied accessories connections

Before connections **A**

Disconnect the flat cable (A) at the back of the cassette deck.

1 Connect the FM indoor antenna.

Tape the antenna to a wall or column, where radio signals are received with the least amount of interference.

Note

When you cannot get a good reception with this FM indoor antenna, we recommend you install an FM outdoor antenna (not included).

2 Connect the AM loop antenna.

① Attach the antenna holder. Then clamp the antenna to the antenna holder.

② Connect the antenna terminal to the rear panel of the tuner/amplifier.

Note

To minimize noise pickup, bundle the loop antenna cord using a tape or so to keep the flat cables away from the AM loop antenna cord.

3 Connect the flat cables.

The slender flat cable (included) is used to connect the DVD/VIDEO CD/CD player and the tuner/amplifier.

After connection, fold and press the cables as flat to the back of the unit as possible.

Do not connect or disconnect the flat cables while the power is switched to ON.

4 Connect the right (R) and left (L) front speaker cables.

Notes

- To prevent damage to circuitry, never short-circuit positive (+) and negative (–) speaker wires.
- This set can only be used with the original speaker cables, which are delivered together with the standard accessories.

5 Connect the surround speaker cables.

- Connect the surround speakers after checking their bottom panels to see which one is for the left channel and which one is for the right channel. When the speakers are to be mounted on a wall, select screws suited to the type of wall.
- It is recommended that the speaker cords be fitted into the hollows provided on the bottom panels of the surround speakers.

6 Connect the center speaker cable.

Note for front/center speakers

These speakers are made so as to be able to be used in close proximity to the TV, but irregular coloring may result due to how the system is placed. If such distortion occurs, turn off the TV for sometime between 15 and 30 minutes. The demagnetizing function of the TV will eliminate the distortion. If the irregular coloring is still visible, then move the speakers further away from the TV. Please note that if there is a magnetic object near the TV, irregular coloring may result due to the interaction between the TV and the speaker.

7 Connect the video connection cables.


For details, refer to the operating instructions of TV.

8 Connect the AC power supply cord.

External unit connections

For details, refer to the operating instructions of the units which are to be connected.

Stereo connection cable (not included)

White (L) 
Red (R)

A Television set (with S-VIDEO terminal)

When connecting this system to a TV set equipped with S-VIDEO terminal, you can enjoy better picture clarity.

(You can not switch visual selector on this system on the above connections.)

B Video cassette recorder

Note

You can not record copy-protected discs to the video cassette recorder.

Even if the recording is completed, the video cassette tape will have mach noises.

C Laser disc player

D Turntable

"GND" terminal:

This terminal is for a ground wire use.

E Cassette deck

About OPTICAL OUT terminal

When DVDs recorded in Dolby Digital is used, Dolby Digital bitstream is output from the OPTICAL OUT terminal on this system. When this system is connected to a Dolby Digital decoder, you can enjoy theater-quality audio in your home.

For details, refer to the owner's manual of the equipment.

Manufactured under license from Dolby Laboratories Licensing Corporation.
"Dolby", "AC-3", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

Optional antenna connections

You may need an outdoor antenna if you use this system in a mountainous region or inside a reinforced-concrete building, etc.

FM outdoor antenna (not included) **F**

Disconnect the FM indoor antenna if an FM outdoor antenna is installed.

Note

An outdoor antenna should be installed by a competent technician only.

AM outdoor antenna (not included) **G**

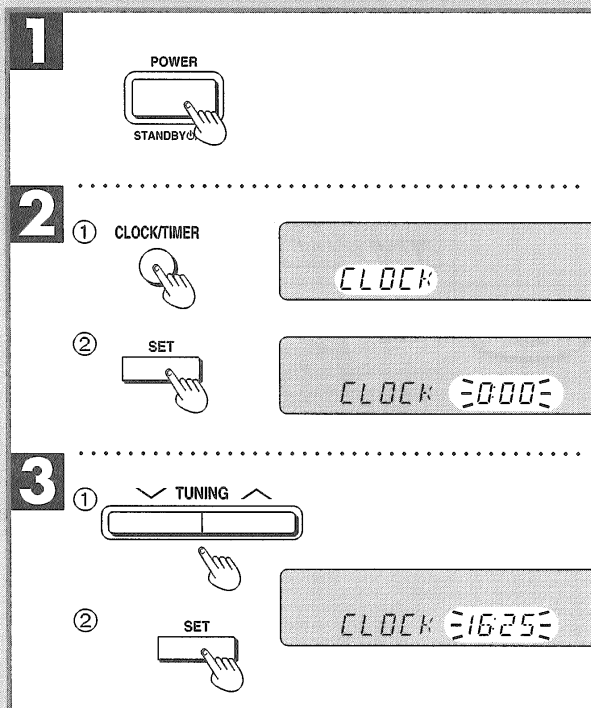
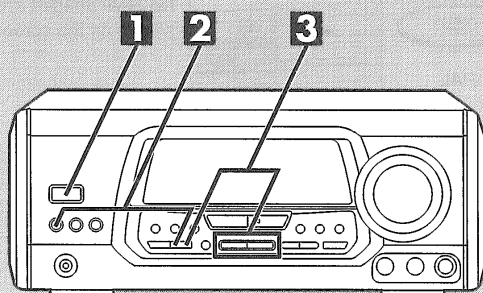
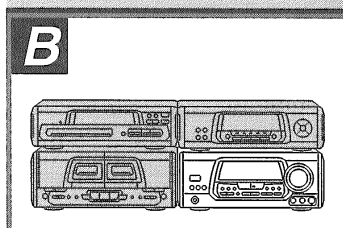
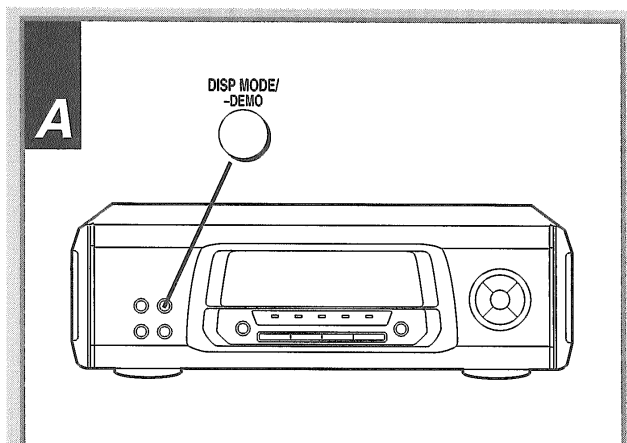
Connect the outdoor antenna without removing the AM loop antenna. Run 5 to 12 m of vinyl-covered wire horizontally along a window or other convenient location.

Be sure to connect the AM loop antenna even when an outdoor antenna is used.

Note

When the unit is not in use, disconnect the outdoor antenna to prevent possible damage from lightning. Never use an outdoor antenna during an electrical storm.

■ Demo Function A



When the input source is set to "DVD" or "TAPE", the demo function will run automatically after about 2 minutes or more in the stop mode.

You can change the demo function to ON or OFF by following steps.

1. Switch on the power.
2. Press and hold DISP MODE/-DEMO for about 2 seconds or more.

■ Setting the time B

This is a 24-hour clock.

These instructions explain how to set the clock for 16:25 (4:25 p.m.).

1 Switch on the power.

2 ① Press CLOCK/TIMER to show "CLOCK".

Within 5 seconds:

② Press SET.

3 ① Press TUNING (∇ or \blacktriangle) to show the time.

The time display can be changed in one minute units by pressing the buttons quickly.

② Press SET to finish setting the time.

The clock now starts operating, and the display returns to the previous display.

When "--:--" appears:

You have connected the AC power supply cord for the first time or if there has been a power failure.

If this happens, reset the time.

If the minutes setting is wrong:

1. Press CLOCK/TIMER.
2. Press SET.
3. Press TUNING (∇ or \blacktriangle) to set the minute, and then press SET.

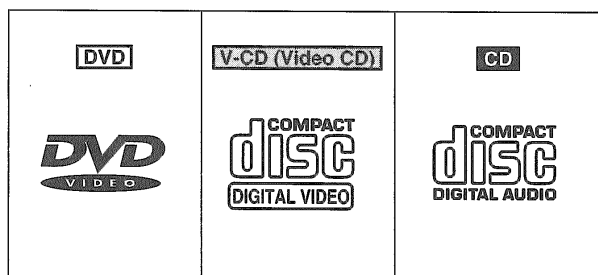
To display the clock again:

Press CLOCK/TIMER.

The clock display will appear for about 5 seconds.

■ Type of Discs

This system can play back discs bearing any of the following marks:



The system can play both PAL and NTSC discs, but you must have a Multi-system TV to be able to watch both. (See disc selection for more information)

Note

This system can not play the following discs:

- DVD with Region No. other than "6" or "ALL"
- DVD-ROM
- DVD-R/DVD-RAM
- CD-ROM
- CDV
- CD-G
- Photo CD
- CD-R

■ Region Management information

Region Management Information: This DVD/VIDEO CD/CD player is designed and manufactured to respond to the Region Management Information that is recorded on a DVD disc. If the Region number described on the DVD disc does not correspond to the Region number of this DVD/VIDEO CD/CD player, this DVD/VIDEO CD/CD player cannot play this disc.

The Region number for this DVD/VIDEO CD/CD player is 6.







This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.



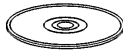

■ Selecting the type of disc for the type of connected TV

DVDs and Video CDs are recorded using either PAL or NTSC. Refer this table when selecting discs.




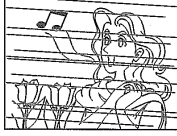
■ Connecting to the Multi-system TV

Disc	TV Monitor
 PAL	 Played in the PAL system.
 NTSC	 Played in the NTSC system.

■ Connecting to the NTSC TV

Disc	TV Monitor
 PAL	 No clear images are shown on the screen.
 NTSC	 Played in the NTSC system.

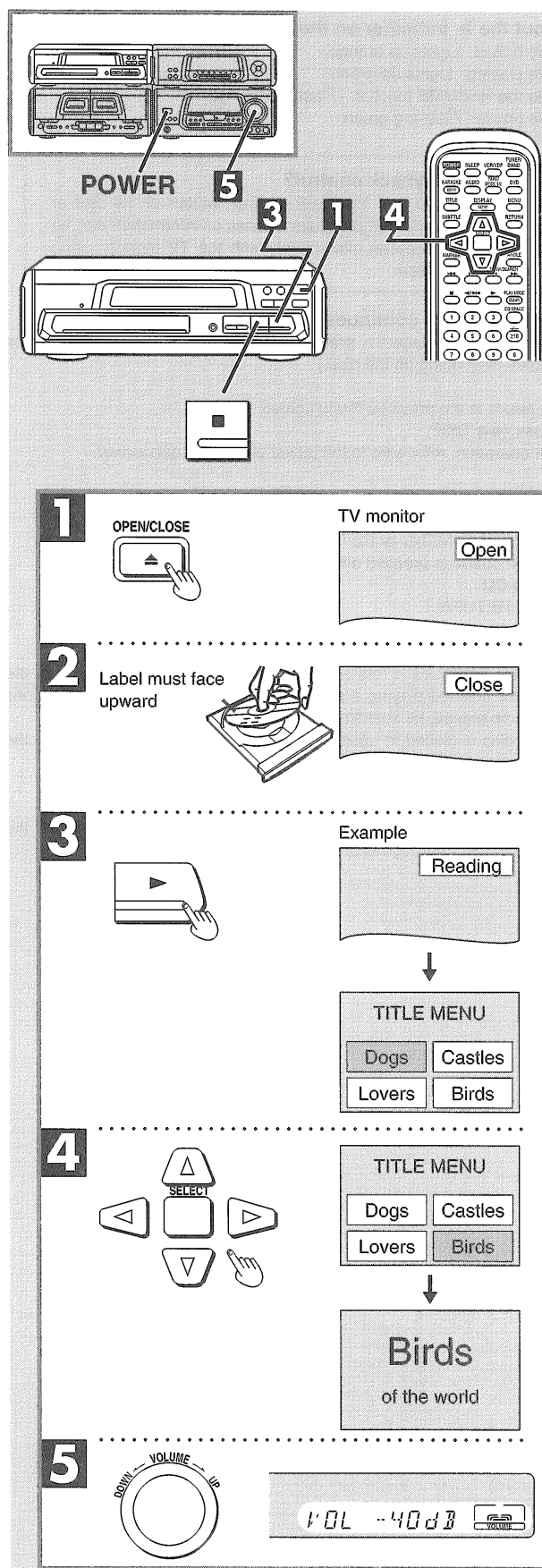
■ Connecting to the PAL TV

Disc	TV Monitor
 PAL	 Played in the PAL system. However, the initial settings and Video CD's "Program Play" functions cannot be used.
 NTSC	 No clear images are shown on the screen.

Note

The bottom part of the picture may be cut off if the Video CD played does not comply with standards.

■ Playing DVDs and Video CDs



Before playing DVDs and Video CDs

The menu screen language has been factory preset to English. If you would like to change the menu language to French or Spanish, please refer to "Selecting language of On-Screen Display menu".

Basic play

DVD V-CD

Preparation

Switch the TV ON and select "Video" as the TV input.

1 Press ▲ OPEN/CLOSE to open the tray.
Sound source will be switched to "DVD".

2 Insert a disc in the tray.

3 Press ►.
The tray will close automatically and play will start.

When a menu screen appears on the TV monitor

In case of interactive DVDs or Video CDs with playback control, a menu screen appears on the TV monitor. Perform step **4** as follows.

4 by remote control only

① Press one of cursor buttons (◀ ▶ ▽ ▲) to select the menu items.

② Press SELECT.

A different menu is displayed or play of the selected item will begin. You can select the desired item by pressing the numeric button(s).

5 Adjust the volume.

To stop the disc play:

Press ■.

Resume function is activated. (Refer to the following article).

AUTOMATIC PLAY function

Some DVDs and video CDs with PBC start playing if any of the following operations is performed:

- ▲ OPEN/CLOSE is pressed to close the tray after inserting a disc.
- The power is turned on when a DVD is in the player and the input selector is set to DVD.
- When a disc is in the player and DVD is selected as the source with INPUT SELECTOR on the unit or with DVD on the remote control.

Note

Press ■ to stop the disc if play starts while setting the timers or preparing to make a recording.

RESUME function

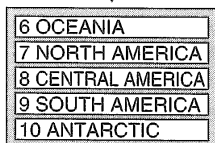
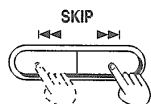
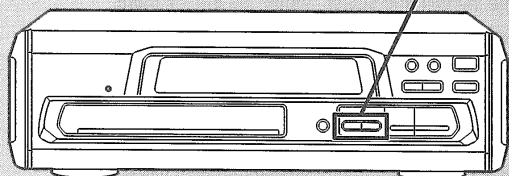
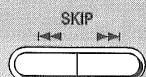
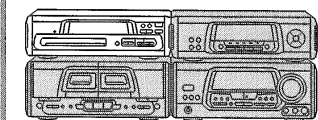
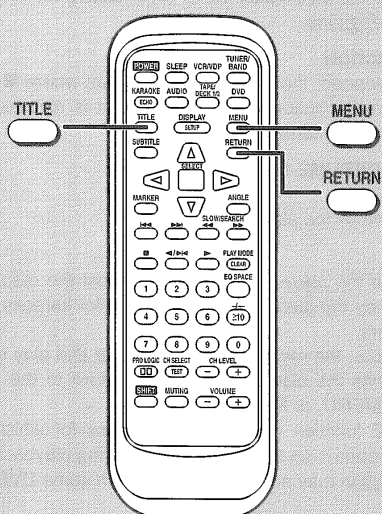
When play is stopped, the unit records the point where ■ was pressed. ("▶" flashes on the button when this function is activated.) Press ► again, and play will resume from this point.

To cancel the RESUME function

- The tray is opened.
- ■ is pressed while the player is stopped.

Notes

- Press ■ while the player is stopped to cancel the resume function if you want to play the disc from the beginning for karaoke, recording, or using the timers.
- With some discs, the menu screen is skipped and play starts when ► is pressed while the disc is stopped. To return to the menu screen, press TITLE, MENU, or RETURN.
- The RESUME function works only with discs for which the elapsed playing time appears on the unit's display during playback.
- RESUME function may not work correctly with some DVDs.

A**B****About the ► Indicator on the play button:**

While halted: Lights up orange.

While playing: Lights up green.

While the RESUME function: Flashing orange.

While pause: Flashing green.

What is playback control?

If a Video CD has "playback control" written on its disc or jacket, it means that particular scenes or information can be selected for viewing interactively with the TV monitor using the menu screen.

When the menu continues onto another screen **A**

After step **3** on page 11, press SKIP ►►. (SKIP buttons may not be effective depending on the disc.)

- To return to the previous menu screen

Press ◀◀ SKIP.

- For operation, refer also to the jacket of the disc concerned.

To return to the menu screen **B****•DVD**

Press TITLE, MENU or RETURN.

(Which button is pressed differs depending on the disc used.)

•Video CD

Press RETURN.

Notes

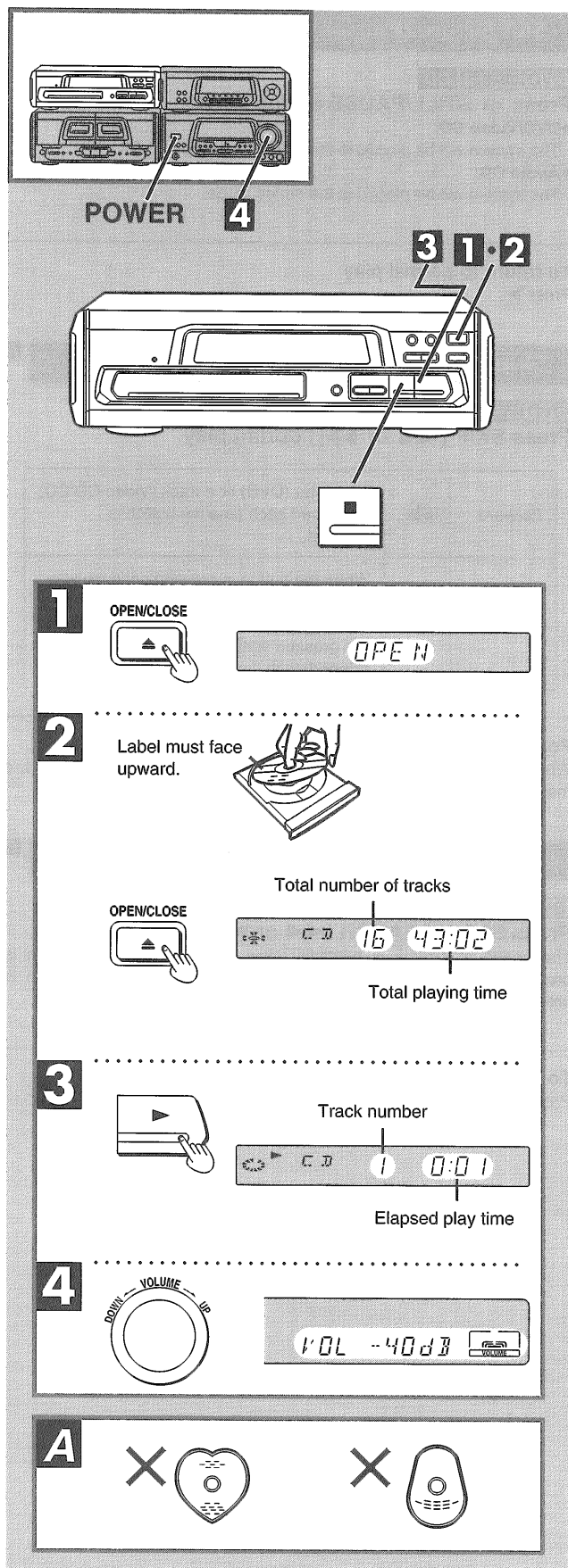
- The disc continues to rotate while the menu is displayed even after the unit has finished playing a particular item. When no further selections are to be played, be sure to press ■ to clear the menu display.

- If the disc is placed in upside down (and it is a single sided disc), the display will indicate "NO DISC".

For your reference:

When ⊘ appears while a button is being operated, it means that the corresponding operation is prohibited by the unit or the disc.

■ Listening to Audio CDs



Sequential play

CD

- 1** Press **▲ OPEN/CLOSE** to open the tray.
Sound source will be switched to "DVD".
- 2** ① Insert a CD in the tray.
② Press **▲ OPEN/CLOSE** to close the tray.
- 3** Press **▶**.
- 4** Adjust the volume.

To stop the disc play:

Press **■**.

Resume function is activated. (Refer to the following article).

RESUME function

When play is stopped, the unit records the point where **■** was pressed. ("▶" flashes on the button when this function is activated.) Press **▶** again, and play will resume from this point.

To cancel the RESUME function

- The tray is opened.
- **■** is pressed while the player is stopped.

Note

Press **■** while the player is stopped to cancel the resume function if you want to play the disc from the beginning for karaoke, recording, or using the timers.

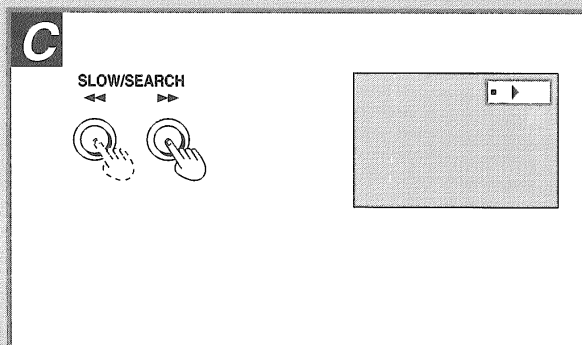
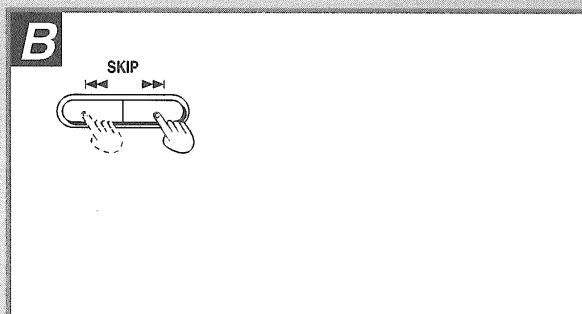
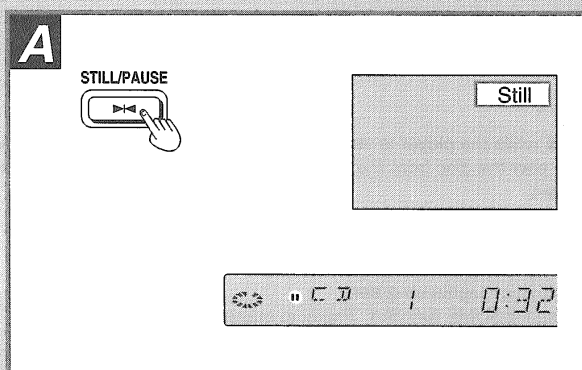
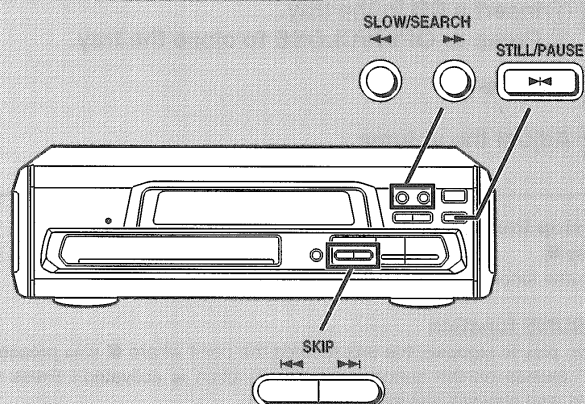
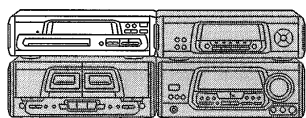
About the ▶ indicator on the play button:

- While halted: Lights up orange.
- While playing: Lights up green.
- While the RESUME function: Flashing orange.
- While pause: Flashing green.

To prevent damage **A**

Do not use irregular shape CDs.

Other Playback Methods



Still picture (Pause)

A

DVD **V-CD** **CD**

Press **STILL/PAUSE** during play.

• **DVD/Video CD:**

The system will be placed in the still picture mode.

• **Audio CD:**

The system will be placed in the pause mode.

To return to normal play

Press **▶**.

Skip function

B

DVD **V-CD** **CD**

Press **SKIP** (**◀◀** or **▶▶**) during play.

Forward	▶▶	A chapter (DVD) or a track (Video CD/CD) is skipped each time the button is pressed.
Backward	◀◀	When the button is pressed once midway through a chapter/track, play returns to the beginning of that chapter/track. When it is pressed again, a chapter/track is skipped each time the button is pressed.

For your reference:

When **SKIP** (**◀◀** or **▶▶**) is pressed during play of DVDs/Video CDs, a menu screen may sometimes be recalled.

Search function

C

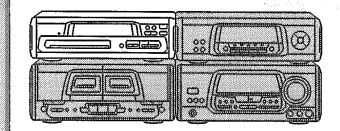
DVD **V-CD** **CD**

Press **SLOW/SEARCH** (**◀◀** or **▶▶**) during play.

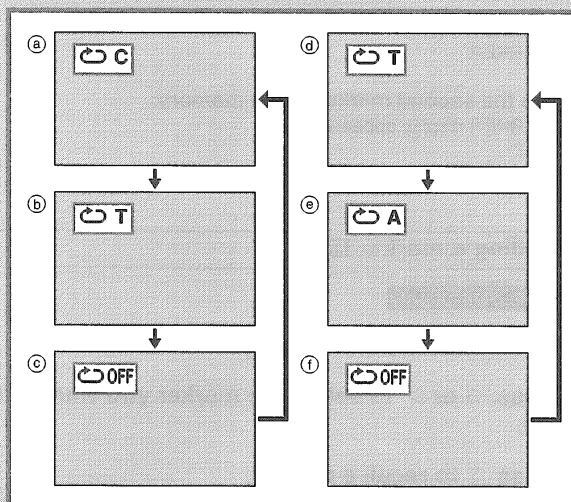
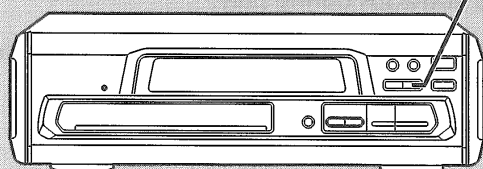
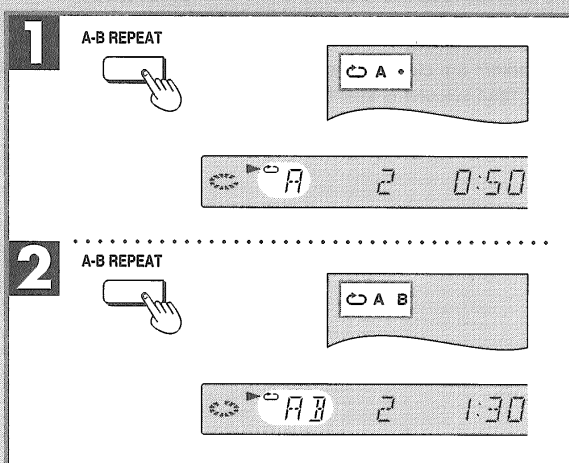
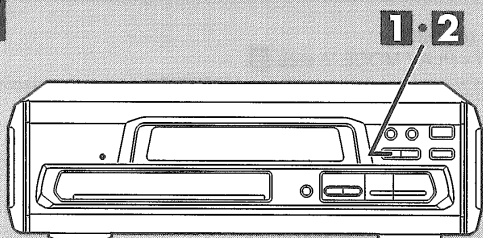
The speed of search is relatively slow at first. When the button is pressed again, the speed becomes faster. (Each time the button is pressed, the speed increases up to 5 steps.)

To return to normal play

Press **▶**.

A

REPEAT

**B**

Repeat function

DVD V-CD CD

Repeat play **A**

Press REPEAT during play.

Each time this button is pressed, the TV monitor changes as shown and the disc will repeat a chapter or title (DVD) or a track (Video CD/ Audio CD).

•DVD

- Ⓐ Repeat of chapter being played
- Ⓑ Repeat of title being played
- Ⓒ Cancel repeat mode

•Video CD/Audio CD

- Ⓓ Repeat of track being played/"TRACK REPEAT"
- Ⓔ Repeat of entire disc contents/"ALL REPEAT"
- Ⓕ Cancel repeat mode/"REPEAT OFF"

To cancel repeat play:

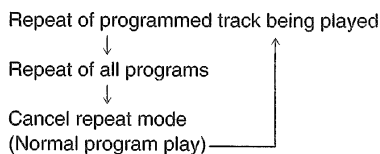
Press REPEAT several times until "OFF" is displayed. The normal play is resumed.

Notes

- Repeat play works only with discs for which the elapsed playing time appears on the display during playback.
- Repeat play may not work correctly with some DVDs.

To enjoy program repeat play:

If REPEAT is pressed during program play, the display changes as follows:



Repeating a specific section (A-B REPEAT) **B**

1 Press A-B REPEAT during play at the point where repeat play is to commence (A).

2 Press A-B REPEAT at the point where repeat play is to be concluded (B).

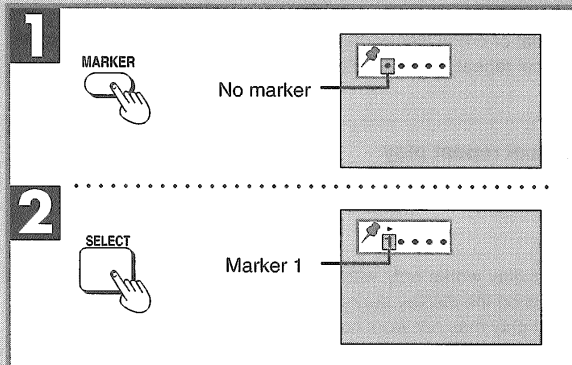
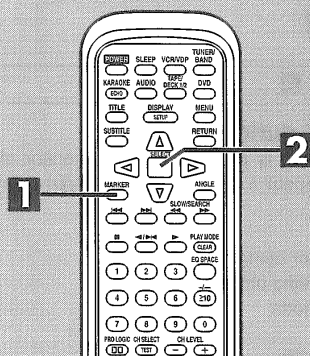
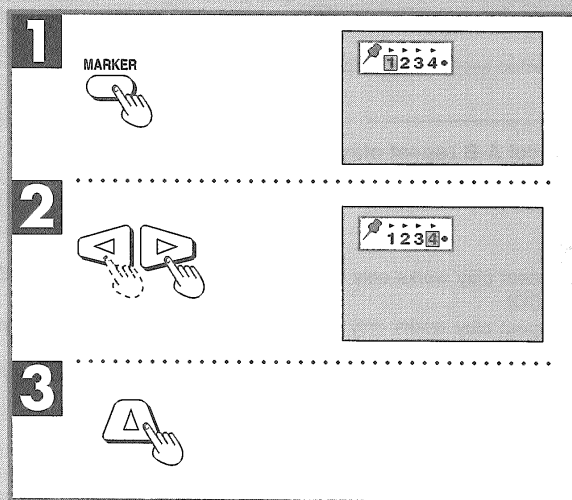
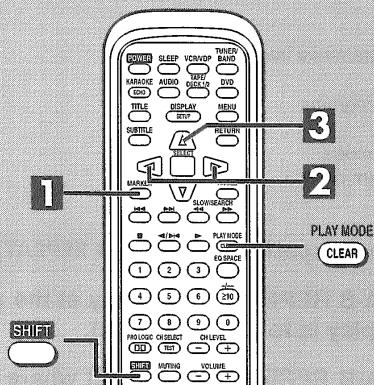
The selected section plays repeatedly.

To cancel A-B repeat play

Press A-B REPEAT until "A B" is displayed. The normal play is resumed.

Notes

- A-B repeat play works only within a title [DVD] or a track [Video CD/ Audio CD].
- A-B repeat play works only with discs for which the elapsed playing time appears on the display during playback.
- Some subtitles recorded around point A or B may fail to appear. [DVD]

A**B**

Storing markers in memory to be viewed (listened) again

DVD V-CD CD

Storing a marker in the memory

by remote control only

- 1** Press MARKER during play.
- 2** Press SELECT during play at the starting point to be viewed (listened) again.

Up to 5 markers can be stored in the memory.

To clear the display:

Press MARKER.

To store the second marker in the memory:

While MARKER display appears,

1. Press \triangleright .
2. Press SELECT.

Recalling a marker

by remote control only

- 1** Press MARKER during play.
- 2** Press \triangleleft or \triangleright to select the marker you want to recall.
- 3** Press \triangle to recall a marker.
Play resumes from the point corresponding to the selected marker.

To clear a marker:

Press SHIFT+PLAY MODE in step **3**.

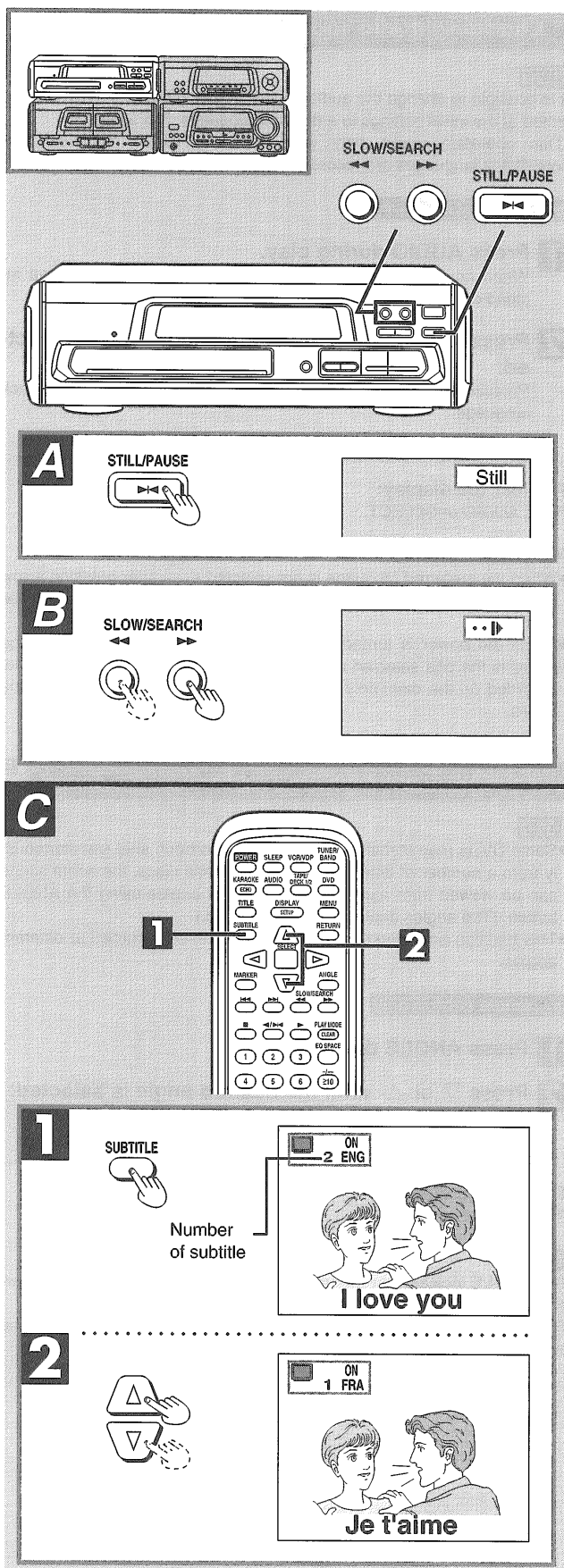
The selected marker is cleared. (Press MARKER to clear the display.)

Notes

- These operations work only with discs for which the elapsed playing time appears on the display during playback.
- You can't use the MARKER function during program play, random play or lighting up "PBC" on the unit.
- Some subtitles recorded around the marker may fail to appear. [DVD]

For your reference:

All the markers are cleared when the power is turned off, the disc is removed or input selector is switched.



Frame advance

A

DVD V-CD

Press **STILL/PAUSE** in the still picture mode.

The disc is advanced by one frame each time the button is pressed. When the button is kept pressed, consecutive frame advance works.

To return to normal play

Press **▶**.

Slow-motion play

B

DVD V-CD

Press **SLOW/SEARCH** (**◀◀** or **▶▶**) in the still picture mode.

The speed of slow-motion is slow at first. When the button is pressed again, the speed becomes faster. (Each time the button is pressed, the speed increases up to 5 steps.)

To return to normal play

Press **▶**.

Changing subtitle language

C

DVD

It is possible to change the subtitle language from the one selected at the initial settings to a different language, if available.

(This operation works only with discs on which multiple subtitle languages are recorded.)

by remote control only

1 Press SUBTITLE during play.

When no subtitles are recorded “-” will be displayed instead of the language number.

2 Press ▼ or ▲ until the desired language is selected.

Pressing the numeric button(s) also changes the subtitle language.

To clear the display:

Press **SUBTITLE** or **SELECT**.

To clear/display the subtitles

Press **◀** or **▶** to select **ON** or **OFF** at the step 2.

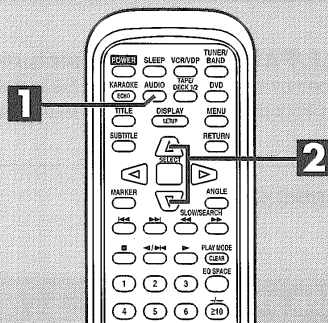
Note

The subtitle language may not change immediately.

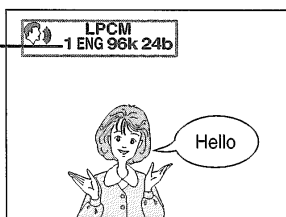
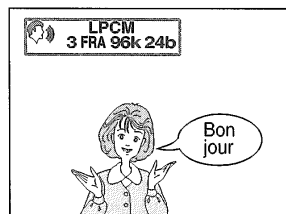
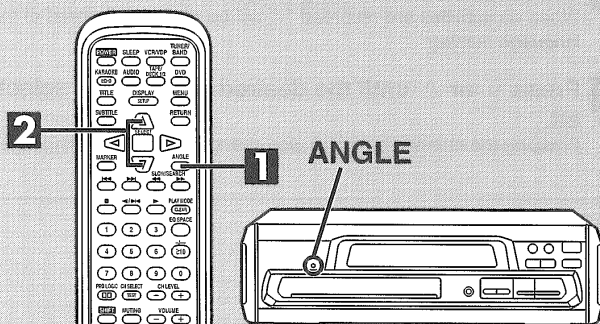
For your reference:

• When the preferred language is not selected even after pressing arrow buttons several times, it means that the language is not available on the disc.

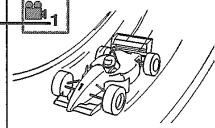
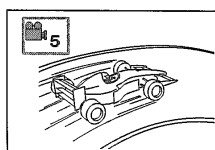
• When the power is turned on or the disc is removed, subtitles appear in the language selected at the initial settings. If this language is not recorded on the disc, they appear in the disc's priority language.

A**1****AUDIO**

Number of audio
sound track

**2****B****ANGLE****1****ANGLE**

Number
of angle

**2**

Changing audio soundtrack language **A**

DVD

It is possible to change the audio soundtrack language from the one selected at the initial settings to a different language, if available. (This operation works only with discs on which multiple audio soundtracks are recorded.)

by remote control only

1 Press AUDIO during play.

When no audio soundtrack is recorded, "—" will be displayed instead of the language number.

2 Press ∇ or Δ until the desired language is selected.

Pressing the numeric button(s) also changes the audio soundtrack language.

To clear the display:

Press AUDIO or SELECT.

For your reference:

- When the preferred language is not selected even after pressing arrow buttons several times, it means that language is not available on the disc.
- When the power is turned on or the disc is removed, the language heard is the one selected at the initial settings. If this language is not recorded on the disc, only the available language on the disc will be heard.

Viewing from another angle **B**

DVD

- Some DVDs may contain scenes which have been shot simultaneously from a number of different angles. For these discs, the same scene can be viewed from each of these different angles using the ANGLE button. (The angles depend on the disc used.)
- This function only works for discs having scenes recorded at different angles.

by remote control only

1 Press ANGLE during play.

2 Press ∇ or Δ until the desired angle is selected.

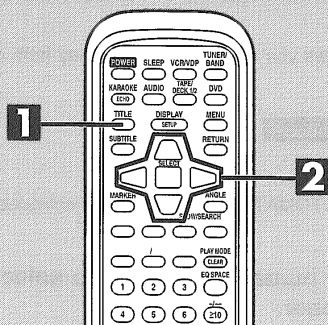
Pressing the numeric button(s) also changes the angle.

To clear the display:

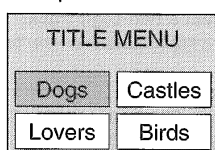
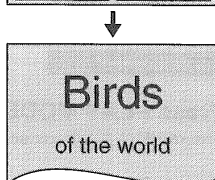
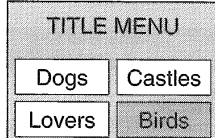
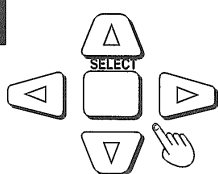
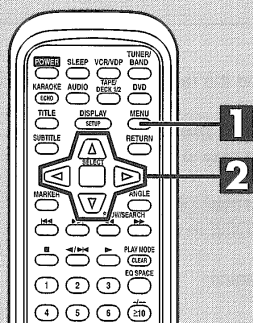
Press ANGLE or SELECT.

Note

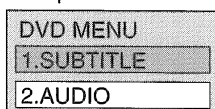
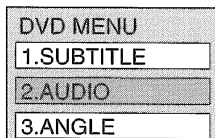
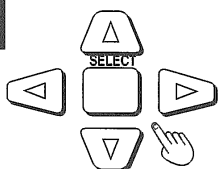
The ANGLE indicator on the unit lights up at scenes recorded at different angles to indicate that angle switching is possible. The angle number can be programmed beforehand; the angle will be switched to the selected number when the ANGLE indicator lights up.

A**1**

Example

**2****B****1**

Example

**2****Using a title menu****A****DVD**

Some discs with movies, for example, may be available with two or more titles. If the disc has a title menu recorded on it, the TITLE button can be used to select the movie title.

(The details of operation depend on the disc used.)

by remote control only**1 Press TITLE during play.**

A list of the titles on the disc is now displayed.

Pressing TITLE again resumes play from the scene when TITLE was first pressed.

2 ① Press one of ◀ ▶ ▽ ▲ until the desired item is selected.**② Press SELECT or ▶.**

You can also select the desired title by using the numeric button(s).

The selected title now starts playing.

Using a DVD menu**B****DVD**

Some DVDs have unique menu structures called DVD menus. For example, DVDs programmed with complex contents provide guide menus, and those recorded with various languages provide menus for audio and subtitle language. Although the DVD menu's contents and operation differ from disc to disc, the following explains basic operation when this feature is used.

by remote control only**1 Press MENU during play.**

The DVD menu available on the disc is now displayed.

Pressing MENU again resumes play from the scene when MENU was first pressed.

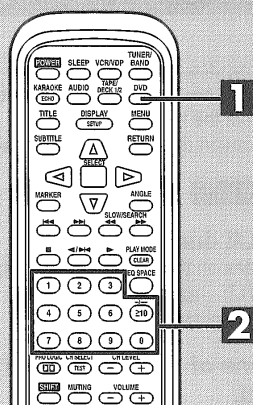
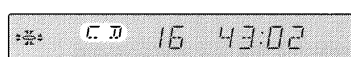
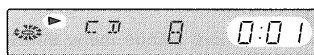
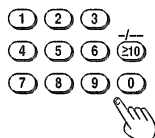
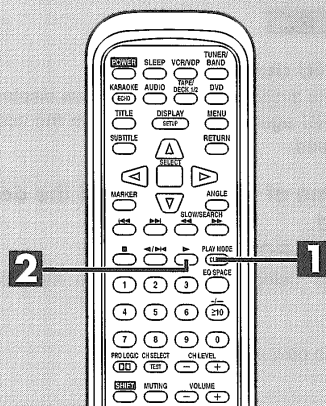
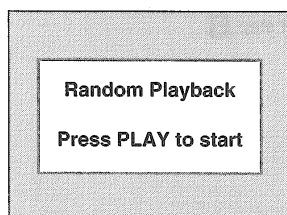
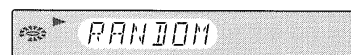
2 ① Press one of ◀ ▶ ▽ ▲ until the desired item is selected.**② Press SELECT.**

You can also select the desired item by using the numeric button(s).

The selected item is now executed.

When the menu continues onto another screen

Repeat step **2**.

A**1****2****B****1****2**

Direct access play

A**V-CD CD**

Direct access allows you to start sequential play from a specific track to the last track.

by remote control only

1 Press DVD.

When the AUTOMATIC PLAY function is activated, press ■ to stop playing.

2 Press the numeric button(s) to select the desired track number.

Play will start with the track you select.

To select a two-digit track:

Press $\geq 10/-/-$ and then the two numbers you want within 10 seconds or so.

For example:

Track no. 20: $\geq 10/-/- \rightarrow 2 \rightarrow 0$

Track no. 35: $\geq 10/-/- \rightarrow 3 \rightarrow 5$

Random play

B**V-CD CD**

When the AUTOMATIC PLAY function is activated, press ■ to stop playing.

by remote control only

1 Press PLAY MODE twice in the stop mode.

The random playback screen appears on the TV monitor.

2 Press ►.

Play will start in the random order.

After playback

Play is stopped and the random playback screen is displayed.

To cancel random play:

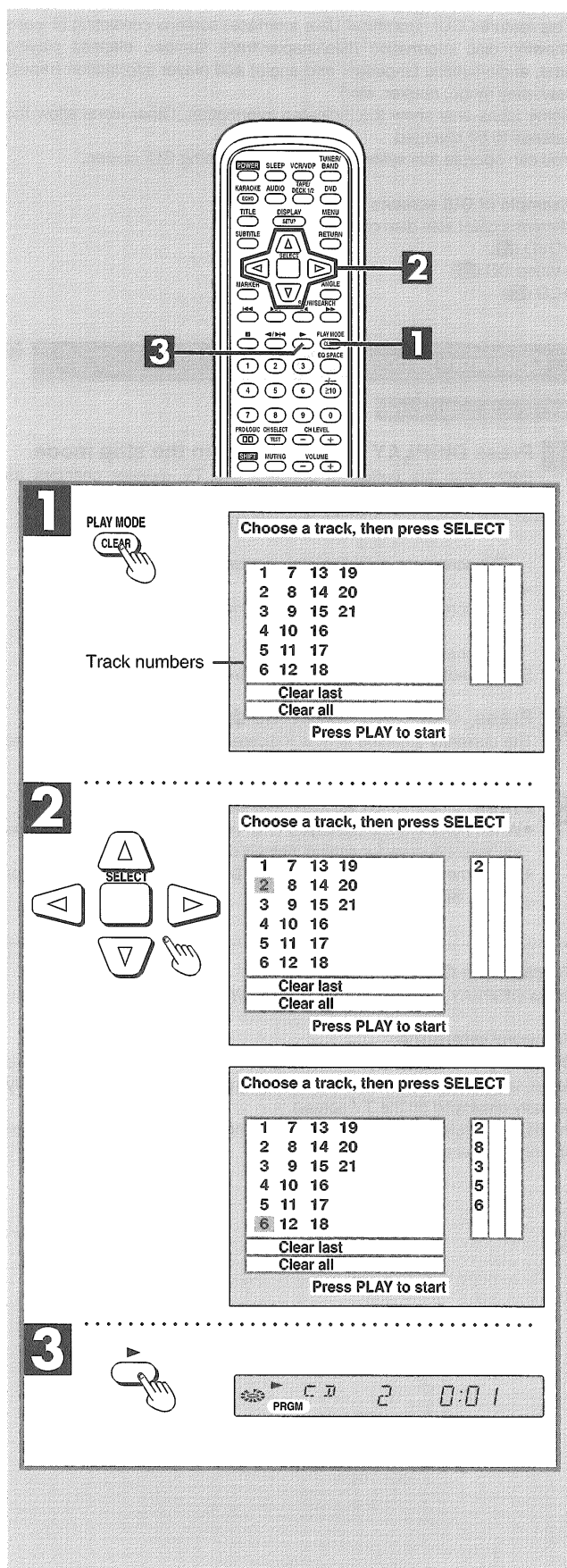
Press ■. (Random play is suspended.)

To return to normal play:

1. Press PLAY MODE in the stop mode.

2. Press ►.

Normal play begins.



Program play

V-CD CD

- This function allows you to program up to 18 tracks.
- You can operate the program play function interactively in conjunction with the TV set.

Note

The program play function cannot be used when connected to a PAL TV.

When the AUTOMATIC PLAY function is activated, press ■ to stop playing.

by remote control only

1 Press PLAY MODE in the stop mode.

The program playback screen appears on the TV monitor.

2 ① Press one of ◀ ▶ ▽ ▲ until the desired track number is selected.

② Press SELECT.

You can also select the desired track number by using the numeric button(s).

The selected track is stored in the memory.

Repeat step 2 until you have programmed all the tracks you want.

3 Press ▶.

Play will start in the programmed sequence.

After playback

Play is stopped and the program playback screen is displayed.

To cancel program play:

Press ■. (Program play is suspended.)

The content of the program is still retained in the memory.

To return to normal play:

1. Press PLAY MODE twice in the stop mode.
2. Press ▶.

Normal play begins.

To clear the programmed contents:

When the program playback screen is displayed

• To clear the programmed track in order from the last track

Press one of cursor buttons to select "Clear last" and press SELECT.

(Pressing SHIFT+PLAY MODE on the remote control also clears the last programmed track.)

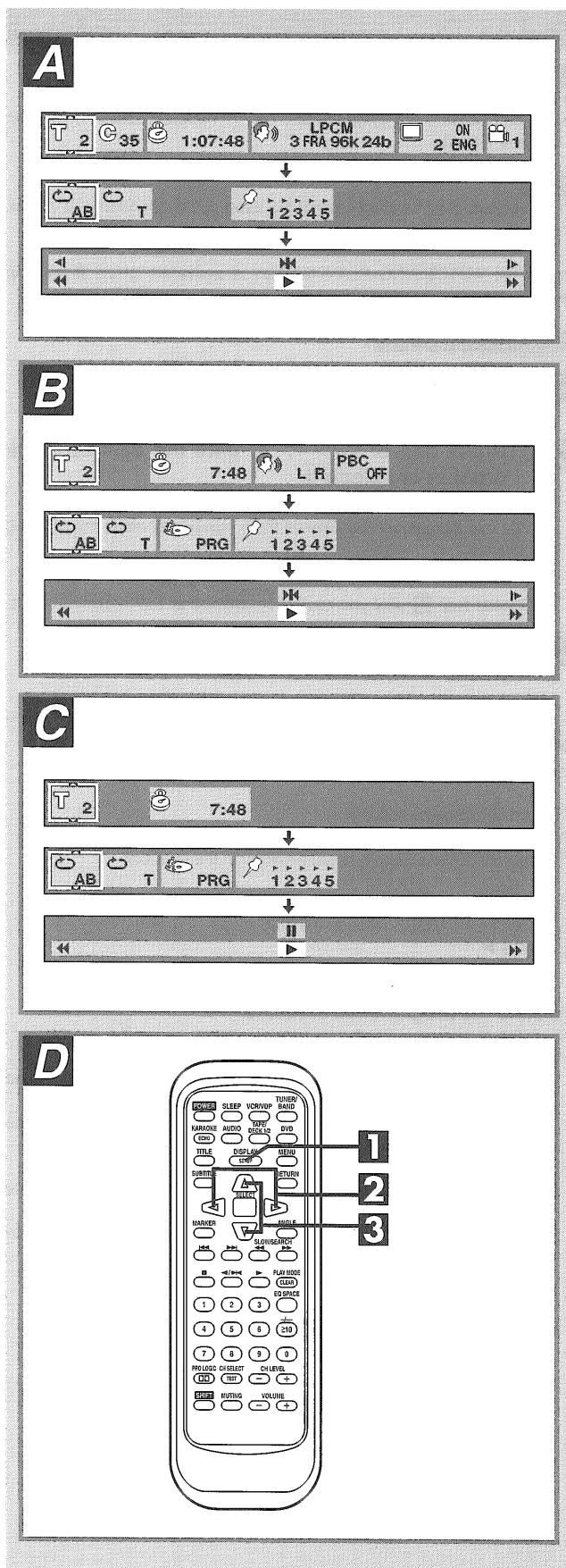
• To clear the entire program

Press one of cursor buttons to select "Clear all" and press SELECT.

The program is also cleared if any of the following operations is performed:

- The power is turned off.
- The disc is removed.
- The input selector is set to another source.

■ Using GUI Screens



This features GUI (Graphical User Interface) screens consisting of icons showing disc information (title/chapter/track number, elapsed playing time, audio/subtitle language, and angle) and player information (repeat play, play mode, marker, etc.).

Some icons only show the indicated information. Other icons allow the settings to be changed.

You can operate this system interactively by using GUI screen.

Example of GUI screens

(Screens differ with disc contents.)

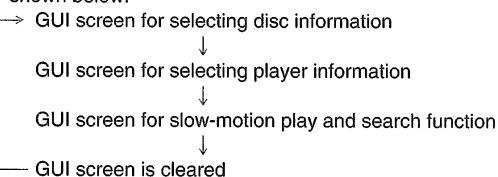
- DVD (A)
- Video CD (B)
- CD (C)

Common procedures

by remote control only

1 Press DISPLAY during play or in the stop mode.

Each time this button is pressed, the TV monitor changes as shown below.



Some functions cannot be accessed from the stop mode.

2 Press ◀ or ▶ to select the desired item.

The currently selected item is indicated by the yellow frame on the GUI screen.

3 Press ▼ or ▲ to select the desired setting.

- When numbers are displayed (e.g. title No.), the numeric buttons are also effective for setting instead of arrow buttons.
- For some functions, the setting will be registered immediately; for others, SELECT must be pressed.

To clear the GUI screen:

Press DISPLAY, RETURN or SHIFT+PLAY MODE.



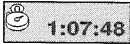


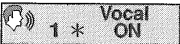
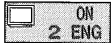



For your reference:

Depending on the type of DVD software and a TV with automatic picture zoom function enabled, the GUI screen may not be displayed or only partially displayed on the TV screen.

In this case, select the appropriate TV screen type by consulting the operation manual of the TV.

Detailed descriptions of each GUI icon

Screen for disc information

	Remarks	Changing method
	To show the current title No. [DVD] or track No. [Video CD/Audio CD] and to jump to the desired title No. or track No. ^{※1}	▽ △ or Numeric/SELECT
	To show the current chapter No. or to jump to the desired chapter No. [DVD only]	▽ △ or Numeric/SELECT
	To show the elapsed time and to directly select scenes by the elapsed time ^{※2} [DVD] or to show the elapsed time [Video CD/Audio CD]	Numeric/SELECT
	<ul style="list-style-type: none"> • To show the current audio soundtrack language No. and to change to the desired one [DVD only] 	▽ △ or Numeric
	<ul style="list-style-type: none"> • To show the audio soundtrack language selected using the above icon [DVD only] • To show the audio attribute (type) of the disc currently being played [DVD only] <ul style="list-style-type: none"> • LPCM (Linear PCM), MPEG (MPEG audio) or  [Dolby Digital (AC-3)] • To show the audio attribute (sampling frequency or channel No.) of the disc currently being played [DVD only] <ul style="list-style-type: none"> • For Linear PCM disc: 48 kHz or 96 kHz • For Dolby Digital (AC-3) disc: 1ch to 5.1ch • For MPEG audio disc: 1ch to 5ch • To show the audio attribute (bit No.) of the disc currently being played [DVD only] <ul style="list-style-type: none"> • For Linear PCM disc: 16 bit to 24 bit 	—
	<ul style="list-style-type: none"> • To show the number of recorded vocals [DVD Karaoke only] <ul style="list-style-type: none"> • 1 vocal: ON or "—" (OFF) • 2 vocals: V1+V2, V1, V2 or "—" (OFF) 	▽ △ or Numeric
	<ul style="list-style-type: none"> • To show the current subtitles language No. and to change to the desired one [DVD only] • To show the subtitle language selected using the above icon [DVD only] • To display/clear subtitles [DVD only] 	▽ △ or Numeric — ▽ △
	To show the current angle No. and to change to the desired one [DVD only]	▽ △ or Numeric
	To select the audio mode [Video CD only] <ul style="list-style-type: none"> • LR, L or R 	▽ △
	To show whether Video CD menu play is ON or OFF [Video CD only]	—

●“▽ △” means pressing the cursor buttons on the remote control and “Numeric” means pressing the numeric button.

※1The track number cannot be selected during menu play of the Video CD.

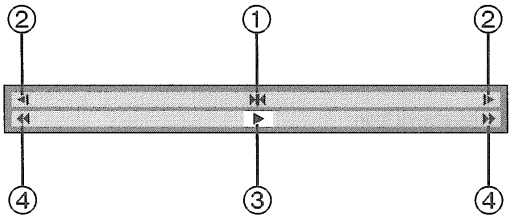
※2This function does not work with some DVDs.

Language abbreviations

For the language abbreviations used for the audio soundtrack and subtitle language icons, see the following table.

ENG	English	FRA	French	DEU	German
ITA	Italian	ESP	Spanish	NLD	Dutch
SVE	Swedish	NOR	Norwegian	DAN	Danish
POR	Portuguese	RUS	Russian	JPN	Japanese
CHI	Chinese	KOR	Korean	MAL	Malay
VIE	Vietnamese	THA	Thai	*	Others

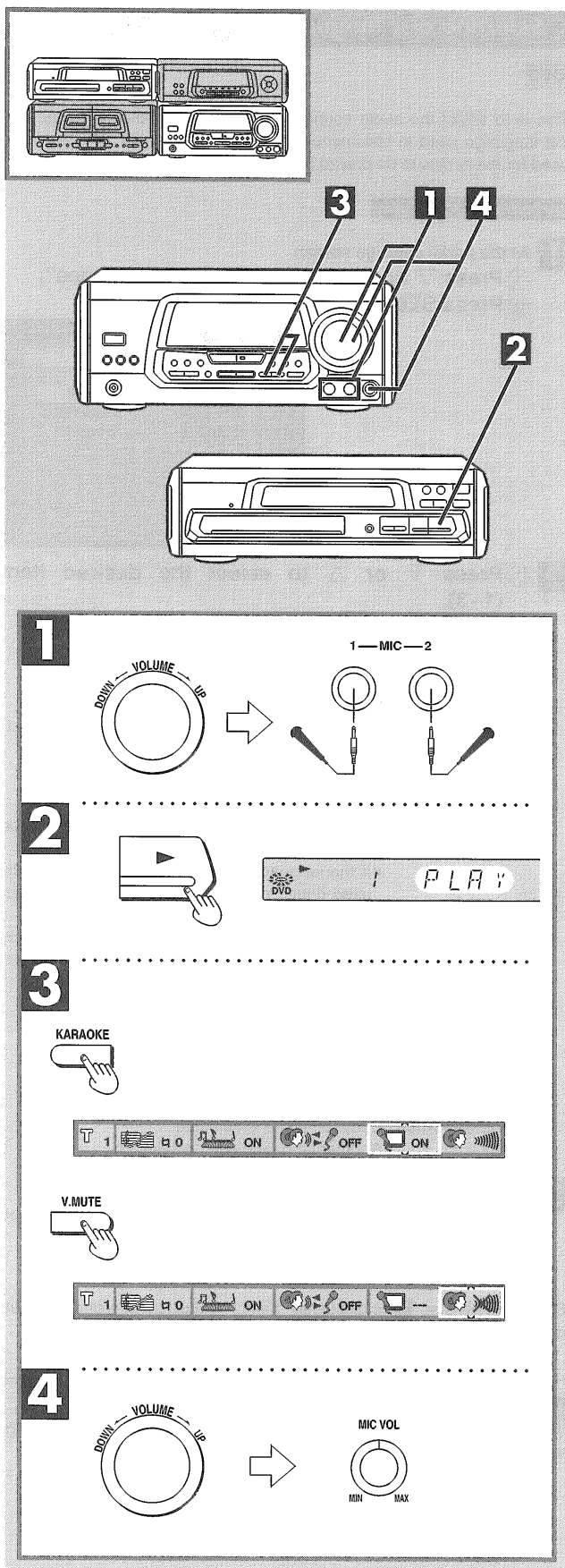
Screen for slow-motion play and search function



① Still/Pause
Press Δ to select “ II ”.
② Slow-motion play
Press one of \triangleleft \triangleright ∇ \triangle until “ $\triangleleft \text{I}$ ” or “ $\text{I} \triangleright$ ” is selected. [※] $\triangleleft \text{I}$: Backward [DVD only] $\text{I} \triangleright$: Forward [DVD/Video CD only]
③ Play
Press ∇ or SELECT to select “ \triangleright ”.
④ Search function
Press one of \triangleleft \triangleright ∇ \triangle until “ $\triangleleft \triangleleft$ ” or “ $\triangleright \triangleright$ ” is selected. [※] $\triangleleft \triangleleft$: Backward $\triangleright \triangleright$: Forward

[※]Each time \triangleleft or \triangleright is pressed, the speed increases in up to 5 steps.

■ Enjoying KARAOKE with DVDs, Video CDs and CDs



Preparations:

- Switch on the power on the TV, and switch to the video input mode. For details, refer to the operating instructions of the TV.
- Press INPUT SELECTOR to select "DVD".
- When you use KARAOKE function, DOLBY PRO LOGIC mode should be "OFF".

1 Connect the microphone(s) to the MIC jack(s) after reducing the volume level.
Plug type: 6.3 mm monaural

2 Press ►.

3 Press KARAOKE or V.MUTE to select a mode.
Each time the button is pressed, mode will be switched as follows.

	DVD		Video CD	CD
KARAOKE (Karaoke sources)	--- (OFF)	---	LR (OFF)	LR (OFF)
		V1	L	L
	ON	V2	R	R
		1+2	R	R
V.MUTE (Normal sources)	ON		ON	ON
	OFF		OFF	OFF

(L=Music, R=Vocals)

Notes

- Depending on the type of prerecorded songs, master vocal volume cannot be reduced.
- A mono-recorded disc cannot be used.

4 Start singing along.
Adjust system and microphone levels.

To cancel the "KARAOKE" mode:

Press KARAOKE or V.MUTE to select "OFF".

From the remote control on GUI screens:

Each time you press KARAOKE on the remote control, KARAOKE mode display switches ON/OFF.

1. Press KARAOKE on the remote control to switch KARAOKE mode display to ON.
2. Press ◀ or ▶ to select the KARAOKE mode setting.
3. Press ▼ or ▲ to select KARAOKE mode ON/OFF.

You cannot use "KARAOKE" function with:

a tone quality effect (HALL, HEAVY, CLEAR, MANUAL, ACOUSTIC IMAGE EQ, DOLBY PRO LOGIC and SUPER SURROUND)

To record your "KARAOKE" performance:

Start recording in deck 2, then start "KARAOKE" performance.

To playback the tape recorded in "KARAOKE" mode, press V.MUTE or KARAOKE to turn off the KARAOKE mode indicator.

■ Introducing the Initial Settings for DVD/ VIDEO CD/ CD player

Once the initial settings have been completed, the system can always be operated under the same conditions (especially with DVD discs). The settings will be retained in the memory even after turning the power off until the settings are changed.

Note

The initial settings function cannot be used when connected to a PAL TV.

Disc Languages
This is to select the audio soundtrack language, subtitle language and the language used in title menus or DVD menus which will always be used for every disc to be played back.
Ratings
This is to disable the playing of specified DVDs which are unsuitable for children.
Menu Languages
This is to select language of On-Screen display menu.
On-Screen Messages
You can select whether On-Screen Display messages such as PLAY and STOP will be displayed or not.
TV Aspect
Select the appropriate screen type according to your TV set; conventional size screen (4:3) or wide-screen (16:9).
Digital Audio Output
Select the digital audio output to be output from the optical digital audio output connector of the unit.
Other Settings
This is to select still mode, audio during search, TV mode and D.range compression.

Selecting disc languages

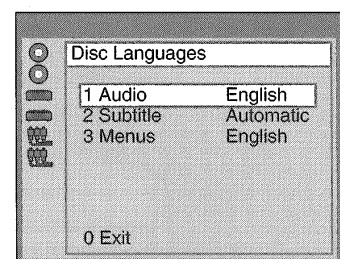
DVD

This is to select the audio soundtrack language, subtitle language and the language used in title menus or DVD menus which will always be used for every disc to be played back.

by remote control only

1 At the initial settings screen

- ① Press ∇ or Δ to select "1 Disc Languages".
- ② Press SELECT.



2 ① Press ∇ or Δ to select the desired item (1-3).

- ② Press SELECT.

When "1 Audio" is selected

English: English is selected. (Factory setting)

French/Spanish: Each language is selected.

Original: The original language of each disc will be selected.

Other **:** Another language can be selected.

When "2 Subtitle" is selected

Automatic: The same language selected for "Audio" will be selected. (Factory setting)

- If the language selected for "Audio" is actually used during playback, the subtitles will not appear.

- If another language is used during playback, the subtitles will appear in the language selected at the setup "Audio".

English/French/Spanish:

Each language is selected.

Other **:** Another language can be selected.

When "3 Menus" is selected

English: English is selected. (Factory setting)

French/Spanish: Each language is selected.

Other **:** Another language can be selected.

3 ① Press ∇ or Δ to select the desired language.

Input a code number by numeric buttons when you selected "Other ****".

- ② Press SELECT.

The screen in step 1 is displayed. Select "0 Exit" by one of cursor buttons and press SELECT to return to the initial settings screen.

Note

If the language selected is not available on the disc, the language designated by each disc will be selected.

Selecting rating level

DVD

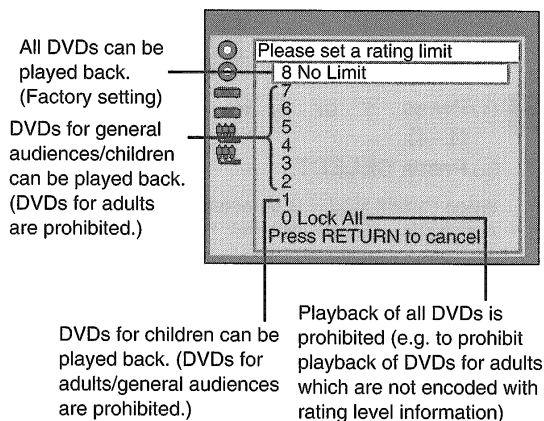
This is to disable the playing of specified DVDs which are unsuitable for children.

- Some DVDs are encoded with specific rating level. If the rating level of the disc is higher than that preset in the setup operation, playback of the disc will be prohibited.

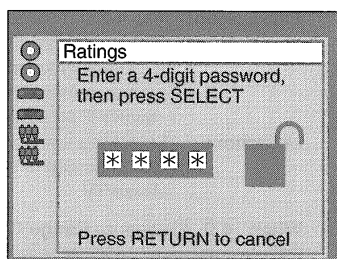
by remote control only

1 At the initial settings screen

- Press ∇ or Δ to select "2 Ratings".
- Press SELECT.



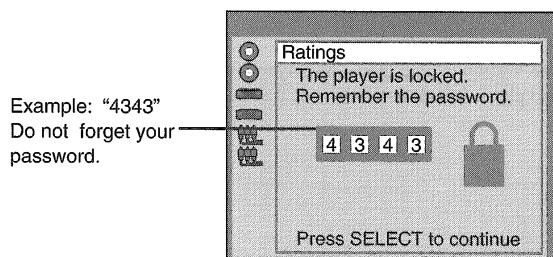
- Press ∇ or Δ to select the desired level.
- Press SELECT.



3 When level 7 or lower is selected

- Input a 4-digit password by numeric buttons.
- Press SELECT.

The lock symbol appears closed to show the rating is locked.



4 Press SELECT.

Setting is finished and the initial settings screen is displayed.

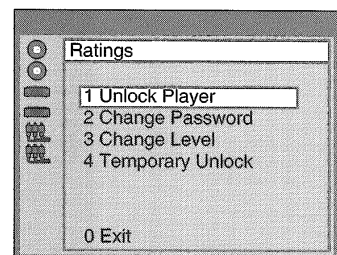
The rating is locked. Any discs whose rating is higher than the setting cannot be played back unless the correct password is entered.

To change the settings

- Select "2" with the cursor buttons at the initial settings screen and press SELECT.



- Input 4-digit password and press SELECT.



- Select the preferred item (1-4) with the cursor buttons and press SELECT.

- 1 Unlock Player**
Press SELECT.
- 2 Change Password**
Enter a new 4-digit password and press SELECT.
Press SELECT again.
- 3 Change Level**
Select a level and press SELECT.
- 4 Temporary Unlock**
(The rating is unlocked temporarily only for the current disc.)
Press SELECT.

- Select "0 Exit" and press SELECT to exit.

Setting is finished and the initial settings screen is displayed.

Note

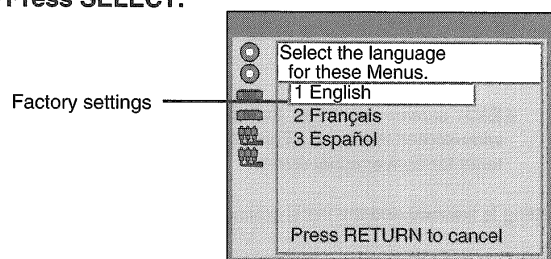
Some discs may not be encoded with specific rating level information though its disc jacket says that it is for "adults". For those discs, the age restriction will not work.

Selecting menu language

by remote control only

1 At the initial settings screen

- Press ∇ or Δ to select "3 Menu Language".
- Press SELECT.



- Press ∇ or Δ to select the desired language (1-3).
- Press SELECT.

Setting is finished and the initial settings screen is displayed.

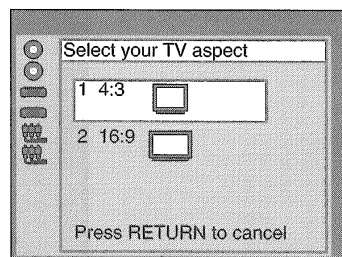
Selecting TV aspect

Select the appropriate TV aspect according to your TV set; conventional size screen (4:3) or wide-screen (16:9).

by remote control only


1 At the initial settings screen

- ① Press ∇ or Δ to select "5 TV Aspect".
- ② Press SELECT.

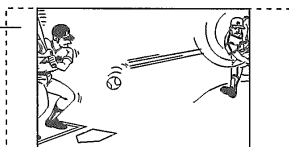


2 ① Press ∇ or Δ to select the desired item (1 or 2).

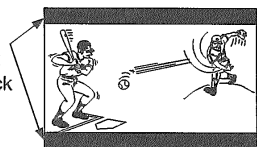
② Press SELECT.


4:3  Select when a conventional TV set is connected. (factory setting)

The video material formatted in the Pan & Scan style is played back in that style (the left and right edges are cut off).

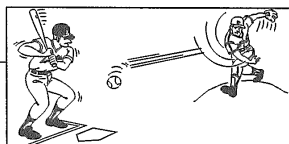


The video material not formatted in the Pan & Scan style is played back in the letterbox style (black bands appear at top and bottom of screen).



16:9  Select when a wide-screen TV set is connected.

Played in "FULL" size. (Setting the wide-screen TV to "FULL" mode is also necessary.)



※Each screen shows an example when the video material for a wide-screen is played. (This setting does not affect the video material for conventional size.)

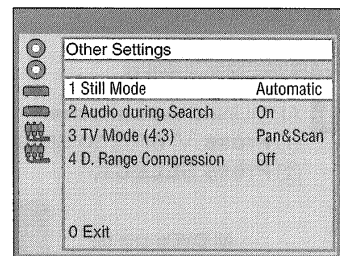
Setting is finished and the initial settings screen is displayed.

Other settings

by remote control only

1 At the initial settings screen

- ① Press ∇ or Δ to select "9 Other Settings".
- ② Press SELECT.



2 ① Press ∇ or Δ to select the desired item (1-4).

② Press SELECT.

When "1 Still Mode" is selected

Automatic: "Frame still" and "Field still" are automatically selected during the still mode. (Factory setting)

Field: Select this setting when jittering occurs in the pictures even when "Automatic" is selected.

When "2 Audio during Search" is selected

On: Factory setting (When noises during search are disagreeable, select "Off".)

Off: Select this setting if audio during search is not necessary. (While using CDs, it does not work.)

When "3 TV Mode (4:3)" is selected

Pan & Scan: The video material for a wide-screen will be played back in the Pan & Scan style on a conventional size TV. (Factory setting)

•Video material not formatted in the Pan & Scan style will be played back in the letterbox style.

Letterbox: Select this setting to play back the video material for a wide-screen in the letterbox style on a conventional size TV.

When "4 D. (Dynamic) Range Compression" is selected

Off: Normal audio range is selected. (Factory setting)

On: Select this setting to enjoy listening to dynamic sound even on a low volume. This is useful for latenight listening. [This function only works with Dolby Digital (AC-3) DVDs.]

3 ① Press ∇ or Δ to select the desired number at each screen.

② Press SELECT.

The screen in step 1 is displayed. Select "0 Exit" by the cursor buttons and press SELECT to return to the initial settings screen.

■ Troubleshooting Guide

Before requesting service for this unit, check the chart below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore proper operation.

When the picture of the DVD does not appear on the TV, confirm the region number on the DVD disc.
The region number for this system is 6.



Problem	Probable cause(s)	Suggested remedy
---------	-------------------	------------------

Common problems

The location of the various musical instruments is not well defined.	The (+) and (–) connections to one of the speakers are reversed.	Connect the speaker cord correctly.
The left and right sounds are reversed.	The left and right connections to the speaker are reversed.	Connect the speaker cords correctly.
Humming is heard while playing.	A power cord or fluorescent lamp is located in the vicinity of cables.	Keep electric appliances away from the stereo. Try plugging the cord in another way.
Only one speaker is emitting sound.	One of the wires of the speaker cord is disconnected.	Connect the speaker cord correctly.
There is no sound when a source is being played.	The (+) and (–) wire of the speaker cords are shorted.	Switch the system to the standby mode, and reconnect the speaker cords so that they are not shorted. Then switch on the power.
“U70” appears on the display.	Flat cables are not connected steadily.	Connect the flat cable steadily. When the “U70” display is not cleared after the flat cable have been connected properly, the unit is damaged.

While listening to FM broadcasts

There is a “rushing noise” during a stereo broadcast which is not audible during a monaural broadcast.	The transmitting station is a long distance away.	<ul style="list-style-type: none"> ●If you are using an indoor antenna, change to an outdoor antenna. ●If you are using a high-grade outdoor antenna, try changing the installation location, height, and orientation.
You hear excessive noise during a stereo broadcast, and occasionally the sound disappears.	The location and orientation of the antenna are unsuitable.	
The stereo indicator flickers and does not light completely.	The transmitting station is a long distance away. The power of the TV set or VCR is ON.	
The sound during a stereo broadcast is highly distorted.	There is a building or mountain nearby. [Distortion is caused by interference between the signal from the transmitting station (direct wave) and the signal reflected from the building or mountain (reflected wave).]	Use a high-grade outdoor antenna, and install it in a good location, height, and orientation for reception.

While listening to AM broadcasts

You hear an unusual beat sound.	You are using the system at the same time you are playing a TV set.	Switch off the TV set, or use the system further away from it.
You hear a low-frequency hum.	The antenna wire is too close to the flat cables/ power cord.	Move the antenna away from the flat cables/ power cord.

While watching the TV

The picture on the TV disappears or stripes appear on the screen.	Unsuitable position or orientation of antenna.	Change to an outdoor antenna if the system's simple antenna is inadequate. Place the system at a distance from the TV.
	TV's antenna cord is too close to the system.	Run the TV's antenna cord at a distance from the system.

Problem	Probable cause(s)	Suggested remedy
While listening to tapes		
Sound is low, intermittent, or poor quality, noisy, scratchy, or unsteady.	Heads are dirty.	Clean the heads.
	Dolby noise reductions is set in the wrong position.	Set it to match the Dolby NR recording mode.
The deck does not enter the recording mode.	The erase-prevention tabs are removed from the cassette.	Attach tape to cover the space left by removal of the erase-prevention tabs.

While enjoying discs		
Disc play starts automatically before you complete the process.	The AUTOMATIC PLAY function is activated.	To stop playing, press ■.
Disc play does not start from the first track.	The RESUME function is activated.	Press ■ while the player is stopped to cancel the RESUME function.
The picture of the DVD/video CD does not appear on the TV.	The video connection cable is not connected.	Connect the video connection cable.
	The TV is not set to video input mode.	Set the TV to video input mode.
The display will not show the correct indication. Disc play does not start when you press the play button.	The disc is not positioned correctly in the disc tray.	Load the disc on the tray correctly.
	The disc is loaded upside down.	Reload the disc.
	The disc is dirty.	Wipe the disc with a soft cloth.
	The disc is scratched.	Replace the disc with a new one.
	The disc is badly warped.	Replace the disc with a different one.
	The disc is a nonstandard one.	Replace the disc with a different one.
The password for age restriction has been forgotten.	The disc is a nonstandard one.	Replace the disc with a different one.
	There is condensation inside the unit.	Switch the power ON, and then wait for 60 minutes before using the unit.

During one-touch editing		
"NO TAPE" appears on the display.	No tape is loaded into deck 2.	Load a tape.
"CHANGE TAPE" appears on the display.	The protector tab on the tape is broken.	Cover the tab's hole with adhesive tape or use another tape.

While using the remote control		
The system cannot be operated with the remote control.	The batteries are installed in the reverse polarity.	Reinsert the batteries in the correct polarity.
	The batteries are worn.	Replace the batteries.

■ Self-Diagnosis Display Function

When an error or trouble is detected during operation, a service number appears in the display.
When a service number has appeared, check out the details given below.

Service number	Player status	Remedy
U11	Disc is dirty.	Wipe the disc clean.
H□ □	Trouble is likely to have occurred. The number following "H" depends on the status of the DVD/VIDEO CD/CD player.	Turn the system off and then back to on. Alternatively, turn off the system, disconnect the AC power cord, and then re-connect it.

■ Language Code

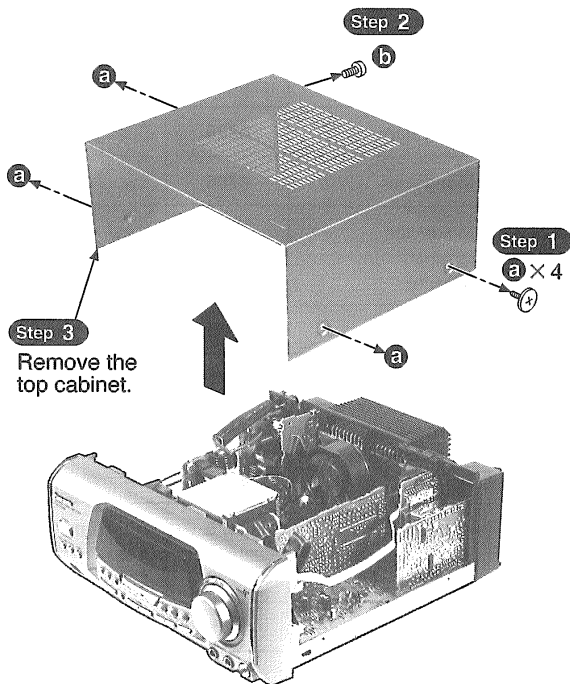
Enter the appropriate code number for the initial settings "Audio", "Subtitle" and/or "Menus".

Code	Language Name	Code	Language Name	Code	Language Name	Code	Language Name
6565	Afar	7079	Faroese	7678	Lingala	8375	Slovak
6566	Abkhazian	7082	French	7679	Laothian	8376	Slovenian
6570	Afrikaans	7089	Frisian	7684	Lithuanian	8377	Samoan
6577	Ameharic	7165	Irish	7686	Latvian, Lettish	8378	Shona
6582	Arabic	7168	Scots Gaelic	7771	Malagasy	8379	Somali
6583	Assamese	7176	Galician	7773	Maori	8381	Albanian
6588	Aymara	7178	Guarani	7775	Macedonian	8382	Serbian
6590	Azerbaijani	7185	Gujarati	7776	Malayalam	8385	Sundanese
6665	Bashkir	7265	Hausa	7778	Mongolian	8386	Swedish
6669	Byelorussian	7273	Hindi	7779	Moldavian	8387	Swahili
6671	Bulgarian	7282	Croatian	7782	Marathi	8465	Tamil
6672	Bihari	7285	Hungarian	7783	Malay	8469	Telugu
6678	Bengali; Bangla	7289	Armenian	7784	Maltese	8471	Tajik
6679	Tibetan	7365	Interlingua	7789	Burmese	8472	Thai
6682	Breton	7378	Indonesian	7865	Nauru	8473	Tigrinya
6765	Catalan	7383	Icelandic	7869	Nepali	8475	Turkmen
6779	Corsican	7384	Italian	7876	Dutch	8476	Tagalog
6783	Czech	7387	Hebrew	7879	Norwegian	8479	Tonga
6789	Welsh	7465	Japanese	7982	Oriya	8482	Turkish
6865	Danish	7473	Yiddish	8065	Panjabi	8484	Tatar
6869	German	7487	Javanese	8076	Polish	8487	Twi
6890	Bhutani	7565	Georgian	8083	Pashto, Pushto	8575	Ukrainian
6976	Greek	7575	Kazakh	8084	Portuguese	8582	Urdu
6978	English	7576	Greenlandic	8185	Quechua	8590	Uzbek
6979	Esperanto	7577	Cambodian	8277	Rhaeto-Romance	8673	Vietnamese
6983	Spanish	7578	Kannada	8279	Romanian	8679	VolapÄk
6984	Estonian	7579	Korean	8285	Russian	8779	Wolof
6985	Basque	7583	Kashmiri	8365	Sanskrit	8872	Xhosa
7065	Persian	7585	Kurdish	8368	Sindhi	8979	Yoruba
7073	Finnish	7589	Kirghiz	8372	Serbo-Croatian	9072	Chinese
7074	Fiji	7665	Latin	8373	Singhalese	9085	Zulu

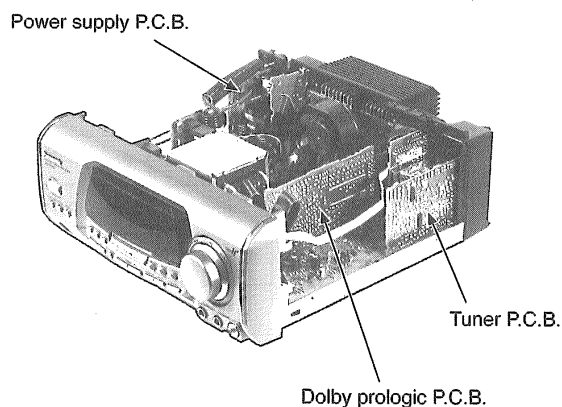
■ Operation Checks and Component Replacement Procedures

- NOTE** 1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.

1. Checking for the tuner P.C.B., dolby prologic P.C.B. and power supply P.C.B.

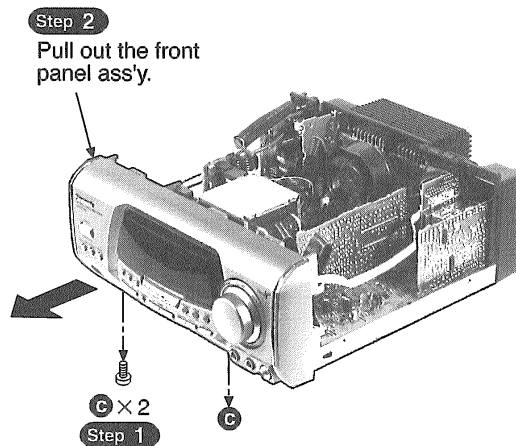


- Check the tuner P.C.B., dolby prologic P.C.B. and power supply P.C.B. as shown below.

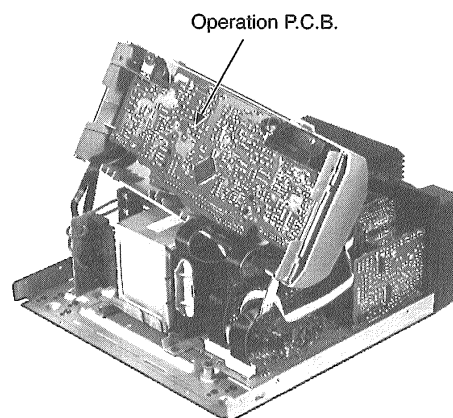


2. Checking for the operation P.C.B.

- Follow the Step 1 ~ Step 3 of the item 1.

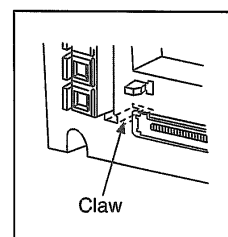
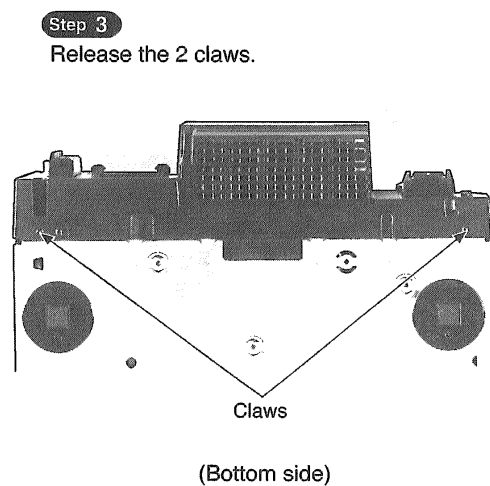
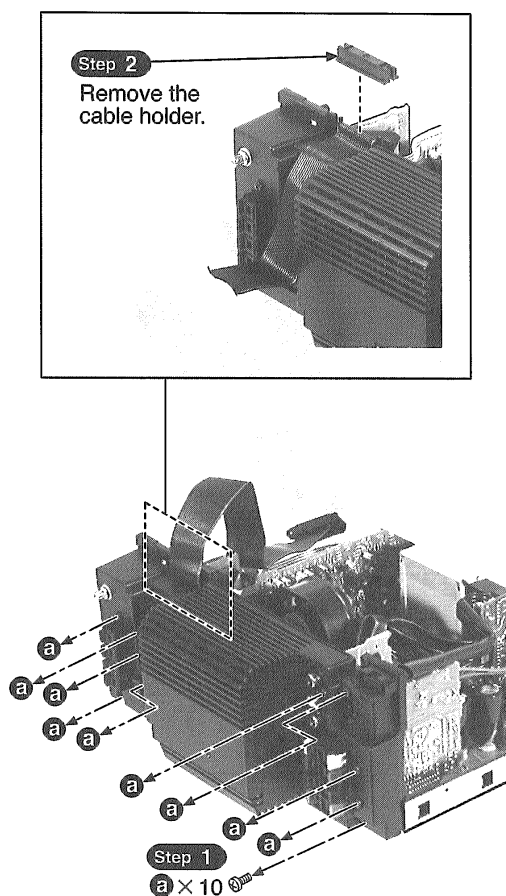


- Check the operation P.C.B. as shown below.

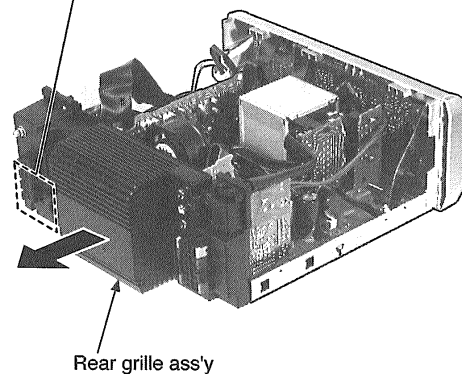


3. Checking for the main P.C.B.

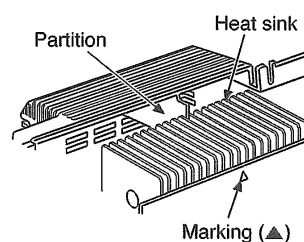
Follow the **Step 1** ~ **Step 3** of the item 1 on page 32.



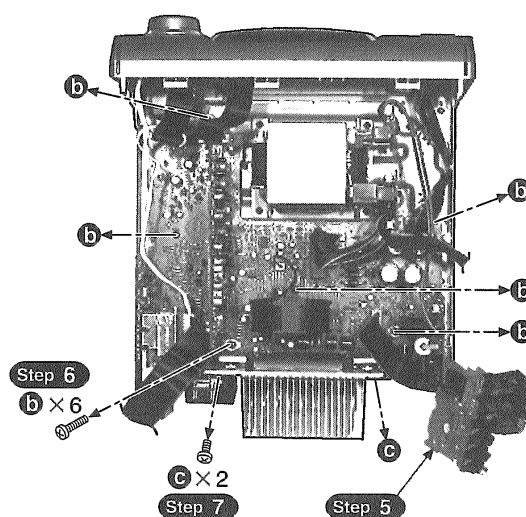
Step 4
Release the claw, and then remove the rear grille ass'y.



■ Notice for installation of rear grille ass'y



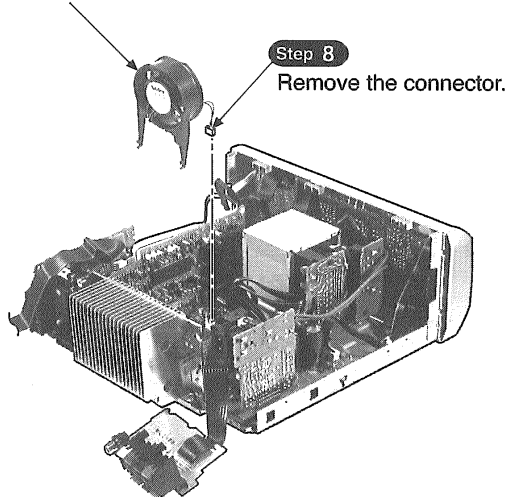
Align the partition of rear grille ass'y with the marking (▲) on the heat sink.



Step 5
Move the speaker terminal P.C.B. out of the unit.

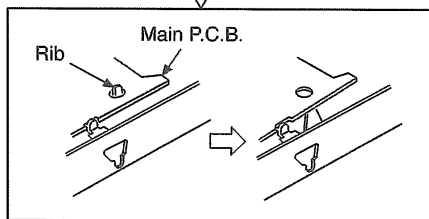
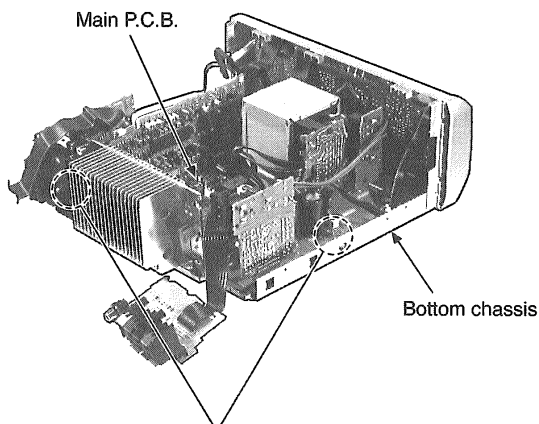
Step 9

Remove the fan unit.



Step 8

Remove the connector.

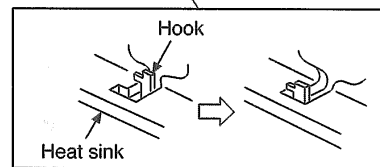
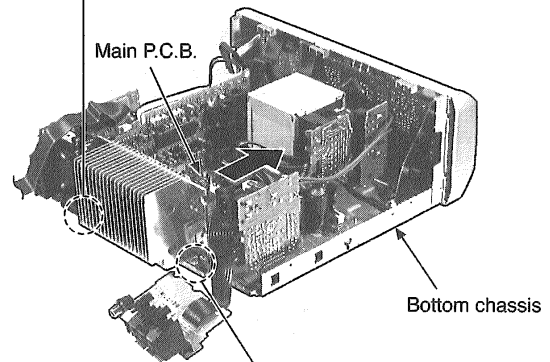
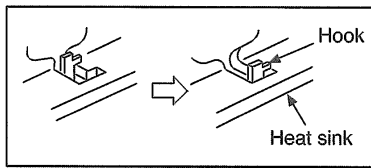


Step 10

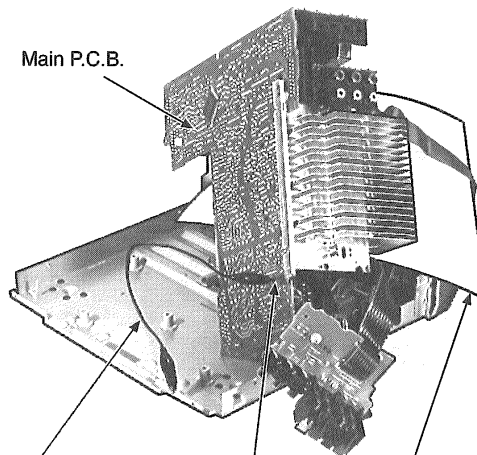
Lift the main P.C.B., and then release the rib of bottom chassis to remove the main P.C.B..

Step 11

Slide the main P.C.B. in the direction of arrow, and then remove release the hook of bottom chassis.



· Check the main P.C.B. as shown below.



Step 12

Connect the lead wire.

NOTE

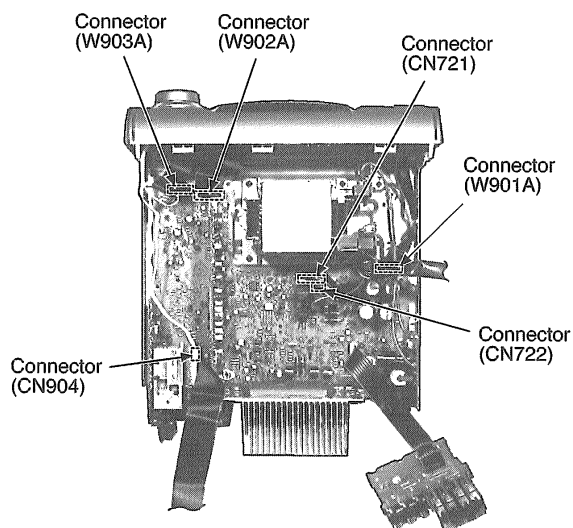
Insulate main P.C.B. with insulation material to avoid short-circuit.

4. Replacement for the power IC and regulator transistor

- Follow the **Step 1** ~ **Step 3** of the item 1 on page 32.
- Follow the **Step 1** ~ **Step 11** of the item 3 on pages 33 and 34.

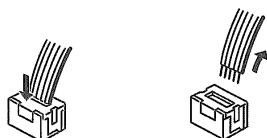
Step 1

Remove the flat cables from connectors.

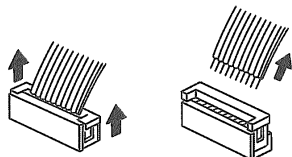


■ Removal of the connector

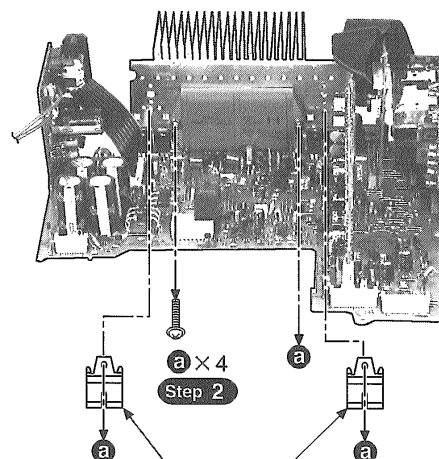
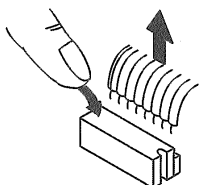
- Connector (CN904)



- Connectors (W901A, W902A, W903A)

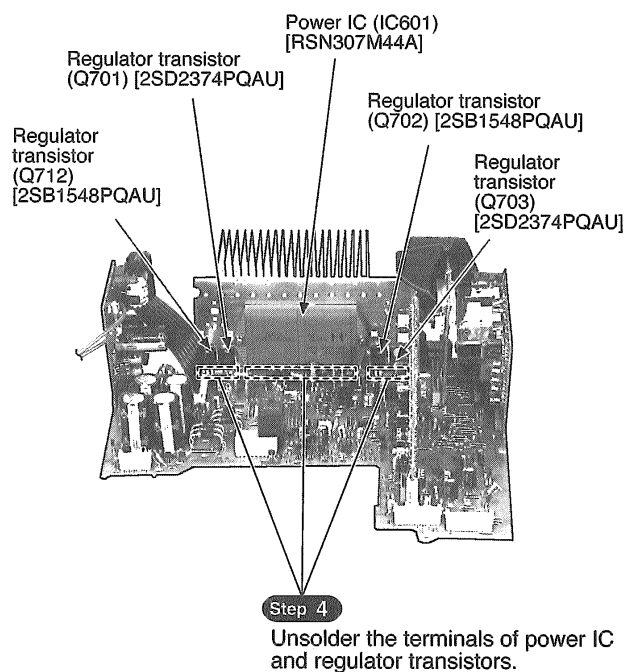


- Connectors (CN721, CN722)



Step 3

Remove the transistor holders.



Step 4

Unsolder the terminals of power IC and regulator transistors.

NOTE

When mounting the power IC or regulator transistor apply silicone compound (RFKX0002) to the rear side of power IC or regulator transistors.

■ To Supply Power Source

This unit SA-EH1000 is designed to operate on power supplied from the system connected. (For system connection, refer to Fig.1)

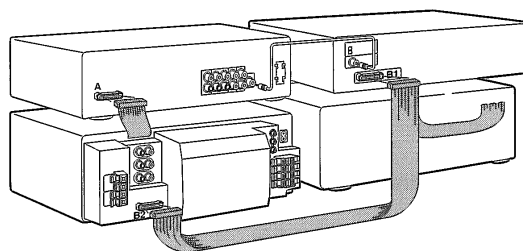
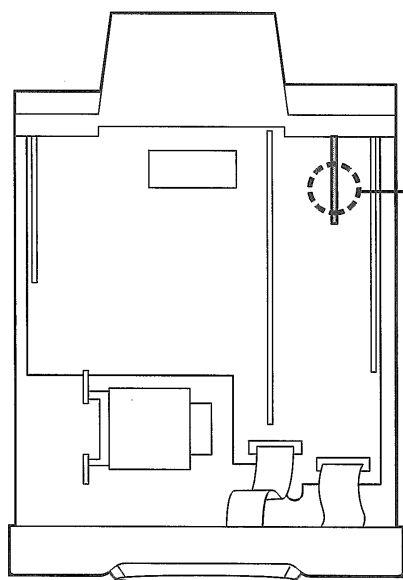


Fig. 1

When you have to test and service the unit SA-EH1000 alone, use the following method to supply power source and operate the unit:

1. Short the section between 7 pin and 10 pin of the connector W202 in Fig. 2.
2. Connect this unit to an AC Power Cord.
(This unit come to stand-by mode.)
3. Turn the unit ON.



Short-circuit the section W202-7 pin and W202-10 pin.

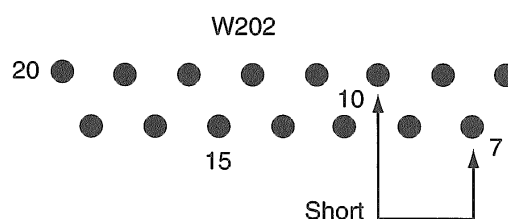


Fig. 2

■ To Check Operation

1. Set this unit to Power ON mode.
2. Input a signal and confirm it to be outputted from the speaker terminal.

	INPUT	OUTPUT
L-ch	EXT IN	L-ch speaker terminal
R-ch	EXT IN	R-ch speaker terminal
Surround	EXT IN	Surround speaker terminal
Center	EXT IN	Center speaker terminal

■ To Check KARAOKE Function

1. Be sure to connect this unit through the DVD player SL-EH1000.
 - If you don't have connected to the DVD player SL-EH1000, you cannot check the KARAOKE function.
2. Connect the Flat Cable from the Tuner/Amplifier SA-EH1000 to the DVD player SL-EH1000.
3. Connect this unit to an AC Power Cord.
(This unit comes to stand-by mode.)
4. Turn the unit ON.

About the Self-Diagnostic Mode

This unit is equipped with a self-diagnostic function in the event of a malfunction. It automatically displays a code indicating the nature of the malfunction. Use this self-diagnostic function when servicing the unit.

Display method	Display location
<p>To display the malfunction code</p> <p>U-70 DVD Automatically displays on the tuner/sound processor when a malfunction occurs.</p> <p>F-61 Automatically displays on the tuner/sound processor when a malfunction occurs.</p> <p>To return to the normal display</p> <p>1. For U-70 DVD:</p> <ul style="list-style-type: none"> ● Press an operation button on the tuner/amplifier. ● To re-display the code, switch the power off (POWER STANDBY button), and then switch power back on again. <p>2. For F-61:</p> <ul style="list-style-type: none"> ● If "F-61" is displayed, the power will automatically be switched off and the standby indicator will light up. ● "F-61" will be displayed for 3 seconds, and then the clock will be displayed. ● To re-display the code, switch the power on. "F-61" will be re-displayed, and then after 3 seconds the clock will be displayed and the power will automatically switch off. 	<p>DVD Player (SL-EH1000) Sound processor (SH-EH1000)</p> <p>Cassette deck (RS-EH1000) Tuner/Amplifier (SA-EH1000)</p> <p>U07011</p>

Display contents

Display code	Problem or condition	Correction procedure
<p>U-70 DVD (displayed automatically)</p>	<p>A bus-line communications error has occurred as a result of the flat cables being inserted incorrectly, thus preventing the system from operating.</p> <p>1.If "U-70" is displayed on the tuner/amplifier, the tape deck or DVD Player cannot be operated by remote control.</p>	<p>Flat cable</p> <ol style="list-style-type: none"> To check for correct insertion of the flat cables. <ol style="list-style-type: none"> Insert each connector until you hear a click. Insert the flat cables at the back of the unit in the order indicated. Make sure the white side of the cable is on your right side. Breakage of flat cable. (Check and replace if necessary.) If the problem is not corrected by items (1.) and (2.) above, this indicates a faulty IC. <p>SA-EH1000: IC901 (M38198MCA504)</p> <p>SL-EH1000: IC6201 (MN102L25DN2J)</p> <p>RS-EH1000: IC701 (M37471M4679F)</p> <p>Check these IC's and replace if necessary.</p> <p>White side</p>
<p>F-61</p>	<p>When the power button is pressed, it automatically switches back off. It is impossible to switch power on.</p>	<ul style="list-style-type: none"> ● Faulty Tuner/Amplifier (SA-EH1000) output IC (IC601). (When a DC voltage is applied to the speaker terminals.)

Schematic Diagram

	Page		Page
A TUNER CIRCUIT	39, 40	F MAIN CIRCUIT	47 – 52
B OPERATION CIRCUIT	41 – 43	G POWER SUPPLY CIRCUIT	52, 53
C MIC JACK CIRCUIT	43	H SPEAKER TERMINAL CIRCUIT	53
D DOLBY PRO LOGIC CIRCUIT	44 – 46	I POWER TRANSFORMER (A) CIRCUIT	53
E IN/OUT TERMINAL CIRCUIT	47	J POWER TRANSFORMER (B) CIRCUIT	53

• This schematic diagram may be modified at any time with the development of new technology.

Notes:

- **S901** : Power “STANDBY ϕ /ON” switch (POWER STANDBY ϕ /ON)
- **S902** : Clock/timer switch (CLOCK/TIMER)
- **S903** : Record timer switch (REC)
- **S904** : Play timer switch (PLAY)
- **S905** : Tuning mode select switch (TUNING MODE)
- **S906** : Set switch (SET)
- **S907** : FM mode select switch (FM AUTO/MONO)
- **S908** : Source input select switch (INPUT SELECTOR)
- **S909** : Tuning down switch (TUNING \vee)
- **S910** : Tuning up switch (TUNING \wedge)
- **S911** : Tuner/band select switch (TUNER/BAND)
- **S912** : Muting switch (MUTING)
- **S913** : Karaoke switch (KARAOKE)
- **S914** : Voice muting switch (V.MUTE)
- **S915** : Guide melody switch (G.MELODY)
- **S916** : Voice select switch (VOICE)
- **S917** : Echo switch (ECHO)
- **S918** : Key control switch (b)
- **S919** : Key control switch (\sharp)
- **S920** : Key control switch (#)
- **VR401** : MIC volume control (MIC VOL)
- **VR901** : Volume control (VOLUME)

- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
No mark : FM () : AM

Important safety notice:

Components identified by \triangle mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

Caution!

IC and LSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

Cover the parts boxes made of plastics with aluminum foil.


Ground the soldering iron.

Put a conductive mat on the work table.


Do not touch the legs of IC or LSI with the fingers directly.

Voltage and signal line

 : Positive voltage line


 : AM signal Line


 : AM OSC signal line

 : FM signal line

 : FM OSC signal line

 : Negative voltage line

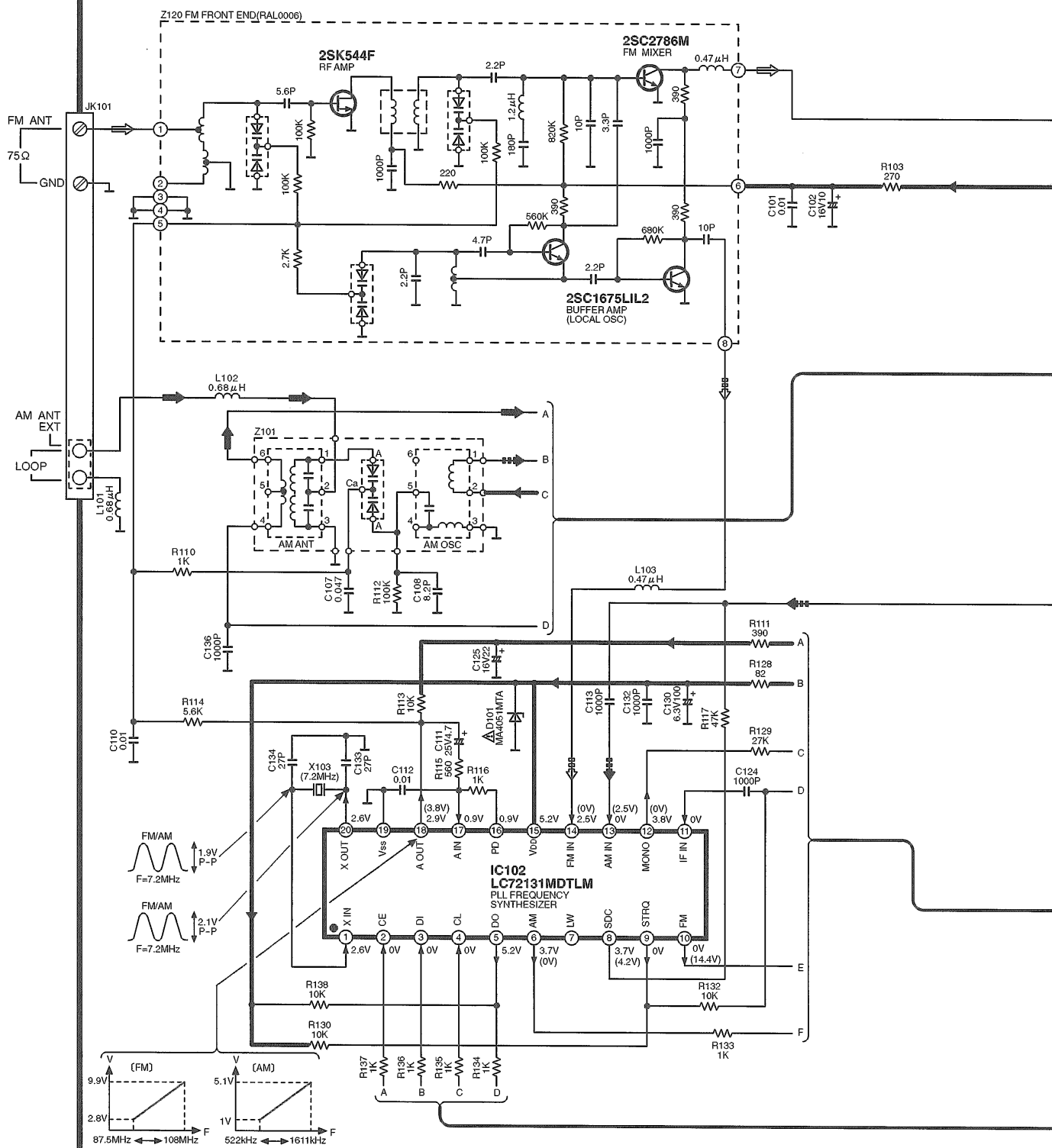
 : Mic signal Line

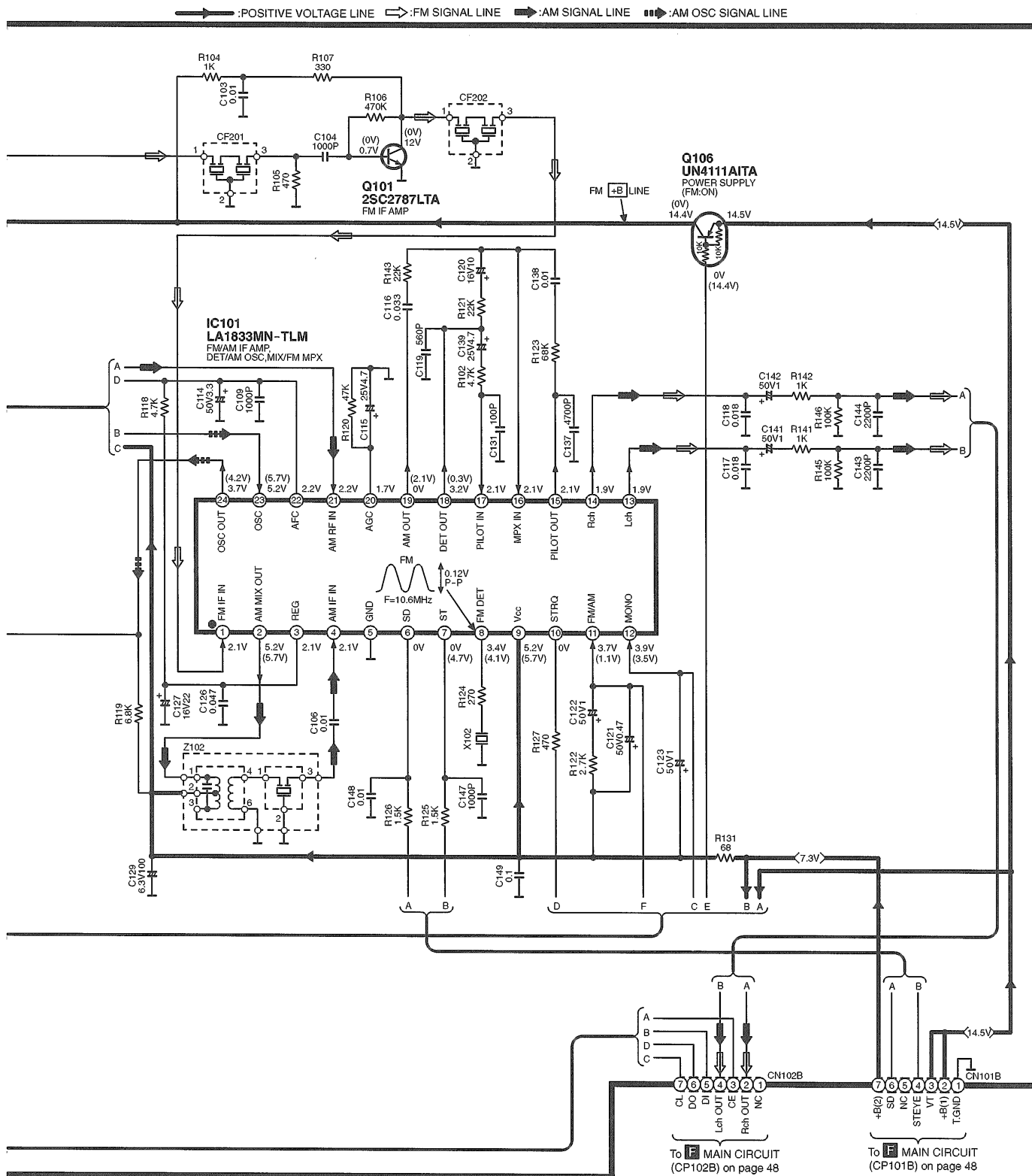
 : Surround Speaker Drive signal line

 : Center Speaker Drive signal line

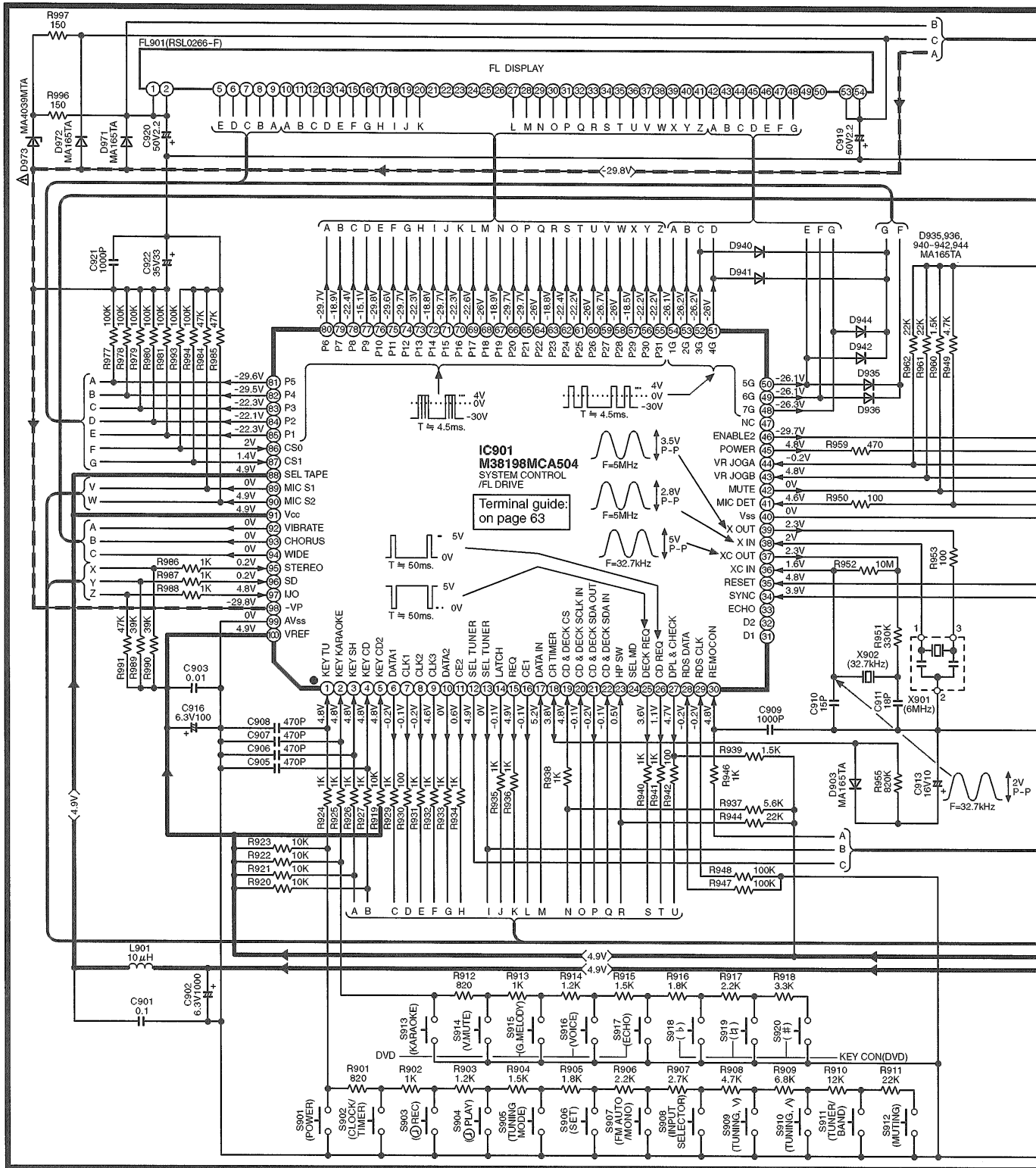
A TUNER CIRCUIT (P.C.Board: on page 54)

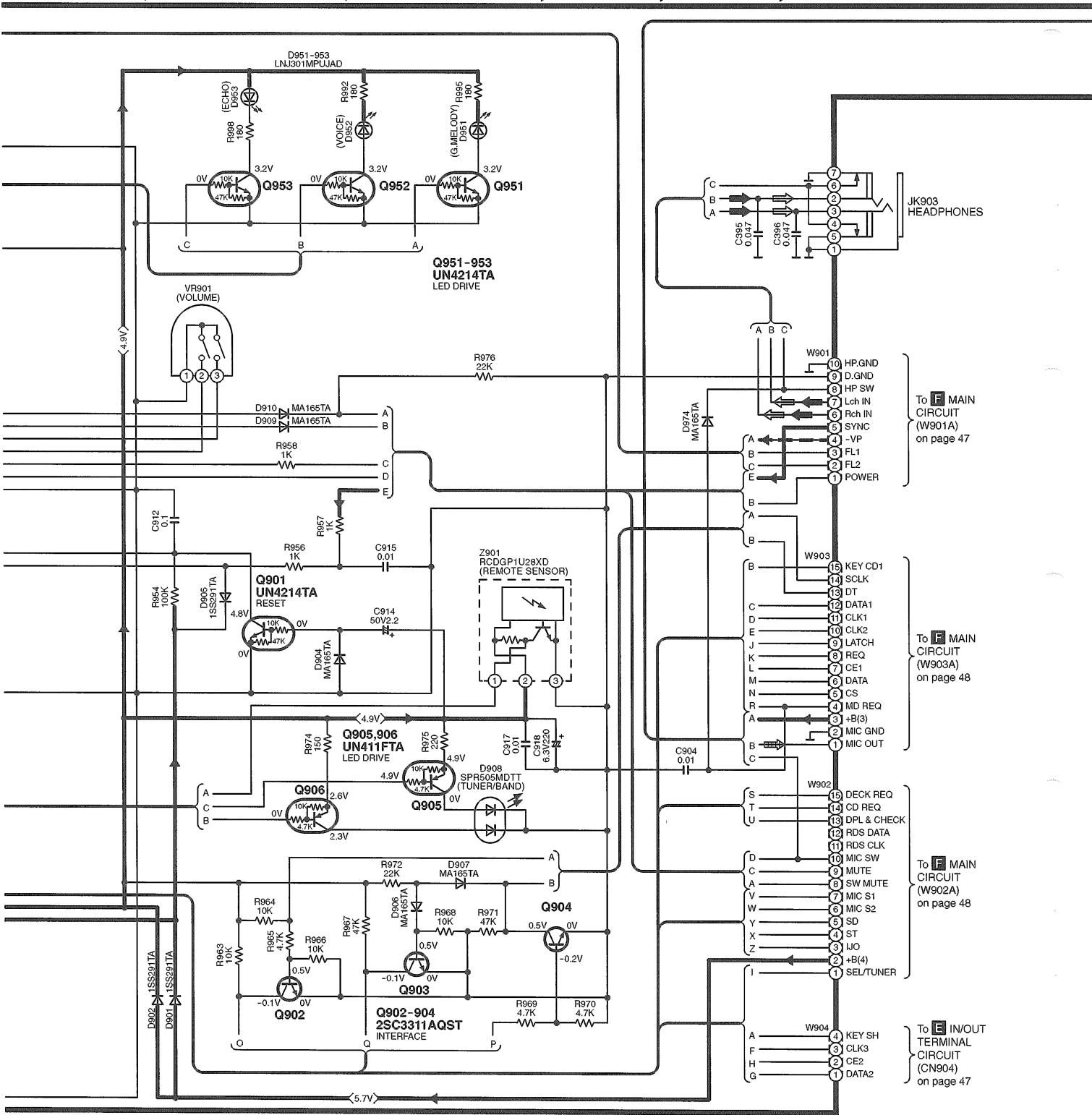
 → : POSITIVE VOLTAGE LINE
 ⇨ : FM SIGNAL LINE
 ⇨ : FM OSC SIGNAL LINE
 ⇨ : AM SIGNAL LINE
 ⇨ : AM OSC SIGNAL LINE

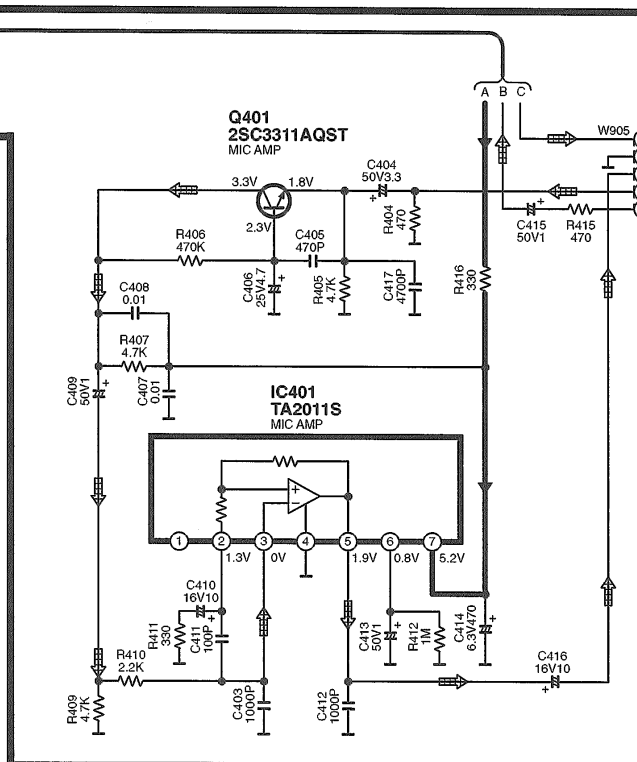
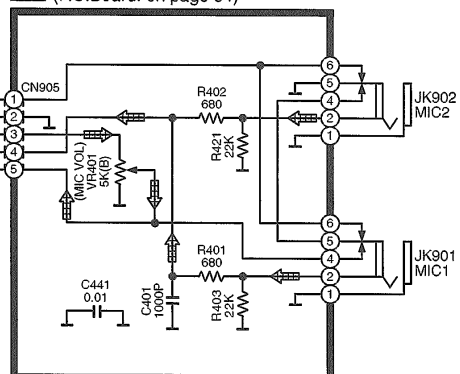










B OPERATION CIRCUIT (P.C.Board: on page 55) : POSITIVE VOLTAGE LINE : NEGATIVE VOLTAGE LINE

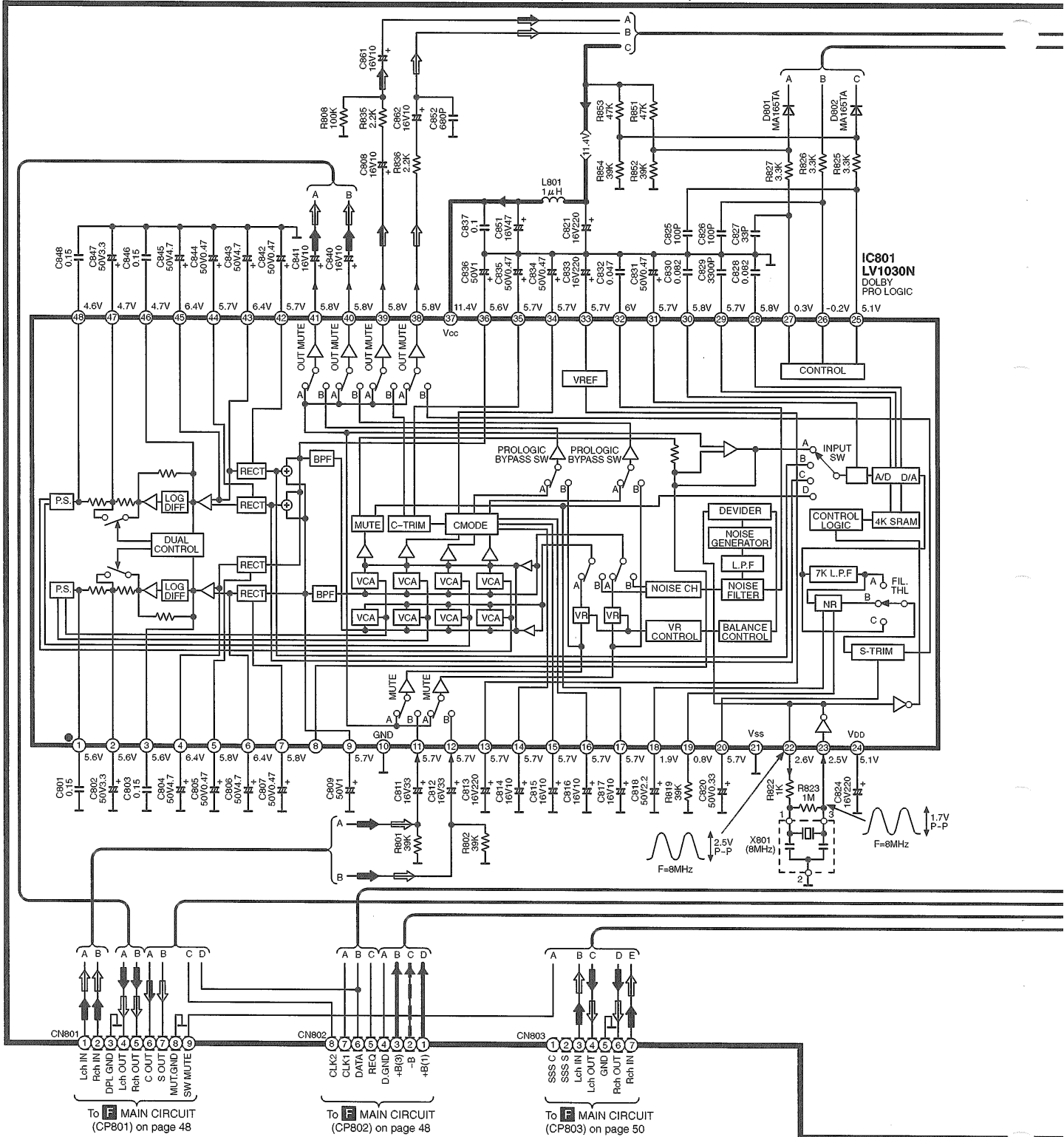


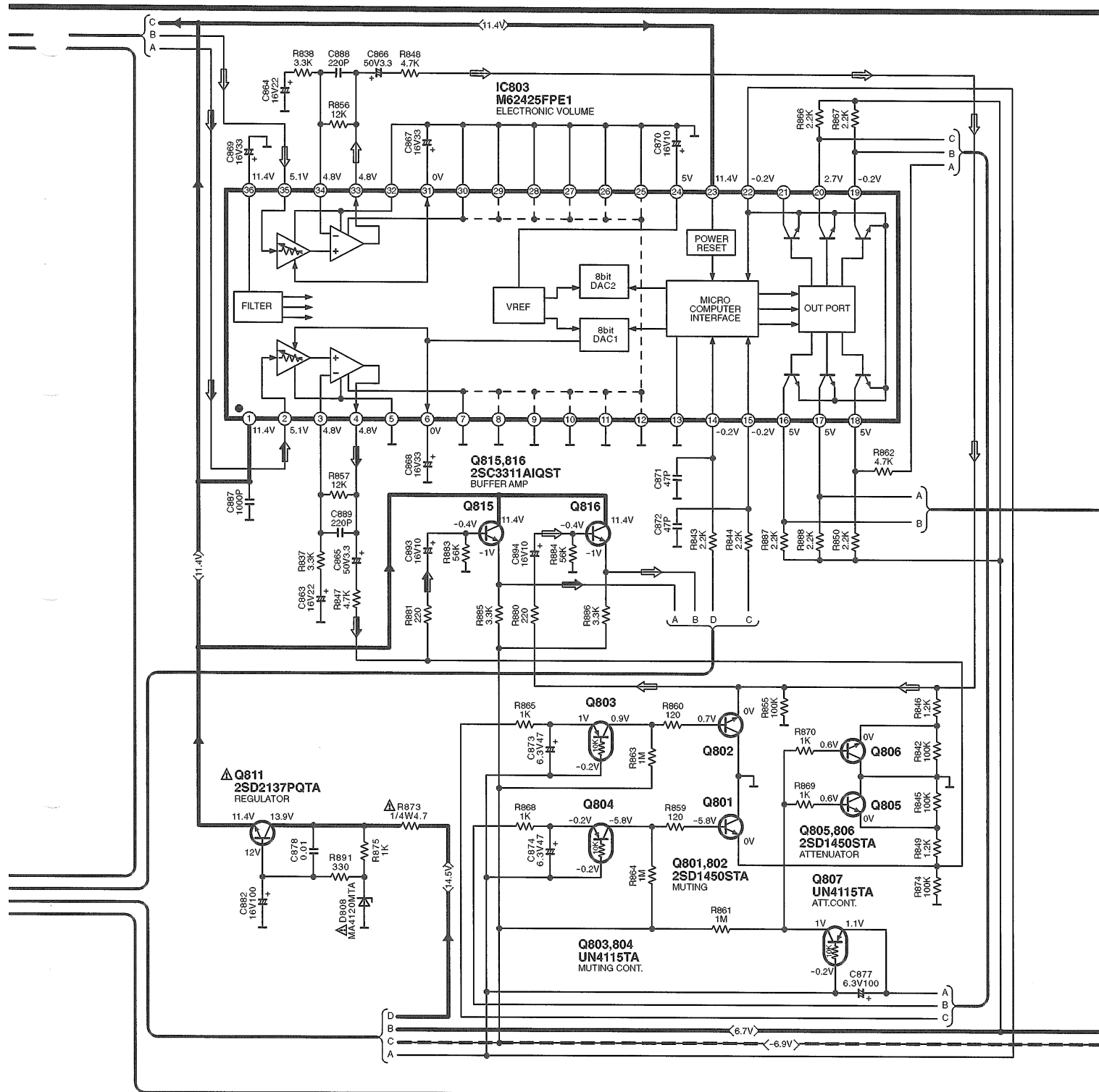


B OPERATION CIRCUIT (P.C.Board: on page 55)**C MIC JACK CIRCUIT** (P.C.Board: on page 54)

D DOLBY PRO LOGIC CIRCUIT (P.C.Board: on page 56)

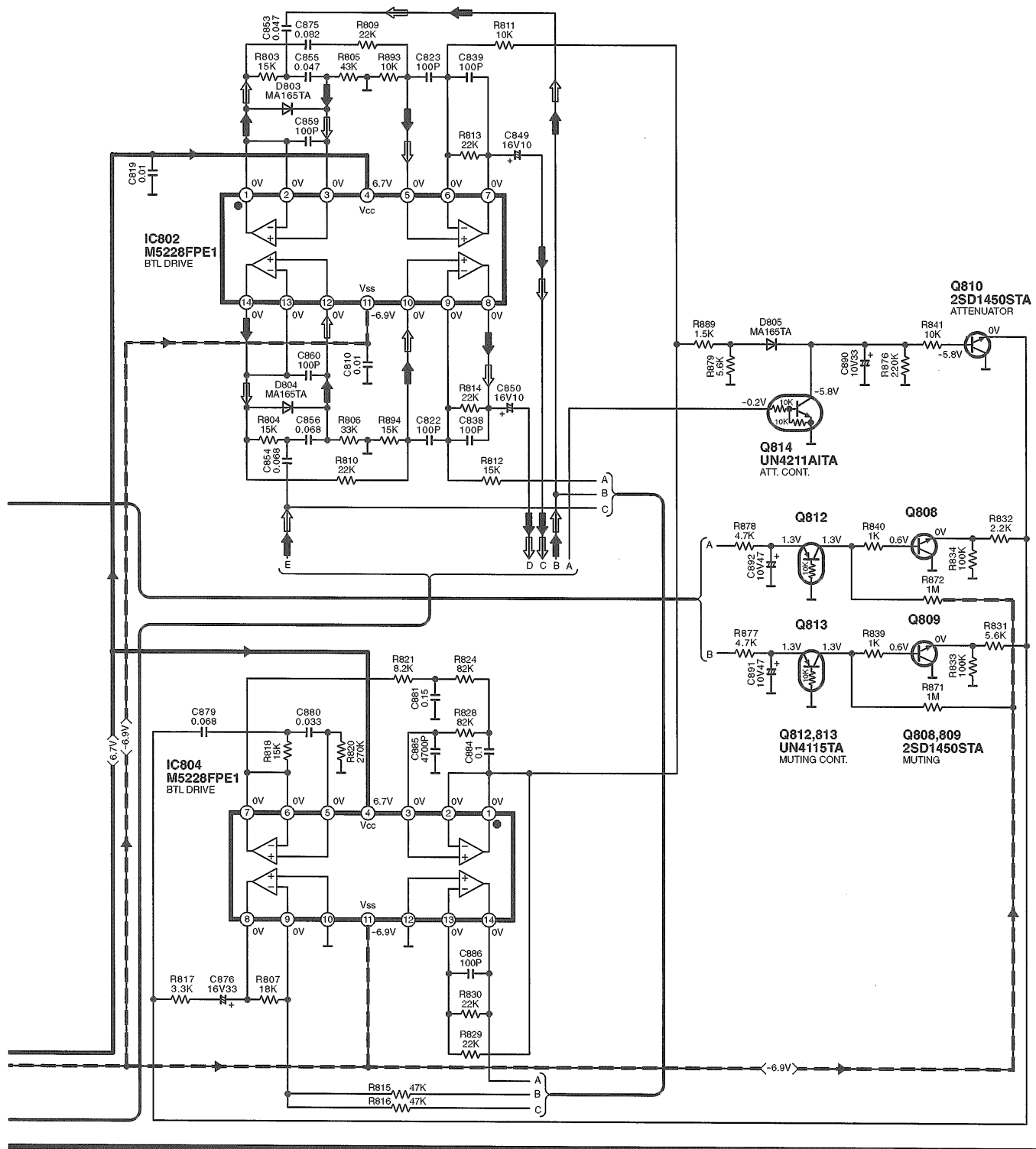
 : POSITIVE VOLTAGE LINE
 : FM SIGNAL LINE
 : SURROUND SPEAKER DRIVE SIGNAL LINE
 : NEGATIVE VOLTAGE LINE
 : AM SIGNAL LINE
 : CENTER SPEAKER DRIVE SIGNAL LINE

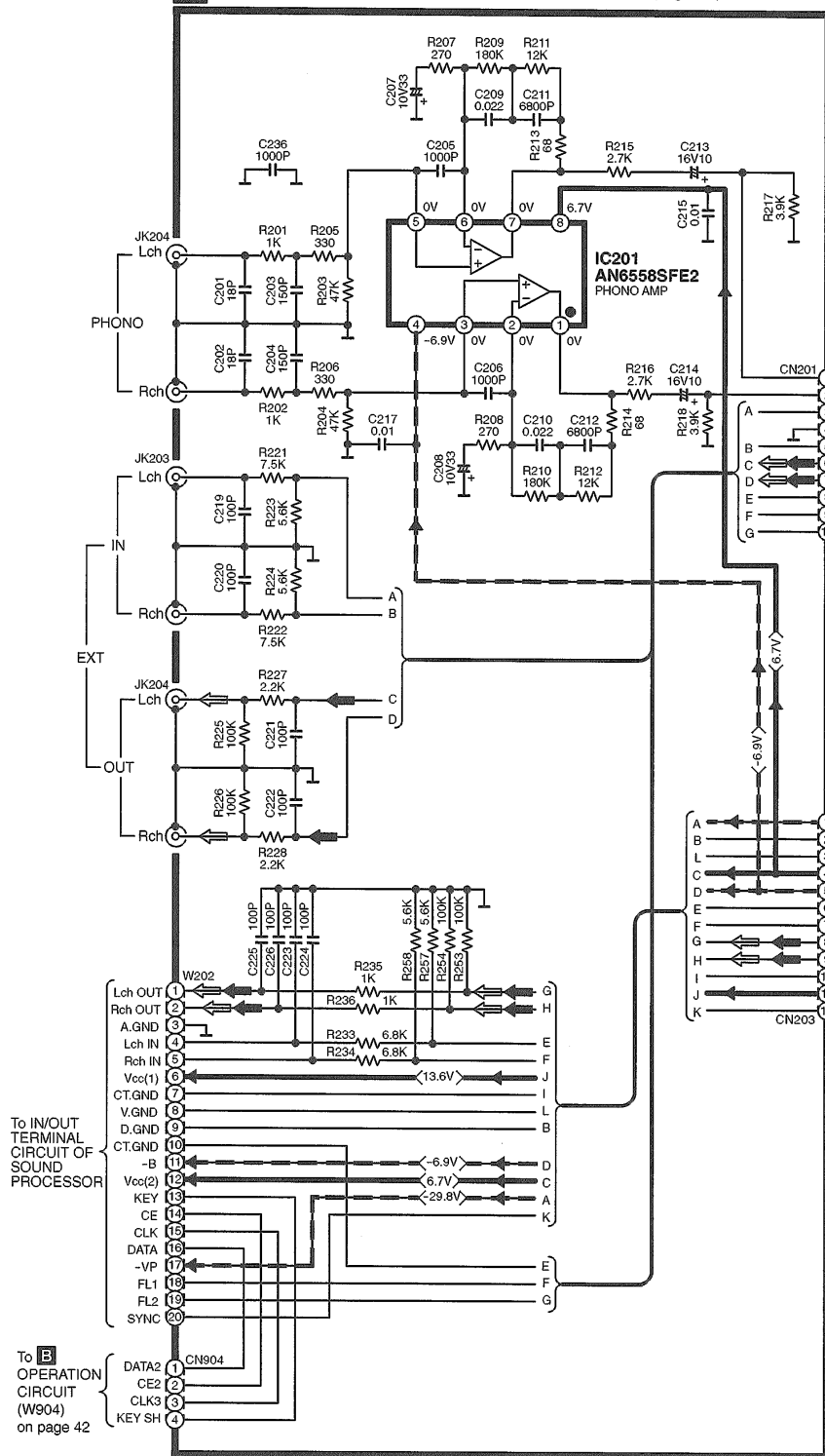
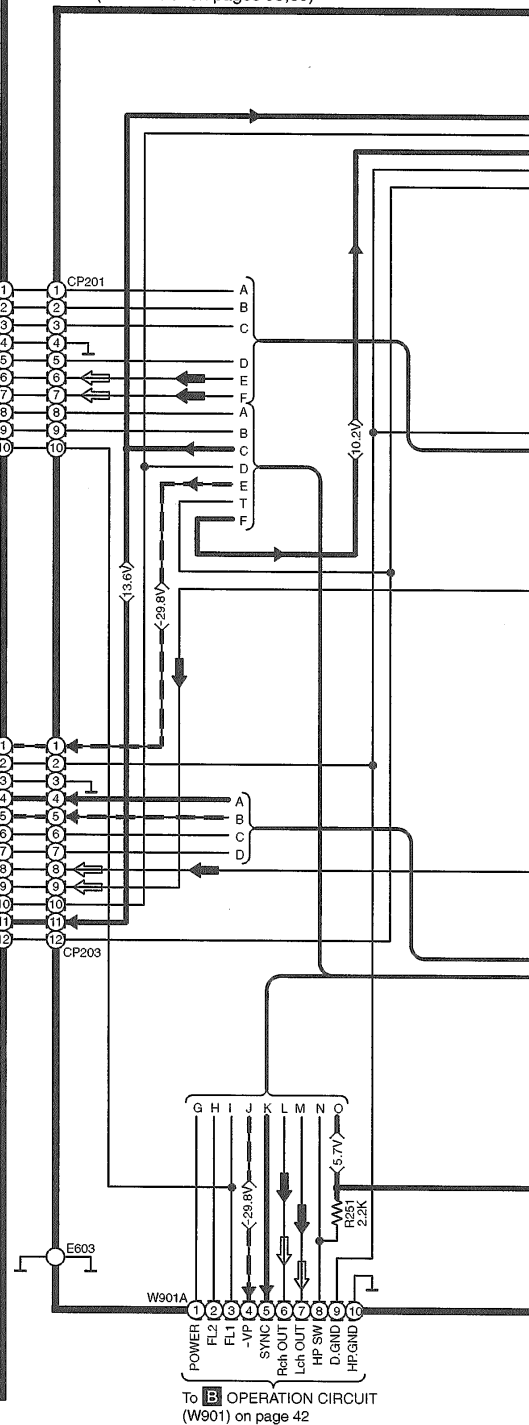


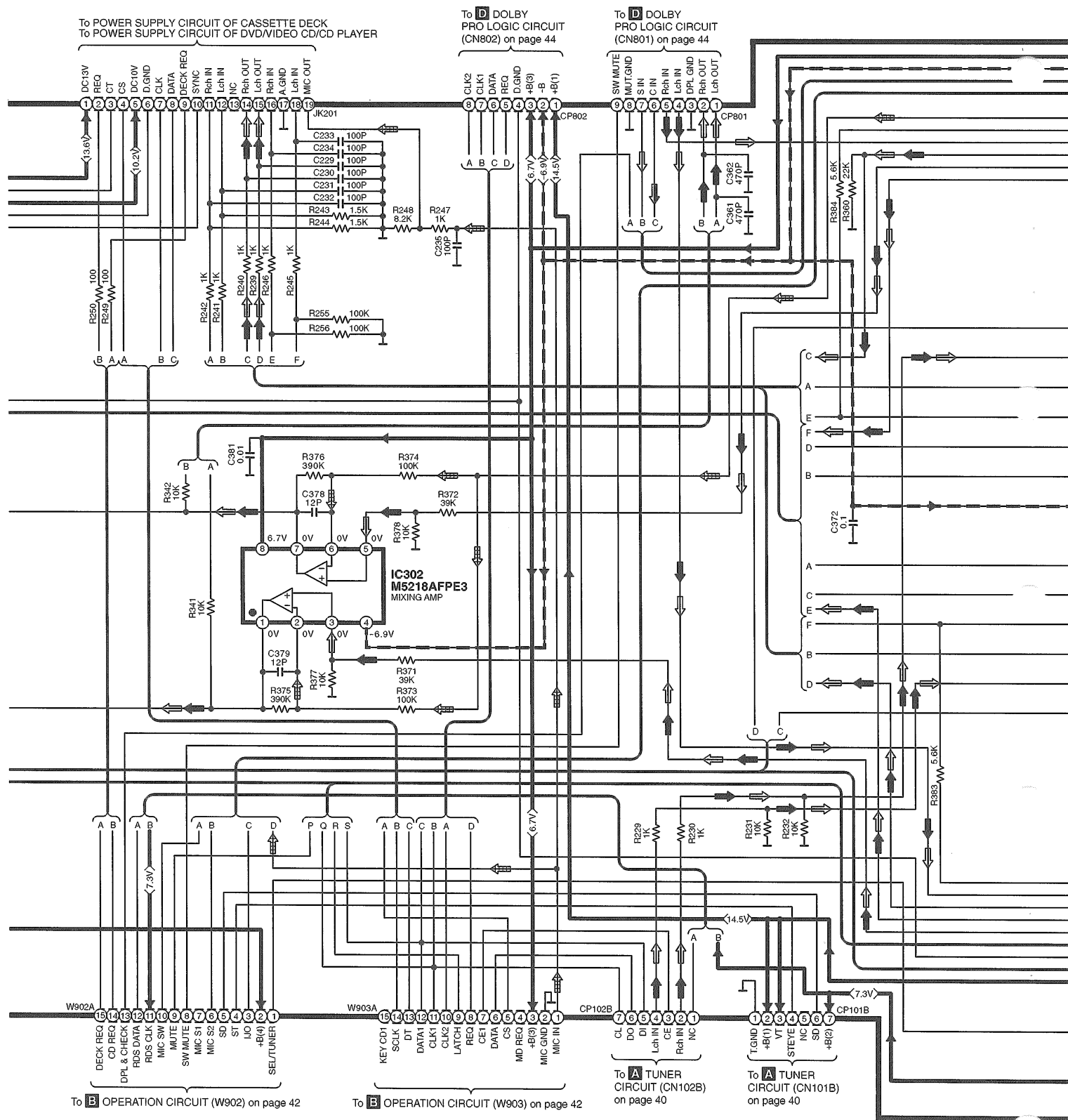





D DOLBY PRO LOGIC CIRCUIT (P.C.Board: on page 56)

——— : POSITIVE VOLTAGE LINE ——— : FM SIGNAL LINE
 - - - : NEGATIVE VOLTAGE LINE ——— : AM SIGNAL LINE

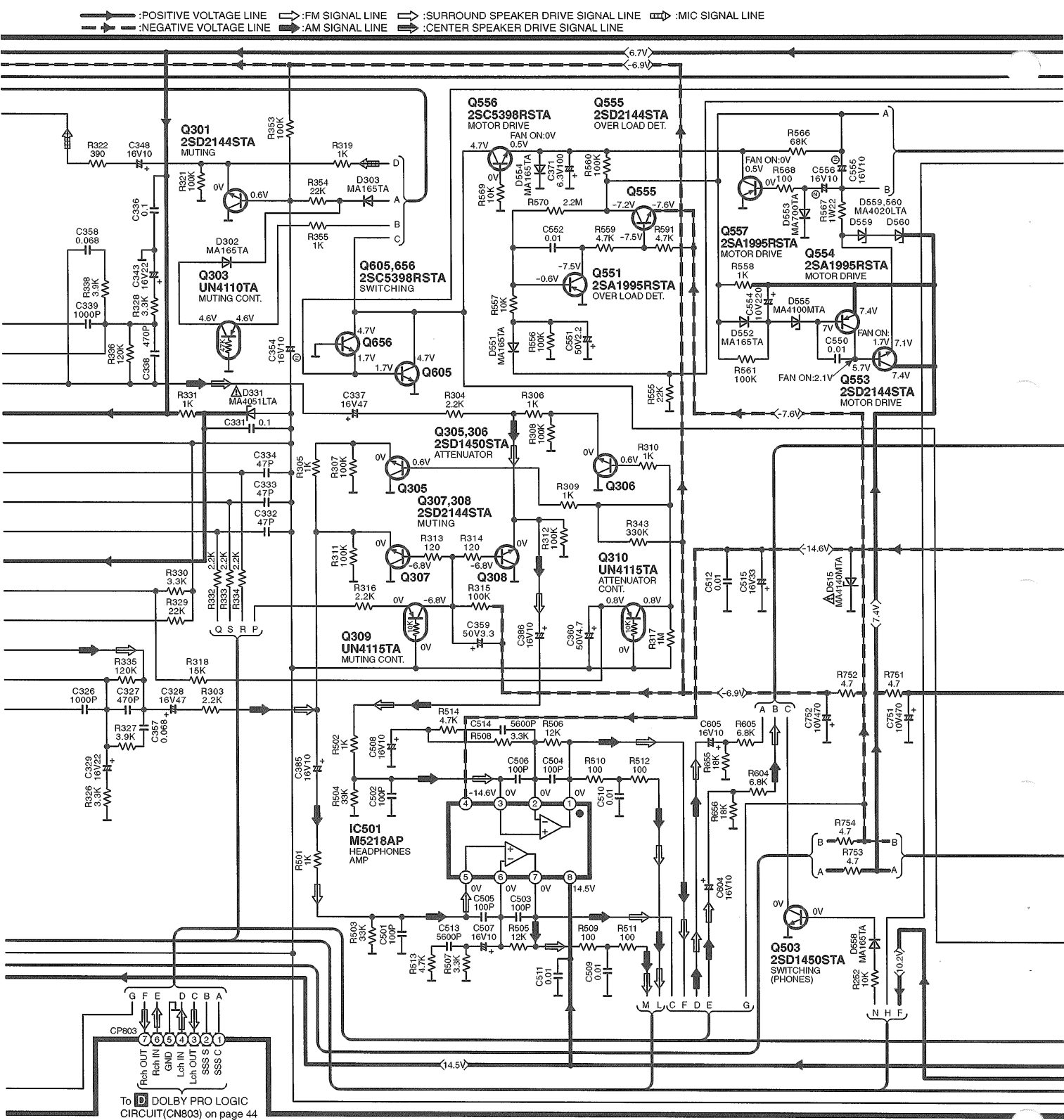


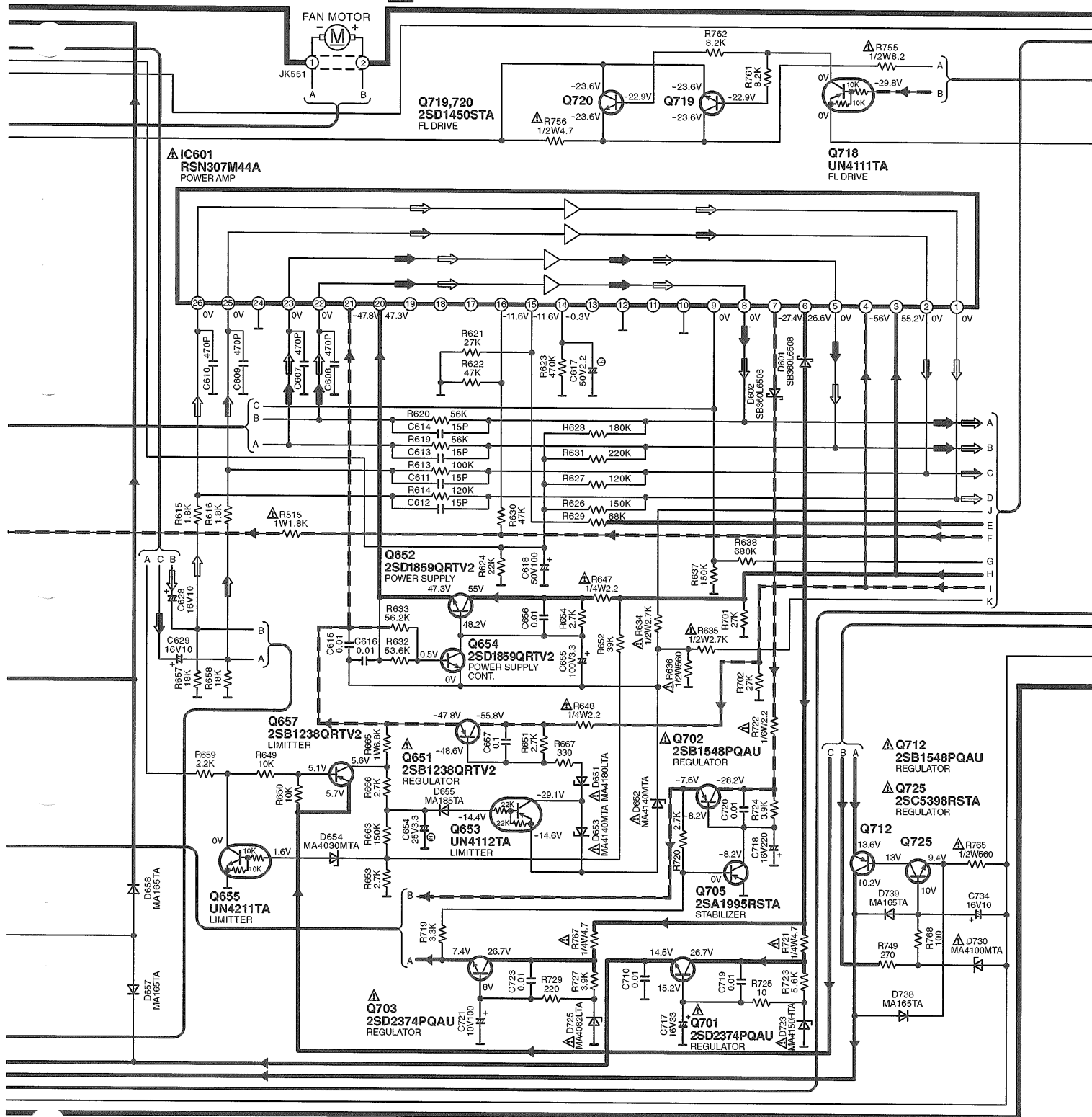
E IN/OUT TERMINAL CIRCUIT (P.C.Board: on page 57)**F MAIN CIRCUIT** (P.C.Board: on pages 58,59)

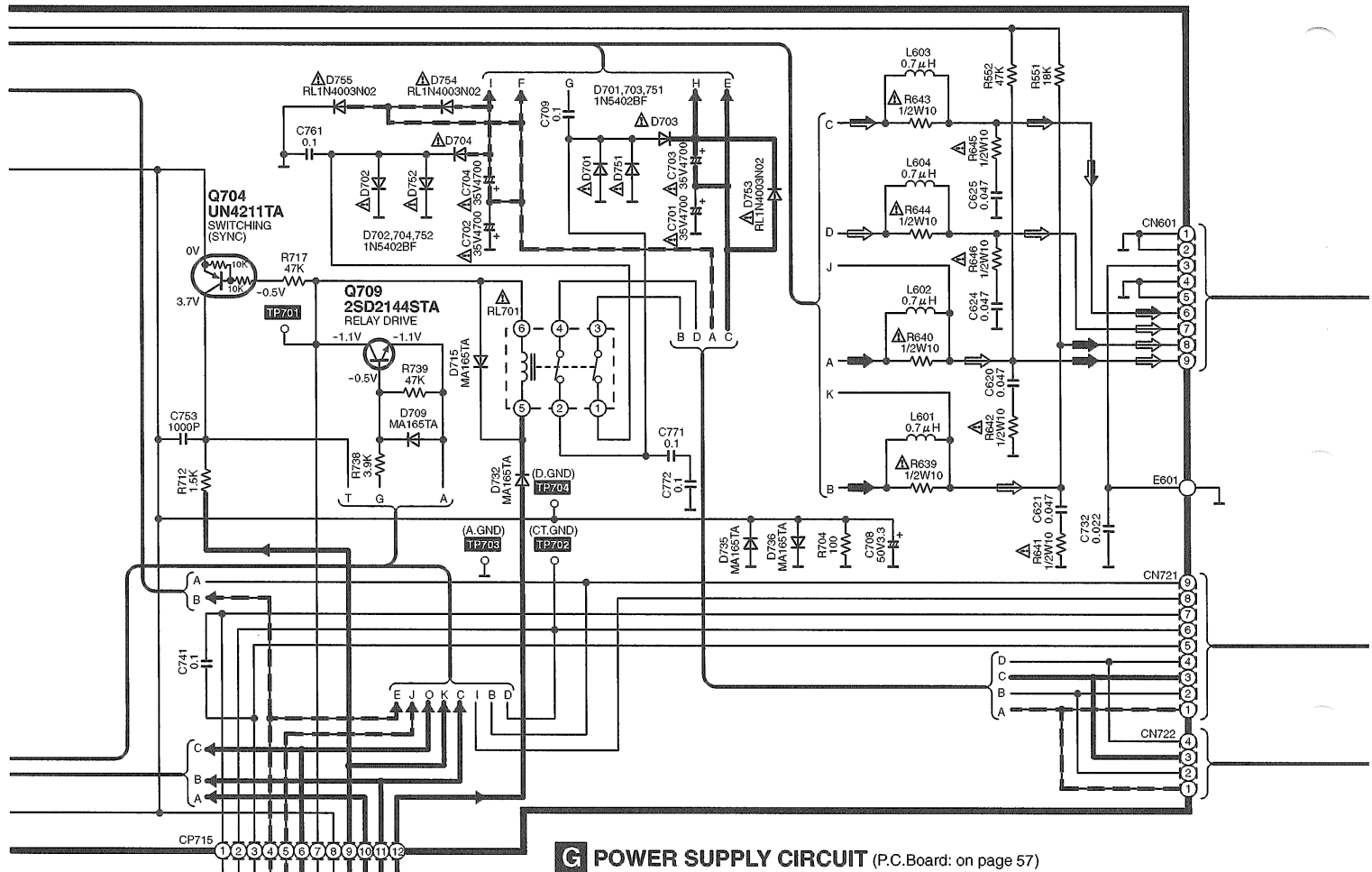


 : POSITIVE VOLTAGE LINE
  : FM SIGNAL LINE
  : SURROUND SPEAKER DRIVE SIGNAL LINE
 : NEGATIVE VOLTAGE LINE
 : AM SIGNAL LINE
 : CENTER SPEAKER DRIVE SIGNAL LINE
 : MIC SIGNAL LINE



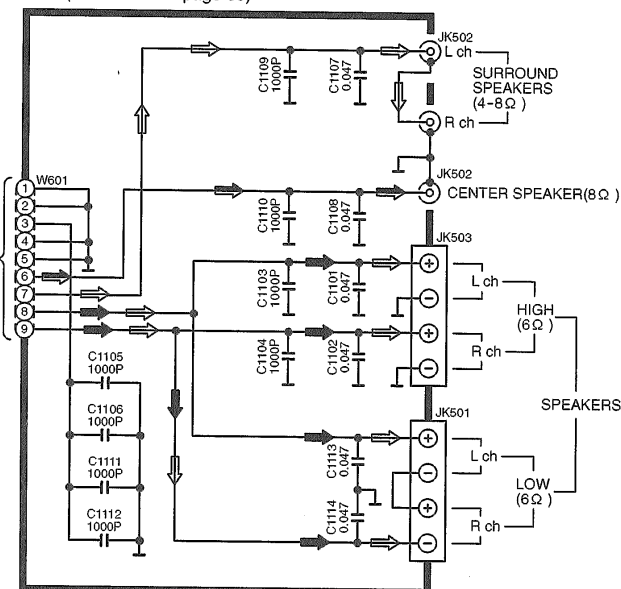


F MAIN CIRCUIT (P.C.Board: on pages 58,59)



H SPEAKER TERMINAL CIRCUIT

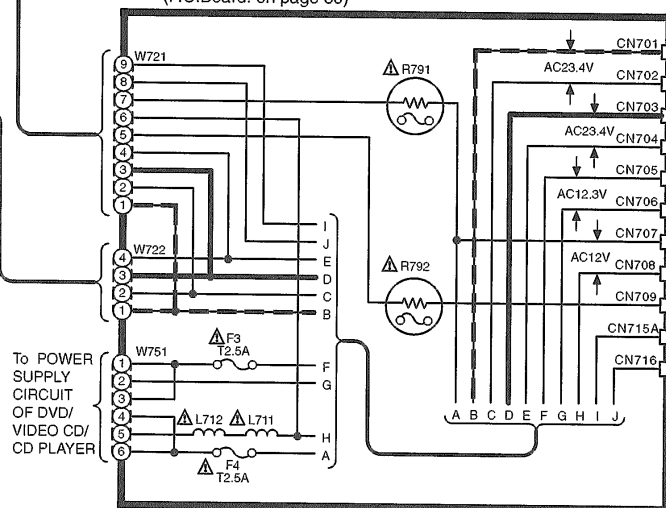
(P.C. Board: on page 60)



- : POSITIVE VOLTAGE LINE
- ← : NEGATIVE VOLTAGE LINE
- : FM SIGNAL LINE
- : AM SIGNAL LINE
- : SURROUND SPEAKER DRIVE SIGNAL LINE
- : CENTER SPEAKER DRIVE SIGNAL LINE

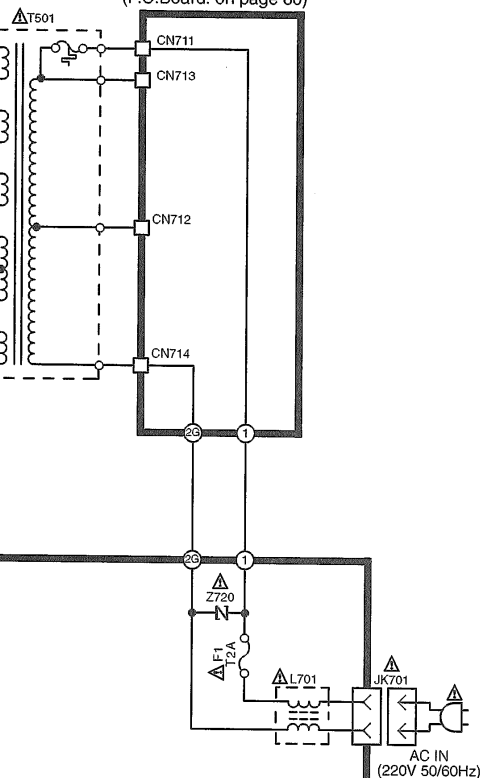
I POWER TRANSFORMER (A) CIRCUIT

(P.C. Board: on page 60)



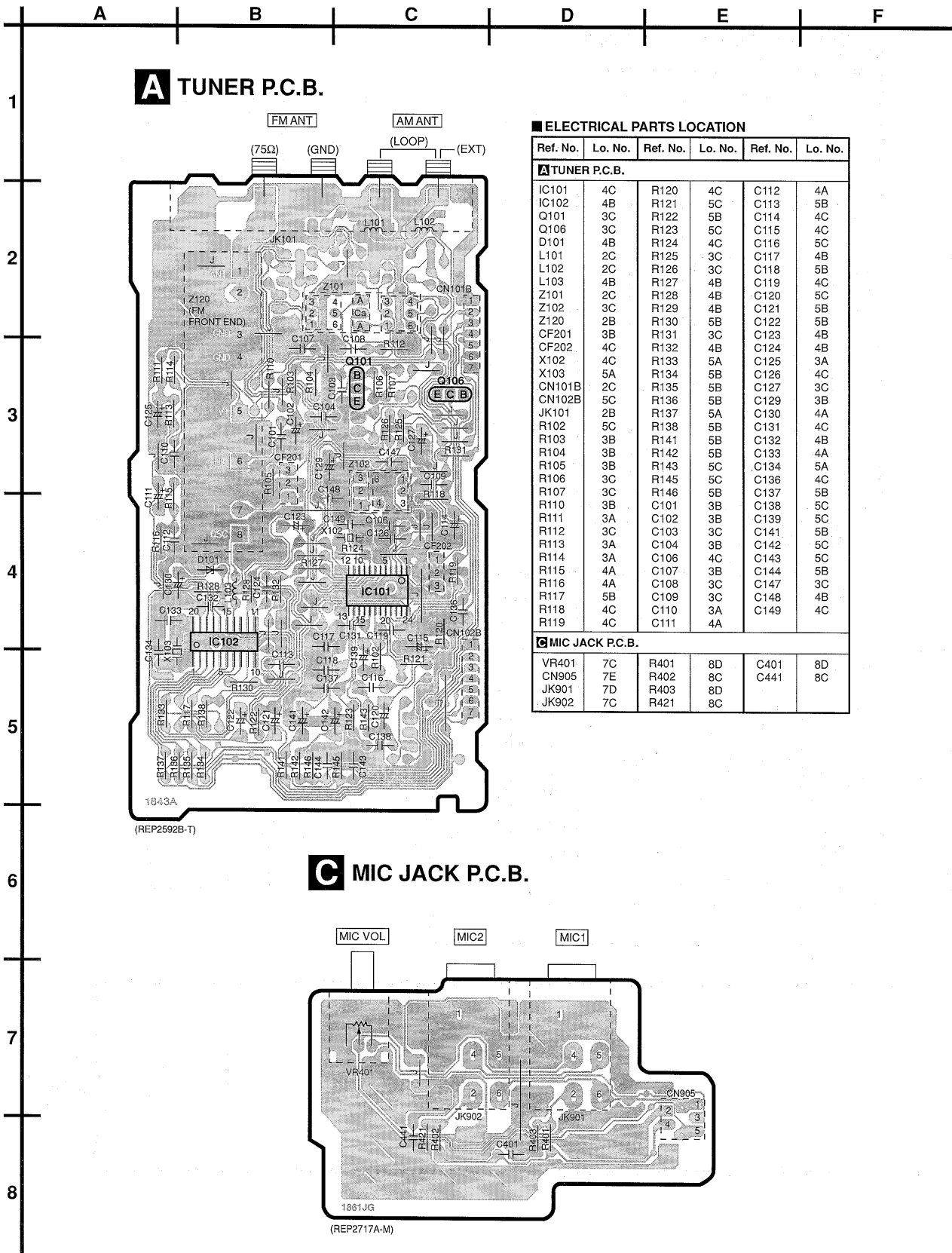
J POWER TRANSFORMER (B) CIRCUIT

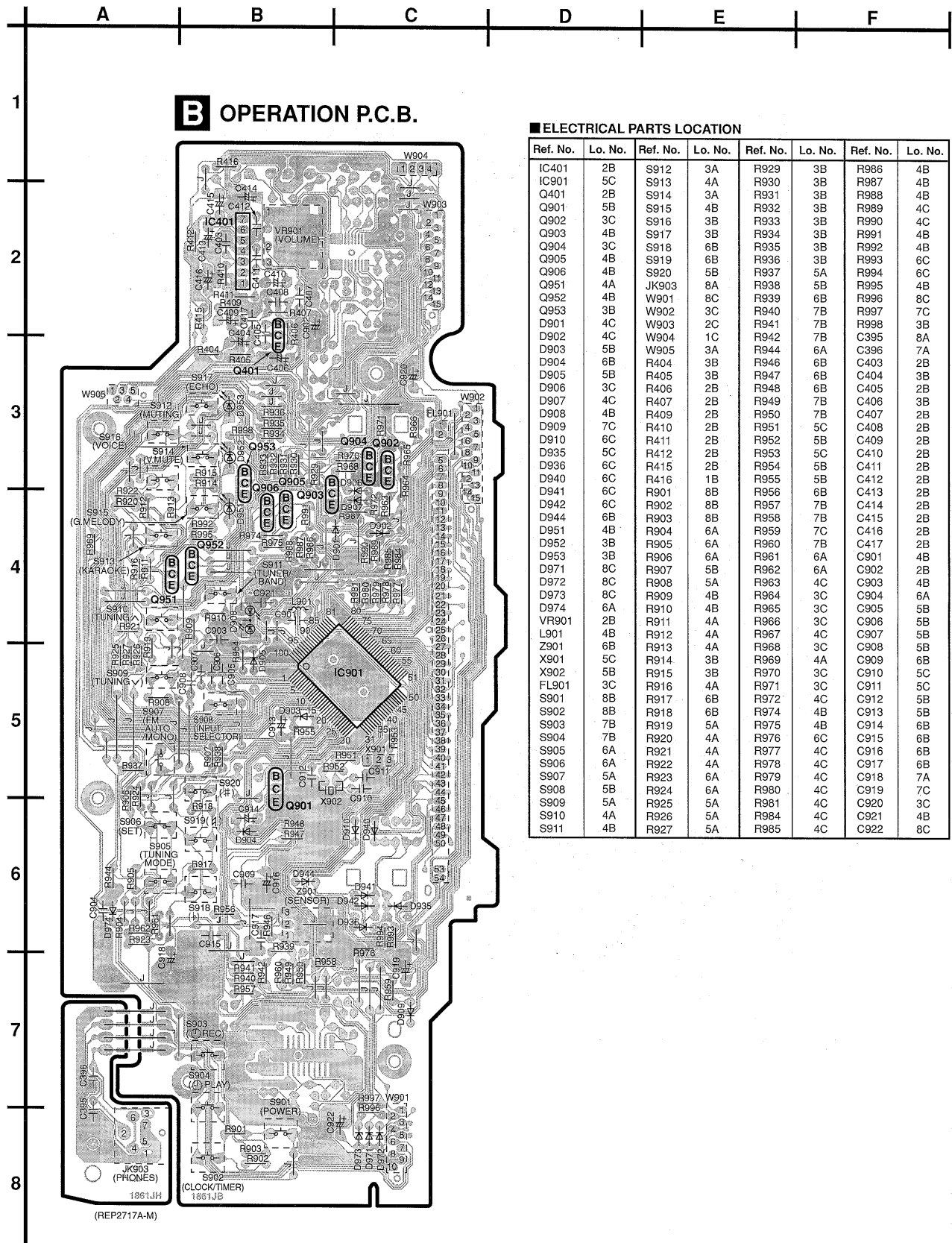
(P.C. Board: on page 60)

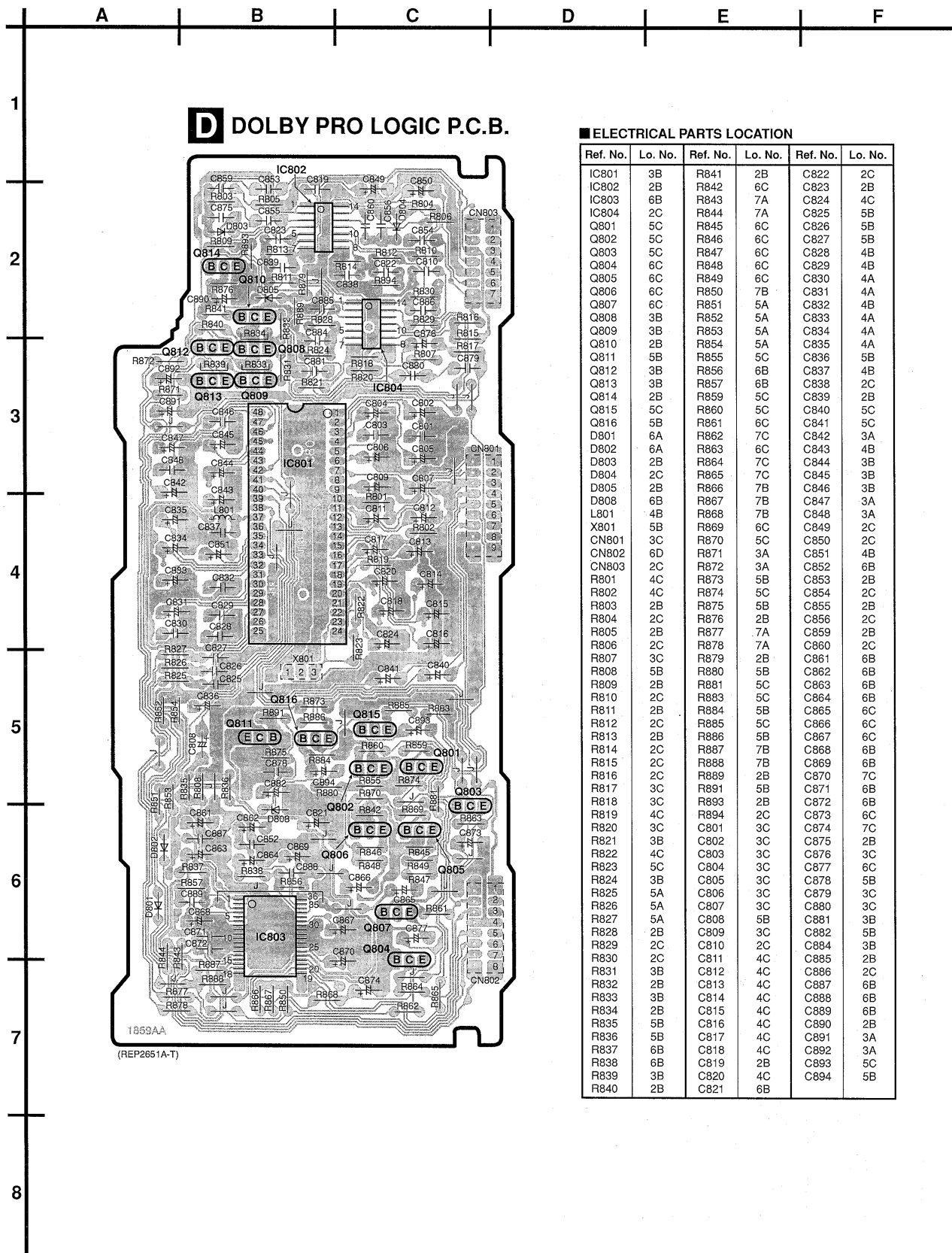


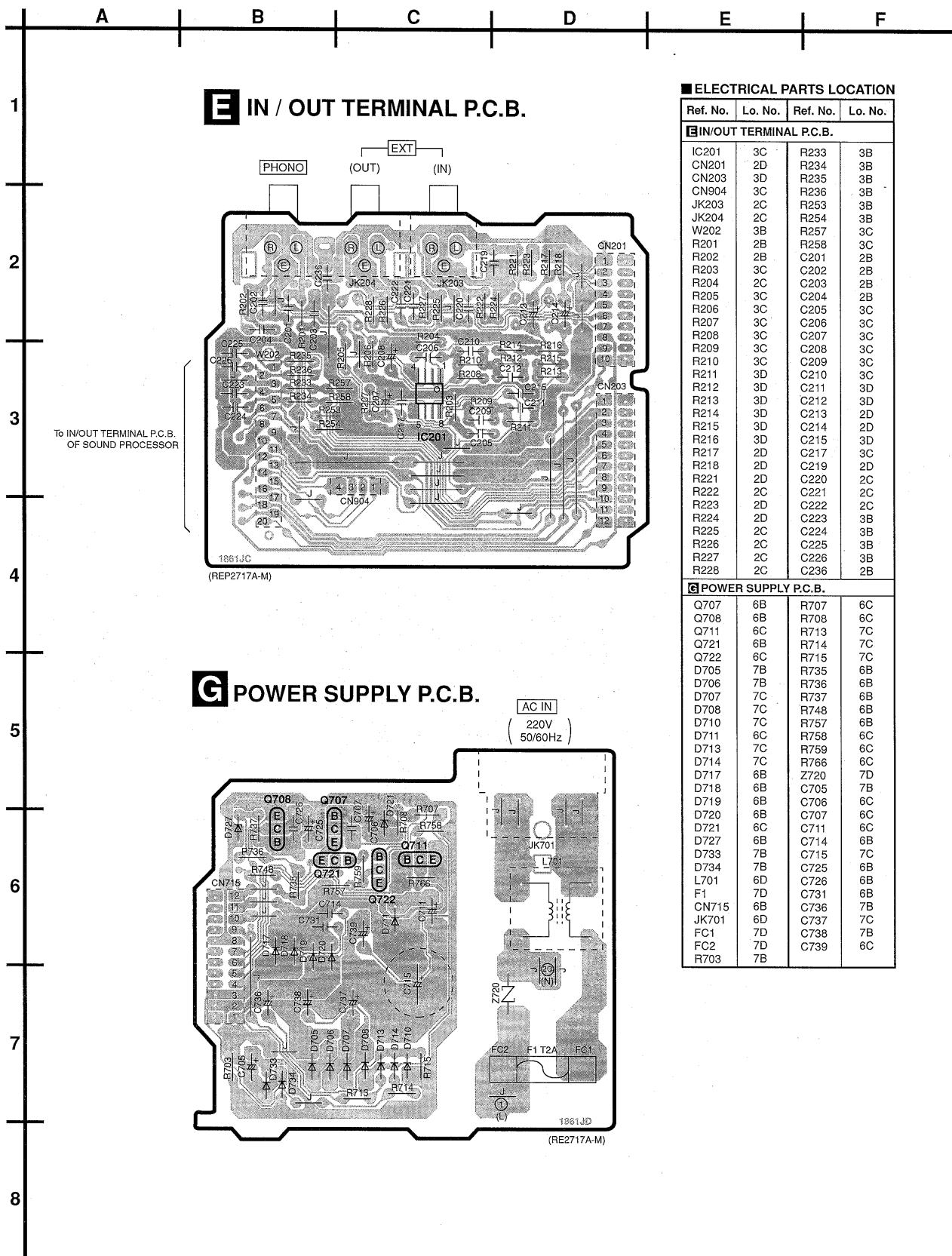
■ Printed Circuit Board Diagram

- This circuit board diagram may be modified at any time with the development of new technology.



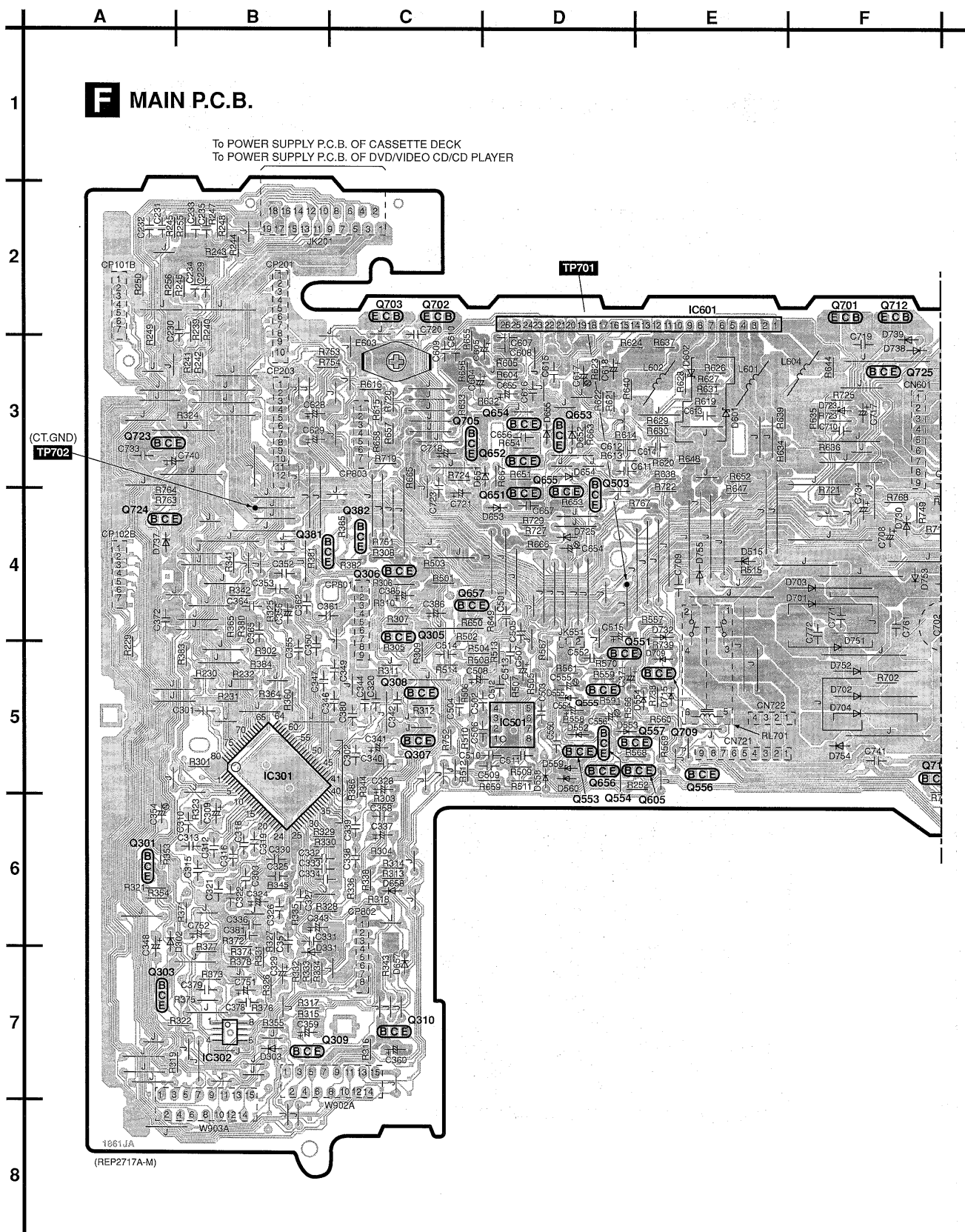






F MAIN P.C.B.

To POWER SUPPLY P.C.B. OF CASSETTE DECK
To POWER SUPPLY P.C.B. OF DVD/VIDEO CD/CD PLAYER



Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.
IC301	5B	D735	3H	R322	7B	R605	3D	R762	5G	C501	4D
IC302	7B	D736	3H	R323	6B	R613	3D	R763	4A	C502	5C
IC501	5D	D737	4A	R324	3B	R614	3D	R764	4A	C503	5D
IC601	2E	D738	3F	R325	4B	R615	3C	R765	2G	C504	5C
Q301	6A	D739	3F	R326	7B	R616	3C	R767	4E	C505	4D
Q303	7A	D751	5F	R327	6B	R619	3E	R768	4F	C506	5C
Q305	4C	D752	5F	R328	6B	R620	3E	C229	2B	C507	5D
Q306	4C	D753	4F	R329	6B	R621	3D	C230	2B	C508	5C
Q307	5C	D754	5F	R330	6B	R622	3D	C231	2A	C509	5D
Q308	5C	D755	4E	R331	7B	R623	3D	C232	2A	C510	5D
Q309	7B	L601	3E	R332	7B	R624	3D	C233	2B	C511	5D
Q310	7C	L602	3E	R333	7B	R626	3E	C234	2B	C512	5D
Q381	4B	L603	3G	R334	7B	R627	3E	C235	2B	C513	5D
Q382	4C	L604	3F	R335	6B	R628	3E	C301	5B	C514	5C
Q503	4D	RL701	5E	R336	6C	R629	3E	C302	5C	C515	4D
Q551	5D	CP101B	2A	R338	6C	R630	3E	C303	6B	C550	5D
Q553	5D	CP102B	4A	R341	4B	R631	3E	C309	6B	C551	4G
Q554	5D	CP201	2B	R342	4B	R632	3D	C310	6B	C552	5D
Q555	5D	CP203	3B	R343	7C	R633	3C	C312	6B	C554	5D
Q556	5E	CP715	3H	R344	5C	R634	3E	C313	6B	C555	5D
Q557	5E	CP801	4C	R345	6B	R635	3F	C315	6B	C556	5D
Q605	5E	CP802	6C	R353	6A	R636	3F	C316	6B	C604	3C
Q651	4D	CP803	3C	R354	6A	R637	3E	C318	6B	C605	3D
Q652	3D	CN601	3F	R355	7B	R638	3E	C319	6B	C607	3D
Q653	3D	CN721	5E	R360	5B	R639	3E	C320	5C	C608	3D
Q654	3D	CN722	5E	R364	5B	R640	3D	C321	6B	C609	3C
Q655	4D	W901A	6G	R365	4B	R641	4G	C322	6B	C610	3C
Q656	5D	W902A	7C	R371	6B	R642	4G	C324	6B	C611	3D
Q657	4C	W903A	8B	R372	7B	R643	3G	C325	6B	C612	3D
Q701	2F	JK201	2B	R373	7B	R644	3F	C326	6B	C613	3E
Q702	2C	JK551	4D	R374	7B	R645	3G	C327	6B	C614	3E
Q703	2C	E601	3G	R375	7B	R646	3G	C328	5C	C615	3D
Q704	5H	E603	3C	R376	7B	R647	4E	C329	7B	C616	3D
Q705	3C	R229	5A	R377	7B	R648	3E	C330	6B	C617	3D
Q709	5E	R230	5B	R378	7B	R649	4D	C331	6B	C618	3D
Q712	2F	R231	5B	R380	4B	R650	4C	C332	6B	C620	3G
Q718	5H	R232	5B	R381	4B	R651	3D	C333	6B	C621	3G
Q719	5G	R239	2B	R382	4C	R652	3E	C334	6B	C624	3G
Q720	5G	R240	2B	R383	5B	R653	4D	C336	6B	C625	3G
Q723	3A	R241	3B	R384	5B	R654	3D	C337	6C	C628	3B
Q724	4A	R242	3B	R385	4C	R655	3C	C338	6C	C629	3B
Q725	3F	R243	2B	R386	5C	R656	3C	C339	6C	C654	4D
D302	6A	R244	2B	R501	4C	R657	3C	C340	5C	C655	3D
D303	7B	R245	2A	R502	4C	R658	3C	C341	5C	C656	3D
D331	7B	R246	2B	R503	4C	R659	5D	C342	5C	C657	4D
D515	4E	R247	2B	R504	5C	R663	3D	C343	6B	C701	5G
D551	4G	R248	2B	R505	5D	R665	3C	C344	5C	C702	4G
D552	5D	R249	2A	R506	5C	R666	4D	C346	5C	C703	4G
D553	5D	R250	2A	R507	5D	R667	3D	C347	5B	C704	5G
D554	5E	R251	6G	R508	5C	R701	4G	C348	6A	C708	4F
D555	5D	R252	5E	R509	5D	R702	5F	C349	5C	C709	4E
D558	5D	R255	2B	R510	5C	R704	4H	C350	5B	C710	3F
D559	5D	R256	2A	R511	5D	R712	4G	C352	4B	C717	3F
D560	5D	R301	5B	R512	5C	R717	5H	C353	4B	C718	3C
D601	3E	R302	5B	R513	5D	R719	3C	C354	6A	C719	3F
D602	3E	R303	6C	R514	5C	R720	3C	C355	5B	C720	2C
D651	3D	R304	6C	R515	4E	R721	4F	C356	4B	C721	4C
D652	3D	R305	5C	R551	3G	R722	4E	C357	6B	C723	3C
D653	4D	R306	4C	R552	4G	R723	3F	C358	6C	C732	3G
D654	3D	R307	4C	R555	4G	R724	3C	C359	7B	C733	3A
D655	3D	R308	4C	R556	4G	R725	3F	C360	7C	C734	4F
D657	7C	R309	5C	R557	4E	R727	4D	C361	4B	C740	3A
D658	6C	R310	4C	R558	5D	R729	4D	C362	4B	C741	5F
D701	4F	R311	5C	R559	5D	R738	5E	C364	4B	C751	7B
D702	5F	R312	5C	R560	5E	R739	5E	C365	4B	C752	6B
D703	4F	R313	6C	R561	5D	R749	4F	C371	5D	C753	4G
D704	5F	R314	6C	R566	5D	R751	4C	C372	4A	C761	4F
D709	5E	R315	7B	R567	5D	R752	5C	C378	7B	C771	4F
D715	5E	R316	7C	R568	5E	R753	3B	C379	7B	C772	4F
D723	3F	R317	7B	R569	5E	R754	3B	C380	5C		
D725	4D	R318	6C	R570	5D	R755	5G	C381	6B		
D730	4F	R319	7B	R591	5D	R756	5G	C385	4C		
D732	4E	R321	6A	R604	3D	R761	5G	C386	4C		

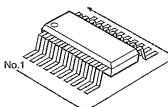
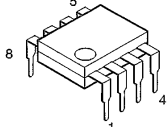
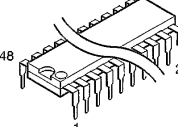
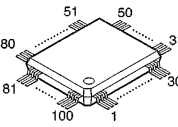
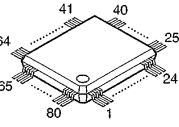
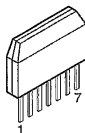
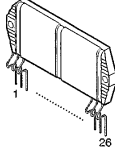
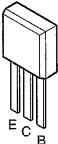
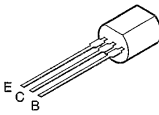
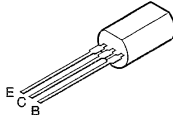
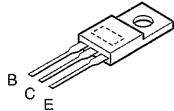
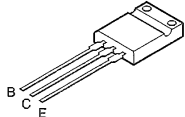
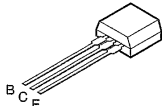
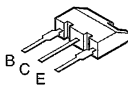
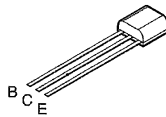
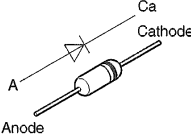
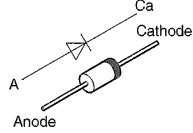
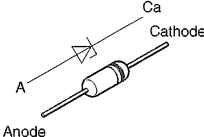
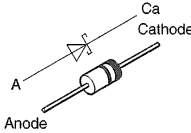
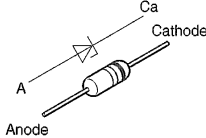
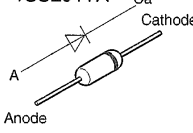
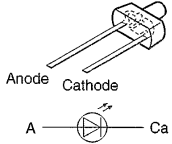
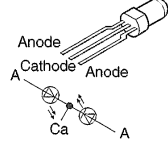


**I POWER
TRANSFORMER (A) P.C.B.**





■ Type Illustration of IC's, Transistors and Diodes

<div><p>No.1</p></div> <div><table><tr><td>AN6558SFE2</td><td>8PIN</td></tr><tr><td>LA1833MN-TLM</td><td>24PIN</td></tr><tr><td>LC72131MDTLM</td><td>20PIN</td></tr><tr><td>M5218AFPE3</td><td>8PIN</td></tr><tr><td>M5228FPE1</td><td>14PIN</td></tr><tr><td>M62425FPE1</td><td>36PIN</td></tr></table></div>		AN6558SFE2	8PIN	LA1833MN-TLM	24PIN	LC72131MDTLM	20PIN	M5218AFPE3	8PIN	M5228FPE1	14PIN	M62425FPE1	36PIN	<div><p>5 8 4 1</p></div> <div>M5218AP</div>	<div><p>25 24 1</p></div> <div>LV1030N</div>	<div><p>51 50 31 80 81 100 1 30</p></div> <div>M38198MCA504</div>	<div><p>41 40 25 64 65 80 1 24</p></div> <div>M62433AFP</div>
AN6558SFE2	8PIN																
LA1833MN-TLM	24PIN																
LC72131MDTLM	20PIN																
M5218AFPE3	8PIN																
M5228FPE1	14PIN																
M62425FPE1	36PIN																
<div><p>1 7</p></div> <div>TA2011S</div>	<div><p>1 26</p></div> <div>RSN307M44A</div>	<div><p>E C B</p></div> <div><div>2SA1309ARTA 2SC2787LTA 2SC3311AIQST 2SC3311AQST 2SD1450STA UN411FTA UN4110TA</div><div>UN4111AITA UN4111TA UN4112TA UN4115TA UN4211AITA UN4211TA UN4214TA</div></div>		<div><p>E C B</p></div> <div>2SB621AQRSTA</div>	<div><p>E C B</p></div> <div>2SC3940AQSTA</div>												
<div><p>B C E</p></div> <div>2SB1548PQAU 2SD2374PQAU</div>	<div><p>B C E</p></div> <div>2SB1417PQTA 2SD2137PQTA</div>	<div><p>B C E</p></div> <div>2SD2144STA</div>	<div><p>B C E</p></div> <div>2SB1238QRTV2 2SD1859QRTV2</div>	<div><p>B C E</p></div> <div>2SA1995RSTA 2SC5398RSTA</div>	<div><p>Ca Cathode A Anode</p></div> <div>MA185TA</div>												
<div><p>Ca Cathode A Anode</p></div> <div>1N5402BF RL1N4003N02</div>	<div><p>Ca Cathode A Anode</p></div> <div>MA4100MTA MA4120MTA MA4140MTA MA4150HTA MA4180LTA MA4300MTA</div>		<div><p>Ca Cathode A Anode</p></div> <div>SB360L6508</div>	<div><p>Ca Cathode A Anode</p></div> <div>MA4020LTA MA4039MTA MA4051LTA MA4051MTA MA4062HTA MA4082LTA MA4030MTA</div>													
<div><p>Ca Cathode A Anode</p></div> <div>MA165TA MA700TA 1SS291TA</div>	<div><p>Ca Cathode A Anode</p></div> <div>LNJ301MPUJAD</div>	<div><p>Ca Cathode A Anode</p></div> <div>SPR505MDTT</div>															

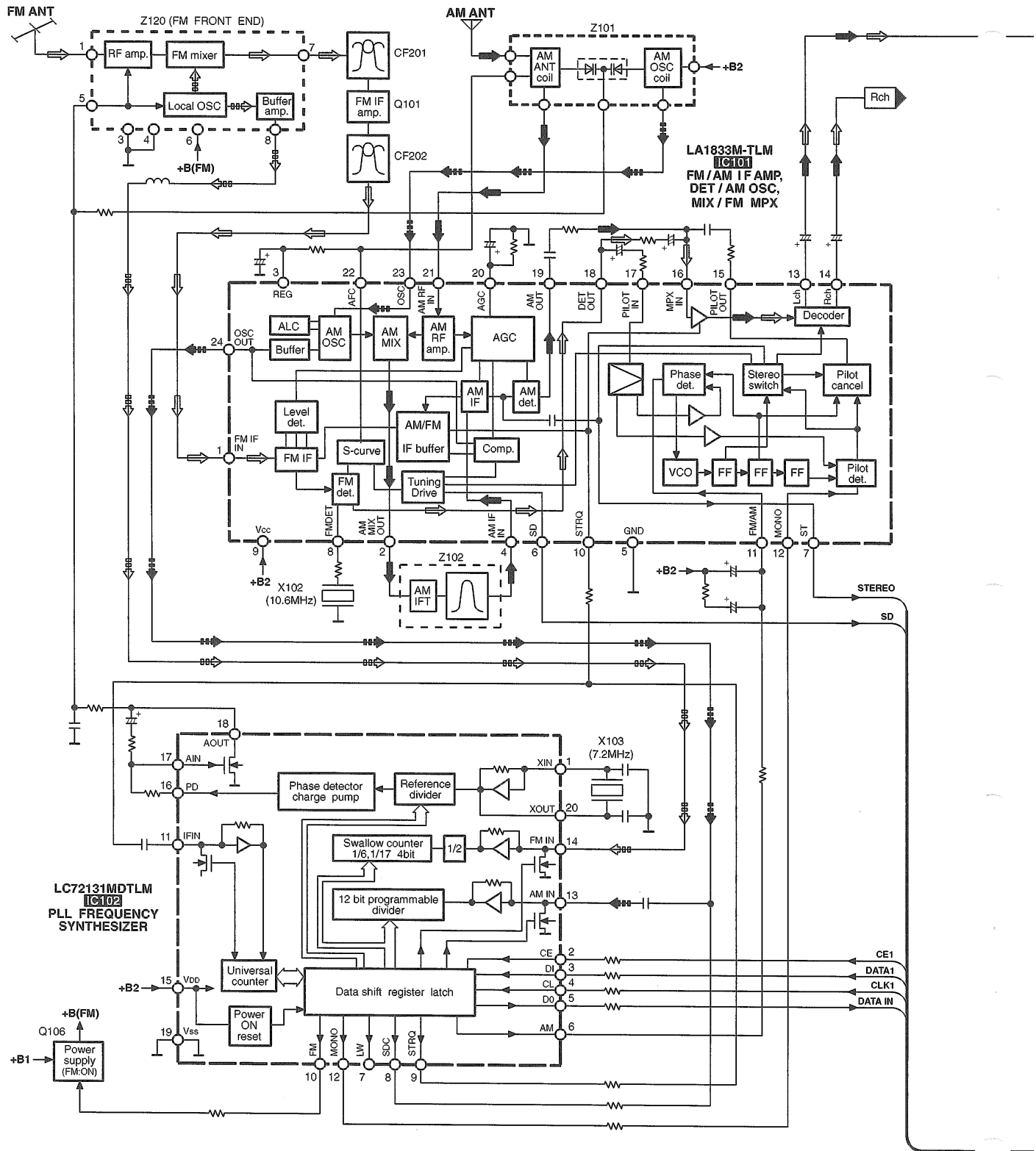
Terminal Function of IC's

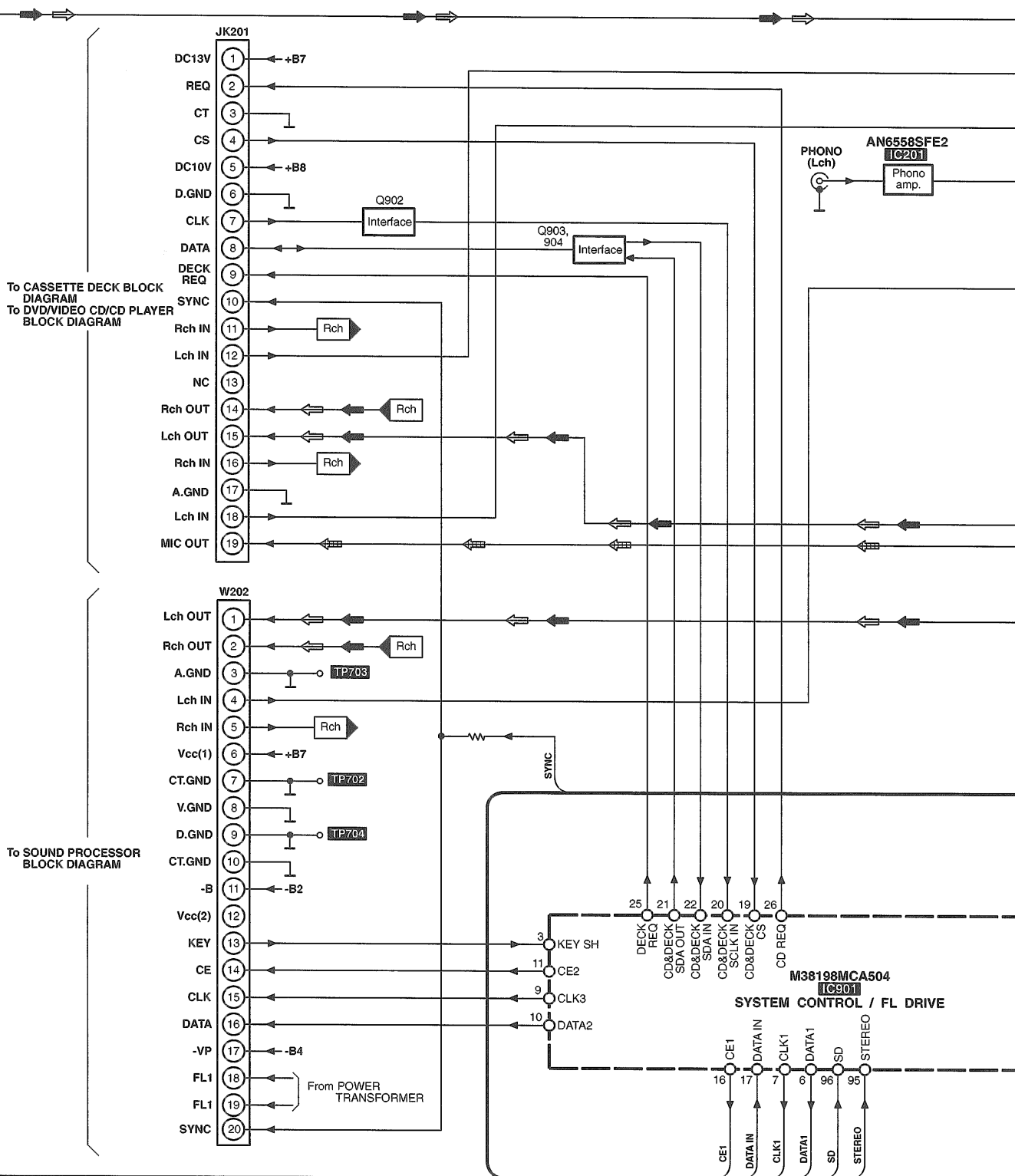
• IC901 (M38198MCA504): System Control / FL Drive

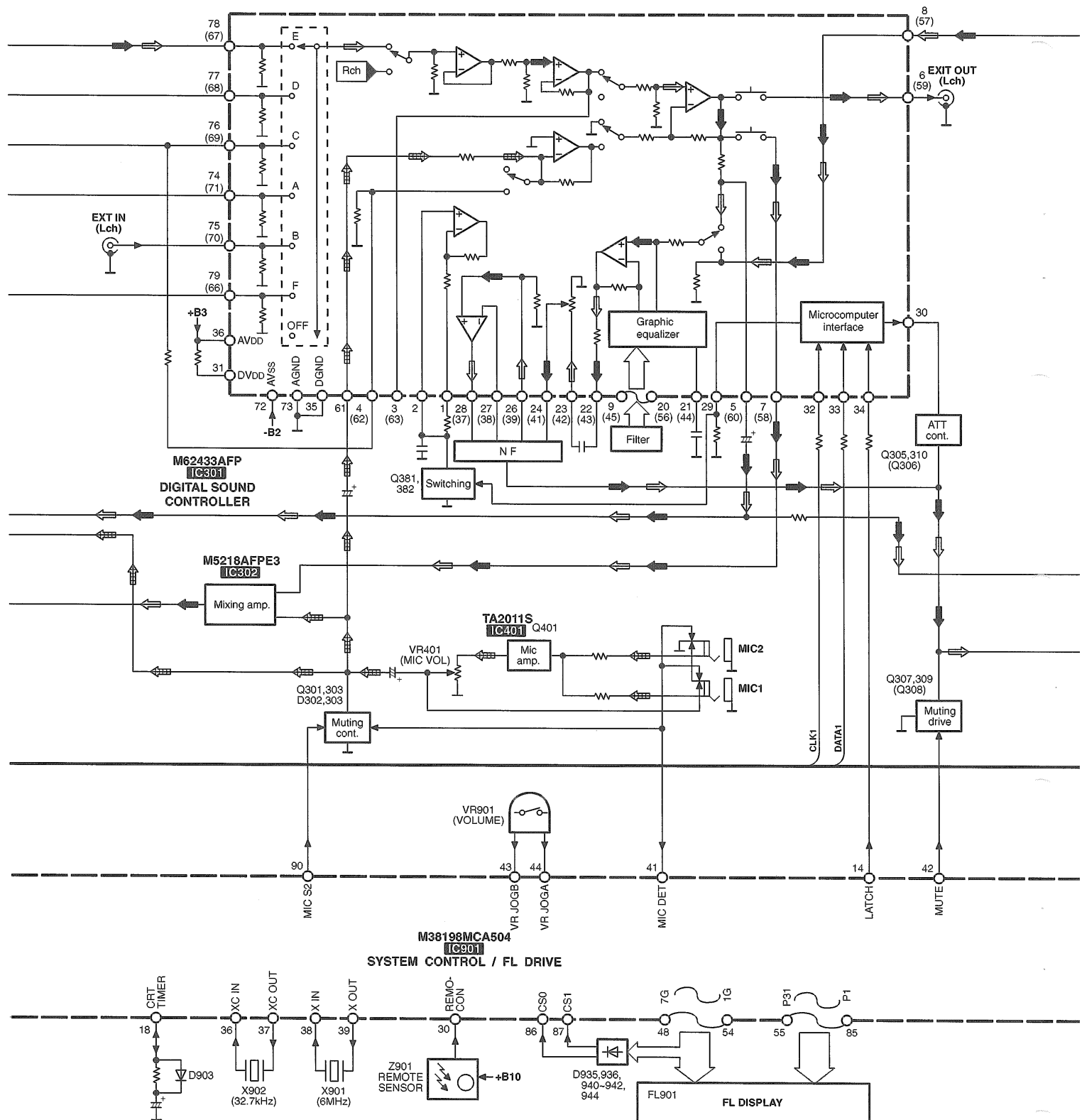
Pin No.	Terminal Name	I/O	Function
1	KEY TU	I	Operation switch signal input (TUNER, TIMER, AMP. section)
2	KEY KRAOKE	I	Operation switch signal input (KARAOKE section)
3	KEY SH	I	Sound processor operation switch signal input
4	KEY CD	I	CD changer operation switch signal input (Not used)
5	KEY CD2	I	Connected to VREF
6	DATA1	O	Data signal output for M62433, M62425, LC72131 and LV1030
7	CLK1	O	Clock signal output for M62433, LC72131 and LV1030
8	CLK2	O	Clock signal output for M62425 (center and surround volume of dolby pro logic)
9	CLK3	O	Serial communication signal to sound processor (Clock signal output)
10	DATA2	O	Serial communication signal to sound processor (Data signal output)
11	CE2	O	Serial communication signal to sound processor (Chip enable signal output)
12	SEL/TUNER	O	Tuner circuit power control signal output
13	SEL/TUNER	O	Tuner circuit power control signal output
14	LATCH	O	Latch signal output to M62433
15	REQ	O	Request signal output to LV1030
16	CE1	O	Chip enable signal output to LC72131
17	DATA IN	I	Data signal input from LC72131
18	CR TIMER	I/O	TIME CONSTANT terminal
19	CD & DECK CS	I	Serial data communication starting signal input (CD and DECK mechanism)
20	CD & DECK SCLK IN	I	Serial clock input (CD and DECK mechanism)
21	CD & DECK SDA OUT	O	Serial data output (CD and DECK mechanism)
22	CD & DECK SDA IN	I	Serial data input (CD and DECK mechanism)
23	HP SW	I	Headphones connecting detect signal input
24	SEL MD	O	Not used
25	DECK REQ	O	Cassette deck request signal output
26	CD REQ	O	CD changer request signal output
27	DPL & CHECK	O	Limiter control signal output
28	RDS DATA	I	Not used
29	RDS CLK	I	
30	REMOCON	I	Remote control signal input
31, 32	D1, D2	O	Not used

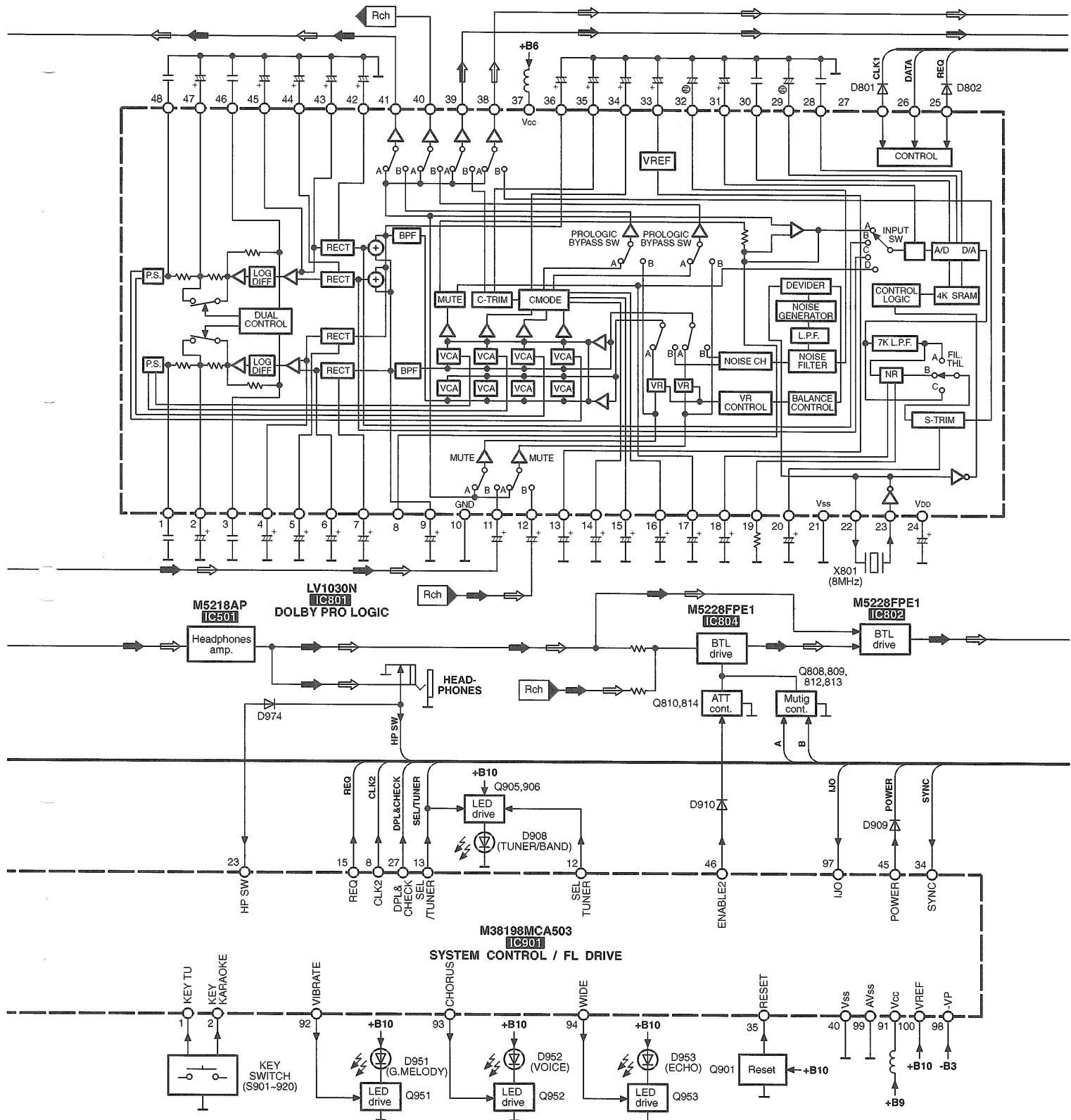
Pin No.	Terminal Name	I/O	Function
33	ECHO	O	Not used
34	SYNC	I	AC power source input terminal
35	RESET	I	Reset signal input
36	XC IN	I	Oscillator connected terminal (f = 32.7 kHz)
37	XC OUT	O	
38	X IN	I	Oscillator connected terminal (f = 5 MHz)
39	X OUT	O	
40	Vss	—	GND terminal
41	MIC DET	I	Microphone connecting detect signal input
42	MUTE	O	Muting signal output
43	VR JOGB	I	Volume control signal input
44	VR JOGA	I	
45	POWER	O	Power control signal output
46	ENABLE2	O	Attenuator control signal output
47	NC	—	No used
48~54	7G~1G	O	Grid signal and chip select scan signal output
55~85	P31~P1	O	Segment signal output
86, 87	CS0, CS1	I	Chip select signal input
88	SEL TAPE	O	Connected to VCC
89	MIC S1	O	Microphone signal output (Not used)
90	MIC S2	O	Microphone through signal output
91	VCC	—	Power supply
92	VIBRATE	O	LED (G.MELODY) drive signal output
93	CHORUS	O	LED (VOICE) drive signal output
94	WIDE	O	LED (ECHO) drive signal output
95	STEREO	I	STEREO signal input from tuner circuit
96	SD	I	Station detector signal input from tuner circuit
97	IJO	I	Unusual condition detect terminal ("L": unusual)
98	-VP	—	Reference voltage input (negative)
99	AVSS	—	Connect to GND
100	VREF	—	Reference voltage input (positive)

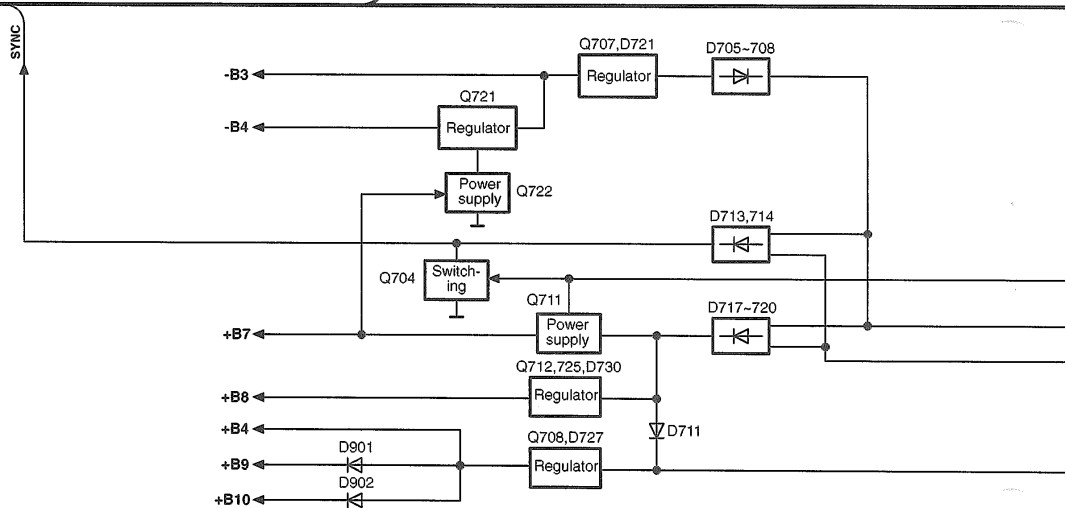
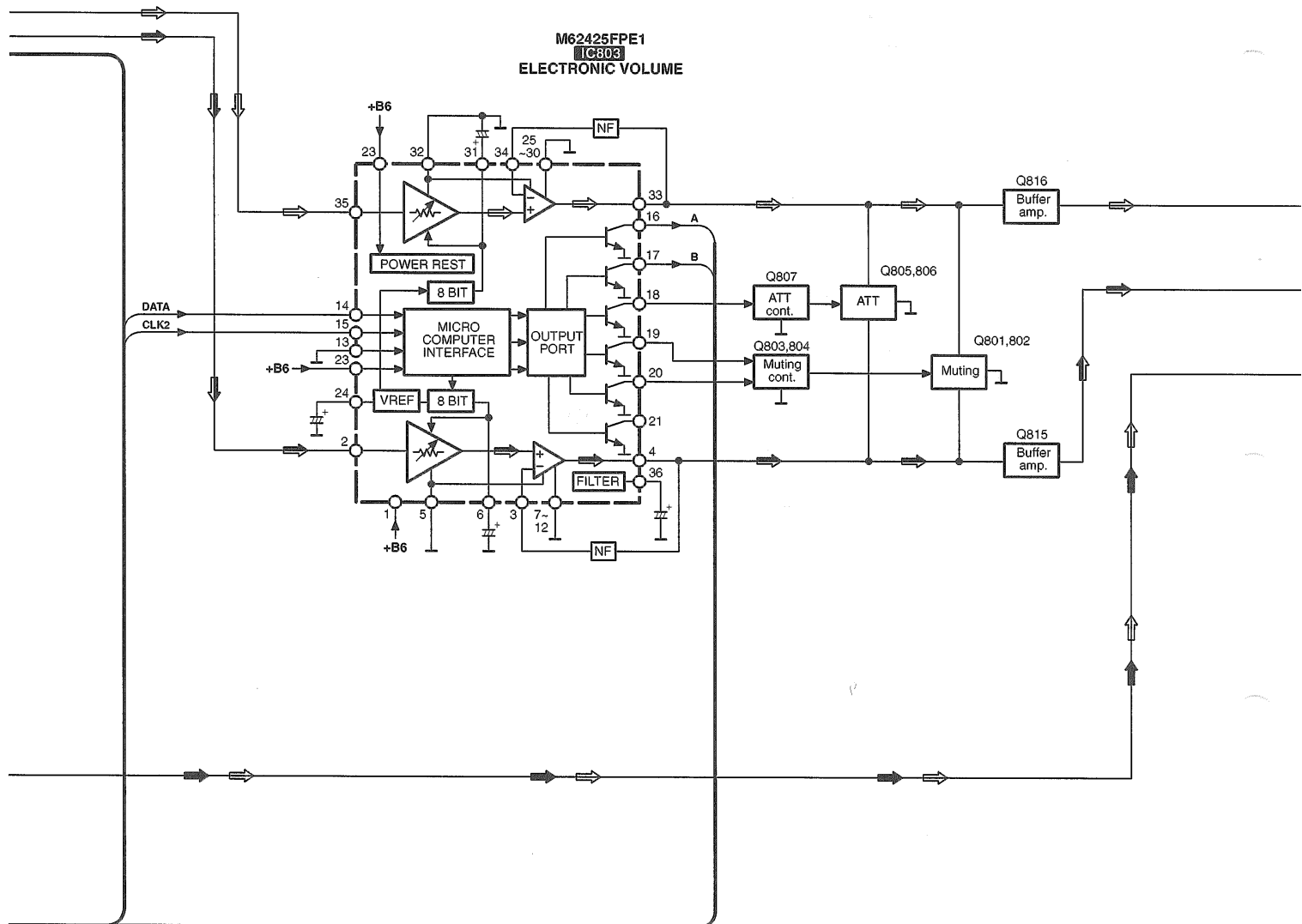
Block Diagram

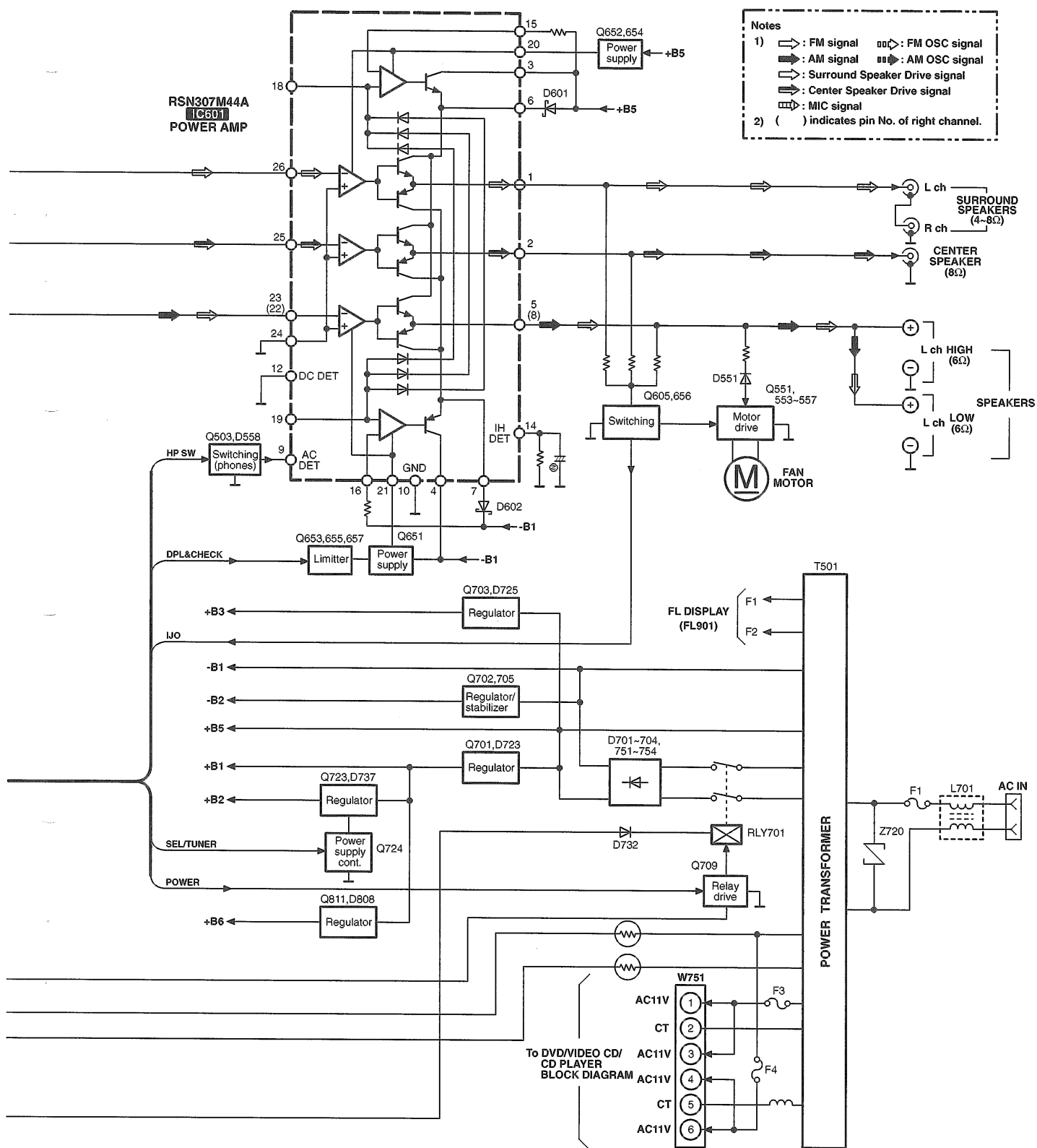












■ Replacement Parts List

Notes: * Important safety notice:

Components identified by Δ mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufacture's specified parts shown in the parts list.

* All parts are supplied by MESA.

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	REM0057	FAN UNIT	1	
2	RHD30007-K1	SCREW	4	
3	XTBS3+10JFZ1	SCREW	1	
4	RGW0183-S	KNOB,VOLUME	1	
5	RKA0011-3	FOOT	4	
5-1	SHG1645	RUBBER	4	
6	RKF0547L-K	REAR PANEL	1	
7	RMZ0421	SHEET	1	
8	RFGAEH1000G	FRONT PANEL ASS'Y	1	
9	RHD30070	SCREW	1	
10	XTBS26+8J	SCREW	8	
11	RGN1564-K	NAME PLATE	1	
12	XTB3+10JFZ	SCREW	10	
13	XTB3+20JFZ	SCREW	6	
14	XTB3+8JFZ	SCREW	6	
15	XTW3+15T	SCREW	4	
16	XTBS3+8JFZ1	SCREW	2	
17	REX0942	WIRE ASS'Y(6P)	1	
18	REX0852	WIRE ASS'Y	1	
19	RGK0894-S	ORNAMENT	1	
20	RGU1518-C	LENS	1	
21	RGW0235-S	KNOB,MIC VOLUME	1	
22	RHD26016	SCREW	1	
23	RHN90001	NUT	1	
24	RKW0506H-Q	FL WINDOW	1	
25	SHR328	WIRE TIE	2	
A1	EUR646476	REMOTE CONT.TRANSMITTER	1	
A1-1	UR64EC1822	BATTERY COVER	1	
A2	REE0393	SPEAKER CORD	2	
A3	REE0853	SPEAKER CORD	2	
Δ A4	RJA0055-K	AC POWER SUPPLY CORD	1	
A5	RJL1P019B15	PIN CORD(VIDEO)	2	
A6	RQCB0169	SERVICE CENTER LIST	1	
A7	RQT4625-K	OPERATING INSTRUCTIONS	1	
A8	RSA0006	FM INDOOR ANTENNA	1	
A9	RSA0022-J	AM LOOP ANTENNA	1	
A10	REX0941	CABLE(6P)	1	
C101	ECBT1C103NS5	16V 0.01U	1	
C102	RCE1CKA100BG	16V 10U	1	
C103	ECBT1C103NS5	16V 0.01U	1	
C104	ECBT1H102KB5	50V 1000P	1	
C106	ECBT1C103NS5	16V 0.01U	1	
C107	ECBT1H473ZF5	50V 0.047U	1	
C108	ECBT1H8R2KCS	50V 8.2P	1	
C109	ECBT1H102KB5	50V 1000P	1	
C110	ECBT1C103NS5	16V 0.01U	1	
C111	ECEA1EKS4R7	25V 4.7U	1	
C112	ECBT1C103NS5	16V 0.01U	1	
C113	ECBT1H102KB5	50V 1000P	1	
C114	RCE1HKA3R3BG	50V 3.3U	1	
C115	ECEA1EKS4R7	25V 4.7U	1	
C116	ECFR1C333KR	16V 0.033U	1	
C117,18	ECFR1C183KR	16V 0.018U	2	
C119	ECQB1H561JF3	50V 560P	1	
C120	RCE1CKA100BG	16V 10U	1	
C121	RCE1HKA47BG	50V 0.47U	1	
C122,23	ECEA1HKS010	50V 1U	2	
C124	ECBT1H101KB5	50V 100P	1	
C125	ECEA1CKS220	16V 22U	1	
C126	ECBT1H473ZF5	50V 0.047U	1	
C127	ECEA1CKS220	16V 22U	1	
C129,30	ECEA0JKS101	6.3V 100U	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C131	ECBT1H101KB5	50V 100P	1	
C132	ECBT1H102KB5	50V 1000P	1	
C133,34	ECBT1H270JU5	50V 27P	2	
C136	ECBT1H102KB5	50V 1000P	1	
C137	ECFR1E472KR	25V 4700P	1	
C138	ECBT1C103KS5	16V 0.01U	1	
C139	ECEA1EKS4R7	25V 4.7U	1	
C141,42	ECEA1HKS010	50V 1U	2	
C143,44	ECBT1C472KR5	16V 4700P	2	
C147	ECBT1H102KB5	50V 1000P	1	
C148	ECBT1C103NS5	16V 0.01U	1	
C149	ECBT1H104ZF5	50V 0.1U	1	
C201,02	ECBT1H180J5	50V 18P	2	
C203,04	ECBT1H151KB5	50V 150P	2	
C205,06	ECBT1H102KB5	50V 1000P	2	
C207,08	RCE1AKA330BG	10V 33U	2	
C209,10	ECBT0J223MS5	16V 0.022U	2	
C211,12	ECBT1C682KR5	16V 6800P	2	
C213,14	RCE1CKA100BG	16V 10U	2	
C215	ECBT1E103ZF	25V 0.01U	1	
C217	ECBT1E103ZF	25V 0.01U	1	
C219-26	ECBT1H101KB5	50V 100P	8	
C229-35	ECBT1H101KB5	50V 100P	7	
C236	ECBT1H102KB5	50V 1000P	1	
C301	ECBT1H102KB5	50V 1000P	1	
C302,03	ECBT1H561KB5	50V 560P	2	
C309	ECEA1HKA22B	50V 0.22U	1	
C310	ECFR1C823MR	16V 0.082U	1	
C312	ECFR1C823MR	16V 0.082U	1	
C313	ECFR1C103KR	16V 0.01U	1	
C315	ECFR1C223KR	16V 0.022U	1	
C316	ECBT1C332KR5	16V 3300P	1	
C318	ECBT1C682KR5	16V 6800P	1	
C319	ECBT1H102KB5	50V 1000P	1	
C320	ECBA1H681KB5	50V 680P	1	
C321	ECBT1C332KR5	16V 3300P	1	
C322	ECQV1H563JM3	50V 0.056U	1	
C324	RCE1CKA100BG	16V 10U	1	
C325	ECQV1H154JM3	50V 0.15U	1	
C326	ECBT1H102KB5	50V 1000P	1	
C327	ECBT1H471KB5	50V 470P	1	
C328	RCE1CKA470BG	16V 47U	1	
C329	ECEA1CKS220	16V 22U	1	
C330	ECBA1H681KB5	50V 680P	1	
C331	ECBT1H104ZF5	50V 0.1U	1	
C332-34	ECBT1H470J5	50V 47P	3	
C336	ECBT1H104ZF5	50V 0.1U	1	
C337	RCE1CKA470BG	16V 47U	1	
C338	ECBT1H471KB5	50V 470P	1	
C339	ECBT1H102KB5	50V 1000P	1	
C340	ECQV1H154JM3	50V 0.15U	1	
C341	RCE1CKA100BG	16V 10U	1	
C342	ECQV1H563JM3	50V 0.056U	1	
C343	ECEA1CKS220	16V 22U	1	
C344	ECBT1C332KR5	16V 3300P	1	
C346	ECBT1H102KB5	50V 1000P	1	
C347	ECBT1C682KR5	16V 6800P	1	
C348	RCE1CKA100BG	16V 10U	1	
C349	ECBT1C332KR5	16V 3300P	1	
C350	ECFR1C223KR	16V 0.022U	1	
C352	ECFR1C103KR	16V 0.01U	1	
C353	ECFR1C823MR	16V 0.082U	1	
C354	ECEA1CN100U	16V 10U	1	
C355	ECFR1C823MR	16V 0.082U	1	
C356	ECEA1HKA22B	50V 0.22U	1	
C357,58	ECQV1H683JM3	50V 0.068U	2	
C359	RCE1HKA3R3BG	50V 3.3U	1	
C360	RCE1HKA47BG	50V 4.7U	1	
C361	ECBT1H471KB5	16V 470P	1	
C362	ECBT1C222KR5	16V 470P	1	
C364	ECBT1C152KR5	16V 1500P	1	
C365	ECQV1H104JM3	50V 0.1U	1	
C371	ECEA0JKS101	6.3V 100U	1	
C372	ECBT1H104ZF5	50V 0.1U	1	
C378,79	ECBT1H120J5	50V 12P	2	
C380	ECBT1C105ZF5	16V 1U	1	
C381	ECBT1E103ZF	25V 0.01U	1	
C385,86	RCE1CKA100BG	16V 10U	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C395,96	ECBT1H473ZF5	50V 0.047U	2	
C401	ECBT1H102KB5	50V 1000P	1	
C403	ECBT1H102KB5	50V 1000P	1	
C404	RCE1HKA3R3BG	50V 3.3U	1	
C405	ECBT1H471KB5	50V 470P	1	
C406	ECEA1EKS4R7	25V 4.7U	1	
C407	ECBT1E103ZF	25V 0.01U	1	
C408	ECBT1C103MS5	16V 0.01U	1	
C409	ECEA1HKS010	50V 1U	1	
C410	ECEA1CK5100	16V 10U	1	
C411	ECBT1H101KB5	50V 100P	1	
C412	ECBT1H102KB5	50V 1000P	1	
C413	ECEA1HKS010	50V 1U	1	
C414	ECA0JM471	6.3V 470U	1	
C415	ECEA1HKS010	50V 1U	1	
C416	RCE1CKA100BG	16V 10U	1	
C417	ECBT1C472KR5	16V 4700P	1	
C441	ECBT1E103ZF	25V 0.01U	1	
C501-06	ECBT1H101KB5	50V 100P	6	
C507,08	RCE1CKA100BG	16V 10U	2	
C509-12	ECBT1E103ZF	25V 0.01U	4	
C513,14	ECBT1C562KR5	16V 5600P	2	
C515	ECEA1CK5330	16V 33U	1	
C550	ECBT1E103ZF	25V 0.01U	1	
C551	ECEA1HKS2R2	50V 2.2U	1	
C552	ECBT1E103ZF	25V 0.01U	1	
C554	ECA1AM221B	10V 220U	1	
C555,56	ECEA1CKN100B	16V 10U	2	
C604,05	RCE1CKA100BG	16V 10U	2	
C607-10	ECBT1H471KB5	50V 470P	4	
C611-14	ECBT1H150JC5	50V 15P	4	
C615,16	ECKR2H103ZU	500V 0.01U	2	
C617	ECEA1HSN2R2	50V 2.2U	1	
C618	ECA1HM101	50V 100U	1	
C620,21	ECQV1H473JM3	50V 0.047U	2	
C624,25	ECQV1H473JM3	50V 0.047U	2	
C628,29	RCE1CKA100BG	16V 10U	2	
C630	ECKR1H473ZF5	50V 0.047U	1	
C654	ECEA1EKN3R3B	25V 3.3U	1	
C655	ECA2AM3R3	100V 3.3U	1	
C656	ECBT1E103ZF	25V 0.01U	1	
C657	ECBT1H104ZF5	50V 0.1U	1	
△ C701-04	ECA1VM472E	35V 4700U	4	
C705	RCE1CKA100BG	16V 10U	1	
C706	RCE1VKA100BG	35V 10U	1	
C707	ECBT1E103ZF	25V 0.01U	1	
C708	RCE1HKA3R3BG	50V 3.3U	1	
C709	ECBT1H104ZF5	50V 0.1U	1	
C710	ECBT1E103ZF	25V 0.01U	1	
C711	RCE1EM471BV	25V 470U	1	
C714	ECBT1H102KB5	50V 1000P	1	
△ C715	ECA1EM472	25V 4700U	1	
C717	ECEA1CK5330	16V 33U	1	
C718	ECA1CM221	16V 220U	1	
C719,20	ECBT1E103ZF	25V 0.01U	2	
C721	RCE1AKA101BG	10V 100U	1	
C723	ECBT1E103ZF	25V 0.01U	1	
C725	RCE1CKA100BG	16V 10U	1	
C726	ECBT1E103ZF	25V 0.01U	1	
C731	ECBT1H102KB5	50V 1000P	1	
C732	ECBT1E223ZF	25V 0.022U	1	
C733	ECBT1E103ZF	25V 0.01U	1	
C734	RCE1CKA100BG	16V 10U	1	
△ C736	ECA1EM101	25V 100U	1	
△ C737	ECA1VM221	35V 220U	1	
△ C738	ECA1HM101	50V 100U	1	
△ C739	ECA1JM101	63V 100U	1	
C740	RCE1CKA100BG	16V 10U	1	
C741	ECBT1H104ZF5	50V 0.1U	1	
C751,52	ECA1AM471	10V 470U	2	
C753	ECBT1H102KB5	50V 1000P	1	
C761	ECQE1104KF3	100V 0.1U	1	
C771,72	ECBT1H104ZF5	50V 0.1U	2	
C801	ECQV1H154JM3	50V 0.15U	1	
C802	RCE1HKA3R3BG	50V 3.3U	1	
C803	ECQV1H154JM3	50V 0.15U	1	
C804	RCE1HKA4R7BG	50V 4.7U	1	
C805	RCE1HKA4R7BG	50V 0.47U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C806	RCE1HKA4R7BG	50V 4.7U	1	
C807	RCE1HKA4R7BG	50V 0.47U	1	
C808	RCE1CKA100BG	16V 10U	1	
C809	ECEA1HKS010	50V 1U	1	
C810	ECBT1E103ZF	25V 0.01U	1	
C811,12	ECEA1CK5330	16V 33U	2	
C813	ECA1CM221	16V 220U	1	
C814-17	RCE1CKA100BG	16V 10U	4	
C818	ECEA1HKS2R2	50V 2.2U	1	
C819	ECBT1E103ZF	25V 0.01U	1	
C820	ECEA1HKS3R3	50V 0.33U	1	
C821	ECA1CM221	16V 220U	1	
C822,23	ECBT1H101KB5	50V 100P	2	
C824	ECA1CM221	16V 220U	1	
C825,26	ECBT1H101KB5	50V 100P	2	
C827	ECBT1H330J5	50V 33P	1	
C828	ECFR1C823MR	16V 0.082U	1	
C829	ECFR1E332KR	25V 3300P	1	
C830	ECFR1C823MR	16V 0.082U	1	
C831	RCE1HKA4R7BG	50V 0.47U	1	
C832	ECQV1H473JM3	50V 0.047U	1	
C833	ECA1CM221	16V 220U	1	
C834,35	RCE1HKA4R7BG	50V 0.47U	2	
C836	ECEA1HKS010	50V 1U	1	
C837	ECBT1H104ZF5	50V 0.1U	1	
C838,39	ECBT1H101KB5	50V 100P	2	
C840,41	RCE1CKA100BG	16V 10U	2	
C842	RCE1HKA4R7BG	50V 0.47U	1	
C843	RCE1HKA4R7BG	50V 4.7U	1	
C844	RCE1HKA4R7BG	50V 0.47U	1	
C845	RCE1HKA4R7BG	50V 4.7U	1	
C846	ECQV1H154JM3	50V 0.15U	1	
C847	RCE1HKA3R3BG	50V 3.3U	1	
C848	ECQV1H154JM3	50V 0.15U	1	
C849,50	RCE1CKA100BG	16V 10U	2	
C851	RCE1CKA470BG	16V 47U	1	
C852	ECBA1H681KB5	50V 680P	1	
C853	ECQV1H473JM3	50V 0.047U	1	
C854	ECQV1H683JM3	50V 0.068U	1	
C855	ECQV1H473JM3	50V 0.047U	1	
C856	ECQV1H683JM3	50V 0.068U	1	
C859,60	ECBT1H101KB5	50V 100P	2	
C861,62	RCE1CKA100BG	16V 10U	2	
C863,64	ECEA1CK5220	16V 22U	2	
C865,66	RCE1HKA3R3BG	50V 3.3U	2	
C867-69	ECEA1CK5330	16V 33U	3	
C870	RCE1CKA100BG	16V 10U	1	
C871,72	ECBT1H470J5	50V 47P	2	
C873,74	ECEA0JKS470	6.3V 47UF	2	
C875	ECQV1H823JZ	50V 0.082U	1	
C876	ECEA1CK5330	16V 33U	1	
C877	ECEA0JKS101	6.3V 100U	1	
C878	ECBT1E103ZF	25V 0.01U	1	
C879	ECFR1C683KR	16V 0.068U	1	
C880	ECFR1C333KR	16V 0.033U	1	
C881	ECQV1H154JM3	50V 0.15U	1	
C882	ECEA1CK5101	16V 100U	1	
C884	ECQV1H104JM3	50V 0.1U	1	
C885	ECBT1C472KR5	16V 4700P	1	
C886	ECBT1H101KB5	50V 100P	1	
C887	ECBT1H102KB5	50V 1000P	1	
C888,89	ECBT1H221KB5	50V 220P	2	
C890	RCE1AKA330BG	10V 33U	1	
C891	RCE1AKA470BG	10V 47U	1	
C892	RCE1AKA470BG	10V 47U	1	
C893,94	RCE1CKA100BG	16V 10U	2	
C901	ECBT1H104ZF5	50V 0.1U	1	
C902	ECA0JM102	6.3V 1000U	1	
C903,04	ECBT1E103ZF	25V 0.01U	2	
C905-08	ECBT1H471KB5	50V 470P	4	
C909	ECBT1H102KB5	50V 1000P	1	
C910	ECBT1H150JC5	50V 15P	1	
C911	ECBT1H180J5	50V 18P	1	
C912	ECBT1H104ZF5	50V 0.1U	1	
C913	RCE1CKA100BG	16V 10U	1	
C914	ECEA1HKS2R2	50V 2.2U	1	
C915	ECBT1E103ZF	25V 0.01U	1	
C916	ECA0JKF101B	6.3V 100U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C917	ECBT1E103ZF	25V 0.01U	1	
C918	ECEA1AKS221	6.3V 220U	1	
C919,20	ECEA1HKS2R2	50V 2.2U	2	
C921	ECBT1H102KB5	50V 1000P	1	
C922	ECEA1VKA330B	35V 33U	1	
C1101,02	ECBT1H473ZF5	50V 0.047U	2	
C1103-06	ECBT1H102KB5	50V 1000P	4	
C1107,08	ECBT1H473ZF5	50V 0.047U	2	
C1109-12	ECBT1H102KB5	50V 1000P	4	
C1113,14	ECBT1H473ZF5	50V 0.047U	2	
CF201,02	RLFFETWN01DD	CERAMIC FILTER	2	
CN201	RJU057W010	CONNECTOR(10P)	1	
CN203	RJU057W012	CONNECTOR(12P)	1	
CN601	RJS9T5ZA	CONNECTOR(9P)	1	
CN701-09	RJS1A1101T1	CONNECTOR(1P)	9	
CN711-14	RJS1A1101T1	CONNECTOR(1P)	4	
CN715	RJU057W012	CONNECTOR(12P)	1	
CN715A,16	RJS1A1101T1	CONNECTOR(1P)	2	
CN721	RJS9T5ZA	CONNECTOR(9P)	1	
CN722	RJS4T5ZA	CONNECTOR(4P)	1	
CN801	RJU057W009	CONNECTOR(9P)	1	
CN802	RJU057W008	CONNECTOR(8P)	1	
CN803	RJU057W007	CONNECTOR(7P)	1	
CN904	RJS4T7ZA	CONNRRVOT(4P)	1	
CN905	RJS2A2105	CONNECTOR(5P)	1	
CN101B,2B	RJU100W07	CONNECTOR(7P)	2	
CP201	RJT057W010-1	CONNECTOR(10P)	1	
CP203	RJT057W012-1	CONNECTOR(12P)	1	
CP715	RJT057W012-1	CONNECTOR(12P)	1	
CP801	RJT057W009-1	CONNECTOR(9P)	1	
CP802	RJT057W008-1	CONNECTOR(8P)	1	
CP803	RJT057W007-1	CONNECTOR(7P)	1	
CP101B,2B	RJT100W07	CONNECTOR(7P)	2	
△ D101	MA4051MTA	DIODE	1	
D302,03	MA165	DIODE	2	
△ D331	MA4051-L	DIODE	1	
△ D515	MA4140M	DIODE	1	
D551,52	MA165	DIODE	2	
D553	MA700TA	DIODE	1	
D554	MA165	DIODE	1	
D555	MA4100MTA	DIODE	1	
D558	MA165	DIODE	1	
D559,60	MA4020LTA	DIODE	2	
D601,02	SB360L6508	DIODE	2	
△ D651	MA4180L	DIODE	1	
△ D652,53	MA4140M	DIODE	2	
D654	MA4030MTA	DIODE	1	
D655	MA185TA	DIODE	1	
D657,58	MA165	DIODE	2	
△ D701-04	1N5402BF	DIODE	4	
△ D705-08	RL1N4003N02	DIODE	4	
D709	MA165	DIODE	1	
D710	MA4051-L	DIODE	1	
D711	RL1N4003N02	DIODE	1	
△ D713,14	MA185TA	DIODE	2	
D715	MA165	DIODE	1	
△ D717-20	RL1N4003N02	DIODE	4	
D721	MA4300M	DIODE	1	
△ D723	MA4150M	DIODE	1	
△ D725	MA4082LTA	DIODE	1	
△ D727	MA4062-H	DIODE	1	
△ D730	MA4100MTA	DIODE	1	
D732-36	MA165	DIODE	5	
△ D737	MA4082LTA	DIODE	1	
D738,39	MA165	DIODE	2	
△ D751,52	1N5402BF	DIODE	2	
△ D753-55	RL1N4003N02	DIODE	3	
D801-05	MA165	DIODE	5	
△ D808	MA4120	DIODE	1	
D901,02	1SS291TA	DIODE	2	
D903,04	MA165	DIODE	2	
D905	1SS291TA	DIODE	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
D906,07	MA165	DIODE	2	
D908	SPR505MDTT	LED	1	
D909,10	MA165	DIODE	2	
D935,36	MA165	DIODE	2	
D940-42	MA165	DIODE	3	
D944	MA165	DIODE	1	
D951-53	LNJ301MPUJAD	LED	3	
D971,72	MA165	DIODE	2	
△ D973	MA4039MTA	DIODE	1	
D974	MA165	DIODE	1	
E601	SNE1004-2	GND PLATE	1	
E603	SNE1004-2	GND PLATE	1	
△ F1	XBA2C20TB0	FUSE,T1.25A	1	
△ F3,F4	XBA2C25TB0	FUSE,T1.25A	2	
FC1,C2	EYF52BC	FUSE HOLDER	2	
FC5-C8	EYF52BC	FUSE HOLDER	4	
FL901	RSL0266-F	DISPLAY	1	
IC101	LA1833MN-TLM	IC	1	
IC102	LC72131MDTLM	IC	1	
IC201	AN6558SFE2	IC	1	
IC301	M62433AFP	IC	1	
IC302	M5218AFPE3	IC	1	
IC401	TA2011S	IC	1	
IC501	M5218AP	IC	1	
△ IC601	RSN307M44A	IC	1	
IC801	LV1030N	IC	1	
IC802	M5228FPE1	IC	1	
IC803	M62425FPE1	IC	1	
IC804	M5228FPE1	IC	1	
IC901	M38198MCA504	IC	1	
JK101	RJH5404M	JACK,ANTENNA	1	
JK201	RJT065K19	JACK,SYSTEM(19P)	1	
JK203	SJF3068-7N	JACK,EXT IN	1	
JK204	SJF3069-5N	JACK,EXT OUT/PHONO	1	
JK501	RJR0054B	JACK,SPEAKER	1	
JK502	RJH3301-J	JACK,SURROUND/CENTER SP	1	
JK503	RJR0054C	JACK,SPEAKER	1	
JK551	SJT3213	JACK,CONNECTOR,FAN MOTOR	1	
△ JK701	SJS9236	JACK,AC INLET	1	
JK901,02	RJJ65MA01	JACK,MIC	2	
JK903	RJJ37TN01-C	JACK,HEADPHONES	1	
L101,02	ELESNR68MA	COIL,CHOKE	2	
L103	ELEXT47MA9	COIL,CHOKE	1	
L601-04	RLQYR73MW1-0	COIL,CHOKE	4	
△ L701	RLQZ271M	COIL,CHOKE	1	
△ L711,12	BL02RN2R65T2	COIL,CHOKE	2	
L801	ELEXT1R0KA9	COIL,CHOKE	1	
L901	RLQA100JT-Y	COIL,CHOKE	1	
P1	RPF0139	POLYETHYLENE COVER	1	
P2	RP3514	PACKING CASE(SH-EH1000)	1	
P2	RP3515	PACKING CASE(RS-EH1000)	1	
P2	RP3516	PACKING CASE(SL-EH1000)	1	
P2	RP3517	PACKING CASE(SA-EH1000)	1	
P3	RP4067	PACKING CASE(SYSTEM)	1	
P4	RPN1037	PAD(RS-EH1000)	1	
P4	RPN1038	PAD(SH-EH1000)	1	
P4	RPN1039-2	PAD(SL-EH1000)	1	
P4	RPN1117-1	PAD(SA-EH1000)	1	
P5	RPQ0769	SPACER(SYSTEM)	1	
P6	SPP740	SHEET	1	
Q101	2SC2787L	TRANSISTOR	1	
Q106	UN4111	TRANSISTOR	1	
Q301	2SD2144S	TRANSISTOR	1	
Q303	UN4110TA	TRANSISTOR	1	
Q305,06	2SD1450R	TRANSISTOR	2	
Q307,08	2SD2144S	TRANSISTOR	2	
Q309,10	UN4115	TRANSISTOR	2	
Q381	2SD1450R	TRANSISTOR	1	
Q382	UN4115	TRANSISTOR	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
Q401	2SC3311AQST	TRANSISTOR	1	
Q503	2SD1450R	TRANSISTOR	1	
Q551	2SA1995RSTA	TRANSISTOR	1	
Q553	2SD2144S	TRANSISTOR	1	
Q554	2SA1995RSTA	TRANSISTOR	1	
Q555	2SD2144S	TRANSISTOR	1	
Q556	2SC5398RSTA	TRANSISTOR	1	
Q557	2SA1995RSTA	TRANSISTOR	1	
Q605	2SC5398RSTA	TRANSISTOR	1	
△ Q651	2SB1238QRTV2	TRANSISTOR	1	
Q652	2SD1859QRTV2	TRANSISTOR	1	
Q653	UN4112	TRANSISTOR	1	
Q654	2SD1859QRTV2	TRANSISTOR	1	
Q655	UN4211	TRANSISTOR	1	
Q656	2SC5398RSTA	TRANSISTOR	1	
Q657	2SB1238QRTV2	TRANSISTOR	1	
△ Q701	2SD2374PQAU	TRANSISTOR	1	
△ Q702	2SB1548PQAU	TRANSISTOR	1	
△ Q703	2SD2374PQAU	TRANSISTOR	1	
Q704	UN4211	TRANSISTOR	1	
Q705	2SA1995RSTA	TRANSISTOR	1	
△ Q707	2SB621A-R	TRANSISTOR	1	
△ Q708	2SD2137PQTA	TRANSISTOR	1	
Q709	2SD2144S	TRANSISTOR	1	
Q711	2SB1417PQTA	TRANSISTOR	1	
△ Q712	2SB1548PQAU	TRANSISTOR	1	
Q718	UN4111	TRANSISTOR	1	
Q719,20	2SD1450R	TRANSISTOR	2	
Q721	2SC3311AQST	TRANSISTOR	1	
Q722	2SA1309A-R	TRANSISTOR	1	
△ Q723	2SC3940AQSTA	TRANSISTOR	1	
Q724	UN4211	TRANSISTOR	1	
△ Q725	2SC5398RSTA	TRANSISTOR	1	
Q801,02	2SD1450R	TRANSISTOR	2	
Q803,04	UN4115	TRANSISTOR	2	
Q805,06	2SD1450R	TRANSISTOR	2	
Q807	UN4115	TRANSISTOR	1	
Q808-10	2SD1450R	TRANSISTOR	3	
△ Q811	2SD2137PQTA	TRANSISTOR	1	
Q812,13	UN4115	TRANSISTOR	2	
Q814	UN4211	TRANSISTOR	1	
Q815,16	2SC3311A-Q	TRANSISTOR	2	
Q901	UN4214TA	TRANSISTOR	1	
Q902-04	2SC3311AQST	TRANSISTOR	3	
Q905,06	UN411FTA	TRANSISTOR	2	
Q951-53	UN4214TA	TRANSISTOR	3	
R102	ERDS2FJ472	1/4W 4.7K	1	
R103	ERDS2FJ271	1/4W 270	1	
R104	ERDS2FJ102	1/4W 1K	1	
R105	ERDS2FJ471	1/4W 470	1	
R106	ERDS2FJ474	1/4W 470K	1	
R107	ERDS2FJ331	1/4W 330	1	
R110	ERDS2FJ102	1/4W 1K	1	
R111	ERDS2FJ391	1/4W 390	1	
R112	ERDS2FJ104	1/4W 100K	1	
R113	ERDS2FJ103	1/4W 10K	1	
R114	ERDS2FJ562	1/4W 5.6K	1	
R115	ERDS2FJ561	1/4W 560	1	
R116	ERDS2FJ102	1/4W 1K	1	
R117	ERDS2FJ473	1/4W 47K	1	
R118	ERDS2FJ472	1/4W 4.7K	1	
R119	ERDS2FJ682	1/4W 6.8K	1	
R120	ERDS2FJ473	1/4W 47K	1	
R121	ERDS2FJ223	1/4W 22K	1	
R122	ERDS2FJ272	1/4W 2.7K	1	
R123	ERDS2FJ683	1/4W 68K	1	
R124	ERDS2FJ271	1/4W 270	1	
R125,26	ERDS2FJ152	1/4W 1.5K	2	
R127	ERDS2FJ471	1/4W 470	1	
R128	ERDS2FJ820	1/4W 82	1	
R129	ERDS2FJ273	1/4W 27K	1	
R130	ERDS2FJ103	1/4W 10K	1	
R131	ERDS2FJ680	1/4W 68	1	
R132	ERDS2FJ103	1/4W 10K	1	
R133-37	ERDS2FJ102	1/4W 1K	5	
R138	ERDS2FJ103	1/4W 10K	1	
R141,42	ERDS2FJ102	1/4W 1K	2	

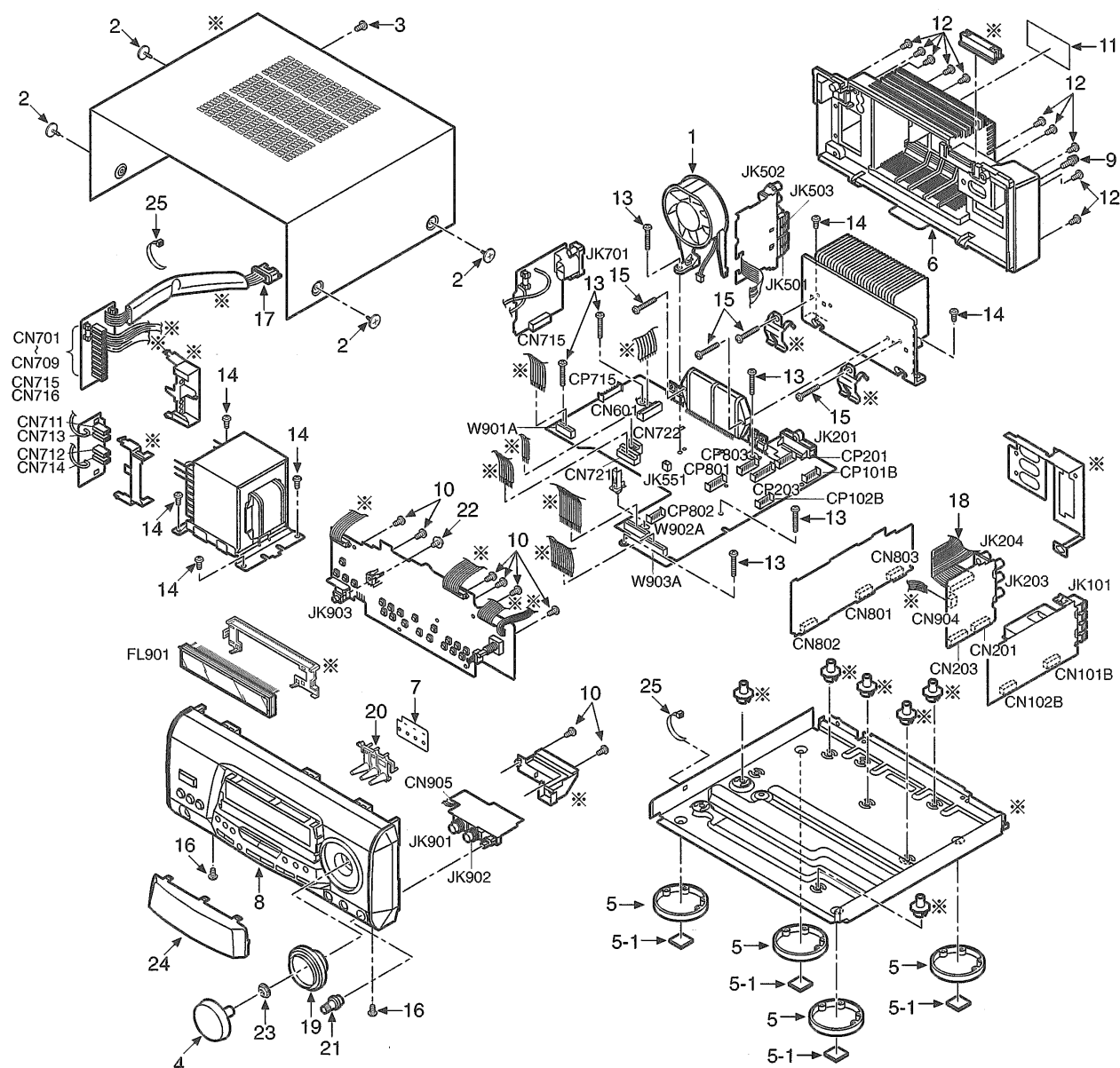
Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R143	ERDS2FJ223	1/4W 22K	1	
R145,46	ERDS2FJ104	1/4W 100K	2	
R201,02	ERDS2FJ102	1/4W 1K	2	
R203,04	ERDS2FJ473	1/4W 47K	2	
R205,06	ERDS2FJ331	1/4W 330	2	
R207,08	ERDS2FJ271	1/4W 270	2	
R209,10	ERDS2FJ184	1/4W 180K	2	
R211,12	ERDS2FJ123	1/4W 12K	2	
R213,14	ERDS2FJ680	1/4W 68	2	
R215,16	ERDS2FJ272	1/4W 2.7K	2	
R217,18	ERDS2FJ392	1/4W 3.9K	2	
R221,22	ERDS2FJ752	1/4W 7.5K	2	
R223,24	ERDS2FJ562	1/4W 5.6K	2	
R225,26	ERDS2FJ104	1/4W 100K	2	
R227,28	ERDS2FJ222	1/4W 2.2K	2	
R229,30	ERDS2FJ102	1/4W 1K	2	
R231,32	ERDS2FJ103	1/4W 10K	2	
R233,34	ERDS2FJ682	1/4W 6.8K	2	
R235,36	ERDS2FJ102	1/4W 1K	2	
R239-42	ERDS2FJ102	1/4W 1K	4	
R243,44	ERDS2FJ152	1/4W 1.5K	2	
R245-47	ERDS2FJ102	1/4W 1K	3	
R248	ERDS2FJ822	1/4W 8.2K	1	
R249,50	ERDS2FJ101	1/4W 100	2	
R251	ERDS2FJ222	1/4W 2.2K	1	
R252	ERDS2FJ103	1/4W 10K	1	
R253-56	ERDS2FJ104	1/4W 100K	4	
R257,58	ERDS2FJ562	1/4W 5.6K	2	
R301	ERDS2FJ223	1/4W 22K	1	
R302	ERDS2FJ472	1/4W 4.7K	1	
R303,04	ERDS2FJ222	1/4W 2.2K	2	
R305,06	ERDS2FJ102	1/4W 1K	2	
R307,08	ERDS2FJ104	1/4W 100K	2	
R309,10	ERDS2FJ102	1/4W 1K	2	
R311,12	ERDS2FJ104	1/4W 100K	2	
R313,14	ERDS2FJ121	1/4W 120	2	
R315	ERDS2FJ104	1/4W 100K	1	
R316	ERDS2FJ222	1/4W 2.2K	1	
R317	ERDS2FJ105	1/4W 1M	1	
R318	ERDS2FJ153	1/4W 15K	1	
R319	ERDS2FJ102	1/4W 1K	1	
R321	ERDS2FJ104	1/4W 100K	1	
R322	ERDS2FJ391	1/4W 390	1	
R323	ERDS2FJ272	1/4W 2.7K	1	
R324	ERDS2FJ223	1/4W 22K	1	
R325	ERDS2FJ272	1/4W 2.7K	1	
R326	ERDS2FJ332	1/4W 3.3K	1	
R327	ERDS2FJ392	1/4W 3.9K	1	
R328	ERDS2FJ332	1/4W 3.3K	1	
R329	ERDS2FJ223	1/4W 22K	1	
R330	ERDS2FJ332	1/4W 3.3K	1	
R331	ERDS2FJ102	1/4W 1K	1	
R332-34	ERDS2FJ222	1/4W 2.2K	3	
R335,36	ERDS2FJ124	1/4W 120K	2	
R338	ERDS2FJ392	1/4W 3.9K	1	
R341,42	ERDS2FJ103	1/4W 10K	2	
R343	ERDS2FJ334	1/4W 330K	1	
R344,45	ERDS2FJ392	1/4W 3.9K	2	
R353	ERDS2FJ104	1/4W 100K	1	
R354	ERDS2FJ223	1/4W 22K	1	
R355	ERDS2FJ102	1/4W 1K	1	
R360	ERDS2FJ223	1/4W 22K	1	
R364	ERDS2FJ103	1/4W 10K	1	
R365	ERDS2FJ223	1/4W 22K	1	
R371	ERDS2FJ393	1/4W 39K	1	
R372	ERDS2FJ394	1/4W 39K	1	
R373,74	ERDS2FJ104	1/4W 100K	2	
R375,76	ERDS2FJ394	1/4W 390K	2	
R377,78	ERDS2FJ103	1/4W 10K	2	
R380	ERDS2FJ153	1/4W 15K	1	
R381	ERDS2FJ222	1/4W 2.2K	1	
R382	ERDS2FJ105	1/4W 1M	1	
R383,84	ERDS2FJ562	1/4W 5.6K	2	
R385	ERDS2FJ102	1/4W 1K	1	
R386	ERDS2FJ472	1/4W 4.7K	1	
R401,02	ERDS2FJ681	1/4W 680	2	
R403	ERDS2FJ223	1/4W 22K	1	
R404	ERDS2FJ471	1/4W 470	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R405	ERDS2FJ472	1/4W 4.7K	1	
R406	ERDS2FJ474	1/4W 470K	1	
R407	ERDS2FJ472	1/4W 4.7K	1	
R409	ERDS2FJ472	1/4W 4.7K	1	
R410	ERDS2FJ222	1/4W 2.2K	1	
R411	ERDS2FJ331	1/4W 330	1	
R412	ERDS2FJ105	1/4W 1M	1	
R415	ERDS2FJ471	1/4W 470	1	
R416	ERDS2FJ331	1/4W 330	1	
R421	ERDS2FJ223	1/4W 22K	1	
R501,02	ERDS2FJ102	1/4W 1K	2	
R503,04	ERDS2FJ333	1/4W 33K	2	
R505,06	ERDS2FJ123	1/4W 12K	2	
R507,08	ERDS2FJ332	1/4W 3.3K	2	
R509-12	ERDS2FJ101	1/4W 100	4	
R513,14	ERDS2FJ472	1/4W 4.7K	2	
△ R515	ERG1SJ182	1W 1.8K	1	
R551	ERDS2FJ183	1/4W 18K	1	
R552	ERDS2FJ473	1/4W 47K	1	
R555	ERDS2FJ223	1/4W 22K	1	
R556	ERDS2FJ104	1/4W 100K	1	
R557	ERDS2FJ103	1/4W 10K	1	
R558	ERDS2FJ102	1/4W 1K	1	
R559	ERDS2FJ472	1/4W 4.7K	1	
R560,61	ERDS2FJ104	1/4W 100K	2	
R566	ERDS2FJ683	1/4W 68K	1	
R567	ERG1SJ220	1W 22	1	
R568	ERDS2FJ101	1/4W 100	1	
R569	ERDS2FJ103	1/4W 10K	1	
R570	ERDS2TJ225	1/4W 2.2M	1	
R591	ERDS2FJ472	1/4W 4.7K	1	
R604,05	ERDS2FJ682	1/4W 6.8K	2	
R613	ERDS2FJ104	1/4W 100K	1	
R614	ERDS2FJ124	1/4W 120K	1	
R615,16	ERDS2FJ182	1/4W 1.8K	2	
R619,20	ERDS2FJ563	1/4W 56K	2	
R621	ERDS2FJ273	1/4W 27K	1	
R622	ERDS2FJ473	1/4W 47K	1	
R623	ERDS2FJ474	1/4W 470K	1	
R624	ERDS2FJ223	1/4W 22K	1	
R626	ERDS2FJ154	1/4W 150K	1	
R627	ERDS2FJ124	1/4W 120K	1	
R628	ERDS2FJ184	1/4W 180K	1	
R629	ERDS2FJ683	1/4W 68K	1	
R630	ERDS2FJ473	1/4W 47K	1	
R631	ERDS2FJ224	1/4W 220K	1	
R632	ERDS2TKF5362	1/4W 53.6K	1	
R633	ERDS2TKG5622	1/4W 56.2K	1	
△ R634,35	ERDS1FJ272	1/2W 2.7K	2	
△ R636	ERDS1FJ561	1/2W 560	1	
R637	ERDS2FJ154	1/4W 150K	1	
R638	ERDS2FJ684	1/4W 680K	1	
△ R639-46	ERDS1FJ100	1/2W 10	8	
△ R647,48	ERDS2FJ2R2	1/4W 2.2	2	
R649,50	ERDS2FJ103	1/4W 10K	2	
R651	ERDS2FJ272	1/4W 2.7K	1	
R652	ERDS2FJ393	1/4W 39K	1	
R653,54	ERDS2FJ272	1/4W 2.7K	2	
R655-58	ERDS2FJ183	1/4W 18K	4	
R659	ERDS2FJ222	1/4W 2.2K	1	
R663	ERDS2FJ154	1/4W 150K	1	
R665	ERG1SJ682E	1W 6.8K	1	
R666	ERDS2FJ272	1/4W 2.7K	1	
R667	ERDS2FJ331	1/4W 330	1	
R701,02	ERDS2FJ273	1/4W 27K	2	
R703,04	ERDS2FJ101	1/4W 100	2	
△ R707	ERDS2FJ4R7	1/4W 4.7	1	
R708	ERDS2FJ472	1/4W 4.7K	1	
R712	ERDS2FJ152	1/4W 1.5K	1	
R713,14	ERDS2FJ332	1/4W 3.3K	2	
R715	ERDS2FJ183	1/4W 18K	1	
R717	ERDS2FJ473	1/4W 47K	1	
R719	ERDS2FJ332	1/4W 3.3K	1	
R720	ERDS2FJ272	1/4W 2.7K	1	
△ R721	ERD2FCJ4R7	1/4W 4.7	1	
△ R722	ERQ16NKW2R2E	1/6W 2.2	1	
R723	ERDS2FJ562	1/4W 5.6K	1	
R724	ERDS2FJ392	1/4W 3.9K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R725	ERDS2FJ100	1/4W 10	1	
R727	ERDS2FJ392	1/4W 3.9K	1	
R729	ERDS2FJ221	1/4W 220	1	
△ R735	ERQ16NKW2R2E	1/6W 2.2	1	
R736	ERDS2FJ102	1/4W 1K	1	
R737	ERDS2FJ221	1/4W 220	1	
R738	ERDS2FJ392	1/4W 3.9K	1	
R739	ERDS2FJ473	1/4W 47K	1	
R748	ERDS2FJ102	1/4W 1K	1	
R749	ERDS2FJ271	1/4W 270	1	
R751-54	ERDS2FJ4R7	1/4W 4.7	4	
△ R755	ERDS1FJ8R2	1/2W 8.2	1	
△ R756	ERDS1FJ4R7	1/2W 4.7	1	
R757-59	ERDS2FJ103	1/4W 10K	3	
R761,62	ERDS2FJ822	1/4W 8.2K	2	
R763	ERDS2FJ472	1/4W 4.7K	1	
R764	ERDS2FJ331	1/4W 330	1	
△ R765	ERDS1FJ561	1/2W 560	1	
R766	ERDS2FJ102	1/4W 1K	1	
△ R767	ERDS2FJ4R7	1/4W 4.7	1	
R768	ERDS2FJ101	1/4W 100	1	
△ R791,92	RSFMB30KT-L	PROTECTOR	2	
R801,02	ERDS2FJ393	1/4W 39K	2	
R803,04	ERDS2FJ153	1/4W 15K	2	
R805	ERDS2FJ433	1/4W 43K	1	
R806	ERDS2FJ333	1/4W 33K	1	
R807	ERDS2FJ183	1/4W 18K	1	
R808	ERDS2FJ104	1/4W 100K	1	
R809,10	ERDS2FJ223	1/4W 22K	2	
R811	ERDS2FJ103	1/4W 10K	1	
R812	ERDS2FJ153	1/4W 15K	1	
R813,14	ERDS2FJ223	1/4W 22K	2	
R815,16	ERDS2FJ473	1/4W 47K	2	
R817	ERDS2FJ332	1/4W 3.3K	1	
R818	ERDS2FJ153	1/4W 15K	1	
R819	ERDS2FJ393	1/4W 39K	1	
R820	ERDS2FJ274	1/4W 270K	1	
R821	ERDS2FJ822	1/4W 8.2K	1	
R822	ERDS2FJ102	1/4W 1K	1	
R823	ERDS2FJ105	1/4W 1M	1	
R824	ERDS2FJ823	1/4W 82K	1	
R825-27	ERDS2FJ332	1/4W 3.3K	3	
R828	ERDS2FJ823	1/4W 82K	1	
R829,30	ERDS2FJ223	1/4W 22K	2	
R831	ERDS2FJ562	1/4W 5.6K	1	
R832	ERDS2FJ222	1/4W 2.2K	1	
R833,34	ERDS2FJ104	1/4W 100K	2	
R835,36	ERDS2FJ222	1/4W 2.2K	2	
R837,38	ERDS2FJ332	1/4W 3.3K	2	
R839,40	ERDS2FJ102	1/4W 1K	2	
R841	ERDS2FJ103	1/4W 10K	1	
R842	ERDS2FJ104	1/4W 100K	1	
R843,44	ERDS2FJ222	1/4W 2.2K	2	
R845	ERDS2FJ104	1/4W 100K	1	
R846	ERDS2FJ122	1/4W 1.2K	1	
R847,48	ERDS2FJ472	1/4W 4.7K	2	
R849	ERDS2FJ122	1/4W 1.2K	1	
R850	ERDS2FJ222	1/4W 2.2K	1	
R851	ERDS2FJ473	1/4W 47K	1	
R852	ERDS2FJ393	1/4W 39K	1	
R853	ERDS2FJ473	1/4W 47K	1	
R854	ERDS2FJ393	1/4W 39K	1	
R855	ERDS2FJ104	1/4W 100K	1	
R856,57	ERDS2FJ123	1/4W 12K	2	
R859,60	ERDS2FJ121	1/4W 120	2	
R861	ERDS2FJ105	1/4W 1M	1	
R862	ERDS2FJ472	1/4W 4.7K	1	
R863,64	ERDS2FJ105	1/4W 1M	2	
R865	ERDS2FJ102	1/4W 1K	1	
R866,67	ERDS2FJ222	1/4W 2.2K	2	
R868-70	ERDS2FJ102	1/4W 1K	3	
R871,72	ERDS2FJ105	1/4W 1M	2	
△ R873	ERD2FCJ4R7	1/4W 4.7	1	
R874	ERDS2FJ104	1/4W 100K	1	
R875	ERDS2FJ102	1/4W 1K	1	
R876	ERDS2FJ224	1/4W 220K	1	
R877,78	ERDS2FJ472	1/4W 4.7K	2	
R879	ERDS2FJ562	1/4W 5.6K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R880,81	ERDS2FJ221	1/4W 220	2	
R883,84	ERDS2FJ563	1/4W 56K	2	
R885,86	ERDS2FJ332	1/4W 3.3K	2	
R887,88	ERDS2FJ222	1/4W 2.2K	2	
R889	ERDS2FJ152	1/4W 1.5K	1	
R891	ERDS2FJ331	1/4W 330	1	
R893	ERDS2FJ103	1/4W 10K	1	
R894	ERDS2FJ153	1/4W 15K	1	
R901	ERDS2FJ821	1/4W 820	1	
R902	ERDS2FJ102	1/4W 1K	1	
R903	ERDS2FJ122	1/4W 1.2K	1	
R904	ERDS2FJ152	1/4W 1.5K	1	
R905	ERDS2FJ182	1/4W 1.8K	1	
R906	ERDS2FJ222	1/4W 2.2K	1	
R907	ERDS2FJ272	1/4W 2.7K	1	
R908	ERDS2FJ472	1/4W 4.7K	1	
R909	ERDS2FJ682	1/4W 6.8K	1	
R910	ERDS2FJ123	1/4W 12K	1	
R911	ERDS2FJ223	1/4W 22K	1	
R912	ERDS2FJ821	1/4W 820	1	
R913	ERDS2FJ102	1/4W 1K	1	
R914	ERDS2FJ122	1/4W 1.2K	1	
R915	ERDS2FJ152	1/4W 1.5K	1	
R916	ERDS2FJ182	1/4W 1.8K	1	
R917	ERDS2FJ222	1/4W 2.2K	1	
R918	ERDS2FJ332	1/4W 3.3K	1	
R919-23	ERDS2FJ103	1/4W 10K	5	
R924-27	ERDS2FJ102	1/4W 1K	4	
R929	ERDS2FJ102	1/4W 1K	1	
R930	ERDS2FJ101	1/4W 100	1	
R931-36	ERDS2FJ102	1/4W 1K	6	
R937	ERDS2FJ562	1/4W 5.6K	1	
R938	ERDS2FJ102	1/4W 1K	1	
R939	ERDS2FJ152	1/4W 1.5K	1	
R940,41	ERDS2FJ102	1/4W 1K	2	
R942	ERDS2FJ101	1/4W 100	1	
R944	ERDS2FJ223	1/4W 22K	1	
R946	ERDS2FJ102	1/4W 1K	1	
R947,48	ERDS2FJ104	1/4W 100K	2	
R949	ERDS2FJ472	1/4W 4.7K	1	
R950	ERDS2FJ101	1/4W 100	1	
R951	ERDS2FJ334	1/4W 330K	1	
R952	ERDS2TJ106T	1/4W 10M	1	
R953	ERDS2FJ101	1/4W 100	1	
R954	ERDS2FJ104	1/4W 100K	1	
R955	ERDS2FJ824	1/4W 820K	1	
R956-58	ERDS2FJ102	1/4W 1K	3	
R959	ERDS2FJ471	1/4W 470	1	
R960	ERDS2FJ152	1/4W 1.5K	1	
R961,62	ERDS2FJ223	1/4W 22K	2	
R963,64	ERDS2FJ103	1/4W 10K	2	
R965	ERDS2FJ472	1/4W 4.7K	1	
R966	ERDS2FJ103	1/4W 10K	1	
R967	ERDS2FJ473	1/4W 47K	1	
R968	ERDS2FJ103	1/4W 10K	1	
R969,70	ERDS2FJ472	1/4W 4.7K	2	
R971	ERDS2FJ473	1/4W 47K	1	
R972	ERDS2FJ223	1/4W 22K	1	
R974	ERDS2FJ151	1/4W 150	1	
R975	ERDS2FJ221	1/4W 220	1	
R976	ERDS2FJ223	1/4W 22K	1	
R977-81	ERDS2FJ104	1/4W 100K	5	
R984,85	ERDS2FJ473	1/4W 47K	2	
R986-88	ERDS2FJ102	1/4W 1K	3	
R989,90	ERDS2FJ393	1/4W 39K	2	
R991	ERDS2FJ473	1/4W 47K	1	
R992	ERDS2FJ181	1/4W 180	1	
R993,94	ERDS2FJ104	1/4W 100K	2	
R995	ERDS2FJ181	1/4W 180	1	
R996,97	ERDS2FJ151	1/4W 150	2	
R998	ERDS2FJ181	1/4W 180	1	
△ RL701	RSY0030-C	RELAY	1	
S901-20	EVQPTD05Q	SW,PUSH	20	
△ T501	RTP2N5B011	POWER TRANSFORMER	1	

[illegible]



Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	REM0057	FAN UNIT	1	
2	RHD30007-K1	SCREW	4	
3	XTBS3+10JFZ1	SCREW	1	
4	RGW0183-S	KNOB,VOLUME	1	
5	RKA0011-3	FOOT	4	
5-1	SHG1645	RUBBER	4	
6	RKF0547L-K	REAR PANEL	1	
7	RMZ0421	SHEET	1	
8	RFKGAEH1000G	FRONT PANEL ASS'Y	1	
9	RHD30070	SCREW	1	
10	XTBS26+8J	SCREW	8	
11	RGN1564-K	NAME PLATE	1	
12	XTB3+10JFZ	SCREW	10	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
13	XTB3+20JFZ	SCREW	6	
14	XTB3+8JFZ	SCREW	6	
15	XTW3+15T	SCREW	4	
16	XTBS3+8JFZ1	SCREW	2	
17	REX0942	WIRE ASS'Y(6P)	1	
18	REX0852	WIRE ASS'Y	1	
19	RGK0894-S	ORNAMENT	1	
20	RGU1518-C	LENS	1	
21	RGW0235-S	KNOB,MIC VOLUME	1	
22	RHD26016	SCREW	1	
23	RHN90001	NUT	1	
24	RKW0506H-Q	FL WINDOW	1	
25	SHR328	WIRE TIE	2	

■ Packaging

