

# TA-AV790ESD

## SERVICE MANUAL

AEP Model  
E Model



### SPECIFICATIONS

#### Amplifier section

AEP1, German, E Model

Items	Condition	Data
Continuous RMS power output	4 ohms, DIN 1kHz	Front: 80 W + 80 W Center: 80 W Rear: 40 W + 40 W
	4 ohms, DIN 1kHz	Front: 100 W + 100 W
	4 ohms, 20 Hz - 20 kHz	Front: 50 W + 50 W
Total harmonic distortion	4 ohms, at 10 W output	Front: 0.03 %

AEP2 Model

Items	Condition	Data
Continuous RMS power output	8 ohms, DIN 1kHz	Front: 70W + 70W Center: 70W Rear: 35W + 35W
	8 ohms, DIN 1kHz	Front: 80W + 80W
	8 ohms, 20 Hz - 20 kHz	Front: 45W + 45W
Total harmonic distortion	8 ohms, at 10W output	Front: 0.03 %

#### Note:

There are two type of AEP models which are depend on countries.  
AEP2 : Model for Scandinavian countries, Switzerland, Spain and Portugal.  
AEP1 : Model for other European countries.

#### Input


	Input jack	Sensitivity	Impedance
Audio	PHONO	2 mV	50 kilohms
	TUNER, TAPE, DAT/MD, VIDEO 1, 2, 3, 4, LD, TV	150 mV	
	CD	220 mV	15 kilohms
Video	VIDEO 1, 2, 3, 4, LD (phono jack)	1 Vp-p	75 ohms
	S VIDEO VIDEO 1, 2, LD	Luminance (Y) 1 Vp-p Chrominance (C) 0.286 Vp-p	75 ohms

#### Output

	Output jack	Sensitivity	Impedance
Audio	TAPE, DAT/MD VIDEO 1, 2, 3	150 mV	470 ohms
	HEADPHONES	3 mW (8 ohms)	Applied to low and high impedance headphones
	CENTER (MASTER VOLUME: center)	1.8 V	2 kilohms
	MONO (MASTER VOLUME: center)	1.8 V	2 kilohms
Video	VIDEO 1, 2, 3, MONITOR (phono jack)	1 Vp-p	75 ohms
	S VIDEO VIDEO 1, 2, MONITOR	Luminance (Y) 1 Vp-p Chrominance (C) 0.286 Vp-p	75 ohms

— Continued on next page —

INTEGRATED AV AMPLIFIER  
**SONY**®

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## Digital signal processor section

Surround parameter	
ROOM	17-step adjustable
WALL	17-step adjustable
SEAT F/R and L/R	17-step adjustable
EFFECT	21-step adjustable
REV.	17-step adjustable
DELAY	15.0 ms - 30.0 ms, 0.1 ms step
REAR	+ 10 -- 50 dB, 1 dB step
CENTER	+ 10 -- 50 dB, 1 dB step
CENTER EQ	100 Hz, 330 Hz, 1 kHz, 3.5 kHz, 10 kHz $\pm$ 6 dB, 1 dB step
Tone control	BASS: 100 Hz, $\pm$ 10 dB TREBLE: 10 kHz, $\pm$ 10 dB

## General

Power requirements	AEP1, AEP2, German Model 220 - 230V AC, 50/60Hz E Model 120/220/240 V AC, adjustable with the voltage selector, 50/60 Hz 390 W
Power consumption	Switched, less than 100 W
AC outlet	Approx. 430 x 135 x 360 mm (w/h/d)
Dimensions	(17 x 5 <sup>3</sup> / <sub>8</sub> x 14 <sup>1</sup> / <sub>4</sub> inches)
Mass	Approx. 14.5 kg (21 lb 10 oz)
Supplied accessories	Remote commander RM-P790 (1) Sony batteries SUM-3 (N5) (2)

Design and specifications are subject to change without notice.

## Note

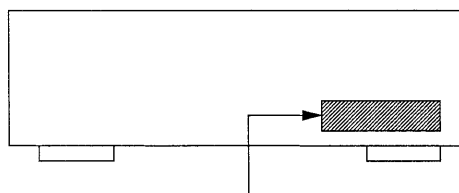
This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

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## MODEL IDENTIFICATION

— BACK PANEL —



### TA-AV790ESD :

- 4-966-126-2□ : AEP1 model
- 4-966-126-3□ : AEP2 model
- 4-966-126-4□ : German model
- 4-966-126-5□ : E model

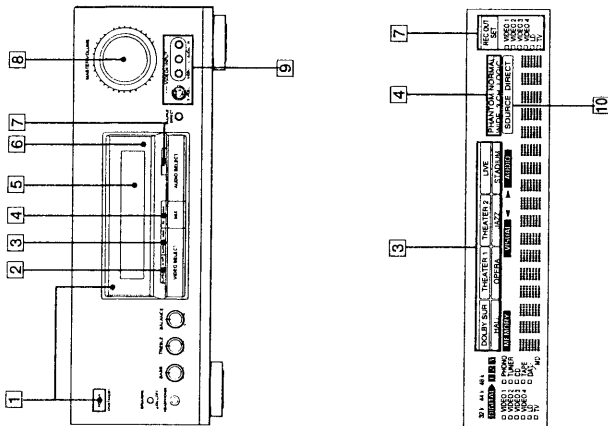
### Note:

There are two type of AEP models which are depend on countries.  
AEP2 : Model for Scandinavian countries,Switzerland, Spain and Portugal.  
AEP1 : Model for other European countries.

## SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK  $\Delta$  OR DOTTED LINE WITH MARK  $\Delta$  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

# Identifying the Parts and Controls



Refer to the pages indicated in ( ) for details.

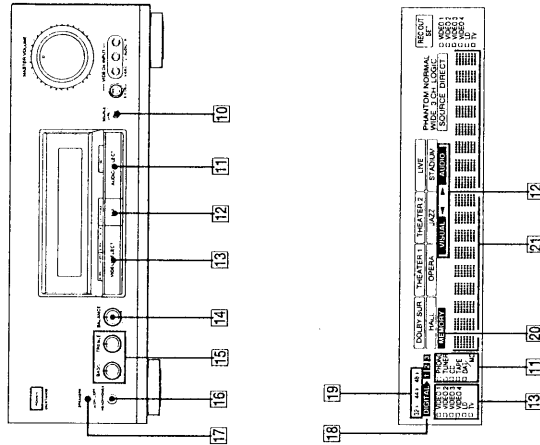
## Front Panel and Display A

- 1 POWER switch and standby indicator**  
When the AC cord is plugged in, the indicator lights to show that the main unit is in standby mode. When the POWER switch is turned on, the indicator goes off.
- 2 SURROUND ON/OFF button (68)**  
Turns on and off the surround mode.
- 3 SURROUND MODE button and indicators (56, 58, 68, 74)**  
Press to change the surround mode. Each time this button is pressed, the surround mode changes as follows:  
DOLBY SUR → THEATER 1 → THEATER 2  
STADIUM → JAZZ → OFBPA → HALL
- 4 CENTER MODE button and indicators (54, 56)**  
In the DOLBY SUR, THEATER 1, THEATER 2 or LIVE mode, select the CENTER MODE according to the speaker placement.  
Each time this button is pressed, the CENTER MODE changes as follows:  
PHANTOM → NORMAL  
3 CH LOGIC → WIDE
- 5 Display**
- 6 Remote sensor**
- 7 REC OUT button and REC OUT SET indicators (52)**  
When the recording source is selected with this button, other program sources can be played during recording.  
Each time this button is pressed, the recording source changes as follows:  
VIDEO 1 → VIDEO 2 → VIDEO 3 → VIDEO 4  
off → TV → LD
- 8 MASTER VOLUME control (38)**  
Adjusts the sound volume. To increase the volume, turn the control clockwise. To decrease the volume, turn the control counterclockwise.
- 9 VIDEO 4 INPUT jacks (20)**  
Use when connecting the video camera, etc.

# Identifying the Parts and Controls

(continued)

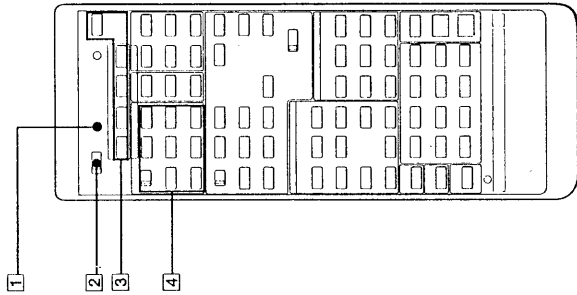
- 10 SOURCE DIRECT button and indicator (40)**  
Press this button to listen to the sound without sound effect. The settings of surround, center equalizer, BASS, TREBLE and BALANCE have no effect.
- 11 AUDIO SELECT button and indicators (38, 42, 48, 52)**  
Selects the audio program source.
- 12 MIX button and indicator (42)**  
Press to combine a visual source and an audio source.  
Each time this button is pressed, the display changes as follows:  
VISUAL → AUDIO → off
- 13 VIDEO SELECT button and indicators (38, 42, 48, 50, 52)**  
Selects the video program source.
- 14 BALANCE control (40)**  
Adjusts balance of the front speaker sound. Normally set to the center position.
- 15 BASS/TREBLE controls (40)**  
Adjust the BASS and TREBLE sound. Normally, set to the center position.
- 16 HEADPHONES jack**  
Accepts the stereo phone plug of headphones. The jack outputs the sound of front speakers only. To listen to the program source only with the headphones, set the SPEAKERS switch to OFF.
- 17 SPEAKERS switch (38)**  
Turn ON and OFF the front, center and rear speakers.
- 18 DIGITAL 1, 2, 3 indicator (44)**  
When a digital component is assigned to the OPTICAL DIGITAL IN jack, the corresponding indicator lights.
- 19 Sampling frequency indicators**  
Indicators the sampling frequency which corresponds to the digital input signal.
- 20 MEMORY indicator (44)**  
Lights when the ENTER button is pressed for storing the assignment of the OPTICAL DIGITAL jacks or storing the index name of program source.
- 21 Character display (44, 74)**  
Shows the selected mode, program source or a state of operation.



## SECTION 1 GENERAL

This section is extracted from instruction manual.

## Identifying the Parts and Controls

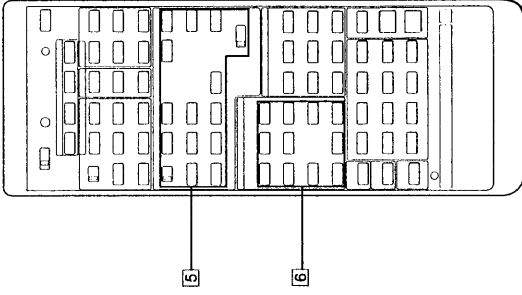


### Remote Commander B

- 1 LEARN indicator**  
Lights when storing the signal of other remote.
- 2 Mode selector** (78, 82, 84)  
SONY STD: Controls Sony equipments.  
USER STD: Controls equipment whose remote control functions are stored.  
LEARN: Stores functions of other remote commanders emitting infrared rays.
- 3 POWER button**  
AMP power: Turns on/off this amplifier.  
LDP power: Turns on/off the LD player.  
VTR power: Turns on/off the VTR selected by the VTR type (VTR 1/2/3) selector.  
TV power: Turns on/off the TV.  
MD power: Turns on/off the MD recorder
- 4 CD player/LD player control buttons**  
CDP/LDP: Selects CD player or LD player to be played. The combined CD/LD player can be controlled with this selector set to LDP.  
DISC SKIP: Disc skip (only for a CD player equipped with a multi-disc changer).  
▶◀◀/▶▶▶: Manual search.  
◀◀◀/▶▶▶: Locates a desired selection.  
⏏: Pause.  
■: Stop.

## Identifying the Parts and Controls

(continued)

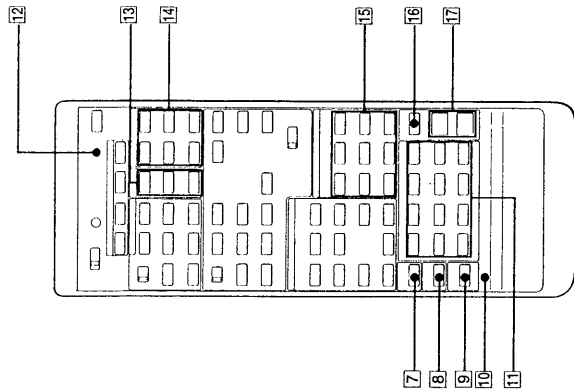


- 5 Tape deck/VCR control buttons**  
Before operating the tape deck/VCR control buttons, set the DECK/VTR selector and DECK type (DECK TAPE/MD/DAT)/VTR type (VTR 1/2/3) selector according to the component you want to operate.  
When operating the tape deck, MD recorder or DAT deck:  
DECK/VTR selector → DECK  
DECK type/VTR type selector → DECK (tape deck), MD (MD recorder) or DAT (DAT deck)  
When operating the VCR:  
DECK/VTR selector → VTR  
DECK type/VTR type selector → VTR 1: Betamax VCRs  
VTR 2: 8 mm VCRs  
VTR 3: VHS VCRs  
⏏: Pause.  
■: Stop.  
◀◀◀/▶▶▶: Fast winding.  
◀◀/▶▶: Locates a desired selection.  
◀/▶: Play. (The ◀ button is used only for an auto reverse tape deck.)  
● REC: Recording.  
• For the recording with the VCR Press both ● REC and ▶ at the same time.  
• For the recording with the tape deck Press both ● REC and ◀ or ▶ at the same time. When the recording does not start after performing this operation, press ◀▶ or ⏏ to cancel the recording pause mode.  
The recording will start.  
Following buttons can be used when the DECK/VTR selector is set to VTR.  
DUAL: Selects bilingual programs.  
TV/VTR: Selects the output signal from the antenna terminal on the VCR, either a TV signal or VCR programs.  
CH (channel) +/-: Select channel on the VCR.
- 6 DSP (Digital Signal Processor) CONTROL buttons** (46, 56, 58, 66, 74, 76)  
TEST TONE: Turns on/off the test tone which allows you to adjust the front, center and rear speakers. The test tone can be heard only in DOLBY SUR mode.  
PARAMETER: Selects a parameter to be adjusted.  
CHARACTER: Used when assigning the name to the program source.  
REAR/CENTER LEVEL: Selects the level adjusting mode between the rear speakers or center speaker.  
CENTER EQ: Used when adjusting the equalizer of the center speaker.  
◀, ▶, ⏏, ⏏: Cursor buttons  
CLEAR  
ENTER

(to be continued.)



Identifying the Parts and Controls



- (continued)
- 7 DIGITAL ASSIGN button (44)**  
Used when assigning the DIGITAL INPUT jack to the program source.
  - 8 MIX button (42)**  
Combines a visual source and audio source.
  - 9 SOURCE DIRECT button (40)**  
Press to listen to the sound without sound effect.
  - 10 RESET button (84)**  
Resets the remote commander to the initial state.
  - 11 Function selectors**  
VIDEO 1, VIDEO 2, VIDEO 3, VIDEO 4, LD, TV, DAT/MD, TAPE, CD, TUNER, PHONO, DIGITAL. Select the program source.
  - 12 PROGRAM CLEAR button (82)**  
Clears the stored functions.
  - 13 Tuner control buttons**  
BAND. Selects the frequency band.  
PRESET +/- Selects a higher or lower preset number.
  - 14 TV control buttons**  
TV/VIDEO. Selects the input signal of the TV.  
CH +/- Select a preset channel.  
VOL +/- Adjust the TV volume.
  - 15 SURROUND MODE buttons (56, 58, 68, 74)**  
ON/OFF. Turns on/off the surround mode.  
DOLBY, THEATER 1, THEATER 2, LIVE, HALL, OPERA, JAZZ, STADIUM. Select the surround mode.  
When a surround mode is selected, the SURROUND ON/OFF button is automatically turned on.
  - 16 MUTING button (40)**  
Mutes the sound.
  - 17 MASTER VOL +/- (38)**  
Adjust the sound level of the speakers or headphones or the sound level at the both CENTER AUDIO OUT and MONO AUDIO OUT jacks.

Listening to/Watching Program Sources

Creating a Name for Program Source

This operation can be performed only with the remote.

You can create a name for program sources. For example, if you connected a second tape deck to the DAT/MD jacks, you will most likely want to display as "TAPE 2" (instead of "DAT/MD") when you use the second tape deck. The name you create appears on the display whenever you select that program source. You can use up to 8 letters and symbols for each name.

- 1 Press a function button that you want to create a name for.**
- 2 Press CHARACTER.**
- 3 Create a name.**  
To select a letter or symbol, press  $\square$  or  $\square$ .  
To change the position within the name, press  $\square$  or  $\square$ .
- 4 Press ENTER.**  
The MEMORY indicator lights and the name is stored in the memory.

**If the power cord is unplugged**  
The name you created remains in the memory for about two weeks.

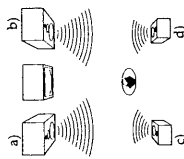
- To cancel the name you created**
- Press the function button whose name to be canceled.
  - Press CHARACTER.
  - Press CLEAR.  
The display shows the factory preset name.
  - Press ENTER.

**Usable letters and symbols**  
You can use any of the following characters to create a function name.

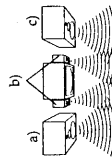


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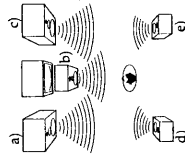
**A**



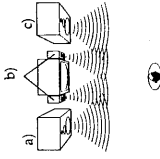
**B**



**C**



**D**

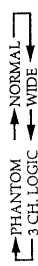


## Preparing for the Surround Sound

### Placement of Speakers and Selecting the Center Mode

Since all speakers are different, the unit offers you four types of speaker configurations (Phantom, 3 Ch Logic, Normal, Wide). To best fit your speaker system, you can change how the sound comes from each speaker by selecting one of these four configurations. Once you make the adjustments, you do not have to adjust them again unless you change your speaker system.

Each time you press the CENTER MODE button, the CENTER MODE is changed in the following order:



#### PHANTOM mode **A**

Select this mode when you play back a Dolby surround program source without using a center speaker. The sound of the center channel is output from the front (L and R) speakers.

- a) Front speaker (L)
- b) Front speaker (R)
- c) Rear speaker (L)
- d) Rear speaker (R)

#### NORMAL mode **B**

Select this mode if you use a small center speaker(s). The bass sound of the center channel is output from the front speakers, as a small speaker cannot produce enough bass.

- a) Front speaker (L)
- b) Center speaker(s)
- c) Front speaker (R)
- d) Rear speaker (L)
- e) Rear speaker (R)

#### WIDE mode **C**

Select this mode if you use a medium to big size center speaker.

- a) Front speaker (L)
- b) Center speaker(s)
- c) Front speaker (R)
- d) Rear speaker (L)
- e) Rear speaker (R)

#### 3 CH (channel) LOGIC mode **D**

Select this mode when you play back a Dolby surround program source only with the front and center speakers. The sound of the rear channel is output from the front (L and R) speakers.

- a) Front speaker (L)
- b) Center speaker(s)
- c) Front speaker (R)

## Preparing for the Surround Sound

To enjoy the surround sound, adjust the level of each speaker and then try to obtain "live" atmosphere using the digital signal processor (page 60). Before performing the following adjustments, you have to complete the speaker settings (page 54).

### Adjusting Each Speaker Level

— for DOLBY SUR, THEATER 1, THEATER 2 or LIVE mode

**1** Press SURROUND MODE until the DOLBY SUR, THEATER 1, THEATER 2 or LIVE indicator lights.

**2** Press CENTER MODE to select the PHANTOM, NORMAL, WIDE or 3 CH LOGIC mode according to the speaker placement. For details of the speaker placement and the CENTER MODE setting, refer to page 54.

**3** Press TEST TONE on the remote to set to on. (The button functions only in DOLBY SUR mode.) The test tone will be heard in the following order:

In NORMAL or WIDE mode  
Front left → Center → Front right → Rear  
In PHANTOM mode  
Front → Rear  
In 3 CH LOGIC mode  
Front left → Center → Front right

**4** Adjust the volume level so that sound from each speaker will be the same level at your listening position.

**To adjust the level of center speaker**

Press the REAR/CENTER LEVEL button so that "CENTER" appears and press  $\Delta$  or  $\nabla$  button to adjust the level.

**To adjust the level of rear speakers**

Press the REAR/CENTER LEVEL button so that "REAR" appears and press  $\Delta$  or  $\nabla$  button to adjust the level.

The level of center and rear speakers can be adjusted from +10 dB to -50 dB, and the adjusted level is displayed. When adjusting MASTER VOLUME, all speakers are adjusted simultaneously.

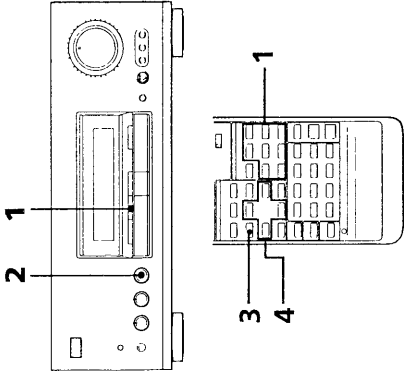
(to be continued)

## Preparing for the Surround Sound

(continued)

### Notes

- The speaker level adjustment with the test tone function can be performed only when the DOLBY SUR mode is selected.
- When the PHANTOM mode is selected, no sound is heard from the center speaker.
- When the 3 CH LOGIC is selected, no sound is heard from the rear speakers.
- When a component (TV, power amplifier, etc.) to the AUDIO CENTER OUT jack, adjust with the volume control on the connected component as well.



1

– for HALL, OPERA, JAZZ or STADIUM mode

For HALL, OPERA, JAZZ or STADIUM mode, adjust the front and rear speakers level. (In these modes, the center speaker is not used.)  
You can adjust the level for each surround mode.

**1 Press SURROUND MODE to select the surround mode you want to adjust and play a program source.**

**2 Turn BALANCE to adjust the volume level of the left and right front speakers will be the same level.**

**3 Adjust the level of rear speakers.**  
Press the REAR/CENTER LEVEL button so that "REAR" appears and press  $\Delta$  or  $\nabla$  button to adjust the level. The level of rear speakers can be adjusted from +10 dB to -50 dB, and the adjusted level is displayed. You can refer to the adjusted level for Dolby surround with the test tone function.

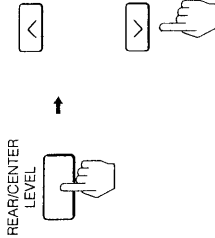
### Notes

- Some commercially available software may have Dolby surround processed sound tracks even though it does not carry the "DOLBY SURROUND" mark.
- When the software with the less rear signals is played back even though is has the "DOLBY SURROUND" mark, sound of the rear channel may be heard at very low level.
- In PHANTOM mode, sound from the center speaker cannot be heard

2



3



## Surround Effect with Digital Signal Processor

This amplifier uses digital signal processor to reproduce the surround sound effects. It allows you to obtain the sound field to best fit your listening environment.

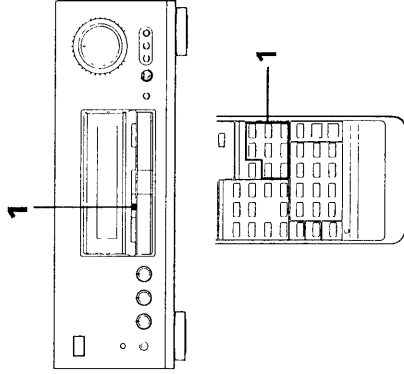
## Understanding the Digital Signal Processor

The digital signal processor electronically reproduces the acoustics of various listening environments. In addition to this function, you can use the center equalizer to finely adjust the tone.

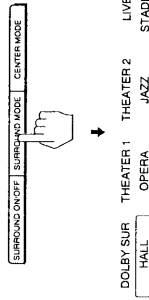
## Listening to the Sound with Preset Surround Mode

This amplifier comes with 8 preset surround modes. You can use these surround modes to simulate the sound you would experience in various listening environment. Since the DOLBY SUR, THEATER 1, THEATER 2 or LIVE surround uses the enhanced directivity circuit of the Dolby Pro Logic decoder, you can experience the surround effect such as in a movie theater.  
For each surround mode, you can adjust the sound parameters as desired. These are discussed in more detail on page 66 to 74.

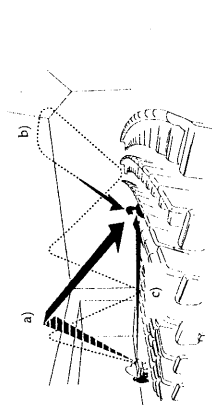
- 1 Select the surround mode according to the program source.**
- 2 Play the program source.**



1



# Surround Effect with Digital Signal Processor



**Understanding the surround sound parameters**  
This amplifier uses digital signal processing to reproduce the sound effects of various listening environments, such as a concert hall. Three sound elements contribute to this effect: direct sound, early reflection and reverberation (Fig **A**, Types of sound).

- a) Early reflections
- b) Reverberation
- c) Direct sound

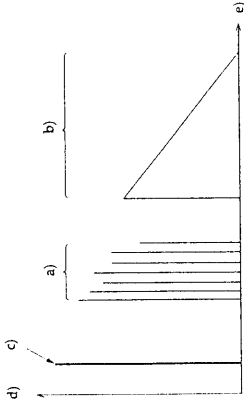
The built-in digital signal processor creates various listening environments reproducing early reflected sound and reverberated sound. (Fig **B**, Transition of sound)

- a) Early reflections
- b) Reverberation
- c) Direct sound
- d) Level
- e) Time

Since this amplifier has 8 surround modes and each mode has various adjustable parameters, you can adjust them according to the type of your listening room.

## Note

Each surround mode has the proper parameter in addition to the adjustable parameters. Thus, sound effect of each surround mode will not be the same even if all adjustable parameters of the surround modes are set to the same levels.



# Surround Effect with Digital Signal Processor

## Characteristics of each surround mode

### DOLBY SUR (surround)

This mode is for reproducing the movie or music program source recorded with Dolby surround system on which the "DOLBY DIGITAL" or "DOLBY STEREO" mark is labeled. You can hear dynamic sound and natural voice just like listening to it in a movie theater or a concert hall.

### THEATER 1

Applies reflected sound in a movie theater to the sound output through the enhanced directivity circuit of the Dolby Pro Logic decoder.

Suitable for movie programs recorded with Dolby surround system.

### THEATER 2

Reproduces the acoustics of a small-size movie theater using the sound output through the enhanced directivity circuit of the Dolby Pro Logic decoder.

### LIVE

Applies reflected sound in a concert hall to the sound output through the enhanced directivity circuit of the Dolby Pro Logic decoder.

Suitable for music programs recorded with Dolby surround system.

### HALL

You can hear the naturally acoustic sound having a reverberation effect that is produced in a large-size concert hall.

### OPERA

Reproduces the acoustics of an opera house keeping the clearness of vocals. Suitable for solo concert or medium-size orchestral music.

### JAZZ

Gives a "live" atmosphere similar to a jazz club and reproduces crisp sound.

### STADIUM

Reproduces the acoustics of an open-air stadium having a long early reflected sound. Suitable for a live concert of pops.

## Surround Effect with Digital Signal Processor

### Adjusting the Digital Surround

For each surround mode, you can adjust the sound parameters as described in the following chart.

YES: You can adjust this parameter.  
→ You cannot adjust this parameter.

SURROUND MODE	DOLBY SUR	
	THEATER 1	THEATER 2
PARAMETER		
ROOM	YES	YES
WALL	YES	YES
SEAT	YES	YES
EFFECT	YES	YES
REV.	YES	YES
DELAY	YES	YES

SURROUND MODE	THEATER 2	
	LIVE	HALL
PARAMETER		
ROOM	YES	YES
WALL	YES	YES
SEAT	YES	YES
EFFECT	YES	YES
REV.	YES	YES
DELAY	YES	YES

SURROUND MODE	OPERA	
	JAZZ	STADIUM
PARAMETER		
ROOM	YES	YES
WALL	YES	YES
SEAT	YES	YES
EFFECT	YES	YES
REV.	YES	YES
DELAY	YES	YES

In addition to these adjustments, you can adjust the center equalizer (page 76) and the level of center and rear speakers (pages 56-58).

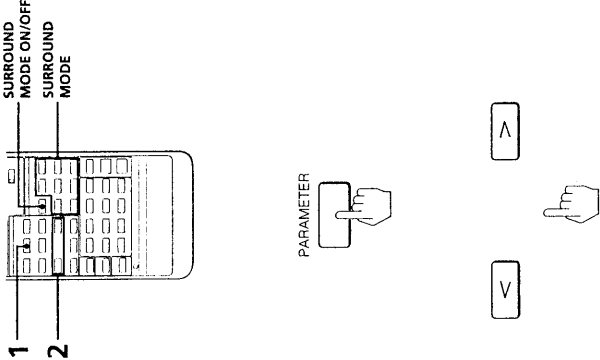
## Surround Effect with Digital Signal Processor

### Adjusting Surround Parameters

This operation can be performed only with the remote.  
Before adjusting parameters, play a program source with the surround mode suitable for the program source. You can adjust parameters listening to the sound with surround effect. In addition, you can compare the adjusted sound with the sound having no surround effect by switching the SURROUND ON/OFF button.

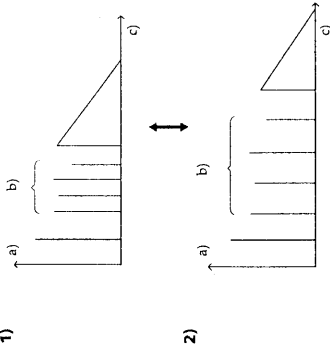
- 1 Press **PARAMETER** repeatedly until the desired parameter appears on the display.
- 2 Press **Δ** or **▽** to adjust the parameter.

**Note**  
In 3 CH LOGIC mode, you cannot adjust the parameter.



# Surround Effect with Digital Signal Processor

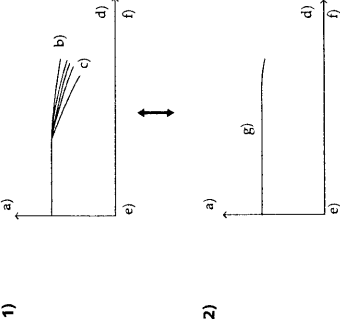
A



## Characteristics of each parameter

**Room Size Simulation (ROOM) A**  
Before sound reaches our ears, it is reflected many times between the left and right walls, ceiling, and floor. In a large room, sound takes more time to bounce from one surface to another than in a smaller room. The ROOM parameter controls the spacing of early reflections to simulate the room size. The S indicator on the display signifies a small room, the L indicator signifies a large room, and the middle point designates a standard room size.

B



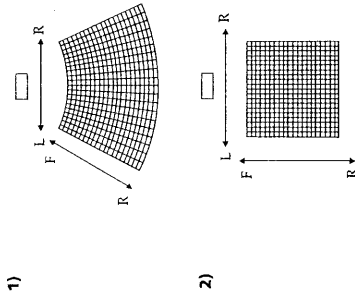
**Wall Material Simulation (WALL) B**  
When sound is reflected off a wall made of soft material, such as wood or a wall covered with a curtain, the high frequency elements are reduced. A hard wall is highly reflective and does not significantly affect the frequency response of the reflected sound.

The WALL parameter controls the level of high frequencies to simulate the wall material. The S indicator on the display signifies a soft wall. The H indicator signifies a hard wall. The middle point designates a standard wall made of wood.

- 1) Soft wall
- 2) Hard wall
- a) Level
- b) Early reflections
- c) Reverberation
- d) Frequency
- e) Low
- f) High
- g) Early reflections and reverberation

# Surround Effect with Digital Signal Processor

A



**Seat Position Simulation (SEAT) A**  
If you sit in the front of a room, you hear more direct sound from the front speakers. As you move to the rear, the reflected sound from the front speakers increases. Similarly, the reflected sound changes if you move from left to right, and vice versa. The F/R and L/R parameters control the balance of the direct and reflected sound and other elements of sound to simulate your listening position.

When adjusting the F/R parameter, the F indicator on the display signifies the front position of the room. The R indicator signifies the rear position, the middle point of the indicator designates the center position. When adjusting the L/R parameter, the L indicator signifies the left position of the room. The R indicator signifies the right position. The middle point of the indicator designates the center position.

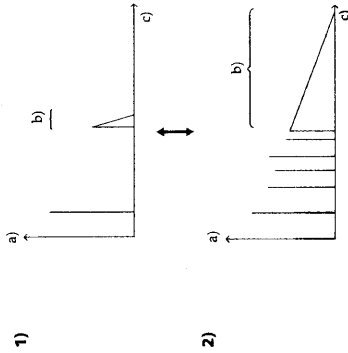
- 1) STADIUM mode
- 2) Other modes

## Effect Level (EFFECT) B

Effect level is the combination of the level of early reflections and reverberation. The L indicator on the display signifies the lowest level and the H indicator signifies the highest level. The adjustable level is divided into 21 segments. As you select higher level, the room becomes more "live." As you select lower level, the room becomes more "dead."

- 1) Low effect level
- 2) High effect level
- a) Level
- b) Early reflections
- c) Reverberation
- d) Time

C



**Reverberation Time (REV.) C**  
This parameter adjusts the length of the reverberation. The S indicator on the display signifies the shortest reverberation time, the L indicator signifies the longest reverberation time.

- 1) Shortest reverberation time
- 2) Longest reverberation time
- a) Level
- b) Reverberation
- c) Time

# Surround Effect with Digital Signal Processor

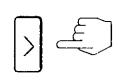
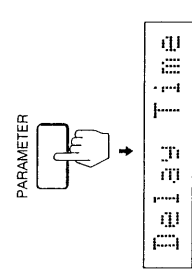
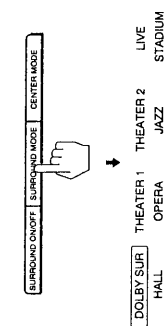
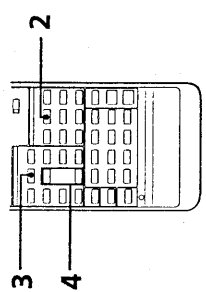
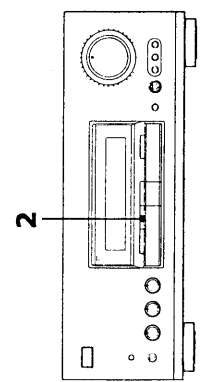
## Adjusting the Delay Time of the Rear Speakers

### - Only for Dolby surround mode

Sound from the front and rear speakers is not output simultaneously. By adjusting the time difference between front and rear speakers (delay time), you can make the surround sound best fit your listening environment. You can make the delay time longer or shorter within the range of 15 ms to 30 ms.

- 1 Play a program source.
- 2 Press **SURROUND MODE** repeatedly until to select **DOLBY SUR**.
- 3 Press **PARAMETER** repeatedly until "Delay Time" appears on the display.
- 4 Press  $\Delta$  or  $\nabla$  to adjust the level.

**Note**  
In 3 CH LOGIC mode, you cannot adjust the level and delay time of rear speakers. Only for program sources recorded with Dolby surround, this adjustment has effect.



# Storing Other Manufacturer's Operating Codes on the Remote

The remote RM-P790 learns various functions of other remote commanders emitting infrared rays and allows you to control most of audio and video component from a distance.

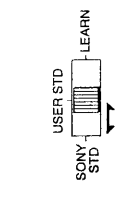
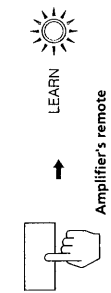
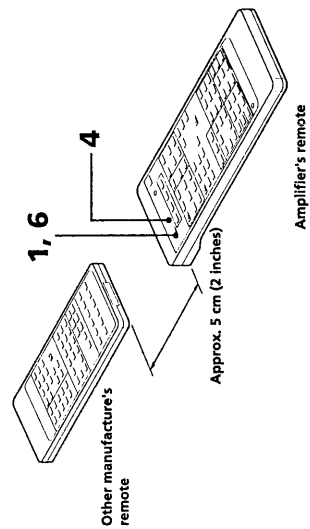
## Programming Signals of Other Audio/Video Component

When you manipulate a switch or button on the commander, be sure to point the head of the remote toward the remote control sensor on the front of this unit. If there is an obstacle between the unit and the head of the remote, the unit may not be controlled remotely.

### The two remote commanders must:

- face straight each other.
- be placed at a distance of approx. 5 cm (2 inches).
- not be moved during programming operation.

- 1 Set the mode selector to **LEARN**.
- 2 Hold down the button, on the remote commander supplied with this amplifier, which shall learn the remote control signal. The **LEARN** indicator lights up.
- 3 Hold down the button of other manufacturer's remote whose signal is to be learned.
- 4 Remove your fingers from the buttons after the **LEARN** indicator goes off.
- 5 Repeat operation for each button to be programmed.
- 6 After programming, set the mode selector to **USER STD** or **SONY STD**.



## Storing Other Manufacturer's Operating Codes on the Remote

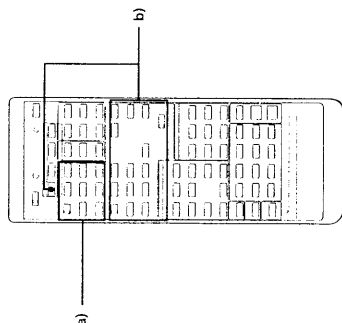
**A**

### After programming

Be sure to test if the equipment really works with the programmed signals.

### Number of signals that the commander can learn

It depends on the format of the signal. If you program signals of Sony component, approximately 60 signals can be programmed.



**Programmable area **A****  
a) In this area, you can store signals in a button with each setting of the CDP/LDP selector.

b) In this area, you can store signals in a button with each settings of the DECK/VTR selector and DECK type/VTR type selector.

(When the DECK/VTR selector is set to DECK, you cannot program the DUAL, TV/VTR and CH +/- buttons.)

### If the LEARN indicator flashes

The memory capacity is full as other strong signals have been stored. In this case, clear all stored signals following the procedure described in "To clear all programmed signals" and program again from the beginning.

When programming, avoid the following conditions not to store undesirable signals.

- Exposing the remotes to intense light such as of inverter fluorescent lamp.
- Receiving infrared signals of other appliance's remote.
- Placing the remotes too far apart from each other.

### Notes on programming

- Remote-control signals of component of manufacturers other than Sony can be programmed only when they are compatible with the infrared wireless remote control system. Since the programmable remote can "learn" only the signals output from another remote, it cannot control component that does not use a remote commander.
- Do not attempt to use the programmable remote with an air conditioner or other household appliances.
- Note that there are some special remote-control signals that cannot be programmed.

## Storing Other Manufacturer's Operating Codes on the Remote

**A**

### Programming a new signal onto a previously programmed button

Follow the programming procedures. The previously programmed signal is cleared and replaced by the new signal.

### To clear all programmed signals

- 1 Set the mode selector to LEARN.
- 2 Press and hold any button of the programmable area until the LEARN indicator lights up.
- 3 Press PROGRAM CLEAR with a ball-point pen, etc. until the LEARN indicator flashes and goes off.

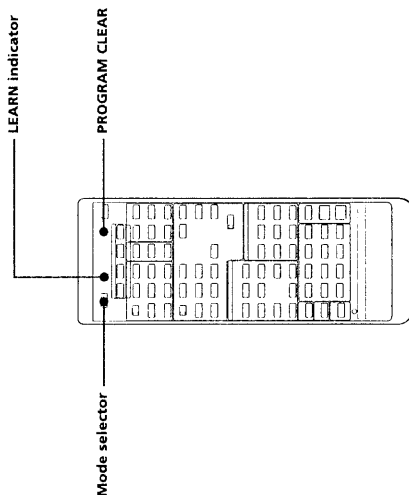
### Note

It is not possible to clear the programmed content of just one button.

### To program a signal onto the REC button

Press the following buttons on other remotes

- On a tape deck's remote: ● or ● and ◀, or ● and ▶
- On a DAT deck's remote: ● or ● and ▶
- On a MD recorder's remote: ●
- On a VCR's remote: ● and ▶





## SECTION 2

### TEST MODE

The test mode is provided in the TA-AV790ESD and FL indicator can be checked. Please check FL indicator if its indication is suspicious.

- **How to operate the test mode**

On the power off, holding to press **VIDEO SELECT**, **MIX** and **AUDIO SELECT** buttons at the triple same time, and turn the **POWER** switch on, so that FL indicator is lit in full.

On the test mode, after **VIDEO SELECT** button is pressed succesively, the indication is changed one after another.

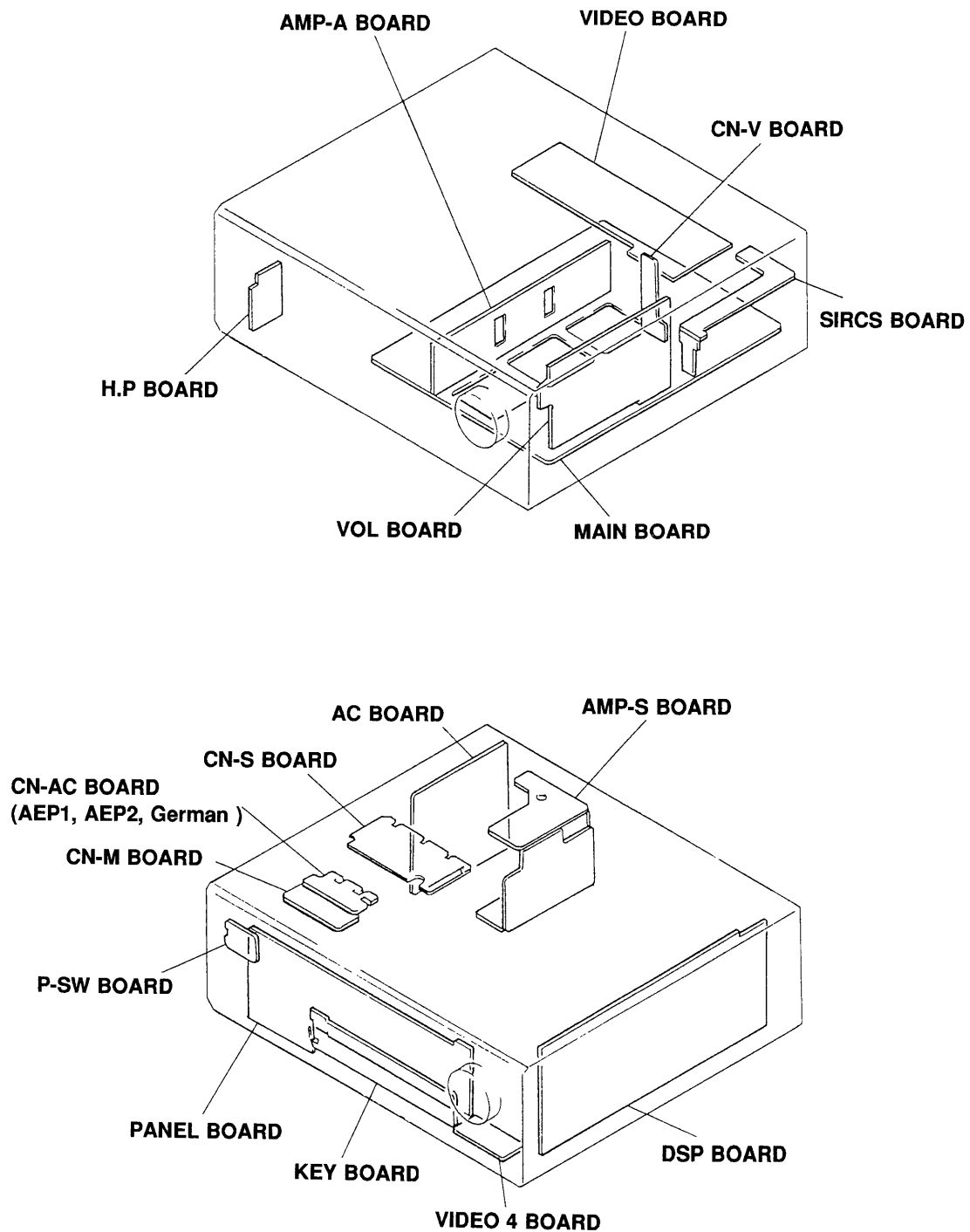
On the test mode, after **MIX** button is pressed, **REC SD PRO SM SOF** is indicated. Then its fit button is pressed, the indication goes out.

- **How to escape from the test mode**

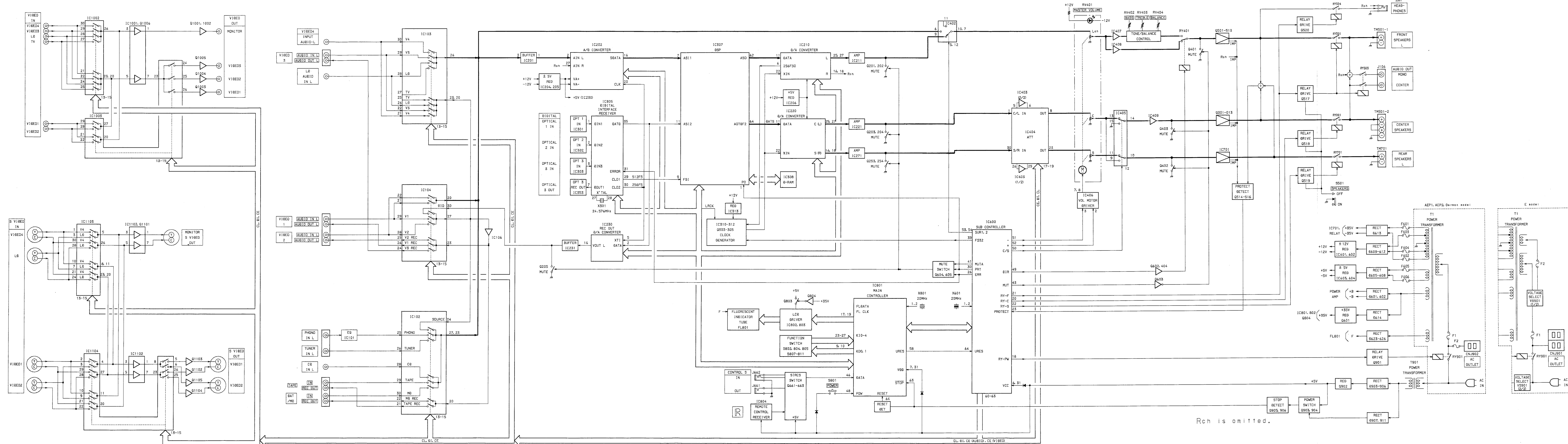
Turn the power switch off and the test mode will release.

## SECTION 3 DIAGRAMS

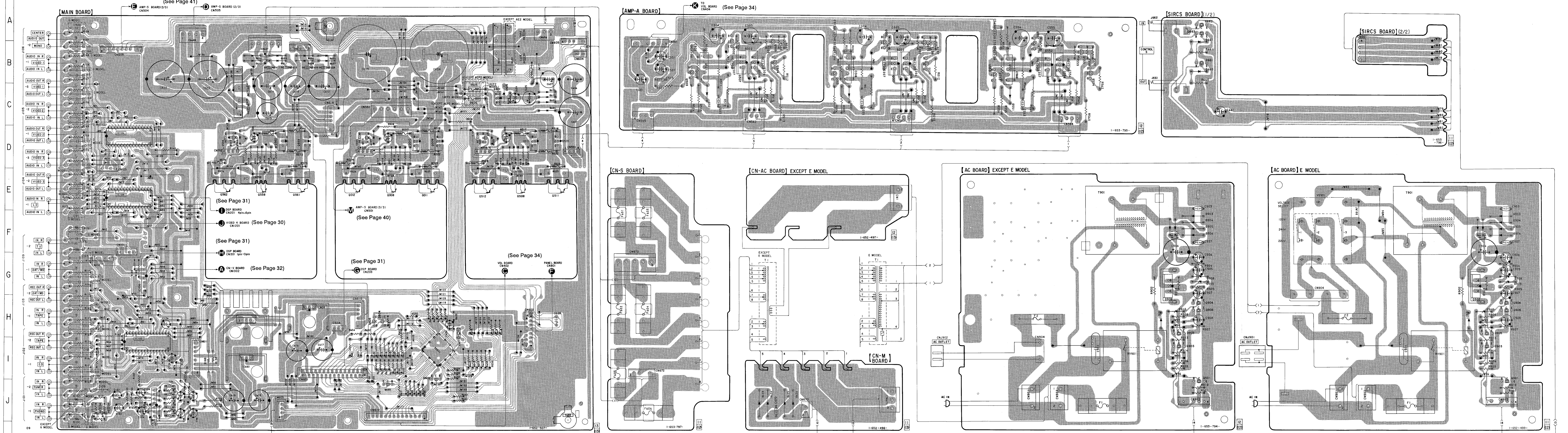
### 3-1. CIRCUIT BOARDS LOCATION



### 3-2. BLOCK DIAGRAM









3-4. SCHEMATIC DIAGRAM — MAIN SECTION —

- See page 45 for IC Block Diagrams.
- See page 55 for IC Pin Functions. (IC600)

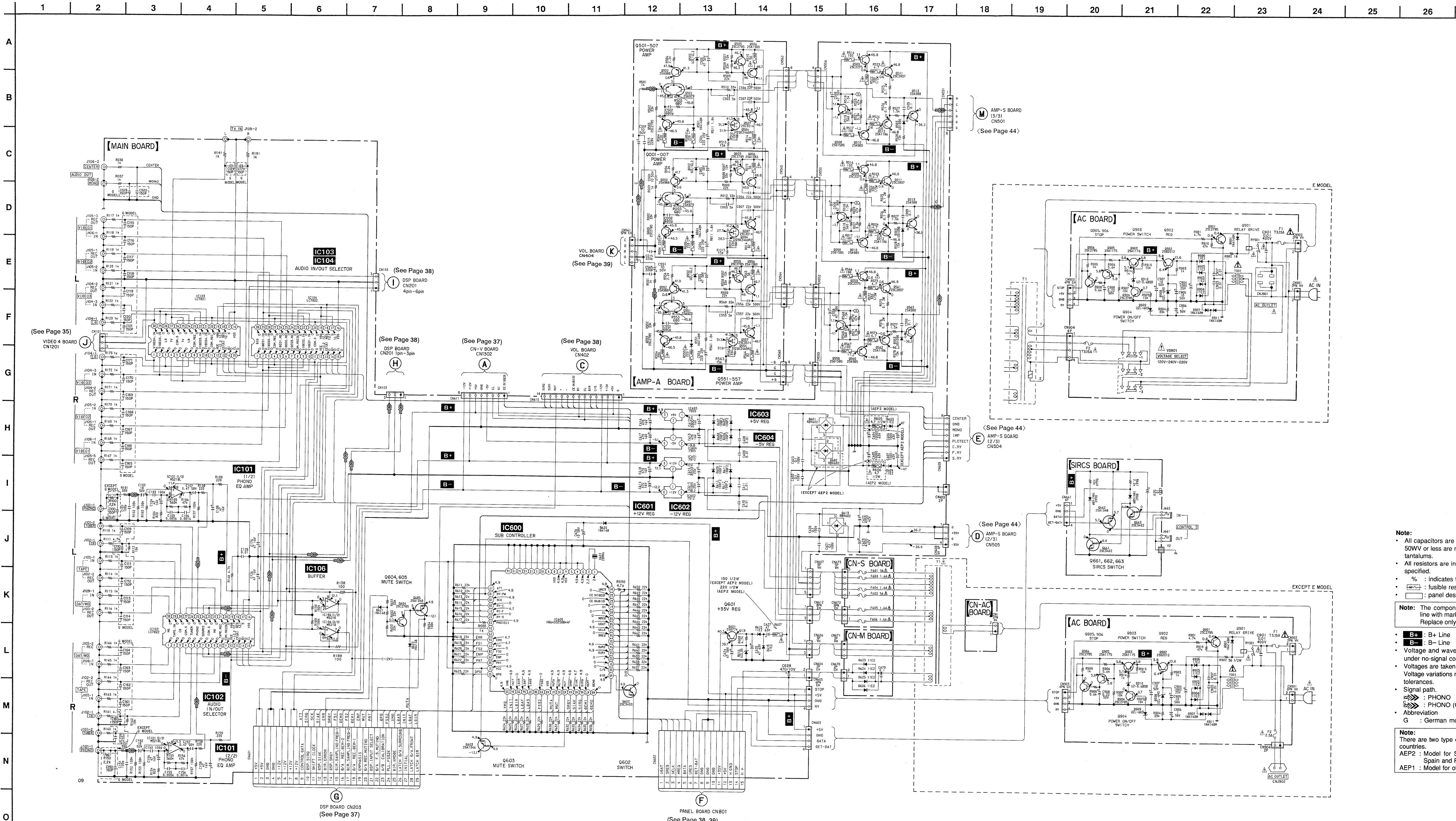
Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D001	C-20	Q001	B-20
D002	B-22	Q002	B-21
D003	D-9	Q003	B-20
D501	C-17	Q004	B-22
D503	D-12	Q005	B-22
D551	C-24	Q006	B-22
D553	D-6	Q007	B-22
D601	B-12	Q008	E-11
D602	B-12	Q009	D-11
D603	C-13	Q010	D-10
D604	C-13	Q011	E-10
D605	B-8	Q012	E-9
D606	B-7	Q013	D-9
D607	B-8	Q501	Q-17
D608	B-7	Q502	A-18
D609	B-7	Q503	B-17
D610	B-6	Q504	B-19
D611	B-7	Q505	B-19
D612	B-6	Q506	B-18
D613	C-6	Q507	B-18
D614	C-13	Q508	E-12
D615	C-13	Q509	D-13
D616	C-12	Q510	D-13
D620	H-11	Q511	E-13
D621	I-9	Q512	E-12
D622	I-9	Q513	D-12
D623	J-23	Q551	B-24
D624	J-23	Q552	B-25
D625	J-24	Q553	B-24
D626	J-24	Q554	B-26
D660	B-29	Q555	B-26
D661	A-29	Q556	B-25
D901	H-28	Q557	B-25
D901	H-35	Q558	E-7
D903	F-29	Q559	D-7
D903	F-36	Q560	D-7
D904	F-29	Q561	E-8
D904	F-36	Q562	E-6
D905	F-29	Q563	D-6
D905	F-36	Q601	C-12
D906	F-29	Q602	I-11
D906	F-36	Q603	J-9
D907	F-28	Q604	H-9
D907	F-35	Q605	H-9
D908	G-29	Q661	B-29
D908	G-36	Q662	A-29
D909	G-29	Q663	A-29
D909	G-36	Q901	J-29
D910	H-28	Q901	J-36
D910	H-35	Q902	G-28
D911	F-28	Q902	G-35
D911	F-35	Q903	I-28
IC101	J-4	Q904	H-29
IC102	I-3	Q904	H-36
IC103	E-3	Q905	I-28
IC104	D-3	Q905	I-36
IC106	G-4	Q906	H-29
IC600	I-11	Q906	H-36
IC601	H-6		
IC602	I-6		
IC603	H-8		
IC604	H-9		

Note:

- : parts extracted from the component side.
- : Pattern from the side which enable seeing.
- Abbreviation
- G : German model.

Note:  
There are two type of AEP models which are depend on countries.  
AEP2 : Model for Scandinavian countries, Switzerland, Spain and Portugal.  
AEP1 : Model for other European countries.



Note:

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ ,  $\mu\text{F}$ ,  $50\text{WV}$  or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $1/4\text{W}$  or less unless otherwise specified.
- % : indicates tolerance.
- : fusible resistor.
- : panel designation.

Note: The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

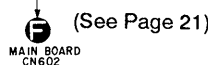
- B+ : B+ Line
- G : G Line
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (input impedance  $10\text{M}\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
- : PHONO
- : PHONO (CENTER)
- Abbreviation
- G : German model.

Note:  
There are two type of AEP models which are depend on countries.  
AEP2 : Model for Scandinavian countries, Switzerland, Spain and Portugal.  
AEP1 : Model for other European countries.



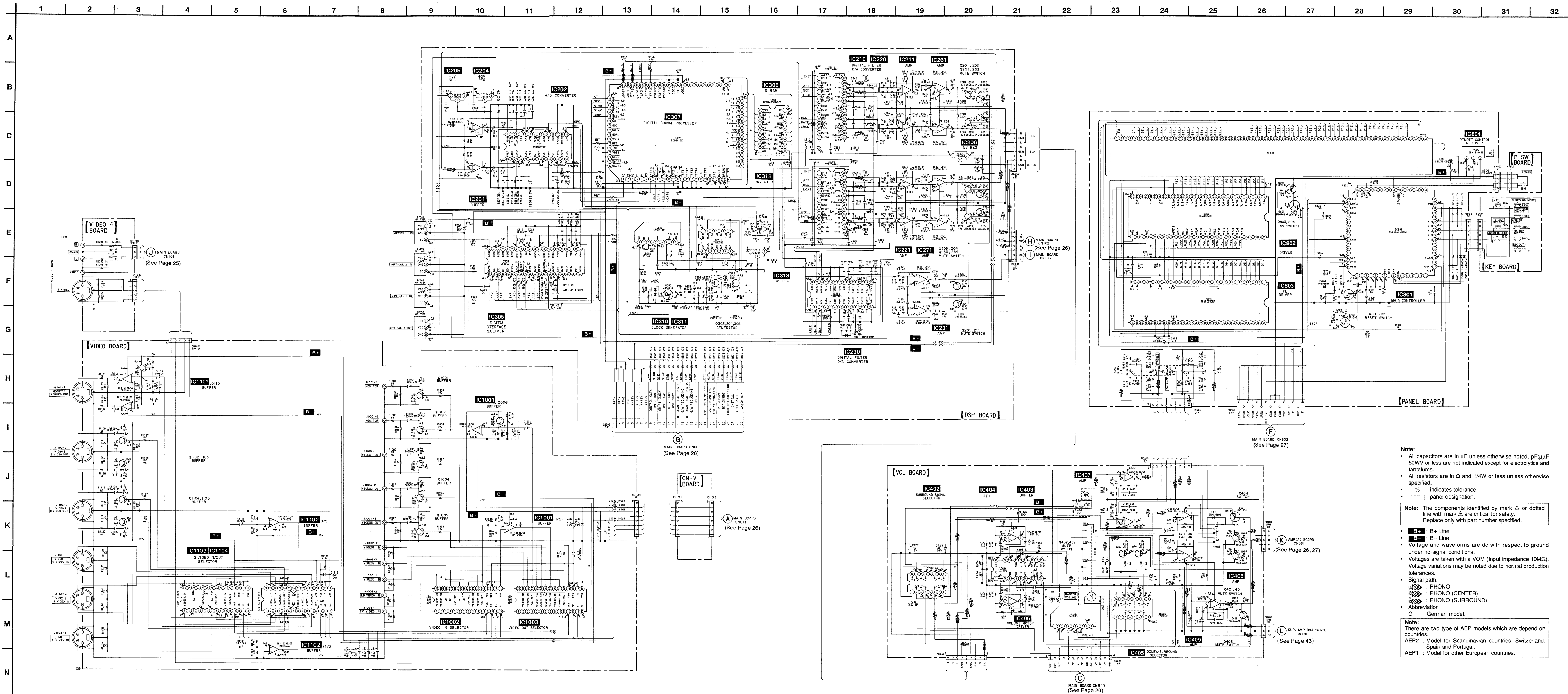
**Note:**  
There are two type of AEP models which are depend on countries.  
AEP2 : Model for Scandinavian countries, Switzerland, Spain and Portugal.  
AEP1 : Model for other European countries.

- See page 14 for Circuit Boards Location.
- See page 49 for Semiconductor Lead Layouts.








**3-6. SCHEMATIC DIAGRAM — VIDEO SECTION —**  
 • See page 45 for IC Block Diagrams.  
 • See pages 51, 57 for IC Pin Functions. (IC202, 305, 307, 801)



**Note:**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted,  $\text{pF} = 10^{-12}$  500W or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and 1/4W or less unless otherwise specified.
- % : indicates tolerance.
- : panel designation.

**Note:** The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

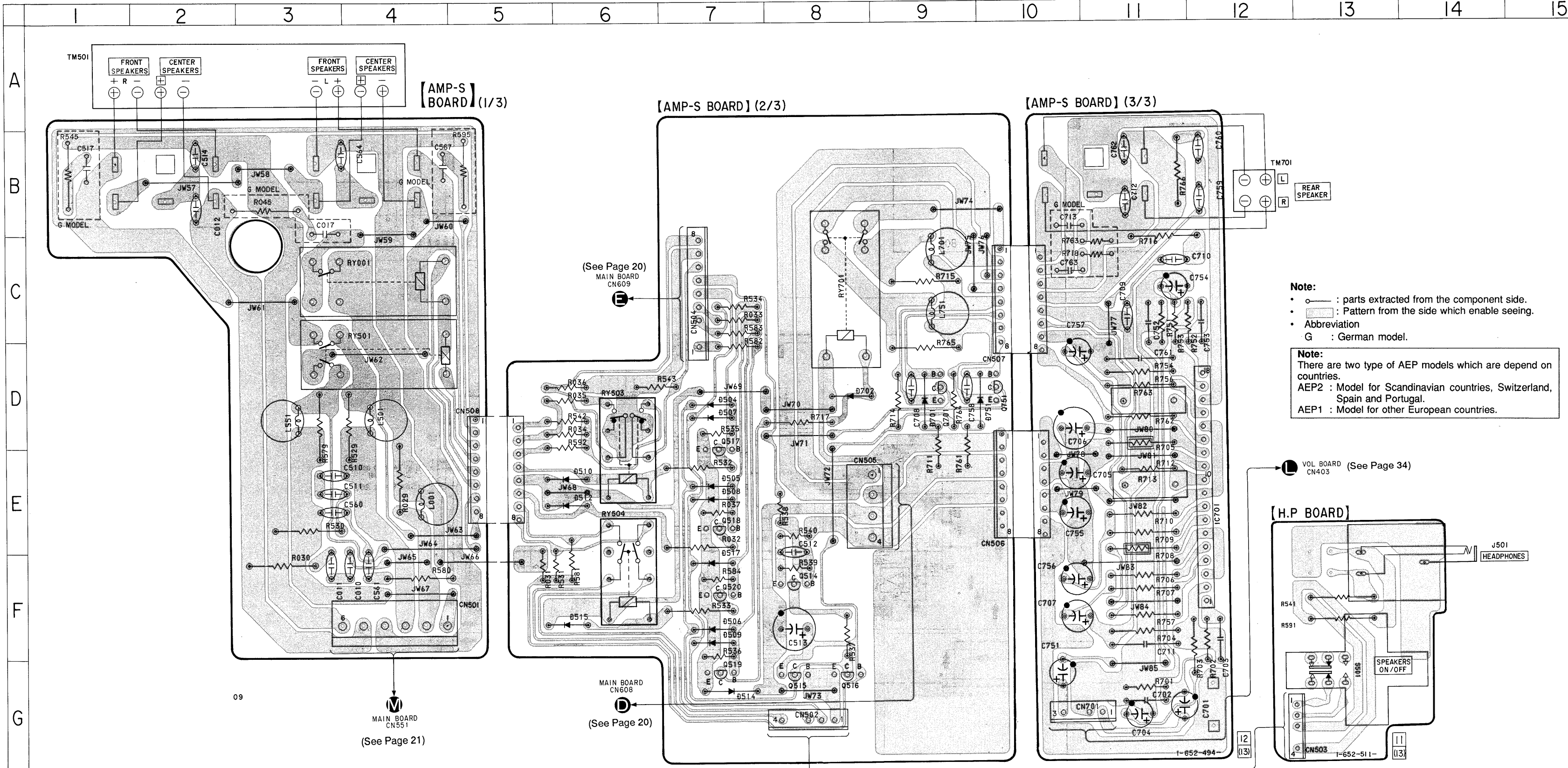
- **B+** : B+ Line
  - **B-** : B- Line
  - Voltage and waveforms are dc with respect to ground under no-signal conditions.
  - Voltages are taken with a VOM (input impedance 10M $\Omega$ )
  - Voltage variations may be noted due to normal production tolerances.
  - Signal path,
    -  : PHONO
    -  : PHONO (CENTER)
    -  : PHONO (SURROUND)
  - Abbreviation
    - G : German model.
- Note:**  
 There are two type of AEP models which are depend on countries.  
 AEP2 : Model for Scandinavian countries, Switzerland, Spain and Portugal.  
 AEP1 : Model for other European countries.



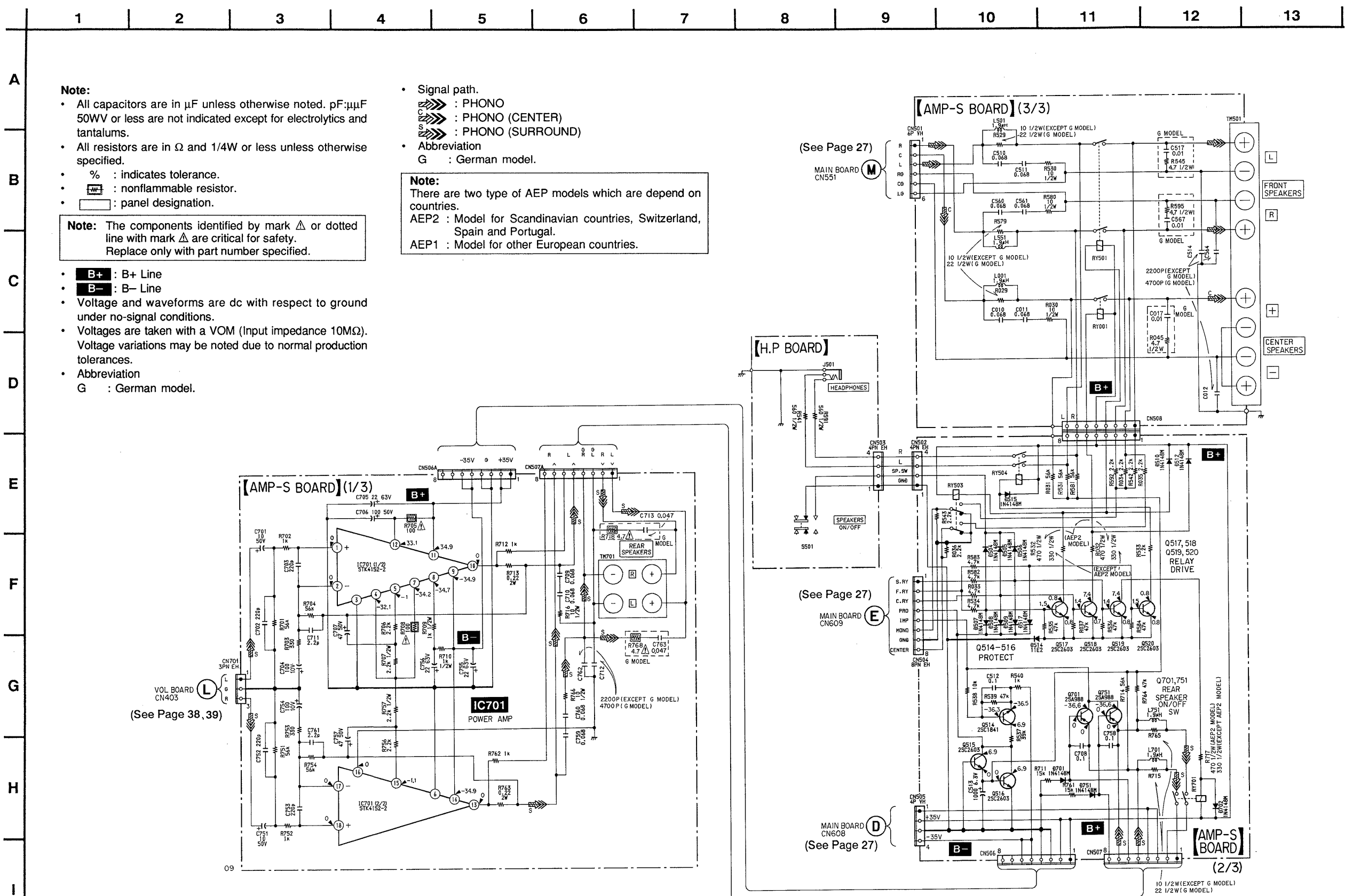
3-7. PRINTED WIRING BOARD — AMP-S SECTION —

- See page 14 for Circuit Boards Location.
- See page 49 for Semiconductor Lead Layouts.

Semiconductor Location	
Ref. No.	Location
D504	D-7
D505	E-7
D506	F-7
D507	D-7
D508	E-7
D509	F-7
D510	E-6
D512	E-6
D514	G-7
D515	F-6
D517	F-7
D701	D-9
D702	D-8
D751	D-10
IC701	E-12
Q514	F-8
Q515	G-8
Q516	G-8
Q517	E-7
Q518	E-7
Q519	G-7
Q520	F-7
Q701	D-9
Q751	D-10



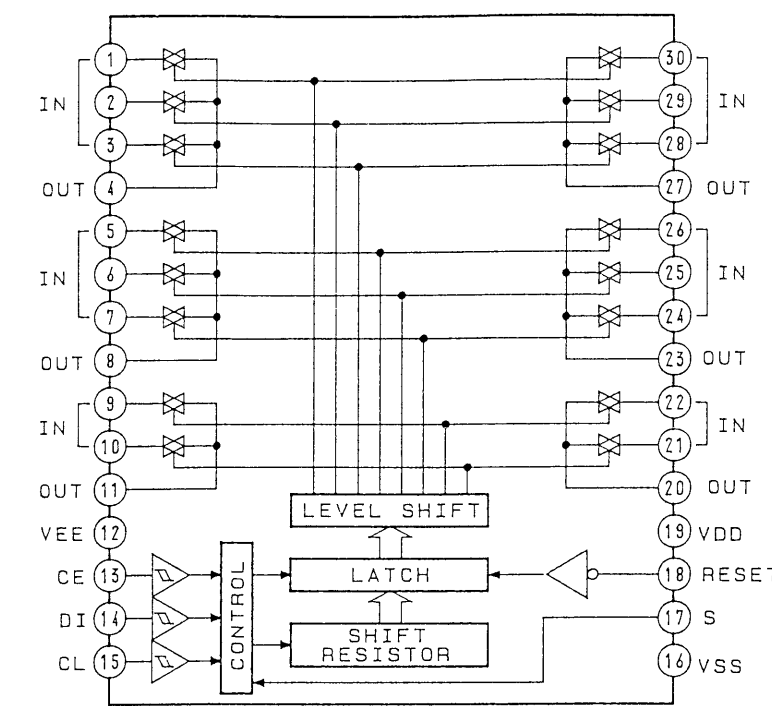
3-8. SCHEMATIC DIAGRAM — AMP-S SECTION —



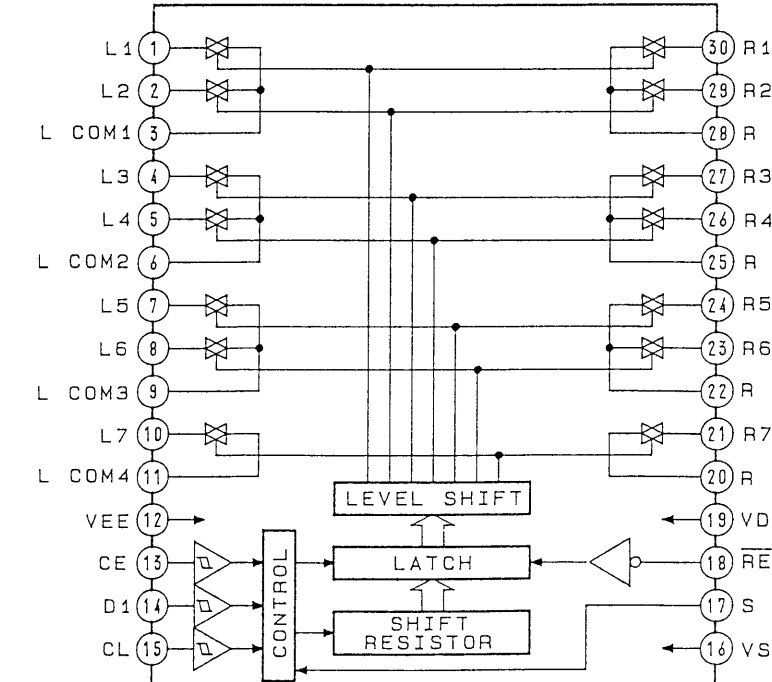


### 3-9. IC BLOCK DIAGRAMS

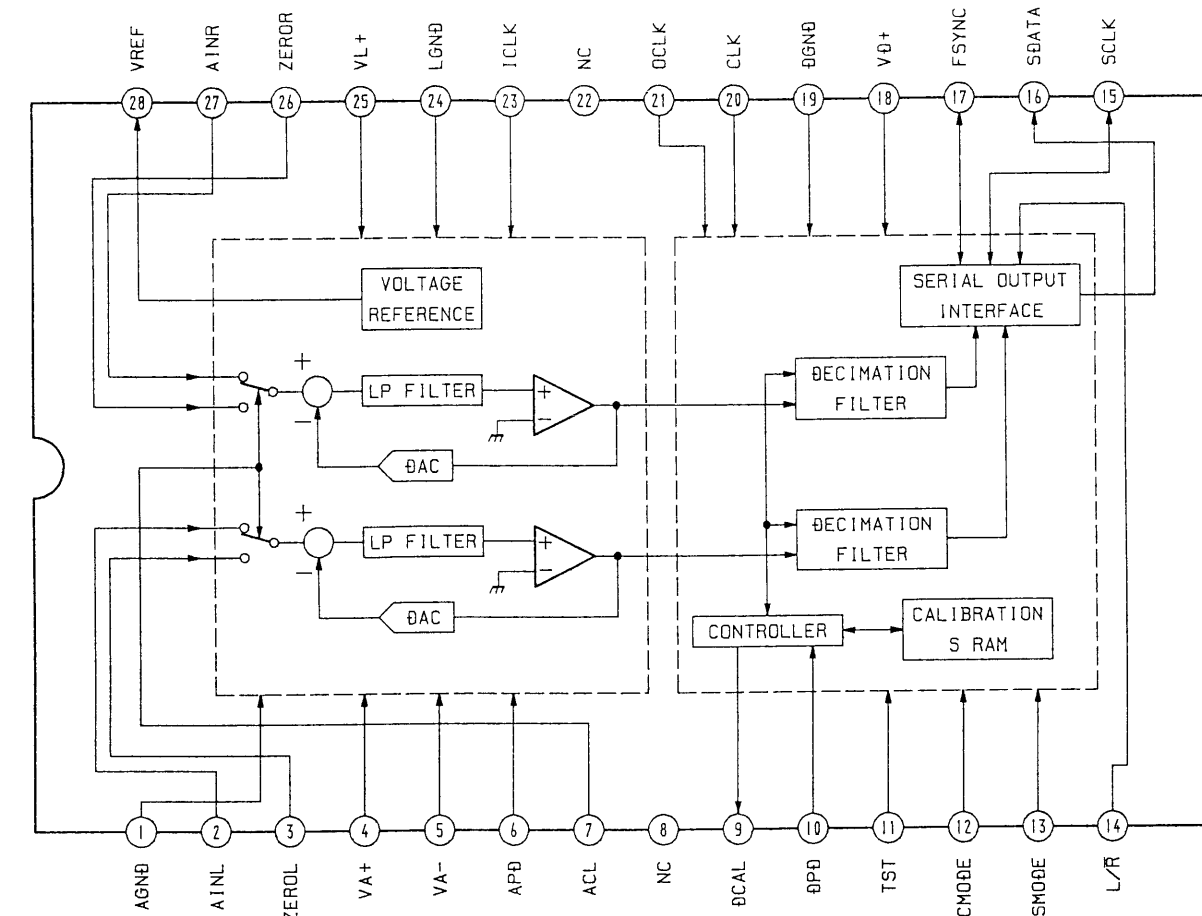
IC102, 104, 1003, 1104 LC7822



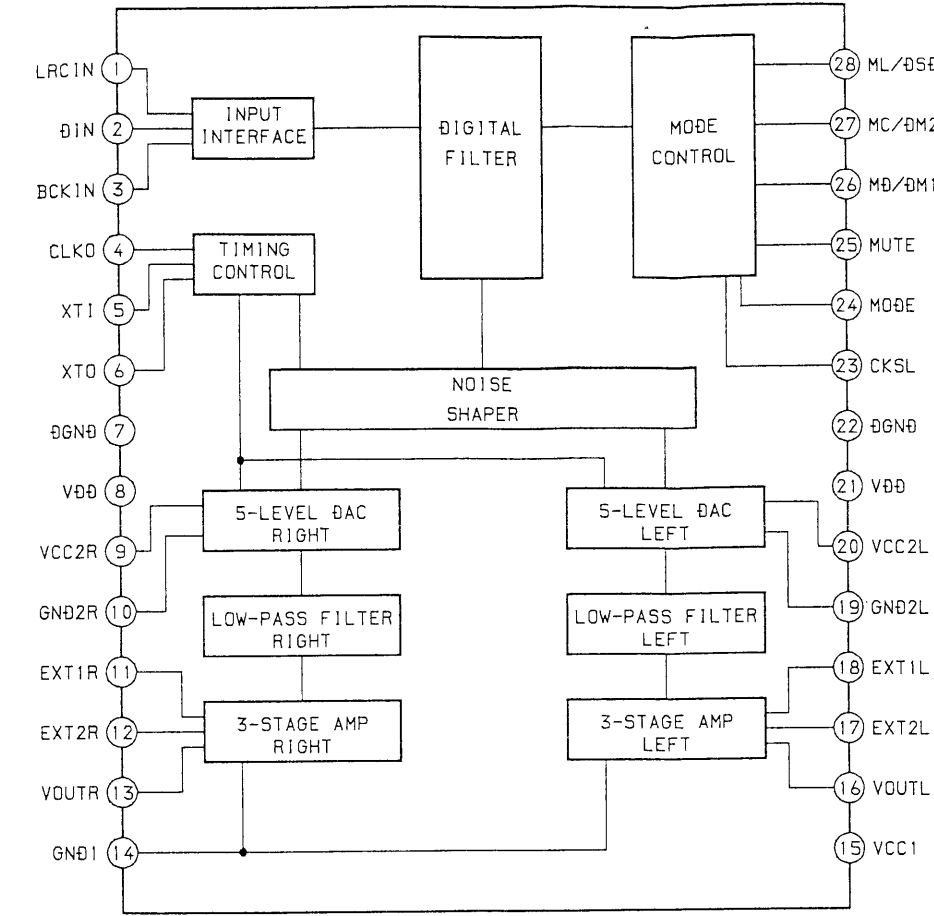
IC103, 1002, 1103 LC7821



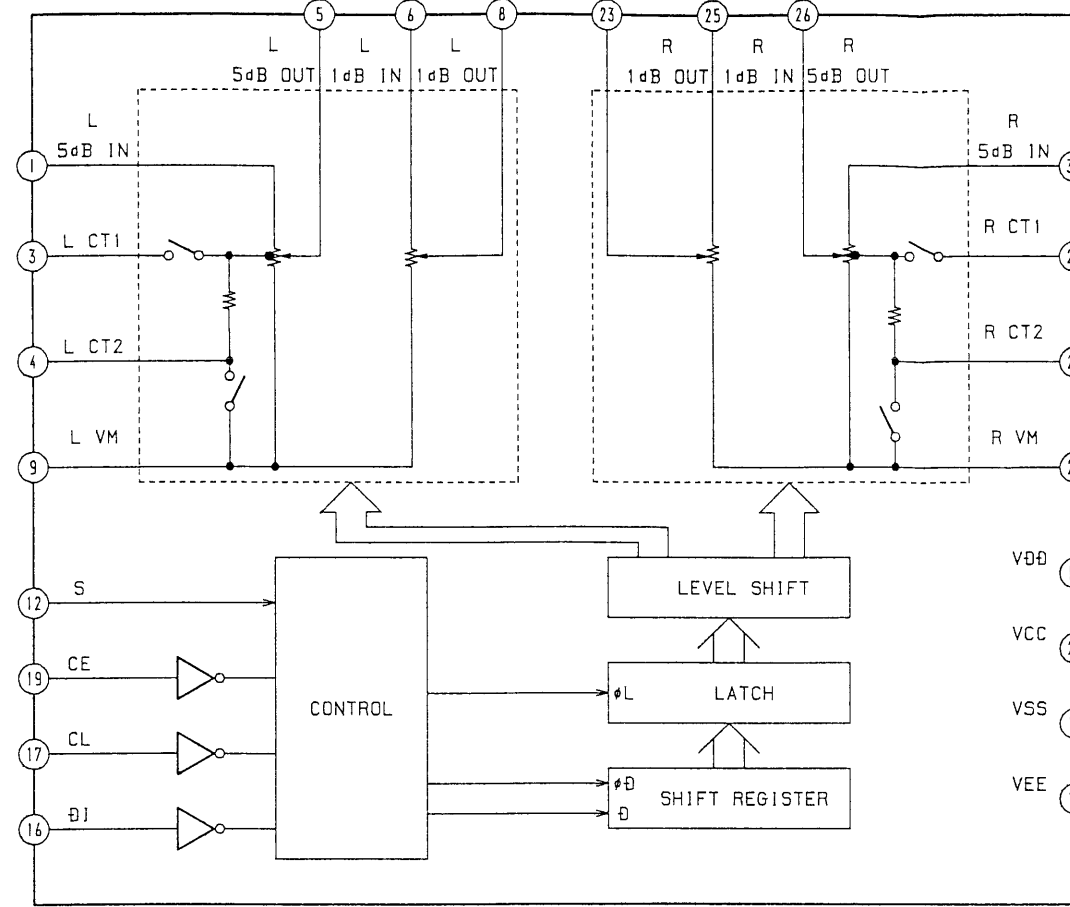
IC202 AK5369-VP



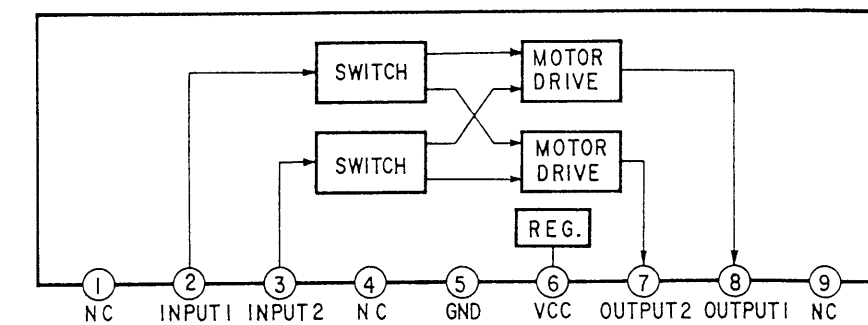
IC230 PCM1710U



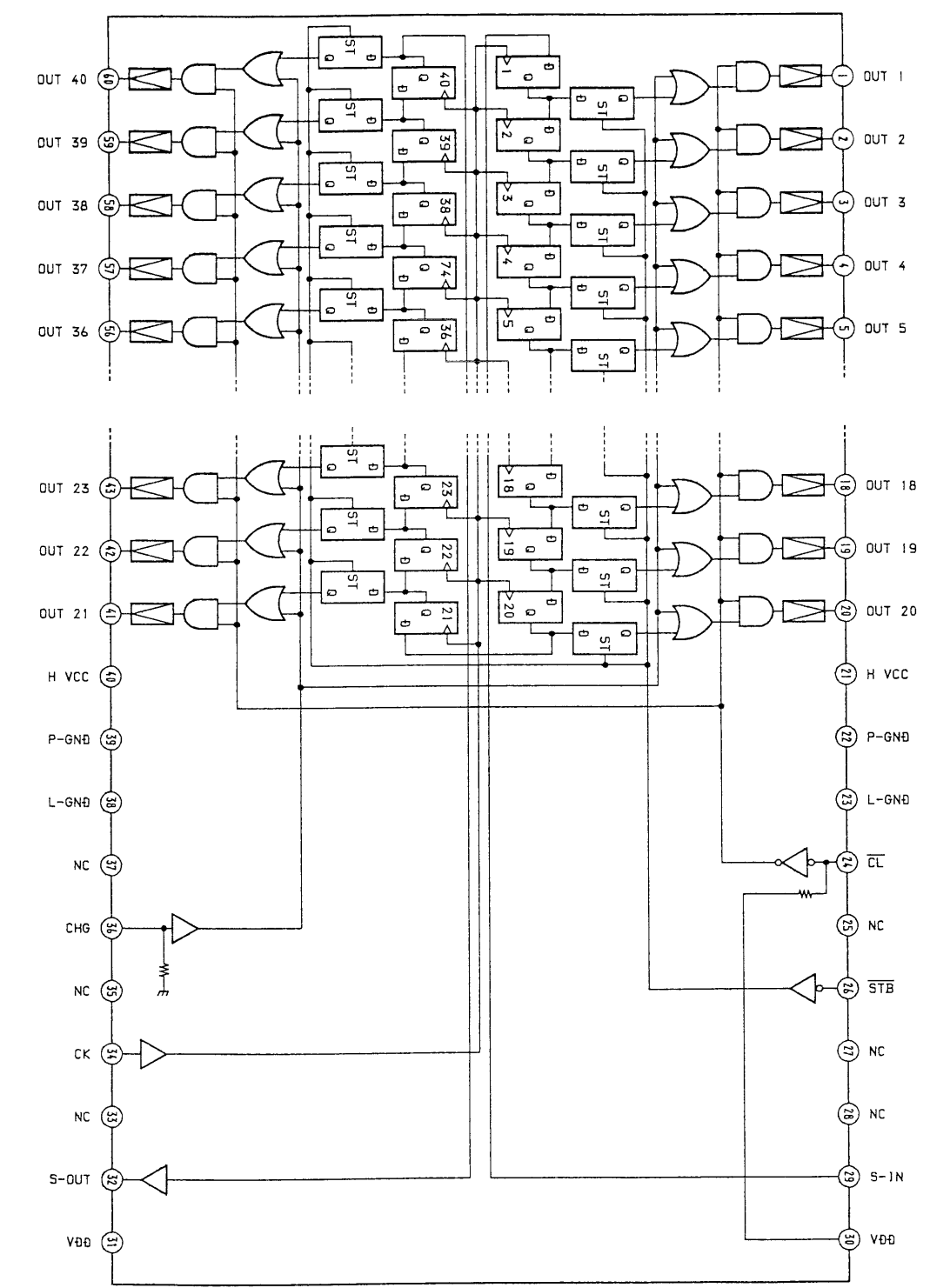
IC404 LC7536



IC406 BA6208

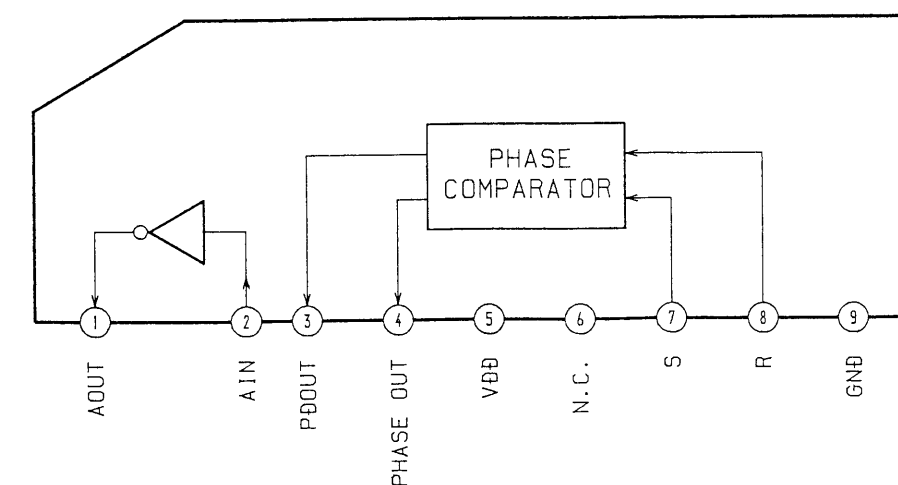


IC802, 803 TD62C950RF

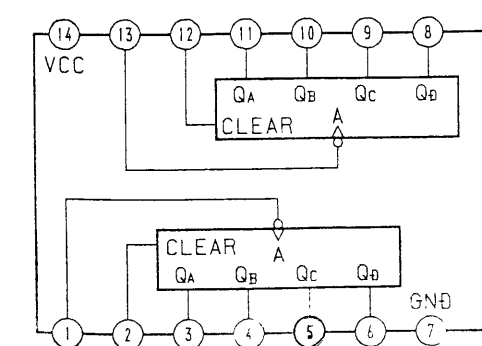


TA-AV790ESD

IC310 TC5081AP

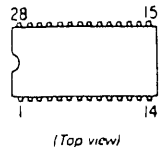


IC311 74HC393

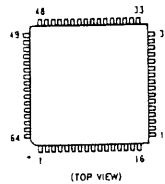


3-10. SEMICONDUCTOR LEAD LAYOUTS

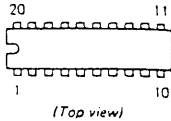
AK5369VP



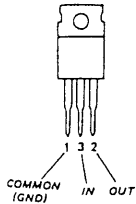
HD6433258B44F



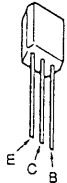
MT4C4256-8A



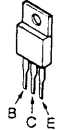
TA79005S  
TA7912S



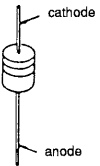
DTA114ES  
DTA124ES  
DTC114ES  
DTC124ES  
2SC2603-EF  
2SC2785-FEK



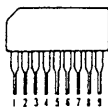
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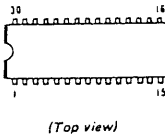
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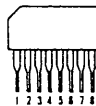
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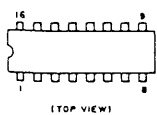
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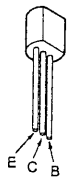
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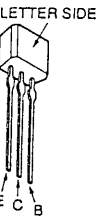
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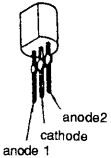
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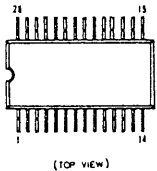
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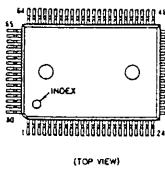
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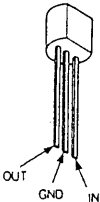
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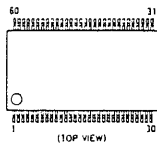
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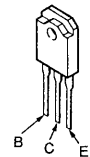
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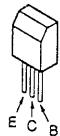
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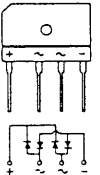
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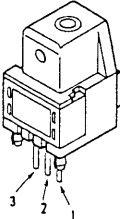
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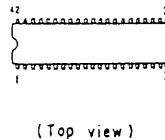
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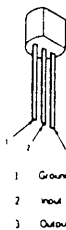
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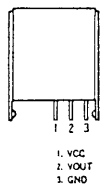
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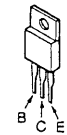
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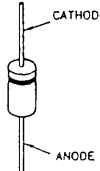
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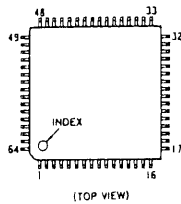
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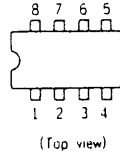
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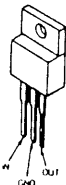
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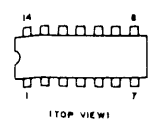
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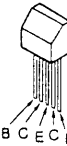
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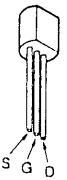
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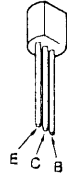
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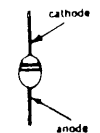
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2SA988-PAFAEA



U05G



### 3-11. IC PIN FUNCTIONS

#### • IC202 2-channels A/D Converter (AK5369VP)

Pin No.	Pin Name	I/O	Function
1	AGND	—	Analog part. Analog ground terminal.
2	AINL	I	L-ch analog input terminal.
3	ZEROL	I	L-ch zero level input terminal, connected to AGND.
4	VA+	—	Analog part. Analog plus power supply terminal, connected to A +5V.
5	VA-	—	Analog part. Analog minus power supply terminal, connected to A -5V.
6	APD	I	Analog part. Power down terminal, the power down mode is "H".
7	ACAL	I	Analog calibration terminal. Normally, connected to DCAL terminal. Input terminal of external signal is transferred due to this terminal level. "H": zero level input terminal (ZEROL, ZEROR), "L": analog input terminal (AINL, AINR)
8	NC	—	Out of use. (open)
9	DCAL	O	Digital calibration terminal. Offset calibration executing is shown. Normally, connected to ACAL terminal. The potential rises up momentarily after power down signal is input to DPD terminal. Then, it is held "L" after a period of 4096L $\bar{R}$ (about 85 ms at fs=48 kHz) from DPD terminal rising down, this shows to finish calibration.
10	DPD	I	Digital part. When power down terminal is "H", this terminal is power down mode.
11	TST	I	Test terminal, connected to DGND.
12	CMODE	I	Master clock choosing terminal, connected to DGND. "L": CLK=256fs (12.288 MHz @fs=48 kHz), "H": CLK=384fs (18.432 MHz @fs=48 kHz)
13	SMODE	I	Interface lock terminal, connected to DGND. Each clock terminal input/output of L/XR, SCLK, FSYNC are set. "L": slave mode (each terminal is all input), "H": master mode (each terminal is all output)
14	L/R	O	Input channel choosing terminal. fs clock is output. SDATA, after 1 SCLK from L/ $\bar{R}$ edge, is output. When the power supply is down (DPD="H"), the potential is "H". (master mode)
15	SCLK	O	Serial data clock terminal. At this terminal rising down, 1 bit of output data is outputed. 64fs clock signal is output. When the power supply is down (DPD="H"), the potential is "L". (master mode)
16	SDATA	O	Serial data output terminal. The data is output 18 bit from MSB at 2's complement, and it is output "L" for more than 19 pieces of SCLK input. When the power supply is down (DPD="H"), the potential is "L".
17	FSYNC	O	Frame synchronized clock terminal, out of use. (open)
18	VD+	—	Digital part. Power supply terminal, connected to D +5V.
19	DGND	—	Digital part. Ground terminal.
20	CLK	I	Master clock input terminal, CMODE="H": 384fs, CMODE="L": 256fs.
21	OCLK	O	128fs clock output terminal. When power supply is down (DPD="H"), this terminal is "L".
22	NC	—	Out of use. (open)
23	ICLK	I	128fs input terminal, this terminal is clock of analog part. Connected to OCLK terminal.
24	LGND	—	Analog part, logic ground terminal.
25	VL+	—	Analog part. Logic power supply terminal, connected to A +5V.
26	ZEROR	I	R-ch zero level input terminal, connected to AGND. Normally, R-ch offset is calibrated on this terminal input voltage is zero level.
27	AINR	I	R-ch analog input terminal.
28	VREF	O	Standard voltage output terminal, -3.68V. Input signal full scale depends on this voltage. When VREF=-3.68V, it is FS= $\pm 3.68V$ .

• IC305 Digital Audio Interface (LC8902)

Pin No.	Pin Name	I/O	Function
1	DIN1	I	Data input with amplifier, correspondence to TTL.
2	DIN2	I	
3	DIN3	I	
4	DIN4	I	
5	DGND	—	GND (ground)
6	DIN5	I	Data input without amplifier.
7	DOUT1	O	Data output, correspondence to CMOS.
8	DOUT2	O	
9	RC1	I	RC clock input.
10	RC2	O	RC clock output.
11	CLKMD	I	Output clock switching for CLK OUT2. (512fs: H, 384fs: L)
12	CLK	I	Switching for clock mode. (512fs: H, 384fs: L)
13	TEST1	I	Test mode input, normally “L”.
14	TEST2	I	
15	XMODE	I	Reset signal input for graphic controller (IC600), normally “L”.
16	AVDD	—	Analog power supply terminal. (A +5V)
17	R	I	VCO oscillation band adjustment input.
18	AGND	—	GND
19	VIN	I	Setting input for VCO self-running oscillator.
20	VCO	O	Output for LPF on PLL.
21	DGND	—	GND
22	SBSY	O	Sub-code interface block sync signal output. (out of use)
23	PW	O	Sub-code interface data output. (out of use)
24	SFSY	O	Sub-code interface frame sync signal output. (out of use)
25	SBCK	I	Sub-code interface bit clock input. (out of use)
26	DVDD	—	Digital power supply terminal. (D +5V)
27	XIN	I	Crystal oscillator input. (24.576 MHz)
28	XOUT	O	Crystal oscillator output. (24.576 MHz)
29	CLKOUT1	O	VCO, clock signal output of crystal oscillator.
30	CLKOUT2	O	Clock signal output of 256fs and 128fs.
31	ERROR	O	error muting signal output.
32	SUB1	O	Sampling frequency output.
33	SUB2	O	
34	BCLK	O	Bit clock signal output.
35	DATAOUT	O	Audio data output.
36	LRCK	O	L and R clock signal output.
37	EMPHA	O	Emphasis signal output. (ON: H, OFF, analog mode: L)
38	DO	O	Microcomputer interface output. (out of use)
39	DI	I	Microcomputer interface input.
40	CE	I	Microcomputer interface tip enable input.
41	CL	I	Microcomputer interface clock input.
42	DVDD	—	Digital power supply terminal. (D +5V)

• IC307 Digital Signal Processor (LC83015E)

Pin No.	Pin Name	I/O	Function
1 to 6	P0 to P4	I/O	General input/output port, a pull up resistor is installed.
7	ASI1	I	Audio data serial input 1.
8	BCK1	I	Bit clock input, for ASI1 input. (64fs or 32fs are applied.)
9	FS384I	I	384fs or 512fs input.
10	LRCK1	I	L/R channel distinction signal input. (H: L-ch, L: R-ch.)
11	ASI2	I	Audio data serial input 2.
12	BCK2	I	Bit clock input, for ASI2 input. (64fs or 32fs are applied.)
13	VDD1	—	Power supply terminal +5V.
14 to 17	TEST1 to 4	I	Test input, connect to GND (ground).
18	Vss1	—	GND
19	TEST5	O	Test output, to be not connected.
20	RAS	O	When accessing DRAM (IC308), RAS signal output.
21	CAS	O	When accessing DRAM (IC308), CAS signal output.
22	DWART	O	When accessing memory (IC308), data write signal out put.
23	DREAD	O	When accessing memory (IC308), data read signal output.
24	CE/CS	O	Tip enable signal output to SRAM and Para-SRAM. (out of use)
25 to 28	D7 to D4	I/O	Data input/output with memory. (out of use)
29 to 32	D3 to D0	I/O	Data input/output with memory (IC308).
33	Vss2	—	GND
34 to 42	A0 to A8	O	Address output to memory (IC308).
43 to 50	A9 to A16	O	Address output to memory. (out of use)
51	VDD2	—	Power supply terminal +5V.
52	OSC1	I	Input for crystal oscillator. (out of use, connected to GND.)
53	OSC2	O	Output for crystal oscillator. (out of use)
54	VSS3	—	GND
55	FS384O	O	384fs or 512fs output. (out of use)
56	FS192O	O	192fs or 256fs output. (out of use)
57	FS128O	O	128fs output. (out of use)
58	FS64O	O	64fs or 32fs output.
59	FS32O	O	32fs or 16fs output. (out of use)
60	LRCK0	O	1fs output.
61	AOWCK	O	2fs or 1fs output.
62	ASO	O	Audio data serial output 1.
63	AOTDF1	O	Audio data serial output 2. (out of use)
64	AOTDF2	O	Audio data serial output 3.
65	SI	I	Serial data input from microcomputer (IC600).
66	SICK	I	Clock input for serial data from microcomputer (IC600).
67	SIRQ	I	Request signal input into serial data input from micro computer (IC600).
68	SIACK	O	Serial-input executing output to microcomputer (IC600).
69	SRDY	I	Serial data-input exited input from microcomputer (IC600).
70	SO	O	Serial data output to microcomputer. (out of use)

Pin No.	Pin Name	I/O	Function
71	SOCK	I	Serial clock input for SO. (out of use)
72	$\overline{\text{SORQ}}$	I	Serial data-output request signal input. (out of use)
73	$\overline{\text{SOAK}}$	O	Serial data-output executing output. (out of use)
74	V <sub>ss4</sub>	—	GND
75	$\overline{\text{RES}}$	I	Reset signal input from microcomputer (IC600).
76	$\overline{\text{INT}}$	I	Interrupt request input. (connected to +5V.)
77	V <sub>DD3</sub>	—	Power supply terminal +5V.
78	$\overline{\text{SELC}}$	I	System clock switching (FS384I: L, Self-running oscillator clock: H). (Using FS384I)
79	$\overline{\text{SACK1}}$	I	FS3840 output switching (1/3 divided frequency output to FS1280: L, 1/4 divided frequency output to FS1280: H). (1/4 divided frequency to FS1280)
80	$\overline{\text{SACK2}}$	I	FS output clock switching (external input: L, self-running oscillator clock: H). (in use external input)

• IC600 Sub-Controller (HD6433258B44F)

Pin No.	Pin Name	I/O	Function															
1	XTAL	O	System clock output. (20 MHz)															
2	EXTAL	I	System clock input. (20 MHz)															
3	MD	I	} System mode input, fixed into “H”. (connected to +5V)															
4	MDO	I																
5	—	—	Out of use (GND).															
6	Vcc	—	Power supply terminal (+5V).															
7	STBY	I	Stand-by mode input, fixed into “H”. (connected to +5V)															
8	Vss	—	GND (ground)															
9 to 16	—	—	Out of use (GND).															
17	ATT	O	Serial data output to digital signal processor (IC307).															
18	RY-PW	O	Power relay (RY901) drive, normally “H”.															
19	SCK	O	Clock output to digital signal processor (IC307).															
20	RY-C	O	Center speaker relay (RY001) drive, normally “H”.															
21	RY-F	O	Front speaker relay (RY501) drive, normally “H”.															
22	RY-S	O	Rear speaker relay (RY701) drive, normally “H”.															
23	PROTECT	I	Protect signal input, normally “H”, abnormally “L”.															
24, 25	—	—	Out of use (GND).															
26	ERR	I	Error signal input, this is “H” when clock is not locked on digital input.															
27	FS1	I	<table><tr><td></td><td>32k</td><td>44.1k</td><td>48k</td><td>ERROR</td></tr><tr><td>FS1</td><td>H</td><td>L</td><td>L</td><td>H</td></tr><tr><td>FS2</td><td>H</td><td>L</td><td>H</td><td>L</td></tr></table> FS discriminating port.		32k	44.1k	48k	ERROR	FS1	H	L	L	H	FS2	H	L	H	L
	32k	44.1k		48k	ERROR													
FS1	H	L		L	H													
FS2	H	L	H	L														
28	FS2	I																
29	EMP	I	Emphasis input, on: “H”, off or analog mode: “L”.															
30	PRT	O	Input-switching output to digital signal processor (IC307). (digital: H, analog: L)															
31	Vcc	—	Power supply terminal (+5V).															
32	DPD	O	Reset output to A/D converter (IC202), normally “H”.															
33	XMD	O	Reset output to digital audio interface (IC305), nor mally “L”.															
34	INIT	O	Reset signal output to digital signal processor (IC307), normally “L”.															
35	LDIR	O	Data latch output to digital signal interface (IC305), normally “H”.															
36	LDAF	O	Data latch output to D/A converter (IC210), normally “L”.															
37	LDAS	O	Data latch output to D/A converter (IC220), normally “L”.															
38	—	—	Out of use (GND).															
39	FS32	O	FS 32 kHz/44 kHz, 48 kHz output, for PLL circuit switching, normally “H”.															
40	—	—	Out of use (GND).															
41	MUTA	O	Muting signal output to speaker, normally “L”.															
42	MUTR	O	Out of use (GND).															
43	MUTE	O	Muting signal output at the first part of amplifier, normally “H”.															
44	SRDY	O	Ready signal output to digital signal processor (IC307), normally “L”.															
45	SIAM	I	Access-confirming signal input to digital signal proc essor (IC307), normally “L”.															
46	SIRQ	O	Requesting signal output to digital signal processor (IC307), normally “L”.															
47	DEM1	O	<table><tr><td></td><td>44.1kHz</td><td>OFF</td><td>48kHz</td><td>32kHz</td></tr><tr><td>DEM1</td><td>H</td><td>L</td><td>H</td><td>L</td></tr><tr><td>DEM0</td><td>H</td><td>L</td><td>L</td><td>H</td></tr></table> De-emphasis seting.		44.1kHz	OFF	48kHz	32kHz	DEM1	H	L	H	L	DEM0	H	L	L	H
	44.1kHz	OFF		48kHz	32kHz													
DEM1	H	L		H	L													
DEM0	H	L	L	H														
48	DEM0	O																
49	DIR	O	Source direct switch. (ON: L, OFF: H)															
50	C/S	O	Surround-sound switch. (DOLBY: “H”, the other: “L”)															

Pin No.	Pin Name	I/O	Function								
51	MV-	O	Volume down controlled output, normally "H".								
52	MV+	O	Volume up controlled input, normally "H".								
53	SUR1	O		TV ON	TV OFF	TV DIR	DIG	ELSE ON	ELSE OFF	ELSE DIR	Surround-sound switch.
54	SUR2	O	SUR1	L	H	H	L	L	H	H	
			SUR2	L	H	L	L	L	H	H	
55	—	—	Out of use (GND).								
56	SREQ	O	Slave requesting data output to microcomputer (IC801).								
57	UCLK	I	Clock signal input from microcomputer (IC801).								
58	UDAT	I	Data signal input from microcomputer (IC801).								
59	MREQ	I	Request signal input from microcomputer (IC801).								
60	CL	O	Clock signal output to function IC.								
61	DI	O	Data signal output to function IC.								
62	CE	O	Data latch output to audio selector (IC102, 103, 104).								
63	CE	O	Data latch output to video selector (IC1002, 1103, 1104).								
64	URES	I	Reset signal input from microcomputer (IC801), normally "H".								



• IC801 Main Controller (HD6433248B43F)

Pin No.	Pin Name	I/O	Function
1	XTAL	O	Clock output.
2	EXTAL	I	Clock input.
3 to 6			Out of use. (connected to +5V)
7	V <sub>DD</sub>	—	Power supply terminal +5V.
8	GND	—	GND. (ground)
9	KO0	O	} Key output.
10	KO1	O	
11 to 16			Out of use. (open)
17	FLDATA	O	Data output for FL indicator.
18			Out of use. (open)
19	FLCLK	O	Clock output for FL indicator.
20 to 22			Out of use. (open)
23	KI0	I	} Key input.
24	KI1	I	
25	KI2	I	
26	KI3	I	
27	KI4	I	
28 to 30			Out of use. (open)
31	V <sub>DD</sub>	—	Power supply terminal +5V.
32 to 39			Out of use. (open)
40	GND	—	GND
41 to 45			Out of use. (open)
46	DATA	I	Circs signal input from remote commander receiver (IC804).
47	FLCE	O	Latch out put to FL indicator drive (IC802, 803).
48	POW	I	Power switch (S801) on input.
49	UCLK	O	Clock output to microcomputer (IC600).
50	UDATA	I/O	Data input/output from/to microcomputer (IC600).
51	MREQ	O	Request output to microcomputer (IC600).
52	SREQ	I	Request input/output from microcomputer (IC600).
53 to 57			Out of use. (open)
58	URES	O	Reset output to microcomputer (IC600).
59 to 61			Out of use. (open)
62	CLR	O	Clear output to FL indicator drive (IC802, 803).
63	STOP	I	Power supply supervising port input.
64	RESET	I	Reset input from power part.

## SECTION 4

### EXPLODED VIEWS

#### NOTE:

- Items marked “ \* ” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The mechanical parts with no reference number in the exploded views are not supplied.

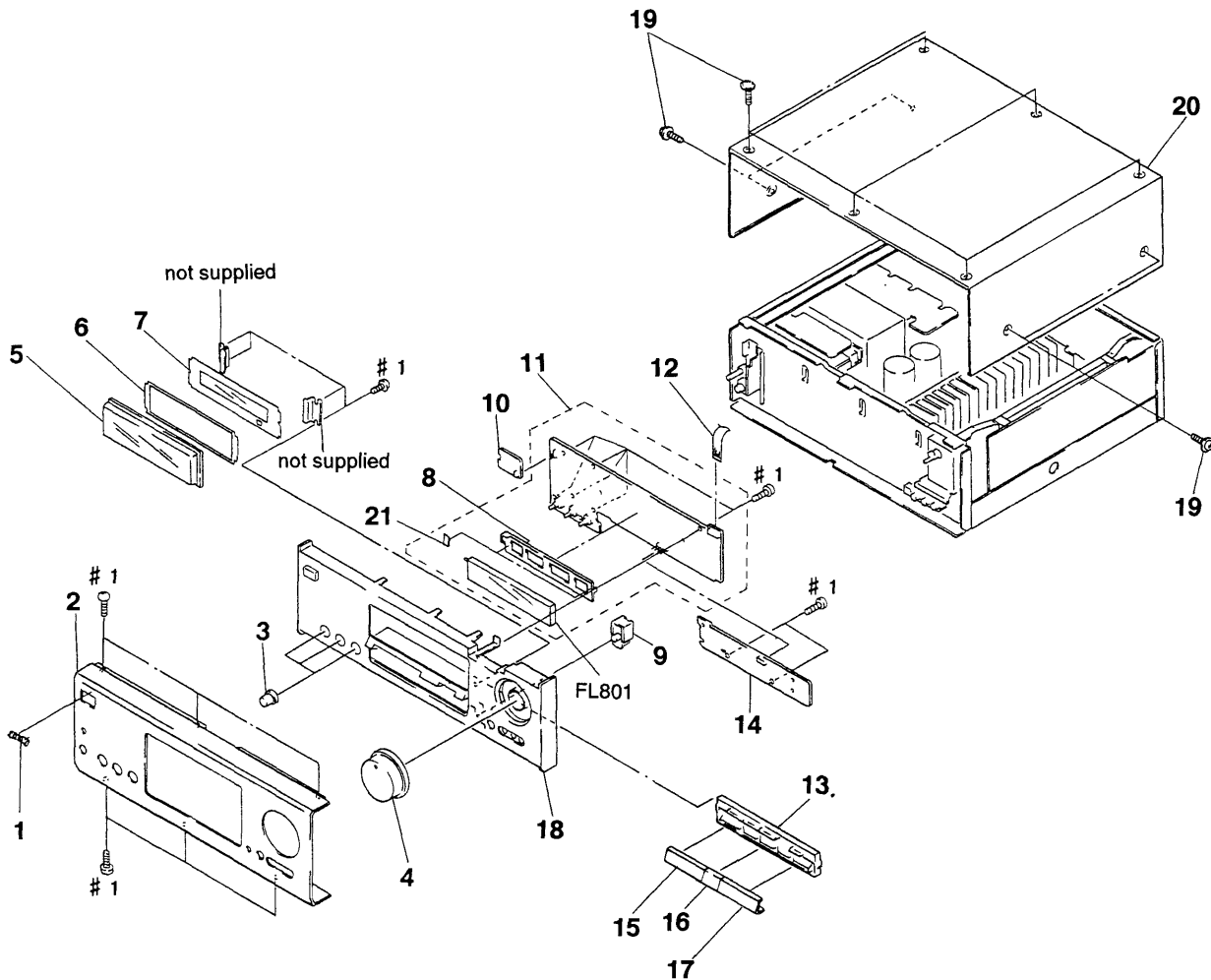
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation  
G : German model

The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

#### Note:

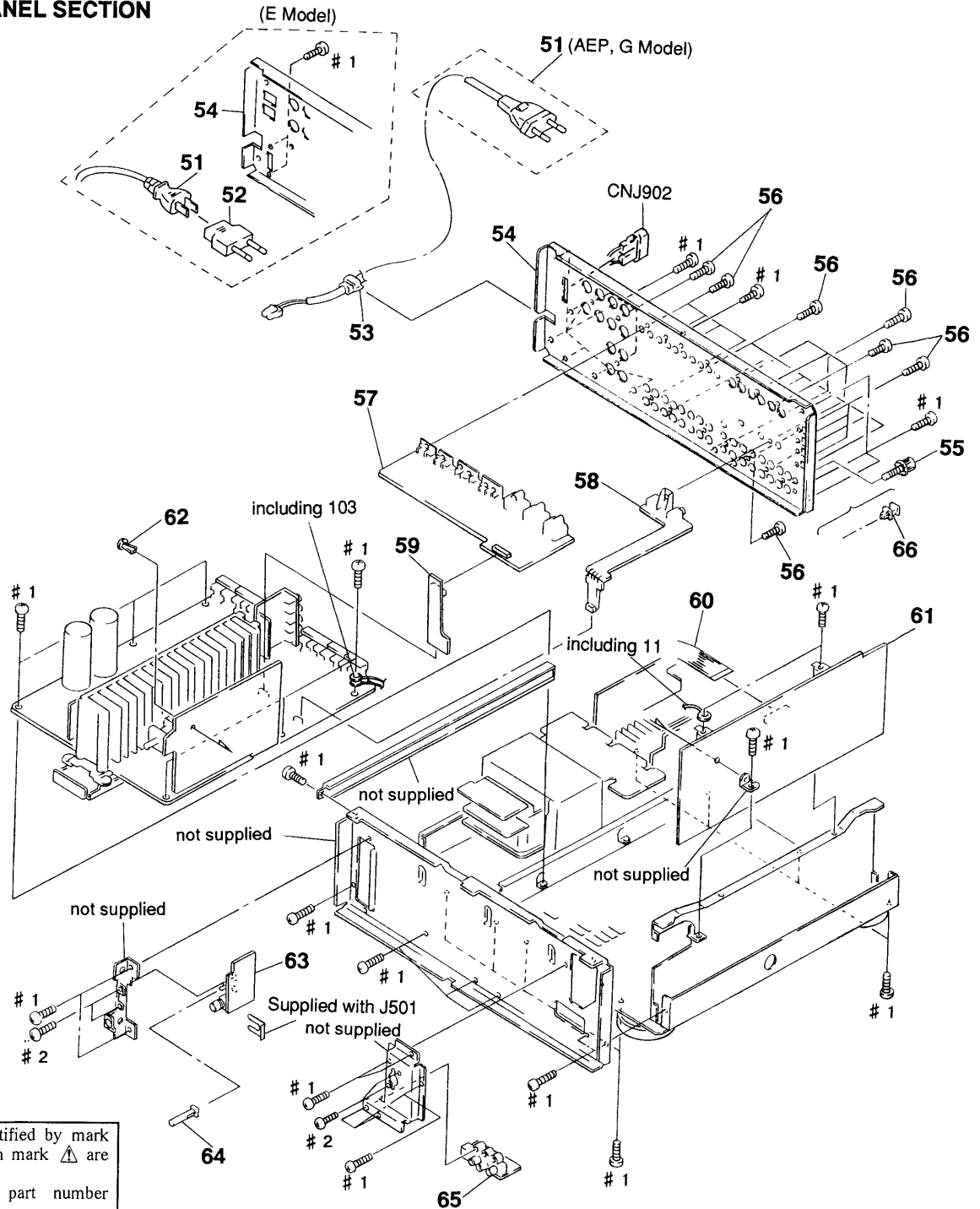
There are two type of AEP models which are depend on countries.  
AEP2: Model for Scandinavian countries.Switzerland, Spain and Portugal  
AEP1: Model for other European countries

#### 4-1. FRONT PANEL SECTION



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
1	4-942-568-01	EMBLEM (NO. 5), SONY		12	1-590-882-11	WIRE, FLAT TYPE (15 CORE)	
2	4-966-127-21	PANEL (G), FRONT		13	X-4944-860-1	BUTTON (BASE) ASSY	
3	X-3365-387-1	KNOB (BAL) ASSY (B)		* 14	1-652-505-11	KEY BOARD	
4	X-4942-798-1	KNOB (R53) ASSY		15	4-966-139-01	BUTTON (F) (VIDEO)	
5	4-966-131-01	WINDOW, TRANSPARENT		16	4-966-139-11	BUTTON (F) (MIX)	
6	4-966-132-01	SPACER (G)		17	4-966-139-21	BUTTON (F) (AUDIO)	
7	4-966-130-12	FILTER (A)		18	X-4944-858-1	BASE ASSY, FRONT PANEL	
* 8	4-966-143-01	HOLDER (S), FL TUBE		19	3-704-366-01	SCREW (CASE) (M3X8)	
9	4-966-142-01	BUTTON (R1)		20	4-966-116-01	CASE	
* 10	1-652-506-11	P-SW BOARD		* 21	4-921-941-81	CUSHION (FL)	
* 11	A-4371-604-A	PANEL BOARD, COMPLETE		FL801	1-517-244-11	INDICATOR TUBE, FLUORESCENT	

## 4-2. BACK PANEL SECTION



The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description
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$\triangle$ 51	1-559-297-31	CODE, POWER (E)
$\triangle$ 51	1-574-383-11	CORD, POWER (AEP1, AEP2, G)
$\triangle$ 52	1-569-007-11	ADAPTER, CONVERSION 2P (E)
53	2-352-626-01	BUSHING, CORD (E)
* 53	3-703-244-00	BUSHING (2104), CORD (AEP1, AEP2, G)
* 54	4-966-126-23	PANEL, BACK (AEP1)
* 54	4-966-126-33	PANEL, BACK (AEP2)
* 54	4-966-126-43	PANEL, BACK (G)
* 54	4-966-126-51	PANEL, BACK (E)
55	4-947-010-01	SCREW, FEEDER FIXED
56	3-704-515-11	SCREW (BV/RING)

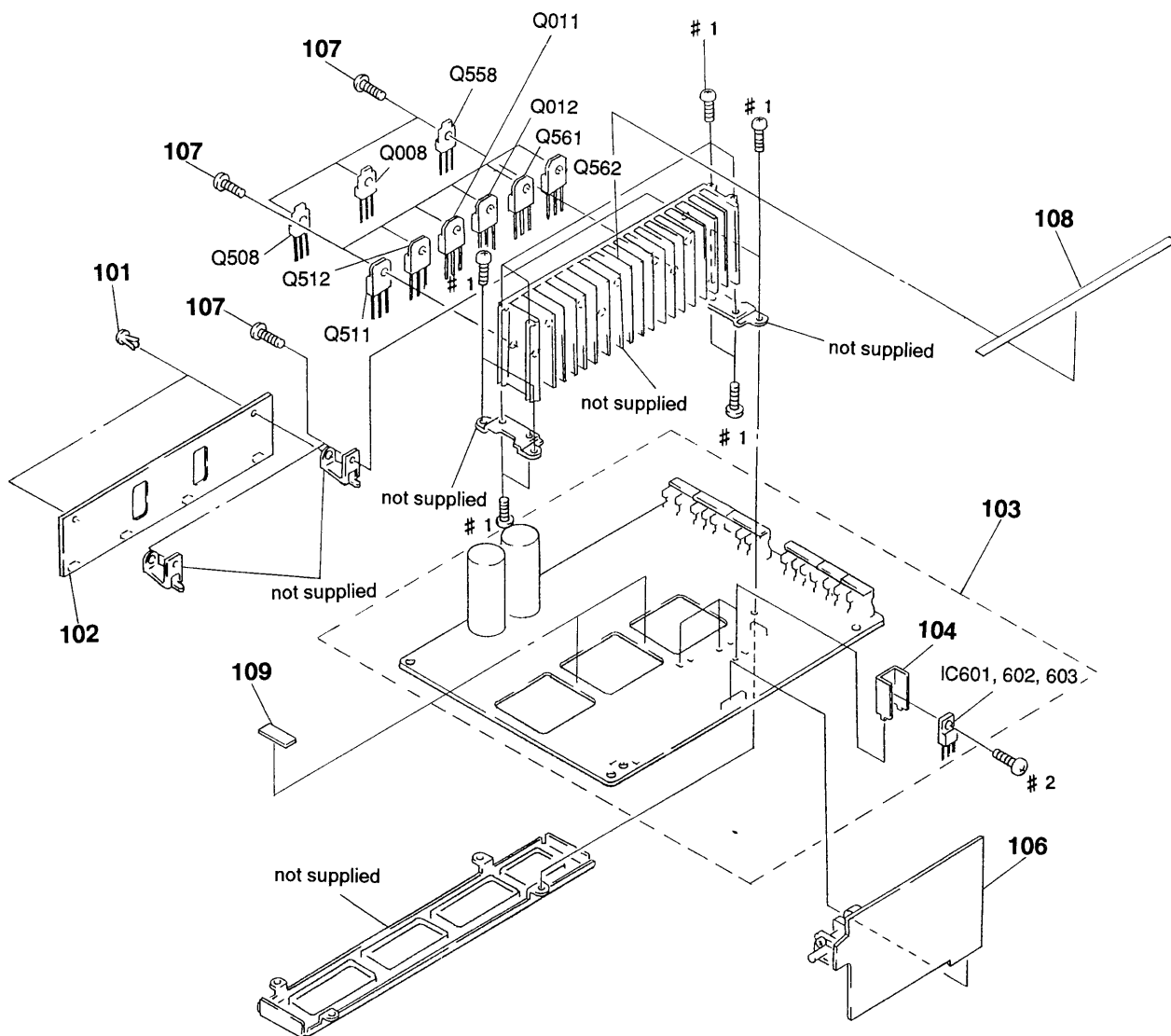
Remark
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Ref. No.	Part No.	Description
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* 57	A-4371-115-A	VIDEO BOARD, COMPLETE
* 58	1-653-796-11	SIRCS BOARD
* 59	1-652-495-11	CN-V BOARD
60	1-690-782-11	WIRE (FLAT TYPE) (29 CORE)
* 61	A-4371-106-A	DSP BOARD, COMPLETE
62	4-812-134-00	RIVET NYLON, 3.5
* 63	1-652-511-11	H.P BOARD
64	4-966-140-01	BUTTON (A)
* 65	1-652-510-11	VIDEO 4 BOARD
66	1-251-199-11	CAP (OPT)
$\triangle$ CNJ902	1-526-794-11	OUTLET, AC (AEP, G)

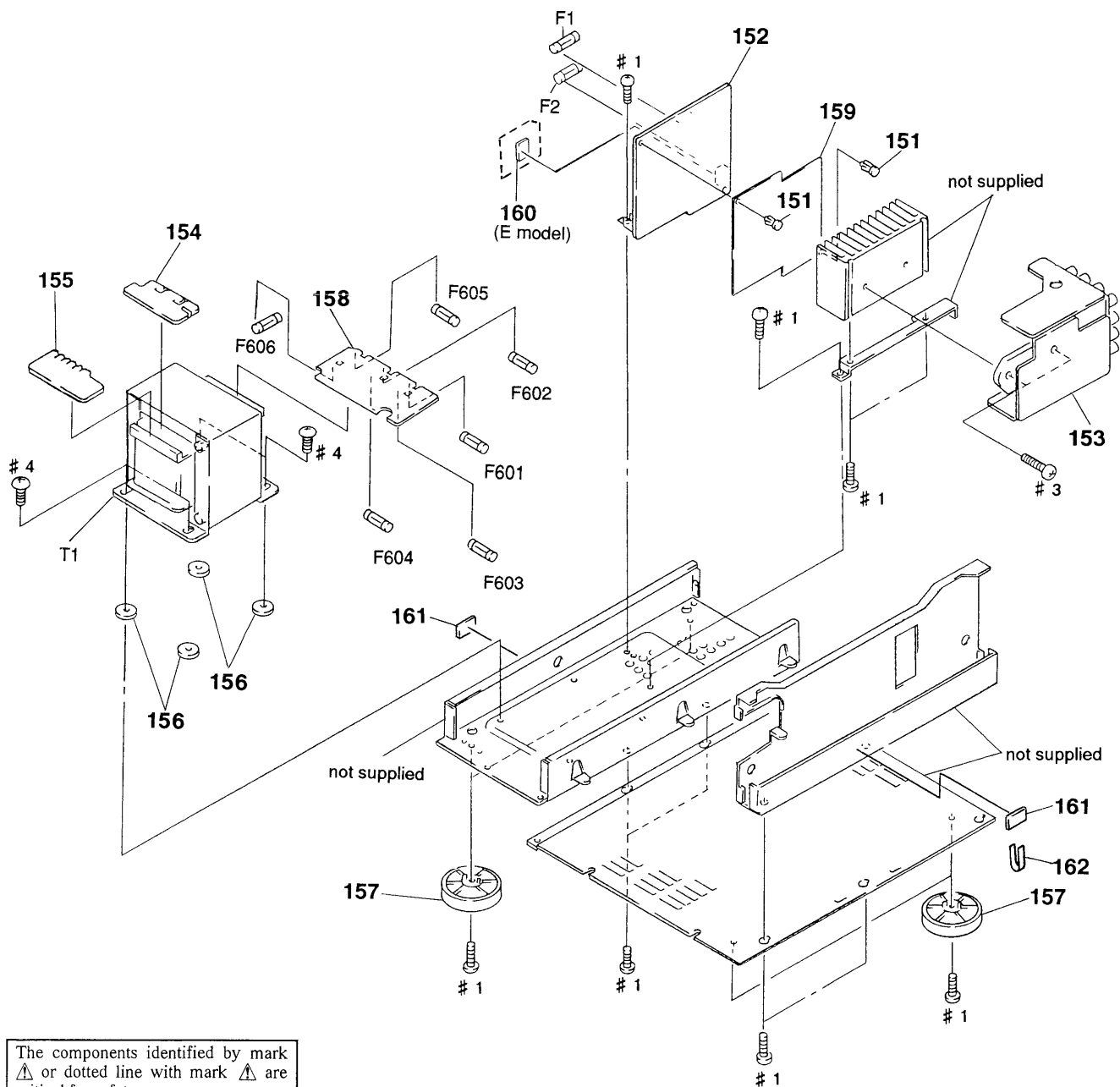
Remark
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
### 4-3. MAIN BOARD SECTION















Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	4-812-134-00	RIVET NYLON, 3.5		IC601	8-759-231-58	IC TA7812S	
* 102	A-4371-120-A	AMP-A BOARD, COMPLETE (E)		IC602	8-759-245-86	IC TA7912S	
* 102	A-4371-614-A	AMP-A BOARD, COMPLETE (G)		IC603	8-759-231-53	IC TA7805S	
* 102	A-4371-681-A	AMP-A BOARD, COMPLETE (AEP1, AEP2)		Q008	8-729-141-89	TRANSISTOR 2SD1585-K	
* 103	A-4371-605-A	MAIN BOARD, COMPLETE (AEP1, E)		Q011	8-729-383-73	TRANSISTOR 2SC2837	
* 103	A-4371-609-A	MAIN BOARD, COMPLETE (G)		Q012	8-729-318-63	TRANSISTOR 2SA1186	
* 103	A-4371-790-A	MAIN BOARD, COMPLETE (AEP2)		Q508	8-729-141-89	TRANSISTOR 2SD1585-K	
* 104	4-880-403-11	HEAT SINK		Q511	8-729-383-73	TRANSISTOR 2SC2837	
* 106	A-4371-682-A	VOL BOARD, COMPLETE (AEP1, AEP2, G)		Q512	8-729-318-63	TRANSISTOR 2SA1186	
* 106	A-4371-768-A	VOL BOARD, COMPLETE (E)		Q558	8-729-141-89	TRANSISTOR 2SD1585-K	
107	3-905-609-01	SCREW (TRANSISTOR)		Q561	8-729-383-73	TRANSISTOR 2SC2837	
108	4-927-653-01	SHEET (F/P)		Q562	8-729-318-63	TRANSISTOR 2SA1186	
109	3-302-067-00	RETAINER, PC BOARD					

#### 4-4. CHASSIS SECTION



The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	4-812-134-00	RIVET NYLON, 3.5		162	4-969-920-01	SHEET (GROUND)	
* 152	A-4371-607-A	AC BOARD, COMPLETE (AEP1, AEP2, G)		 F1	1-532-237-00	FUSE, TIME LAG (T3.15A 250V)	
* 152	A-4371-615-A	AC BOARD, COMPLETE (E)		 F2	1-532-237-00	FUSE, TIME LAG (T3.15A 250V) (E)	
* 153	A-4371-606-A	AMP-S BOARD, COMPLETE (AEP1, E)		 F2	1-532-286-00	FUSE (2.5A 250V) (AEP, G)	
* 153	A-4371-608-A	AMP-S BOARD, COMPLETE (AEP2)		 F601	1-532-299-00	FUSE (5.0A 250V)	
* 153	A-4371-613-A	AMP-S BOARD, COMPLETE (G)		 F602	1-532-299-00	FUSE (5.0A 250V)	
* 154	1-652-497-11	CN-AC BOARD (AEP1, AEP2, G)		 F603	1-532-259-00	FUSE (1.6A 250V)	
* 155	1-652-496-11	CN-M BOARD		 F604	1-532-259-00	FUSE (1.6A 250V)	
156	4-916-751-11	WASHER		 F605	1-532-259-00	FUSE (1.6A 250V)	
157	X-4941-617-1	FOOT (58175) ASSY		 F606	1-532-259-00	FUSE (1.6A 250V)	
* 158	1-653-797-11	CN-S BOARD		 T1	1-426-948-11	TRANSFORMER, POWER (AEP1, G)	
159	4-967-635-01	SHEET (INSULATING)		 T1	1-426-949-11	TRANSFORMER, POWER (AEP2)	
160	4-969-894-01	SPACER (V.S) (E)		 T1	1-426-950-11	TRANSFORMER, POWER (E)	
161	4-930-336-31	FOOT (FELT)					

## SECTION 5

### ELECTRICAL PARTS LIST

## NOTE:

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

## Note:

There are two type of AEP models which are depend on countries.

AEP2 model: Model for Scandinavian countries.  
Switzerland, Spain and Portugal

AEP1 model: Model for other European countries

• Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.

• Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• -XX, -X mean standardized parts, so they may have some difference from the original one.

• Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

• Abbreviation  
G : German model

• Color Indication of Appearance Parts Example:  
KNOB, BALANCE (WHITE) ... (RED)

↑                      ↑  
Parts color      Cabinet's color

## • RESISTORS

All resistors are in ohms  
METAL: Metal-film resistor  
METAL OXIDE: Metal Oxide-film resistor  
F : nonflammable

## • SEMICONDUCTORS

In each case, u:  $\mu$ , for example:  
uA...:  $\mu$  A..., uPA...:  $\mu$  PA..., uPB...:  $\mu$  PB...,  
uPC...:  $\mu$  PC..., uPD...:  $\mu$  PD...

## • CAPACITORS

$\mu$ F :  $\mu$  F

## • COILS

$\mu$ H :  $\mu$  H

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4371-607-A	AC BOARD, COMPLETE (AEP1, AEP2, G) *****		$\Delta$ F2	1-532-237-00	FUSE TIME LAG (T3. 15A) (E)	
*	A-4371-615-A	AC BOARD, COMPLETE (E) *****		< TRANSISTOR >			
	1-533-225-11	HOLDER, FUSE		Q901	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		< CAPACITOR >		Q902	8-729-209-15	TRANSISTOR 2SD2012	
$\Delta$ C901	1-161-744-51	CERAMIC 0. 01 $\mu$ F 400V		Q903	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C903	1-164-096-11	CERAMIC 0. 01 $\mu$ F 50V		Q904	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C904	1-124-557-11	ELECT 1000 $\mu$ F 20% 25V		Q905	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C905	1-124-907-11	ELECT 10 $\mu$ F 20% 50V		Q906	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C906	1-124-903-11	ELECT 1 $\mu$ F 20% 50V		< RESISTOR >			
C907	1-124-907-11	ELECT 10 $\mu$ F 20% 50V		R901	1-249-425-11	CARBON 4. 7K 5% 1/4W F	
C908	1-124-464-11	ELECT 0. 22 $\mu$ F 20% 50V		R902	1-247-736-11	CARBON 56 5% 1/2W F	
C937	1-164-096-11	CERAMIC 0. 01 $\mu$ F 50V				(AEP1, AEP2, G)	
		< CONNECTOR >		R902	1-249-396-11	CARBON 18 5% 1/4W F (E)	
CN901	1-564-321-00	PIN, CONNECTOR 2P		R903	1-249-417-11	CARBON 1K 5% 1/4W F	
$\Delta$ *CN902	1-564-321-21	PIN, CONNECTOR 2P		R904	1-249-436-11	CARBON 39K 5% 1/4W	
CN903	1-691-766-11	PLUG (MICRO CONNECTOR) 4P		R905	1-249-429-11	CARBON 10K 5% 1/4W	
CN904	1-564-321-00	PIN, CONNECTOR 2P (AEP1, AEP2, G)		R906	1-249-426-11	CARBON 5. 6K 5% 1/4W	
CN904	1-568-106-11	PIN, CONNECTOR 4P (E)		R907	1-249-429-11	CARBON 10K 5% 1/4W	
		< AC OUTLET >		R908	1-249-426-11	CARBON 5. 6K 5% 1/4W	
$\Delta$ CNJ901	1-540-041-11	OUTLET, AC (NONPOLAR) (2P) (E)		R909	1-249-417-11	CARBON 1K 5% 1/4W F	
		< DIODE >		R910	1-249-437-11	CARBON 47K 5% 1/4W	
D901	8-719-987-63	DIODE 1N4148M		R913	1-249-429-11	CARBON 10K 5% 1/4W	
D903	8-719-200-02	DIODE 10E2		R914	1-249-417-11	CARBON 1K 5% 1/4W F	
D904	8-719-200-02	DIODE 10E2		< RELAY >			
D905	8-719-200-02	DIODE 10E2		$\Delta$ RY901	1-515-617-11	RELAY	
D906	8-719-200-02	DIODE 10E2		< TRANSFORMER >			
D907	8-719-987-63	DIODE 1N4148M		$\Delta$ T901	1-448-523-11	TRANSFORMER, POWER (E)	
D908	8-719-933-41	DIODE HZS6C3L		$\Delta$ T901	1-449-071-21	TRANSFORMER, POWER (AEP1, AEP2, G)	
D909	8-719-933-41	DIODE HZS6C3L		< SWITCH >			
D910	8-719-010-23	DIODE UZ-3. 6BSB		$\Delta$ VS901	1-571-437-11	SWITCH, POWER VOLTAGE CHANGE (VOLTAGE SELECT) (E)	
D911	8-719-987-63	DIODE 1N4148M		*****			
		< FUSE >					
$\Delta$ F1	1-532-237-00	FUSE TIME LAG (T3. 15A)					
$\Delta$ F2	1-532-286-00	FUSE (2. 5A) (AEP1, AEP2, G)					

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4371-120-A	AMP-A BOARD, COMPLETE (E) *****		< TRANSISTOR >			
*	A-4371-614-A	AMP-A BOARD, COMPLETE (G) *****		Q001	8-729-620-18	TRANSISTOR 2SA979-FG	
*	A-4371-681-A	AMP-A BOARD, COMPLETE (AEP1, AEP2) *****		Q002	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
				Q003	8-729-119-79	TRANSISTOR 2SC2785-FEK	
				Q004	8-729-201-56	TRANSISTOR 2SK246-GR2	
				Q005	8-729-119-79	TRANSISTOR 2SC2785-FEK	
				Q006	8-729-104-91	TRANSISTOR 2SA1383	
				Q007	8-729-104-18	TRANSISTOR 2SC3514	
				Q501	8-729-620-18	TRANSISTOR 2SA979-FG	
				Q502	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
				Q503	8-729-119-79	TRANSISTOR 2SC2785-FEK	
				Q504	8-729-201-56	TRANSISTOR 2SK246-GR2	
				Q505	8-729-119-79	TRANSISTOR 2SC2785-FEK	
				Q506	8-729-104-91	TRANSISTOR 2SA1383	
				Q507	8-729-104-18	TRANSISTOR 2SC3514	
				Q551	8-729-620-18	TRANSISTOR 2SA979-FG	
				Q552	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
				Q553	8-729-119-79	TRANSISTOR 2SC2785-FEK	
				Q554	8-729-201-56	TRANSISTOR 2SK246-GR2	
				Q555	8-729-119-79	TRANSISTOR 2SC2785-FEK	
				Q556	8-729-104-91	TRANSISTOR 2SA1383	
				Q557	8-729-104-18	TRANSISTOR 2SC3514	
				< RESISTOR >			
				R001	1-247-713-11	CARBON 1K 5% 1/4W F	
				R002	1-249-497-11	CARBON 33K 5% 1/4W	
				R003	1-247-711-11	CARBON 680 5% 1/4W F	
				△R004	1-247-704-11	CARBON 220 5% 1/4W F	
				△R005	1-247-704-11	CARBON 220 5% 1/4W F	
				R006	1-259-436-11	CARBON 2.2K 5% 1/6W	
				R007	1-259-452-11	CARBON 10K 5% 1/6W	
				R008	1-259-464-11	CARBON 33K 5% 1/6W	
				R009	1-259-460-11	CARBON 22K 5% 1/6W	
				R010	1-249-709-11	CARBON 33K 5% 1/2W	
				R011	1-249-679-11	CARBON 1.8K 5% 1/2W	
				R012	1-247-706-11	CARBON 330 5% 1/4W F	
				R013	1-249-460-11	CARBON 15K 5% 1/4W	
				△R014	1-249-526-11	CARBON 82 5% 1/4W	
				△R015	1-249-522-11	CARBON 56 5% 1/4W	
				R501	1-247-713-11	CARBON 1K 5% 1/4W F	
				R502	1-249-497-11	CARBON 33K 5% 1/4W	
				R503	1-247-711-11	CARBON 680 5% 1/4W F	
				△R504	1-247-704-11	CARBON 220 5% 1/4W F	
				△R505	1-247-704-11	CARBON 220 5% 1/4W F	
				R506	1-259-436-11	CARBON 2.2K 5% 1/6W	
				R507	1-259-452-11	CARBON 10K 5% 1/6W	
				R508	1-259-464-11	CARBON 33K 5% 1/6W	
				R509	1-259-460-11	CARBON 22K 5% 1/6W	
				R510	1-249-709-11	CARBON 33K 5% 1/2W	
				< CAPACITOR >			
C001	1-126-059-11	ELECT 10uF 20% 50V					
C002	1-130-469-00	MYLAR 680PF 5% 50V					
C003	1-107-585-11	CERAMIC 5PF 0.25PF 500V					
C004	1-126-024-11	ELECT 220uF 20% 25V					
C005	1-126-051-11	ELECT 47uF 20% 50V					
C006	1-161-959-00	CERAMIC 22PF 10% 500V					
C007	1-161-959-00	CERAMIC 22PF 10% 500V					
C015	1-110-339-11	MYLAR 220PF 5% 50V					
C501	1-126-059-11	ELECT 10uF 20% 50V					
C502	1-130-469-00	MYLAR 680PF 5% 50V					
C503	1-107-585-11	CERAMIC 5PF 0.25PF 500V					
C504	1-126-024-11	ELECT 220uF 20% 25V					
C505	1-126-051-11	ELECT 47uF 20% 50V					
C506	1-161-959-00	CERAMIC 22PF 10% 500V					
C507	1-161-959-00	CERAMIC 22PF 10% 500V					
C515	1-110-339-11	MYLAR 220PF 5% 50V					
C551	1-126-059-11	ELECT 10uF 20% 50V					
C552	1-130-469-00	MYLAR 680PF 5% 50V					
C553	1-107-585-11	CERAMIC 5PF 0.25PF 500V					
C554	1-126-024-11	ELECT 220uF 20% 25V					
C555	1-126-051-11	ELECT 47uF 20% 50V					
C556	1-161-959-00	CERAMIC 22PF 10% 500V					
C557	1-161-959-00	CERAMIC 22PF 10% 500V					
C565	1-110-339-11	MYLAR 220PF 5% 50V					
				< CONNECTOR >			
CN561	1-691-767-11	PLUG (MICRO CONNECTOR) 5P					
* CN562	1-565-480-11	CONNECTOR, BOARD TO BOARD 4P					
* CN563	1-565-480-11	CONNECTOR, BOARD TO BOARD 4P					
* CN564	1-565-480-11	CONNECTOR, BOARD TO BOARD 4P					
* CN565	1-565-480-11	CONNECTOR, BOARD TO BOARD 4P					
				< DIODE >			
D001	8-719-987-63	DIODE 1N4148M					
D002	8-719-933-35	DIODE HZS6A3L					
D501	8-719-987-63	DIODE 1N4148M					
D502	8-719-933-35	DIODE HZS6A3L					
D551	8-719-987-63	DIODE 1N4148M					
D552	8-719-933-35	DIODE HZS6A3L					

The components identified by mark △ or dotted line with mark △ are critical for safety.  
Replace only with part number specified.

## AMP-A

## AMP-S

Ref. No.	Part No.	Description	Remark
R511	1-249-679-11	CARBON 1.8K 5% 1/2W	
R512	1-247-706-11	CARBON 330 5% 1/4W	F
R513	1-249-460-11	CARBON 15K 5% 1/4W	
△R514	1-249-526-11	CARBON 82 5% 1/4W	
△R515	1-249-522-11	CARBON 56 5% 1/4W	
R551	1-247-713-11	CARBON 1K 5% 1/4W	F
R552	1-249-497-11	CARBON 33K 5% 1/4W	
R553	1-247-711-11	CARBON 680 5% 1/4W	F
△R554	1-247-704-11	CARBON 220 5% 1/4W	F
△R555	1-247-704-11	CARBON 220 5% 1/4W	F
R556	1-259-436-11	CARBON 2.2K 5% 1/6W	
R557	1-259-452-11	CARBON 10K 5% 1/6W	
R558	1-259-464-11	CARBON 33K 5% 1/6W	
R559	1-259-460-11	CARBON 22K 5% 1/6W	
R560	1-249-709-11	CARBON 33K 5% 1/2W	
R561	1-249-679-11	CARBON 1.8K 5% 1/2W	
R562	1-247-706-11	CARBON 330 5% 1/4W	F
R563	1-249-460-11	CARBON 15K 5% 1/4W	
△R564	1-249-526-11	CARBON 82 5% 1/4W	
△R565	1-249-522-11	CARBON 56 5% 1/4W	
*****			
*	A-4371-606-A	AMP-S BOARD, COMPLETE (AEP1, E)	*****
*	A-4371-608-A	AMP-S BOARD, COMPLETE (AEP2)	*****
*	A-4371-613-A	AMP-S BOARD, COMPLETE (G)	*****
< CAPACITOR >			
C010	1-136-163-00	FILM 0.068uF 5% 50V	
C011	1-136-163-00	FILM 0.068uF 5% 50V	
C012	1-164-091-11	CERAMIC 0.0022uF 10% 50V	(AEP1, AEP2, E)
C012	1-164-093-11	CERAMIC 0.0047uF 10% 25V (G)	
C017	1-136-153-00	FILM 0.01uF 5% 50V (G)	
C510	1-136-163-00	FILM 0.068uF 5% 50V	
C511	1-136-163-00	FILM 0.068uF 5% 50V	
C512	1-136-165-00	FILM 0.1uF 5% 50V	
C513	1-124-471-00	ELECT 1000uF 20% 6.3V	
C514	1-164-091-11	CERAMIC 0.0022uF 10% 50V	(AEP1, AEP2, E)
C514	1-164-093-11	CERAMIC 0.0047uF 10% 25V (G)	
C517	1-136-153-00	FILM 0.01uF 5% 50V (G)	
C560	1-136-163-00	FILM 0.068uF 5% 50V	
C561	1-136-163-00	FILM 0.068uF 5% 50V	
C564	1-164-091-11	CERAMIC 0.0022uF 10% 50V	(AEP1, AEP2, E)
C564	1-164-093-11	CERAMIC 0.0047uF 10% 25V (G)	
C567	1-136-153-00	FILM 0.01uF 5% 50V (G)	
C701	1-124-907-11	ELECT 10uF 20% 50V	

Ref. No.	Part No.	Description	Remark
C702	1-162-286-31	CERAMIC 220PF 10% 50V	
C703	1-162-286-31	CERAMIC 220PF 10% 50V	
C704	1-124-443-00	ELECT 100uF 20% 10V	
C705	1-124-916-11	ELECT 22uF 20% 63V	
C706	1-124-122-11	ELECT 100uF 20% 50V	
C707	1-124-910-11	ELECT 47uF 20% 50V	
C708	1-136-165-00	FILM 0.1uF 5% 50V	
C709	1-136-163-00	FILM 0.068uF 5% 50V	
C710	1-136-163-00	FILM 0.068uF 5% 50V	
C711	1-162-191-31	CERAMIC 2.2PF 10% 50V	
C712	1-164-091-11	CERAMIC 0.0022uF 10% 50V	(AEP1, AEP2, E)
C712	1-164-093-11	CERAMIC 0.0047uF 10% 25V (G)	
C713	1-136-161-00	FILM 0.047uF 5% 50V (G)	
C751	1-124-907-11	ELECT 10uF 20% 50V	
C752	1-162-286-31	CERAMIC 220PF 10% 50V	
C753	1-162-286-31	CERAMIC 220PF 10% 50V	
C754	1-124-443-00	ELECT 100uF 20% 10V	
C755	1-124-916-11	ELECT 22uF 20% 63V	
C756	1-124-916-11	ELECT 22uF 20% 63V	
C757	1-124-910-11	ELECT 47uF 20% 50V	
C758	1-136-165-00	FILM 0.1uF 5% 50V	
C759	1-136-163-00	FILM 0.068uF 5% 50V	
C760	1-136-163-00	FILM 0.068uF 5% 50V	
C761	1-162-191-31	CERAMIC 2.2PF 10% 50V	
C762	1-164-091-11	CERAMIC 0.0022uF 10% 50V	(AEP1, AEP2, E)
C762	1-164-093-11	CERAMIC 0.0047uF 10% 25V (G)	
C763	1-136-161-00	FILM 0.047uF 5% 50V (G)	
< CONNECTOR >			
* CN501	1-564-243-11	PIN, CONNECTOR 6P	
CN502	1-691-766-21	PLUG (MICRO CONNECTOR) 4P	
CN504	1-691-770-11	PLUG (MICRO CONNECTOR) 8P	
* CN505	1-564-241-00	PIN, CONNECTOR (B4P-VH) 4P	
CN506	1-766-258-11	CONNECTOR 8P	
CN507	1-766-258-11	CONNECTOR 8P	
CN508	1-766-258-11	CONNECTOR 8P	
CN701	1-691-765-11	PLUG (MICRO CONNECTOR) 3P	
< DIODE >			
D504	8-719-987-63	DIODE 1N4148M	
D505	8-719-987-63	DIODE 1N4148M	
D506	8-719-987-63	DIODE 1N4148M	
D507	8-719-987-63	DIODE 1N4148M	
D508	8-719-987-63	DIODE 1N4148M	
D509	8-719-987-63	DIODE 1N4148M	
D510	8-719-987-63	DIODE 1N4148M	
D512	8-719-987-63	DIODE 1N4148M	
D514	8-719-200-02	DIODE 10E2	
D515	8-719-987-63	DIODE 1N4148M	

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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D517	8-719-987-63	DIODE 1N4148M		R535	1-249-437-11	CARBON 47K 5%	1/4W
D701	8-719-987-63	DIODE 1N4148M		R536	1-249-437-11	CARBON 47K 5%	1/4W
D702	8-719-987-63	DIODE 1N4148M		R537	1-249-436-11	CARBON 39K 5%	1/4W
D751	8-719-987-63	DIODE 1N4148M		R538	1-249-429-11	CARBON 10K 5%	1/4W
< IC >				R539	1-249-437-11	CARBON 47K 5%	1/4W
IC701	8-749-941-52	IC STK-415211		R540	1-249-417-11	CARBON 1K 5%	1/4W F
< COIL >				R542	1-249-421-11	CARBON 2.2K 5%	1/4W F
* L001	1-420-872-00	COIL, AIR-CORE 1.9uH		R543	1-249-421-11	CARBON 2.2K 5%	1/4W F
* L501	1-420-872-00	COIL, AIR-CORE 1.9uH		R545	1-249-482-11	CARBON 4.7 5%	1/2W F (G)
* L551	1-420-872-00	COIL, AIR-CORE 1.9uH		R579	1-247-727-11	CARBON 10 5%	1/2W
* L701	1-420-872-00	COIL, AIR-CORE 1.9uH		(AEP1, AEP2, E)			
* L751	1-420-872-00	COIL, AIR-CORE 1.9uH		R579	1-247-731-11	CARBON 22 5%	1/2W (G)
< TRANSISTOR >				R580	1-247-727-11	CARBON 10 5%	1/2W
Q514	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA		R581	1-249-438-11	CARBON 56K 5%	1/4W
Q515	8-729-620-05	TRANSISTOR 2SC2603-EF		R582	1-249-425-11	CARBON 4.7K 5%	1/4W F
Q516	8-729-620-05	TRANSISTOR 2SC2603-EF		R583	1-249-425-11	CARBON 4.7K 5%	1/4W F
Q517	8-729-620-05	TRANSISTOR 2SC2603-EF		R584	1-249-437-11	CARBON 47K 5%	1/4W
Q518	8-729-620-05	TRANSISTOR 2SC2603-EF		R592	1-249-421-11	CARBON 2.2K 5%	1/4W F
Q519	8-729-620-05	TRANSISTOR 2SC2603-EF		R595	1-249-482-11	CARBON 4.7 5%	1/2W F (G)
Q520	8-729-620-05	TRANSISTOR 2SC2603-EF		R701	1-249-438-11	CARBON 56K 5%	1/4W
Q701	8-729-140-82	TRANSISTOR 2SA988-PAFAEA		R702	1-249-417-11	CARBON 1K 5%	1/4W F
Q751	8-729-140-82	TRANSISTOR 2SA988-PAFAEA		R703	1-249-411-11	CARBON 330 5%	1/4W
< RESISTOR >				R704	1-249-438-11	CARBON 56K 5%	1/4W
R029	1-247-727-11	CARBON 10 5%	1/2W	△R705	1-247-700-11	CARBON 100 5%	1/4W F
				R706	1-249-421-11	CARBON 2.2K 5%	1/4W F
R029	1-247-731-11	CARBON 22 5%	1/2W (G)	R707	1-247-756-11	CARBON 2.2K 5%	1/2W
R030	1-247-727-11	CARBON 10 5%	1/2W	△R708	1-247-700-11	CARBON 100 5%	1/4W F
R031	1-249-438-11	CARBON 56K 5%	1/4W	R709	1-247-752-11	CARBON 1K 5%	1/2W
R032	1-247-745-11	CARBON 330 5%	1/2W F	R710	1-247-752-11	CARBON 1K 5%	1/2W
				R711	1-249-431-11	CARBON 15K 5%	1/4W
R032	1-247-747-11	CARBON 470 5%	1/2W (AEP2)	R712	1-249-417-11	CARBON 1K 5%	1/4W F
R033	1-249-425-11	CARBON 4.7K 5%	1/4W F	R713	1-217-151-00	RES, METAL PLATE 0.22 2W	
R034	1-249-421-11	CARBON 2.2K 5%	1/4W F	R714	1-249-438-11	CARBON 56K 5%	1/4W
R035	1-249-421-11	CARBON 2.2K 5%	1/4W F	R715	1-247-727-11	CARBON 10 5%	1/2W
R036	1-249-421-11	CARBON 2.2K 5%	1/4W F	(AEP1, AEP2, E)			
R037	1-249-437-11	CARBON 47K 5%	1/4W	R715	1-247-731-11	CARBON 22 5%	1/2W (G)
R045	1-249-482-11	CARBON 4.7 5%	1/2W F (G)	R716	1-247-727-11	CARBON 10 5%	1/2W
R529	1-247-727-11	CARBON 10 5%	1/2W	R717	1-247-745-11	CARBON 330 5%	1/2W F
				(AEP1, G, E)			
R529	1-247-731-11	CARBON 22 5%	1/2W (G)	R717	1-247-747-11	CARBON 470 5%	1/2W (AEP2)
R530	1-247-727-11	CARBON 10 5%	1/2W	△R718	1-249-389-11	CARBON 4.7 5%	1/4W F (G)
R531	1-249-438-11	CARBON 56K 5%	1/4W	R751	1-249-438-11	CARBON 56K 5%	1/4W
R532	1-247-745-11	CARBON 330 5%	1/2W F	R752	1-249-417-11	CARBON 1K 5%	1/4W F
				R753	1-249-411-11	CARBON 330 5%	1/4W
R532	1-247-747-11	CARBON 470 5%	1/2W (AEP2)	R754	1-249-438-11	CARBON 56K 5%	1/4W
R533	1-249-418-11	CARBON 1.2K 5%	1/4W F	R756	1-249-421-11	CARBON 2.2K 5%	1/4W F
R534	1-249-425-11	CARBON 4.7K 5%	1/4W F	R757	1-247-756-11	CARBON 2.2K 5%	1/2W
				R761	1-249-431-11	CARBON 15K 5%	1/4W
				R762	1-249-417-11	CARBON 1K 5%	1/4W F
				R763	1-217-151-00	RES, METAL PLATE 0.22 2W	
				R764	1-249-437-11	CARBON 47K 5%	1/4W

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AMP-S	CN-AC	CN-M	CN-S	CN-V	DSP
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R765	1-247-727-11	CARBON	10 5% 1/2W (AEP1, AEP2, E)	*	1-652-501-11	CN-S BOARD (E) *****	
R765	1-247-731-11	CARBON	22 5% 1/2W (G)	*	1-653-797-11	CN-S BOARD (AEP1, AEP2, G) *****	
R766	1-247-727-11	CARBON	10 5% 1/2W		1-533-225-11	HOLDER, FUSE	
△R768	1-249-389-11	CARBON	4.7 5% 1/4W F (G)				
< RELAY >				< CONNECTOR >			
RY001	1-515-533-11	RELAY		CN672	1-691-765-11	PLUG (MICRO CONNECTOR) 3P	
RY501	1-515-533-11	RELAY		* CN673	1-564-242-00	PIN, CONNECTOR 5P	
RY503	1-515-727-11	RELAY					
RY504	1-515-727-11	RELAY		< FUSE >			
RY701	1-515-533-11	RELAY		△F601	1-532-299-00	FUSE (5.0A)	
< TERMINAL >				△F602	1-532-299-00	FUSE (5.0A)	
* TM501	1-537-699-11	TERMINAL BOARD (SP) (FRONT/CENTER SPEAKERS) (AEP1, G, E)		△F603	1-532-259-00	FUSE (1.6A)	
TM501	1-537-766-11	TERMINAL BOARD (SP) (FRONT/CENTER SPEAKERS) (AEP2)		△F604	1-532-259-00	FUSE (1.6A)	
* TM701	1-537-616-11	TERMINAL BOARD (SP) (REAR SPEAKERS) (AEP1, G, E)		△F605	1-532-259-00	FUSE (1.6A)	
TM701	1-537-767-11	TERMINAL BOARD (SP) (REAR SPEAKERS) (AEP2)		△F606	1-532-259-00	FUSE (1.6A)	
*****				*****			
*	1-652-497-11	CN-AC BOARD (AEP1, AEP2, G) *****		*	1-652-495-11	CN-V BOARD *****	
< CONNECTOR >				< CONNECTOR >			
* CN1	1-564-321-21	PIN, CONNECTOR 2P		CN1301	1-691-165-11	PIN, CONNECTOR 8P	
*****				CN1302	1-691-178-11	CONNECTOR (BOARD TO BOARD) 8P	
*****				*****			
*	1-652-496-11	CN-M BOARD *****		*	A-4371-106-A	DSP BOARD, COMPLETE *****	
< CAPACITOR >				< CAPACITOR >			
C670	1-136-165-00	FILM	0.1uF 5% 50V	C203	1-126-059-11	ELECT	10uF 20% 50V
< CONNECTOR >				C204	1-136-153-00	FILM	0.01uF 5% 50V
CN670	1-564-505-11	PLUG, CONNECTOR 2P		C205	1-136-153-00	FILM	0.01uF 5% 50V
* CN671	1-564-104-00	PIN, CONNECTOR (B3P-VH) 3P		C206	1-164-159-11	CERAMIC	0.1uF 50V
< DIODE >				C207	1-164-159-11	CERAMIC	0.1uF 50V
D623	8-719-200-02	DIODE 10E2		C208	1-164-159-11	CERAMIC	0.1uF 50V
D624	8-719-200-02	DIODE 10E2		C209	1-164-159-11	CERAMIC	0.1uF 50V
D625	8-719-200-02	DIODE 10E2		C210	1-164-159-11	CERAMIC	0.1uF 50V
D626	8-719-200-02	DIODE 10E2		C211	1-110-337-51	MYLAR	150PF 5% 50V
*****				C212	1-101-884-00	CERAMIC	56PF 5% 50V
*****				C213	1-101-884-00	CERAMIC	56PF 5% 50V
*****				C214	1-130-479-00	MYLAR	0.0047uF 5% 50V
*****				C215	1-130-472-00	MYLAR	0.0012uF 5% 50V
*****				C216	1-126-049-11	ELECT	22uF 20% 25V
*****				C221	1-110-337-51	MYLAR	150PF 5% 50V
*****				C222	1-101-884-00	CERAMIC	56PF 5% 50V
*****				C223	1-101-884-00	CERAMIC	56PF 5% 50V

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Ref.No.	Part No.	Description	Remark			Ref.No.	Part No.	Description	Remark		
C224	1-130-479-00	MYLAR	0.0047uF	5%	50V	C318	1-164-159-11	CERAMIC	0.1uF	50V	
C225	1-130-472-00	MYLAR	0.0012uF	5%	50V	C319	1-164-159-11	CERAMIC	0.1uF	50V	
C226	1-126-049-11	ELECT	22uF	20%	25V	C320	1-164-159-11	CERAMIC	0.1uF	50V	
C231	1-126-059-11	ELECT	10uF	20%	50V	C321	1-136-173-00	FILM	0.47uF	5% 50V	
C232	1-130-479-00	MYLAR	0.0047uF	5%	50V	C322	1-126-023-11	ELECT	100uF	20% 16V	
C233	1-130-475-00	MYLAR	0.0022uF	5%	50V	C323	1-164-159-11	CERAMIC	0.1uF	50V	
C234	1-126-049-11	ELECT	22uF	20%	25V	C325	1-164-159-11	CERAMIC	0.1uF	50V	
C235	1-164-159-11	CERAMIC	0.1uF		50V	C326	1-162-306-11	CERAMIC	0.01uF	20% 16V	
C236	1-164-159-11	CERAMIC	0.1uF		50V	C328	1-162-199-31	CERAMIC	10PF	5% 50V	
C237	1-164-159-11	CERAMIC	0.1uF		50V	C329	1-126-049-11	ELECT	22uF	20% 25V	
C253	1-126-059-11	ELECT	10uF	20%	50V	C330	1-162-211-31	CERAMIC	33PF	5% 50V	
C254	1-136-153-00	FILM	0.01uF	5%	50V	C331	1-162-199-31	CERAMIC	10PF	5% 50V	
C255	1-136-153-00	FILM	0.01uF	5%	50V	C332	1-164-159-11	CERAMIC	0.1uF	50V	
C256	1-124-995-11	ELECT	220uF	20%	10V	C333	1-126-023-11	ELECT	100uF	20% 16V	
C257	1-124-995-11	ELECT	220uF	20%	10V	C334	1-161-494-00	CERAMIC	0.022uF	25V	
C258	1-126-049-11	ELECT	22uF	20%	25V	C335	1-162-294-31	CERAMIC	0.001uF	10% 50V	
C259	1-126-022-11	ELECT	47uF	20%	25V	C337	1-164-159-11	CERAMIC	0.1uF	50V	
C260	1-126-049-11	ELECT	22uF	20%	25V	C338	1-162-199-31	CERAMIC	10PF	5% 50V	
C261	1-110-337-51	MYLAR	150PF	5%	50V	C339	1-164-159-11	CERAMIC	0.1uF	50V	
C262	1-101-884-00	CERAMIC	56PF	5%	50V	C340	1-164-159-11	CERAMIC	0.1uF	50V	
C263	1-101-884-00	CERAMIC	56PF	5%	50V	C341	1-124-995-11	ELECT	220uF	20% 10V	
C264	1-130-479-00	MYLAR	0.0047uF	5%	50V	C342	1-164-159-11	CERAMIC	0.1uF	50V	
C265	1-130-472-00	MYLAR	0.0012uF	5%	50V	C343	1-126-023-11	ELECT	100uF	20% 16V	
C266	1-126-049-11	ELECT	22uF	20%	25V	C344	1-164-159-11	CERAMIC	0.1uF	50V	
C271	1-110-337-51	MYLAR	150PF	5%	50V	C345	1-164-159-11	CERAMIC	0.1uF	50V	
C272	1-101-884-00	CERAMIC	56PF	5%	50V	C347	1-164-159-11	CERAMIC	0.1uF	50V	
C273	1-101-884-00	CERAMIC	56PF	5%	50V	C348	1-126-023-11	ELECT	100uF	20% 16V	
C274	1-130-479-00	MYLAR	0.0047uF	5%	50V	C349	1-164-159-11	CERAMIC	0.1uF	50V	
C275	1-130-472-00	MYLAR	0.0012uF	5%	50V	C351	1-126-022-11	ELECT	47uF	20% 25V	
C276	1-126-049-11	ELECT	22uF	20%	25V	C353	1-164-159-11	CERAMIC	0.1uF	50V	
C281	1-126-059-11	ELECT	10uF	20%	50V	C355	1-164-159-11	CERAMIC	0.1uF	50V	
C282	1-130-479-00	MYLAR	0.0047uF	5%	50V	C360	1-164-159-11	CERAMIC	0.1uF	50V	
C283	1-130-475-00	MYLAR	0.0022uF	5%	50V	C361	1-164-159-11	CERAMIC	0.1uF	50V	
C284	1-126-049-11	ELECT	22uF	20%	25V	C362	1-126-023-11	ELECT	100uF	20% 16V	
C285	1-126-059-11	ELECT	10uF	20%	50V	C363	1-126-023-11	ELECT	100uF	20% 16V	
C286	1-164-159-11	CERAMIC	0.1uF		50V	C364	1-164-159-11	CERAMIC	0.1uF	50V	
C287	1-164-159-11	CERAMIC	0.1uF		50V	C365	1-164-159-11	CERAMIC	0.1uF	50V	
C301	1-164-159-11	CERAMIC	0.1uF		50V	C390	1-164-159-11	CERAMIC	0.1uF	50V	
C302	1-164-159-11	CERAMIC	0.1uF		50V	C392	1-164-159-11	CERAMIC	0.1uF	50V	
C303	1-164-159-11	CERAMIC	0.1uF		50V	C393	1-126-023-11	ELECT	100uF	20% 16V	
C305	1-164-159-11	CERAMIC	0.1uF		50V	C394	1-126-023-11	ELECT	100uF	20% 16V	
C306	1-164-159-11	CERAMIC	0.1uF		50V	C395	1-164-159-11	CERAMIC	0.1uF	50V	
C307	1-164-159-11	CERAMIC	0.1uF		50V	C396	1-124-995-11	ELECT	220uF	20% 10V	
C310	1-162-207-31	CERAMIC	22PF	5%	50V	C397	1-164-159-11	CERAMIC	0.1uF	50V	
C311	1-162-207-31	CERAMIC	22PF	5%	50V	C398	1-126-023-11	ELECT	100uF	20% 16V	
C312	1-162-294-31	CERAMIC	0.001uF	10%	50V	C399	1-126-023-11	ELECT	100uF	20% 16V	
C313	1-164-159-11	CERAMIC	0.1uF		50V	< CONNECTOR >					
C314	1-162-306-11	CERAMIC	0.01uF	20%	16V						
C316	1-164-159-11	CERAMIC	0.1uF		50V	* CN203	1-568-844-11	SOCKET, CONNECTOR 29P			
C317	1-126-023-11	ELECT	100uF	20%	16V	CNE201	1-691-768-11	PLUG (MICRO CONNECTOR) 6P			

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
CNE202	1-691-771-11	PLUG (MICRO CONNECTOR) 9P		L312	1-409-644-11	COIL (RF)	
		< DIODE >		L313	1-409-644-11	COIL (RF)	
D301	8-719-987-63	DIODE 1N4148M		L314	1-410-324-11	INDUCTOR 4.7uH	
D302	8-719-987-63	DIODE 1N4148M		L320	1-410-324-11	INDUCTOR 4.7uH	
D304	8-719-901-59	DIODE KV1320				< TRANSISTOR >	
D305	8-719-903-27	DIODE 1SS168		Q201	8-729-141-30	TRANSISTOR 2SC3623A-LK	
		< FERRITE BEAD >		Q202	8-729-141-30	TRANSISTOR 2SC3623A-LK	
FB301	1-410-397-21	FERRITE BEAD INDUCTOR		Q203	8-729-141-30	TRANSISTOR 2SC3623A-LK	
FB302	1-410-397-21	FERRITE BEAD INDUCTOR		Q204	8-729-141-30	TRANSISTOR 2SC3623A-LK	
		< IC >		Q205	8-729-141-30	TRANSISTOR 2SC3623A-LK	
IC201	8-759-710-59	IC NJM4580D-D		Q251	8-729-141-30	TRANSISTOR 2SC3623A-LK	
IC202	8-759-191-20	IC AK5369VP		Q252	8-729-141-30	TRANSISTOR 2SC3623A-LK	
IC204	8-759-708-05	IC NJM78L05A		Q253	8-729-141-30	TRANSISTOR 2SC3623A-LK	
IC205	8-759-700-65	IC NJM79L05A		Q254	8-729-141-30	TRANSISTOR 2SC3623A-LK	
IC206	8-759-708-05	IC NJM78L05A		Q255	8-729-141-30	TRANSISTOR 2SC3623A-LK	
		< RESISTOR >		Q303	8-729-200-56	TRANSISTOR 2SK241-GR	
IC210	8-752-359-50	IC CXD2564AM		Q304	8-729-200-56	TRANSISTOR 2SK241-GR	
IC211	8-759-710-59	IC NJM4580D-D		Q305	8-729-900-61	TRANSISTOR DTA114ES	
IC220	8-752-359-50	IC CXD2564AM				< RESISTOR >	
IC221	8-759-710-59	IC NJM4580D-D		R202	1-259-476-11	CARBON 100K 5% 1/6W	
IC230	8-759-185-28	IC PCM1710U-AT1		R205	1-259-404-11	CARBON 100 5% 1/6W	
		< JACK >		R206	1-259-396-11	CARBON 47 5% 1/6W	
IC231	8-759-710-59	IC NJM4580D-D		R207	1-259-464-11	CARBON 33K 5% 1/6W	
IC261	8-759-710-59	IC NJM4580D-D		R208	1-259-464-11	CARBON 33K 5% 1/6W	
IC271	8-759-710-59	IC NJM4580D-D				< RESISTOR >	
IC305	8-759-267-43	IC LC8902		R209	1-259-380-11	CARBON 10 5% 1/6W	
IC307	8-759-075-34	IC LC83015		R210	1-249-461-11	CARBON 18K 5% 1/4W	
		< COIL >		R211	1-249-461-11	CARBON 18K 5% 1/4W	
IC308	8-759-165-17	IC MT4C4256-8A		R212	1-247-152-00	CARBON 8.2K 5% 1/4W	
IC310	8-759-250-81	IC TC5081AP		R213	1-247-152-00	CARBON 8.2K 5% 1/4W	
IC311	8-759-917-11	IC SN74HC393AN				< RESISTOR >	
IC312	8-759-917-18	IC SN74HCU04AN		R214	1-249-465-11	CARBON 47K 5% 1/4W	
IC313	8-759-708-08	IC NJM78L08A		R215	1-249-465-11	CARBON 47K 5% 1/4W	
		< JACK >		R216	1-249-556-11	CARBON 1.5K 5% 1/4W	
IC301	8-749-921-11	IC GP1F32R (OPTICAL 1 IN)		R217	1-249-556-11	CARBON 1.5K 5% 1/4W	
IC302	8-749-921-11	IC GP1F32R (OPTICAL 2 IN)		R218	1-247-887-00	CARBON 220K 5% 1/4W	
IC303	8-749-921-11	IC GP1F32R (OPTICAL 3 IN)				< RESISTOR >	
IC353	8-749-921-12	IC GP1F32T (OPTICAL 3 OUT)		R219	1-247-708-11	CARBON 470 5% 1/4W F	
		< COIL >		R220	1-249-461-11	CARBON 18K 5% 1/4W	
L202	1-410-324-11	INDUCTOR 4.7uH		R221	1-249-461-11	CARBON 18K 5% 1/4W	
L301	1-410-324-11	INDUCTOR 4.7uH		R222	1-247-152-00	CARBON 8.2K 5% 1/4W	
L302	1-410-324-11	INDUCTOR 4.7uH		R223	1-247-152-00	CARBON 8.2K 5% 1/4W	
L303	1-410-324-11	INDUCTOR 4.7uH				< RESISTOR >	
L304	1-410-324-11	INDUCTOR 4.7uH		R224	1-249-465-11	CARBON 47K 5% 1/4W	
		< COIL >		R225	1-249-465-11	CARBON 47K 5% 1/4W	
L305	1-410-324-11	INDUCTOR 4.7uH		R226	1-249-556-11	CARBON 1.5K 5% 1/4W	
L306	1-410-324-11	INDUCTOR 4.7uH		R227	1-249-556-11	CARBON 1.5K 5% 1/4W	
L308	1-410-324-11	INDUCTOR 4.7uH		R228	1-247-887-00	CARBON 220K 5% 1/4W	
L309	1-410-324-11	INDUCTOR 4.7uH				< RESISTOR >	
L310	1-410-324-11	INDUCTOR 4.7uH		R229	1-247-708-11	CARBON 470 5% 1/4W F	
		< COIL >		R231	1-259-432-11	CARBON 1.5K 5% 1/6W	
		< COIL >		R232	1-259-432-11	CARBON 1.5K 5% 1/6W	
		< COIL >		R233	1-249-413-11	CARBON 470 5% 1/4W F	
		< COIL >		R234	1-247-887-00	CARBON 220K 5% 1/4W	

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
R240	1-247-708-11	CARBON	470	5%	1/4W	F	R321	1-249-423-11	CARBON	3. 3K	5%	1/4W	F
R241	1-247-708-11	CARBON	470	5%	1/4W	F	R322	1-249-417-11	CARBON	1K	5%	1/4W	F
R252	1-259-476-11	CARBON	100K	5%	1/6W		R323	1-249-417-11	CARBON	1K	5%	1/4W	F
R255	1-259-404-11	CARBON	100	5%	1/6W		R324	1-249-429-11	CARBON	10K	5%	1/4W	
R256	1-259-396-11	CARBON	47	5%	1/6W		R325	1-259-476-11	CARBON	100K	5%	1/6W	
R257	1-259-464-11	CARBON	33K	5%	1/6W		R326	1-247-903-00	CARBON	1M	5%	1/4W	
R258	1-259-464-11	CARBON	33K	5%	1/6W		R327	1-249-429-11	CARBON	10K	5%	1/4W	
R260	1-249-461-11	CARBON	18K	5%	1/4W		R328	1-249-428-11	CARBON	8. 2K	5%	1/4W	F
R261	1-249-461-11	CARBON	18K	5%	1/4W		R329	1-259-476-11	CARBON	100K	5%	1/6W	
R262	1-247-152-00	CARBON	8. 2K	5%	1/4W		R330	1-249-417-11	CARBON	1K	5%	1/4W	F
R263	1-247-152-00	CARBON	8. 2K	5%	1/4W		R331	1-249-417-11	CARBON	1K	5%	1/4W	F
R264	1-249-465-11	CARBON	47K	5%	1/4W		R332	1-249-417-11	CARBON	1K	5%	1/4W	F
R265	1-249-465-11	CARBON	47K	5%	1/4W		R333	1-259-404-11	CARBON	100	5%	1/6W	
R266	1-249-556-11	CARBON	1. 5K	5%	1/4W		R334	1-249-417-11	CARBON	1K	5%	1/4W	F
R267	1-249-556-11	CARBON	1. 5K	5%	1/4W		R335	1-247-903-00	CARBON	1M	5%	1/4W	
R268	1-247-887-00	CARBON	220K	5%	1/4W		R336	1-247-903-00	CARBON	1M	5%	1/4W	
R269	1-247-708-11	CARBON	470	5%	1/4W	F	R337	1-247-887-00	CARBON	220K	5%	1/4W	
R270	1-249-461-11	CARBON	18K	5%	1/4W		R340	1-259-388-11	CARBON	22	5%	1/6W	
R271	1-249-461-11	CARBON	18K	5%	1/4W		R341	1-259-404-11	CARBON	100	5%	1/6W	
R272	1-247-152-00	CARBON	8. 2K	5%	1/4W		R342	1-259-388-11	CARBON	22	5%	1/6W	
R273	1-247-152-00	CARBON	8. 2K	5%	1/4W		R343	1-249-425-11	CARBON	4. 7K	5%	1/4W	F
R274	1-249-465-11	CARBON	47K	5%	1/4W		R344	1-249-425-11	CARBON	4. 7K	5%	1/4W	F
R275	1-249-465-11	CARBON	47K	5%	1/4W		R345	1-249-425-11	CARBON	4. 7K	5%	1/4W	F
R276	1-249-556-11	CARBON	1. 5K	5%	1/4W		R346	1-249-425-11	CARBON	4. 7K	5%	1/4W	F
R277	1-249-556-11	CARBON	1. 5K	5%	1/4W		R347	1-249-425-11	CARBON	4. 7K	5%	1/4W	F
R278	1-247-887-00	CARBON	220K	5%	1/4W		R353	1-249-413-11	CARBON	470	5%	1/4W	F
R279	1-247-708-11	CARBON	470	5%	1/4W	F	R354	1-249-413-11	CARBON	470	5%	1/4W	F
R281	1-259-432-11	CARBON	1. 5K	5%	1/6W		R357	1-249-413-11	CARBON	470	5%	1/4W	F
R282	1-259-432-11	CARBON	1. 5K	5%	1/6W		R358	1-249-417-11	CARBON	1K	5%	1/4W	F
R283	1-249-413-11	CARBON	470	5%	1/4W	F	R359	1-249-417-11	CARBON	1K	5%	1/4W	F
R284	1-247-887-00	CARBON	220K	5%	1/4W		R361	1-259-396-11	CARBON	47	5%	1/6W	
R290	1-247-708-11	CARBON	470	5%	1/4W	F	R362	1-259-404-11	CARBON	100	5%	1/6W	
R291	1-247-708-11	CARBON	470	5%	1/4W	F	R363	1-259-404-11	CARBON	100	5%	1/6W	
R301	1-249-413-11	CARBON	470	5%	1/4W	F	R369	1-249-413-11	CARBON	470	5%	1/4W	F
R302	1-249-413-11	CARBON	470	5%	1/4W	F	R370	1-249-425-11	CARBON	4. 7K	5%	1/4W	F
R303	1-249-413-11	CARBON	470	5%	1/4W	F	R371	1-249-413-11	CARBON	470	5%	1/4W	F
R305	1-249-413-11	CARBON	470	5%	1/4W	F	R372	1-249-425-11	CARBON	4. 7K	5%	1/4W	F
R306	1-249-413-11	CARBON	470	5%	1/4W	F	R373	1-249-413-11	CARBON	470	5%	1/4W	F
R307	1-249-413-11	CARBON	470	5%	1/4W	F	R374	1-249-413-11	CARBON	470	5%	1/4W	F
R308	1-249-413-11	CARBON	470	5%	1/4W	F	R377	1-249-413-11	CARBON	470	5%	1/4W	F
R310	1-259-404-11	CARBON	100	5%	1/6W		R379	1-249-413-11	CARBON	470	5%	1/4W	F
R311	1-247-903-00	CARBON	1M	5%	1/4W		R380	1-249-413-11	CARBON	470	5%	1/4W	F
R312	1-259-464-11	CARBON	33K	5%	1/6W		R381	1-249-413-11	CARBON	470	5%	1/4W	F
R313	1-247-864-11	CARBON	24K	5%	1/4W		R382	1-249-413-11	CARBON	470	5%	1/4W	F
R314	1-249-426-11	CARBON	5. 6K	5%	1/4W		R383	1-249-413-11	CARBON	470	5%	1/4W	F
R315	1-247-811-31	CARBON	150	5%	1/4W		R384	1-249-413-11	CARBON	470	5%	1/4W	F
R316	1-249-426-11	CARBON	5. 6K	5%	1/4W		R385	1-249-413-11	CARBON	470	5%	1/4W	F
R318	1-259-464-11	CARBON	33K	5%	1/6W		R386	1-249-413-11	CARBON	470	5%	1/4W	F
R319	1-249-437-11	CARBON	47K	5%	1/4W		R387	1-249-413-11	CARBON	470	5%	1/4W	F
R320	1-249-423-11	CARBON	3. 3K	5%	1/4W	F	R388	1-249-413-11	CARBON	470	5%	1/4W	F

DSP

H.P

KEY

MAIN

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R389	1-249-413-11	CARBON	470 5% 1/4W F	*	A-4371-605-A	MAIN BOARD, COMPLETE (AEP1, E)	
R390	1-259-388-11	CARBON	22 5% 1/6W			*****	
R391	1-259-404-11	CARBON	100 5% 1/6W				
R392	1-259-388-11	CARBON	22 5% 1/6W	*	A-4371-609-A	MAIN BOARD, COMPLETE (G)	
R393	1-249-425-11	CARBON	4.7K 5% 1/4W F			*****	
R394	1-249-425-11	CARBON	4.7K 5% 1/4W F	*	A-4371-790-A	MAIN BOARD, COMPLETE (AEP2)	
R395	1-249-425-11	CARBON	4.7K 5% 1/4W F			*****	
R396	1-249-425-11	CARBON	4.7K 5% 1/4W F				
R397	1-249-425-11	CARBON	4.7K 5% 1/4W F	*	4-880-403-11	HEAT SINK	
					4-969-003-01	SPACER (DIA. 34)	
					7-682-547-09	SCREW +BVT 3X6 (S)	
		< VIBRATOR >					
X301	1-567-970-11	VIBRATOR, CRYSTAL (24.576 MHz)				< CAPACITOR >	
*****				C008	1-126-051-11	ELECT	47uF 20% 50V
*	1-652-511-11	H. P BOARD		C009	1-136-165-00	FILM	0.1uF 5% 50V
		*****		C100	1-162-284-31	CERAMIC	150PF 10% 50V (G)
		< CONNECTOR >		C101	1-110-335-11	MYLAR	100PF 5% 50V
CN503	1-691-766-21	PLUG (MICRO CONNECTOR) 4P		C102	1-126-059-11	ELECT	10uF 20% 50V
		< JACK >					
J501	1-507-796-71	JACK (HEADPHONES)		C103	1-162-282-31	CERAMIC	100PF 10% 50V
		< RESISTOR >		C104	1-126-022-11	ELECT	47uF 20% 16V
R541	1-247-749-11	CARBON	560 5% 1/2W F	C105	1-130-480-00	MYLAR	0.0056uF 5% 50V
R591	1-247-749-11	CARBON	560 5% 1/2W F	C106	1-104-842-91	MYLAR	0.0016uF 5% 50V
		< SWITCH >		C107	1-126-043-11	ELECT	0.47uF 20% 50V
S501	1-570-272-11	SWITCH, PUSH (1 KEY) (SPEAKERS ON/OFF)					
*****				C108	1-126-022-11	ELECT	47uF 20% 16V
*	1-652-505-11	KEY BOARD		C109	1-162-284-31	CERAMIC	150PF 10% 50V (G)
		*****		C110	1-162-284-31	CERAMIC	150PF 10% 50V (G)
		< CONNECTOR >		C111	1-162-284-31	CERAMIC	150PF 10% 50V (G)
CN803	1-562-087-00	SOCKET, CONNECTOR 4P		C112	1-162-284-31	CERAMIC	150PF 10% 50V (G)
		< SWITCH >					
S802	1-554-303-21	SWITCH, TACTILE (MIX)		C113	1-162-284-31	CERAMIC	150PF 10% 50V (G)
S804	1-554-303-21	SWITCH, TACTILE (VIDEO SELECT)		C114	1-162-284-31	CERAMIC	150PF 10% 50V (G)
S805	1-554-303-21	SWITCH, TACTILE (AUDIO SELECT)		C115	1-162-284-31	CERAMIC	150PF 10% 50V (G)
S807	1-554-303-21	SWITCH, TACTILE (SURROUND MODE)		C116	1-162-284-31	CERAMIC	150PF 10% 50V (G)
S808	1-554-303-21	SWITCH, TACTILE (SURROUND ON/OFF)		C117	1-162-284-31	CERAMIC	150PF 10% 50V (G)
S809	1-554-303-21	SWITCH, TACTILE (CENTER MODE)					
S810	1-554-303-21	SWITCH, TACTILE (SOURCE DIRECT)		C118	1-162-284-31	CERAMIC	150PF 10% 50V (G)
S811	1-554-303-21	SWITCH, TACTILE (REC OUT)		C119	1-162-284-31	CERAMIC	150PF 10% 50V (G)
*****				C120	1-162-284-31	CERAMIC	150PF 10% 50V (G)
				C121	1-162-284-31	CERAMIC	150PF 10% 50V (G)
				C126	1-126-022-11	ELECT	47uF 20% 16V
				C128	1-136-153-00	FILM	0.01uF 5% 50V
				C129	1-162-284-31	CERAMIC	150PF 10% 50V (G)
				C150	1-162-284-31	CERAMIC	150PF 10% 50V (G)
				C151	1-110-335-11	MYLAR	100PF 5% 50V
				C152	1-126-059-11	ELECT	10uF 20% 50V
				C153	1-162-282-31	CERAMIC	100PF 10% 50V
				C154	1-126-022-11	ELECT	47uF 20% 16V
				C155	1-130-480-00	MYLAR	0.0056uF 5% 50V
				C156	1-104-842-91	MYLAR	0.0016uF 5% 50V
				C157	1-126-043-11	ELECT	0.47uF 20% 50V
				C158	1-126-022-11	ELECT	47uF 20% 16V
				C159	1-162-284-31	CERAMIC	150PF 10% 50V (G)
				C160	1-162-284-31	CERAMIC	150PF 10% 50V (G)

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description	Remark
C161	1-162-284-31	CERAMIC	150PF	10%	50V (G)	CN103	1-691-765-31	PLUG (MICRO CONNECTOR) 3P	
C162	1-162-284-31	CERAMIC	150PF	10%	50V (G)	* CN551	1-564-243-11	PIN, CONNECTOR 6P	
						* CN552	1-508-696-00	CONNECTOR PIN 4P	
C163	1-162-284-31	CERAMIC	150PF	10%	50V (G)				
C164	1-162-284-31	CERAMIC	150PF	10%	50V (G)	* CN553	1-508-696-00	CONNECTOR PIN 4P	
C165	1-162-284-31	CERAMIC	150PF	10%	50V (G)	* CN554	1-508-696-00	CONNECTOR PIN 4P	
C166	1-162-284-31	CERAMIC	150PF	10%	50V (G)	* CN555	1-508-696-00	CONNECTOR PIN 4P	
C167	1-162-284-31	CERAMIC	150PF	10%	50V (G)	* CN556	1-508-809-00	BASE POST (14MM) 2P	
						* CN557	1-508-809-00	BASE POST (14MM) 2P	
C168	1-162-284-31	CERAMIC	150PF	10%	50V (G)				
C169	1-162-284-31	CERAMIC	150PF	10%	50V (G)	* CN558	1-508-809-00	BASE POST (14MM) 2P	
C170	1-162-284-31	CERAMIC	150PF	10%	50V (G)	* CN601	1-568-844-11	SOCKET, CONNECTOR 29P	
C171	1-162-284-31	CERAMIC	150PF	10%	50V (G)	* CN602	1-568-834-11	SOCKET, CONNECTOR 15P	
C176	1-126-022-11	ELECT	47uF	20%	16V	CN603	1-691-161-11	PIN, CONNECTOR 4P	
						CN604	1-564-505-11	PLUG, CONNECTOR 2P	
C179	1-162-284-31	CERAMIC	150PF	10%	50V (G)				
C508	1-126-051-11	ELECT	47uF	20%	50V	CN605	1-691-766-11	PLUG (MICRO CONNECTOR) 4P	
C509	1-136-165-00	FILM	0.1uF	5%	50V	* CN606	1-564-104-00	PIN, CONNECTOR (B3P-VH) 3P	
C558	1-126-051-11	ELECT	47uF	20%	50V	* CN607	1-564-242-00	PIN, CONNECTOR 5P	
C519	1-162-284-31	CERAMIC	150PF	10%	50V (G)	* CN608	1-564-241-00	PIN, CONNECTOR (B4P-VH) 4P	
						CN609	1-691-770-11	PLUG (MICRO CONNECTOR) 8P	
C520	1-162-284-31	CERAMIC	150PF	10%	50V (G)				
C559	1-136-165-00	FILM	0.1uF	5%	50V	CN610	1-691-171-11	PIN, CONNECTOR 14P	
C602	1-106-220-00	MYLAR	0.1uF	5%	100V	CN611	1-691-165-11	PIN, CONNECTOR 8P	
C603	1-106-220-00	MYLAR	0.1uF	5%	100V	CN612	1-691-765-11	PLUG (MICRO CONNECTOR) 3P	
C604	1-107-416-11	ELECT	10000uF	20%	63V	CN613	1-564-320-00	PIN, CONNECTOR (B2P-VH) 2P	
						CN614	1-691-767-11	PLUG (MICRO CONNECTOR) 5P	
C605	1-107-416-11	ELECT	10000uF	20%	63V				
C606	1-126-067-11	ELECT	1000uF	20%	63V	CN615	1-691-767-11	PLUG (MICRO CONNECTOR) 5P	
C607	1-126-067-11	ELECT	1000uF	20%	63V				
C608	1-136-153-00	FILM	0.01uF	5%	50V			< DIODE >	
C609	1-136-153-00	FILM	0.01uF	5%	50V				
C610	1-136-153-00	FILM	0.01uF	5%	50V	D003	8-719-987-63	DIODE	1N4148M
C611	1-136-153-00	FILM	0.01uF	5%	50V	D503	8-719-987-63	DIODE	1N4148M
C612	1-126-015-11	ELECT	3300uF	20%	16V	D553	8-719-987-63	DIODE	1N4148M
C613	1-126-012-11	ELECT	470uF	20%	16V	D601	8-719-302-38	DIODE	RBV-602-01
C614	1-126-029-51	ELECT	3300uF	20%	25V	D602	8-719-302-38	DIODE	RBV-602-01 (AEP1, G, E)
C615	1-126-027-11	ELECT	1000uF	20%	25V				
C616	1-126-012-11	ELECT	470uF	20%	16V	D603	8-719-200-02	DIODE	10E2
C617	1-126-012-11	ELECT	470uF	20%	16V	D604	8-719-200-02	DIODE	10E2
C618	1-126-012-11	ELECT	470uF	20%	16V	D605	8-719-911-55	DIODE	U05G
C619	1-126-012-11	ELECT	470uF	20%	16V	D606	8-719-911-55	DIODE	U05G
						D607	8-719-911-55	DIODE	U05G
C620	1-106-220-00	MYLAR	0.1uF	5%	100V				
C621	1-106-220-00	MYLAR	0.1uF	5%	100V	D608	8-719-911-55	DIODE	U05G
C622	1-126-975-11	ELECT	4700uF	20%	42V	D609	8-719-911-55	DIODE	U05G
C623	1-126-975-11	ELECT	4700uF	20%	42V	D610	8-719-911-55	DIODE	U05G
C624	1-126-051-11	ELECT	47uF	20%	50V	D611	8-719-911-55	DIODE	U05G
						D612	8-719-911-55	DIODE	U05G
C625	1-126-062-11	ELECT	47uF	20%	63V				
C626	1-126-059-11	ELECT	10uF	20%	50V	D613	8-719-302-38	DIODE	RBV-602-01
C627	1-126-062-11	ELECT	47uF	20%	63V	D614	8-719-200-02	DIODE	10E2
C628	1-124-472-11	ELECT	470uF	20%	10V	D615	8-719-200-02	DIODE	10E2
						D616	8-719-013-82	DIODE	UZ-39BSD-TP
						D620	8-719-987-63	DIODE	1N4148M
< CONNECTOR >									
CN101	1-691-765-11	PLUG (MICRO CONNECTOR) 3P							
CN102	1-691-765-21	PLUG (MICRO CONNECTOR) 3P							

# MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< IC >				R019	1-259-422-11	CARBON 560 5% 1/6W	
IC101	8-759-184-02	IC NJM2068L-D		R020	1-259-468-11	CARBON 47K 5% 1/6W	
IC102	8-759-805-14	IC LC7822		R021	1-259-442-11	CARBON 3.9K 5% 1/6W	
IC103	8-759-805-13	IC LC7821		△R022	1-212-994-00	FUSIBLE 330 5% 1/2W F	
IC104	8-759-805-14	IC LC7822		△R023	1-212-849-00	FUSIBLE 4.7 5% 1/4W F	
IC106	8-759-634-50	IC M5218AL		△R024	1-212-849-00	FUSIBLE 4.7 5% 1/4W F	
IC600	8-759-284-57	IC HD6433258B44F		R025	1-217-611-00	RES, METAL PLATE 0.1 2W	
IC601	8-759-231-58	IC TA7812S		R026	1-217-611-00	RES, METAL PLATE 0.1 2W	
IC602	8-759-245-86	IC TA7912S		R027	1-259-432-11	CARBON 1.5K 5% 1/6W	
IC603	8-759-231-53	IC TA7805S		R028	1-259-456-11	CARBON 15K 5% 1/6W	
IC604	8-759-245-79	IC TA79005S		R037	1-259-428-11	CARBON 1K 5% 1/6W	
< JACK >				R038	1-259-428-11	CARBON 1K 5% 1/6W	
J101	1-764-729-11	JACK, PIN 4P (PHONO, TUNER)		R100	1-259-436-11	CARBON 2.2K 5% 1/6W (G)	
J102	1-764-729-11	JACK, PIN 4P (CD, TAPE REC OUT)		R101	1-259-416-11	CARBON 330 5% 1/6W	
J103	1-573-520-11	JACK, PIN 4P (TAPE IN, DAT/MD REC OUT)		R102	1-259-476-11	CARBON 100K 5% 1/6W	
J104	1-691-260-11	JACK, PIN 6P (LD, VIDEO 3)		R103	1-259-476-11	CARBON 100K 5% 1/6W	
J105	1-691-260-11	JACK, PIN 6P (VIDEO 2, VIDEO 1 REC OUT)		R104	1-259-426-11	CARBON 820 5% 1/6W	
J106	1-764-730-11	JACK, PIN 4P (VIDEO 1 IN, AUDIO OUT)		R105	1-259-494-11	CARBON 560K 5% 1/6W	
J109	1-573-520-11	JACK, PIN 4P (DAT/MD IN, TV)		R106	1-259-468-11	CARBON 47K 5% 1/6W	
< TRANSISTOR >				R107	1-259-476-11	CARBON 100K 5% 1/6W	
Q008	8-729-141-89	TRANSISTOR 2SD1585-K		R108	1-259-412-11	CARBON 220 5% 1/6W	
Q009	8-729-141-58	TRANSISTOR 2SC2275A-QP		R109	1-259-412-11	CARBON 220 5% 1/6W	
Q010	8-729-141-10	TRANSISTOR 2SA985A-QP		R110	1-259-428-11	CARBON 1K 5% 1/6W	
Q011	8-729-383-73	TRANSISTOR 2SC2837		R111	1-259-444-11	CARBON 4.7K 5% 1/6W	
Q012	8-729-318-63	TRANSISTOR 2SA1186		R112	1-259-452-11	CARBON 10K 5% 1/6W	
Q013	8-729-140-82	TRANSISTOR 2SA988-PAFAEA		R113	1-259-428-11	CARBON 1K 5% 1/6W	
Q508	8-729-141-89	TRANSISTOR 2SD1585-K		R114	1-259-428-11	CARBON 1K 5% 1/6W	
Q509	8-729-141-58	TRANSISTOR 2SC2275A-QP		R115	1-259-428-11	CARBON 1K 5% 1/6W	
Q510	8-729-141-10	TRANSISTOR 2SA985A-QP		R116	1-259-428-11	CARBON 1K 5% 1/6W	
Q511	8-729-383-73	TRANSISTOR 2SC2837		R117	1-259-428-11	CARBON 1K 5% 1/6W	
Q512	8-729-318-63	TRANSISTOR 2SA1186		R118	1-259-428-11	CARBON 1K 5% 1/6W	
Q513	8-729-140-82	TRANSISTOR 2SA988-PAFAEA		R119	1-259-428-11	CARBON 1K 5% 1/6W	
Q558	8-729-141-89	TRANSISTOR 2SD1585-K		R120	1-259-428-11	CARBON 1K 5% 1/6W	
Q559	8-729-141-58	TRANSISTOR 2SC2275A-QP		R121	1-259-428-11	CARBON 1K 5% 1/6W	
Q560	8-729-141-10	TRANSISTOR 2SA985A-QP		R122	1-259-428-11	CARBON 1K 5% 1/6W	
Q561	8-729-383-73	TRANSISTOR 2SC2837		R123	1-259-428-11	CARBON 1K 5% 1/6W	
Q562	8-729-318-63	TRANSISTOR 2SA1186		R138	1-259-404-11	CARBON 100 5% 1/6W	
Q563	8-729-140-82	TRANSISTOR 2SA988-PAFAEA		R139	1-259-476-11	CARBON 100K 5% 1/6W	
Q601	8-729-140-96	TRANSISTOR 2SD774-34		R140	1-259-444-11	CARBON 4.7K 5% 1/6W	
Q602	8-729-900-36	TRANSISTOR DTC124ES		R141	1-259-428-11	CARBON 1K 5% 1/6W	
Q603	8-729-900-63	TRANSISTOR DTA124ES		R150	1-259-436-11	CARBON 2.2K 5% 1/6W (G)	
Q604	8-729-119-79	TRANSISTOR 2SC2785-FEK		R151	1-259-416-11	CARBON 330 5% 1/6W	
Q605	8-729-900-61	TRANSISTOR DTA114ES		R152	1-259-476-11	CARBON 100K 5% 1/6W	
< RESISTOR >				R153	1-259-476-11	CARBON 100K 5% 1/6W	
△R016	1-212-881-11	FUSIBLE 100 5% 1/4W F		R154	1-259-426-11	CARBON 820 5% 1/6W	
△R017	1-212-881-11	FUSIBLE 100 5% 1/4W F		R155	1-259-494-11	CARBON 560K 5% 1/6W	
R018	1-259-432-11	CARBON 1.5K 5% 1/6W		R156	1-259-468-11	CARBON 47K 5% 1/6W	
				R157	1-259-476-11	CARBON 100K 5% 1/6W	
				R158	1-259-412-11	CARBON 220 5% 1/6W	
				R159	1-259-412-11	CARBON 220 5% 1/6W	

The components identified by mark △ or dotted line with mark △ are critical for safety.  
Replace only with part number specified.



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R160	1-259-428-11	CARBON	1K 5% 1/6W	R608	1-259-444-11	CARBON	4.7K 5% 1/6W
R161	1-259-444-11	CARBON	4.7K 5% 1/6W	R611	1-249-433-11	CARBON	22K 5% 1/4W
R162	1-259-452-11	CARBON	10K 5% 1/6W	R612	1-249-433-11	CARBON	22K 5% 1/4W
R163	1-259-428-11	CARBON	1K 5% 1/6W	R613	1-249-433-11	CARBON	22K 5% 1/4W
R164	1-259-428-11	CARBON	1K 5% 1/6W	R614	1-249-433-11	CARBON	22K 5% 1/4W
R165	1-259-428-11	CARBON	1K 5% 1/6W	R615	1-249-433-11	CARBON	22K 5% 1/4W
R166	1-259-428-11	CARBON	1K 5% 1/6W	R616	1-249-433-11	CARBON	22K 5% 1/4W
R167	1-259-428-11	CARBON	1K 5% 1/6W	R617	1-249-433-11	CARBON	22K 5% 1/4W
R168	1-259-428-11	CARBON	1K 5% 1/6W	R618	1-249-433-11	CARBON	22K 5% 1/4W
R169	1-259-428-11	CARBON	1K 5% 1/6W	R619	1-249-433-11	CARBON	22K 5% 1/4W
R170	1-259-428-11	CARBON	1K 5% 1/6W	R620	1-249-433-11	CARBON	22K 5% 1/4W
R171	1-259-428-11	CARBON	1K 5% 1/6W	R621	1-249-433-11	CARBON	22K 5% 1/4W
R172	1-259-428-11	CARBON	1K 5% 1/6W	R622	1-249-433-11	CARBON	22K 5% 1/4W
R173	1-259-428-11	CARBON	1K 5% 1/6W	R623	1-249-433-11	CARBON	22K 5% 1/4W
R188	1-259-404-11	CARBON	100 5% 1/6W	R624	1-249-433-11	CARBON	22K 5% 1/4W
R189	1-259-476-11	CARBON	100K 5% 1/6W	R625	1-249-433-11	CARBON	22K 5% 1/4W
R191	1-259-428-11	CARBON	1K 5% 1/6W	R626	1-249-433-11	CARBON	22K 5% 1/4W
△R516	1-212-881-11	FUSIBLE	100 5% 1/4W F	R627	1-249-433-11	CARBON	22K 5% 1/4W
△R517	1-212-881-11	FUSIBLE	100 5% 1/4W F	R628	1-249-433-11	CARBON	22K 5% 1/4W
R518	1-259-432-11	CARBON	1.5K 5% 1/6W	R629	1-249-433-11	CARBON	22K 5% 1/4W
R519	1-259-422-11	CARBON	560 5% 1/6W	R630	1-249-433-11	CARBON	22K 5% 1/4W
R520	1-259-468-11	CARBON	47K 5% 1/6W	R631	1-249-433-11	CARBON	22K 5% 1/4W
R521	1-259-442-11	CARBON	3.9K 5% 1/6W	R632	1-249-433-11	CARBON	22K 5% 1/4W
△R522	1-212-994-00	FUSIBLE	330 5% 1/2W F	R633	1-249-433-11	CARBON	22K 5% 1/4W
△R523	1-212-849-00	FUSIBLE	4.7 5% 1/4W F	R634	1-249-433-11	CARBON	22K 5% 1/4W
△R524	1-212-849-00	FUSIBLE	4.7 5% 1/4W F	R635	1-249-433-11	CARBON	22K 5% 1/4W
R525	1-217-611-00	RES, METAL PLATE	0.1 2W	R636	1-249-433-11	CARBON	22K 5% 1/4W
R526	1-217-611-00	RES, METAL PLATE	0.1 2W	R637	1-249-433-11	CARBON	22K 5% 1/4W
R527	1-259-432-11	CARBON	1.5K 5% 1/6W	R638	1-249-433-11	CARBON	22K 5% 1/4W
R528	1-259-456-11	CARBON	15K 5% 1/6W	R639	1-249-433-11	CARBON	22K 5% 1/4W
△R566	1-212-881-11	FUSIBLE	100 5% 1/4W F	R640	1-249-433-11	CARBON	22K 5% 1/4W
△R567	1-212-881-11	FUSIBLE	100 5% 1/4W F	R641	1-249-433-11	CARBON	22K 5% 1/4W
R568	1-259-432-11	CARBON	1.5K 5% 1/6W	R642	1-249-433-11	CARBON	22K 5% 1/4W
R569	1-259-422-11	CARBON	560 5% 1/6W	R643	1-249-433-11	CARBON	22K 5% 1/4W
R570	1-259-468-11	CARBON	47K 5% 1/6W	R644	1-249-433-11	CARBON	22K 5% 1/4W
R571	1-259-442-11	CARBON	3.9K 5% 1/6W	R645	1-249-433-11	CARBON	22K 5% 1/4W
△R572	1-212-994-00	FUSIBLE	330 5% 1/2W F	R646	1-249-433-11	CARBON	22K 5% 1/4W
△R573	1-212-849-00	FUSIBLE	4.7 5% 1/4W F	R647	1-249-433-11	CARBON	22K 5% 1/4W
△R574	1-212-849-00	FUSIBLE	4.7 5% 1/4W F	R648	1-249-433-11	CARBON	22K 5% 1/4W
R575	1-217-611-00	RES, METAL PLATE	0.1 2W	R649	1-249-433-11	CARBON	22K 5% 1/4W
R576	1-217-611-00	RES, METAL PLATE	0.1 2W	R650	1-249-433-11	CARBON	22K 5% 1/4W
R577	1-259-432-11	CARBON	1.5K 5% 1/6W	R651	1-249-435-11	CARBON	33K 5% 1/4W
R578	1-259-456-11	CARBON	15K 5% 1/6W	R652	1-249-435-11	CARBON	33K 5% 1/4W
△R605	1-212-950-00	FUSIBLE	4.7 5% 1/2W F (AEP2)	R653	1-249-435-11	CARBON	33K 5% 1/4W
△R606	1-212-950-00	FUSIBLE	4.7 5% 1/2W F (AEP2)	R654	1-249-441-11	CARBON	100K 5% 1/4W
△R607	1-212-986-00	FUSIBLE	150 5% 1/2W F (AEP1, E, G)	R655	1-259-428-11	CARBON	1K 5% 1/6W
△R607	1-212-990-00	FUSIBLE	220 5% 1/2W F (AEP2)	R656	1-259-444-11	CARBON	4.7K 5% 1/6W
				< VIBRATOR >			
				X601	1-567-928-11	VIBLATOR, CERAMIC (20MHz)	

The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety.  
Replace only with part number specified.

MAIN

P-SW

PANEL

Ref.No.	Part No.	Description	Remark
< GROUND PLATE >			
* Y602	4-942-204-01	PLATE, GROUND	
* Y603	4-870-539-00	PLATE, GROUND	
*****			
*	1-652-506-11	P-SW BOARD	
	*****		
< CONNECTOR >			
* CN805	1-561-651-00	SOCKET, CONNECTOR 7P	
< SWITCH >			
S801	1-554-303-21	SWITCH, TACTILE (POWER)	
*****			
*	A-4371-604-A	PANEL BOARD, COMPLETE	
	*****		
*	4-921-941-81	CUSHION (FL)	
*	4-966-143-01	HOLDER (S), FL TUBE	
< CAPACITOR >			
C409	1-126-059-11	ELECT 10uF 20% 50V	
C412	1-130-481-00	MYLAR 0.0068uF 5% 50V	
C413	1-136-163-00	FILM 0.068uF 5% 50V	
C414	1-130-477-00	MYLAR 0.0033uF 5% 50V	
C415	1-136-159-00	FILM 0.033uF 5% 50V	
C459	1-126-059-11	ELECT 10uF 20% 50V	
C462	1-130-481-00	MYLAR 0.0068uF 5% 50V	
C463	1-136-163-00	FILM 0.068uF 5% 50V	
C464	1-130-477-00	MYLAR 0.0033uF 5% 50V	
C465	1-136-159-00	FILM 0.033uF 5% 50V	
C801	1-164-159-11	CERAMIC 0.1uF 50V	
C802	1-164-159-11	CERAMIC 0.1uF 50V	
C803	1-124-598-11	ELECT 22uF 20% 25V	
C804	1-124-598-11	ELECT 22uF 20% 25V	
C805	1-164-159-11	CERAMIC 0.1uF 50V	
C806	1-164-159-11	CERAMIC 0.1uF 50V	
C807	1-164-159-11	CERAMIC 0.1uF 50V	
C808	1-124-902-00	ELECT 0.47uF 20% 50V	
C809	1-125-486-11	DOUBLE LAYERS 0.22F 5.5V	
C810	1-164-159-11	CERAMIC 0.1uF 50V	
C811	1-164-159-11	CERAMIC 0.1uF 50V	
< CONNECTOR >			
CN406	1-691-771-11	PLUG (MICRO CONNECTOR) 9P	
CN801	1-695-376-11	PIN, CONNECTOR (PC BOARD) 15P	
* CN802	1-506-509-11	PIN, CONNECTOR 4P	
* CN804	1-560-532-00	PIN, CONNECTOR 7P	

Ref.No.	Part No.	Description	Remark
< DIODE >			
D801	8-719-987-63	DIODE 1N4148M	
D802	8-719-987-63	DIODE 1N4148M	
D803	8-719-987-63	DIODE 1N4148M	
D804	8-719-987-63	DIODE 1N4148M	
D805	8-719-313-48	DIODE SEL3210S-TH12	
D806	8-719-987-63	DIODE 1N4148M	
D807	8-719-987-63	DIODE 1N4148M	
D808	8-719-987-63	DIODE 1N4148M	
< FLUORESCENT INDICATOR >			
FL801	1-517-244-11	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC801	8-759-284-56	IC HD6433248B43F	
IC802	8-759-075-35	IC TD62C950RF	
IC803	8-759-075-35	IC TD62C950RF	
IC804	8-741-100-48	IC SBX1610-59	
< TRANSISTOR >			
Q801	8-729-900-36	TRANSISTOR DTC124ES	
Q802	8-729-900-63	TRANSISTOR DTA124ES	
Q803	8-729-900-63	TRANSISTOR DTA124ES	
Q804	8-729-900-36	TRANSISTOR DTC124ES	
< RESISTOR >			
R416	1-249-434-11	CARBON 27K 5% 1/4W	
R417	1-249-422-11	CARBON 2.7K 5% 1/4W	F
R418	1-249-426-11	CARBON 5.6K 5% 1/4W	
R419	1-249-414-11	CARBON 560 5% 1/4W	F
R466	1-249-434-11	CARBON 27K 5% 1/4W	
R467	1-249-422-11	CARBON 2.7K 5% 1/4W	F
R468	1-249-426-11	CARBON 5.6K 5% 1/4W	
R469	1-249-414-11	CARBON 560 5% 1/4W	F
R801	1-249-429-11	CARBON 10K 5% 1/4W	
R802	1-249-417-11	CARBON 1K 5% 1/4W	F
R803	1-249-433-11	CARBON 22K 5% 1/4W	
R804	1-249-417-11	CARBON 1K 5% 1/4W	F
R805	1-249-417-11	CARBON 1K 5% 1/4W	F
R806	1-249-417-11	CARBON 1K 5% 1/4W	F
R807	1-249-429-11	CARBON 10K 5% 1/4W	
R808	1-259-380-11	CARBON 10 5% 1/6W	
R809	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R810	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R811	1-249-411-11	CARBON 330 5% 1/4W	
R812	1-259-404-11	CARBON 100 5% 1/6W	
R813	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R814	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R815	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R816	1-249-425-11	CARBON 4.7K 5% 1/4W	F

PANEL

SIRCS

VIDEO

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R817	1-249-425-11	CARBON 4.7K 5% 1/4W F		*	A-4371-115-A	VIDEO BOARD, COMPLETE *****	
R820	1-249-417-11	CARBON 1K 5% 1/4W F				< CAPACITOR >	
R821	1-249-425-11	CARBON 4.7K 5% 1/4W F		C1001	1-124-471-00	ELECT 1000uF 20% 6.3V	
R822	1-249-417-11	CARBON 1K 5% 1/4W F		C1002	1-124-471-00	ELECT 1000uF 20% 6.3V	
		< VARIABLE RESISTOR >		C1003	1-124-471-00	ELECT 1000uF 20% 6.3V	
RV402	1-238-157-11	RES, VAR, CARBON 100K/100K (BASS)		C1004	1-124-471-00	ELECT 1000uF 20% 6.3V	
RV403	1-238-157-11	RES, VAR, CARBON 100K/100K (TREBLE)		C1005	1-124-471-00	ELECT 1000uF 20% 6.3V	
RV404	1-238-156-11	RES, VAR, CARBON 250K/250K (BALANCE)		C1006	1-124-907-11	ELECT 10uF 20% 50V	
		< VIBLATOR >		C1007	1-124-907-11	ELECT 10uF 20% 50V	
X801	1-567-928-11	VIBRATOR, CERAMIC (20MHz)		C1008	1-124-907-11	ELECT 10uF 20% 50V	
*****				C1009	1-126-101-11	ELECT 100uF 20% 16V	
*	1-652-500-11	SIRCS BOARD (E) *****		C1010	1-126-101-11	ELECT 100uF 20% 16V	
*	1-653-796-11	SIRCS BOARD (AEP1, AEP2, G) *****		C1011	1-124-925-11	ELECT 2.2uF 20% 100V	
		< CAPACITOR >		C1012	1-126-101-11	ELECT 100uF 20% 16V	
C661	1-124-907-11	ELECT 10uF 20% 50V		C1013	1-126-101-11	ELECT 100uF 20% 16V	
		< CONNECTOR >		C1101	1-124-471-00	ELECT 1000uF 20% 6.3V	
* CN661	1-691-174-11	CONNECTOR (BOARD TO BOARD) 4P		C1102	1-136-165-00	FILM 0.1uF 5% 50V	
		< DIODE >		C1103	1-124-907-11	ELECT 10uF 20% 50V	
D660	8-719-987-63	DIODE 1N4148M		C1104	1-124-907-11	ELECT 10uF 20% 50V	
D661	8-719-987-63	DIODE 1N4148M		C1105	1-136-165-00	FILM 0.1uF 5% 50V	
		< JACK >		C1106	1-124-471-00	ELECT 1000uF 20% 6.3V	
J661	1-566-740-11	JACK (CONTROL S OUT)		C1107	1-136-165-00	FILM 0.1uF 5% 50V	
J662	1-566-740-11	JACK (CONTROL S IN)		C1108	1-124-471-00	ELECT 1000uF 20% 6.3V	
		< TRANSISTOR >		C1109	1-136-165-00	FILM 0.1uF 5% 50V	
Q661	8-729-900-80	TRANSISTOR DTC114ES		C1110	1-124-907-11	ELECT 10uF 20% 50V	
Q662	8-729-900-61	TRANSISTOR DTA114ES		C1111	1-124-907-11	ELECT 10uF 20% 50V	
Q663	8-729-900-80	TRANSISTOR DTC114ES		C1112	1-124-925-11	ELECT 2.2uF 20% 100V	
		< RESISTOR >		C1113	1-126-101-11	ELECT 100uF 20% 16V	
R660	1-249-429-11	CARBON 10K 5% 1/4W		C1114	1-126-101-11	ELECT 100uF 20% 16V	
R661	1-249-421-11	CARBON 2.2K 5% 1/4W F		C1115	1-126-101-11	ELECT 100uF 20% 16V	
*****				C1116	1-126-101-11	ELECT 100uF 20% 16V	
						< CONNECTOR >	
				CN1001	1-691-178-11	CONNECTOR (BOARD TO BOARD) 8P	
				CN1002	1-691-767-11	PLUG (MICRO CONNECTOR) 5P	
						< IC >	
				IC1001	8-759-261-99	IC MC14576CP	
				IC1002	8-759-805-13	IC LC7821	
				IC1003	8-759-805-14	IC LC7822	
				IC1101	8-759-261-99	IC MC14576CP	
				IC1102	8-759-261-99	IC MC14576CP	
				IC1103	8-759-805-13	IC LC7821	
				IC1104	8-759-805-14	IC LC7822	
						< JACK >	
				J1001	1-568-751-51	JACK, PIN (2P SHIELD TYPE) (MONITOR)	

# VIDEO

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
J1002	1-568-751-51	JACK, PIN (2P SHIELD TYPE) (VIDEO 1 IN/OUT)		R1019	1-249-413-11	CARBON 470 5% 1/4W	F
J1003	1-568-752-51	JACK, PIN (3P SHIELD TYPE) (VIDEO 3 IN, VIDEO 2 IN/OUT)		R1020	1-247-807-31	CARBON 100 5% 1/4W	
J1004	1-568-752-51	JACK, PIN (3P SHIELD TYPE) (TV IN, LD IN, VIDEO 3 OUT)		R1021	1-247-804-11	CARBON 75 5% 1/4W	
J1101	1-764-676-11	CONNECTOR (ROUND TYPE) (VIDEO 1 IN, MONITOR OUT)		R1022	1-247-804-11	CARBON 75 5% 1/4W	
J1102	1-764-676-11	CONNECTOR (ROUND TYPE) (VIDEO 1 OUT, VIDEO 2 IN)		R1023	1-247-804-11	CARBON 75 5% 1/4W	
J1103	1-764-676-11	CONNECTOR (ROUND TYPE) (VIDEO 2 OUT, LD IN)		R1024	1-247-804-11	CARBON 75 5% 1/4W	
< COIL >				R1025	1-247-804-11	CARBON 75 5% 1/4W	
L1001	1-410-521-11	INDUCTOR 100uH		R1026	1-247-895-00	CARBON 470K 5% 1/4W	
L1002	1-410-521-11	INDUCTOR 100uH		R1027	1-249-422-11	CARBON 2.7K 5% 1/4W	F
L1003	1-410-521-11	INDUCTOR 100uH		R1028	1-249-428-11	CARBON 8.2K 5% 1/4W	F
L1004	1-410-521-11	INDUCTOR 100uH		R1029	1-247-887-00	CARBON 220K 5% 1/4W	
< TRANSISTOR >				R1030	1-249-439-11	CARBON 68K 5% 1/4W	
Q1001	8-729-119-77	TRANSISTOR 2SA1175-FEK		R1031	1-249-425-11	CARBON 4.7K 5% 1/4W	F
Q1002	8-729-119-77	TRANSISTOR 2SA1175-FEK		R1101	1-249-403-11	CARBON 68 5% 1/4W	F
Q1003	8-729-119-77	TRANSISTOR 2SA1175-FEK		R1102	1-249-403-11	CARBON 68 5% 1/4W	F
Q1004	8-729-119-77	TRANSISTOR 2SA1175-FEK		R1103	1-249-429-11	CARBON 10K 5% 1/4W	
Q1005	8-729-119-77	TRANSISTOR 2SA1175-FEK		R1104	1-249-429-11	CARBON 10K 5% 1/4W	
Q1006	8-729-119-79	TRANSISTOR 2SC2785-FEK		R1105	1-247-895-00	CARBON 470K 5% 1/4W	
Q1101	8-729-119-79	TRANSISTOR 2SC2785-FEK		R1106	1-249-441-11	CARBON 100K 5% 1/4W	
Q1102	8-729-119-77	TRANSISTOR 2SA1175-FEK		R1107	1-249-422-11	CARBON 2.7K 5% 1/4W	F
Q1103	8-729-119-77	TRANSISTOR 2SA1175-FEK		R1108	1-249-428-11	CARBON 8.2K 5% 1/4W	F
Q1104	8-729-119-77	TRANSISTOR 2SA1175-FEK		R1109	1-249-403-11	CARBON 68 5% 1/4W	F
Q1105	8-729-119-77	TRANSISTOR 2SA1175-FEK		R1110	1-249-403-11	CARBON 68 5% 1/4W	F
< RESISTOR >				R1111	1-249-429-11	CARBON 10K 5% 1/4W	
R1001	1-249-403-11	CARBON 68 5% 1/4W	F	R1112	1-249-429-11	CARBON 10K 5% 1/4W	
R1002	1-249-429-11	CARBON 10K 5% 1/4W		R1113	1-249-413-11	CARBON 470 5% 1/4W	F
R1003	1-249-413-11	CARBON 470 5% 1/4W	F	R1114	1-249-413-11	CARBON 470 5% 1/4W	F
R1004	1-247-807-31	CARBON 100 5% 1/4W		R1115	1-249-429-11	CARBON 10K 5% 1/4W	
R1005	1-249-403-11	CARBON 68 5% 1/4W	F	R1117	1-247-807-31	CARBON 100 5% 1/4W	
R1006	1-249-429-11	CARBON 10K 5% 1/4W		R1118	1-247-807-31	CARBON 100 5% 1/4W	
R1007	1-249-413-11	CARBON 470 5% 1/4W	F	R1119	1-249-403-11	CARBON 68 5% 1/4W	F
R1008	1-247-807-31	CARBON 100 5% 1/4W		R1120	1-249-403-11	CARBON 68 5% 1/4W	F
R1009	1-249-403-11	CARBON 68 5% 1/4W	F	R1121	1-249-429-11	CARBON 10K 5% 1/4W	
R1010	1-249-429-11	CARBON 10K 5% 1/4W		R1122	1-249-429-11	CARBON 10K 5% 1/4W	
R1011	1-249-413-11	CARBON 470 5% 1/4W	F	R1123	1-249-413-11	CARBON 470 5% 1/4W	F
R1012	1-247-807-31	CARBON 100 5% 1/4W		R1124	1-249-413-11	CARBON 470 5% 1/4W	F
R1013	1-249-403-11	CARBON 68 5% 1/4W	F	R1125	1-249-429-11	CARBON 10K 5% 1/4W	
R1014	1-249-429-11	CARBON 10K 5% 1/4W		R1127	1-247-807-31	CARBON 100 5% 1/4W	
R1015	1-249-413-11	CARBON 470 5% 1/4W	F	R1128	1-247-807-31	CARBON 100 5% 1/4W	
R1016	1-247-807-31	CARBON 100 5% 1/4W		R1129	1-247-804-11	CARBON 75 5% 1/4W	
R1017	1-249-403-11	CARBON 68 5% 1/4W	F	R1130	1-247-804-11	CARBON 75 5% 1/4W	
R1018	1-249-429-11	CARBON 10K 5% 1/4W		R1131	1-247-804-11	CARBON 75 5% 1/4W	
				R1132	1-247-804-11	CARBON 75 5% 1/4W	
				R1133	1-247-804-11	CARBON 75 5% 1/4W	
				R1134	1-247-804-11	CARBON 75 5% 1/4W	
				R1135	1-249-441-11	CARBON 100K 5% 1/4W	
				R1136	1-247-887-00	CARBON 220K 5% 1/4W	
				R1137	1-247-887-00	CARBON 220K 5% 1/4W	
				R1138	1-249-441-11	CARBON 100K 5% 1/4W	
				R1139	1-249-425-11	CARBON 4.7K 5% 1/4W	F

Ref.No.	Part No.	Description	Remark			Ref.No.	Part No.	Description	Remark		
*****						C456	1-164-096-11	CERAMIC	0.01uF		50V
*	1-652-510-11	VIDEO 4 BOARD	*****			C458	1-126-022-11	ELECT	47uF	20%	16V
						C460	1-162-211-31	CERAMIC	33PF	5%	50V
						C461	1-110-335-11	MYLAR	100PF	5%	50V
						< CAPACITOR >					
C1117	1-162-284-31	CERAMIC	150PF	10%	50V (G)	CN401	1-691-771-11	PLUG (MICRO CONNECTOR)	9P		
C1118	1-162-284-31	CERAMIC	150PF	10%	50V (G)	CN402	1-691-184-11	CONNECTOR (BOARD TO BOARD)	14P		
< CONNECTOR >						CN403	1-691-765-11	PLUG (MICRO CONNECTOR)	3P		
						CN404	1-691-767-11	PLUG (MICRO CONNECTOR)	5P		
						CN405	1-691-771-11	PLUG (MICRO CONNECTOR)	9P		
* CN1201	1-564-519-11	PLUG, CONNECTOR	4P			< DIODE >					
* CN1202	1-564-521-11	PLUG, CONNECTOR	6P			D401	8-719-987-63	DIODE	1N4148M		
< JACK >						< IC >					
J1201	1-764-190-11	JACK, PIN 3P (VIDEO 4)				IC402	8-759-051-63	IC	TC9215P		
< RESISTOR >						IC403	8-759-634-50	IC	M5218AL		
R1201	1-249-417-11	CARBON	1K	5%	1/4W F	IC404	8-759-824-12	IC	LC7536		
R1202	1-249-417-11	CARBON	1K	5%	1/4W F	IC405	8-759-051-63	IC	TC9215P		
R1203	1-247-804-11	CARBON	75	5%	1/4W	IC406	8-759-962-08	IC	BA6208		
R1204	1-247-804-11	CARBON	75	5%	1/4W	IC407	8-759-634-50	IC	M5218AL		
R1205	1-247-804-11	CARBON	75	5%	1/4W	IC408	8-759-634-50	IC	M5218AL		
*****						IC409	8-759-634-50	IC	M5218AL		
* A-4371-682-A	VOL BOARD, COMPLETE (AEP1, AEP2, G)					< TRANSISTOR >					
*****						Q401	8-729-141-30	TRANSISTOR	2SC3623A-LK		
* A-4371-768-A	VOL BOARD, COMPLETE (E)					Q402	8-729-141-30	TRANSISTOR	2SC3623A-LK		
*****						Q403	8-729-141-30	TRANSISTOR	2SC3623A-LK		
< CAPACITOR >						Q404	8-729-900-63	TRANSISTOR	DTA124ES		
C401	1-126-022-11	ELECT	47uF	20%	16V	Q451	8-729-141-30	TRANSISTOR	2SC3623A-LK		
C402	1-126-059-11	ELECT	10uF	20%	50V	Q452	8-729-141-30	TRANSISTOR	2SC3623A-LK		
C403	1-126-059-11	ELECT	10uF	20%	50V	< RESISTOR >					
C404	1-126-059-11	ELECT	10uF	20%	50V	R401	1-259-484-11	CARBON	220K	5%	1/6W
C405	1-164-159-11	CERAMIC	0.1uF		50V	R402	1-259-444-11	CARBON	4.7K	5%	1/6W
C408	1-126-022-11	ELECT	47uF	20%	16V	R403	1-259-452-11	CARBON	10K	5%	1/6W
C410	1-162-211-31	CERAMIC	33PF	5%	50V	R404	1-247-717-11	CARBON	2.2K	5%	1/4W F
C411	1-110-335-11	MYLAR	100PF	5%	50V	R405	1-259-436-11	CARBON	2.2K	5%	1/6W
C416	1-136-165-00	FILM	0.1uF	5%	50V	R407	1-259-428-11	CARBON	1K	5%	1/6W
C417	1-136-165-00	FILM	0.1uF	5%	50V	R408	1-259-428-11	CARBON	1K	5%	1/6W
C418	1-126-059-11	ELECT	10uF	20%	50V	R409	1-259-428-11	CARBON	1K	5%	1/6W
C420	1-110-335-11	MYLAR	100PF	5%	50V	R411	1-259-484-11	CARBON	220K	5%	1/6W
C421	1-126-022-11	ELECT	47uF	20%	16V	R412	1-259-454-11	CARBON	12K	5%	1/6W
C422	1-126-022-11	ELECT	47uF	20%	25V	R413	1-259-484-11	CARBON	220K	5%	1/6W
C423	1-126-022-11	ELECT	47uF	20%	25V	R414	1-259-430-11	CARBON	1.2K	5%	1/6W
C451	1-126-022-11	ELECT	47uF	20%	16V	R415	1-259-452-11	CARBON	10K	5%	1/6W
C452	1-126-059-11	ELECT	10uF	20%	50V	R420	1-259-484-11	CARBON	220K	5%	1/6W
C453	1-126-059-11	ELECT	10uF	20%	50V	R421	1-259-430-11	CARBON	1.2K	5%	1/6W
C454	1-126-059-11	ELECT	10uF	20%	50V	R422	1-259-460-11	CARBON	22K	5%	1/6W
C455	1-124-903-11	ELECT	1uF	20%	50V						

VOL

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R423	1-259-436-11	CARBON	2. 2K 5% 1/6W	FL801	1-517-244-11	INDICATOR TUBE, FLUORESCENT	
R424	1-259-476-11	CARBON	100K 5% 1/6W	IC601	8-759-231-58	IC TA7812S	
R425	1-249-385-11	CARBON	2. 2 5% 1/6W F	IC602	8-759-245-86	IC TA7912S	
R426	1-259-404-11	CARBON	100 5% 1/6W	IC603	8-759-231-53	IC TA7805S	
R427	1-259-404-11	CARBON	100 5% 1/6W	Q008	8-729-141-89	TRANSISTOR 2SD1585-K	
R451	1-259-484-11	CARBON	220K 5% 1/6W	Q011	8-729-383-73	TRANSISTOR 2SC2837	
R452	1-259-444-11	CARBON	4. 7K 5% 1/6W	Q012	8-729-318-63	TRANSISTOR 2SA1186	
R453	1-259-452-11	CARBON	10K 5% 1/6W	Q508	8-729-141-89	TRANSISTOR 2SD1585-K	
R454	1-247-717-11	CARBON	2. 2K 5% 1/4W F	Q511	8-729-383-73	TRANSISTOR 2SC2837	
R455	1-259-436-11	CARBON	2. 2K 5% 1/6W	Q512	8-729-318-63	TRANSISTOR 2SA1186	
R456	1-249-421-11	CARBON	2. 2K 5% 1/4W F	Q558	8-729-141-89	TRANSISTOR 2SD1585-K	
R457	1-259-428-11	CARBON	1K 5% 1/6W	Q561	8-729-383-73	TRANSISTOR 2SC2837	
R458	1-259-428-11	CARBON	1K 5% 1/6W	Q562	8-729-318-63	TRANSISTOR 2SA1186	
R459	1-259-428-11	CARBON	1K 5% 1/6W	△T1	1-426-948-11	TRANSFORMER, POWER (AEP1, G)	
R460	1-259-476-11	CARBON	100K 5% 1/6W	△T1	1-426-949-11	TRANSFORMER, POWER (AEP2)	
R461	1-259-484-11	CARBON	220K 5% 1/6W	△T1	1-426-950-11	TRANSFORMER, POWER (E)	
R462	1-259-454-11	CARBON	12K 5% 1/6W				
R463	1-259-484-11	CARBON	220K 5% 1/6W				
R464	1-259-430-11	CARBON	1. 2K 5% 1/6W				
R465	1-259-452-11	CARBON	10K 5% 1/6W				
R474	1-259-476-11	CARBON	100K 5% 1/6W				
< VARIABLE RESISTOR >							
RV401	1-241-563-31	RES, VAR, CARBON 100KX4 (MASTER VOLUME)					
< RELAY >							
RY401	1-515-727-11	RELAY					
*****							
MISCELLANEOUS							
*****							
12	1-590-882-11	WIRE, FLAT TYPE (15 CORE)					
△51	1-559-297-31	CODE, POWER (E)					
△51	1-574-383-11	CORD, POWER (AEP1, AEP2, G)					
△52	1-569-007-11	ADAPTER, CONVERSION 2P (E)					
60	1-690-782-11	WIRE (FLAT TYPE) (29 CORE)					
△CNJ902	1-526-794-11	OUTLET, AC (AEP1, AEP2, G)					
△F1	1-532-237-00	FUSE, TIME LAG (T3. 15A 250V)					
△F2	1-532-237-00	FUSE, TIME LAG (T3. 15A 250V) (E)					
△F2	1-532-286-00	FUSE (2. 5A 250V) (AEP, G)					
△F601	1-532-299-00	FUSE (5. 0A 250V)					
△F602	1-532-299-00	FUSE (5. 0A 250V)					
△F603	1-532-259-00	FUSE (1. 6A 250V)					
△F604	1-532-259-00	FUSE (1. 6A 250V)					
△F605	1-532-259-00	FUSE (1. 6A 250V)					
△F606	1-532-259-00	FUSE (1. 6A 250V)					

Ref.No.	Part No.	Description	Remark
FL801	1-517-244-11	INDICATOR TUBE, FLUORESCENT	
IC601	8-759-231-58	IC TA7812S	
IC602	8-759-245-86	IC TA7912S	
IC603	8-759-231-53	IC TA7805S	
Q008	8-729-141-89	TRANSISTOR 2SD1585-K	
Q011	8-729-383-73	TRANSISTOR 2SC2837	
Q012	8-729-318-63	TRANSISTOR 2SA1186	
Q508	8-729-141-89	TRANSISTOR 2SD1585-K	
Q511	8-729-383-73	TRANSISTOR 2SC2837	
Q512	8-729-318-63	TRANSISTOR 2SA1186	
Q558	8-729-141-89	TRANSISTOR 2SD1585-K	
Q561	8-729-383-73	TRANSISTOR 2SC2837	
Q562	8-729-318-63	TRANSISTOR 2SA1186	
△T1	1-426-948-11	TRANSFORMER, POWER (AEP1, G)	
△T1	1-426-949-11	TRANSFORMER, POWER (AEP2)	
△T1	1-426-950-11	TRANSFORMER, POWER (E)	
*****			
ACCESSORIES & PACKING MATERIALS			
*****			
	1-467-704-11	REMOTE COMMANDER (RM-P790)	
	3-758-588-11	MANUAL, INSTRUCTION	
		(ENGLISH, FRENCH, SPANISH, CHINESE) (E)	
	3-758-588-41	MANUAL, INSTRUCTION	
		(ENGLISH, FRENCH, GERMAN, DUTCH) (AEP1, AEP2, G)	
	3-758-588-51	MANUAL, INSTRUCTION	
		(SPANISH, PORTUGUESE, SWEDISH, ITALIAN) (AEP1, AEP2)	
	4-925-079-01	COVER, BATTERY (for RM-P790)	
	4-933-001-01	CUSHION	
*	4-966-656-01	INDIVIDUAL CARTON	
*****			

\*\*\*\*\*  
HARDWARE LIST  
\*\*\*\*\*

#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3
#2	7-682-547-09	SCREW +BVTT 3X6 (S)
#3	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3
#4	7-682-561-04	SCREW +BVTT 4X8 (S)

The components identified by mark △ or dotted line with mark △ are critical for safety.  
Replace only with part number specified.

# TA-AV790ESD

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**SONY.**  
**SERVICE MANUAL**

*AEP Model*  
*E Model*

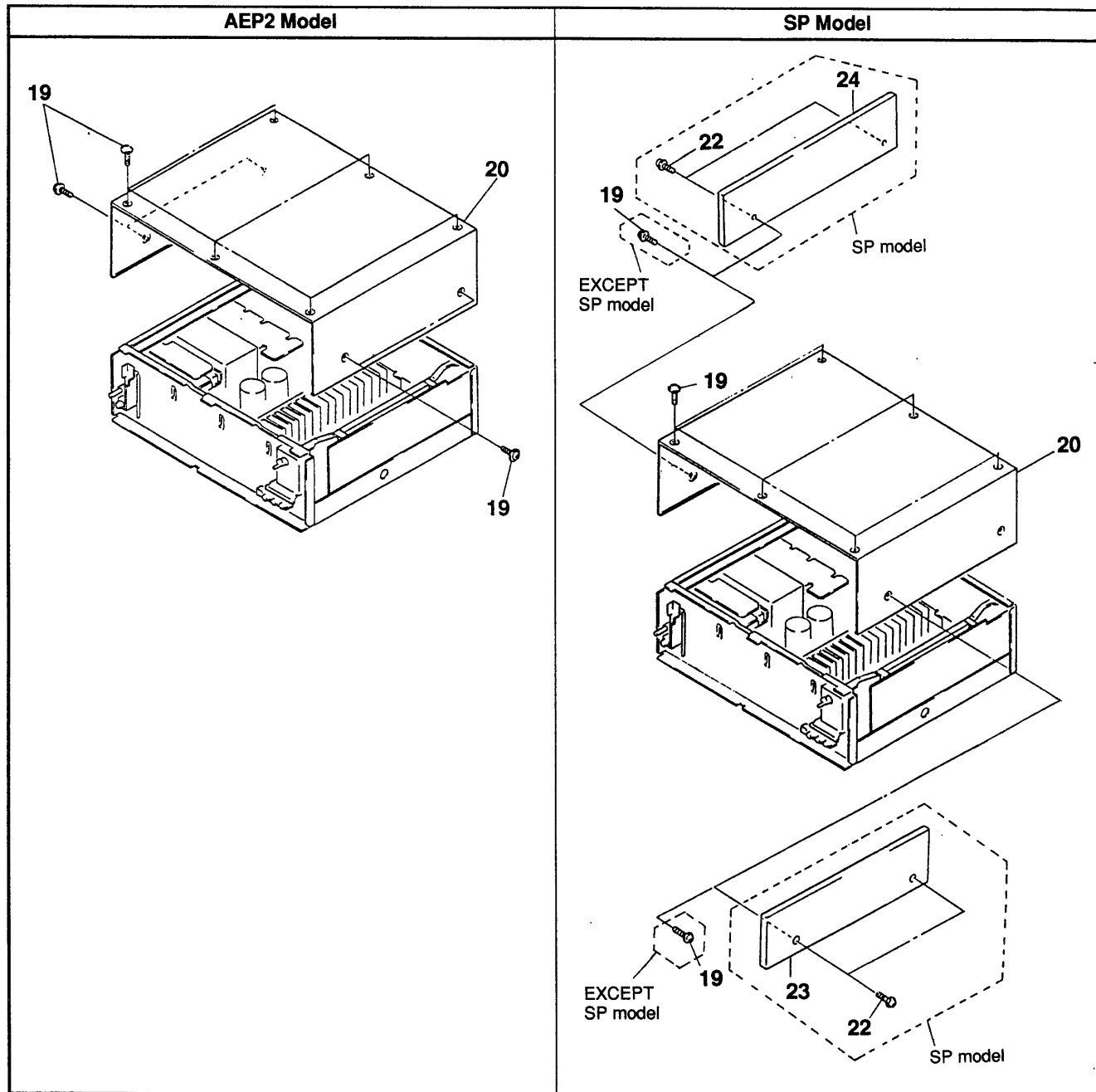
## **SUPPLEMENT-1**

File this Supplement with the service manual.

<b>Subject : Singapore (SP) Model Addition (Titanium color)</b>
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- **SP Model is similar to earlier AEP2 Model.**
- **Refer to AEP2 Model for information not contained in this service manual.**

EXPLODED VIEWS — FRONT PANEL SECTION — (Page 58)





**Note:**

There are two type of AEP models which are depend on countries.

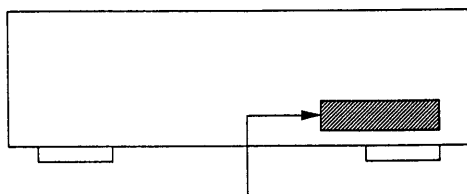
AEP2 : Model for Scandinavian countries, Switzerland, Spain and Portugal.

AEP1 : Model for other European countries.

 : CHANGED PORTION

**MODEL IDENTIFICATION**

— BACK PANEL —

**TA-AV790ESD :**

4-966-126-2□ : AEP1 model

4-966-126-3□ : AEP2, Singapore model

4-966-126-4□ : German model

4-966-126-5□ : E model

**NOTE :**

- Items marked “ \* ” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Abbreviation  
SP : Singapore model.

Page	REF.No.	AEP2 Model	SP Model
58	2	4-966-127-21 PANEL (G), FRONT	4-966-127-31 PANEL (G), FRONT
	3	X-3365-387-1 KNOB (BAL) ASSY	X-4945-053-1 KNOB (BAL) ASSY
	4	X-4942-798-1 KNOB (R53) ASSY	X-4944-864-2 KNOB (R53) ASSY
	9	4-966-142-01 BUTTON (R1)	4-966-142-11 BUTTON (R1)
	13	X-4944-860-1 BUTTON (BASE) ASSY	X-4944-861-1 BUTTON (BASE) ASSY
	15	4-966-139-01 BUTTON (F) (VIDEO)	4-966-139-31 BUTTON (F) (VIDEO)
	16	4-966-139-11 BUTTON (F) (MIX)	4-966-139-41 BUTTON (F) (MIX)
	17	4-966-139-21 BUTTON (F) (AUDIO)	4-966-139-51 BUTTON (F) (AUDIO)
	18	X-4944-858-1 BASE ASSY, FRONT PANEL	X-4944-859-1 BASE ASSY, FRONT PANEL
	19	3-704-360-01 SCREW (CASE) (M3X8)	
	20	4-966-116-01 CASE	4-966-116-21 CASE
	22	_____	4-933-446-01 SCREW (SIDE PANEL)
	23	_____	X-4945-088-1 PANEL (R) ASSY, SIDE
	24	_____	X-4945-087-1 PANEL (L) ASSY, SIDE
59	64	4-966-140-01 BUTTON (A)	4-966-140-11 BUTTON (A)
61	157	X-4941-617-1 FOOT (58175) ASSY	X-4942-009-1 FOOT (58175) ASSY
78		3-758-588-41 MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, DUTCH)	3-758-588-11 MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, CHINESE)
		4-966-656-01 INDIVIDUAL CARTON	4-973-410-01 INDIVIDUAL CARTON