SDP-E800

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Chinese Model

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

SPECIFICATIONS

Digital inputs	Optical: 3 Coaxial: 1 AC-3 RF: 1
Digital outputs	Optical: 1
Analog outputs	FRONT (L R), REAR (L R), CENTER, WOOFER: Output level: 1V Output impedance: 1 kilohms
BASS BOOST	+5 dB at 60 Hz
Video inputs	3 (ANALOG VIDEO IN, DIGITAL 1 VIDEO IN, DIGITAL 2 VIDEO IN)
Video output	1 (MONITOR OUT)

Power requirements	US, Canadian 120 V AC, 60 Hz AEP, UK, German, Kuwait, Singapore, Malaysia, Chinese 230 V AC, 50/60 Hz Australian 240 V AC, 50 Hz
Power consumption	35 W
Dimensions	430 × 98 × 365.5 mm (17 × 3 7/8 × 14 3/8 in)
Mass (Approx.)	4.5 kg (9 lb 15 oz)
Supplied accessories	See page 4.

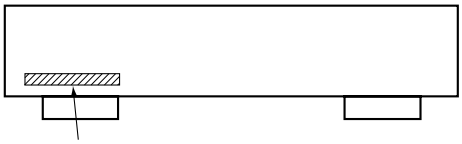
Design and specifications are subject to change without notice.

DIGITAL SURROUND PROCESSOR

MICROFILM

SONY®

MODEL IDENTIFICATION
— BACK PANEL —



Parts No.

MODEL	PARTS No.
US model	4-992-696-0□
E, SP model	4-992-696-1□
AEP, UK model	4-992-696-2□
AUS model	4-992-696-3□
CND model	4-992-696-4□
CH model	4-992-696-5□

- Abbreviation
  CND : Canadian model.
  SP : Singapore model.
  CH : Chinese model.
  AUS : Australian model.
- For detailed Malaysia model refer to E model.
- For detailed German, East European model refer to AEP model.

Notes on chip component replacement
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

TABLE OF CONTENTS

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ 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.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1
SERVICING NOTE

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE

The AC leakage from any exposed metal part to earth Ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

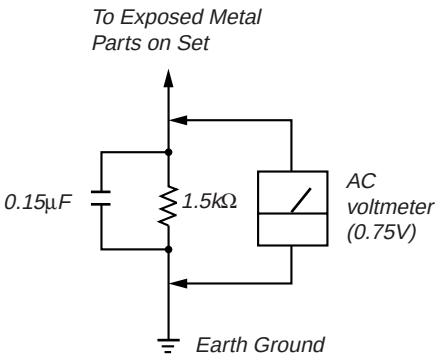


Fig. A. Using an AC voltmeter to check AC leakage.

RV101 of MAIN Board

RV101 of the MAIN board requires no adjustments. Please note that it should be dixed to mechanical center position when you moved and do not know origin position.

L702 of PLL board

Do not touch the L702 on the PLL Board because it is not needed to adjust.

Connection and Test Disc

Connection of this unit to a AC-3 Dolby surround equipment will realize outstanding sound playback.
Check if the respective surround channel outputs are playing back normally by the following method.

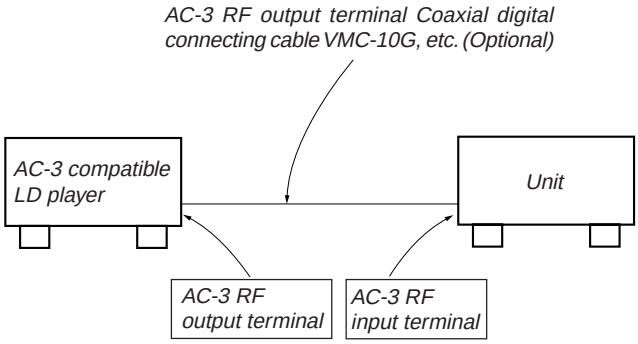
Jig :

Discription	Part No.
AC-3 TEST LD	J-2501-132-A

Connected Equipment:

AC-3 LD player
(This unit is also compatible with the digital versatile disc player (DVD). The DVD must be checked with the LD player using all the circuits of this unit.)

Connecting Method:

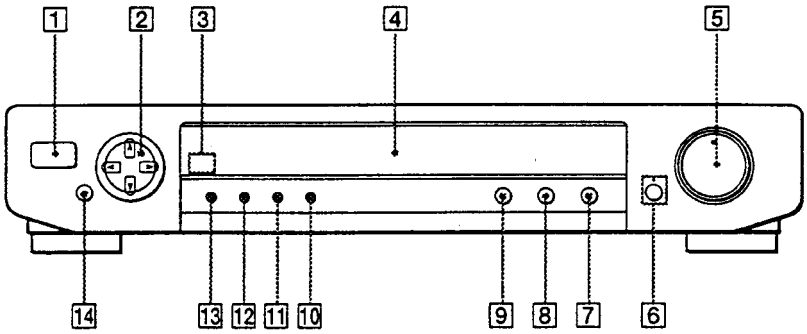


Checking Method:

Play back a test disc of the LD player, and check if the contents recorded on the disc case (printed on the disc case) are played back normally.

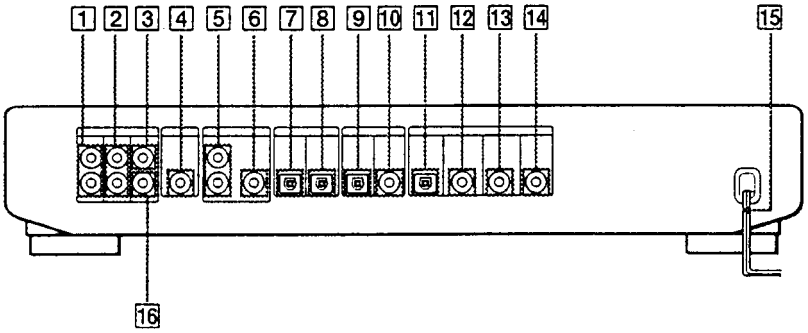
This section is extracted from instruction manual.

Front Panel Descriptions



1 POWER
2 Digital processing control
3 Remote sensor
4 Display
5 MASTER VOLUME
6 BASS BOOST
7 SOUND FIELD ON/OFF
8 MODE
9 GENRE
10 ANALOG
11 DIGITAL 3
12 DIGITAL 2
13 DIGITAL 1
14 DPC MODE

Rear Panel Descriptions



1 FRONT L (left) and R (right) OUTPUT
2 REAR L (left) and R (right) OUTPUT
3 CENTER OUTPUT
4 MONITOR OUT
5 ANALOG: audio IN L (left) and R (right)
6 ANALOG: VIDEO IN
7 DIGITAL 3: OPTICAL OUT
8 DIGITAL 3: OPTICAL IN
9 DIGITAL 2: OPTICAL IN
10 DIGITAL 2: VIDEO IN
11 DIGITAL 1: OPTICAL IN
12 DIGITAL 1: COAX IN
13 DIGITAL 1: AC-3 RF
14 DIGITAL 1: VIDEO IN
15 AC power cord
16 WOOFER OUTPUT

Getting Started

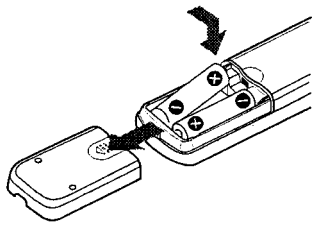
Unpacking

Check that you received the following items with the processor:

- Remote commander (remote) (1)
- Size AA (R6) batteries (2)
- Connecting cords (3)

Inserting batteries into the remote

Insert two size AA (R6) batteries with the + and – on the battery compartment. When using the remote, point it at the remote sensor ▣ on the processor.



When to replace batteries

Under normal use, the batteries should last for about 6 months. When the remote no longer operates the processor, replace both batteries with new ones.

Notes

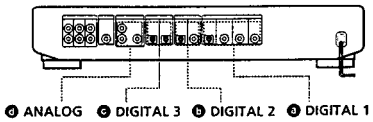
- Do not leave the remote in an extremely hot or humid place.
- Do not use a new battery with an old one.
- Do not expose the remote sensor to direct sunlight or lighting apparatuses. Doing so may cause a malfunction.
- If you don't use the remote for an extended period of time, remove the batteries to avoid possible damage from battery leakage and corrosion.

Before you get started

- Do not connect the power cord to an AC outlet or press the POWER switch before completing all connections.
- The cable connectors should be fully inserted into the jacks. Loose connection may cause hum and noise.

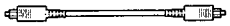
Source Component Hookups

The surround processor allows you to connect up to 3 digital audio (video) source components, such as a DVD player, LD player (with AC-3 RF output) and CD player (etc.). You can also connect 1 analog source component, such as a VCR.



What cords will I need?

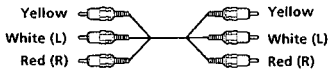
- Optical digital connecting cord (not supplied)



- Coaxial digital connecting cord (not supplied)

- Video cable (not supplied)

- Audio/video cable (not supplied)

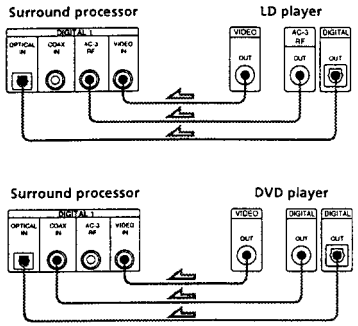


Make sure to match the color of the plugs and the jacks:

- Yellow jacks and plugs: Video signal
- Red jacks and plugs: Right audio channel
- White jacks and plugs: Left audio channel

⟵ : signal flow

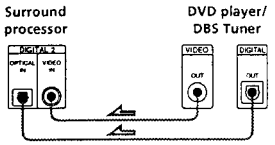
ⓐ DIGITAL 1 (to a LD or DVD player)



Notes for LD players

- Be sure to connect the LD player's AC-3 RF output to the surround processor's AC-3 RF input jack.
- If your LD player has an optical digital output, connect it to the DIGITAL 1 OPTICAL IN jack on this unit. This connection can be used together with the AC-3 RF connection.

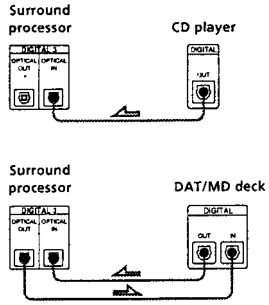
ⓑ DIGITAL 2 (to a DVD player or DBS tuner)



Note

If your DVD player has a coaxial digital output, we recommend connecting the DVD player's COAXIAL DIGITAL INPUT to the this unit's DIGITAL 1 COAX IN instead of making the optical connection to DIGITAL 2.

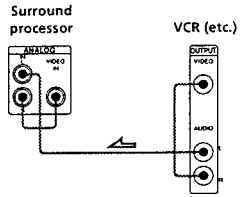
ⓒ DIGITAL 3 (to a CD player orDAT/MD deck)



Note

This unit is only compatible with digital components using 32 kHz/44.1 kHz/48 kHz sampling frequencies. It is not compatible with 96 kHz.

ⓓ ANALOG (to a VCR, etc.)

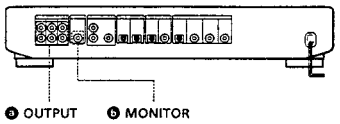


Warning regarding the playback of DAT/MD sources

When playing DAT/MD sources through this unit, do not play a DAT/MD that contains digital recordings made from a DVD player whose digital output was set to "DOLBY DIGITAL". High volume noise will be output which may damage this unit or your speakers.

Amplifier Hookups

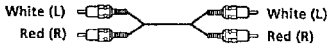
Connect the audio and video signals output from the surround processor to a multi-channel amplifier with 5.1 ch input and video input capability.



What cords will I need?

- Video cable (not supplied)

- Audio cable (supplied)

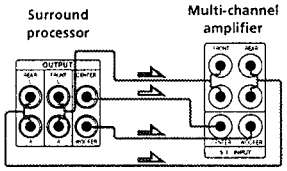


- Audio cable (not supplied)

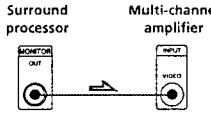
Make sure to match the color of the plugs and the jacks:

- Yellow jacks and plugs: Video signal
- Red jacks and plugs: Right audio channel
- White jacks and plugs: Left audio channel
- You can use either red or white cables for the center and sub woofer audio channels.

Ⓐ OUTPUT (to 5.1 ch audio input)



Ⓑ MONITOR (to 5.1 ch video input*)



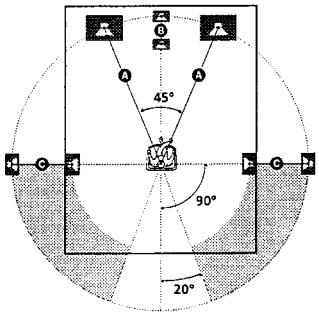
* If the 5.1 ch input does not have a corresponding video input jack, connect MONITOR to the video input jack of the function that is selected when the 5.1 input is activated. (Refer to the operating instructions supplied with your amplifier for details regarding its operation.)

Speaker Placement

Normally, to obtain the best possible surround sound all speakers should be placed the same distance from your listening position (Ⓐ).
This unit, however, allows you to place the center speaker closer (Ⓑ), so that is lines up with the front speakers. The rear speakers can also be placed closer (Ⓒ), according to the shape of your room.
If you feel that this placement reduces the surround effects, you can adjust the center and rear delay parameters to obtain the effect you desire (see page 9).

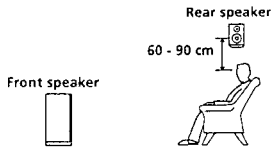
Note

To take full advantage of Dolby Digital (AC-3) surround effects we reccommend using high quality speakers. We also reccommend using front, center, and rear speakers that are of the same size and quality.

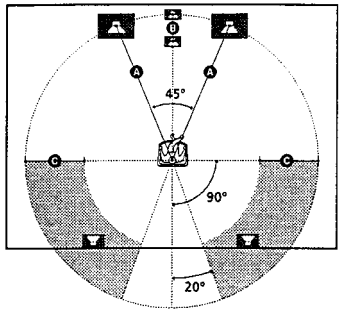


Notes

- Do not place the center or rear speakers farther away from the listening position than the front speakers.
- When mounting the rear speakers on side walls perpendicular to the listening position they should be placed 60 - 90 cm above the listening position.



Depending on the shape of your room (etc.), you may wish to place the rear speakers behind you instead of on the side walls. One advantage of this placement is that you can use a pair of large floor standing speakers matching your front speakers.



Note

If you place the rear speakers behind you, be sure to check the speaker location setting in the SP. SETUP menu when using VIRTUAL MULTI REAR and VIRTUAL REAR SHIFT sound fields (see pages 8 and 13 for details).

Before You Use Your Processor

If your processor has a voltage selector on the rear panel

Your processor operates on either 110-120 V or 220-230 V AC. Before connecting the unit to a wall outlet, be sure to set the voltage selector on the rear of the unit to the appropriate position according to your local power supply.

Before you start using your processor, make sure that you have:

- Turned MASTER VOLUME to near the center position.

Turn on the processor and check the following indicator.

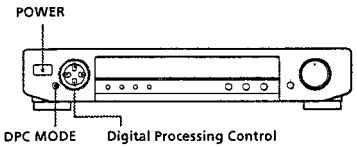
- Press MUTING on the remote if "MUTING" appears in the display.

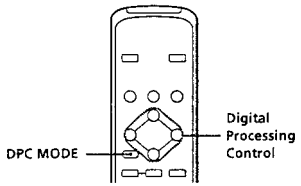
Getting Started

Speaker Set Up

To obtain the best possible surround sound, first specify the type of speakers you have connected. Then use the test tone to adjust the speaker volumes to the same level.

Specifying the speaker type





1 Press POWER on the front panel to turn on the processor.

2 Press DPC MODE repeatedly until "SP.SETUP" appears in the display

3 Use digital processing control buttons (∧ / ∨) to select the parameter you want.

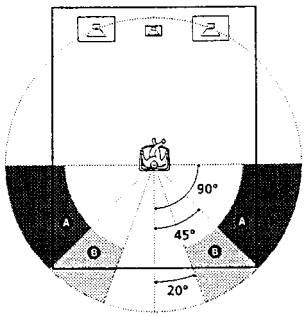
Front speaker
Initial setting is : FRONT SP. [LARGE]
- If you connect large speakers that will effectively reproduce bass frequencies, select "LARGE".
- If you cannot obtain sufficient surround effects when playing a Dolby Digital (AC-3) source (a source for which the DISCRETE indicator lights), select "SMALL". The bass frequencies for the front speakers will be output from the sub woofer or other "LARGE" speakers.

Center speaker
Initial setting is : CENTER SP. [LARGE]
- If you connect large speakers that will effectively reproduce bass frequencies, select "LARGE".
- If you cannot obtain sufficient surround effects when playing a Dolby Digital (AC-3) source (a source for which the DISCRETE indicator lights), select "SMALL". The bass frequencies for the center speaker will be output from the sub woofer or other "LARGE" speakers.
- If you do not connect the center speaker, select "NO".

Rear speaker
Initial setting is : REAR SP. [LARGE]
- If you connect large speakers that will effectively reproduce bass frequencies, select "LARGE".
- If you cannot obtain sufficient surround effects when playing a Dolby Digital (AC-3) source (a source for which the DISCRETE indicator lights), select "SMALL". The bass frequencies for the rear speakers will be output from the sub woofer or other "LARGE" speakers.
- If you do not connect rear speakers, select "NO".

Rear speaker place
Initial setting is : REAR SP. [SIDE]
This parameter lets you specify the location of your rear speakers for proper implementation of the Digital Cinema Sound VIRTUAL REAR SHIFT and VIRTUAL MULTI REAR modes. Refer to the illustration below.
- Set to SIDE if the location of your rear speakers corresponds to section Ⓐ.
- Set to BEHIND if the location of your rear speakers corresponds to section Ⓑ.

This setting effects only the VIRTUAL REAR SHIFT and VIRTUAL MULTI REAR modes.
This parameter does not appear when the rear speaker parameter is set to "NO".



Sub woofer
Initial setting is : SUB WOOFER [YES]
- If you connect a sub woofer, select "YES" to output the LFE (low frequency extension) channel from the sub woofer.
- If you do not connect a sub woofer, select "NO". This activates the Dolby Digital (AC-3) bass redirection circuitry and outputs the LFE signals from other speakers.
- In order to take full advantage of the Dolby Digital (AC-3) bass redirection circuitry, we recommend setting the sub woofer's cut off frequency as high as possible. (However, when using an amplifier with 5.1 ch inputs, set the sub woofer's cut off frequency to match the characteristics of the amplifier.

4 Use digital processing control buttons (< / >) to adjust the level of the parameter.

Adjusting the delay time

The delay time allows you create a more effective surround effect by adding a sense of depth to the center or rear channels. Longer delay times create a greater sense of depth.

1 Press POWER on the front panel to turn on the processor.

2 Press DPC MODE repeatedly until "OTHER SETUP" appears in the display

3 Use digital processing control buttons (∧ / ∨) to select the parameter you want.

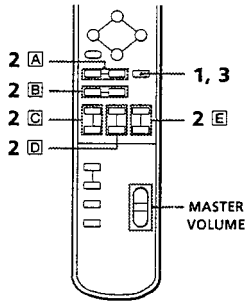
Center speaker delay
Initial setting is : CENTER DELAY 0ms
Use this parameter to add a sense of depth to the center channel.
- Center speaker delay time can be set in 1 ms steps from 0 to 5 ms.

Rear speaker delay
Initial setting is : REAR DELAY 5ms
Use this parameter to add a sense of depth to the rear channels.
When "PRO LOGIC" is displayed, the actual delay time is 15ms longer than the time shown in the display.
- Rear speaker delay time can be set in 5 ms steps from 0 to 15 ms.

4 Use digital processing control buttons (< / >) to adjust the level of the parameter.

Adjusting the speaker volume

Use the remote while seated in your listening position to adjust the volume of each speaker.



Note
This unit incorporates a new test tone with a frequency centered at 800 Hz for easier speaker volume adjustment.

1 Press TEST.
You will hear the test tone from each speaker in sequence.

2 From your listening position, use the remote to adjust the volume of each speaker so that the test tone can be heard at the same level from all speakers.
- Ⓐ Press FRONT BAL L or R to adjust the balance between the front left and right speakers (±8 dB, 0.5 dB/steps).
  During this adjustment, the test tone is emitted from both speakers simultaneously.
- Ⓑ Press REAR BAL L or R to adjust the balance between the rear left and right speakers (±8 dB, 0.5 dB/steps).
  During this adjustment, the test tone is emitted from both speakers simultaneously.
- Ⓒ Press CENTER + or – to adjust the level of center speaker (+10 to –20 dB, 0.5 dB/steps).
  During this adjustment, the test tone is emitted from the center speaker.
- Ⓓ Press REAR + or – to adjust the level of rear speakers (+10 to –20 dB, 0.5 dB/steps).
  During this adjustment, the test tone is emitted from both speakers simultaneously.
- Ⓔ Press SUB WOOFER + or – to adjust the level of the sub woofer (+10 to –20 dB, 0.5 dB/steps).
  During this adjustment, the test tone is emitted from the sub woofer.

3 Press TEST to turn off the test tone.

(continued)

To adjust the volume of all the speakers at one time.
Use MASTER VOLUME on the processor, remote, or your multichannel processor.
When using an amplifier with 5.1 ch inputs, Set this unit's MASTER VOLUME to near the center position and adjust the amplifier's volume control.

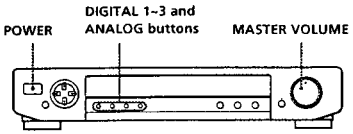
Notes

- The test tone will not be emitted if the sound field is set to VIRTUAL ENHANCED A/B, ACOUSTIC or KARAOKE.
- The front balance, rear balance, center level, rear level, and sub woofer level are shown in the display during adjustment.
- Although these adjustments can also be made with the LEVEL ADJUST menu using the digital processing control buttons on the front panel, we recommend you follow the procedure described above and adjust the speaker levels from your listening position using the remote control.

Selecting a Component

To listen to or watch a connected component, first select the function on the processor or with the remote.
Before you begin, make sure you have:

- Connected all components securely and correctly as indicated on pages 4 to 7.
- Turned MASTER VOLUME to near the center position (when using an amplifier with 5.1 ch inputs).
- Turned MASTER VOLUME to the leftmost position (when using separate amplifiers for each speaker).



1 Press POWER to turn on the processor.

2 Select the component you want to use:

To listen or watch	Press
An LD or DVD player connected to the DIGITAL 1 input jacks.*1	DIGITAL 1 repeatedly*2
Digital components connected to the DIGITAL 2 or 3 input jacks.	DIGITAL 2 or 3
An analog component connected to the ANALOG input jacks.	ANALOG

*1 This unit's digital inputs detect Dolby Digital (AC-3) or PCM signals automatically. (The AC-3 RF input terminal for use with LD players is for Dolby Digital (AC-3) signals only.

*2 **Press repeatedly to choose the appropriate input jack for the DIGITAL 1 audio signals (AC-3 RF), (OPTICAL) or (COAXIAL).**

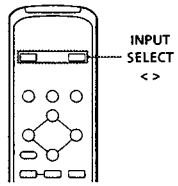
3 Select the 5.1 ch input on your multi-channel amplifier and make sure the amplifier's video selector is set appropriately (see page 6).
EXAMPLE: Turn FUNCTION to select "LD", then press 5.1 INPUT (for Sony TA-VA8ES). At this time, set the MASTER VOLUME control on your amplifier to "0".

4 Turn on the source component, the LD player for example, and start playback.

5 Use the MASTER VOLUME on your multi-channel amplifier to adjust the volume.

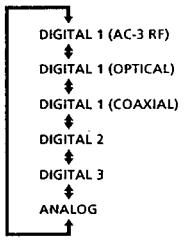
To	Do This
Mute the sound	Press MUTING on the remote. Press again to restore the sound.
Reinforce the bass	Press BASS BOOST to turn on the BASS BOOST indicator.
Turn off the display	Press DISPLAY on the remote.
Adjust the level of the sub woofer	Press SUB WOOFER +/- on the remote.

Using the remote



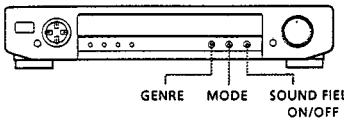
1 Press POWER on the front panel to turn on the processor.

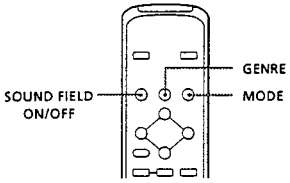
2 Press INPUT SELECT < or > repeatedly to display the input for the component you want to use.
The inputs change as folllows each time you press INPUT SELECT.



Selecting a Sound Field

You can select a sound field according to the type of source you are playing.
When playing program sources recorded in the Dolby Digital (AC-3) format, you can enjoy surround sound simply by selecting "DOLBY".
This unit also incorporates several pre-programmed "Digital Cinema Sound" modes. Select from these surround modes according to your preference to enjoy powerful sound effects from a wide variety of program sources.





1 Press GENRE repeatedly to display the sound field genre (The previously selected mode also appears).

2 Press MODE repeatedly to display the sound field mode.

For the list of sound fields, see page 13.

To turn off the sound fields (2 channel stereo playback)
Press SOUND FIELD ON/OFF. At this time, the input signals are automatically downmixed to 2 ch (L, R) stereo signals.

You can find Dolby Surround-encoded software by looking at the packaging
Use discs with the DOLBY DIGITAL logo. In order to enjoy Dolby Digital (AC-3) playback you must use discs bearing this logo.

Notes on the output of Dolby Digital (AC-3) soure signals
When Dolby Digital (AC-3) encoded sources are played back through this unit, the output method changes automatically according to the information recorded on the source and the settings of this unit.

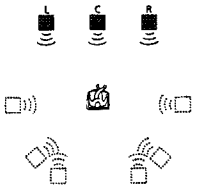
- **When playing a source encoded with discrete information**
  If the "DOLBY" sound field is set to ON: The DISCRETE indicator lights up and the number of channels recorded in the source are decoded and output directly without adjustment.
  If a sound field (other than "ACOUSTIC") is set to ON: The DISCRETE indicator lights up and the number of channels recorded in the source are decoded. The effects provided by each sound field are then added to each channel before the sound is output.
  If the "ACOUSTIC" soundfield is selected or the sound field is set to OFF: The source signal is downmixed to 2 ch (Left and Right) stereo before output. When "ACOUSTIC" is selected equalizer (EQ) adjustments can be performed.
- **When playing a source encoded with Dolby Pro Logic information**
  If the "DOLBY" sound field is set to ON: "PRO LOGIC" appears in the display, the sound is decoded using Pro Logic formula and output.
  If a sound field (other than "ACOUSTIC") is set to ON: The effects provided by each sound field are added to each channel before the sound is output.
  When the sound field genre is MOVIE (except for MONO MOVIE) or 3D the sound is decoded using the Pro Logic formula and "PRO LOGIC" appears in the display.
  If the "ACOUSTIC" soundfield is selected or the sound field is set to OFF: The source signal is downmixed to 2 ch (Left and Right) stereo before output. When "ACOUSTIC" is selected equalizer (EQ) adjustments can be performed.

Note
When playing back normal PCM or analog sources in surround sound "PRO LOGIC" is not shown in the display.

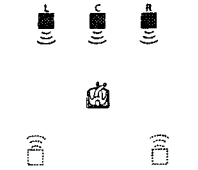
Sound fields

Genre	Mode	Surround effect
DOLBY	NORMAL	Decodes programs processed with Dolby Surround.
	ENHANCED	Additional output from rear speakers when decoding Dolby Surround programs.
MOVIE	CINEMA STUDIO A	Reproduces the sound characteristics of the Sony Pictures Entertainment "Cary Grant Theater" cinema production studio.
	CINEMA STUDIO B	Reproduces the sound characteristics of the Sony Pictures Entertainment "Kim Novak Theater" cinema production studio.
	CINEMA STUDIO C	Reproduces the sound characteristics of the Sony Pictures Entertainment scoring stage.
	SMALL THEATER	Adds acoustic reflections of a theaters to decoded Dolby Surround signals.
	MEDIUM THEATER	
	LARGE THEATER	
	NIGHT THEATER	Provides surround effects for listening at low volume levels.
	MONO MOVIE	Creates a theater-like environment from movies with 2-channel monaural soundtracks.
3D	VIRTUAL ENHANCED A	Uses 3D sound imaging to create virtual rear speakers from the sound of the front speakers without using actual rear speakers. The virtual speakers are reproduced as shown in Ill. Ⓐ.
	VIRTUAL ENHANCED B	Uses 3D sound imaging to create virtual rear speakers from the sound of the front speakers without using actual rear speakers. The virtual speakers are reproduced as shown in Ill. Ⓑ.
	VIRTUAL REAR SHIFT	Uses 3D sound imaging to shift the sound of the rear speakers away from the actual speaker position (Ill. Ⓒ). The shift position differs according to the setting of the rear speaker position (see page 8).
	VIRTUAL MULTI REAR	Uses 3D sound imaging to create an array of virtual rear speakers from a single pair of actual rear speakers (Ill. Ⓓ). The position of the virtual rear speakers differs according to the setting of the rear speaker position (see page 8).
MUSIC	SMALL HALL	Reproduces the acoustics of a rectangular concert hall. Ideal for soft acoustic sounds.
	LARGE HALL	
	SMALL OPERA HOUSE	Reproduces the acoustics of an opera house. Ideal for musicals and operas.
	LARGE OPERA HOUSE	
	SMALL JAZZ CLUB	Reproduces the acoustics of a jazz club.
	LARGE JAZZ CLUB	
	CHURCH	Reproduces the acoustics of a church.
	LIVE HOUSE	Reproduces the acoustics of a rock and roll club.
	ACOUSTIC	Reproduces normal 2-channel stereo with equalization (EQ).
	KARAOKE	Reduces the vocal tracks of normal 2-channel stereo music sources.
SPORTS	ARENA	Reproduces the feeling of a large concert arena. Great for rock and roll.
	STADIUM	Reproduces the feeling of a large open-air stadium. Great for electric sounds.
GAME	GAME	Obtains maximum audio impact from video game software.

III.Ⓐ VIRTUAL ENHANCED (SURROUND) A

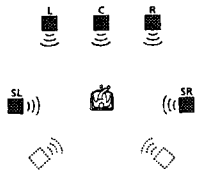


III.Ⓑ VIRTUAL ENHANCED (SURROUND) B

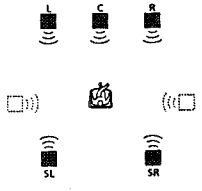


III.Ⓒ VIRTUAL REAR SHIFT

For REAR SP [SIDE]*

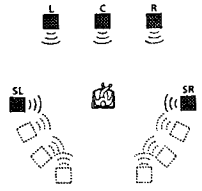


For REAR SP [BEHIND]*

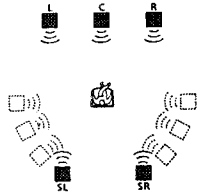


III.Ⓓ VIRTUAL MULTI REAR

For REAR SP [SIDE]*



For REAR SP [BEHIND]*



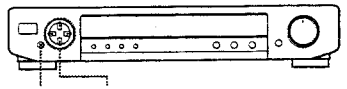
L : Front speaker (left)
R : Front speaker (right)
C : Center speaker
SL : Rear speaker (left)
SR : Rear speaker (right)
⬚ : Virtual speaker

* See page 8 for details on how to set the rear speaker position.

Customizing the Sound-Fields

Each sound field is composed of equalizer parameters (bass/treble) and surround sound parameters — variables of sound that create the sound image. You can customize the sound fields by adjusting some of the sound parameters (equalizer and/or surround sound parameters) to suit your listening situation.

Once you customize the sound fields, they are stored in memory unless the processor is unplugged for about 1 week. To change a customized sound field, make new adjustments to the respective sound field.



DPC MODE Digital processing control

1 Start playing a component, then select the sound field you want to adjust.

2 Press DPC MODE repeatedly to display on of the following menus:

SP. SETUP
LEVEL ADJUST
SURROUND
EQUALIZER
OTHER SETUP

3 Use digital processing control buttons (∧ / ∨) to select the parameter you want.

4 Use digital processing control buttons (< / >) to adjust the parameter.

Compressing the dynamic range (except for ACOUSTIC)

When inputting a Dolby Digital (AC-3) signal you can compress the dynamic range of the sound track by using the dynamic range compressionratio (D. RANGE COMP) parameter in the surround menu. This may be useful when you want to watch movies at low volumes late at night. See page 16 for details on the dynamic range compression parameter.

Note

Certain parameters may not be available for adjustment depending on the current settings and menu modes.

Adjustable sound parameters

		Equalizer parameter	Surround sound parameters							
Genre	Mode	EQ	C.LEV.*	R.LEV.* (R.BAL.*)	W.LEV.*	LFE MIX (D.COMP)	WALL	SEAT (F-R/L-R)	REVERB	EFFECT
DOLBY	NORMAL	●	●	●	●	●				
	ENHANCED	●	●	●	●	●				
MOVIE	CINEMA STUDIO A	●	●	●	●	●				●
	CINEMA STUDIO B	●	●	●	●	●				●
	CINEMA STUDIO C	●	●	●	●	●				●
	SMALL THEATER	●	●	●	●	●	●	●	●	●
	MEDIUM THEATER	●	●	●	●	●	●	●	●	●
	LARGE THEATER	●	●	●	●	●	●	●	●	●
	NIGHT THEATER	●	●	●	●	●	●	●	●	●
	MONO MOVIE	●	●	●	●	●	●	●	●	●
3D	VIRTUAL ENHANCED A	●	●	●	●	●				●
	VIRTUAL ENHANCED B	●	●	●	●	●				●
	VIRTUAL REAR SHIFT	●	●	●	●	●				●
	VIRTUAL MULTI REAR	●	●	●	●	●				●
MUSIC	SMALL HALL	●	●	●	●	●	●	●	●	●
	LARGE HALL	●	●	●	●	●	●	●	●	●
	SMALL OPERA HOUSE	●	●	●	●	●	●	●	●	●
	LARGE OPERA HOUSE	●	●	●	●	●	●	●	●	●
	SMALL JAZZ CLUB	●	●	●	●	●	●	●	●	●
	LARGE JAZZ CLUB	●	●	●	●	●	●	●	●	●
	CHURCH	●	●	●	●	●	●	●	●	●
	LIVE HOUSE	●	●	●	●	●	●	●	●	●
	ACOUSTIC	●								
	KARAOKE	●		●	●	●				●
SPORTS	ARENA	●	●	●	●	●	●	●	●	●
	STADIUM	●	●	●	●	●	●	●	●	●
GAME	GAME	●	●	●	●	●	●	●	●	●

* These settings are not stored separately for each sound mode. They effects all of the sound modes simultaneously.

Notes

- All of the previous surround modes can be used with Dolby Digital (AC-3) sound sources (except for ACOUSTIC).
- C.LEV. = Center Level, R.LEV. (R.BAL) = Rear Level (Rear Balance), W.LEV. = Woofer Level, LFE MIX (D.COMP) = Low Frequency Effect Mix (Dynamic Compression), WALL = Wall type, SEAT (F-R/L-R) = Seat (Front-Rear/Left-Right), REVERB = Reverberation, EFFECT = Effect level

SURROUND menu

Surround effect level
Initial setting is : EFFECT [_____]
This parameter can be adjusted directly using EFFECT +/– on the remote. It lets you adjust the "presence" of the current digital cinema sound surround effect.
- The effect level can be adjusted from 0% to 100% (150%).
- In the KARAOKE mode, use the effect level to adjust the amount of vocal cancellation. Greater effect levels produce greater reduction of the vocals.

Wall Type
Initial setting is : WALL S___I___H
It lets you adjust the "brightness" of the of the current digital cinema sound surround effect.
When sound is reflected off soft material, such as 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 lets you control the level of the high frequencies to alter the sonic character of your listening environment by simulating a softer (S), or harder (H) wall. The midpoint designates a neutral wall (made of wood).

Front to rear seat position
Initial setting is : SEAT F___I___R
It lets you control the balance of direct and reflected sound to simulate your listening position. "F" signifies the front of the room and "R" signifies the rear. The midpoint designates the center.

Left to right seat position
Initial setting is : SEAT L___I___R
It lets you control the balance of direct and reflected sound to simulate your listening position. "L" signifies the left side of the room and "R" signifies the right side. The midpoint designates the center.

Reverberation time
Initial setting is : REVERB S___I___L
It lets you adjust the amount of reverberation present in the current digital cinema sound surround effect.
This parameter adjusts the length of time required for the reverberation (echoes) generated from a given sound to attenuate –60 dB.
You can choose shorter (S) or longer (L) reverberation times.

Low Frequency Extension (LFE) mix level (DISCRETE only)
Initial setting is : LFE MIX 0dB
This parameter lets you attenuate the level of the LFE (Low Frequency Extension) channel output from the sub woofer without effecting the level of the bass frequencies sent to the sub woofer from the front, center or rear channels via the bass redirection circuitry.
- The level can be adjusted in 0.5 dB steps from –20.0 dB to 0 dB (line level). 0 dB outputs the full LFE signal at the mix level determined by the recording engineer.
- Selecting MUTE mutes the sound of the LFE channel from the sub woofer. However, the low frequency sounds of the front, center, or rear speakers are output from the sub woofer according to the settings made for each speaker in the speaker setup (page 8).

Dynamic range compression ratio
Initial setting is : D.RANGE COMP OFF
Lets you compress the dynamic range of the sound track. This may be useful when you want to watch movies at low volumes late at night.
- OFF reproduces the sound track with no compression.
- STD reproduces the sound track with the full dynamic range as intended by the recording engineer.
- 0.1 ~ 0.9 allow you to compress the dynamic range in small steps to achieve the sound you desire.
- MAX provides a dramatic compression of the dynamic range.

EQUALIZER menu

The initial settings are different for each mode.

Front speaker bass adjustment
Level : F:BASS 0 dB
Frequency : F:BASS 250Hz
Use the +/– knob to adjust the level, then turn the MENU knob to move select the frequency (Hz) and use the +/– knob to adjust the frequency. Repeat until you achieve the sound you desire.
- The level can be adjusted ±10 dB in 0.5 dB steps.

Front speaker treble adjustment
Level : F:TREBLE 0 dB
Frequency : F:TREBLE 2.5kHz
Adjust as described in "Front speaker bass adjustment".
- The level can be adjusted ±10 dB in 0.5 dB steps.

Center speaker bass adjustment
Level : C:BASS 0 dB
Frequency : C:BASS 250Hz
Adjust as described in "Front speaker bass adjustment".
- The level can be adjusted ±10 dB in 0.5 dB steps.

Center speaker treble adjustment
Level : C:TREBLE 0 dB
Frequency : C:TREBLE 2.5kHz
Adjust as described in "Front speaker bass adjustment".
- The level can be adjusted ±10 dB in 0.5 dB steps.

Rear speaker bass adjustment
Level : R:BASS 0 dB
Frequency : R:BASS 250Hz
Adjust as described in "Front speaker bass adjustment".
- The level can be adjusted ±10 dB in 0.5 dB steps.

Rear speaker treble adjustment
Level : R:TREBLE 0 dB
Frequency : R:TREBLE 2.5kHz
Adjust as described in "Front speaker bass adjustment".
- The level can be adjusted ±10 dB in 0.5 dB steps.

OTHER SETUP menu

Center speaker delay
Initial setting is : CENTER 0 dB
See "Adjusting the delay time" on page 9 for details.

Rear speaker delay
Initial setting is : REAR 5 dB
See "Adjusting the delay time" on page 9 for details.

Dimmer level
This setting lets you select the the brightness of the display on the front panel.
- You can select between four different settings.

SP. SETUP menu

The speaker setup menu contains parameters that allow you to set the type and size of the speakers in your system. This information is essential for production of realistic surround sound. For details about the settings available in this menu see "Speaker Set Up" on page 8 for details).

Front speaker
Initial setting is : FRONT SP. [LARGE]

Center speaker
Initial setting is : CENTER SP. [LARGE]

Rear speaker
Initial setting is : REAR SP. [LARGE]

Rear speaker place
Initial setting is : REAR SP. [SIDE]

Sub woofer
Initial setting is : SUB WOOFER [YES]

LEVEL ADJUST menu

The LEVEL ADJUST menu contains speaker level adjustment parameters that allow you to balance output level to each speaker.

These settings can also be adjusted directly using remote. See "Adjusting the speaker volume" (page 9).

Front speaker balance
Initial setting is : FRONT L ___I___ R
Lets you adjust the balance between the front left and right speakers.

Rear speaker balance
Initial setting is : REAR L ___I___ R
Lets you adjust the balance between the rear left and right speakers.

Rear speaker level
Initial setting is : REAR 0 dB
Lets you adjust level of the rear (left and right) speakers.

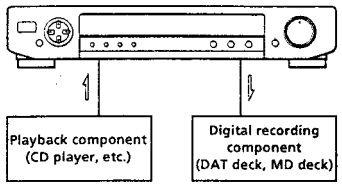
Center speaker level
Initial setting is : CENTER 0 dB
Lets you adjust the level of the center speaker.

Sub woofer level
Initial setting is : SUB WOOFER 0 dB
Lets you adjust the level of the sub woofer.

Digital Recording

This processor makes it easy to make digital recordings from the components connected to the processor. You don't have to connect playback and recording components directly.

Before you begin, make sure you've connected all components properly.



⇨: Signal flow

EXAMPLE: Recording a CD using a DAT deck.
See your DAT or CD player's instruction manual if you need help.

1 Press DIGITAL 2 (if a CD player is connected to the DIGITAL 2 INPUT) to select the CD player.

2 Insert a blank digital audio tape into the DAT for recording.

3 Start recording on the DAT and then start playing the CD you want to record.

Notes

- You cannot record the digital signal from a Dolby Digital (AC-3) program source.
- You cannot record the video signal from a connected source component.

SECTION 3
TEST MODE

[Self-Diagnosis and Test Mode]

This unit is provided with a "self-diagnosis and self-recovery function" which detects DSP errors and automatically recovers the unit, and a test mode for performing operation checks during repairs.

1. Main Functions

1. DSP Error Messages
2. Various operation check mode
3. Initialization

2. Entering the Test Mode

While pressing the DIGITAL 2 button and ANALOG button simultaneously in the power OFF state, press the POWER button.

1. DSP Error Messages

When errors occur in the DSP, they are displayed on the fluorescent display tube.
(Refer to Table 1 for the error messages displayed.)

Table-1:

Cause of error (Display)	Possible cause
① Failed in initial booting (BOOT ERROR)	Mostly due to faulty connection (soldering) between DSP and microprocessor
② DSP does not operate (RPLY ERROR)	Faulty DSP clock (X102 and onwards), faulty DSP part, etc.
③ Communication port malfunction (HREQ ERROR)	Overrunning of DSP due to heat, microprocessor bugging, or IC701 (PLL board PLL) is faulty
④ No reply from DSP (VRFY ERROR)	Faulty DSP part, or faulty microprocessor part, etc.

2. Operation Check Mode

- During the operation check mode, functions can be set by pressing the corresponding button. (See Table-2.)
- When a button other than those displayed in Table 2 is pressed, press the POWER button to exit the check mode.

Table-2:

Button	Fluorescent Display Tube Display	Function
DIGITAL1	OPT-1 (L-FL, R-FR)	Like normal operations, Lch is output to Lch and Rch to Rch.
DIGITAL2	OPT-2 (L-SL, R-SR)	Outputs the Lch DIGITAL-2 input signal to the REAR Lch and the Rch to the REAR Rch.
DIGITAL3	OPT-3 (L-C, R-SW)	Outputs the Lch DIGITAL-3 input signal to the CENTER and the Rch only to the WOOFER.
ANALOG	COAX (L, R-ALL)	Outputs the Lch DIGITAL 1 COAXIAL input signal to the FRONT Lch, REAR Lch, CENTER, and the Rch to the FRONT Rch, REAR Rch, and CENTER.

3. Initialization

After executing the test mode, be sure to perform initialization.

When the POWER button is pressed while pressing the DIGITAL 1 button and DIGITAL 3 button, "All Clear!" is displayed on the fluorescent display tube and all internal settings are initialized.

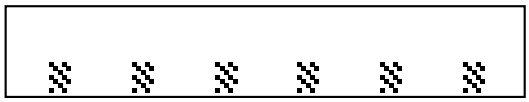
[Fluorenscent Display Tube All Lit]

With the power OFF, while pressing the DIGITAL 3 button and ∨ button togher, press the POWER button to turn ON the power.
The fluorenscent display tube all lit modewill be set.

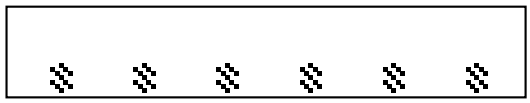
Button name	Fluorenscent display tube state
DIGITAL 1	All lit
DIGITAL 2	Partial lighting 1
DIGITAL 3	Partial lighting 2
ANALOG	OFF

When the other buttons are pressed, press the POWER button to exit the mode.

Partial lighting 1



Partial lighting 2

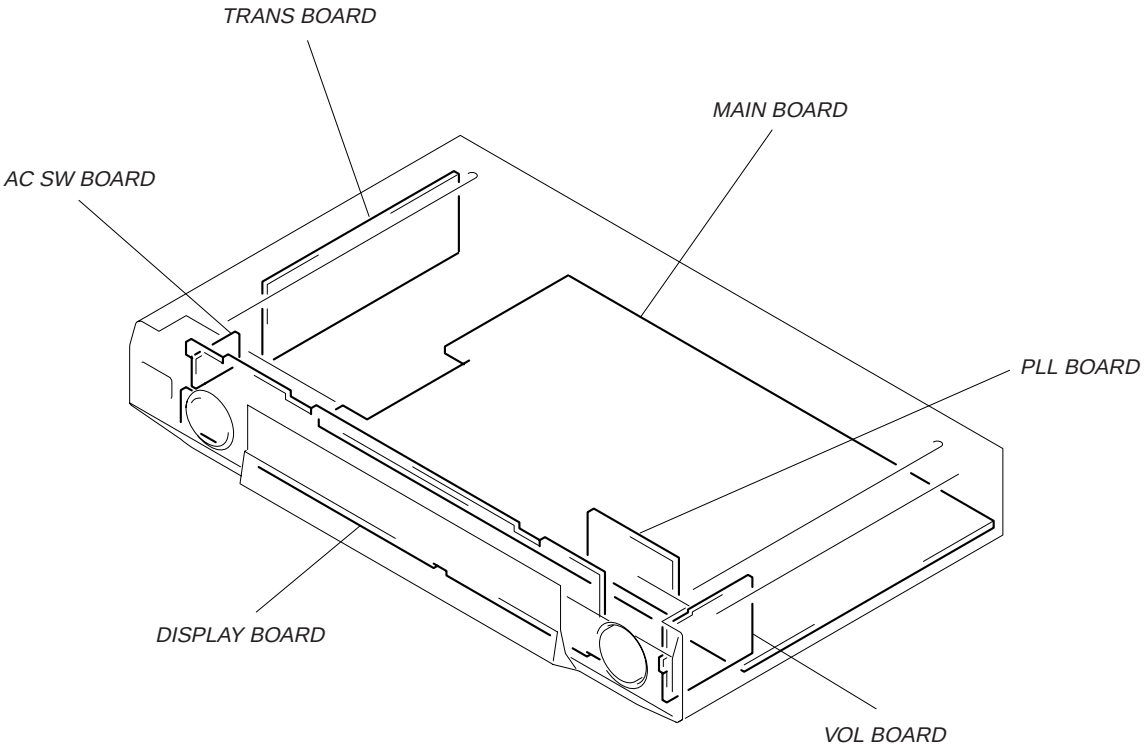


[Key Check Mode]

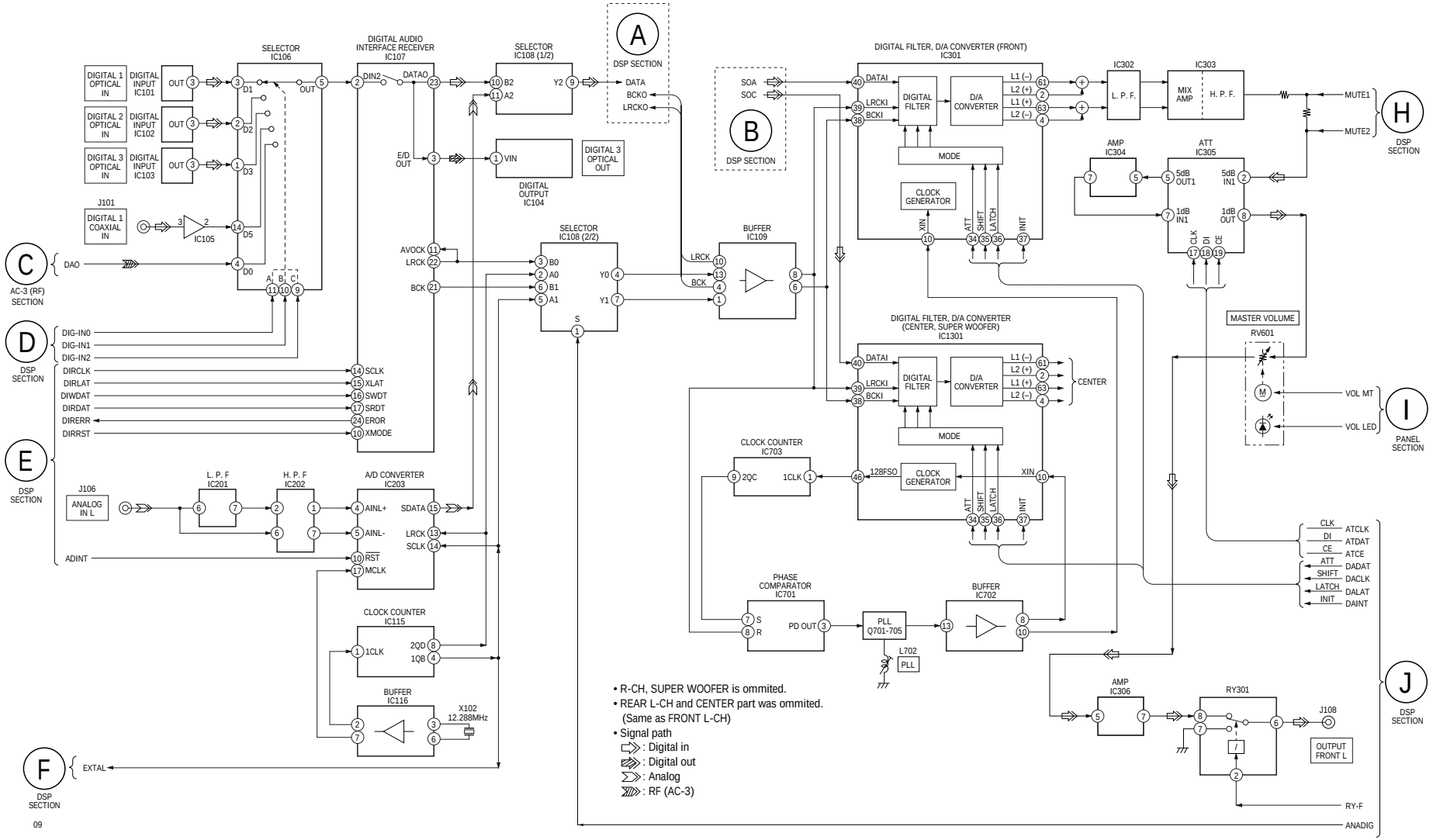
When the POWER button is pressed while pressing the DIGITAL 1 button and ANALOG button, "KEY CHECK:12 KEYS" is displayed on the fluorescent display tube and the key check mode is set.
When the POWER button is pressed during this mode, the number at "12 KEYS" is counted down. When all other buttons are pressed, the number stops at "00 KEYS" (Note: The number is not counted down when buttons already pressed once are pressed again.).
To exit the mode, press the POWER button and turn OFF the power.

SECTION 4
DIAGRAMS

4-1. CIRCUIT BOARDS LOCATION

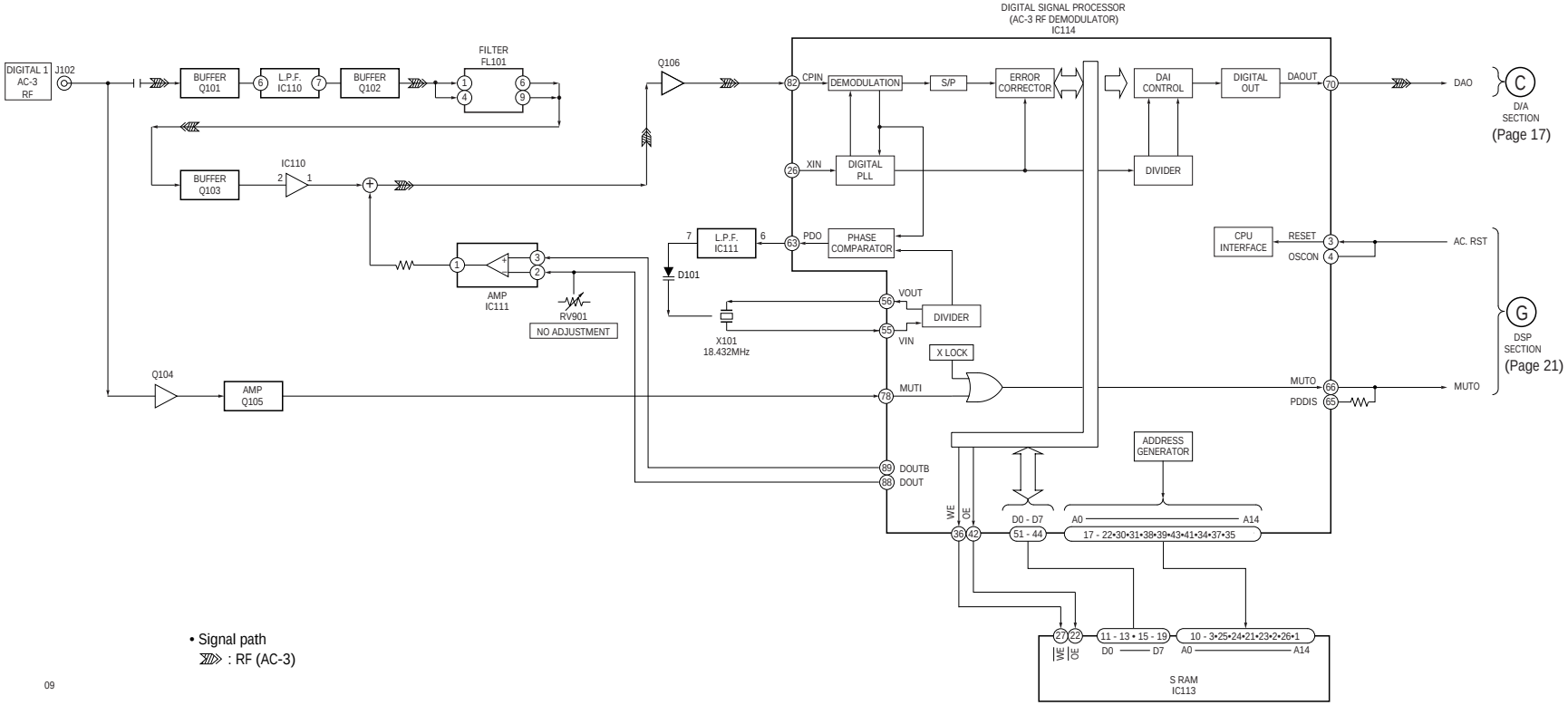


4-2. BLOCK DIAGRAMS
— DA SECTION —



09

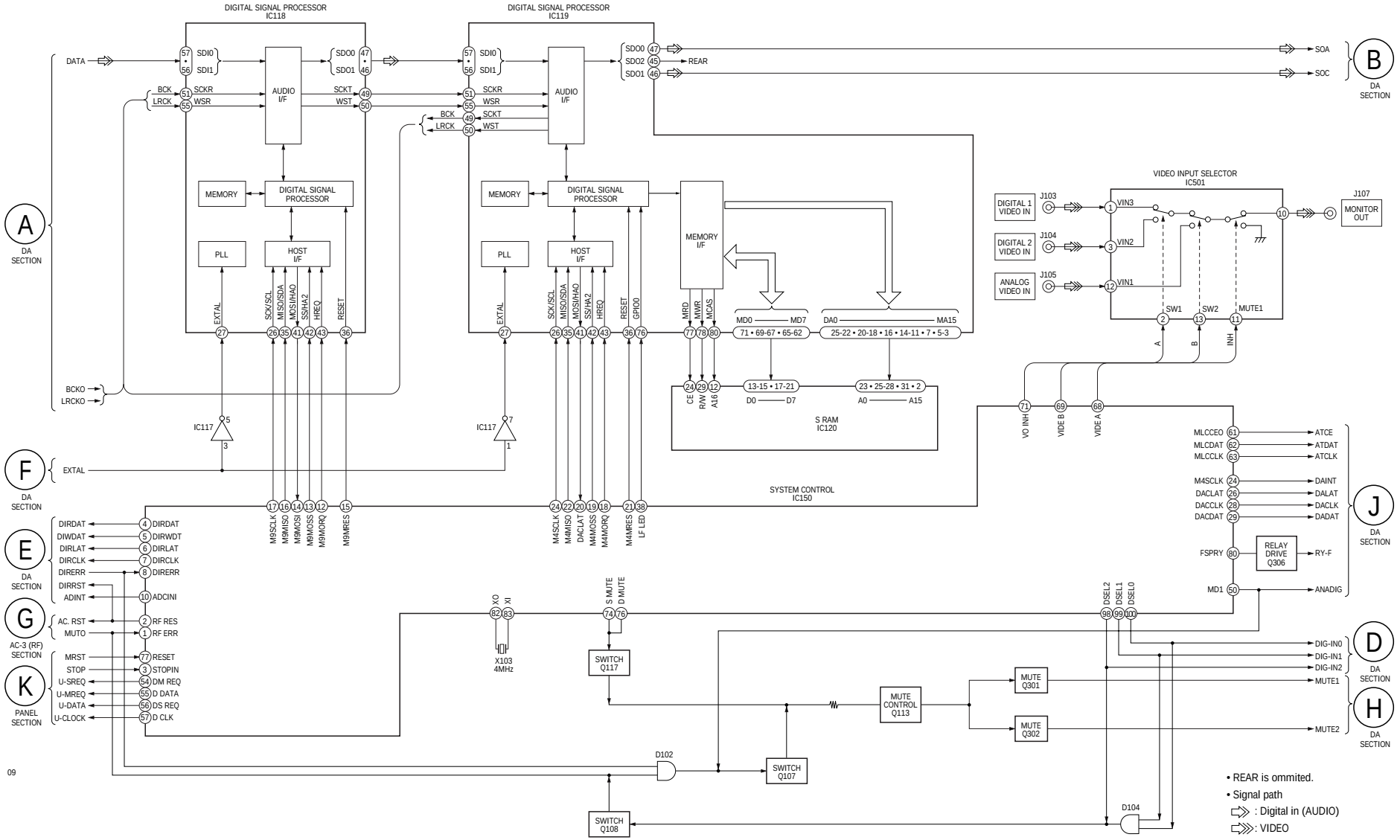
— DSP SECTION —



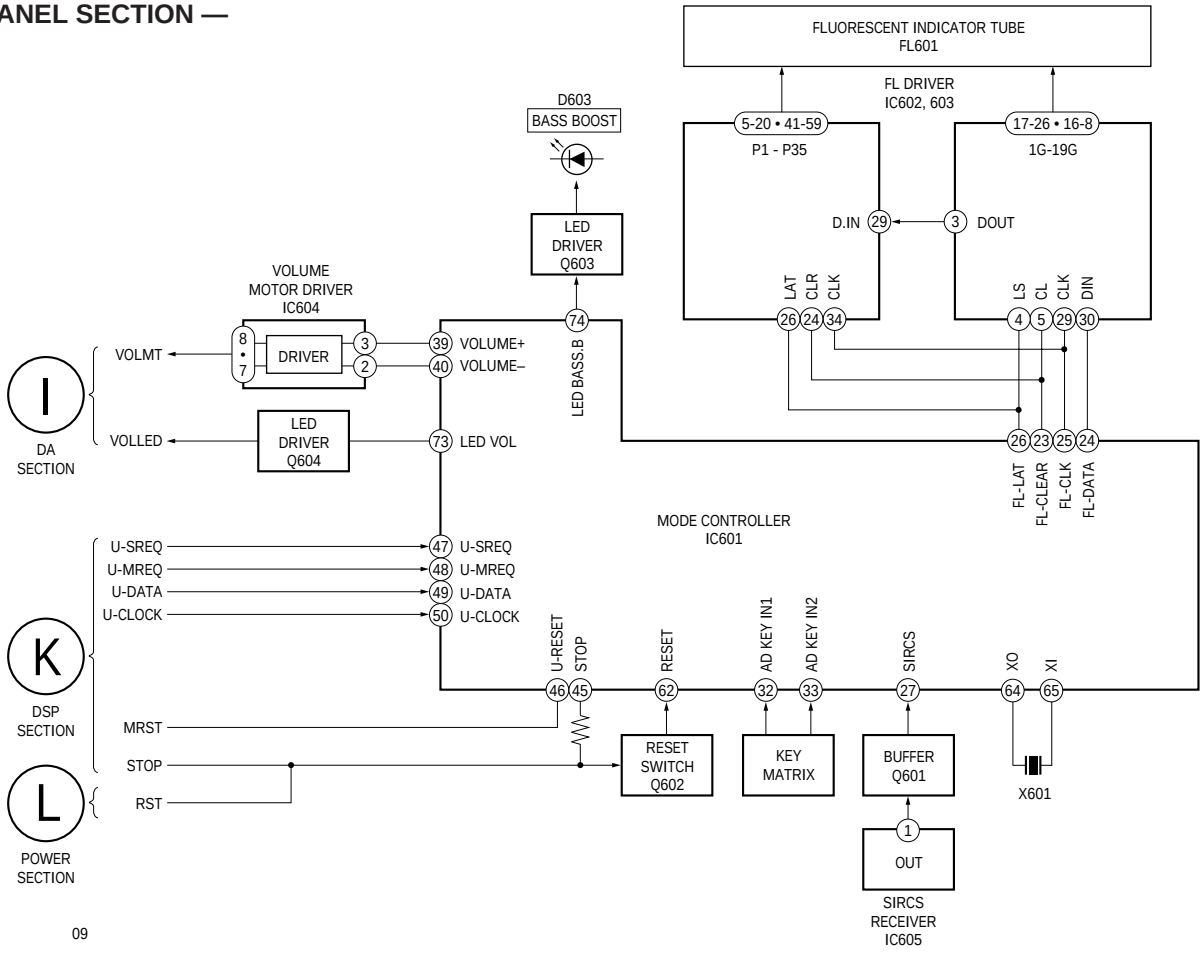
• Signal path
: RF (AC-3)

09

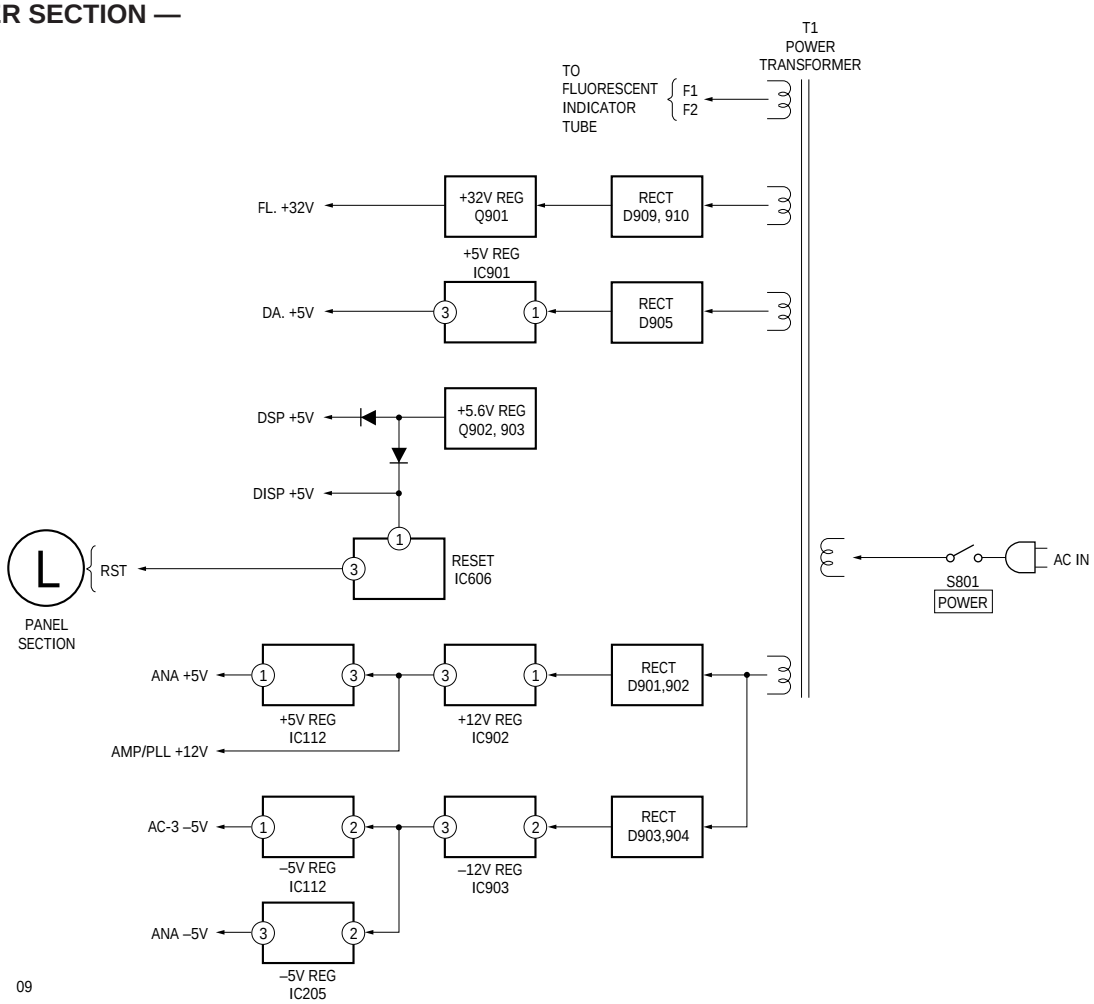
— DISPLAY SECTION —



— PANEL SECTION —

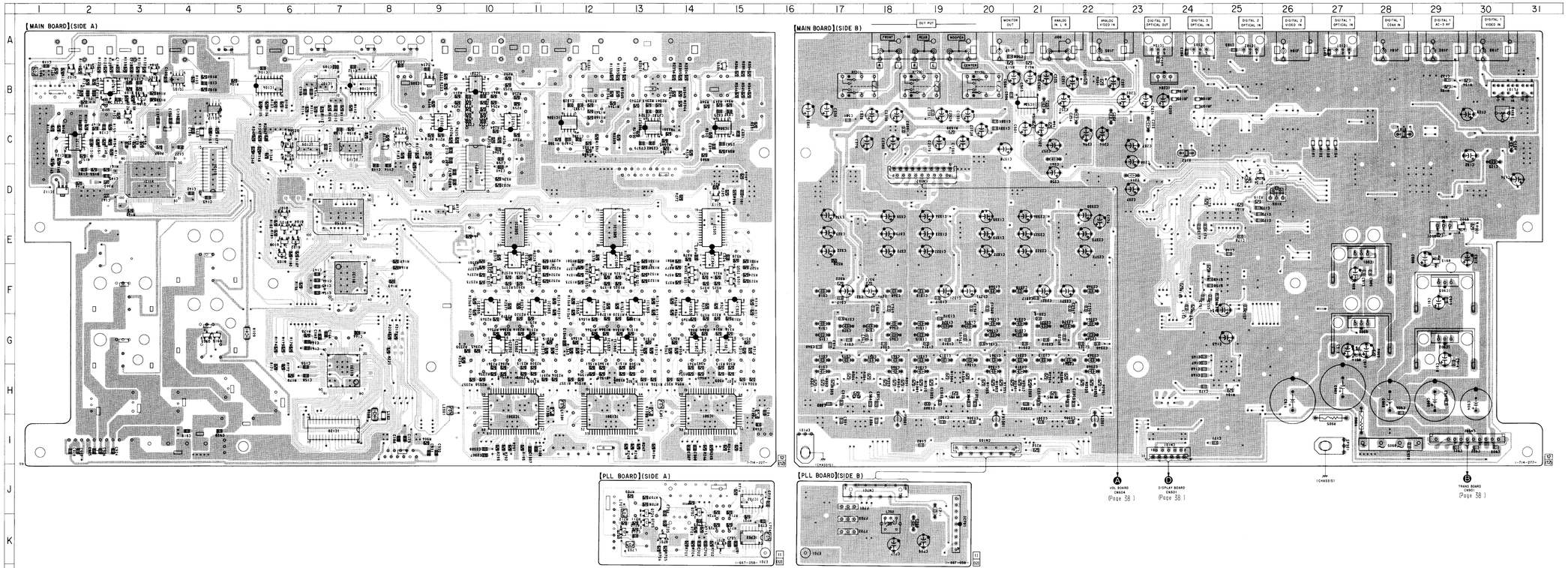


— POWER SECTION —



4-3. PRINTED WIRING BOARD — MAIN SECTION —

• See page 14 for Circuit Boards Location.



• **Semiconductor Location**

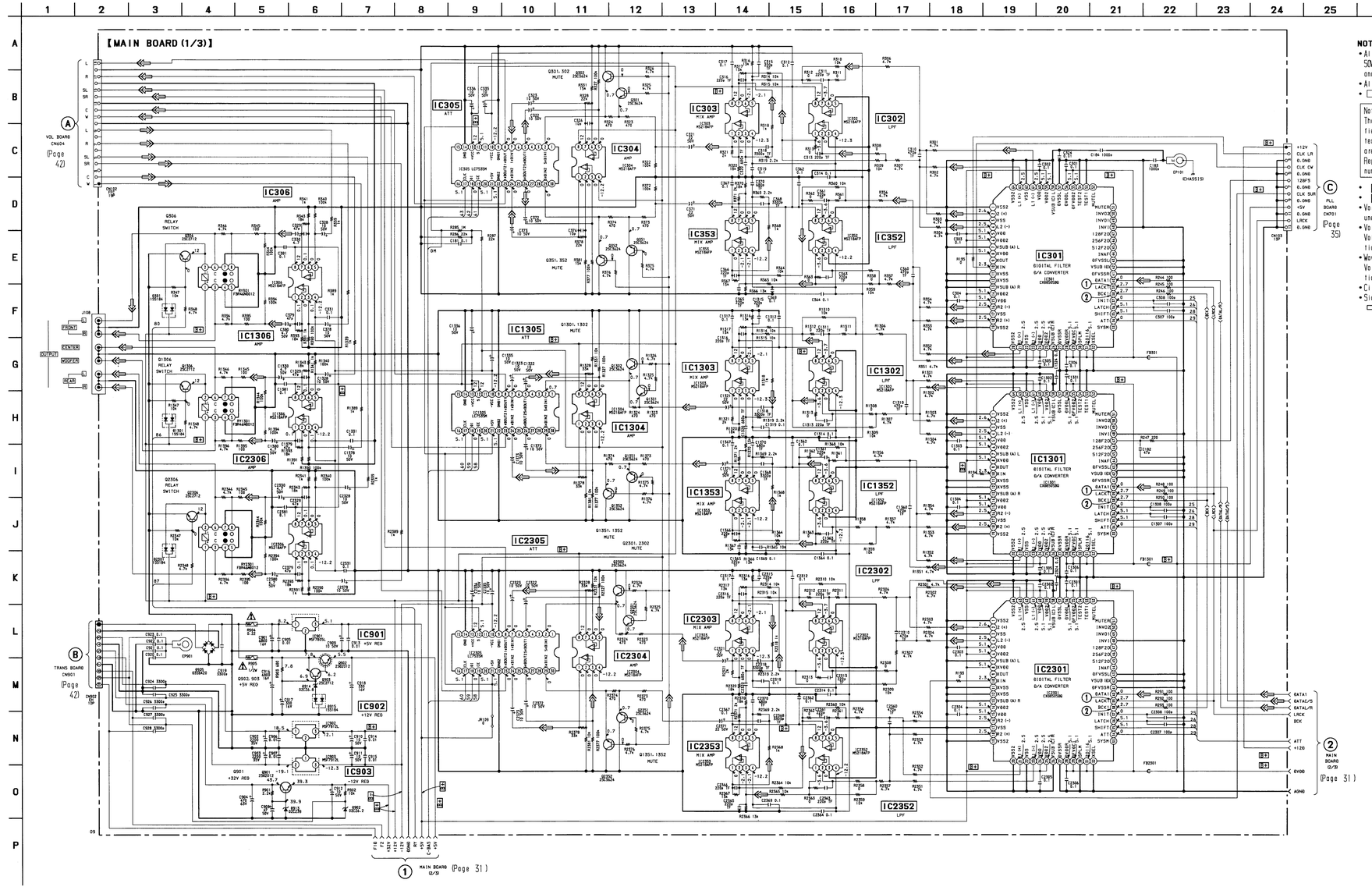
Ref. No.	Location	Ref. No.	Location
D101	C-3	IC701	K-19
D102	E-6	IC702	J-15
D103	E-6	IC703	K-15
D104	E-6	IC901	E-28
D105	E-6	IC902	G-29
D106	D-25	IC903	F-29
D107	E-10	IC1301	H-12
D108	I-8	IC1302	G-13
D109	G-5	IC1303	F-13
D301	B-15	IC1304	E-13
D701	K-14	IC1305	E-13
D902	E-30	IC1306	C-11
D905	I-28	IC1352	G-12
D915	G-5	IC1353	F-12
D913	E-29	IC2301	I-10
D914	G-27	IC2302	G-11
D1301	B-12	IC2303	F-11
D2301	B-13	IC2304	E-11
		IC2305	E-11
		IC2306	C-13
IC101	A-27	IC2352	G-10
IC102	A-25	IC2353	F-10
IC103	A-24		
IC104	A-23	Q101	B-2
IC105	B-4	Q102	B-2
IC106	B-6	Q103	B-2
IC107	B-7	Q104	B-3
IC108	B-7	Q105	B-3
IC109	C-6	Q106	B-3
IC110	B-2	Q107	D-6
IC111	C-2	Q108	E-6
IC112	D-1	Q113	D-15
IC113	D-5	Q117	D-9
IC114	D-3	Q301	F-15
IC115	C-7	Q302	F-15
IC116	C-8	Q306	C-6
IC117	C-4	Q351	F-14
IC118	F-4	Q352	F-14
IC119	H-7	Q701	K-15
IC120	I-7	Q702	J-14
IC150	E-7	Q703	J-13
IC201	B-10	Q704	J-13
IC202	C-9	Q705	J-13
IC203	D-10	Q901	E-29
IC204	B-24	Q902	G-28
IC205	B-9	Q903	G-4
IC252	C-10	Q1301	F-13
IC301	H-14	Q1302	F-13
IC302	G-15	Q1306	C-6
IC303	F-15	Q1351	F-12
IC304	E-14	Q1352	F-12
IC305	E-15	Q2301	F-11
IC306	C-15	Q2302	F-11
IC352	G-14	Q2306	C-6
IC353	F-14	Q2351	F-10
IC501	B-21	Q2352	F-10

Note:

- ⟷ : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ○ : Through hole.
- △ : internal component.
- ▒ : Pattern from the side which enable seeing. (The other layer's patterns are not indicated.)

4-4. SCHEMATIC DIAGRAM — D/A SECTION —

• See page 44 for IC Block Diagrams.



NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF
  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise
- ▭ : panel designation.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- B+ : B+ Line.
- B− : B− Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path. ⇨ : Digi

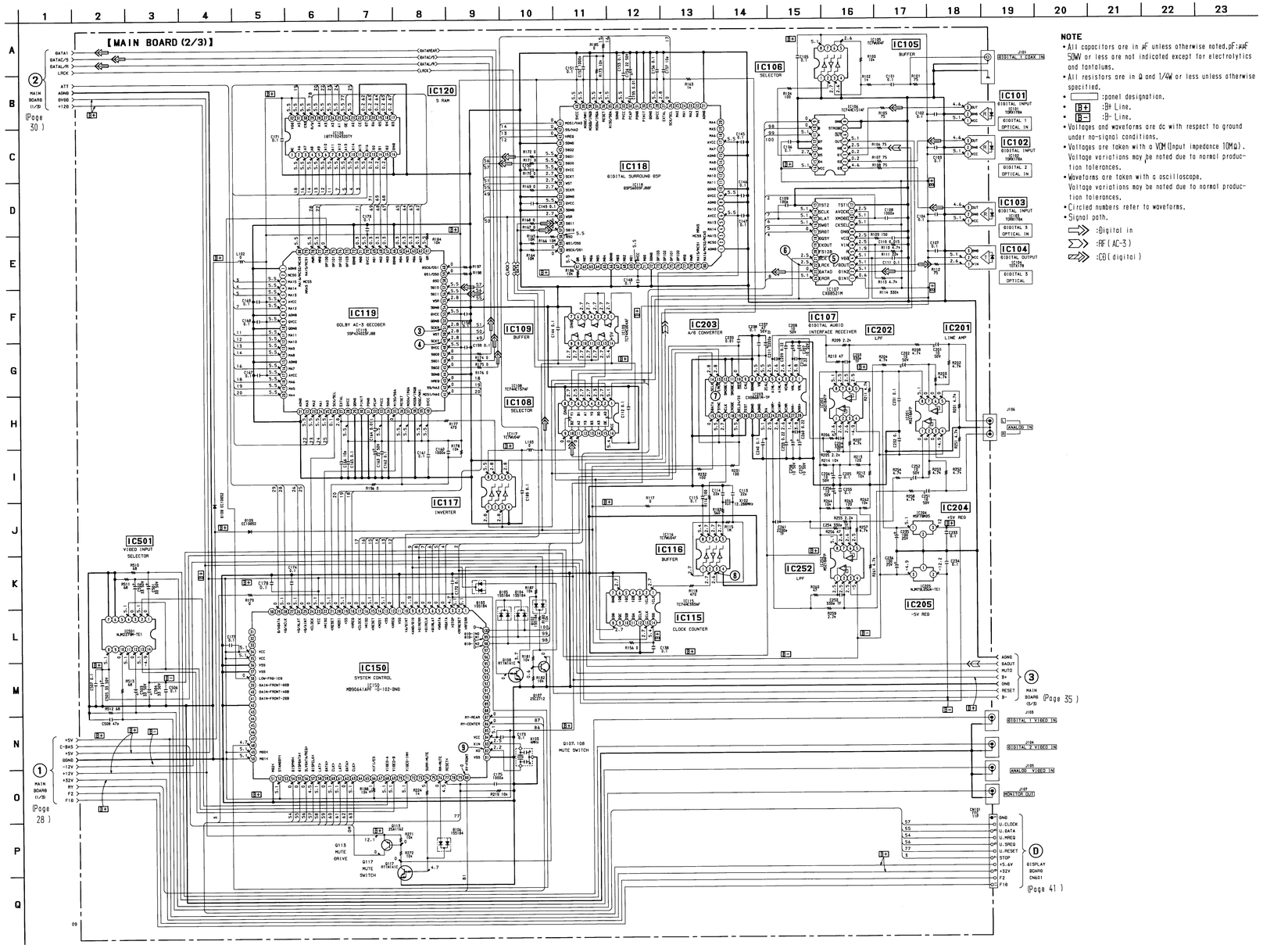
• Waveforms

① 7Vp-p, 48kHz — IC301, 1301, 2301 ㉘ (LACK1)

② 7.2Vp-p, 3MHz — IC301, 1301, 2301 ㉗ (BCK1)

4-5. SCHEMATIC DIAGRAM — CONTROL SECTION —

- See page 23 for Printed Wiring Board.
- See page 44 for IC Block Diagrams.
- See page 48 for IC Pin Functions.



NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF
  50WV or less are not indicated except for electrolytics and tantaliums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- [ ] : panel designation.
- B+ : B+ Line.
- B− : B− Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - ⇨ : Digital in
  - ⇨ : RF (AC-3)
  - ⇨ : CD (digital)

• Waveforms

③ 3kHz 0.4Vp-p
IC119 ㊾ (SCKR)

④ 3MHz 7Vp-p
IC119 ㊽ (SCKT)

⑤ 3MHz 5.8Vp-p
IC107 ㉑ (BCK)

⑥ 48kHz 5.6Vp-p
IC107 ㉒ (LRCK)

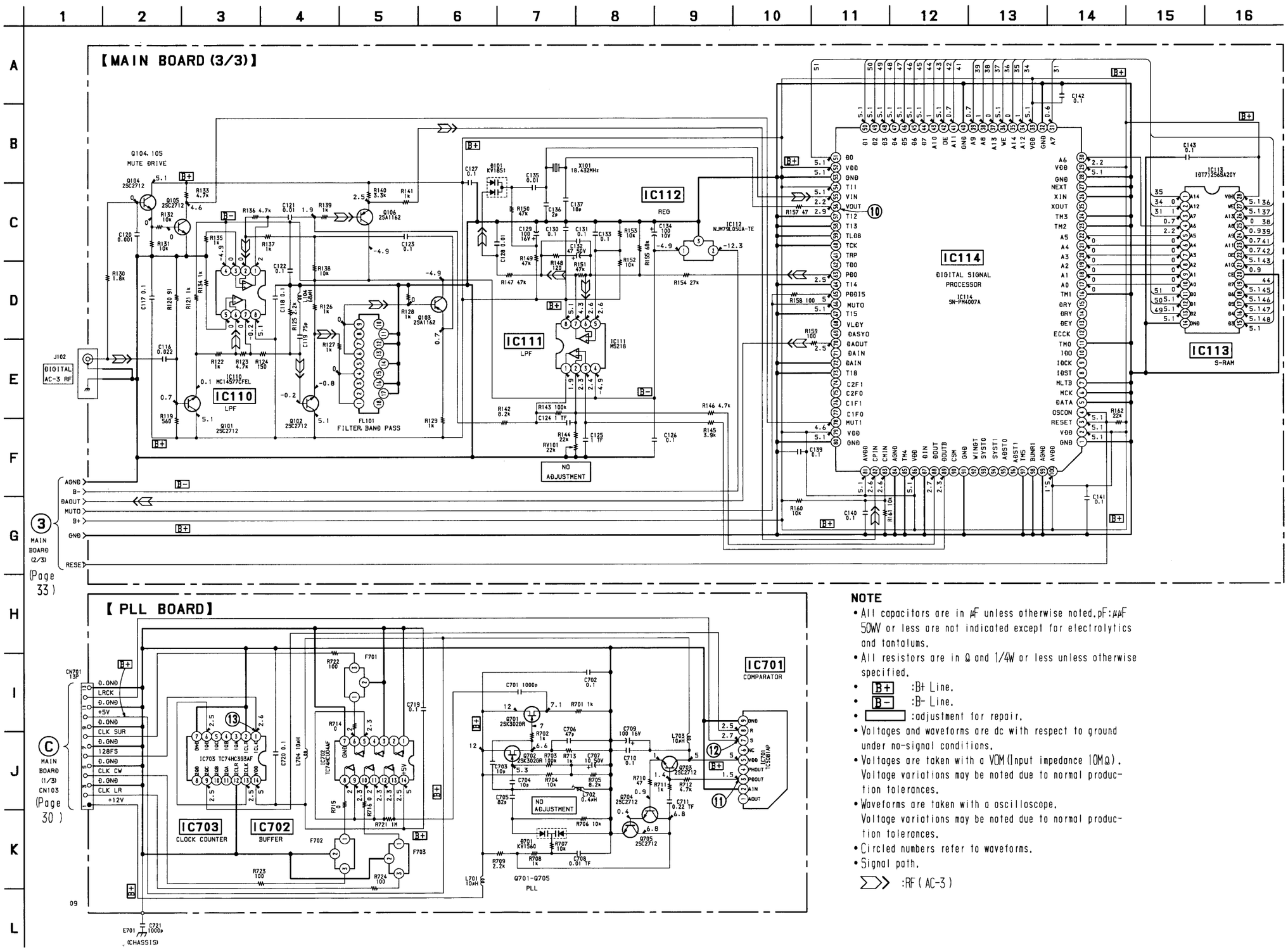
⑦ 48kHz 1.5Vp-p
IC203 ⑬ (LRCK)

⑧ 12.288MHz 3.5Vp-p
IC116 ③

⑨ 4MHz 4.7Vp-p
IC150 ㊽ (XO)

4-6. SCHEMATIC DIAGRAM — DOLBY AC-3 SECTION —

- See page 23 for Printed Wiring Board.
- See page 49 for IC Pin Functions.



• Waveforms

⑩ 4.1Vp-p, 18.432MHz
IC114 ㊺ (VOUT)

⑪ 4.6Vp-p, 48kHz
IC701 ③ (PDOUT)

⑫ 5.2Vp-p, 48kHz
IC701 ⑦ (S)

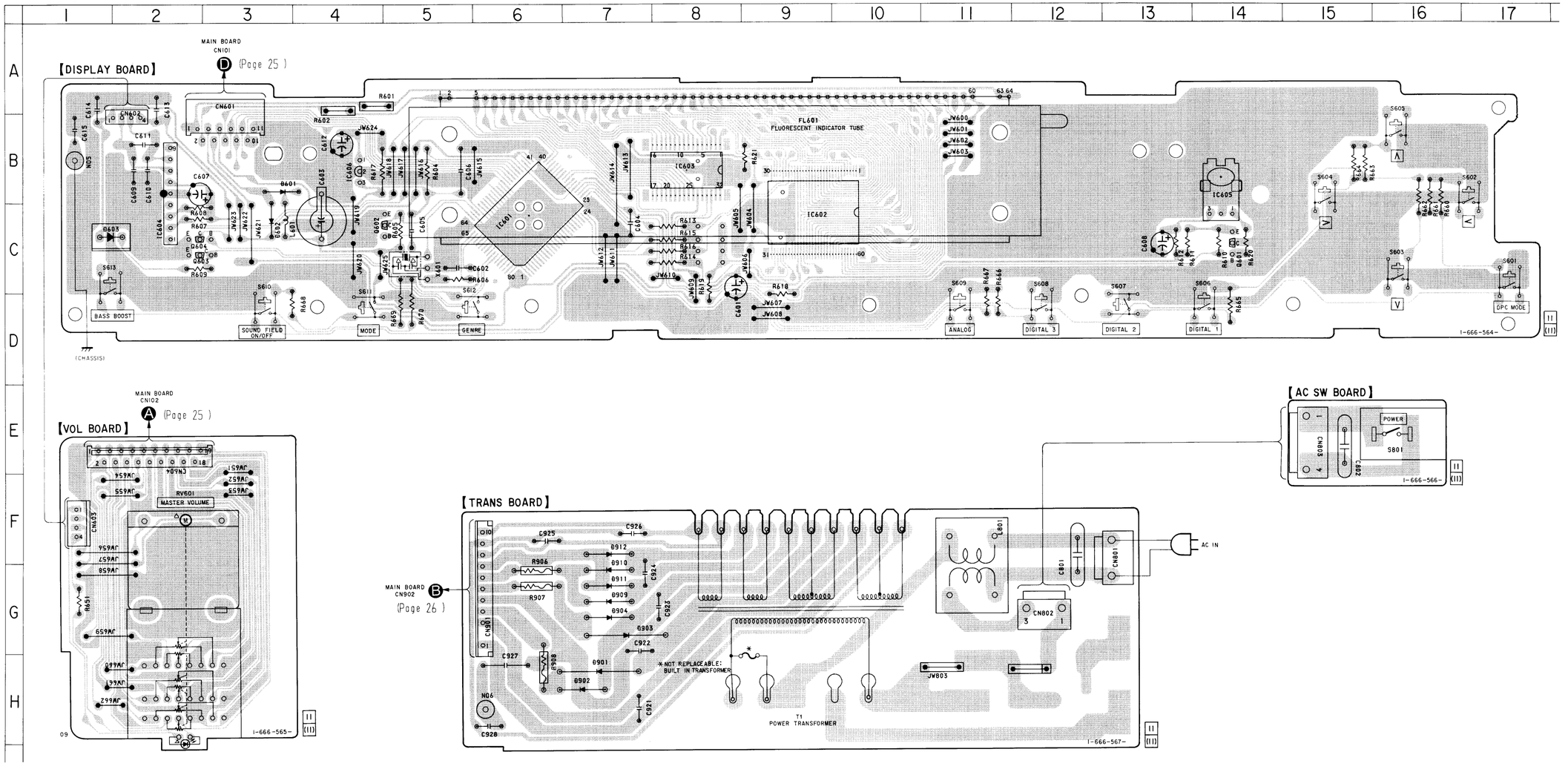
⑬ 4.8Vp-p, 6.140MHz
IC703 ① (1CLK)

NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- B+ :B+ Line.
- B− :B− Line.
- ▭ :adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ≫ :RF (AC-3)

4-7. PRINTED WIRING BOARD — DISPLAY SECTION —

• See page 14 for Circuit Boards Location.



• **Semiconductor Location**

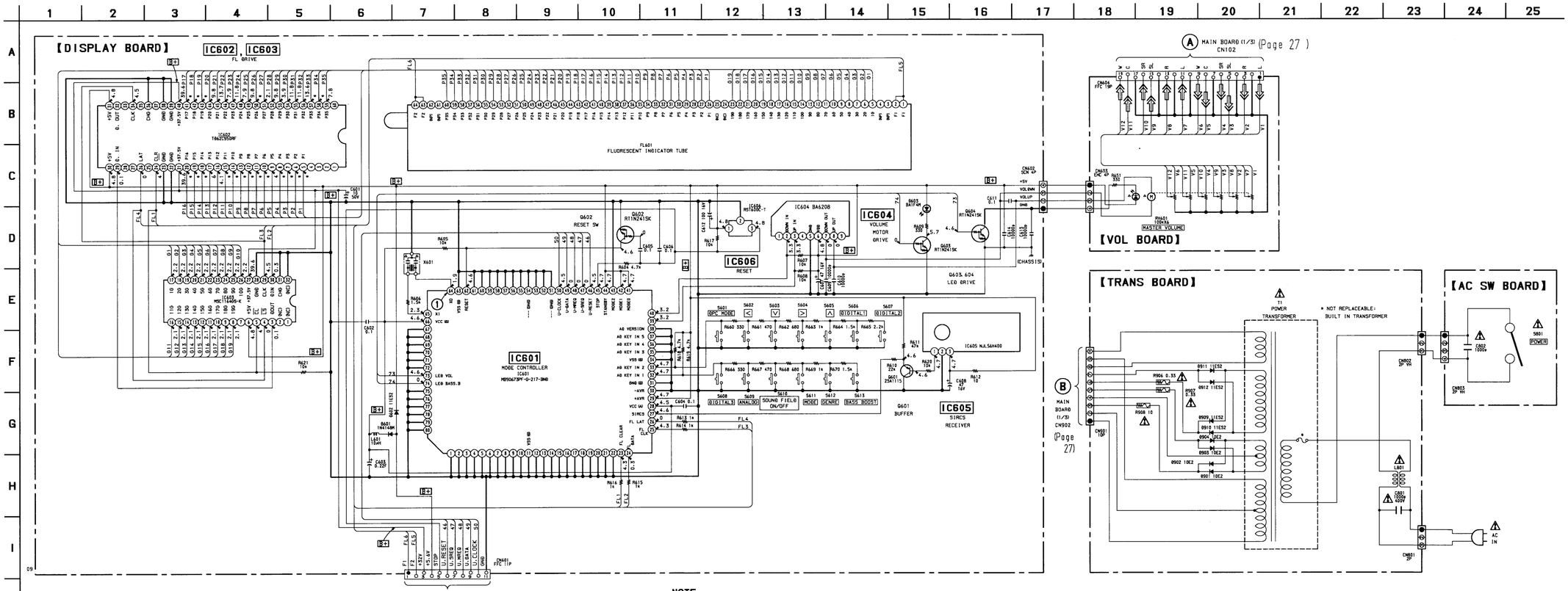
Ref. No.	Location
D601	B-3
D602	C-3
D603	C-1
D901	H-7
D902	H-7
D903	G-7
D904	G-7
D909	G-7
D910	F-7
D911	G-7
D912	F-7
IC601	C-6
IC602	C-9
IC603	B-8
IC604	C-2
IC605	B-14
IC606	B-4
Q601	C-14
Q602	C-4
Q603	C-2
Q604	C-2

Note:

- ——o——: parts extracted from the component side.
- ——: parts extracted from the conductor side.
- △: internal component.
- ▒▒: Pattern from the side which enable seeing.

4-8. SCHEMATIC DIAGRAM — DISPLAY SECTION —

- See page 46 for IC Block Diagrams.
- See page 60 for IC Pin Functions.



NOTE

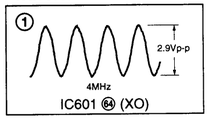
- All capacitors are in μF unless otherwise noted. pF: μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : internal component.
- : fusible resistor.
- : panel designation.
- B+ : B+ Line.
- B− : B− Line.

- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  * : can not be measured.
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Signal path.
  ⇨ : Digital in

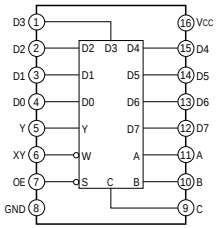
- **Waveforms**



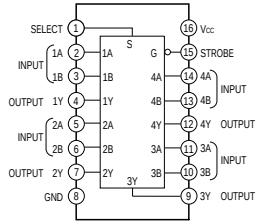
4-7. IC BLOCK DIAGRAMS

• MAIN SECTION

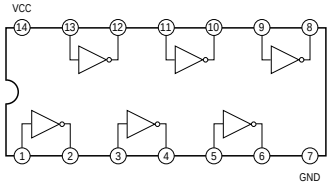
IC106 TC74HC151AF



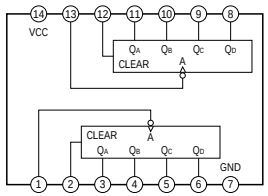
IC108 TC74HC157AF



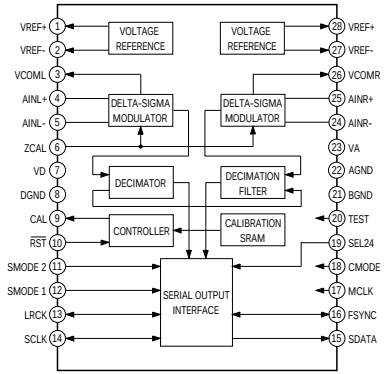
IC109 TC74HCU04AF



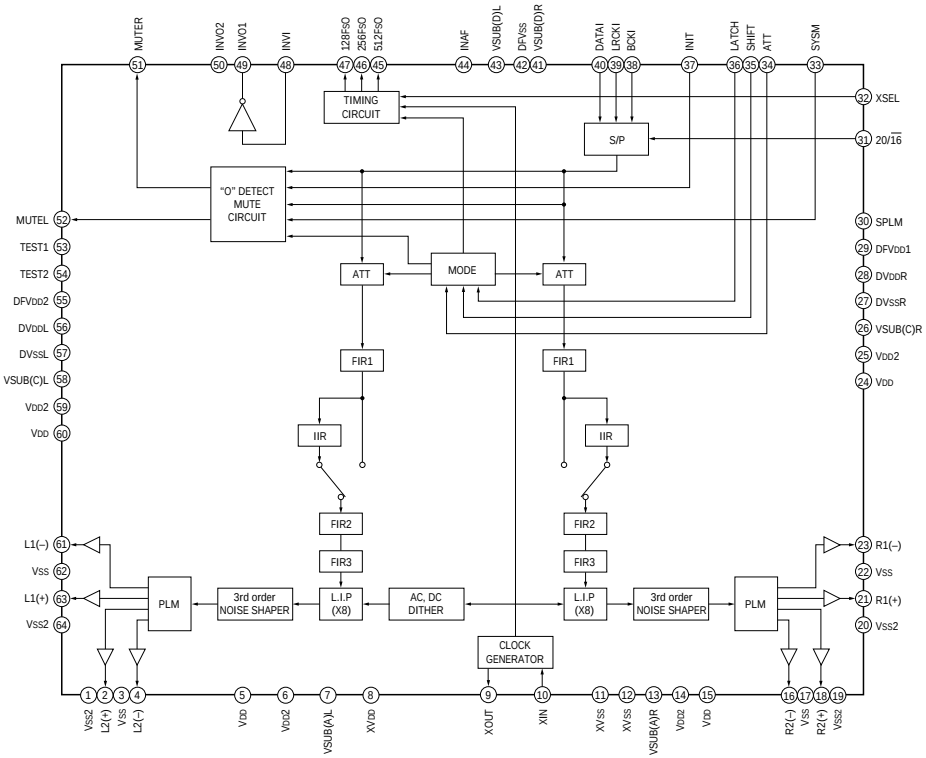
IC115 TC74HC393AF



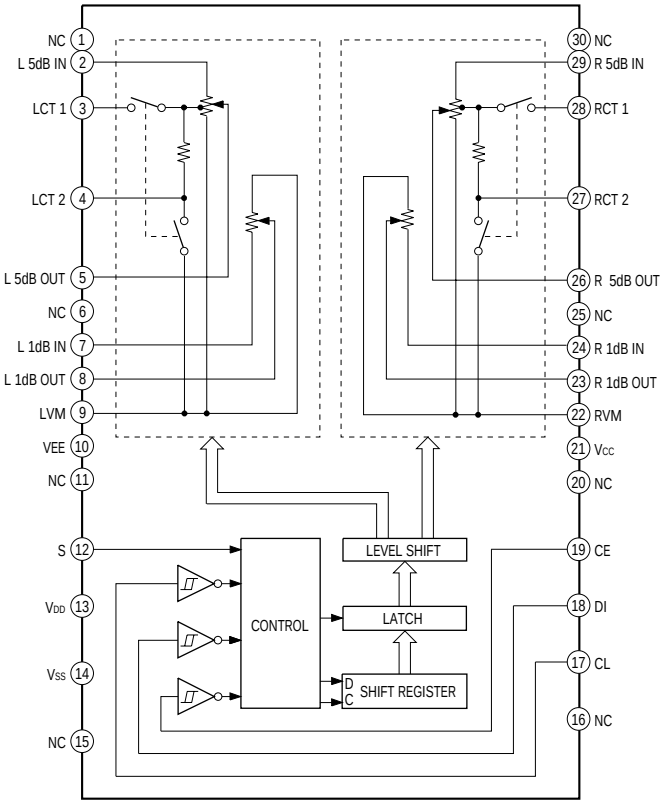
IC203 CXD8681M-TP



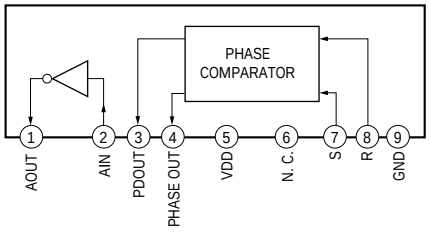
IC301, 1301, 2301 CXD8505BQ



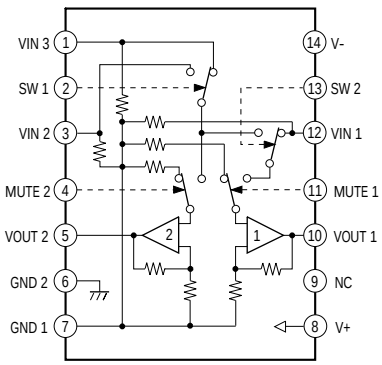
IC305, 1305, 2305 LC7535M



IC701 TC5081AP

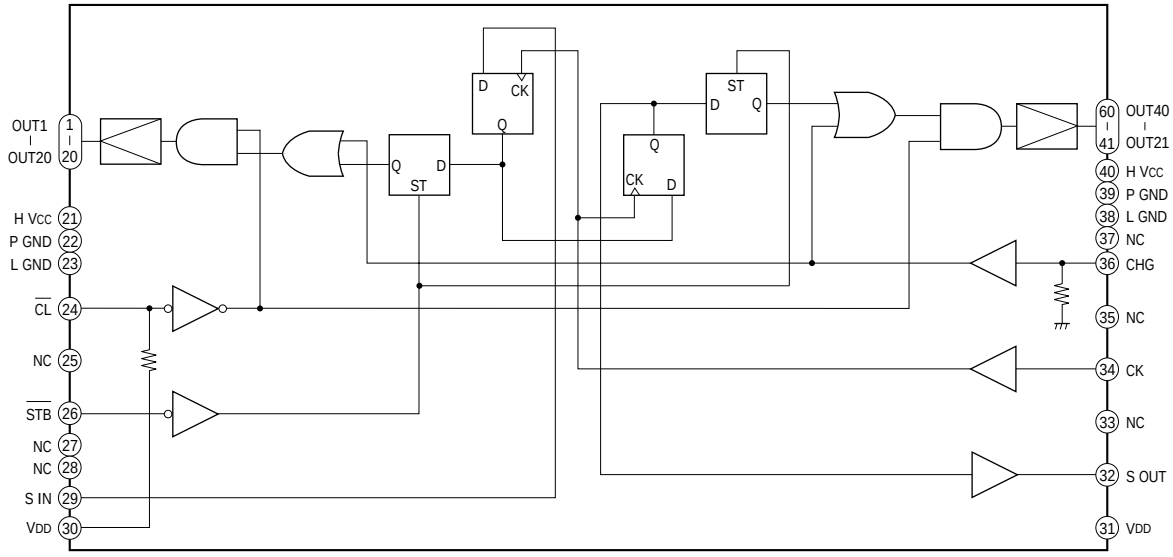


IC501 NJM2279M-TE2

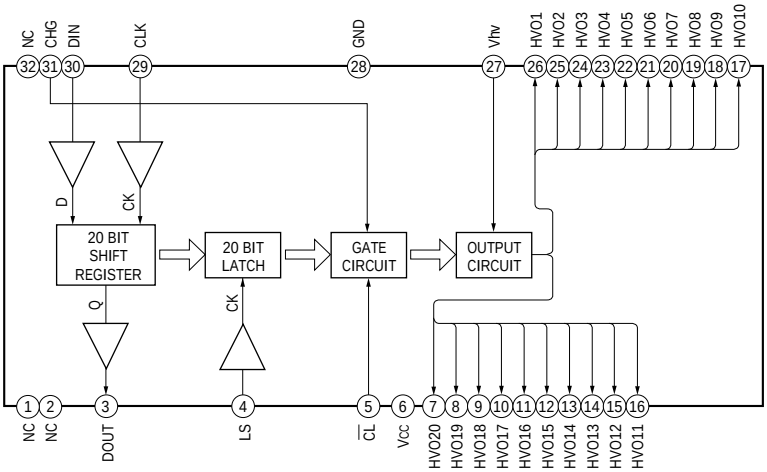


• DISPLAY SECTION

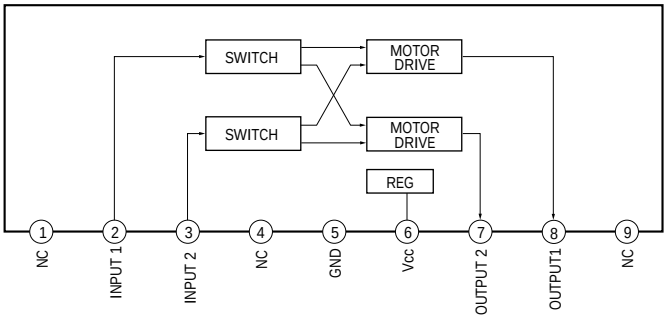
IC602 TD62C950RF



IC603 MSC1164GS-K



IC604 BA6208



4-10. IC PIN FUNCTIONS

• IC107 Digital Audio Interface Receiver (CXD8521M)

Pin No.	Pin Name	I/O	Function
1	DIN1	I	Data input with built-in amplifier (Responding to the coaxial optical module)
2	DIN2	I	Data input (Responding to the optical module)
3	E/DOUT	O	Emphasis, input bi-phase, validity flag output
4	V_{DD}	–	Power supply (+5V)
5	R	I	VCO gain control input (Fixed at “H”)
6	VIN	I	VCO freerunning frequency setting input
7	VCO	O	LPF setting of PLL (Fixed at “L”)
8	GND	–	Ground
9	CKSEL	I	System clock select input (384fs, 512fs) (Connected to the power supply.)
10	XMODE	I	Reset input
11	AVOCK	I	Clock input for preventing PLL lock failure
12	TST1	I	Test input (Normally “L”)
13	TST2	I	
14	SCLK	I	Microcomputer IF clock input
15	XLAT	I	Microcomputer IF latch/chip enable input
16	SWDT	I	Microcomputer IF write data input
17	SRDT	O	Microcomputer IF read data output
18	DQSY	O	Microcomputer IF Sub-Q sync and ID sync output (Not used)
19	CKOUT	O	VCO clock output (Freerunning, 384fs, 512fs) (Not used)
20	FS128	O	128fs clock output (Not used)
21	BCK	O	Bit clock output
22	LRCK	O	L/R clock output
23	DATAO	O	Audio data output
24	EROR	O	PLL lock error mute output

• IC114 DOLBY AC-3 demodulator (SN-PM4007A)

Pin No.	Pin Name	I/O	Function
1	GND	–	Ground
2	VDD	–	+5V power supply
3	RESET	I	System reset input “L” : reset
4	OSCON	I	Oscillation control signal input “H” : ON
5	DATA	I	Test pin (Connected to ground)
6	MCK	I	Test pin (Connected to ground)
7	MLTB	I	Test pin (Connected to ground)
8	IDST	O	Test pin (Open)
9	IDCK	O	Test pin (Open)
10	IDO	O	Test pin (Open)
11	TM0	I	Test pin (Connected to ground)
12	ECCK	O	Test pin (Open)
13	DEN	O	Test pin (Open)
14	DRY	O	Test pin (Open)
15	MSYC	O	Test pin (Open)
16	TM1	I	Test pin (Connected to ground)
17	A0	O	Address data output to SRAM
18	A1	O	Address data output to SRAM
19	A2	O	Address data output to SRAM
20	A3	O	Address data output to SRAM
21	A4	O	Address data output to SRAM
22	A5	O	Address data output to SRAM
23	TM2	I	Test pin (Connected to ground)
24	TM3	I	Test pin (Connected to ground)
25	XOUT	O	Test pin (Open)
26	XIN	I	Test pin (Connected to ground)
27	XENT	I	Test pin (Connected to ground)
28	GND	–	Ground
29	VDD	–	+5V power supply
30	A6	O	Address data output to SRAM
31	A7	O	Address data output to SRAM
32	GND	–	Ground
33	VDD	–	+5V power supply
34	A12	O	Address data output to SRAM
35	A14	O	Address data output to SRAM
36	WE	O	Write enable signal output to SRAM “L” : active
37	A13	O	Address data output to SRAM
38	A8	O	Address data output to SRAM
39	A9	O	Address data output to SRAM
40	GND	–	Ground
41	A11	O	Address data output to SRAM
42	OE	O	Output enable output to SRAM
43	A10	O	Address data output to SRAM
44	D7	I/O	Data bus input/output with SRAM
45	D6	I/O	Data bus input/output with SRAM
46	D5	I/O	Data bus input/output with SRAM
47	D4	I/O	Data bus input/output with SRAM
48	D3	I/O	Data bus input/output with SRAM
49	D2	I/O	Data bus input/output with SRAM
50	D1	I/O	Data bus input/output with SRAM

Pin No.	Pin Name	I/O	Function
51	D0	I/O	Data bus input/output with SRAM
52	VDD	–	+5V power supply
53	GND	–	Ground
54	TI1	I	Test pin (Connected to VDD)
55	VIN	I	VCXO input (18.432MHz)
56	VOUT	O	VCXO output (18.432MHz)
57	TI2	I	Test pin (Connected to Ground)
58	TI3	I	Test pin (Connected to Ground)
59	TLD8	I	Test pin (Connected to Ground)
60	TCK	I	Test pin (Connected to Ground)
61	TRP	O	Test pin (Open)
62	TD0	O	Test pin (Open)
63	PD0	O	Output of internal phase comparator (3 state)
64	TI4	I	Test pin (Connected to Ground)
65	PDDIS	I	PDO output control input “L” : output ON
66	MUTO	O	Mute signal output “H” : mute
67	TI5	I	Test pin (Connected to Ground)
68	VLDY	O	Test pin (Open)
69	DASYO	O	Test pin (Open)
70	DAOUT	O	Digital-out signal output (Serial data stream output)
71	DAIN	I	Dgital external input Through out to DAOUT when DASEL is “H” (Not used)
72	DASEL	I	Digital-out selection input (Not used)
73	TI8	I	Test pin (Connected to Ground)
74	C2F1	O	C2 error correction state display Outputs if corrected properly (Not used)
75	C2F0	O	C2 error correction state display Outputs number of errors at C2 (Not used)
76	C1F1	O	C2 error correction state display Outputs whether error is present at C1 (Not used)
77	C1F0	O	C2 error correction state display Outputs number of errors at C1 (Not used)
78	MUTI	I	Muting input “H” mute
79	VDD	–	+5V power supply
80	GND	–	Ground
81	AVDD	–	+5V power supply (Analog)
82	CPIN	I	Comparator input (+) (QPSK input)
83	CMIN	I	Comparator input (–)
84	AGND	–	Ground (Analog)
85	TM4	I	Test pin (Connected to ground)
86	VDD	–	+5V power supply
87	DIN	I	Test pin (Connected to ground)
88	DOUT	O	Comparate output
89	DOUTB	O	Comparate inverted output
90	C9M	O	9.216MHz output (Open)
91	GND	–	Ground
92	WINGT	O	Test pin (Connected to ground)
93	SYST0	O	Test pin (Connected to ground)
94	SYST1	O	Test pin (Connected to ground)
95	ADST0	O	Test pin (Connected to ground)
96	ADST1	O	Test pin (Connected to ground)
97	TM5	I	Test pin (Open)
98	BUNRI	I	Test pin (Open)
99	AGND	–	Ground (Analog)
100	AVDD	–	+5V power supply (Analog)

• IC118 DOLBY AC-3 decoder (DSP56009FJ88)

Pin No.	Pin Name	I/O	Function
1	AGND	–	Address buffer ground
2	MCS0	O	Chip select 0 output to S-RAM (Not used)
3	MA15	O	Address data output to S-RAM (Not used)
4	MA14	O	
5	MA13	O	
6	AVCC	–	Address bus buffer power supply (+5V)
7	MA12	O	Address data output to S-RAM(Not used)
8	AGND	–	Ground for address bus buffer
9	QVCC	–	Power supply for internal logic (+5V)
10	QGND	–	Ground for internal logic
11	MA11	O	Address data output to S-RAM (Not used)
12	MA10	O	
13	MA9	O	
14	MA8	O	
15	AGND	–	Ground for address bus buffer
16	MA7	O	Address data output to S-RAM (Not used)
17	AVCC	–	Power supply for address bus buffer (+5V)
18	MA6	O	Address data output to S-RAM (Not used)
19	MA5	O	
20	MA4	O	
21	AGND	–	Ground for address bus buffer
22	MA3	O	Address data output to S-RAM (Not used)
23	MA2	O	
24	MA1	O	
25	MA0	O	
26	SCK/SCL	I	SPI serial clock signal input from system controller
27	EXTAL	I	External frequency input (3 MHz)
28	QVCC	–	Power supply for internal logic (+5V)
29	QGND	–	Ground for internal logic
30	PINIT	I	PLL initialize input (Fixed at “L”)
31	PGND	–	Ground for PLL
32	PCAP	I	PLL filter input (Connected to 0.01 µF capacitor)
33	PVCC	–	Power supply for PLL (+5V)
34	SGND	–	Ground for serial port
35	MISO/SDA	I	Master data signal input from system controller
36	RESET	I	Reset signal input from system controller
37	MODA/IRQA	I	Mode select A (Fixed at “H”)
38	MODB/IRQB	I	Mode select B (Fixed at “L”)
39	MODC/NMI	I	Mode select C (Fixed at “H”)
40	SVCC	–	Power supply for serial port (+5V)

Pin No.	Pin Name	I/O	Function
41	MOSI/HA0	O	Master data signal output to system controller
42	SS/HA2	I	SPI slave select signal input from system controller
43	HREQ	I	Host request signal input from system controller
44	SGND	–	Ground for serial port
45	SDO2	O	Audio serial data 2 signal output (Not used)
46	SDO1	O	Audio serial data 1 signal output
47	SDO0	O	Audio serial data 0 signal output
48	SVCC	–	Power supply for serial port (+5V)
49	SCKT	O	Serial clock transmission
50	WST	O	Word select transmission
51	SCKR	I	Serial clock reception
52	QGND	–	Ground for internal logic
53	QVCC	–	Power supply for internal logic (+5V)
54	SGND	–	Ground for serial port
55	WSR	I	Word select reception
56	SDI1	I	Audio serial data 1 signal input
57	SDI0	I	Audio serial data 0 signal input
58	DSO	O	Debug serial signal output (Not used)
59	DSI	I	Debug serial signal input (Not used)
60	DSCK	I	Debug serial clock signal input (Not used)
61	DR	I	Debug request input (Fixed at “H”)
62	MD7	I/O	Data input/output with S-RAM (Not used)
63	MD6	I/O	
64	MD5	I/O	
65	MD4	I/O	
66	DGND	–	Ground for data bus buffer
67	MD3	I/O	Data input/output with S-RAM (Not used)
68	MD2	I/O	
69	MD1	I/O	
70	DVCC	–	Power supply for data bus buffer (+5V)
71	MD0	I/O	Data input/output with S-RAM (Not used)
72	DGND	–	Ground for data bus buffer
73	GPIO3	I/O	General DSP input/output (Not used)
74	GPIO2	I/O	
75	GPIO1	I/O	
76	GPIO0	I/O	
77	MRD	O	Write strobe signal output to S-RAM (Not used)
78	MWR	O	Read strobe signal output to S-RAM (Not used)
79	MA15/MCS1	O	Low address strobe signal output to S-RAM (Not used)
80	MA16/MCS2/MCAS	O	Column address strobe signal output to S-RAM (Not used)

• IC119 DOLBY Surround Digital Signal Processor (SSP424023FJ88)

Pin No.	Pin Name	I/O	Function
1	AGND	–	Address buffer ground
2	MCS0	O	Chip select 0 output to S-RAM (Not used)
3	MA15	O	Address data output to S-RAM
4	MA14	O	
5	MA13	O	
6	AVCC	–	Address bus buffer power supply (+5V)
7	MA12	O	Address data output to S-RAM
8	AGND	–	Ground for address bus buffer
9	QVCC	–	Power supply for internal logic (+5V)
10	QGND	–	Ground for internal logic
11	MA11	O	Address data output to S-RAM
12	MA10	O	
13	MA9	O	
14	MA8	O	
15	AGND	–	Ground for address bus buffer
16	MA7	O	Address data output to S-RAM
17	AVCC	–	Power supply for address bus buffer (+5V)
18	MA6	O	Address data output to S-RAM
19	MA5	O	
20	MA4	O	
21	AGND	–	Ground for address bus buffer
22	MA3	O	Address data output to S-RAM
23	MA2	O	
24	MA1	O	
25	MA0	O	
26	SCK/SCL	I	SPI serial clock signal input from system controller
27	EXTAL	I	External frequency input (3 MHz)
28	QVCC	–	Power supply for internal logic (+5V)
29	QGND	–	Ground for internal logic
30	PINIT	I	PLL initialize input (Fixed at “L”)
31	PGND	–	Ground for PLL
32	PCAP	I	PLL filter input (Connected to 0.01 µF capacitor)
33	PVCC	–	Power supply for PLL (+5V)
34	SGND	–	Ground for serial port
35	MISO/SDA	I	Master data signal input from system controller
36	RESET	I	Reset signal input from system controller
37	MODA/IRQA	I	Mode select A (Fixed at “H”)
38	MODB/IRQB	I	Mode select B (Fixed at “L”)
39	MODC/NMI	I	Mode select C (Fixed at “H”)
40	SVCC	–	Power supply for serial port (+5V)

Pin No.	Pin Name	I/O	Function
41	MOSI/HA0	O	Master data signal output to system controller
42	SS/HA2	I	SPI slave select signal input from system controller
43	HREQ	I	Host request signal input from system controller
44	SGND	–	Ground for serial port
45	SDO2	O	Audio serial data 2 signal output
46	SDO1	O	Audio serial data 1 signal output
47	SDO0	O	Audio serial data 0 signal output
48	SVCC	–	Power supply for serial port (+5V)
49	SCKT	O	Serial clock transmission
50	WST	O	Word select transmission
51	SCKR	I	Serial clock reception
52	QGND	–	Ground for internal logic
53	QVCC	–	Power supply for internal logic (+5V)
54	SGND	–	Ground for serial port
55	WSR	I	Word select reception
56	SDI1	I	Audio serial data 1 signal input
57	SDI0	I	Audio serial data 0 signal input
58	DSO	O	Debug serial signal output (Not used)
59	DSI/OS0	I	Debug serial signal input (Not used)
60	DSCK/OS1	I	Debug serial clock signal input (Not used)
61	DR	I	Debug request input (Fixed at “H”)
62	MD7	I/O	Data input/output with S-RAM
63	MD6	I/O	
64	MD5	I/O	
65	MD4	I/O	
66	DGND	–	Ground for data bus buffer
67	MD3	I/O	Data input/output with S-RAM
68	MD2	I/O	
69	MD1	I/O	
70	DVCC	–	Power supply for data bus buffer (+5V)
71	MD0	I/O	Data input/output with S-RAM
72	DGND	–	Ground for data bus buffer
73	GPIO3	I/O	General DSP input/output (Not used)
74	GPIO2	I/O	
75	GPIO1	I/O	
76	GPIO0	O	General DSP output to system controller
77	MRD	O	Write strobe signal output to S-RAM
78	MWR	O	Read strobe signal output to S-RAM
79	MA15/MCS1	O	Low address strobe signal output to S-RAM (Not used)
80	MA16/MCS2/MCAS	O	Column address strobe signal output to S-RAM

• IC150 System Controller (MB90641APF-G-102-BND)

Pin No.	Pin Name	I/O	Function
1	RF ERR	I	Error input from DOLBY AC-3 demodulator “H” : error
2	RF RES	O	Reset output to DOLBY AC-3 demodulator “L” : reset
3	STOPIN	I	Power supply failure detection input
4	DIRDAT	I	Data read signal input from CXD8521M
5	DIRWDT	O	Data write signal output to CXD8521M
6	DIRLAT	O	Latch output to CXD8521
7	DIRCLK	O	Clock output to CXD8521
8	DIRERR	I	Error signal input from CXD8521M “H” : error
9	ANADIG	O	Analog/Digital switching, Digital at “H”
10	ADCINI	O	Initialize output to A/D converter
11	VSS	–	Ground
12	M9MORQ	O	Host request signal output to DSP56009FJ88
13	M9MOSS	O	SPI slave select signal output to DSP56009FJ88
14	M9MOSI	O	Master data signal output to DSP56009FJ88
15	M9MRES	O	Reset signal output to DSP56009FJ88 “L” : reset
16	M9MISO	I	Master data signal input from DSP56009FJ88
17	M9SCLK	O	SPI serial clock output to DSP56009FJ88
18	M4MORQ	O	Host request signal output to SSP424023FJ88
19	M4MOSS	O	SPI slave select signal output to SSP424023FJ88
20	M4MOSI	O	Master data signal output to SSP424023FJ88
21	M4MRES	O	Reset signal output to SSP424023FJ88 “L” : reset
22	M4MISO	I	Master data signal input from SSP424023FJ88
23	VCC	–	+5V power supply
24	M4SCLK	O	SPI serial clock output to SSP424023FJ88
25	DACINI	O	Initialize output to CXD8505BQ “L” : initialize
26	DACLAT	O	Latch output to CXD8505BQ
27	–	–	Not used
28	DACCLK	O	Clock output to CXD8505BQ
29	DACDAT	O	Data output to CXD8505BQ
30	–	O	Initialize output “L” : initialize (Not used)
31	–	–	Not used
32	–	–	Not used
33	–	–	Not used
34	VCC	–	+5V power supply
35	VCC	–	+5V power supply
36	VSS	–	Ground
37	VSS	–	Ground
38	LF LED	I	Low frequency LED signal input from SSP424023FJ88
39	–	–	Not used
40	–	–	Not used
41	–	–	Not used
42	VSS	–	Ground
43	–	–	Not used
44	–	–	Not used
45	–	–	Not used
46	–	–	Not used
47	–	–	Not used
48	STOPIN	I	Power supply failure detection input
49	MD0	I	Normary, connected to +5V
50	MD1	I	Normary, connected to +5V

Pin No.	Pin Name	I/O	Function
51	MD2	I	Normary, connected to ground
52	STANDBY	–	Normary, connected to +5V
53	–	–	Not used
54	DM REQ	I	Master request signal input from mode controller
55	D DATA	I	Master data input from mode controller
56	DS REQ	O	Slave data request signal output to mode controller
57	D CLK	I	Master clock input from mode controller
58	LC CEO	O	Latch output to ATT (Rear, Center, woofer)
59	LC DAT	O	Signal data output to ATT (Rear, Center, woofer)
60	LC CLK	O	Signal clock output to ATT (Rear, Center, woofer)
61	MLC CEO	O	Latch output to ATT (Front)
62	MLC DAT	O	Signal data output to ATT (Front)
63	MLC CLK	O	Signal clock output to ATT (Front)
64	–	–	Not used
65	–	–	Not used
66	–	–	Not used
67	–	–	Not used
68	VIDE A	O	Video-input switching signal output
69	VIDE B	O	Video-input switching signal output
70	–	–	Not used
71	VO INH	O	Video-out inhibit signal output “L” : inhibit
72	–	–	Not used
73	–	–	Not used
74	S MUTE	O	Surround muting signal output “H” : mute
75	–	–	Not used
76	D MUTE	O	-20dB muting signal output “H” : mute
77	RESET	I	Reset signal input “L” : reset
78	–	–	Not used
79	–	–	Not used
80	FSP RY	O	Front speaker relay switching output “H” : ON
81	VSS	–	Ground
82	XO	O	System clock output (4MHz)
83	XI	I	System clock input (4MHz)
84	VCC	–	+5V power supply
85	–	–	Not used
86	CSP-RY	O	Center speaker/Super woofer relay switching output “H” : ON
87	RSP RY	O	REAR speaker relay switching output “H” : ON
88	–	–	Not used
89	–	–	Not used
90	–	–	Not used
91	–	–	Not used
92	–	–	Not used
93	–	–	Not used
94	–	–	Not used
95	–	–	Not used
96	–	–	Not used
97	–	–	Not used
98	DSEL2	O	Digital-input selection signal output
99	DSEL1	O	Digital-input selection signal output
100	DSEL0	O	Digital-input selection signal output

• IC203 A/D Converter (CXD8681M-TP)

Pin No.	Pin Name	I/O	Function
1	VRL+	O	L-ch reference voltage (+) output (+3.75V)
2	VRL–	O	L-ch reference voltage (–) output (+1.25V)
3	VCML	O	L-ch common voltage (+) output (+2.5V)
4	AINL+	I	L-ch analog voltage (+) input
5	AINL–	I	L-ch analog voltage (–) input
6	ZCAL	I	Zero calibraton input (Fixed at “H”)
7	VD	–	+5.5V power supply (Digital)
8	DGND	–	Ground (Digital)
9	CAL	O	Calibration status signal output
10	$\overline{\text{RST}}$	I	Reset input “L” : reset
11	SMODE2	I	Serial interface mode selection input (Fixed at “L”)
12	SMODE1	I	Serial interface mode selection input (Fixed at “L”)
13	LRCK	I/O	L/R channel selection clock input/output
14	SCLK	I/O	Serial data clock input/output
15	SDATA	O	Serial data output
16	FSYNC	I/O	Frame sync clock input/output (Not used)
17	MCLK	I	Master clock input (12.288MHz)
18	CMODE	I	Master clock selection input “L” : MCLK : 256Fs, “H” : MCLK : 384Fs (Fixed at “L”)
19	SEL24/20	I	Output data range selection input “L” : 20 bit, “H” ; 24 bit (Fixed at “H”)
20	TEST	I	Test pin (Fixed at “L”)
21	BGND	–	Ground
22	AGND	–	Ground (Analog)
23	VA	–	+5V power supply (Analog)
24	AINR–	I	R-ch analog (–) input
25	AINR+	I	R-ch analog (+) input
26	VCMR	O	R-ch common voltage output (+2.5V)
27	VRR–	O	R-ch reference voltage (–) output (+1.25V)
28	VRR+	O	R-ch reference voltage (+) output (+3.75V)

• IC601 Mode controller (MB90673PF-G-217-BND)

Pin No.	Pin Name	I/O	Function
1	–	–	Not used (Ground)
2	–	–	Not used (Ground)
3	–	–	Not used (Ground)
4	–	–	Not used (Ground)
5	–	–	Not used (Ground)
6	–	–	Not used (Ground)
7	–	–	Not used (Ground)
8	–	–	Not used (Ground)
9	–	–	Not used (Ground)
10	–	–	Not used (Ground)
11	VSS	–	Ground
12	–	–	Not used (Ground)
13	–	–	Not used (Ground)
14	–	–	Not used (Ground)
15	–	–	Not used (Ground)
16	–	–	Not used (Ground)
17	–	–	Not used (Ground)
18	–	–	Not used (Ground)
19	–	–	Not used (Ground)
20	–	–	Not used (Ground)
21	–	–	Not used (Ground)
22	–	–	Not used (Ground)
23	FL CLEAR	O	FL clear signal output to FL driver “H” : active
24	FL DATA	O	FL data output to FL diver
25	FL CLK	O	FL clock output to FL diver
26	FL LAT	O	FL latch output to FL driver “H” : active
27	SIRCS	I	Remote control signal input
28	VCC (A)	–	+5V power supply (Back-up)
29	+AVR	I	Reference voltage input (+) (+5V)
30	–AVR	I	Reference voltage input (–) (Ground)
31	GND (D)	–	Ground
32	AD KEY IN 1	I	Key input 1
33	AD KEY IN 2	I	Key input 2
34	VSS (D)	–	Ground
35	AD KEY IN 3	I	Key input 3 (Not used)
36	AD KEY IN 4	I	Key input 4 (Not used)
37	AD KEY IN 5	I	Key input 5 (Not used)
38	AD VERSION	–	Not used
39	–	–	Not used
40	–	–	Not used

Pin No.	Pin Name	I/O	Function
41	MODE0	I	Mode setting pin (Fixed at “H”)
42	MODE1	I	Mode setting pin (Fixed at “H”)
43	MODE2	I	Mode setting pin (Fixed at “L”)
44	STANBY	I	Stanby signal input (Connected to VDD)
45	STOP	I	STOP signal input “L” : active
46	U-RESET	O	Reset output to system controller “L” : reset
47	U-SREQ	I	Slave data request signal input from system controller
48	U-MREQ	O	Master request signal output to system controller
49	U-DATA	O	Master data output to system controller
50	U-CLOCK	O	Master clock output to system controller
51	(GND)	–	Ground
52	–	–	Not used (Ground)
53	–	–	Not used (Ground)
54	(GND)	–	Ground
55	–	–	Not used (Ground)
56	–	–	Not used (Ground)
57	–	–	Not used (Ground)
58	–	–	Not used (Ground)
59	–	–	Not used (Ground)
60	–	–	Not used (Ground)
61	–	–	Not used (Ground)
62	XRESET	I	Reset signal input “L” : reset
63	VSS (D)	–	Ground
64	X0	O	Clock output (4MHz)
65	X1	I	Clock input (4MHz)
66	VCC (D)	–	+5V power supply (Back-up)
67	–	–	Not used (Ground)
68	–	–	Not used (Ground)
69	–	–	Not used (Ground)
70	–	–	Not used (Ground)
71	–	–	Not used (Ground)
72	–	–	Not used (Ground)
73	LED VOL	O	Volume LED drive signal output “H” : active
74	LED BASS B	O	Bass boost LED drive signal output “H” : active
75	–	–	Not used (Ground)
76	–	–	Not used (Ground)
77	–	–	Not used (Ground)
78	–	–	Not used (Ground)
79	–	–	Not used (Ground)
80	–	–	Not used (Ground)

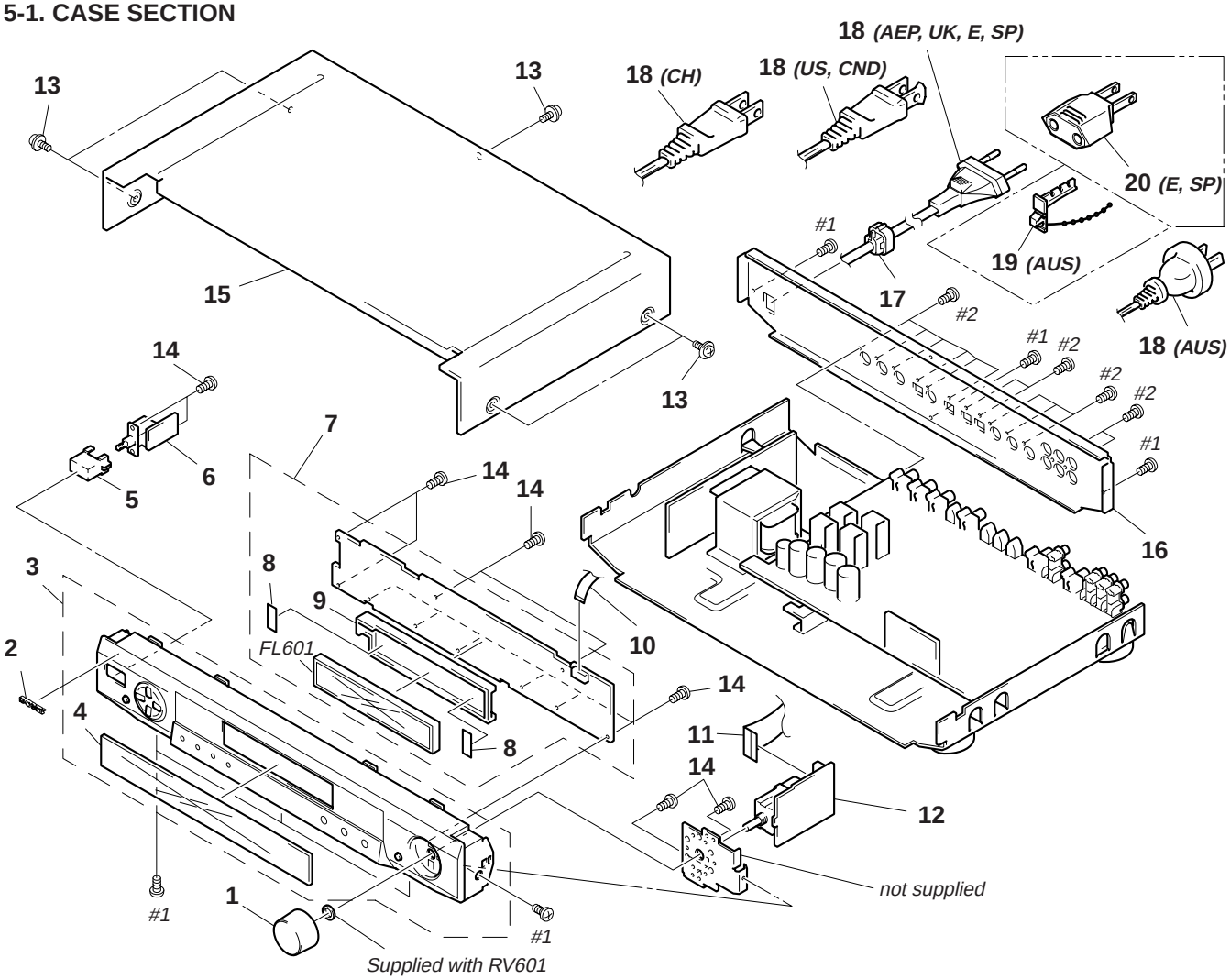
SECTION 5
EXPLODED VIEWS

NOTE:
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Color Indication of Appearance Parts Example:
  KNOB, BALANCE (WHITE)...(RED)
  ↓ ↓
  Parts color Cabinets color
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  CND : Canadian model
  SP : Singapore model
  AUS : Australian model
  CH : Chinese model

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

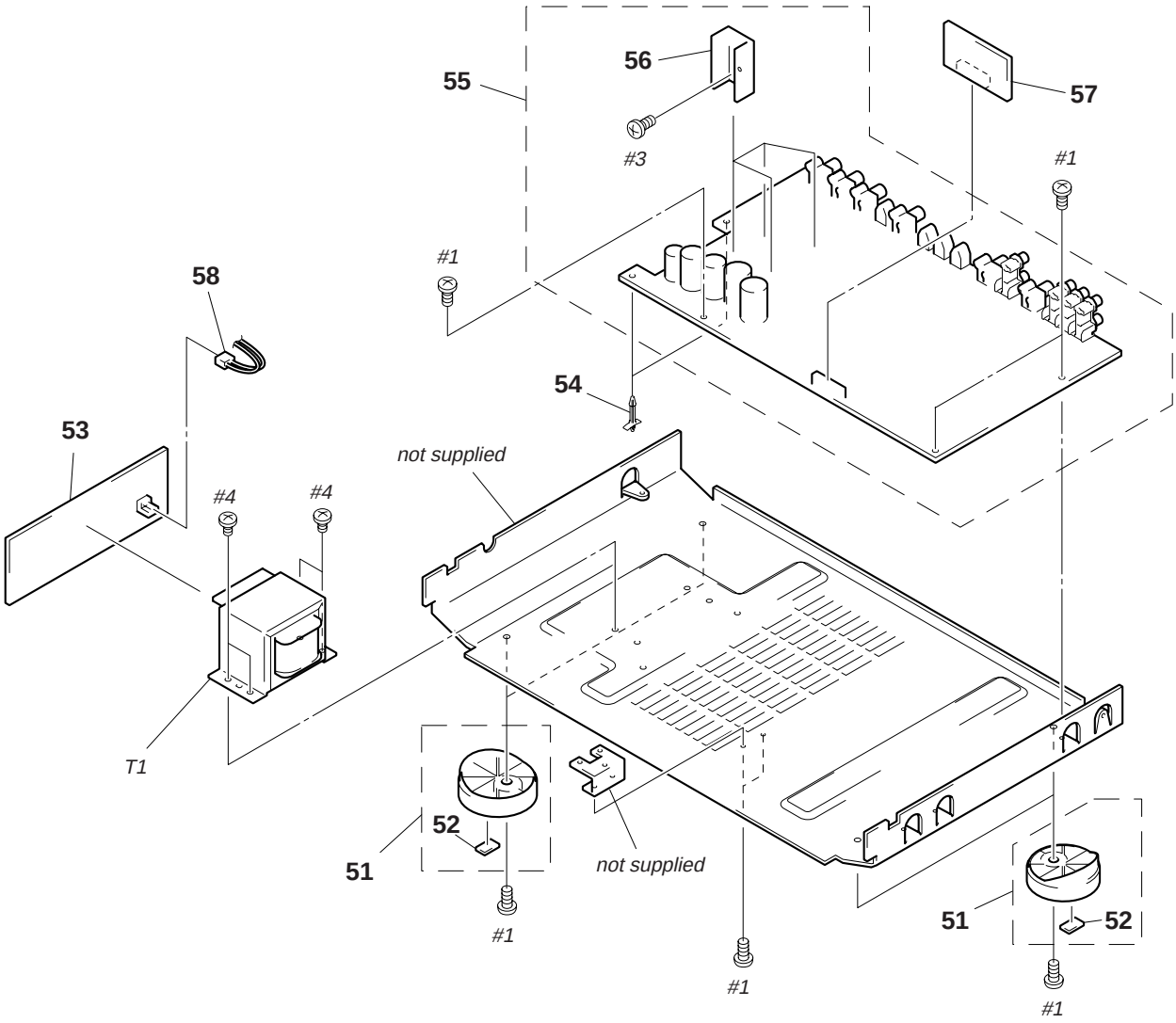
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

5-1. CASE SECTION



Ref. No.	Part No.	Description	Remark
1	X-4948-728-1	KNOB (VOL) ASSY (BLACK)...(BLACK)	
1	X-4948-762-1	KNOB (VOL) ASSY (GOLD)...(BLACK)	
2	3-008-600-11	EMBLEM (5-AR), SONY (SILVER)...(BLACK)	(US,CND,AEP,UK,E,SP,AUS)
2	3-008-600-21	EMBLEM (5-AR), SONY (GOLD)...(GOLD)	(CH)
3	X-4948-727-1	PANEL ASSY, FRONT (BLACK)...(BLACK)	
3	X-4948-761-1	PANEL ASSY, FRONT (GOLD)...(GOLD)	
4	4-992-686-01	WINDOW	
5	3-931-429-01	BUTTON (POWER)(BLACK)...(BLACK)	
5	3-931-429-31	BUTTON (POWER)(GOLD)...(GOLD)	
* 6	1-666-566-11	AC SW BOARD	
* 7	A-4403-079-A	DISPLAY BOARD, COMPLETE	
* 8	4-932-810-11	CUSHION (FL)	
* 9	4-990-797-01	HOLDER (FL)	
10	1-769-943-11	WIRE (FLAT TYPE)(11 CORE)	
11	1-773-116-11	WIRE (FLAT TYPE)(19 CORE)	
* 12	1-666-565-11	VOL BOARD	
13	3-704-366-01	SCREW (CASE)(M3X8)(BLACK)...(BLACK)	
13	3-704-366-11	SCREW (CASE)(M3X8)(SILVER)...(GOLD)	
14	4-951-620-01	SCREW (2.6X8), +BVTP	
* 15	4-993-021-01	CASE (BLACK)...(BLACK)	
* 15	4-993-021-11	CASE (GOLD)...(GOLD)	
* 16	4-992-696-01	PANEL, BACK (US)	
* 16	4-992-696-11	PANEL, BACK (E,SP)	
* 16	4-992-696-21	PANEL, BACK (AEP,UK)	
* 16	4-992-696-31	PANEL, BACK (AUS)	
* 16	4-992-696-41	PANEL, BACK (CND)	
* 16	4-992-696-51	PANEL, BACK (CH)	
* 17	3-703-244-00	BUSHING (2104), CORD	
⚠18	1-558-945-21	CORD, POWER (POLAR.SPT-1)(US,CND)	
⚠18	1-696-845-11	CORD, POWER (AUS)	
⚠18	1-775-787-41	CORD, POWER (AEP,UK,E,SP)	
⚠18	1-782-464-21	CORD, POWER (CH)	
19	4-956-370-02	BAND, PLUG FIXED (AUS)	
⚠20	1-659-008-11	ADAPTOR, CONVERSION 2P (E, SP)	
FL601	1-517-671-11	INDICATOR TUBE, FLUORESCENT	

5-2. MAIN BOARD SECTION



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
51	X-4947-389-1	FOOT ASSY (F50150S)(SILVER)...(BLACK)	(AEP,UK,E,SP,AUS)
51	X-4947-390-1	FOOT ASSY (F50150S)(BLACK)...(BLACK)	(US,CND)
51	X-4949-003-1	FOOT ASSY (GOLD)...(GOLD)	
52	4-983-762-02	CUSHION	
* 53	1-666-567-11	TRANS BOARD	
* 54	4-924-098-01	HOLDER, PC BOARD	
* 55	A-4403-077-A	MAIN BOARD, COMPLETE (US,CND)	
* 55	A-4403-083-A	MAIN BOARD, COMPLETE (AEP,UK,CH,AUS)	
* 55	A-4403-087-A	MAIN BOARD, COMPLETE (E,SP)	
* 56	4-880-403-11	HEAT SINK	
* 57	A-4403-394-A	PLL BOARD, COMPLETE (US,CND)	
* 57	A-4403-395-A	PLL BOARD, COMPLETE (AEP,UK,E,SP,CH,AUS)	
58	1-769-077-31	LEAD (WITH CONNECTOR)(2 CORE)	
⚠T1	1-431-453-11	TRANSFORMER, POWER (US,CND)	
⚠T1	1-431-455-11	TRANSFORMER, POWER (AEP,UK,E,SP,AUS,CH)	

AC SW **DISPLAY**

SECTION 6
ELECTRICAL PARTS LIST

Note:

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

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

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

- 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.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: µ , for example:
  uA...: µ A..., uPA...: µ PA..., uPB...: µ PB..., uPC...: µ PC..., uPD...: µ PD...
- CAPACITORS
  uF : µ F
- COILS
  uH : µ H
- Abbreviation
  CND : Canadian model
  SP : Singapore model
  AUS : Australian model
  CH : Chinese model

Ref. No.	Part No.	Description			Remark
*	1-666-566-11	AC SW BOARD			
		**********			
		< CAPACITOR >			
⚠C802	1-115-383-51	CERAMIC	0.01uF	10%	125V
		< CONNECTOR >			
* CN803	1-565-792-11	PIN, CONNECTOR 2P			
		< SWITCH >			
⚠S801	1-572-267-51	SWITCH, PUSH (AC POWER)(1 KEY)(POWER)			
**********					
*	A-4403-079-A	DISPLAY BOARD, COMPLETE			
		**********			
*	4-932-810-11	CUSHION (FL)			
*	4-990-797-01	HOLDER (FL)			
		< CAPACITOR >			
C601	1-126-795-11	ELECT	10uF	20%	50V
C602	1-164-159-11	CERAMIC	0.1uF		50V
C603	1-104-905-11	CAPACITOR	0.22F		5.5V
C604	1-164-159-11	CERAMIC	0.1uF		50V
C605	1-164-159-11	CERAMIC	0.1uF		50V
C606	1-164-159-11	CERAMIC	0.1uF		50V
C607	1-126-786-11	ELECT	47uF	20%	16V
C608	1-126-786-11	ELECT	47uF	20%	16V
C609	1-164-159-11	CERAMIC	0.1uF		50V
C610	1-162-306-11	CERAMIC	10000PF	20%	16V
C611	1-162-306-11	CERAMIC	10000PF	20%	16V
C612	1-124-455-00	ELECT	100uF	20%	16V
C613	1-162-306-11	CERAMIC	10000PF	20%	16V
C614	1-162-306-11	CERAMIC	10000PF	20%	16V
C615	1-162-306-11	CERAMIC	10000PF	20%	16V
		< CONNECTOR >			
* CN601	1-568-854-11	SOCKET, CONNECTOR 11P			
		< DIODE >			
D601	8-719-987-63	DIODE 1N4148M			
D602	8-719-200-82	DIODE 11ES2			
D603	8-719-313-45	DIODE SEL6810A-TH10 (BASS BOOST)			

Ref. No.	Part No.	Description			Remark
		< FLUORESCENT INDICATOR >			
FL601	1-517-671-11	INDICATOR TUBE, FLUORESCENT			
		< IC >			
IC601	8-759-476-32	IC MB90673PF-G-217-BND			
IC602	8-759-075-35	IC TD62C950RF			
IC603	8-759-999-53	IC MSC1164GS-K			
IC604	8-759-962-08	IC BA6208			
IC605	8-759-459-84	IC NJL56H400			
IC606	8-759-165-80	IC PST600C-T			
		< COIL >			
L601	1-410-521-11	INDUCTOR 100uH			
		< TRANSISTOR >			
Q601	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q602	8-729-661-95	TRANSISTOR RT1N241SK-TP			
Q603	8-729-661-95	TRANSISTOR RT1N241SK-TP			
Q604	8-729-661-95	TRANSISTOR RT1N241SK-TP			
		< RESISTOR >			
R604	1-249-425-11	CARBON	4.7K	5%	1/4W F
R605	1-249-429-11	CARBON	10K	5%	1/4W
R606	1-249-419-11	CARBON	1.5K	5%	1/4W F
R607	1-249-429-11	CARBON	10K	5%	1/4W
R608	1-249-429-11	CARBON	10K	5%	1/4W
R609	1-249-411-11	CARBON	330	5%	1/4W
R610	1-249-433-11	CARBON	22K	5%	1/4W
R611	1-249-437-11	CARBON	47K	5%	1/4W
R612	1-249-393-11	CARBON	10	5%	1/4W F
R613	1-249-417-11	CARBON	1K	5%	1/4W F
R614	1-249-417-11	CARBON	1K	5%	1/4W F
R615	1-249-417-11	CARBON	1K	5%	1/4W F
R616	1-249-417-11	CARBON	1K	5%	1/4W F
R617	1-249-429-11	CARBON	10K	5%	1/4W
R618	1-249-425-11	CARBON	4.7K	5%	1/4W F
R619	1-249-425-11	CARBON	4.7K	5%	1/4W F
R620	1-249-429-11	CARBON	10K	5%	1/4W
R621	1-249-429-11	CARBON	10K	5%	1/4W
R660	1-249-411-11	CARBON	330	5%	1/4W
R661	1-249-413-11	CARBON	470	5%	1/4W F
R662	1-249-415-11	CARBON	680	5%	1/4W F
R663	1-249-417-11	CARBON	1K	5%	1/4W F

Ref. No.	Part No.	Description			Remark
R664	1-249-419-11	CARBON	1.5K	5%	1/4W F
R665	1-249-421-11	CARBON	2.2K	5%	1/4W F
R666	1-249-411-11	CARBON	330	5%	1/4W
R667	1-249-413-11	CARBON	470	5%	1/4W F
R668	1-249-415-11	CARBON	680	5%	1/4W F
R669	1-249-417-11	CARBON	1K	5%	1/4W F
R670	1-249-419-11	CARBON	1.5K	5%	1/4W F
		< SWITCH >			
S601	1-554-303-21	SWITCH, TACTILE (DPC MODE)			
S602	1-554-303-21	SWITCH, TACTILE (<)			
S603	1-554-303-21	SWITCH, TACTILE (∨)			
S604	1-554-303-21	SWITCH, TACTILE (>)			
S605	1-554-303-21	SWITCH, TACTILE (∧)			
S606	1-554-303-21	SWITCH, TACTILE (DIGITAL 1)			
S607	1-554-303-21	SWITCH, TACTILE (DIGITAL 2)			
S608	1-554-303-21	SWITCH, TACTILE (DIGITAL 3)			
S609	1-554-303-21	SWITCH, TACTILE (ANALOG)			
S610	1-554-303-21	SWITCH, TACTILE (SOUND FIELD ON/OFF)			
S611	1-554-303-21	SWITCH, TACTILE (MODE)			
S612	1-554-303-21	SWITCH, TACTILE (GENRE)			
S613	1-554-303-21	SWITCH, TACTILE (BASS BOOST)			
		< VIBRATOR >			
X601	1-567-819-11	VIBRATOR, CERAMIC (4MHz)			
**********					
*	A-4403-083-A	MAIN BOARD, COMPLETE (AEP,UK,CH,AUS)			
		**********			
*	A-4403-077-A	MAIN BOARD, COMPLETE (US,CND)			
		**********			
*	A-4403-087-A	MAIN BOARD, COMPLETE (E,SP)			
		**********			
*	4-880-403-11	HEAT SINK			
	7-685-872-09	SCREW +BVTT 3X8 (S)			
		< CAPACITOR >			
C101	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C102	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C103	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C104	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C105	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C106	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C107	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C108	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C109	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C110	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V
C111	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C112	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C113	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C114	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C115	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C116	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C117	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C118	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C119	1-163-248-11	CERAMIC CHIP	75PF	5%	50V
C120	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V

Ref. No.	Part No.	Description			Remark
C121	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C122	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C123	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C124	1-136-921-11	FILM	1uF	5%	50V
C125	1-136-921-11	FILM	1uF	5%	50V
C126	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C127	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C128	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C129	1-126-933-11	ELECT	100uF	20%	16V
C130	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C131	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C132	1-126-967-11	ELECT	47uF	20%	50V
C133	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C134	1-126-933-11	ELECT	100uF	20%	10V
C135	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C136	1-163-085-00	CERAMIC CHIP	2PF		50V
C137	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C138	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C139	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C140	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C141	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C142	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C143	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C144	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C145	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C146	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C147	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C148	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C149	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C150	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C151	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C152	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C153	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C154	1-126-965-11	ELECT	22uF	20%	50V
C155	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C156	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C157	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C158	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C159	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C160	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C161	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C162	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C163	1-126-965-11	ELECT	22uF	20%	50V
C164	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C165	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C166	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C167	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C168	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C169	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C170	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C171	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C172	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C173	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C174	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C175	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C177	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C178	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C179	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C180	1-165-319-11	CERAMIC CHIP	0.1uF		50V

MAIN

Ref. No.	Part No.	Description			Remark
C181	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C182	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C189	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C201	1-126-964-11	ELECT	10uF	20%	50V
C202	1-126-964-11	ELECT	10uF	20%	50V
C203	1-110-341-11	MYLAR	330PF	5%	50V
C204	1-110-341-11	MYLAR	330PF	5%	50V
C205	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C206	1-126-964-11	ELECT	10uF	20%	50V
C207	1-126-964-11	ELECT	10uF	20%	50V
C208	1-126-964-11	ELECT	10uF	20%	50V
C209	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C210	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C211	1-106-351-00	MYLAR	2200PF	5%	200V
C231	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C232	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C233	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C234	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C235	1-104-665-11	ELECT	100uF	20%	25V
C236	1-104-665-11	ELECT	100uF	20%	25V
C237	1-126-967-11	ELECT	47uF	20%	50V
C238	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C239	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C240	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C251	1-126-964-11	ELECT	10uF	20%	50V
C252	1-126-964-11	ELECT	10uF	20%	50V
C253	1-110-341-11	MYLAR	330PF	5%	50V
C254	1-110-341-11	MYLAR	330PF	5%	50V
C255	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C256	1-126-964-11	ELECT	10uF	20%	50V
C257	1-126-964-11	ELECT	10uF	20%	50V
C258	1-126-964-11	ELECT	10uF	20%	50V
C259	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C260	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C261	1-106-351-00	MYLAR	2200PF	5%	200V
C301	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C302	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C303	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C304	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C305	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C306	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C307	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C308	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C310	1-130-467-00	MYLAR	470PF	5%	50V
C311	1-110-339-11	MYLAR	220PF	5%	50V
C312	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C313	1-110-339-11	MYLAR	220PF	5%	50V
C314	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C315	1-110-339-11	MYLAR	220PF	5%	50V
C316	1-110-339-11	MYLAR	220PF	5%	50V
C317	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C318	1-130-477-00	MYLAR	0.0033uF	5%	50V
C319	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C320	1-130-469-00	MYLAR	680PF	5%	50V
C321	1-126-965-11	ELECT	22uF	20%	50V
C322	1-126-964-11	ELECT	10uF	20%	50V
C323	1-126-964-11	ELECT	10uF	20%	50V
C326	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C328	1-126-964-11	ELECT	10uF	20%	50V
C329	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C330	1-126-963-11	ELECT	4.7uF	20%	50V
C331	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C335	1-126-964-11	ELECT	10uF	20%	50V
C336	1-126-964-11	ELECT	10uF	20%	50V
C340	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C360	1-130-467-00	MYLAR	470PF	5%	50V
C361	1-110-339-11	MYLAR	220PF	5%	50V
C363	1-110-339-11	MYLAR	220PF	5%	50V
C364	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C365	1-110-339-11	MYLAR	220PF	5%	50V
C366	1-110-339-11	MYLAR	220PF	5%	50V
C367	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C368	1-130-477-00	MYLAR	0.0033uF	5%	50V
C369	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C370	1-130-469-00	MYLAR	680PF	5%	50V
C371	1-126-965-11	ELECT	22uF	20%	50V
C372	1-126-964-11	ELECT	10uF	20%	50V
C373	1-126-964-11	ELECT	10uF	20%	50V
C376	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C378	1-126-964-11	ELECT	10uF	20%	50V
C379	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C380	1-126-963-11	ELECT	4.7uF	20%	50V
C381	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C501	1-126-966-11	ELECT	33uF	20%	50V
C502	1-126-966-11	ELECT	33uF	20%	50V
C503	1-126-966-11	ELECT	33uF	20%	50V
C504	1-126-966-11	ELECT	33uF	20%	50V
C505	1-126-966-11	ELECT	33uF	20%	50V
C506	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C507	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C508	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C901	1-128-547-11	ELECT	6800uF	20%	16V
C902	1-126-953-11	ELECT	2200uF	20%	35V
C903	1-126-953-11	ELECT	2200uF	20%	35V
C904	1-128-555-91	ELECT	470uF	20%	63V
C905	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C906	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C907	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C908	1-126-967-11	ELECT	47uF	20%	50V
C909	1-126-964-11	ELECT	10uF	20%	50V
C910	1-126-964-11	ELECT	10uF	20%	50V
C911	1-126-964-11	ELECT	10uF	20%	50V
C912	1-126-964-11	ELECT	10uF	20%	50V
C913	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C914	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C915	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C916	1-128-547-11	ELECT	6800uF	20%	16V
C917	1-104-661-91	ELECT	330uF	20%	16V
C918	1-104-661-91	ELECT	330uF	20%	16V
C1301	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C1302	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C1303	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C1304	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C1305	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C1306	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C1307	1-163-251-11	CERAMIC CHIP	100PF	5%	50V

Ref. No.	Part No.	Description			Remark
C1308	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1310	1-130-467-00	MYLAR	470PF	5%	50V
C1311	1-110-339-11	MYLAR	220PF	5%	50V
C1312	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C1313	1-110-339-11	MYLAR	220PF	5%	50V
C1314	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C1315	1-110-339-11	MYLAR	220PF	5%	50V
C1316	1-110-339-11	MYLAR	220PF	5%	50V
C1317	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C1318	1-130-477-00	MYLAR	0.0033uF	5%	50V
C1319	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C1320	1-130-469-00	MYLAR	680PF	5%	50V
C1321	1-126-965-11	ELECT	22uF	20%	50V
C1322	1-126-964-11	ELECT	10uF	20%	50V
C1323	1-126-964-11	ELECT	10uF	20%	50V
C1328	1-126-964-11	ELECT	10uF	20%	50V
C1329	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C1330	1-126-963-11	ELECT	4.7uF	20%	50V
C1331	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C1335	1-126-964-11	ELECT	10uF	20%	50V
C1336	1-126-964-11	ELECT	10uF	20%	50V
C1360	1-130-467-00	MYLAR	470PF	5%	50V
C1361	1-110-339-11	MYLAR	220PF	5%	50V
C1362	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C1363	1-110-339-11	MYLAR	220PF	5%	50V
C1364	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C1365	1-110-339-11	MYLAR	220PF	5%	50V
C1366	1-110-339-11	MYLAR	220PF	5%	50V
C1367	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C1368	1-130-477-00	MYLAR	0.0033uF	5%	50V
C1369	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C1370	1-130-469-00	MYLAR	680PF	5%	50V
C1371	1-126-965-11	ELECT	22uF	20%	50V
C1372	1-126-964-11	ELECT	10uF	20%	50V
C1373	1-126-964-11	ELECT	10uF	20%	50V
C1378	1-126-964-11	ELECT	10uF	20%	50V
C1379	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C1380	1-126-963-11	ELECT	4.7uF	20%	50V
C1381	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C2301	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C2302	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C2303	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C2304	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C2305	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C2306	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C2307	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C2308	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C2310	1-130-467-00	MYLAR	470PF	5%	50V
C2311	1-110-339-11	MYLAR	220PF	5%	50V
C2312	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C2313	1-110-339-11	MYLAR	220PF	5%	50V
C2314	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C2315	1-110-339-11	MYLAR	220PF	5%	50V
C2316	1-110-339-11	MYLAR	220PF	5%	50V
C2317	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C2318	1-130-477-00	MYLAR	0.0033uF	5%	50V
C2319	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C2320	1-130-469-00	MYLAR	680PF	5%	50V
C2321	1-126-965-11	ELECT	22uF	20%	50V
C2322	1-126-964-11	ELECT	10uF	20%	50V
C2323	1-126-964-11	ELECT	10uF	20%	50V
C2328	1-126-964-11	ELECT	10uF	20%	50V
C2329	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C2330	1-126-963-11	ELECT	4.7uF	20%	50V
C2331	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C2335	1-126-964-11	ELECT	10uF	20%	50V
C2336	1-126-964-11	ELECT	10uF	20%	50V
C2360	1-130-467-00	MYLAR	470PF	5%	50V
C2361	1-110-339-11	MYLAR	220PF	5%	50V
C2362	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C2363	1-110-339-11	MYLAR	220PF	5%	50V
C2364	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C2365	1-110-339-11	MYLAR	220PF	5%	50V
C2366	1-110-339-11	MYLAR	220PF	5%	50V
C2367	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C2368	1-130-477-00	MYLAR	0.0033uF	5%	50V
C2369	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C2370	1-130-469-00	MYLAR	680PF	5%	50V
C2371	1-126-965-11	ELECT	22uF	20%	50V
C2372	1-126-964-11	ELECT	10uF	20%	50V
C2373	1-126-964-11	ELECT	10uF	20%	50V
C2378	1-126-964-11	ELECT	10uF	20%	50V
C2379	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C2380	1-126-963-11	ELECT	4.7uF	20%	50V
C2381	1-165-319-11	CERAMIC CHIP	0.1uF		50V

< CONNECTOR >

*	CN101	1-568-830-11	SOCKET, CONNECTOR 11P
	CN102	1-568-802-11	SOCKET, CONNECTOR 19P
	CN103	1-695-090-11	PIN, CONNECTOR (PC BOARD) 13P
	CN902	1-691-772-11	PLUG (MICRO CONNECTOR) 10P

< DIODE >

D101	8-719-061-62	DIODE KV1851
D102	8-719-801-78	DIODE 1SS184
D103	8-719-801-78	DIODE 1SS184
D104	8-719-801-78	DIODE 1SS184
D105	8-719-801-78	DIODE 1SS184
D106	8-719-801-78	DIODE 1SS184
D107	8-719-801-78	DIODE 1SS184
D108	8-719-210-33	DIODE EC10DS2
D109	8-719-210-33	DIODE EC10DS2
D301	8-719-801-78	DIODE 1SS184
D902	8-719-025-33	DIODE 02CZ6.2-TE85L
D905	8-719-028-23	DIODE D3SBA20-4101
D913	8-719-025-59	DIODE 02CZ39-TE85L
D914	8-719-025-34	DIODE 02CZ6.8-TE85L
D915	8-719-801-78	DIODE 1SS184
D1301	8-719-801-78	DIODE 1SS184
D2301	8-719-801-78	DIODE 1SS184

< FERRITE BEAD >

FB301	1-410-397-21	FERRITE BEAD INDUCTOR
FB1301	1-410-397-21	FERRITE BEAD INDUCTOR
FB2301	1-410-397-21	FERRITE BEAD INDUCTOR

MAIN

Ref. No.	Part No.	Description	Remark
		< FLUORESCENT INDICATOR >	
FL101	1-233-866-11	FILTER, BAND PASS	
		< IC >	
IC101	8-749-923-05	IC TORX178 (DIGITAL 1 OPTICAL IN)	
IC102	8-749-923-05	IC TORX178 (DIGITAL 2 OPTICAL IN)	
IC103	8-749-923-05	IC TORX178 (DIGITAL 3 OPTICAL IN)	
IC104	8-749-923-04	IC TOTX178 (DIGITAL 3 OPTICAL OUT)	
IC105	8-759-242-70	IC TC7WU04F	
IC106	8-759-236-19	IC TC74HC151AF(EL)	
IC107	8-759-326-72	IC CXD8521M	
IC108	8-759-232-65	IC TC74HC157AF	
IC109	8-759-233-64	IC TC74HCU04AF	
IC110	8-759-262-03	IC MC14577CF	
IC111	8-759-636-55	IC M5218AFP	
IC112	8-759-045-17	IC NJM79L05UA	
IC113	8-759-441-94	IC IDT71256SA20Y-TL	
IC114	8-759-463-68	IC SN-PM4007A	
IC115	8-759-237-43	IC TC74HC393AF(EL)	
IC116	8-759-242-70	IC TC7WU04F	
IC117	8-759-242-70	IC TC7WU04F	
IC118	8-759-446-37	IC DSP56009FJ88F	
IC119	8-759-446-40	IC SSP424023FJ88	
IC120	8-759-463-69	IC IDT71024S20TY-TL	
IC150	8-759-476-33	IC MB90641APF-G-102-BND	
IC201	8-759-636-55	IC M5218AFP	
IC202	8-759-636-55	IC M5218AFP	
IC203	8-759-463-77	IC CXD8681M-TP	
IC204	8-759-604-35	IC M5F78M05L	
IC205	8-759-045-17	IC NJM79L05UA	
IC252	8-759-636-55	IC M5218AFP	
IC301	8-759-370-62	IC CXD8505BQ	
IC302	8-759-636-55	IC M5218AFP	
IC303	8-759-636-55	IC M5218AFP	
IC304	8-759-636-55	IC M5218AFP	
IC305	8-759-463-70	IC LC7535M	
IC306	8-759-636-55	IC M5218AFP	
IC352	8-759-636-55	IC M5218AFP	
IC353	8-759-636-55	IC M5218AFP	
IC501	8-759-474-37	IC NJM2279M-TE2	
IC702	8-759-237-43	IC TC74HC393AF(EL)	
IC703	8-759-233-64	IC TC74HCU04AF	
IC901	8-759-231-53	IC TA7805S	
IC902	8-759-231-58	IC TA7812S	
IC903	8-759-245-86	IC TA7912S	
IC1301	8-759-370-62	IC CXD8505BQ	
IC1302	8-759-636-55	IC M5218AFP	
IC1303	8-759-636-55	IC M5218AFP	
IC1304	8-759-636-55	IC M5218AFP	
IC1305	8-759-463-70	IC LC7535M	
IC1306	8-759-636-55	IC M5218AFP	
IC1352	8-759-636-55	IC M5218AFP	
IC1353	8-759-636-55	IC M5218AFP	
IC2301	8-759-370-62	IC CXD8505BQ	
IC2302	8-759-636-55	IC M5218AFP	
IC2303	8-759-636-55	IC M5218AFP	
IC2304	8-759-636-55	IC M5218AFP	
IC2305	8-759-463-70	IC LC7535M	

Ref. No.	Part No.	Description	Remark
IC2306	8-759-636-55	IC M5218AFP	
IC2352	8-759-636-55	IC M5218AFP	
IC2353	8-759-636-55	IC M5218AFP	
		< JACK >	
J101	1-779-382-11	JACK, PIN 1P (DIGITAL 1 COAX IN)	
J102	1-779-700-11	JACK, PIN 1P (DIGITAL 1 AC-3 RF)	
J103	1-774-227-11	JACK, PIN 1P (DIGITAL 1 VIDEO IN)	
J104	1-774-227-11	JACK, PIN 1P (DIGITAL 2 VIDEO IN)	
J105	1-774-227-11	JACK, PIN 1P (ANALOG VIDEO IN)	
J106	1-770-719-11	JACK, PIN 2P (ANALOG IN L R)	
J107	1-774-227-11	JACK, PIN 1P (MONITOR OUT)	
J108	1-779-685-11	JACK, PIN 6P (OUTPUT CENTER WOOFER REAR L R FRONT L R)	
		< JUMPER >	
JR109	1-216-295-91	CONDUCTOR, CHIP	
		< COIL >	
L102	1-216-296-91	CONDUCTOR, CHIP (3216)	
L103	1-216-296-91	CONDUCTOR, CHIP (3216)	
L104	1-410-391-11	INDUCTOR CHIP 68uH	
		< TRANSISTOR >	
Q101	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q102	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q103	8-729-216-22	TRANSISTOR 2SA1162-G	
Q104	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q105	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q106	8-729-216-22	TRANSISTOR 2SA1162-G	
Q107	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q108	8-729-038-23	TRANSISTOR RT1N141C-TP-1	
Q113	8-729-216-22	TRANSISTOR 2SA1162-G	
Q117	8-729-038-23	TRANSISTOR RT1N141C-TP-1	
Q301	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q302	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q306	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q351	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q352	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q901	8-729-209-15	TRANSISTOR 2SD2012	
Q902	8-729-209-15	TRANSISTOR 2SD2012	
Q903	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1301	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q1302	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q1306	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1351	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q1352	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q2301	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q2302	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q2306	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q2351	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q2352	8-729-107-46	TRANSISTOR 2SC3624A-L15	
		< RESISTOR >	
R101	1-216-022-00	METAL CHIP 75 5% 1/10W	
R102	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R103	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R104	1-216-025-91	METAL GLAZE 100 5% 1/10W	

Ref. No.	Part No.	Description			Remark
R105	1-216-022-00	METAL CHIP	75	5%	1/10W
R106	1-216-022-00	METAL CHIP	75	5%	1/10W
R107	1-216-022-00	METAL CHIP	75	5%	1/10W
R108	1-216-022-00	METAL CHIP	75	5%	1/10W
R109	1-216-029-00	METAL CHIP	150	5%	1/10W
R110	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R111	1-216-081-00	METAL CHIP	22K	5%	1/10W
R112	1-216-022-00	METAL CHIP	75	5%	1/10W
R113	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R114	1-216-109-00	METAL CHIP	330K	5%	1/10W
R115	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R116	1-216-025-91	METAL GLAZE	100	5%	1/10W
R117	1-216-295-91	CONDUCTOR, CHIP (2012)			
R118	1-216-041-00	METAL CHIP	470	5%	1/10W
R119	1-216-043-91	METAL GLAZE	560	5%	1/10W
R120	1-216-024-00	METAL GLAZE	91	5%	1/10W
R121	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R122	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R123	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R124	1-216-029-00	METAL CHIP	150	5%	1/10W
R125	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R126	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R127	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R128	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R129	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R130	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R131	1-216-073-00	METAL CHIP	10K	5%	1/10W
R132	1-216-073-00	METAL CHIP	10K	5%	1/10W
R133	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R134	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R135	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R136	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R137	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R138	1-216-073-00	METAL CHIP	10K	5%	1/10W
R139	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R140	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R141	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R142	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R143	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R144	1-216-081-00	METAL CHIP	22K	5%	1/10W
R145	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W
R146	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R147	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R148	1-216-027-00	METAL CHIP	120	5%	1/10W
R149	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R150	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R151	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R152	1-216-073-00	METAL CHIP	10K	5%	1/10W
R153	1-216-073-00	METAL CHIP	10K	5%	1/10W
R154	1-216-083-00	METAL CHIP	27K	5%	1/10W
R155	1-216-093-00	METAL CHIP	68K	5%	1/10W
R156	1-216-295-91	CONDUCTOR, CHIP (2012)			
R157	1-216-017-91	METAL GLAZE	47	5%	1/10W
R158	1-216-025-91	METAL GLAZE	100	5%	1/10W
R159	1-216-025-91	METAL GLAZE	100	5%	1/10W
R160	1-216-073-00	METAL CHIP	10K	5%	1/10W
R161	1-216-073-00	METAL CHIP	10K	5%	1/10W
R162	1-216-081-00	METAL CHIP	22K	5%	1/10W
R163	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R167	1-216-295-91	CONDUCTOR, CHIP (2012)			
R168	1-216-295-91	CONDUCTOR, CHIP (2012)			
R169	1-216-295-91	CONDUCTOR, CHIP (2012)			
R170	1-216-295-91	CONDUCTOR, CHIP (2012)			
R171	1-216-295-91	CONDUCTOR, CHIP (2012)			
R172	1-216-295-91	CONDUCTOR, CHIP (2012)			
R173	1-216-073-00	METAL CHIP	10K	5%	1/10W
R174	1-216-295-91	CONDUCTOR, CHIP (2012)			
R175	1-216-295-91	CONDUCTOR, CHIP (2012)			
R176	1-216-295-91	CONDUCTOR, CHIP (2012)			
R177	1-216-041-00	METAL CHIP	470	5%	1/10W
R178	1-216-073-00	METAL CHIP	10K	5%	1/10W
R179	1-216-295-91	CONDUCTOR, CHIP (2012)			
R180	1-216-073-00	METAL CHIP	10K	5%	1/10W
R181	1-216-073-00	METAL CHIP	10K	5%	1/10W
R182	1-216-073-00	METAL CHIP	10K	5%	1/10W
R183	1-216-043-91	METAL GLAZE	560	5%	1/10W
R184	1-216-073-00	METAL CHIP	10K	5%	1/10W
R185	1-216-295-91	CONDUCTOR, CHIP (2012)			
R186	1-216-073-00	METAL CHIP	10K	5%	1/10W
R187	1-216-073-00	METAL CHIP	10K	5%	1/10W
R188	1-216-073-00	METAL CHIP	10K	5%	1/10W
R193	1-216-295-91	CONDUCTOR, CHIP (2012)			
R194	1-216-295-91	CONDUCTOR, CHIP (2012)			
R195	1-216-295-91	CONDUCTOR, CHIP (2012)			
R196	1-216-295-91	CONDUCTOR, CHIP (2012)			
R201	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R202	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R203	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R204	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R205	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R206	1-216-017-91	METAL GLAZE	47	5%	1/10W
R207	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R208	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R209	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R210	1-216-017-91	METAL GLAZE	47	5%	1/10W
R211	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R212	1-216-073-00	METAL CHIP	10K	5%	1/10W
R213	1-216-027-00	METAL CHIP	120	5%	1/10W
R214	1-216-073-00	METAL CHIP	10K	5%	1/10W
R217	1-216-105-91	METAL GLAZE	220K	5%	1/10W
R219	1-216-073-00	METAL CHIP	10K	5%	1/10W
R224	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R231	1-216-025-91	METAL GLAZE	100	5%	1/10W
R232	1-216-025-91	METAL GLAZE	100	5%	1/10W
R244	1-216-295-91	CONDUCTOR, CHIP (2012)			
R245	1-216-025-91	METAL GLAZE	100	5%	1/10W
R246	1-216-025-91	METAL GLAZE	100	5%	1/10W
R247	1-216-033-00	METAL CHIP	220	5%	1/10W
R248	1-216-025-91	METAL GLAZE	100	5%	1/10W
R249	1-216-025-91	METAL GLAZE	100	5%	1/10W
R250	1-216-025-91	METAL GLAZE	100	5%	1/10W
R251	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R252	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R253	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R254	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R255	1-216-057-00	METAL CHIP	2.2K	5%	1/10W

MAIN

Ref. No.	Part No.	Description			Remark
R256	1-216-017-91	METAL GLAZE	47	5%	1/10W
R257	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R258	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R259	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R260	1-216-017-91	METAL GLAZE	47	5%	1/10W
R261	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R262	1-216-073-00	METAL CHIP	10K	5%	1/10W
R263	1-216-027-00	METAL CHIP	120	5%	1/10W
R264	1-216-073-00	METAL CHIP	10K	5%	1/10W
R271	1-216-073-00	METAL CHIP	10K	5%	1/10W
R272	1-216-073-00	METAL CHIP	10K	5%	1/10W
R285	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R286	1-216-081-00	METAL CHIP	22K	5%	1/10W
R287	1-216-081-00	METAL CHIP	22K	5%	1/10W
R291	1-216-025-91	METAL GLAZE	100	5%	1/10W
R292	1-216-025-91	METAL GLAZE	100	5%	1/10W
R293	1-216-025-91	METAL GLAZE	100	5%	1/10W
R301	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R302	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R303	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R304	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R306	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R307	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R308	1-216-295-91	CONDUCTOR, CHIP (2012)			
R309	1-216-073-00	METAL CHIP	10K	5%	1/10W
R310	1-216-073-00	METAL CHIP	10K	5%	1/10W
R311	1-216-295-91	CONDUCTOR, CHIP (2012)			
R312	1-216-295-91	CONDUCTOR, CHIP (2012)			
R313	1-216-295-91	CONDUCTOR, CHIP (2012)			
R314	1-216-073-00	METAL CHIP	10K	5%	1/10W
R315	1-216-073-00	METAL CHIP	10K	5%	1/10W
R316	1-216-076-00	METAL CHIP	13K	5%	1/10W
R317	1-216-076-00	METAL CHIP	13K	5%	1/10W
R318	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R319	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R320	1-216-079-00	METAL CHIP	18K	5%	1/10W
R321	1-216-056-00	METAL GLAZE	2K	5%	1/10W
R322	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R323	1-216-041-00	METAL CHIP	470	5%	1/10W
R324	1-216-041-00	METAL CHIP	470	5%	1/10W
R325	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R326	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R327	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R328	1-216-081-00	METAL CHIP	22K	5%	1/10W
R331	1-216-077-00	METAL CHIP	15K	5%	1/10W
R339	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R340	1-216-97-91	METAL GLAZE	100K	5%	1/10W
R341	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R343	1-216-079-00	METAL CHIP	18K	5%	1/10W
R344	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R345	1-216-025-91	METAL GLAZE	100	5%	1/10W
R346	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R347	1-216-073-00	METAL CHIP	10K	5%	1/10W
R348	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R351	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R352	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R353	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R354	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R356	1-216-065-00	METAL CHIP	4.7K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R357	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R358	1-216-295-91	CONDUCTOR, CHIP (2012)			
R359	1-216-073-00	METAL CHIP	10K	5%	1/10W
R360	1-216-073-00	METAL CHIP	10K	5%	1/10W
R361	1-216-295-91	CONDUCTOR, CHIP (2012)			
R362	1-216-295-91	CONDUCTOR, CHIP (2012)			
R363	1-216-295-91	CONDUCTOR, CHIP (2012)			
R364	1-216-073-00	METAL CHIP	10K	5%	1/10W
R365	1-216-073-00	METAL CHIP	10K	5%	1/10W
R366	1-216-076-00	METAL CHIP	13K	5%	1/10W
R367	1-216-076-00	METAL CHIP	13K	5%	1/10W
R368	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R369	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R370	1-216-079-00	METAL CHIP	18K	5%	1/10W
R371	1-216-056-00	METAL GLAZE	2K	5%	1/10W
R372	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R373	1-216-041-00	METAL CHIP	470	5%	1/10W
R374	1-216-041-00	METAL CHIP	470	5%	1/10W
R375	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R376	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R377	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R378	1-216-081-00	METAL CHIP	22K	5%	1/10W
R381	1-216-077-00	METAL CHIP	15K	5%	1/10W
R389	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R390	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R391	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R393	1-216-079-00	METAL CHIP	18K	5%	1/10W
R394	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R395	1-216-025-91	METAL GLAZE	100	5%	1/10W
R396	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R510	1-216-021-00	METAL CHIP	68	5%	1/10W
R511	1-216-021-00	METAL CHIP	68	5%	1/10W
R512	1-216-021-00	METAL CHIP	68	5%	1/10W
R513	1-216-021-00	METAL CHIP	68	5%	1/10W
R901	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R902	1-216-073-00	METAL CHIP	10K	5%	1/10W
R903	1-216-045-00	METAL CHIP	680	5%	1/10W
⚠R904	1-219-121-11	FUSIBLE	0.22	5%	1/4W F
⚠R905	1-212-934-00	FUSIBLE	1	5%	1/2W F
R1301	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R1302	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R1303	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R1304	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R1306	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R1307	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R1308	1-216-295-91	CONDUCTOR, CHIP (2012)			
R1309	1-216-073-00	METAL CHIP	10K	5%	1/10W
R1310	1-216-073-00	METAL CHIP	10K	5%	1/10W
R1311	1-216-295-91	CONDUCTOR, CHIP (2012)			
R1312	1-216-295-91	CONDUCTOR, CHIP (2012)			
R1313	1-216-295-91	CONDUCTOR, CHIP (2012)			
R1314	1-216-073-00	METAL CHIP	10K	5%	1/10W
R1315	1-216-073-00	METAL CHIP	10K	5%	1/10W
R1316	1-216-076-00	METAL CHIP	13K	5%	1/10W
R1317	1-216-076-00	METAL CHIP	13K	5%	1/10W
R1318	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1319	1-216-057-00	METAL CHIP	2.2K	5%	1/10W

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

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
R1320	1-216-079-00	METAL CHIP	18K	5%	1/10W
R1321	1-216-056-00	METAL GLAZE	2K	5%	1/10W
R1323	1-216-041-00	METAL CHIP	470	5%	1/10W
R1324	1-216-041-00	METAL CHIP	470	5%	1/10W
R1325	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R1326	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R1327	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R1328	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R1331	1-216-073-00	METAL CHIP	10K	5%	1/10W
R1339	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1340	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R1341	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1343	1-216-079-00	METAL CHIP	18K	5%	1/10W
R1344	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R1345	1-216-025-91	METAL GLAZE	100	5%	1/10W
R1346	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R1347	1-216-073-00	METAL CHIP	10K	5%	1/10W
R1348	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R1351	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R1352	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R1353	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R1354	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R1356	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R1357	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R1358	1-216-295-91	CONDUCTOR, CHIP (2012)			
R1359	1-216-073-00	METAL CHIP	10K	5%	1/10W
R1360	1-216-073-00	METAL CHIP	10K	5%	1/10W
R1361	1-216-295-91	CONDUCTOR, CHIP (2012)			
R1362	1-216-295-91	CONDUCTOR, CHIP (2012)			
R1363	1-216-295-91	CONDUCTOR, CHIP (2012)			
R1364	1-216-073-00	METAL CHIP	10K	5%	1/10W
R1365	1-216-073-00	METAL CHIP	10K	5%	1/10W
R1366	1-216-076-00	METAL CHIP	13K	5%	1/10W
R1367	1-216-076-00	METAL CHIP	13K	5%	1/10W
R1368	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1369	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R1370	1-216-076-00	METAL CHIP	13K	5%	1/10W
R1371	1-216-056-00	METAL GLAZE	2K	5%	1/10W
R1373	1-216-041-00	METAL CHIP	470	5%	1/10W
R1374	1-216-041-00	METAL CHIP	470	5%	1/10W
R1375	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R1376	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R1377	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R1378	1-216-085-00	METAL CHIP	33K	5%	1/10W
R1381	1-216-073-00	METAL CHIP	10K	5%	1/10W
R1389	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1390	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R1391	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1393	1-216-079-00	METAL CHIP	18K	5%	1/10W
R1394	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R1395	1-216-025-91	METAL GLAZE	100	5%	1/10W
R1396	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R2301	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R2302	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R2303	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R2304	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R2306	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R2307	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R2308	1-216-295-91	CONDUCTOR, CHIP (2012)			
R2309	1-216-073-00	METAL CHIP	10K	5%	1/10W
R2310	1-216-073-00	METAL CHIP	10K	5%	1/10W
R2311	1-216-295-91	CONDUCTOR, CHIP (2012)			
R2312	1-216-295-91	CONDUCTOR, CHIP (2012)			
R2313	1-216-295-91	CONDUCTOR, CHIP (2012)			
R2314	1-216-073-00	METAL CHIP	10K	5%	1/10W
R2315	1-216-073-00	METAL CHIP	10K	5%	1/10W
R2316	1-216-076-00	METAL CHIP	13K	5%	1/10W
R2317	1-216-076-00	METAL CHIP	13K	5%	1/10W
R2318	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R2319	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R2320	1-216-079-00	METAL CHIP	18K	5%	1/10W
R2321	1-216-056-00	METAL GLAZE	2K	5%	1/10W
R2323	1-216-041-00	METAL CHIP	470	5%	1/10W
R2324	1-216-041-00	METAL CHIP	470	5%	1/10W
R2325	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R2326	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R2327	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R2328	1-216-085-00	METAL CHIP	33K	5%	1/10W
R2331	1-216-073-00	METAL CHIP	10K	5%	1/10W
R2339	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R2340	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R2341	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R2343	1-216-079-00	METAL CHIP	18K	5%	1/10W
R2344	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R2345	1-216-025-91	METAL GLAZE	100	5%	1/10W
R2346	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R2347	1-216-073-00	METAL CHIP	10K	5%	1/10W
R2348	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R2351	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R2352	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R2353	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R2354	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R2356	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R2357	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R2358	1-216-295-91	CONDUCTOR, CHIP (2012)			
R2359	1-216-073-00	METAL CHIP	10K	5%	1/10W
R2360	1-216-073-00	METAL CHIP	10K	5%	1/10W
R2361	1-216-295-91	CONDUCTOR, CHIP (2012)			
R2362	1-216-295-91	CONDUCTOR, CHIP (2012)			
R2363	1-216-295-91	CONDUCTOR, CHIP (2012)			
R2364	1-216-073-00	METAL CHIP	10K	5%	1/10W
R2365	1-216-073-00	METAL CHIP	10K	5%	1/10W
R2366	1-216-076-00	METAL CHIP	13K	5%	1/10W
R2367	1-216-076-00	METAL CHIP	13K	5%	1/10W
R2368	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R2369	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R2370	1-216-079-00	METAL CHIP	18K	5%	1/10W
R2371	1-216-056-00	METAL GLAZE	2K	5%	1/10W
R2373	1-216-041-00	METAL CHIP	470	5%	1/10W
R2374	1-216-041-00	METAL CHIP	470	5%	1/10W
R2375	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R2376	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R2377	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R2378	1-216-085-00	METAL CHIP	33K	5%	1/10W
R2381	1-216-073-00	METAL CHIP	10K	5%	1/10W

MAIN **PLL** **TRANS**

Ref. No.	Part No.	Description			Remark
R2389	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R2390	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R2391	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R2393	1-216-079-00	METAL CHIP	18K	5%	1/10W
R2394	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R2395	1-216-025-91	METAL GLAZE	100	5%	1/10W
R2396	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
		< VARIABLE RESISTOR >			
RV101	1-241-765-11	RES, ADJ, CARBON 22K			
		< RELAY >			
RY301	1-515-614-11	RELAY			
RY1301	1-515-614-11	RELAY			
RY2301	1-515-614-11	RELAY			
		< VIBRATOR >			
X101	1-767-434-11	VIBRATOR, CRYSTAL (18.432MHz)			
X102	1-767-576-11	VIBRATOR, CRYSTAL (12.288MHz)			
X103	1-567-819-11	VIBRATOR, CERAMIC (4MHz)			

****

*	A-4403-394-A	PLL BOARD, COMPLETE (US,CND)			
		**********			
*	A-4403-395-A	PLL BOARD, COMPLETE (AEP,UK,E,SP,CH,AUS)			
		**********			
		< CAPACITOR >			
C701	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C702	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C703	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C704	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C705	1-163-249-11	CERAMIC CHIP	82PF	5%	50V
C706	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C707	1-126-964-11	ELECT	10uF	20%	50V
C708	1-130-483-00	MYLAR	0.01uF	5%	50V
C709	1-126-933-11	ELECT	100uF	20%	16V
C710	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C711	1-130-490-11	MYLAR	0.039uF	5%	50V
		< DIODE >			
D701	8-719-951-05	DIODE KV1560			
		< IC >			
IC701	8-759-250-81	IC TC5081AP			
		< COIL >			
L701	1-410-381-11	CHIP INDUCTOR 10uH			
L702	1-426-850-11	COIL (RF)			
L703	1-410-381-11	CHIP INDUCTOR 10uH			
		< TRANSISTOR >			
Q701	8-729-232-11	TRANSISTOR 2SK302-GR-TE85L			
Q702	8-729-232-11	TRANSISTOR 2SK302-GR-TE85L			
Q703	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q704	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q705	8-729-230-49	TRANSISTOR 2SC2712-YG			

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R701	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R702	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R703	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R704	1-216-073-00	METAL CHIP	10K	5%	1/10W
R705	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R706	1-216-073-00	METAL CHIP	10K	5%	1/10W
R707	1-216-073-00	METAL CHIP	10K	5%	1/10W
R708	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R709	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R710	1-216-017-91	METAL GLAZE	47	5%	1/10W
R711	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R712	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R713	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R714	1-216-295-91	CONDUCTOR, CHIP (2012)			
R715	1-216-295-91	CONDUCTOR, CHIP (2012)			
R716	1-216-295-91	CONDUCTOR, CHIP (2012)			
R722	1-216-025-91	METAL CHIP	100	5%	1/10W
R723	1-216-025-91	METAL CHIP	100	5%	1/10W
R724	1-216-025-91	METAL CHIP	100	5%	1/10W

****

*	1-666-567-11	TRANS BOARD			
		**********			
		< CAPACITOR >			
⚠C801	1-115-383-11	CERAMIC	0.001uF	10%	125V
		< CONNECTOR >			
CN801	1-774-108-11	PIN, CONNECTOR (PC BOARD)			
CN802	1-564-321-00	PIN, CONNECTOR 2P			
		< DIODE >			
D901	8-719-200-02	DIODE 10E2			
D902	8-719-200-02	DIODE 10E2			
D903	8-719-200-02	DIODE 10E2			
D904	8-719-200-02	DIODE 10E2			
D909	8-719-200-82	DIODE 11ES2			
D910	8-719-200-82	DIODE 11ES2			
D911	8-719-200-82	DIODE 11ES2			
D912	8-719-200-82	DIODE 11ES2			
		< COIL >			
⚠L801	1-421-915-11	COIL, LINE FILTER			
		< RESISTOR >			
⚠R906	1-219-122-91	FUSIBLE	0.33	5%	1/4W F
⚠R907	1-219-122-91	FUSIBLE	0.33	5%	1/4W F
⚠R908	1-219-153-11	FUSIBLE	10	5%	1/4W F
		< TRANSFORMER >			
⚠T1	1-431-453-11	TRANSFORMER, POWER (US,CND)			
⚠T1	1-431-455-11	TRANSFORMER, POWER (AEP,UK,E,SP,AUS,CH)			

****

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

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
*	1-666-565-11	VOL BOARD *********	
		< CONNECTOR >	
CN603	1-506-469-11	PIN, CONNECTOR 4P	
CN604	1-568-802-11	SOCKET, CONNECTOR 19P	
		< RESISTOR >	
R651	1-249-411-11	CARBON 330 5% 1/4W	
		< VARIABLE RESISTOR >	
RV601	1-225-491-11	RES, VAR (MASTER VOLUME)	
**********			
		MISCELLANEOUS **********	
10	1-769-943-11	WIRE (FLAT TYPE)(11 CORE)	
11	1-773-116-11	WIRE (FLAT TYPE)(19 CORE)	
⚠18	1-558-945-21	CORD, POWER (POLAR.SPT-1)(US,CND)	
⚠18	1-696-845-11	CORD, POWER (AUS)	
⚠18	1-775-787-41	CORD, POWER (AEP,UK,E,SP)	
⚠18	1-782-464-21	CORD, POWER (CH)	
⚠20	1-569-008-11	ADAPTOR, CONVERSION 2P (E,SP)	
58	1-769-077-31	LEAD (WITH CONNECTOR)(2 CORE)	
FL601	1-517-671-11	INDICATOR TUBE, FLUORESCENT	
⚠T1	1-431-453-11	TRANSFORMER, POWER (US,CND)	
⚠T1	1-431-455-11	TRANSFORMER, POWER (AEP,UK,E,SP,AUS,CH)	
**********			
		ACCESSORIES & PACKING MATERIALS **********	
	1-475-276-11	REMOTE COMMANDER (RM-E800)	
	1-558-271-11	CORD, CONNECTION (AUDIO 108cm)	
	3-860-721-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH)(US,CND,E,SP,AUS,CH)	
	3-860-721-21	MANUAL, INSTRUCTION (SPANISH,CHINESE)(E,SP,CH)	
	3-860-721-31	MANUAL, INSTRUCTION (ENGLISH,FRENCH,SPANISH,PORTUGUESE)(AEP,UK)	
	3-860-721-41	MANUAL, INSTRUCTION (GERMAN,DUTCH,SWEDISH,ITALIAN)(AEP,UK)	
	4-981-643-01	COVER, BATTERY (for RM-E800)	
**********			
		********** HARDWARE LIST **********	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#3	7-685-872-09	SCREW +BVTT 3X8 (S)	
#4	7-685-880-09	SCREW +BVTT 4X6 (S)	

Ref. No.	Part No.	Description	Remark

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9-920-920-11

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Home A&V Products Company

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