SDC-800T

Operation Manual

Stadium   Theater   Music   Stereo   5Stereo

Mute   Ana.In   Dig.In   ▣ Pro Logic

▣ Digital

Test Tone   PCM

Error Music   **d:0P**   DTS
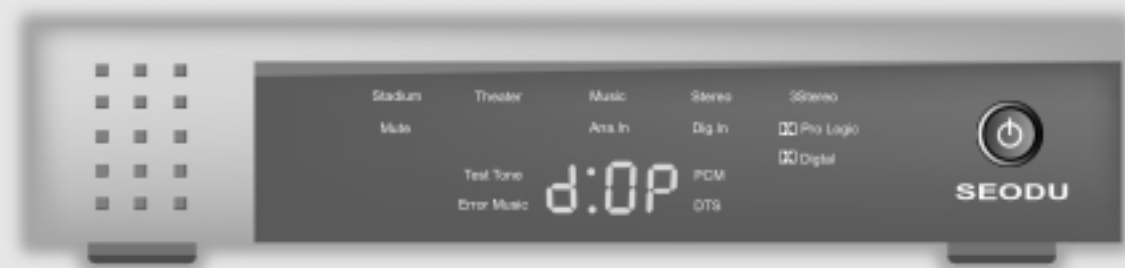
SEODU

Seodu InChip, Inc. Digital Media Division

Safety & Regulatory Information

The following sections contain notices for various countries:

Notice for the USA

FCC Part 15: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference generates uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, this notice is not a guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user in encouraged to try one more of the following measures:

l   Reorient or relocate the receiving antenna.
l   Increase the distance between the equipment and receiver.
l   Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
l   Consult the dealer or experienced radio/TV technician.

CAUTION: To comply with the limits for the Class B digital device, pursuant to Part 15 of the FCC Rules, this device must be installed with computer equipment certified to comply with the Class B limits.

All cables used to connect the computer and peripherals must be shielded and grounded. Operation with non-certified computers or non-shielded cables may result in interference to radio or television reception.

Modifications

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the device.Cet apparell est conforme aux normes de CLASSE "B" d'interference radio tel que spe'cifie'par le Ministere Canadien des Communications dans les reglements d'interference radio.

Notice for Canada

This apparatus complies with the Class B limits for radio interence as specified in the Canadian Department of communications Radio Interference Regulation.

Cet appareil est conforme aux normes de CLASSE "B" d'interference radio tel que spe'cifie' par le Ministère Canadian des Communications dans les règlements d'interfèrence radio

Compliance

This product conforms to the following Council Directive:
l   Directive 89/ 336/EEC, 92/ 31/ EEC (EMC),73/23/EEC (LVD)

FCC NOTICE

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES.
OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITION:
(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED,
    INCLUDING INTERFERENCE THAT MAY CAUSE UNDERSIRED OPERATION.
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio
communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures :
• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and receiver.
• Connect the equipment into an outlet on a circuit difference from that to which
  the receiver is connected.
• Consult the dealer of an experienced radio/TV technician for help.
NOTE : The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

Declaration of Conformity

According to the FCC96 208 and ET95-19
Name :   SEODU INCHIP, Inc
Address :   11F Seosan Bldg.,1305 Seocho-dong,
             Seocho-gu, Seoul, Korea 137-070
             Tel: +82-2-3420-9754
Declares under its sole responsibility that the product
Trade Name :   Seodu Inchip, Inc
Model Number: SDC-800T
Has been tested according to the FCC / CISPR22/85 requirement for Class B devices and found compliant
with the following standards:
EMI/EMC : ANSI C63.4 1992, FCC Part 15 Subpart B
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesirable operation.
   Ce matériel est conforme à la section 15 des régles FCC. Son fonctionnement est soumis aux deux
   conditions suivantes:
1. Le matériel ne peut étre source d'interférences et
2. Doit accepter toutes les interférences reques, Y compris celles pouvant provoquer un fonctionnement indésirable.

Compliance Manager Seodu Inchip, Inc
April 4, 2001

⚠ To prevent fire or shock hazard, do not expose this appliance to rain or moisture

Important Safety Instruments

Read Instructions

All the safety and operating instructions should be read before the appliance is operated.

Retain Instructions

The safety and operating instructions should be retained for future reference.

Heed Warnings

All warnings on the product and in the operating instructions should be adhered to.

Follow Instructions

All operating and use instructions should be followed.

Cleaning

Unplug the Power Supply Adapter from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners.

Use a damp cloth for cleaning the unit.

Attachments

Do not use attachments not recommended by the product manufacturer as they may cause hazards.

Water and Moisture

Do not use the Decorder Amplifier near water, for example near a bath tub, wash bowl, kitchen sink, or laundry tube in a wet basement or near a swimming pool and the like.

Accessories

Do not place the Decorder Amplifier on an unstable cart, stand, tripod, bracket or table. The Decorder Amplifier may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket or table recommended by the manufacturer, or sold with the product.

Any mounting of the Decorder Amplifier should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

An Decorder Amplifier and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the Decorder Amplifier and cart combination to overturn.

Ventilation

Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the Decorder Amplifier and to protect it from overheating and these openings must not be blocked or covered.

The openings should never be blocked by placing the product on a bed, sofa, rug or other similar surface. The Decorder Amplifier should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

Power Sources

The Decorder Amplifier should be operated only from the type of power resource indicated on the marking label. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For products intended to operate from battery power or other sources, refer to the operating instructions.

Grounding or Polarization

The Decorder Amplifier is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other.) This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of this polarized plug.

Power-Cord Protection

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the Decorder Amplifier.

Protective Attachment Plug

The Decorder Amplifier is equipped with an attachment plug having overload protection. This is a safety feature. See instruction Manual for replacement or resetting of protective device. If replacement of the plug is required, be sure the service technician has used a replacement plug specified by the manufacturer that has the same overload protection as the original plug.

Lightning

For added protection for the Decorder Amplifier during a lightning storm, or when it is left unattended and unused for long periods of time, unplug the product from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the Decorder Amplifier due to lightning and power line surges.

Overloading

Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

Object and Liquid Entry

Never push objects of any kind into the Decorder Amplifier through openings as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the receiver.

Servicing

Do not attempt to service the Decorder Amplifier yourself as opening or removing covers may expose you to dangerous volt-age or other hazzards. Refer all servicing to qualified service personnel.

Damage Requiring Service

Unplug the Decorder Amplifier from the wall outlet and refer service opening to qualified service personnel under the following conditions:

a) when the power-supply cord or plug is damaged,

b) if liquid has been spilled, or objects have fallen into the product,

c) if the product has been exposed to rain or water.

d) if the product does not operate normally by following the operating instructions. Adjust only the controls that are covered by the operating instructions as an improper adjustment of other controls may result in dam-age and will oftenrequire extensive work by a qualified technician to restore the video product to its nor-mal operation.

e) If the product has been dropped or damaged in any way, and

f) When the product exhibits a distinct change in performance - this indicates a need for service.

Replacement Parts

When replacements parts are required, be sure the service technician has used replacements parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may results in fire, electric shock or other hazards.

Safety Check

Upon completion of any service or repairs to the Decorder Amplifier, ask the service technician to perform safety checks to determine that the Decorder Amplifier is in proper operating condition.

Wall or Ceiling Mounting

The Decorder Amplifier should be mounted to a wall or ceiling only as recommended by the manufacturer.

Heat

The Decorder Amplifier should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

Introduction

Thank you for choosing SDC-800T for your multimedia environment.

SDC-800T, Dolby Digital/DTS Pre-Amplifier from Seodu InChip, Inc. is designed to support today's leading-edge digital audio format, Dolby Digital (also known as AC3), Dolby Pro Logic and DTS 5.1 along with digital PCM and analog audio from PC sound cards, creating unrivaled 3D sound effect by using maximum of 6 speakers. Users will be benefited from ultimate multimedia sound effects at very low cost, when he/she watches DVD movie, play 3D games and listening music. Fully utilizing embedded high performance audio DSP and high quality 24bit ADC/DAC supporting up to 88.2kHz and 96kHz sampling rates, it will allows PC users to feel and get full satisfaction which they might have gotten from very expensive consumer audio.

To watch and experience thrilling DVD movies using PC, you must have DVD-ROM drive in your PC system and install a well-known S/W DVD player, such as PowerDVD, WinDVD or Cinemaster DVD, which supports S/PDIF Digital output in sound cards like SB! Live from Creative Labs. And install SDC-800T Dolby Digital/DTS Pre-Amplifier and appropriate powered speaker kits or audio amplifier, then you can enjoy ultimate DVD movie and sound coming out of maximum 6 speakers in your small world of personal home theater without expensive DVD player and associated audio systems.

To play games in 6 channel sound, install the sound card which supports various 3D APIs, like EAX, Direct 3D, Aureal, etc., in your system, connect its digital output to SDC-800T system and speaker kits, and execute the 3D games supported by these 3D APIs. Then you would hear and enjoy the fantastic 3D games in multi-channel sound. Some games are powered by Dolby Pro Logic or Dolby Digital. And you will see more games supporting Dolby Digital, in the future. So, SDC-800T will allow you to get maximum satisfaction.

To listen and enjoy very high quality audio including 88.2kHz, 96kHz sampled 24bit quality sound, connect the digital output of sound card to digital input of SDC-800T and play audio applications like WinAMP, Windows Media Player. Then you will hear very high quality, low noise digital audio sound by bypassing noisy analog output path of sound cards. Also when you enable various surround effects which are usually available in high-end consumer audio, you will get exotic and nice feeling when listening music.

Supporting high quality analog input, even if the sound card in the PC system has analog output only, users can still use surround modes and get multi-channel sound effects from just 2 channel analog input.

And also thanks to very easy speaker setting, automatic speaker detection and bass management, users do not need all 6 speakers from the beginning. Simply start with 2 speaker system and later add or upgrade additional speaker sets. It's very easy way to use the system and also economical. There is no need to discard your existing speaker systems when you use SDC-800T.

Lastly but not least, without sacrifice in performance and feature compared to consumer audio products, you may use the SDC-800T system in anywhere you want to, other than PC environment.

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

* **"DTS"** and **"DTS Digital Sound"** are registered trademarks of Digital Theater Systems, Inc.

Contents

Outside View

l Front Panel & LED Display

❶ POWER Button
Standby Power On/Off Switch of SDC-800T

l LED Display

❶ SURROUND LEDs

Bypass (no LED) - ▣ Pro Logic – ▣ 3 Stereo – Stereo – Music – Theater – Stadium
When pressing SURROUND button in Remocon panel, LED will be turned on to the order above.

And if Dolby Digital stream is detected in the digital input, ▣ Digital LED will be turned on,
automatically.

❷ CHARACTER DISPLAY LED
Displays useful information on current status, setting and input mode.
Normally it will show current input selection, i.e.
d.OP   in optical digital input mode
d.CO   in coaxial digital input mode
A.In   in analog line in mode
¤ When **Dolby Digital stream** is coming in, it will show incoming Dolby Digital audio
format, like
3.2.L   when incoming stream is 5.1 channel encoded ▣ Digital signal
2.0.P   when incoming stream is L/R encoded ▣ Digital signal
¤ When **DTS stream** is coming in, it will display DTS string, like dtS

¤ When incoming **PCM stream** is high sampling rate data, then it will display current sampling rate, like

F.88   when incoming PCM stream is 88.2 kHz sampled data
F.96   when incoming PCM stream is 96 kHz sampled data

¤ Pressing „ UP, DOWN buttons in Remocon Panel will display current **master volume** level, like

-32   when master volume level is –32 dB

¤ When pressing VOLUME button in Remocon panel, character display will show selected **trim adjust** and its setting in the order below.

F-r   for front right trim control
F-L   for front left trim control
 C   for center trim control
r-r   for rear right trim control
r-L   for rear left trim control
S-U   for sub woofer trim control

¤ When pressing **FUNCTION** button in Remocon panel, character display will show selected audio function and its setting in the order below.

C-d   for center delay adjustment
S-d   for surround delay adjustment
d.r.c   for dynamic range compression adjustment

¤ When you are performing **speaker test**, it will show current speaker positioning in test, like

F-l   when performing front left speaker test
 C   when performing center speaker test
F-r   when performing front right speaker test
r-r   when performing rear right speaker test
r-l   when performing rear left speaker test

S-U   when performing sub-woofer speaker test

❸ INPUT LEDs
Dig. In – Ana. In
When pressing INPUT button, LED will be turned on, indicating if analog or digital input is selected. And also character display will show current input port
d.OP   for optical digital input
d.CO   for coaxial digital input
A.In   for analog input

❹ ⊡⊡ Digital LED
Turned on automatically when Dolby Digital stream is detected

❺ ⊡⊡ Pro Logic LED
Turned on when user selects Dolby Surround (Pro Logic) mode.

❻ ⊡⊡ 3 Stereo LED
Turned on when user selects Dolby 3 Stereo mode.

❼ DTS LED
Turned on automatically when DTS stream is detected

❽ PCM LED
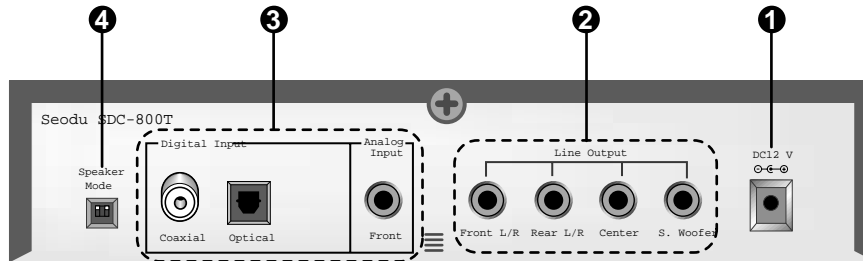Turned on when input signal is PCM digital input or Analog input

❾ Test Tone LED
Turned on when system is in Test Tone mode

❿ Error Music LED
Turned on when error (like disconnection) is detected in incoming digital stream

Outside View

l Rare Panel

❹ ❸ ❷ ❶

Seodu SDC-800T

Speaker Mode

Digital Input
Coaxial   Optical

Analog Input
Front

Line Output
Front L/R Rear L/R Center S. Woofer

DC12 V

❶ **DC Adapter Input**
Input connector for AC-to-DC 12V adapter power supply.

❷ **Variable Line Outputs**

l **Front L/R**
Left/Right stereo output connector to external power amplifier or multimedia PC speaker (with power amp) for front Left/Right line out.

> **Note** When connecting PC multimedia speaker with Sub-Woofer to this connector, set "Front L/R Size" bit of Speaker Mode DIP SW to "1".

l **Rear L/R**
Rear Left/Right stereo output connector to external power amplifier or multimedia PC speaker (with power amp) for rear Left/Right line out.

l **Center**
Center mono output connector to external power amplifier or multimedia PC speaker (with power amp) for Center line out.

l **S. Woofer**
Sub Woofer mono output connector to external sub woofer amplifier.

❸ **Input Connectors**

1 **Digital Optical**
   Optical S/PDIF digital input from PC Sound Card or other digital audio
   equipment like DVD player.
1 **Digital Coaxial**
   Coaxial-RCA S/PDIF digital input from PC Sound Card or other digital audio
   equipment like DVD player.
1 **Line-In**
   2 CH audio input from PC Sound Card or other audio
   equipment like portable CD player.

❹ **DIP Switch (Speaker Mode)**
   DIP switch for selecting speaker type and existence
   Used to set existence of rear speaker and size of front speaker

Bit #	Definition	Up (1)	Down (0)
1	Rear Speaker	Installed	Not available
2	Front L/R Speaker Size	Full-Range Front L/R speaker	Satellite Front L/R speaker

Note "Full-Range" speaker is the speaker capable of producing wide frequency signal range of 20 Hz to 20 KHz.
Note "Satellite" speaker is the small speaker without capability of producing signal of 20 Hz to 120 Hz in low frequency range.
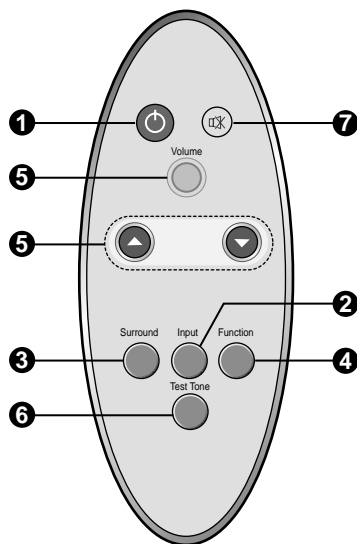**Note** "Installed" Rear speaker means that power amplifier with speaker is connected to the Rear L/R Line Out connectors.
Note Existence of Center and Sub-Woofer speakers will be automatically detected.

Outside View

l Remote Control

❶ POWER Button (Power in Front Panel)
Standby Power On/Off Switch of SDC-800T

❷ INPUT Button
With every touching, inputs following will be selected
Digital Optical : Select Optical Digital Input in rear panel
Digital Coaxial : Select Coaxial Digital Input in rear panel
Analog Line In : Select LINE-IN (2 CH) Analog Input in rear panel

❸ SURROUND Button
With every touching the button, surround audio modes following will be selected and get operational

Bypass   : Select "Bypass" mode (all surround LEDs off) which is without any sound effect and
                 modification to audio input

□□ Pro Logic : Select Dolby Pro Logic decoding mode
                 Sounds will be out from front L/R, center and rear

□□ 3 Stereo : Select Dolby 3 Stereo decoding mode
                 Sounds will be out from front L/R and center

Stereo   : Select 2 speaker (Left/Right) only mode

Music   : Select "Music" Surround mode to give better sound field effect using multiple speakers
                 with normal stereo input.
                 Suitable for listening music

Theater   : Select "Theater" Surround mode to give better sound field effect using multiple speakers
                 with normal stereo input
                 Suitable for listening music and playing game

Stadium   : Select "Stadium" Surround mode to give better sound field effect using multiple speakers
                 with normal stereo input
                 More intensive sound effect than "Theater" mode and suitable for playing game

Note : Dolby Digital and DTS will be detected and decoded automatically

Note : ⊡ Digital, ⊡ Pro Logic, ⊡ 3 Stereo and Stereo modes can be selected when playing Dolby Digital stream.

Note : Stereo mode can be selected when playing DTS stream

Note : Music/Theater/Stadium surround modes will not be enabled when playing Dolby Digital and DTS

❹ **FUNCTION Button**

With every touching the button and subsequently pressing s,t buttons, audio function modes following will be selected

S Delay : Adjust rear surround delay in ⊡ Digital, ⊡ Pro Logic, DTS mode

C Delay : Adjust center delay in ⊡ Digital, ⊡ Pro Logic and DTS mode

D.R.C : Adjust dynamic range compression setting in ⊡ Digital mode

Note : Functions above are not applicable when playing in PCM surround mode. So if you have selected surround mode like Music, Theater or Stadium, these functions will not be used.

❺ **Volume, „ UP, DOWN Buttons**

Master volume setting will be modified when pressing s, t buttons.

To adjust individual minute speaker level, press the Volume button and subsequently pressing s, t buttons will allows you to modify individual volume (trim) setting, in the orders, following.

Right : Trim Front Right speaker level by +10dB to -10 dB

Left : Trim Front Left speaker level by +10dB to -10 dB

Center : Trim Center speaker level by +10dB to –10 dB

Rear Right : Trim Rear Right speaker level by +10dB to –10 dB

Rear Left : Trim Rear Left speaker level by +10dB to –10 dB

S. Woofer : Trim Sub Woofer speaker level by +10dB to –10 dB

❻ **TEST TONE Button**

When pressed, system will enter Test Tone mode, in which test signal will be generated and sequenced through the order of **Front Left – Center – Front Right – Rear Right – Rear Left – Sub Woofer** speakers in every 2 seconds, skipping non-existing speakers. So user can correct speaker position and its level during testing by adjusting volume knob. („ UP, DOWN Buttons in Remocon Panel) Pressing any button again will make system come back to normal playback mode.

❼ **MUTE Button**

When pressing MUTE button, signal output to Line Out will be muted.

Installation

❶ Placement and Power Connect

Place the system on your desk or any other place for easy access and connect AC-DC 12V adapter.

❷ Input Connection

(1) Connect the Line out of PC Sound Card to the Line In connectors of SDC-800T.

1 Connect the stereo line output of PC Sound Card to the Line-In of SDC-800T

(2) If your PC Sound Card has S/PDIF Digital output, then connect them to Digital input of SDC-800T depending on the type of connector (Optical or Coaxial-RCA).

(3) Since SDC-800T has two digital inputs, you may connect other digital signal source from Laser Disc Player, DVD Player to remaining digital input port of SDC-800T.

(4) Please refer the following pages for typical input connections of SDC-800T. But those are not all. You may find various applications for SDC-800T by your own.
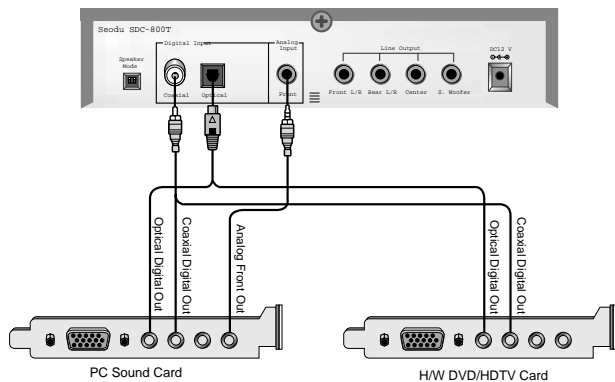
❸ Output Connection and Speaker Mode Setting

(1) Based on availability of multimedia PC speakers and power amplifiers, connect them to the proper line output of SDC-800T and set/reset "Speaker Mode DIP Switch" bits according to front speaker size and existence of rear speakers.

(2) Existence of center and sub-woofer is automatically detected. So, if you have good sub-woofer amplifier, simply connect it to the Sub Woofer Line Out connector of SDC-800T. No additional configuration is needed.

(3) Please refer the following pages for typical speaker connections and DIP switch settings of SDC-800T. Also, those are not all. You may also find another applications for SDC-800T by your own.
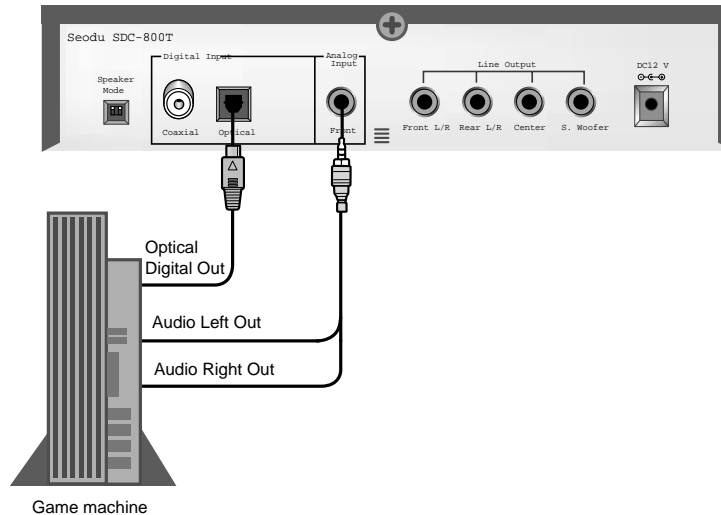
❹ Speaker Test

(1) After Power On, by pressing **Test Tone** button in Remocon Panel, initiate speaker test mode, and verify correct speaker positioning and

(2) Also adjust individual volume level if necessary.

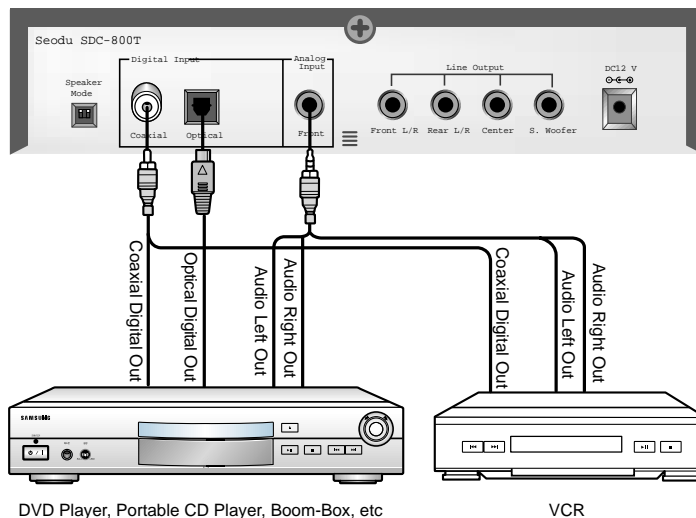(3) When everything done, press any button and return to normal operation mode.

Connection

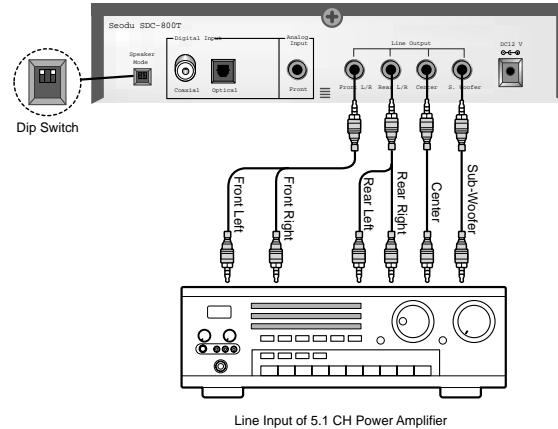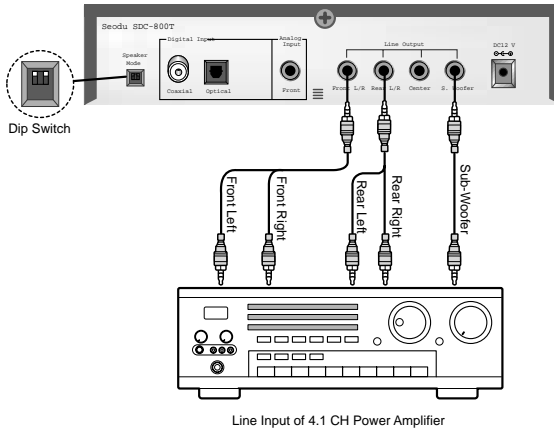l **Input Setting_**with PC Sound Card, H/W MPEG2 Decoder, HDTV Card
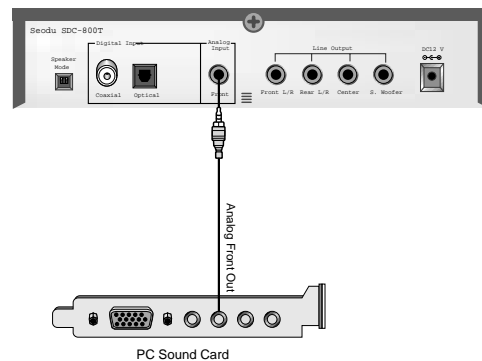
1 Input Setting_with Game Console like Play Station

Seodu SDC-800T

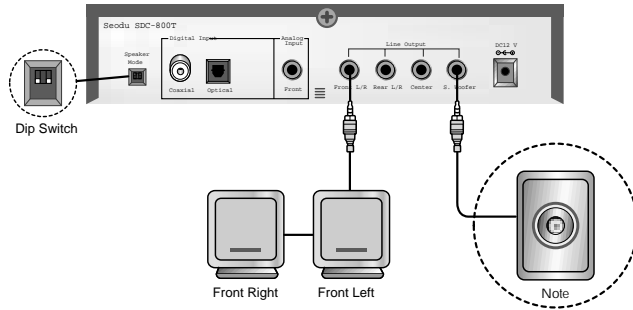Digital Input   Analog Input

Speaker Mode

Coaxial Optical   Front

Line Output

Front L/R Rear L/R Center S. Woofer

DC12 V

Optical
Digital Out

Audio Left Out

Audio Right Out

Game machine

1 Input Setting_with Home Digital Audio Appliances like DVD Player

Seodu SDC-800T

Speaker Mode

Digital Input
Coaxial   Optical

Analog Input
Front

Line Output
Front L/R   Rear L/R   Center   S. Woofer

DC12 V

Coaxial Digital Out
Optical Digital Out
Audio Left Out
Audio Right Out

Coaxial Digital Out
Audio Left Out
Audio Right Out

SAMSUNG

DVD Player, Portable CD Player, Boom-Box, etc

VCR

## 1 Speaker Setting_when connecting SDC-800T to 4.1 or 5.1 channel power amplifier with large front L/R speaker.

Dip Switch

Line Input of 4.1 CH Power Amplifier

Dip Switch

Line Input of 5.1 CH Power Amplifier

1 Speaker Setting_with 1 set of stereo multimedia speaker

Front Right   Front Left   Note

Front Right   Sub-Woofer   Front Left   Note

¤ with 1 set of stereo multimedia speaker to Front L/R. Attention to speaker setting using DIP switch. If you have high quality sub-woofer, simply connect it to Line Output for S.Woofer, then you will get benefit of Bass Management offered by SDC-800T without any additional configuration setting.
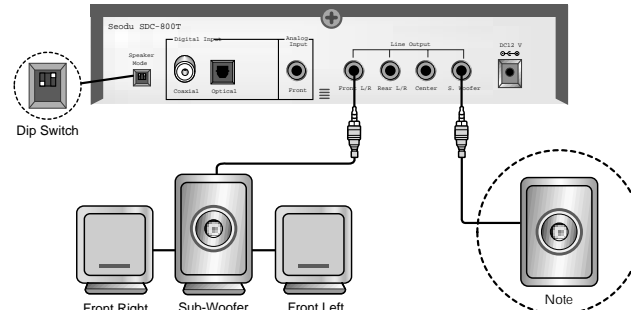
¤ with 1 set of stereo multimedia speaker (with Woofer) to Front L/R. Attention to speaker setting using DIP switch. If you have high quality sub-woofer, simply connect it to Line Output for S.Woofer, then you will get benefit of Bass Management offered by SDC-800T without any additional configuration setting.
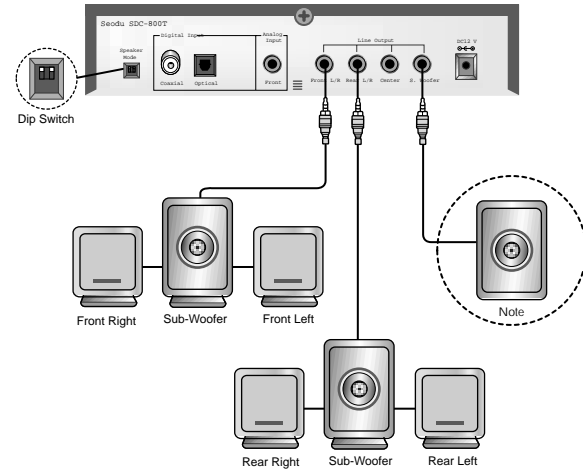
Note   Dedicated Sub-Woofer can be always added to system without any configuration.
You can get benefit of Bass Management.

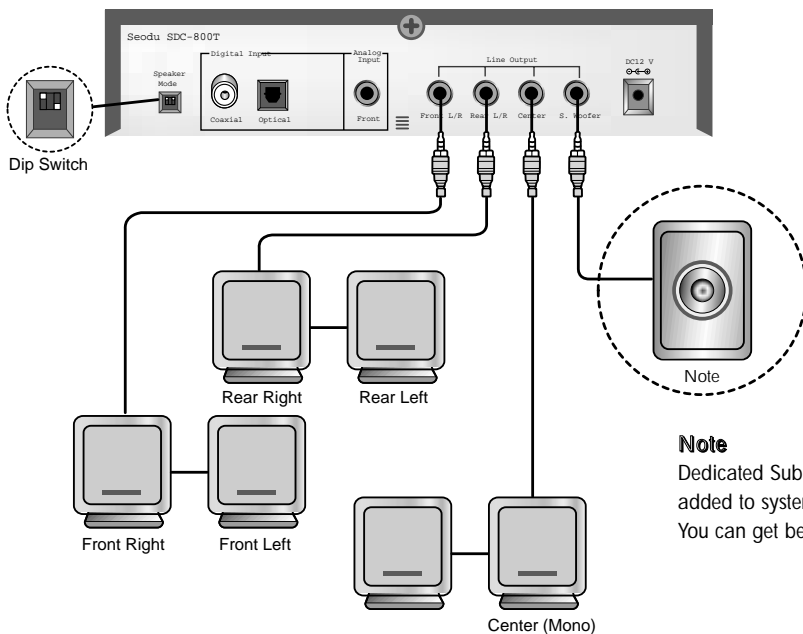# 1 Speaker Setting_with 2 sets of stereo multimedia speaker
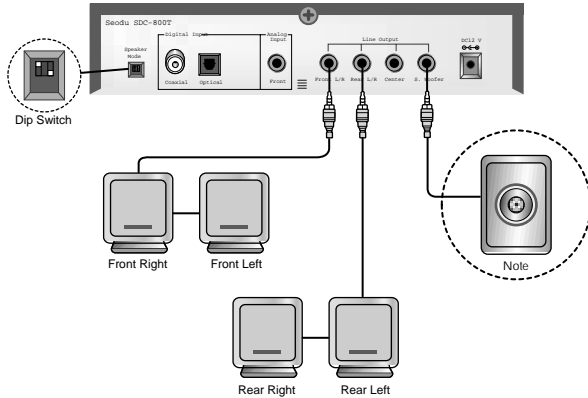
¤ with 2 sets of stereo multimedia speaker to Front L/R and Rear L/R. Attention to speaker setting using DIP switch. If you have high quality sub-woofer, simply connect it to Line Output for S.Woofer, then you will get benefit of Bass Management offered by SDC-800T without any additional configuration setting.

Note Dedicated Sub-Woofer can be always added to system without any configuration.
You can get benefit of Bass Management.

¤ with 2 sets of stereo multimedia speaker (with Woofer) to Front L/R and Rear L/R. Attention to speaker setting using DIP switch. If you have high quality sub-woofer, simply connect it to Line Output for S.Woofer, then you will get benefit of Bass Management offered by SDC-800T without any additional configuration setting.

1 Speaker Setting_with 2 sets of stereo multimedia speaker & 1 set of mono (stereo) multimedia speaker

Seodu SDC-800T

Speaker Mode

Digital Input
Coaxial   Optical

Analog Input
Front

Line Output
Front L/R   Rear L/R   Center   S. Woofer

DC12 V

Dip Switch

Rear Right   Rear Left
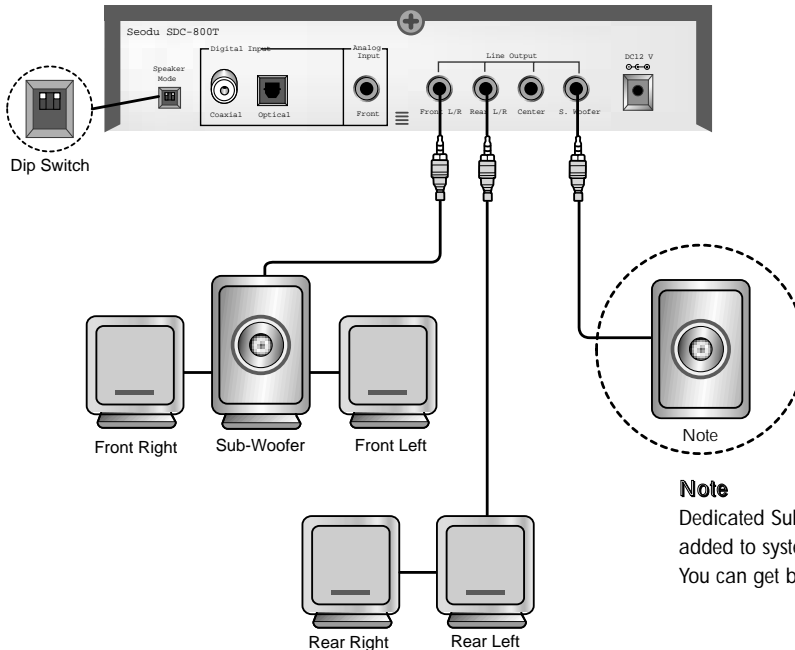
Front Right   Front Left

Center (Mono)

Note

¤ with 3 sets of stereo multimedia speaker to Front L/R, Rear L/R and Center. Attention to speaker setting using DIP switch. If you have high quality sub-woofer, simply connect it to Line Output for S.Woofer, then you will get benefit of Bass Management offered by SDC-800T without any additional configuration setting.

Note
Dedicated Sub-Woofer can be always added to system without any configuration. You can get benefit of Bass Management.

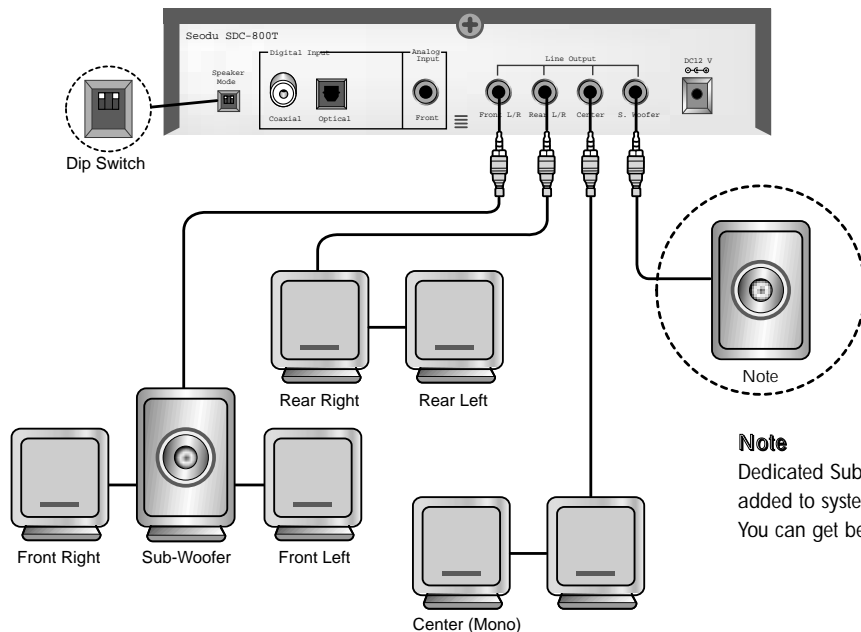## 1 Speaker Setting_with 1 set of stereo multimedia speaker (withwoofer) & 1 set of stereo multimedia speaker

¤ with 1 set of stereo multimedia speaker (with Woofer) to Front L/R and other stereo multimedia speaker to Rear L/R. Attention to speaker setting using DIP switch. If you have high quality sub-woofer, simply connect it to Line Output for S.Woofer, then you will get benefit of Bass Management offered by SDC-800T without any additional configuration setting.

Note
Dedicated Sub-Woofer can be always added to system without any configuration. You can get benefit of Bass Management.

1 Speaker Setting_with 1 set of stereo multimedia speaker (withwoofer) & 1 set of stereo multimedia speaker & 1 set of mono (stereo) multimedia speaker
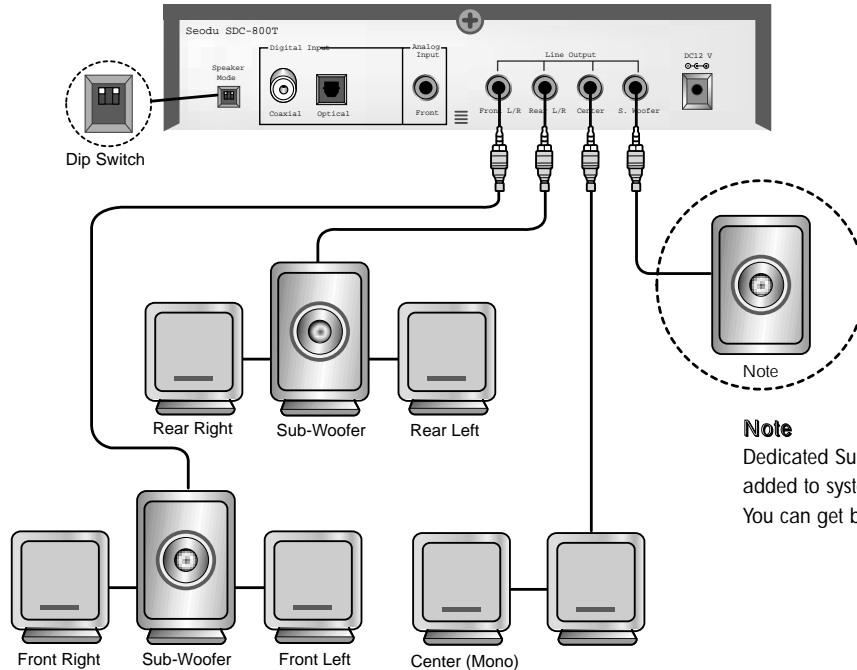

¤ with 1 set of stereo multimedia speaker (with Woofer) to Front L/R, another stereo multimedia speaker to Rear L/R and other 1 set of mono (stereo) multimedia speaker to Center. Attention to speaker setting using DIP switch. If you have high quality sub-woofer, simply connect it to Line Output for S.Woofer, then you will get benefit of Bass Management offered by SDC-800T without any additional configuration setting.

Note
Dedicated Sub-Woofer can be always added to system without any configuration. You can get benefit of Bass Management.

Dip Switch

Rear Right   Rear Left

Front Right   Sub-Woofer   Front Left

Center (Mono)

Note

1 Speaker Setting_with 2 sets of stereo multimedia speaker(withwoofer) & 1 set of mono (stereo) multimedia speaker

Seodu SDC-800T

Digital Input
Coaxial   Optical

Analog Input
Front

Line Output
Front L/R   Rear L/R   Center   S.Woofer

DC12 V

Speaker Mode

Dip Switch

Rear Right   Sub-Woofer   Rear Left

Front Right   Sub-Woofer   Front Left   Center (Mono)

Note

¤ with 2 sets of stereo multimedia speaker (with Woofer) to Front L/R and Rear L/R and another 1 set of mono (stereo) multimedia speaker to Center. Attention to speaker setting using DIP switch. If you have high quality sub-woofer, simply connect it to Line Output for S.Woofer, then you will get benefit of Bass Management offered by SDC-800T without any additional configuration setting.

Note
Dedicated Sub-Woofer can be always
added to system without any configuration.
You can get benefit of Bass Management.

Operation

l Installation and Speaker Setting
As explained in previous chapter, complete the installation and speaker setup. Perform speaker test, and verify correct positioning and volume level.

l Executing PC S/W or Playing Audio Source Attached
Execute S/W DVD Player, WinAMP or Media Player if you have connected the system to PC sound card.
If you also have attached other audio source like portable CDP, start playing it.

l Volume Adjustment and Input Selection
Adjust master or individual volumes again if needed. And also select proper input port connected to audio source that you want to listen and enjoy.

l Select Proper Surround Mode
Finally choose the most comfortable surround mode to your taste.

Note As mentioned before, surround effects like Music, Theater and Stadium cannot be selected when playing Dolby Digital/DTS stream. Also Center Delay and Surround Delay functions are applicable in Dolby Digital, Pro Logic and DTS mode, while Dynamic Range Compression function is only applicable in Dolby Digital mode. Therefore, you will not hear any change with these audio functions when playing plain PCM or analog input using surround mode.

Specification

Features

- **l** Multi-Channel Digital Audio Support
  - Dolby Digital, DTS and Dolby Pro Logic support
  - Ideal for watching DVD movie and playing 3D games in PC
- **l** Various Surround Sound Support
  - Bypass/▣▣ Pro Logic/▣▣ 3 Stereo/Stereo/Music/Theater/Stadium
  - Automatic ▣▣ Pro Logic detection and support as well as manual override
- **l** Various Input Support
  - Digital Optical/Digital Coaxial/Line In (2 CH)
  - 2 digital inputs for flexible usage
- **l** Full Support for PCM Input
  - Standard 32 kHz, 44.1 kHz, 48 kHz sampling rate support
  - Automatic detection and support for 88.2 kHz and 96 kHz high sampling rate PCM input
  - Automatic de-emphasis support
- **l** Audio Function Control Support
  - Surround, Center Delay and Dynamic Range Compression
- **l** High Quality and Low Noise Design
  - Low THD+N, high SNR comparable to consumer audio
- **l** Flexible Speaker Mode Support
  - Automatic and easy to use 2/3/4/5/6 speaker mode support
  - Automatic Bass Management support

Front Panel

- **l** Power On/Off Switch
  - Standby-mode power
- **l** Easy-to-Read LED Indicators
  - Program format display, various settings display

Rear Panel

- **l** 6 Channel Variable Line Output
  - Front Left/Right (Stereo)
  - Rear Left/Rear Right (Stereo)
  - Center (Mono)
  - Sub Woofer (Mono)
- **l** 2 Digital Input
  - Optical S/PDIF digital input
  - Coaxial-RCA S/PDIF digital input
- **l** 1 Analog Input
  - 2 Channel Line In support
- **l** DIP Switch for speaker mode setting
- **l** AC-to-DC Adapter (12V) Input

Troubleshooting

❶ My system doesn't work.

- ⌐ First check to make sure that you have proper power supply.
- ➤ If power adapter is connected, red LED signal appears at the front display panel.
- ➤ If not, it is either input power is turned off, or system has error.
- ⌐ Power LED is glooming red, but the system doesn't wake up, at all.
- ➤ If you use remote control, make sure that the direction is placed properly and battery is charged.
- ➤ Also, check power switch at the front panel.
- ➤ If all the above are normal, you may suspect that the problem can be caused by system error
- ⌐ When power is turned on, there are several flickering at the front panel and it does not proceed to normal procedure.
- ➤ It may be caused by system error.
- ➤ In this case, you have to only operate remote control and Power On/Off button.

❷ There is no sound from my system.

- ⌐ First check that audio signal routes into the selected input.
- ➤ Normally LED is on to show PCM (In this case, front panel displays the current input mode, d.OP, d.CO or A.In).
- ➤ If Dolby Digital signal routes properly, front panel LED will display Dolby Digital format like 3.2.L, 2.0, and ▣ Digital LED will be turned on.
- ⌐ See if Mute button is pressed.
- ⌐ Check if you reduced the master volume beyond the audible limit.
- ➤ The range of master volume is from −74 dB to +6 dB. Sound level increases when approaching from − to + section.
- ⌐ Check the connected power amplifier and speaker system.
- ➤ Check SDC-800T output, power amplifier or speaker inputs are connected properly.
- ➤ Check the connection of power amplifier to power supply, or volume level is properly set.
- ⌐ Press the Test Tone button to check if you can hear the test signal from the speakers installed.

❸ How can I play DVD-video using my computer?

- ⌐ If you want to enjoy DVD in your computer, you should be equipped with the followings.
- ➤ DVD ROM Drive
- ➤ S/W DVD Player supporting digital S/PDIF output
  - ◆ Recently released most S/W DVD Players support digital output using various sound cards.
  - ❈ **Note** : Be aware that depending on the revision number, some S/W DVD Player doesn't provide digital output.
  - ❈ Make sure that S/PDIF Output or Dolby Digital 5.1 Channel is configured separately in the property and/or setting.
  - ◆ PC sound card which S/W DVD Player supports S/PDIF output.
  - ❈ Recently released sound cards from Creative, Yamaha , CMI, etc are supported by major S/W DVD Players. For further information, please refer to the instruction manual of the sound cards.
- ➤ H/W MPEG2 Decoder board.
  - ◆ Most H/W MPEG2 board has digital AC-3 pass-through output terminal. You can connect it to the digital input of SDC-800T.
- ➤ VGA video card having sufficient capacity of graphic processing.

- If the above requirements are satisfied, there will not be any difficulties in playing DVD movie even with Pentium-II class computers.
- ➢ Because the 5.1 channel audio signal is transmitted via digital output, SDC-800T input must be configured for digital input, not analog.
- ➢ If you have S/W DVD Player, you have to select S/PDIF output or Dolby Digital 5.1 Channel. If not, you may hear the Down-Mixed Dolby signal in a regular PCM stereo format.
  Note : Refer to chapter 8. Glossary, Down-Mix

❹ **4. I can play and watch DVD without any difficulty. But, how can I make sure that SDC-800T reproduces Dolby Digital/DTS signal?**

- If the SDC-800T reproduces this Dolby Digital signal, 3.2.L, 2.0 character will appears at the front panel, and you can hear sound from several speakers.
- ➢ Even though the display of 3.2.L, 2.0 does not appear at the front panel, and you can still hear the movie sound; then it's either.
  - ◆ Input was connected to analog and you are hearing the stereo sound.
  - ◆ Or, input is connected to digital, but you are hearing the down-mixed digital PCM into digital input.
  - ❋ Make sure that S/PDIF Output or Dolby Digital 5.1 Channel is configured properly in the property and/or setting of S/W DVD Player.

❺ **Even though 5.1-channel Dolby Digital signal appears, I can only hear the sound only from the L/R speaker.**

- If 3.2.L appears at the front panel and you can only hear sound from L/R speaker, then check if SURROUND mode is changed to Stereo mode. If so, press the **SURROUND** button to change to Dolby mode.

- Listen carefully whether the music is recorded in the way that big sound can be heard only from L/R speaker.
- Check that speaker connection, power amplifier, speaker power supply, or volume level is in a normal status.

❻ **What's the support for high quality PCM audio with SDC-800T?**

- SDC-800T automatically detects and supports high sampling rate (88.2kHz and 96kHz) PCM audio. No user intervention for SDC-800T is required, at all.
- ➢ When SDC-800T detects these PCM stream, then front panel display will show sampling rate characters, like F.88 (for 88.2kHz), F.96 (for 96kHz.
- You have to make sure that your DVD player or other source equipment can delivers these digital audio data via S/PDIF channel.
- ➢ Some DVDP provides separate Setup Menu option for enabling this feature.
- ➢ In some cases, DVDP will deliver the down-sampled PCM data (96kHz ➡ 48kHz, 88.2kHz ➡ 44.1kHz), while others will not be able to handle these streams.
- ➢ Therefore, please check with your DVDP operational manual for detailed information

❼ **What should I have to do to listen to MP3 with my computer?**

- MP3 music we listen with our personal computer is the converted PCM after CPU has decoded. You can, therefore, listen and enjoy MP3 music through SDC-800T digital or analog input.
- In case of digital input, some sound cards are supposed to set digital output to On/Off in accordance with some types of music resources. If you have some special inaudible sounds (eg. In case that you can hear Midi or wave, but can't CD Audio), you may have to enable it considering the settings above. It is common to adjust using s/w like control panel or sound card application for Windows. Please refer to the instruction on sound card.

❽ May I connect audio output of regular TV or VTR to SDC-800T?

❾ May I connect audio output of regular MP3 Player to SDC-800T?

❿ Can I connect audio output of regular home Music Box, or CD Player to the SDC-800T?

1 You can surely listen to the music by connecting analog or digital output to SDC-800T and also include proper sound effect modes.

1 In case of analog output, you connect line output. If there is no line output available in the TV/audio equipments, you may use headphone output. But, in case of regular speaker terminal only, don't connect them to SDC-800T, because there is great difference in signal level, and it may damage the SDC-800T.

1 Analog input of SDC-800T is mini-stereo phone type, so it is generally inconsistent with RCA output mostly applied with regular TV or VTR. You may buy the cable terminal converter and solve this problem easily.

1 Audio output of old-dated TV or VTR could be mono type. In this case, it is difficult to get the best effect as you want, even if you manage to input the mono signal into SDC-800T after adjusting terminal

⓫ Can I connect audio output of regular DVD Player or LD Player to SDC-800T?

1 It's the same as above. You can listen and enjoy sound by connecting analog or digital output to SDC-800T and also include proper sound effect modes. Some devices may transmit Dolby 5.1-channel in digital output, and SDC-800T has a capability of dealing with it properly.

1 In case of analog output, SDC-800T analog input is for mini-stereo phone type and it is inconsistent with RCA output mostly applied with regular DVDP or LDP. You can buy the cable terminal converter and solve this problem easily.

⓬ How can I check that Optical digital input is being processed properly.

1 First check that the device transmits optical digital output signal properly. You can see that the end of optical cable turns red when the digital signal is transmitted. But, even though the one end of optical cable turns red, it is difficult to convince that all the digital signal is being transmitted properly. First of all, connect the cable to the optical digital input of SDC-800T, select the input as Digital Optical, and then check the front panel and LED

➢ In most cases, PCM LED will appear (in this case, current input mode will be displayed like d.OP)

➢ If Dolby Digital signal received, Dolby Digital format will appear on the panel display, something like 3.2.L, 2.0, etc)

⓭ I would hear noise from speakers

1 SDC-800T is an advanced high-tech audio device with quality proven by Dolby Laboratories, and is prepared to some degree of power fluctuation. But this kind of problem can be caused if the condition of power supply is very poor.

1 If then, you may have to use special AC-to-DC adapter in the area where the power voltage is below 10% for AC input standard power level of 220V. (available in case of Free Voltage AC input, output power DC 12V, over 1 A)

Glossary

❶ What is Dolby Digital?

- ㄴ Dolby Digital, developed by Dolby Laboratories is a multi-channel standard for digital audio. Increasingly it is applied to general music genre as well as movie theaters and DVD title.
- ➢ Multi-channel represents an audio system equipped for more than three speakers.
- ➢ Generally Dolby Digital supports six-speaker output (L/R/C/RL/RR/SW). Currently there is an extension to Dolby digital supporting up to seven output (L/R/C/RL/RR/SW/Rear Center).

❷ What is DTS (Digital Theater System)?

- ㄴ DTS (Digital Theater System) is another form of advanced multi-channel sound, supporting 5.1-channel or 6.1-channel surround system. In many countries, more DVD titles in compliance with DTS and Dolby Digital have been released and will be released, more.

❸ What is Dolby Pro Logic?

- ㄴ Dolby Pro Logic is a standard for 4-channel output(L/R/C/S) developed by Dolby Laboratories using stereotype 2-channel signal before the invention of Dolby Digital.
- ➢ Dolby Pro Logic has been applied to home audio, VTR, as well as movie theater .
- ➢ There are Dolby Digital signals, which has been encoded into Pro Logic mode. If SDC-800T reproduces this signal, 2.0.P string and ▣▣ Digital LED will appear on the front display panel at the same time.
  It means that stereo L/R signal includes extra 2-channel signals for center and rear.

❹ What is Dolby 5.1-channel?

- ㄴ Among the six speaker channels, sub-woofer can only reproduce low frequency of narrow bandwidth (20Hz ~ 120Hz). Compared with bandwidth (20Hz~20kHz) frequency of other channels, it shows 0.1 and it is called as 5.1-channel audio.

❺ ➢ Dolby extension which supports 7speakers, is referred to as 6.1-channel.

What is high quality, high sampling rate PCM?

- ㄴ With the advent of digital technology, request for high quality audio has resulted in high data rate (higher than 96kHz), high quality (more than 24bit ADC) PCM audio, which is almost 3 times the data rate to normal CD audio (44.1kHz, 16bit ADC), and with better sound quality.
- ➢ SDC-800T automatically detects and supports these high quality PCM streams, boasting support for sampling rate up to 88.2kHz, 96kHz, and ADC resolution of 24bit.

❻ What is Dynamic Range?

- ㄴ Dynamic Range indicates the value that converts into dB unit the difference between the highest-level and the lowest-level sound in an amplifier.

❼ What is Dynamic Range Compression?

- ㄴ Dynamic Range Compression is a sound filtering technology, which intentionally narrows the sound difference by reducing high-level signal whereas expanding low-level signal in Dolby Digital Decoder. This technology enables us to listen both low and loud sound even at low volume.

➢ Setting values in SDC-800T audio function can be changed into No (0%, default), Half (50%), or Full (100%).

➢ Midnight Mode from other vendor's home Dolby decoder is equivalent to SDC-800T Full (100%) setting.

❽ **What is Surround Delay?**

ㄱ Surround Delay makes signals route delayed from Dolby Digital or Dolby Pro Logic to surround speaker. It is used to feel as if you listen in a large room or to avoid the change due to location limits of a speaker .

➢ Setting values in SDC-800T can be changed from 0 ms (default) to 15 ms.

❾ **What is Center Delay ?**

ㄱ Center Delay makes signals route delayed from Dolby Digital or Dolby Pro Logic or DTS to center speaker. It is used to feel as if we listened in a large room or to avoid the change due to location limits of a speaker.

➢ Setting values in SDC-800T can be changed from 0 ms (default) to 5 ms.

❿ **What is Bass Management?**

ㄱ Bass Management is the technology that Dolby Digital sends low bandwidth frequency (20Hz ~ 120Hz) supposed to be transmitted to subwoofer toward Surround L/R large speaker, or sends low bandwidth frequency of other 5-channel toward subwoofer.

➢ Bass Management has Mode 0,1,2,3.

➢ SDC-800T automatically supports mode 1 and 2 depending on the size and existence of speakers.

⓫ **What is Surround Mode, Surround Effect?**

ㄱ Because PCM or analogue 2-channel-audio uses the signal for surround L/R speaker it cannot take advantage of multi-channel audio. If decoder provides special surround mode, C, RL, RR, SW channels can also provide converted signal and users have surround effect of multi-channel with 2-channel input.

➢ SDC-800T provides modes of Music, Theater, Stadium as well as Dolby, DTS modes, and you can listen to music, play games, or enjoy movie with these modes.

⓬ **What is Down-Mix?**

ㄱ Down-Mix is feature when multi-channel input signals such as Dolby Digital, Dolby Pro Logic and DTS are decoded and the number of output channel is smallerthan the number of input channel (eg. 4-channel signal goes toward 2-channel speaker), reduce the number of channel by distributing output to the existing speakers.

➢ SDC-800T automatically provides Down-Mix mode conforming to the speaker connection and input mode.

Memo

Seodu, SDC-800T