

OWNER INFORMATION

Pre-2DSP Preamp-processor



Precision
Innovation & Musicality
by

Audio Refinement

PRE-2DSP PREAMP-PROCESSOR

Our entry level digital preamp-processor delivers Dolby AC-3 and DTS 5.1 digital signal decoding and processing using Motorola's high performance DSP5632 chip set yielding vivid surround sound placement exactly as the musical score intended. In addition, video signals are routed and switched easily and logically for elegantly simple system incorporation.

- On-screen display
- Digital by-pass
- Four (4) digital inputs (One Toslink optical and three 75-Ohm coaxial)
- Two (2) digital outputs (One Toslink and one RCA)
- 5.1 analog input and output
- Four (4) analog RCA inputs with one (1) tape loop
- Video switching with four (4) S-Video, four (4) composite, and two (2) component inputs and one (1) outputs
- 5-Bands equalizer which allows you to fine tune the sound of your favorite movie/ music
- Motorola's high performance DSP56362 chipset
- Up-gradable to Motorola DSP56366 chip and dolby prologic
- Two (2) 12-volt triggers
- Five (5) sound field memory presets to preserve your favorite playback settings
- Fused IEC component AC cable
- System remote control with discreet codes

ACKNOWLEDGMENT & TRADEMARK



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PreAmp-Processor

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Dealer Name : _____ Dealer Phone Number : _____

INTRODUCTION

Audio Refinement was conceived to offer the renowned musicality or "sonic signature" of YBA Electronics by Yves-Bernard ANDRE' in a more affordable range of products. It benefits from the same design philosophy and attention to minute detail that is the hallmark of YBA.

Thank you for your purchase of the Audio Refinement Pre-2dsp, pre/processor. It is precisely crafted innovatively designed and extremely reliable. We appreciate your faith in our products and we trust that your Pre-2dsp will reward you with many years of audio/video pleasure.

Please read the operating instructions before connecting the Pre-2dsp to your audio/video system.

DESIGN PHILOSOPHY

An important design goal for Audio Refinement is the control of parasitic vibrations. These mechanical vibrations in the air have a negative effect on the purity of sound. The impact of these vibrations depends on the size of the audio equipment, the internal components and the rigidity of the construction. The solutions chosen for Audio Refinement include:

The mechanism is designed to be as compact and as rigid as possible. The small physical size of your Audio Refinement Pre-2dsp moves the resonant frequencies out of the audio domain.

The PRE/PROCESSOR has only 3 feet which is the ideal way to drain vibrations.

The transformer is suspended to reduce the transmission of its vibrations to the rest of the circuitry.

The choice of materials is also an important part of the design of your Audio Refinement Pre-2dsp, the bottom is made of non-magnetic aluminum, the other parts are brushed and colored aluminum.

UNPACKING AND INSPECTION

Carefully unpacking your Pre-2DSP and locate the enclosed accessories:

- RC-DSP Remote Controller with AA batteries
- Detachable AC Cord
- Remote Connection cord
- Owner's Information

CARE & USE

Ensure that your main AC voltage matches the voltage marked on the rear of the unit and on the exterior of the shipping carton.

To avoid damage to your Pre-2dsp, we recommend that you disconnect the AC during electrical storm or if the unit will be unused for an extended period of time.

Do not handle your AC cord with wet hands. If liquid spills on your Pre-2dsp, unplug immediately and contact your dealer for cleaning instructions.

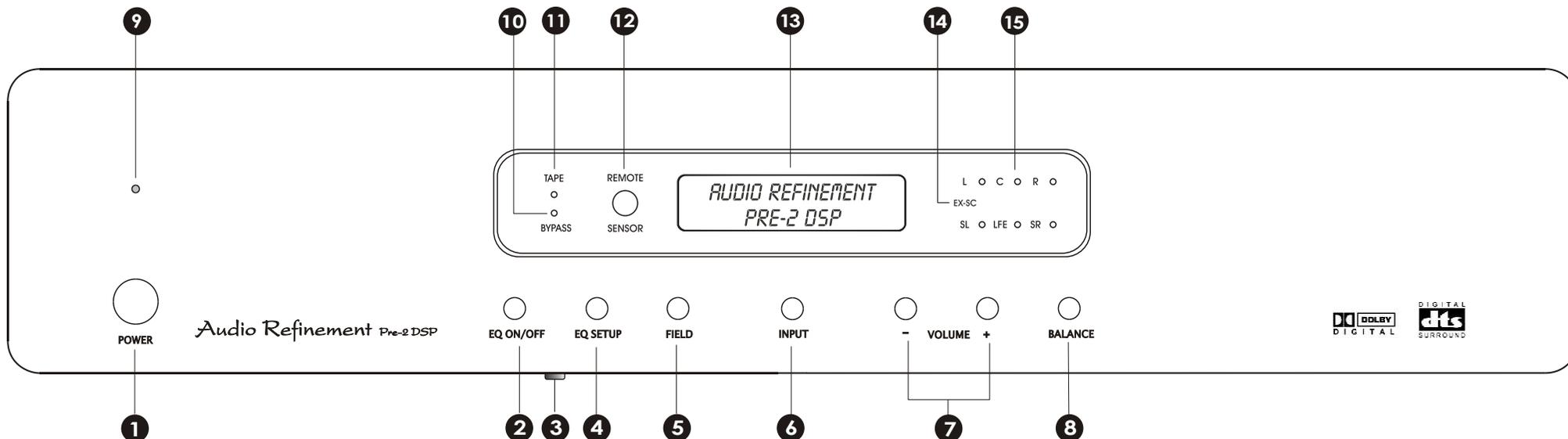
Do not remove the top cover of your Pre-2dsp or attempt to modify any circuitry. This will void your guarantee and could result in serious injury.

Always turn the Pre-2dsp off before making any connections. Ensure that the speaker cables of your power amplifier do not touch each other. **A short circuit will damage the unit and is not covered under the guarantee!**

Keep your Pre-2dsp out direct sunlight. Because it could interfere with the remote control sensor.

Keep the Pre-2dsp away from heat sources such as hot air ducts, radiators and moisture sources such as open windows.

FRONT PANEL FUNCTIONS



1. POWER Button

This button turns **ON** or **STANDBY** Pre-2DSP.

2. EQ ON/OFF Button

Activate the selected EQ band setting

3. REC ON/OFF Button

Press this button will be on and press again will be off.

4. EQ SETUP Button

Select up to 5 EQ band settings.

5. FIELD Button

Select among 6 different sound fields

6. INPUT/SELECT Button

Select different source inputs.
 Select the length of **Delay** time for SL/SR/C channels.
 Select the length of **Balance** for L/C/R/SL/SR/LFE channels.
 Select the length of **Test/M** for L/C/R/SL/SR/LFE channels.
 Select up to 5 **EQ Band** +/- adjusts.
 Select **bass** crossover (80Hz, 90Hz, 100Hz, 110Hz, 120Hz)

7. VOL/ADJUST Button

Increase/decrease the **Volume** level.
 Increase/decrease the **Delay** times.
 Increase/decrease the **Balance** level.
 Increase/decrease the **EQ** level.

8. BALANCE Button

First press this button then press vol button to set 5CH output volume.
 Custom set the volume setting for 6 channels.

9. POWER Indicator

This red color LED lights up when **STANDBY**.
 This green color LED lights up when **POWER ON**.

10. BYPASS Indicator

This red color LED lights up when **Bypass ON**.

11. TAPE Monitor Indicator

This green color LED lights up when **Tape Monitor ON**.

12. REMOTE Sensor

This sensor receives a signal from the remote handset.

13. LCD Display

This display provides you with important information regarding system status and settings.
 It is important to be familiar with all the indications on the display in order to have the system function properly.

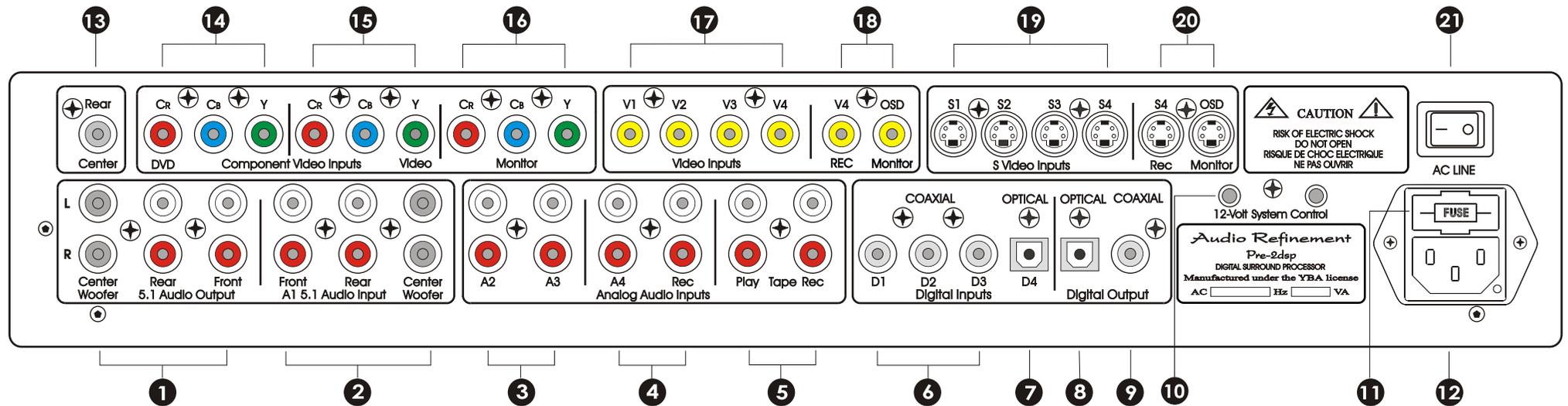
14. EX-SC Indicator

UP-GRADE for EX 6.1.

15. Speaker Configuration LEDs

Each LED represents the status of an individual channel. When a particular channel is active, the LED LIGHTS UP. Red color LED light means this particular channel has been set to output a wider frequency range that contains bass signal between 20Hz to 120Hz.
 Green color LED light means this particular channel doesn't contain the bass signal between 20Hz to 120Hz.

REAL PANEL FUNCTIONS



1. 5.1 Audio Output

The Pre-2DSP provides a stereo output pair for the Left and Right front and Surround speakers, a single monaural output for the Subwoofer, and a single monaural output for the center Speaker. Connect these outputs to inputs of your power Amplifiers.

2. A1 5.1 Audio Input

The 5.1 Analog audio Input connections accept six channels of processed analog output of a DVD player or DVD Audio player or processor with discrete outputs. Connect the six discrete outputs of your source component to the corresponding 5.1 Analog inputs of the Pre-2DSP.

3. A2, A3 Analog Audio Inputs

Two Analog Audio inputs are compatible with typical analog line level sources. Connect the left and right analog audio output of your audio source components to any of these two analog audio inputs.

4. A4. REC Analog Audio Inputs

Analog Audio input. It can connect to a VCR's audio outputs. Analog Audio record output for VCR recording. It can connect to a VCR's audio outputs.

5. Tape (Monitor) Play/ Rec

Connect the TAPE Monitor PLAY / REC jacks to the PLAY(Line out) / REC(Line in) jacks of a tape deck or MD recorder.

6. D1, D2, D3 COAXIAL Digital Inputs

These three sockets all coaxial digital inputs.

7. D4 Optical Digital Input

This is optical digital input jacks.

8.9. Optical & Coaxial Digital Output

Connect the 75 optical or coaxial digital record outputs to the digital input of your digital recording component.

10. 12V System Control

These jacks Outputs provide +12 Volt DC trigger to activate equipment such as power amplifiers or relays. Connect these outputs to the DC input of the component you want to activate.

11. AC Fuse

220V 50Hz 3.15A , 117V 60Hz 3.15A , slow-bow

12. AC Line Cord Receptacle

Use the supplied power cord to connect the Pre-2DSP to a wall receptacle.

13. Rear Center Output

UP-GRAGE for EX 6.1.

14. Rear Center Output

Component video input connect this jacks to the component video out of DVD player or any video.

15. Component Video Input

Connect this jacks to the component video out of second DVD player or any video player.

16. Component Video Output

Connect this jacks to the component video in of the TV monitor.

17. Video Input

V1~V4 all are video input jacks connect any of them to the video out of DVD player or any video player.

18. V4/Rec and OSD/Monitor

V4 is composite video output, connect this jacks to the video in of DVD player or any video player for video recording, OSD monitor jacks is also a composite video output, connect this jacks to the video in of your TV monitor for the function of Pre-2DSP can splay on the screen.

19. S-Video Input

S1~S4 all are S-video input jacks, connect any of them to the S-video output of DVD player or any video player.

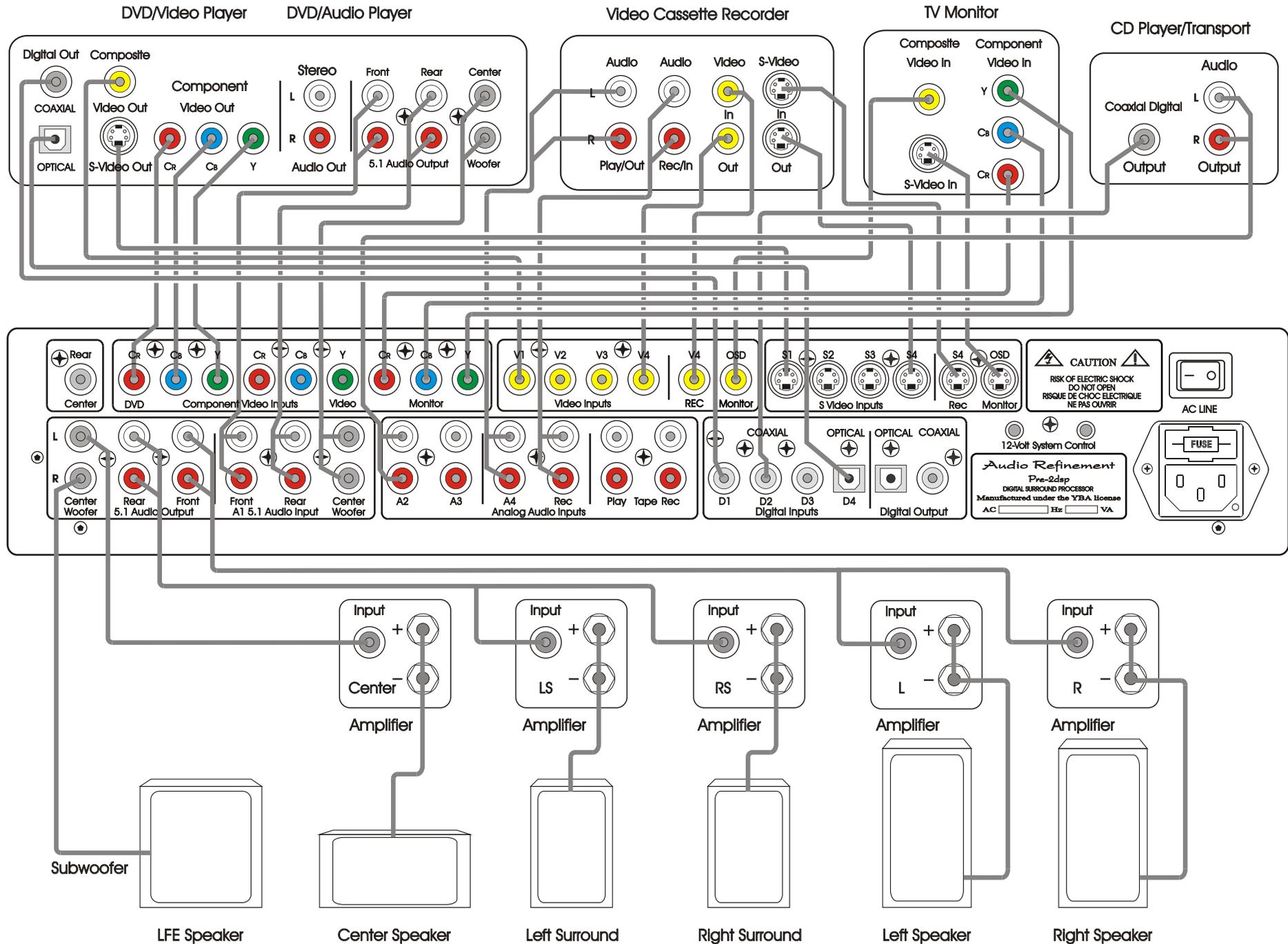
20. S4/Rec and OSD/Monitor

S4 is a S-video output jacks, connect this jacks to the S-video in of DVD player or any video player for recording, S-OSD monitor jacks is a S-video output jacks, connect this jacks to the S-video in of DVD player or any video player for the function of Pre-2DSP can display on the screen.

21. Main AC Switch

This is the main power switch for the Pre-2DSP, in the off position, all function are disabled, including the front power switch.

REAL PANEL CONNECTIONS



CONNECTIONS OF PRE-2DSP

1. 5.1 Audio Output

a. Center Channel Output

Connect the Center channel output of your Pre-2DSP to the input of a mono amplifier or to the channel of the multi-channel amplifier that is connected to your center (C) speaker.

b. Subwoofer Output

Connect the subwoofer output of your Pre-2DSP to the input of active subwoofer.

c. Left and Right Rear Channel Outputs

Connect the Left and Right rear outputs of your Pre-2DSP to the input of the two channel amplifier or to two channels of a multi-channel amplifier that are connected to your left and right surround (LS, RS) speakers.

d. Front Left and Right Channel Outputs

Connect the Left and Right Front channel outputs of your Pre-2DSP to either the inputs of a two channel amplifier or to two channels of a multi-channel amplifier that are then connected to your main front left and right (L, R) speakers.

2. 5.1 Analog Inputs

The 5.1 Analog Input are designed to accept up to six channels of processed analog output from a DVD player or DVD Audio player other component with discrete outputs. Connect the six discrete outputs of your source component to the corresponding 5.1 Analog Input of the Pre-2DSP.

3. A2 、 A3 Analog Audio Input Connections

The A2 、 A3 analog inputs are compatible with typical analog line level sources such as CD players, MiniDisc players, cassette decks, etc. connect the left and right analog audio outputs of your audio/video source components to these inputs.

4. A4 Input and Rec (Record and Playback) Connections

Use the A4 inputs and outputs for the VCR you intend to use to record the picture and sound. The signal present at the V4 Record output sends analog audio from whichever of the other A2 、 A3 、 V2 、 V3 Audio/Video or Audio-only inputs you select.

1. Connect the left and right audio output connectors from the VCR you'll use for recording to the A4/V4 Input connectors of the Pre-2DSP.
2. Connect the left and right A4 REC (Record) Output connectors of the Pre-2DSP to the left and right audio input connectors of the VCR.
3. Connect the composite video output connector of your VCR to the V4 or S4 input of the Pre-2DSP and connect the V4 REC or S4 REC Composite Record Output connectors of the Pre-2DSP composite video input connectors of the VCR.

5. Tape monitor play and REC Connections

The audio signal from the source you selected for the main zone is routed to both pairs of Record Output connectors. Connect the left and right play/output of your tape deck to the left and right of any of the Pre-2DSP's A2 、 A3 、 A4 input connectors. Next, connect the left and right audio record/input connectors of your tape deck to either pair of Left and Right channel Record Output connectors of your Pre-2DSP.

6. Digital Audio Input Connections

Your Pre-2DSP has four digital input connections: three Coax RCA jack, one Optical Toslinks.

a. Coaxial Digital Inputs

The four Coax Inputs on the Pre-2DSP accept a standard S/PDIF digital bitstream from any CD player, DVD player, DSS receiver, or other digital component equipped with a 75Ω

b. Fiber-Optic Toslink input Connections

The fiber- optic Toslink inputs on the Pre-2DSP accept a standard S/PDIF digital bitstream from any CD player, DVD player, laserdisc player, DSS receiver, or other digital component equipped with a Toslink optical output. Connect the optical output of your digital source to either of the Optical Inputs using a Toslink fiber optic cable.

7. Digital Recording Output Connections

To record through either of these digital output connectors, select the digital source you want to record on the front panel or remote control. The Pre-2DSP simultaneously routes the digital bitstream to both the Coax and Optical Toslink output connectors. Connect either the Optical or the 75 Ω Output connectors of the Pre-2DSP to the digital record input of your digital recorder.

8. 12-VOLT System Control

This jack provides a +12 Volt DC trigger voltage to activate equipment that can be triggered with DC voltage such as power amplifiers, relays, motorized projection screen, fans, lights, or other components. Connect the jacks 1 (or 2) output of the Pre-2DSP to the DC input of the component you want to activate. The DC trigger delivers up to 50 mA of current. The Jacks 1 (or 2) accepts a standard 1/8inch (3.5mm) two conductor mini plug. The tip is positive and the sleeve is negative.

9. AC Line Cord Connection

The rear panel mounted IEC standard AC receptacle accepts the AC cord supplied with your Pre-2DSP. We recommend the use of an AC line filter to protect the Pre-2DSP against potentially damaging line surges and voltage fluctuations. Plug the female end of the AC cord firmly into the rear mounted AC receptacle and make sure that it is properly seated, then connect the male end to an uninterrupted AC power line.

10. Component Video Connections

Each Component Video Input and the Component Video Output includes three separate socket. Separating the video signal components of luminance (Y) and the color difference (Cb and Cr) delivers the very highest quality video reproduction. Not every source or monitor labels its component video Y, Cb, Cr. Equivalent labeling for component video connections may be Y, B-Y R-Y or Y, PB, PR. Refer to the owner's manual of your video component for details.

a. Outputs

Connect the Component Video Monitor Output connectors of your Pre-2DSP to the corresponding input connectors of your video line processor or directly to your monitor or projector. You can select whether the on-screen display will appear at the Component Video Output connectors during the setup process. Refer to the setup section for more details about assigning the on-screen display to the component video output.

b. Inputs

Connect the component video outputs of your DVD player to the corresponding Component Video Input connectors of the Pre-2DSP. Once you have connected the component video Sources to the inputs of the Pre-2DSP, you will need to assign the component video sources to any of the six Audio/ Video Inputs. Refer to the setup instructions for component video assignment procedures.

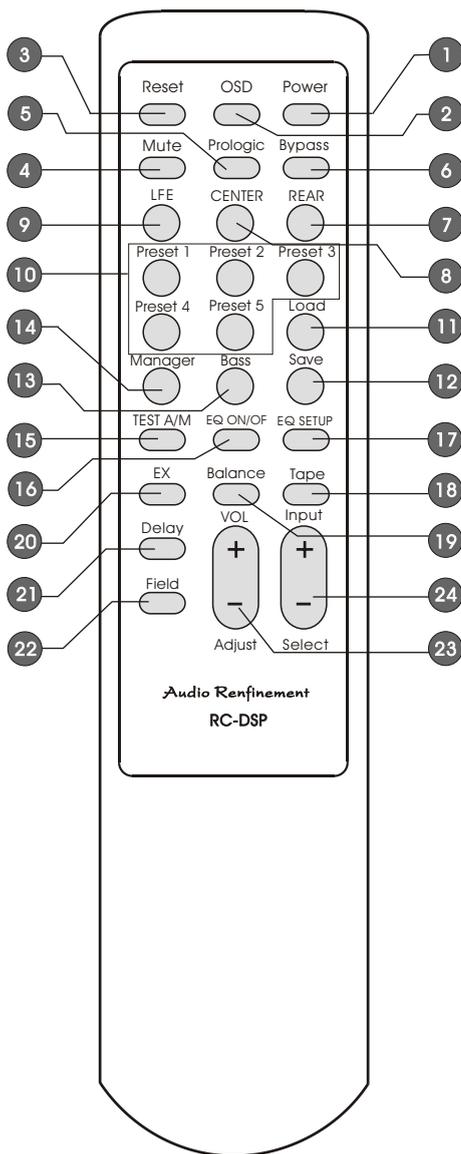
11. Video Composite and S-Video Monitor Output Connections

Connect this jacks to TV` s composite video input the video output will equip on screen display function.

12. Composite Video And S-Video Input And Record Connections

V1,V2,V3 connect to the video output of DVD play or other video equipments. V4 connect to the play and REC of VCR.

PRE-2DSP REMOTE CONTROL



1. POWER Button

Turn Pre-2dsp into ON or STANDBY status.

2. OSD Button

Press this button to display the function on the TV screen.

3. RESET Button

Press this button to reset the system to its factory default settings.

4. MUTE Button

Interrupt the signal from reaching the output

5. PROLOGIC Button

Select up to 5 different surround settings.

6. BYPASS Button

Press this button the analog signal directly output. No through DSP.

7. REAR Button (Speaker ON/OFF)

Lets you simultaneously activate/deactivate the left and right surround speakers.

8. CENTER Button

Allows you to activate/deactivate the center channel speaker.

9. LFE Button

Is used to activate/deactivate the subwoofer.

10. PRESET Button(P1,P2,P3,P4,P5)

Store up to 5 different user settings.

11. LOAD Button

Activate user setting stored in selected preset

12. SAVE Button

Store user setting into a selected preset. First press preset then press save button.

13. BASS Button

Crossover 80Hz, 90Hz, 100Hz, 110Hz, 120Hz

14. MANAGER Button

It switches among three bass configurations (bass config 1, bass config 2, and bass config 3, bass config off) Use DTS disc should press this button until six LED all brights red color, (Bass config off). Use AC-3 disc should press this button until five LED bright green and LED of LFE brights red color (config 1). Press INPUT/SELECT Button to see config value.

15. TEST A/M

TEST A/ test the signal for 6 discrete channels (Automatic) TEST /M If you press over 2 second. It will into manual mode automatically.

16. EQ ON/OFF Button

Activate the selected EQ band setting.

17. EQ SETUP Button

Select up to 5 EQ band settings

18. TAPE Button

Tape monitor

19. BALANCE Button

First press this button then press vol button to set 5CH output volume.

Custom set the volume setting for 6 channels

20. EX Button

UP-GRAGE for EX 6.1 .

21. DELAY Button

Select the desired channel to engage the time delay adjustment.

22. FIELD Button

Select among 6 different sound fields

23. VOL/ADJUST Button

Increase/decrease the **Volume** level.

Increase/decrease the **Delay** times.

Increase/decrease the **Balance** level.

Increase/decrease the **EQ** level.

24. INPUT/SELECT Button

Select different source inputs.

Select the length of **Delay** time for SL/SR/C channels.

Select the length of **Balance** for L/C/R/SL/SR/LFE channels.

Select the length of **Test/M** for L/C/R/SL/SR/LFE channels.

Select up to 5 **EQ Band** +/- adjusts.

Select **bass** crossover (80Hz, 90Hz, 100Hz, 110Hz, 120Hz)

SPECIAL RECOMMENDATIONS AND NOTICE ITEMS

- Digital Inputs D3 and D4 have better sound results. For important digital recording, the source of sound is recommended to enter through these two sockets.
- The ANALOG Audio Input A2 has shorter and better signal path. Important analog signals should go through this socket.
- After completion of parameter setting for Pre-2dsp, please store the information into Preset 1 ~ Preset 5 before turning power off. Then, after about 10 seconds, turn on the equipment again. In this way, the whole setting parameters will maintain the state before the equipment is turned off. Through this ON/OFF action of power button, the sound will have better quality.
- When performing adjustment of channel volume balancing, we recommend adjusting the L, R, and C to 5dB position before balancing other sound channels. This will result in faster adjustment results.
Using two-channel stereo mode, we recommend adjusting the L/R channel balance volume LEVEL
- to 0dB (maximum value) and use MASTER button to control volume. This will result in better sound quality.
Store the parameter settings that most often use in the Preset 1 position. This is because when the
- first time the power is turned on and activated the main switch of the equipment will resume the settings in Preset 1 as the initial values.
During manual testing mode of TEST/M, MANAGER must be set to CONFIG 1. At this time, LFE sound
- channel will start to send signal. During setting of other CONFIG2, 3, and CONFIG OFF, LFE will not send out test signal.

OPERATION

In the following pages, detailed explanations are given to guide you through the proper operation of Pre-2dsp. As you might have noticed, there is 8 pcs of buttons on the front panel. The Pre-2dsp was purposely designed this way to eliminate the hassle of having too many buttons/knobs. Our engineers have designed a user-friendly remote control unit that the entire operation of Pre-2dsp will be solely based on. With the Pre-2dsp remote control unit, you are able to execute all the system configurations and settings.

Operation - LCD and LEDs

1. Press the power button to turn the Pre-2dsp on, press it again to turn it off.
2. When power is pressed off with AC Line be plugged, Pre-2dsp will do the followings:
 - a. Both LCD display and Speaker Configuration LEDs are off.
 - b. Power indicator LED remains on.
 - c. Decoder status and user configurations are memorized.
 - d. Once the power is turned on again, Pre-2dsp will resume to its previous decoder status and user configurations.
3. When Power Button is pressed off with Main AC line unplugged, Pre-2dsp will do the followings:
 - a. LCD display, Power indicator LED and Speaker Configuration LEDs are off.
 - b. Decoder status and user configurations won't be memorized.
 - c. Pre-2dsp will reset to factory default if the AC Line is plugged back to AC outlet.

LCD DISPLAY AND INDICATORS

Auto Decode Mode (Auto detect input stream type)

When Pre-2dsp turned on, it automatically detects and differentiates the audio signal coming from source unit.

- Playing DVD, DVD Audio, CD, LD, TUNER, SAT, VCR and Games with analog outputs connected to the analog inputs (A1, A2, A3, A4, & TAPE) of Pre-2DSP, the display shows the following information.

```
A2  PCM
STEREO  -10dB
```

```
A2  UNKNOWN
STEREO  -10dB
```

- Playing DVD title with **Dolby Digital (AC-3)** format, the display shows the following information.
- Playing DVD title with **DTS** format, the display shows the following information.

```
D1  AC-3
SURROUND  -10dB
```

Dolby Digital (AC-3)

```
D1  DTS
SURROUND  -10dB
```

DTS

INPUT SOURCE SELECTION

- The Pre-2dsp can be connected up to 8(A1 ~A4, D1 ~D4, V1 ~V4, S1 ~S4, C1 ~C2) audio & video sources.
- Select the input source feeding to Pre-2dsp by repeatedly pressing the **Input/Select (+.-) Button** on the remote control until the desire setting is reached.
- In the Digital Mode (Dolby Digital AC-3 / DTS), end user can manually select the audio input source either in coaxial(D1 ~D3) or optical(D4) form depending on the type of the output source.



```
A2  PCM
STEREO  -10dB
```

```
D4  AC-3
SURROUND  -10dB
```

AUDIO AND VIDEO INPUT EXPLANATIONS

- The A1 5.1 analog connector is used for the connection with decoder having 5.1 channels analog output or DVD player. This input signal does not go through DSP processing, but will directly go through by volume control and sent out 5.1 Audio output and synchronized with video input control to DVD V1 and S1.
 - A2 analog audio input and output I/O connector corresponds to synchronous control video input Video, V2, and S1.
 - A3 analog audio input and output connector corresponds to synchronous video input V3 and S3.
 - A4 analog audio input and output connector is to be used together with REC output connector and mainly used for VCR or other equipment with sound recording function whose REC can only record A2 or A3 analog signals. This connector also corresponds to video input connectors V4 and S4. V4 REC can record V1, V2, and V3 video input signals. S4 REC can record S1, S2, and S3 video input signals.
 - TAPE (PLAY, REC) analog audio record/play input connector set can be used to record and monitor analog audio A2, A3, and A4.
 - D1, D2, and D3 are digital audio coaxial input connectors. These three connectors correspond to video input DVD, VIDEO, and V1, V2, V3, S1, S2, and S3.
 - D4 is digital optical audio input connector and corresponds to synchronous video input V4 and S4.
- Pre-2DSP is equipped with COMPONENT connector DVD, VIDEO, and S connectors S1~S4 and normal video connectors V1~V4.
- Video signal with best quality is COMPONENT connector the next S connector and COMPOSITE connectors.

- Signal entering Component connector only can output from (MONITOR COMPONENT OUT) video connector.
- Video entering V1, V2, V3, and V4 can only output from (V OSD) MONITOR.
- S connector video entering S1, S2, S3, and S4 can only output from (S OSD MONITOR).
- The OSD display signal output from S connector is taken from VIDEO connector as background signal. Therefore, if activation of OSD signal is required together with TV screen display the same, it is necessary to input the same video signals entering S connector into the corresponding VIDEO connector. Only in this way could both video and OSD signals be displayed at the same time.
- For example, if there is no signal in VIDEO connector, TV screen will generate blue background automatically. The reason for choosing this method is in order that S connector can maintain the best video quality when OSD is not activated. When OSD is OFF, the output from S connector is completely independent and not mixed with OSD signal at any time.
- If component connector is used, OSD display function and the recording function will not function.
- Though A1~A4 and D1~D4 have corresponding VIDEO input and seem redundant, when in use it is possible to accompany the TV to switch between different video input and used alternatively. For example: A1 audio input and corresponding video is DVD component connector. But when choosing D1, it is also possible to plug in V1 or S1, and make use of TV video input to select component connector as input, or S1 and V1 as input signals. In this way, it is possible to extend more video inputs.

Relation Between Audio and Video

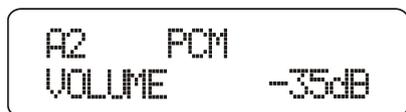
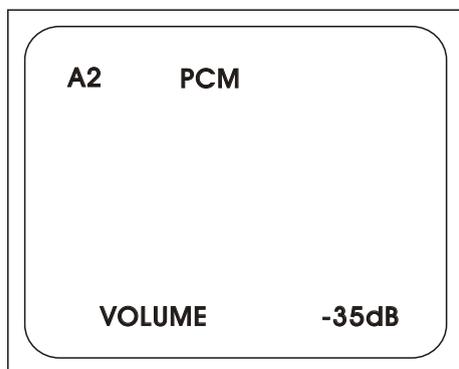
Audio Input		Component Video Input		Composite Video Input		S Video Input	
Name	Signal Mode	Name	Signal Mode	Name	Signal Mode	Name	Signal Mode
A1 5.1	Analog 5.1	DVD	Cr/Cb/Y	V1	VIDEO	S1	Y/C
A2	Analog 2ch	VIDEO	Cr/Cb/Y	V2	VIDEO	S2	Y/C
A3	Analog 2ch			V3	VIDEO	S3	Y/C
A4	Analog 2ch			V4	VIDEO	S4	Y/C
TAPE	Analog 2ch						
D1	COAXIAL	DVD	Cr/Cb/Y	V1	VIDEO	S1	Y/C
D2	COAXIAL	VIDEO	Cr/Cb/Y	V2	VIDEO	S2	Y/C
D3	COAXIAL			V3	VIDEO	S3	Y/C
D4	OPTICAL			V4	VIDEO	S4	Y/C

RC-5 REMOTE COMMANDS & CODE

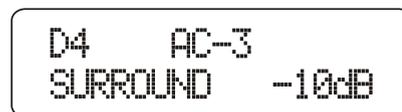
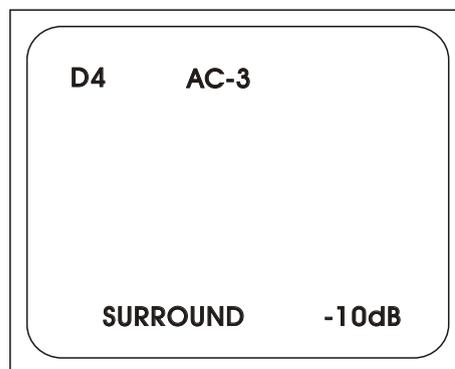
Function	System No.	Command Code No.	Function	System No.	Command Code No.
A1 (5.1Ch Phono) Input	21		Bass	16	20
A2 (CD) Input	20		Balance	16	21
A3 (TUNER) Input	17		Manager	16	29
A4 (VCR) Input	5		Input(+)/Select	16	32
D1 (DVD) Input	11		Input(-)/Select	16	33
D2 (VIDEO/TV) Input	0		Rear	16	35
D3 (SAT) Input	8		Field	16	37
D4 (CD RDMD) Input	26		LFE	16	39
TAPE (Play/Rec) Input	16	61	Center	16	40
Preset 1	16	1	Load	16	41
Preset 2	16	2	Delay	16	42
Preset 3	16	3	Save	16	46
Preset 4	16	4	Ex	16	47
Preset 5	16	5	Test A/M	16	52
EQ ON/OFF	16	10	Bypass	16	53
EQ Setup	16	11	Ki	16	54
Power/Standby	16	12	Reset	16	56
Mute	16	13	Prologic	16	57
Osd	16	15	DRC	16	60
Volume (+)	16	16			
Volume (-)	16	17			

OSD (ON-SCREEN DISPLAY)

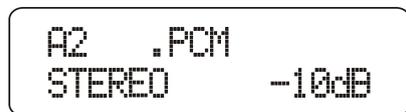
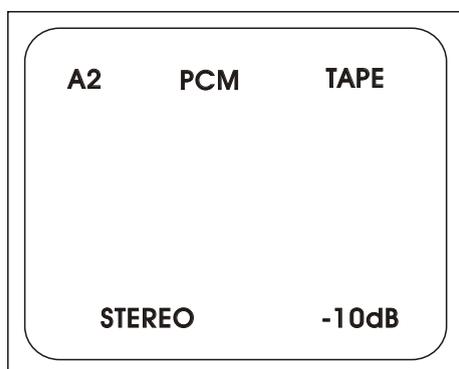
- Pressing this button can display the operation functions of Pre-2DSP on TV screen. Pressing again will turn off. If the buttons on the remote control is not activated for exceeding 10 seconds, the display will turn off automatically.
- If there is any abnormality in OSD, please turn off the main switch at the back panel and wait for several seconds before turning on again. The display should be back to normal.
- Notes: When the component video connections are made between the monitor TV and this unit, the OSD function is not available.
- Any on-screen display shown on the monitor TV will not be recorded note VIDEO 1.
 In some countries, Pre-2DSP allows you to select either NTSC or PAL color system as video format. If it is different from your video components, video softwares, etc., in the Power ON mode, press the **OSD Button** over 5 seconds then release the button, the video format is changed to the NTSC or the PAL color system.
 However, it is fixed to NTSC color system in present.



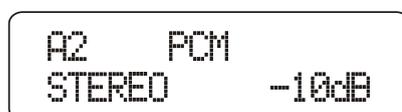
On-screen and front panel LCD displays indicating Volume.



On-screen and front panel LCD displays indicating AC-3 model.



On-screen and front panel LCD displays indicating tape monitor on.



On-screen and front panel LCD displays indicating bypass on.

MASTER VOLUME CONTROL

Volume Setting

To increase or decrease the master volume of Pre-2dsp, simply press **VOL +** or **VOL -** on the remote control.

Example : Volume being decreased by 35 decibels.



BALANCE SETTING

Balance button

Users can customize the volume setting of each individual channel.

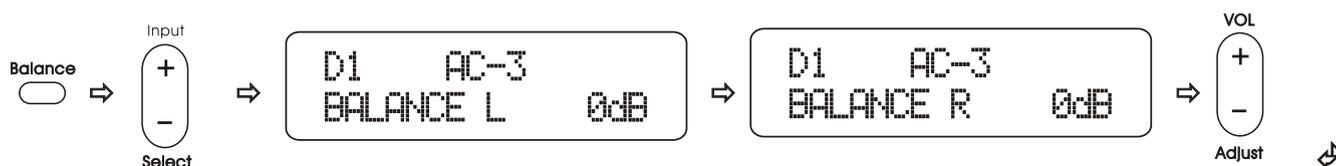
To select a channel, press **Balance Button** on the remote control. Press **Input/Select Button** repeatedly until desired channel is reached.

Example:

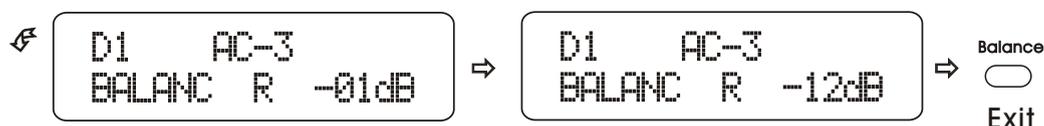
Adjust volume on selected channel by pressing **VOL +** or **VOL -** on the remote control.

Press **Balance Button** will display the current balance volume for channel L.

Press **Input/Select Button** again will circle to next channel R.



Press **VOL +** or **VOL -** will increase or decrease the balance volume for selected channel.



Press **Balance Button** will increase or decrease the balance volume for selected channel.

Adjust speaker volume levels so that when listening to sound position, the testing sound volumes from every speakers are the same level.

Notice: The volume from sub woofer speaks sounds level lower than actual sound. After actual testing of sounds, it might be necessary to adjust the volume level a bit higher.

If you are using sound pressure level (SPL) meter to test and adjust:

Obtain the reading from your main listening position, and adjust the levels of speakers to 75dB SPL (C weighted/slow mode).

MUTE MODE

Pressing **Mute Button** on the remote control can interrupt all signal outputs (6 RCA connectors.)

To disable the mute function, press **Mute Button** again.

When **Mute Button** is pressed, display shows the following information:Ω



TEST A/M MODE

TEST Mode A/M (AUTO/MANUAL)

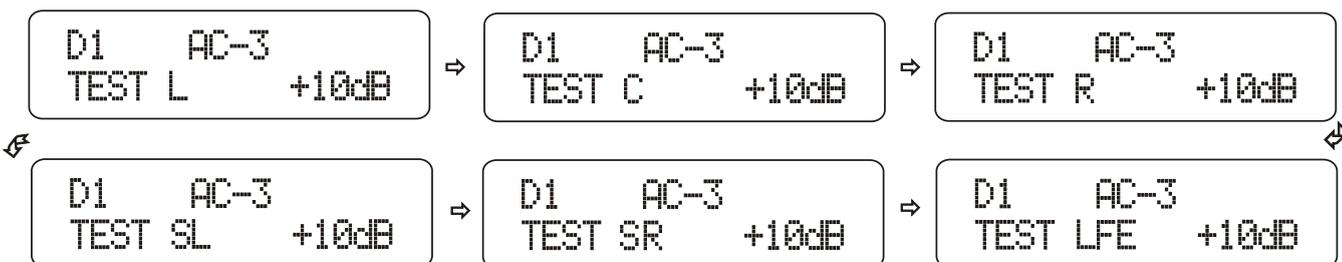
AUTO Test:

After completing the connection, press the **Test A/M Button** on the remote to see if the system functions properly.

You can also use the test mode to test the location of the speakers.

When **Test A/M Button** is pressed, white noise is generated through all satellite speakers in an order of L, C, R, SL, SR and LFE channels for 2 seconds each.

When completed, the Pre-2dsp returns to Decode mode.

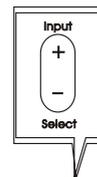


MANUAL Test:

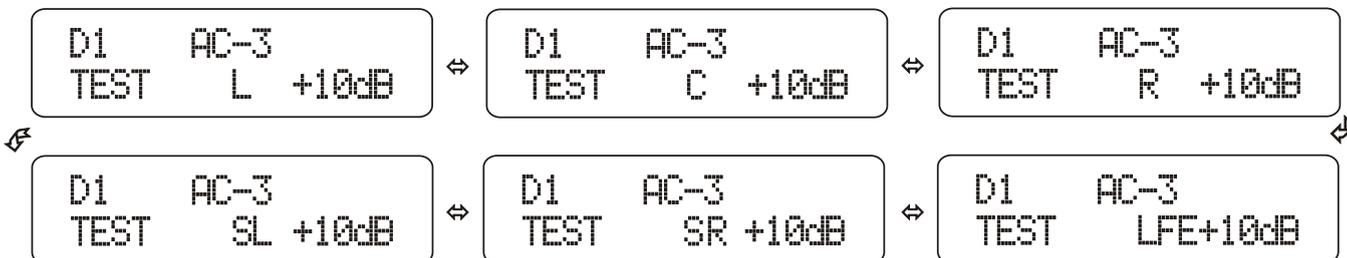


Note: Using TEST/AUTO can not adjust the each channel volume. If you need to adjust it please press use manual mode.

Press the **Test A/M Button** over 2 second the display appear **Test/M** that means the test mode into "MANUAL" situation, then press the input select for L, C, R, SL, SR, LFE Channel, after then press the **VOL button** for each channel volume.



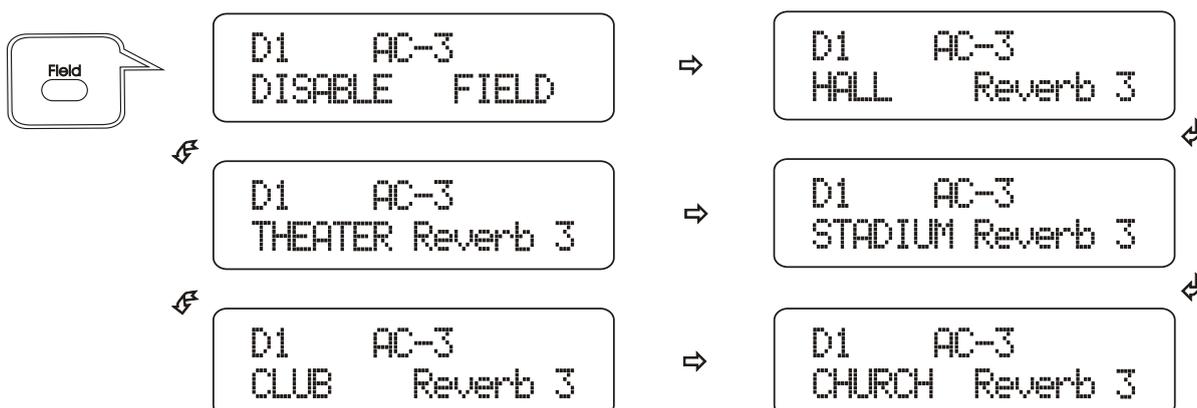
When test mode is running, the display shows information in a sequence as below:



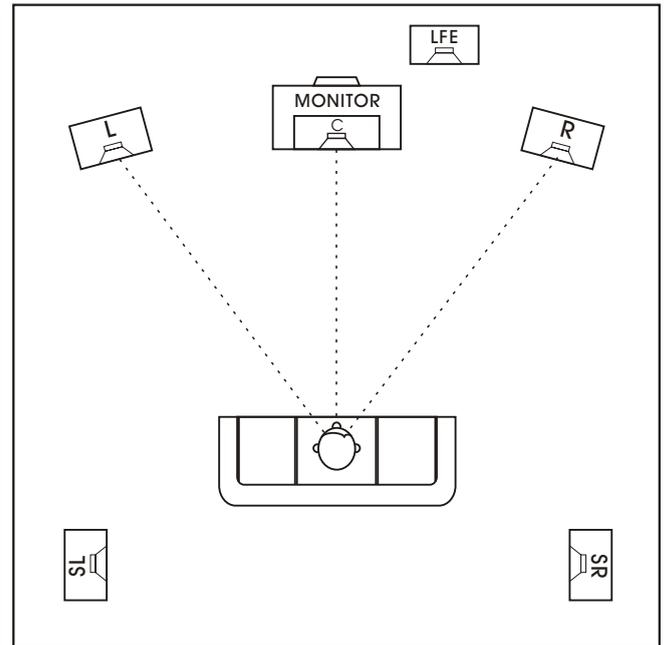
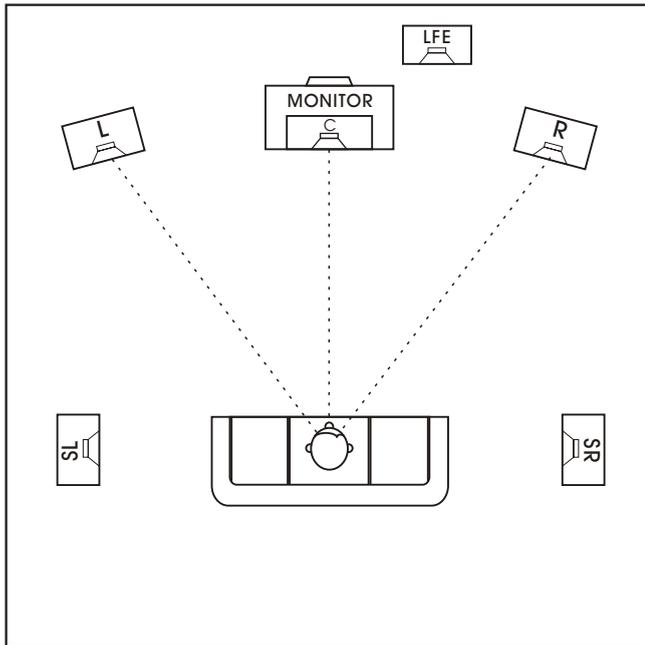
SOUND FIELD PROCESSING

The Pre-2dsp is equipped with a sound field processor that gives you six different field effects including Disable, Hall, Theater, Stadium, Club, and Church. By pressing Field Button on the remote, you can select among these effects. Furthermore, you can increase or decrease the Reverb value from 0 - 9 by pressing **VOL +** or **VOL -** on the remote control.

Press **Field Button** will display the current setting of Sound Field mode.



SPEAKER PLACEMENT



In order that your home theater could have the most idealistic audio effect, you can place speakers by following the directions as shown below:

Placement of front speaker:

Like the commonly used stereo sound speakers, the front speakers should be placed on the front right and front left positions at the same distance to the TV at the center.

Placement of center speaker:

The center speaker should be placed in the middle of the two front speakers, such as below the TV or on top. When you are sitting in sofa and the center speaker is at the same height as your ears, this is the best height for you.

Placement of surround speakers:

The two surround speakers should be facing each other and on the same line with the listeners, or placed slightly behind the listener. If possible, install the surround speakers at positions slightly higher than human ears for best result.

Placement of subwoofer:

As sub woofer does not have direction, it can be placed anywhere at front. Closer to the corners of the walls will have good bass effect.

Notice: If front and center speakers are too close to TV, please use anti-magnetizer in order to prevent the magnetic field from interfering with the TV screen.

In order to reproduce the complete and real DTS digital sound effect, the center channel and the back channels as well as the front channels are all full bandwidth speakers.

DELAY CALIBRATION

When the center and rear speaker is closer to the listener than the front left and right speaker the sound from center and rear speaker could arrive at the listener's ears earlier than the sound from the front left and right speaker.

In this reason, the sound imaging not as sharp and stable as it could be. For audible improvement, the sound from center speaker could be delayed with the center delay time setting to synchronize the sound from the front and the center speaker and the sound from the rear speaker could be also delayed with the rear delay time setting so that the sound from the front and the rear speakers will be heard at the same time.

The optimum delay time depends on the speaker placement in your room.

- It is adjustable in DTS Dolby digital and Dolby Pro Logic modes only.

In Dolby Digital mode adjusting delay time of the speakers.

In the Dolby Digital mode, the optimum performance of your system occurs when the sound from all five speakers arrives at your primary listening position at the same time.

If all speakers are equidistant from the main listening position, set the following delay.

Center delay time: 0 mS, Rear delay time: 0 mS

- If the center speaker is closer to your prime listening position than the average distance to the left and right main speakers add 1 mS of center channel delay for each foot of difference. The maximum is 5 mS.

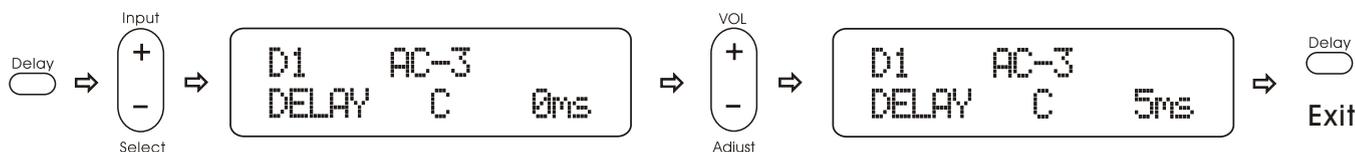
If the surround speakers are closer to your main listening position than the main left and right speakers add 5 mS of surround channel delay for each 5 feet of difference. The maximum is 15 mS.

Note: The propagation speed of sound is 34 cm /mili-second (/ms).

TIME DELAY ADJUSTMENT ON CENTER CHANNEL SPEAKER

Delay Calibration

Press DELAY Button to select the length of delay time for SL/SR/C channels. Repeatedly pressing DELAY Button will allow you to select among 3 surround speakers (SL, SR, C.)



The delay time range for SL/SR is 0 to 15 ms and 0 to 5 ms for center.

Adjust delay time on selected channel by pressing input/sel on the remote control.

Press the **Delay Button** will display the current delay time for channel LS.

Press the **Delay Button** again will circle next channel

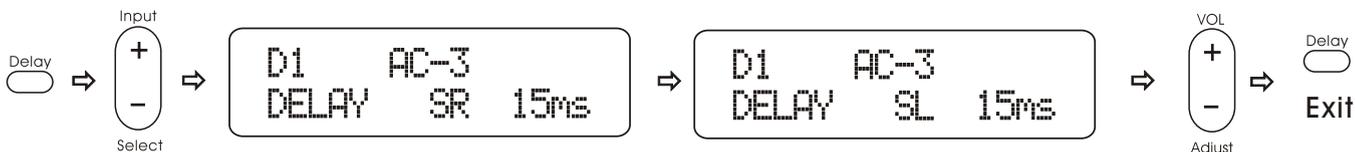
Press **INPUT +** or **INPUT -** button will increase or decrease the delay time for current channel.

TIME DELAY ADJUSTMENT ON SURROUND SPEAKERS

Delay Calibration

Press **Delay Button** to select the length of delay time for SL/SR/C channels, Repeatedly pressing **Delay Button** will allow you to select among 3 Surround speakers (SL, SR, C.)

The delay time range for SL/SR is 0 to 15 ms and 0 to 5 ms for center.



Adjust delay time on selected channel by pressing **Input +** or **input -** on the remote control.

Surround Speaker Delay

Delay calibration for the surround speaker is necessary when the surround speakers are placed quite closed to the listener. The type of placement would probably ruin the sound quality of Your movie. To correct this problem, press **Delay Button** repeatedly until SL/SR appear on the display. Increase the time delay of the surround speakers by pressing input + until you are able to hear a 3D sound effect coming from surround speaker.

Press **Delay Button** again will circle to next channel.

Press **Input +** or **Input -** will increase or decrease the delay time for current channel.

BASS CROSSOVER NETWORK SETTING

By pressing **Bass Button** you can select crossover network to set the small speakers frequency.



In the setting of Manager, if speakers are set to Small the LED display will be green. This will transmit the low frequency sounds of all speakers to bass speakers (or large speakers). This selection function is to decide which frequencies will be transmitted to sub woofer (or large speakers).

When pressing **Bass Button**, the LCD screen will display Crossover 100HZ (original setting value). Subsequently pressing **INPUT+ - buttons** to select 80Hz→100Hz→110Hz→120Hz frequencies. When the frequency is determined, press **Bass Button** will leave the setting state, or wait for 2 seconds will automatically leave the setting state

- Transmit frequencies lower than 80Hz to sub woofer (or large speakers).
- Transmit frequencies lower than 90Hz to subwoofer (or large speakers).
- Transmit frequencies lower than 100Hz to subwoofer (or large speakers).
- Transmit frequencies lower than 110Hz to subwoofer (or large speakers).
- Transmit frequencies lower than 120Hz to subwoofer (or large speakers).

Experiment different settings to decide which sound is suitable to you.

SPEAKER MODE WITH BASS MANAGER

Six LEDs on front panel of Pre-2dsp represent 6 Discrete audio channels (L, R, C, SL, SR, LFE). If a Particular channel is active, the LED will light up in green. Red color LED means that particular channel carries bass signal below (80Hz~120Hz).

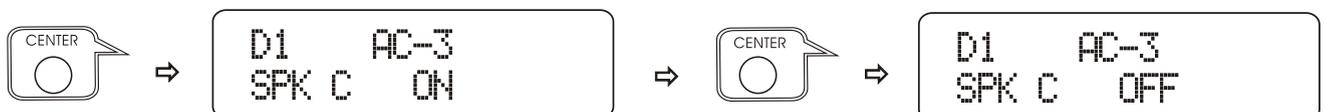


L ○ C ○ R ○

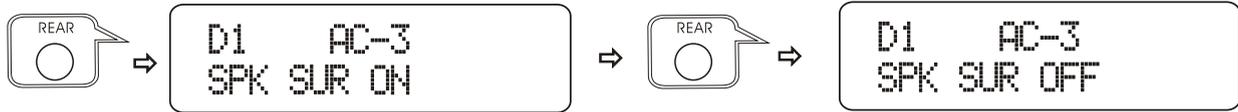
SL ○ LFE ● SR ○

Speaker Mode

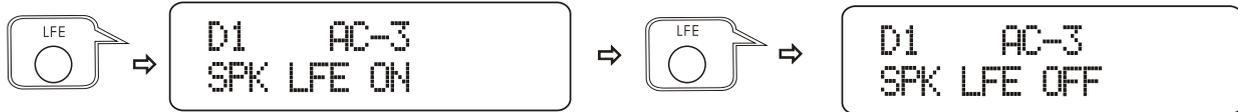
By pressing **Center Button**, center channel will be switched on/off, and LCD will display following information :



By pressing **Rear Button**, surround channels will be switched on/off, and LCD will display following information :



By pressing **LFE Button**, subwoofer will be switched on/off, and LCD will display following information :



Manager (Bass Manager)

By pressing BASS MANAGER Button, you can select among three different settings of Bass Config. 1, Bass Config. 2 and Bass Config. 3. These selections will feed the bass signal below 120Hz to different speakers.

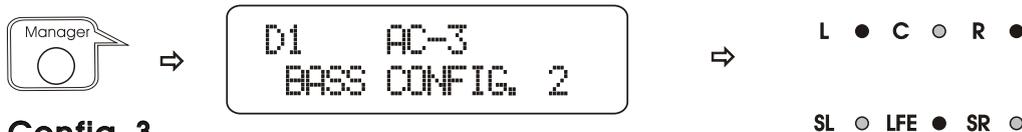
Bass Config. 1

With this setting, bass signal below 120Hz will be sent to subwoofer; LEDs on front panel of Pre-2dsp indicating LFE SW will be in red, and LCD will show the following information :



Bass Config. 2

With this setting, bass signal below (80Hz, 90, 100, 110, 120Hz) will be sent to front left speaker, front right speaker and subwoofer; LEDs on front panel of Pre-2DSP indicating L/R/LFE will be in red, and LCD will show the following information:

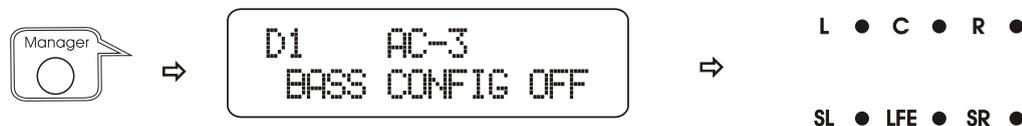


Bass Config. 3

With this setting, bass signal below 120Hz will be sent to all speakers; LEDs on front panel of Pre-2DSP Indicating L/C/R/SL/SR/LFE channels will be in red.



With this setting, bass signal below 120Hz will be sent to all speakers; LEDs on front panel of Pre-2dsp Indicating L/C/R/SL/SR/LFE channels will be in red.

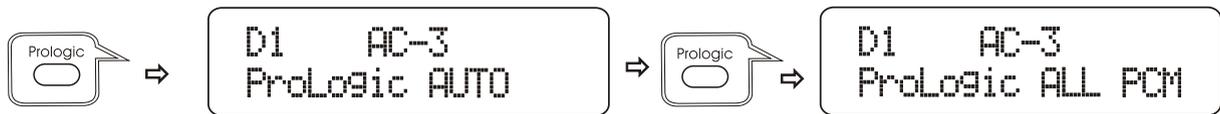


PROLOGIC MODE

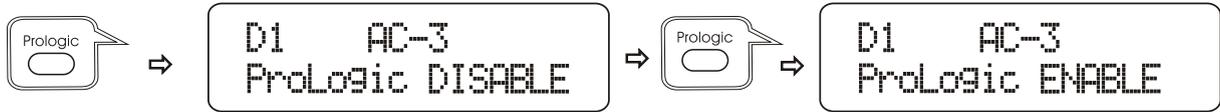
Your Pre-2dsp will automatically switch to Pro logic mode when it detects the Pro logic signal. With other signal inputs, you can select the Dolby Pro Logic mode by pressing **Prologic Button** on the remote. Repeatedly pressing the **Prologic Button** will circle the Pro Logic mode in an order of "AUTO," "ALL PCM," "ENABLE" AND "DISABLE."

If Pro Logic signal is detected, Pre-2dsp will switch to Pro Logic mode automatically, and the display Shows the following information :

If Stereo signal (either in analog or in digital from) is detected, Pre-2dsp will switch to Stereo mode automatically. You can then have the stereo signal converted to Pro Logic mode by pressing the **Prologic Button** until you see the display with following information :



In case of converting ProLogic or 2 - channel Dolby Digital signal into Stereo mode, you can press the **ProLogic Button** until you see the display with following information :

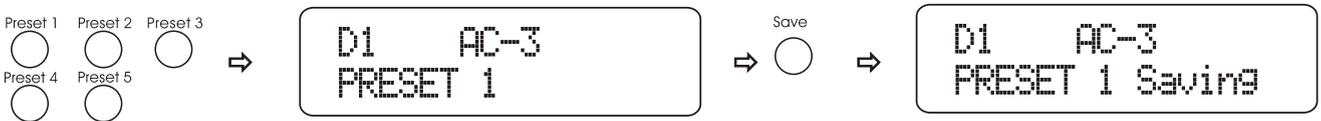


SAVING PRESETS

The Pre-2dsp allows you to customize up to 5 settings. This function allows you to program, save and load Your favorite configurations at any time you want.

Presets settings :

Press the **PRESET 1 Button** will display :



Press **SAVE Button** to save all current decoder settings into Preset 1. When complete, Pre-2dsp will shift back to Auto Decode mode.



LOADING PRESET

You can load previously saved preset by Pressing **LOAD Button** on the remote.

Presets 1 :

Press any of the 5 preset buttons, (**PRESET 1 , PRESET 2 , PRESET 3 or PRESET 4 , PRESET 5**) , the display will Show the following information :



Press **LOAD Button** to execute.

When preset loading is completed, Pre-2dsp comes back to Auto Decode mode.



BYPASS SETTING

Pressing this button the LED on front panel will lights up in red color.

Press this button the input signal does not go through dsp processing it will directly go through by volume control but input selection should be in A2 A3 A4 analog position.

When the input selection in A2 A3 A4 position but you press the tape monitor button (under the chassis) the "bypass" function does not works.

TAPE MONITOR

- Pressing **Tape button**, the LED of TAPE indicator in the LCD display will turn green color.
- The functions of Tape button can be activated under any input state of selecting A1 ~ A4 and D1 ~ D4. At this time, analog signals are input through play jack for audio sound.
- The audio signal of A1 5.1 input jack cannot be recorded through REC jack. But A2, A3, and A4 can be recorded through REC jack.
- Digital signals of D1, D2, D3, and D4 can be transmitted to digital recording equipment through digital output. Then, the output analog signals from the digital recording equipment can be feedback to PLAY input to achieve the monitoring function during recording.
- For signals entering A2, A3, and A4 under BYPASS function turned ON condition, the BYPASS function might not function if the TAPE button is pressed.
- When REC ON/OFF function is recording signals from A2, A3, and A4 in recording mode, the TAPE button underneath chassis must be pressed down.
- When the equipment is not recording signals, the REC button should be in the OFF state. This will allow the best sound quality for signals entering A2, A3, and A4.

EQUALIZATION

5-Band Equalization

The Pre-2dsp features an on board 5-band equalizer which allows you to fine tune the sound of your favorite movie/music. Press **EQ SETUP Button** on the remote to activate it. Repeatedly pressing **EQ SETUP Button** will circle among 5 bands.

Each band of the equalizer allows a range of ± 10 db in volume adjustment. By pressing **VOL +** or **VOL -** on the remote control to achieve your desired volume.

After setup the desired volume for each EQ bank, you must press **EQ SETUP Button** again to enable the new EQ setting.

Press **EQ ON/OFF Button** to execute the new EQ setting.

Press the EQ SETUP Button will display the current setting of EQ Band 1.



Press the **EQ SETUP Button** again will circle to next EQ Band.

Press the **Vol+** or **Vol-** will increase or decrease the volume for current EQ Band.

Press **EQ SETUP Button** to enable the new EQ setting.

Press **EQ ON/OFF Button** to execute the new EQ setting.

RESETTING

The Pre-2dsp can reset to its default settings by pressing **Reset Button** on the remote.

Press the **Reset Button** will reset the Pre-2dsp to its factory default settings.

When reset completed, Pre-2DSP comes back to Auto Decode mode.



DRC (DYNAMIC RANGE COMPRESSION)

Pre-2dsp features Dynamic Range Compression (DRC), its sophisticated technology creates realistic sound fields with richly detailed sound that is remarkably free from distortion.

Repeatedly pressing **DRC Button** will circle among 3 modes, and the 3 modes are explained as below: "NO" means no compression is performed to the original audio signal, this gives listener the greatest dynamic range.

"HALF" means the audio signal is partially compressed, this function is useful if Pre-2dsp is connected to an external amplifier.

"FULL" means the audio signal is completely compressed, this function is useful if Pre-2dsp is connected to an external amplifier.

Press the **DRC Button** will display the current setting of Dynamic Range Compression mode.

Press the **DRC Button** again will circle the DRC mode.

D1 C-3
Dynamic Full

D1 AC-3
Dynamic Half

D1 AC-3
Dynamic No

Note: This function only using the RC-5 code remote control can works.

TROUBLESHOOTING

This section is to help you solve the problems you might encounter common question and answer regarding installation and connection are listed below for your reference, in case these methods do not solve the problem, contact technical support for further assistance.

PROBLEM	POSSIBLE CAUSE	REMEDY
No power	<ul style="list-style-type: none"> The AC input cord is disconnected. Poor connection at AC wall outlet or the outlet is dead or off. 	<ul style="list-style-type: none"> Connect cord securely. Check the outlet using a lamp or another appliance.
No sound	<ul style="list-style-type: none"> The speaker wires are disconnected. The master volume is adjusted too low. The MUTE button is pressed to ON. Input volume of power amp is too low. The digital input is not selected. Incorrect selection of input source. Incorrect connections between the components. 	<ul style="list-style-type: none"> Check the speaker connections. Adjust the master volume. Press the MUTE button to cancel it Adjust the input volume of power amp. Select the digital input. Select the desired input source correctly. Make connections correctly.
No sound from the rear speakers	<ul style="list-style-type: none"> The field mode is not correct selected. (stereo mode) Master volume and rear level are too low. Monaural source is used. Rear speaker setting is [N] 	<ul style="list-style-type: none"> Select the correct field mode. Adjust master volume and rear level. Select a stereo or surround source. Select the desired rear speaker setting.
No sound from the (front) center speaker	<ul style="list-style-type: none"> Tru surround, normal stereo mode, etc is selected. (Front) center speaker setting is [N] Master volume and center level are too low. 	<ul style="list-style-type: none"> Select the desired surround mode. Select the desired (front) center speaker setting. Adjust master volume and center level.
Remote control unit does not operate.	<ul style="list-style-type: none"> Batteries are not loaded or exhausted. The remote sensor is obstructed. 	<ul style="list-style-type: none"> Replace the batteries. Remove the obstacle.
OSD function is not available.	<ul style="list-style-type: none"> Video connections between this unit and the monitor TV are not made correctly. 	<ul style="list-style-type: none"> Make proper video connections.

SPECIFICATIONS

- Frequency Response: 10Hz-20KHz
- Harmonic Distortion: <0.015%
- Impedance:
- A1 Analog Input: 47K
- A2.A3.A4.TAPE analog Input: 10K
- Field: Disable, Hall, Theater, Stadium, Club, Church --Reverb 0~9
- Prologic: Prologic auto, Prologic all pcm. Prologic enable, Prologic disable.

Digital Input:	0.5V P-P /75Ω	• EQ Setup :	EQ Band 1 ~5	± 10dB
• Signal/Noise Ratio:	90dB		(135Hz, 400Hz, 1.35KHz, 4KHz, 11.25K)	
• Video Input Impedance:	1.0V P-P /75Ω	• Preset Function:	P1 ~ P5	Save/Load
• Component Video:		• Bass Crossover:		80Hz, 90Hz, 100Hz, 110Hz, 120Hz
R-Y signal, B-Y signal:	0.5V P-P /75Ω			
Y-Signal:	1.0V P-P /75Ω	• Management:		Config1. Config2. Config3. Config OFF
• Power Consumption:	45W	• Speaker Controls:		SL/SR on/off
• Function Controls:				C on/off
• Volume:	-80 ~ +10dB			L/R on/off
• Balance: L,C,R,SL,SR,LFE,	-12dB~0dB	• DRC:		Fall, Half & No
• Delay Time : Center	0ms ~ 5ms	• Dimensions(mm):		442W*320D*105H
• Delay Time : Rear (SR,SL)	0ms~15ms	• Weight:		4.5kg
• Test:	L/C/R/SL/SR/LFE			

Note: Design and specifications are subject to change without notice for improvements.

RECOMMENDATIONS

Do not place Pre-2DSP on a glass shelf. If you really must, use "Altuglass" on the shelf. We do highly recommend placement on wood or granite.

For best sonic results, correct orientation of the AC plug is important. The prong with the red dot should be connected to the "hot" connection of your wall socket.

Check the quality of your AC cords and power strips (unlighted power strips are preferred).

For best results, the Pre-2DSP should initially be broken in with 30 hours of play. A warm up of 1 hours is best whenever the unit has been switched off.

It is preferable to leave your Pre-2DSP permanently Standby (Power indicator is red). The power consumption is low and the sonic benefits are high.

In order to maintain good sonic quality, it is recommended that you do not stack the Pre-2DSP and the Power amplifier on top of each other. The best is to place them separated, one on the left and the other on the right. This is to ensure that the electromagnetic interference emitting from the transformers of the high-current power amplifier will not affect the Pre-2DSP, and thus causes deterioration in the overall sonic quality.

YBA GLASS, CRISTAL or DIAMOND interconnect & speaker cables will give the best sonic result.

Audio Refinement

Nous restons a votre disposition pour tout
renseignement complémentaire
Do not hesitate to contact us for any inquiry

PHLOX ELECTRONIQUE

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