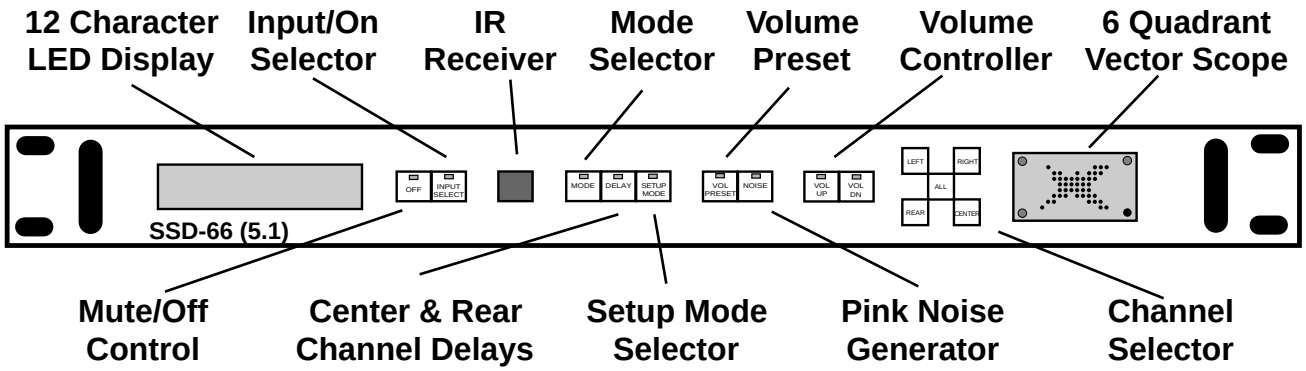
Contents

Introduction & Features

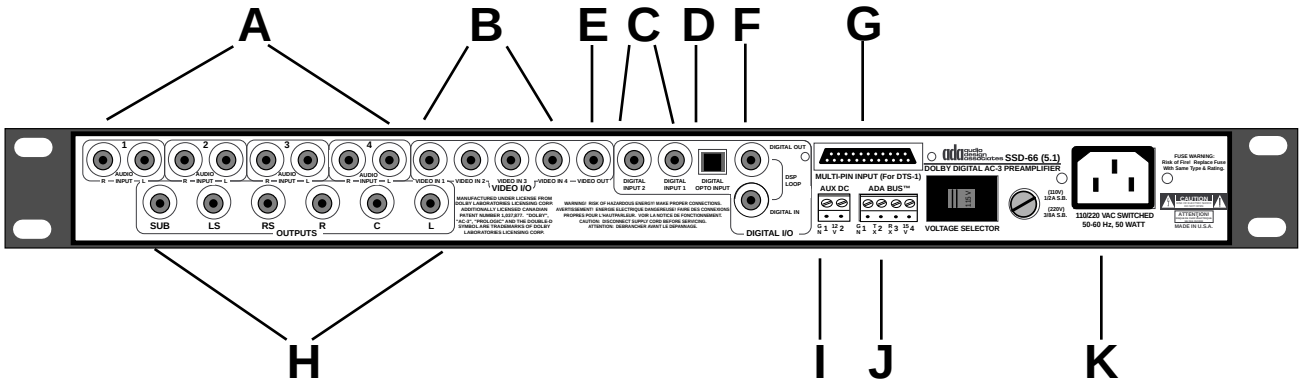
The SSD-66 (5.1) is a complete Dolby Digital Surround AC-3/DTS Preamplifier which will decode six channel discrete digital sound from a laser disc, DVD, satellite receiver, or TV cable box equipped with a digital AC-3 output jack. To process the digital data stream from a laser disc, you will also require the RFD-1 AC-3 RF Demodulator. This device will take the RF output from the AC-3 laser disc component and demodulate it to a digital signal so that the SSD-66 (5.1) can decode the digital AC-3 signal. Other devices which have an AC-3 output, such as a DVD player, can connect directly to the SSD-66 (5.1). To decode DTS laser discs or CDs you will need to use the DTS-1 DTS Decoder. The DTS-1 connects to a CD player or laser disc players digital output (coax or optical). Since system configurations will vary, follow these instructions to optimize the use of the SSD-66 (5.1) in your system.



Connections

The SSD-66 (5.1) has several new features including a built-in audio-video selector. The rear panel of the SSD-66 (5.1) includes:

A Four Stereo Analog Audio Inputs (RCA type jacks) - 47KΩ Input (2V Max.)
B Four Composite Video Inputs (RCA type jack) - 75Ω/1V
C Two Digital Coax Inputs - AC-3 or Digital Audio (RCA type jack) - 75Ω
D One Optical Digital Audio Input - TOS-Link
E One Composite Video Output (RCA type jack) - 75Ω
F One DSP Loop-Through (RCA type jacks) - 75Ω
G Multi-Pin Input for connection to the DTS-1 (6 Channel Digital Input)
H Six Analog Audio Outputs (RCA type jacks) - FR, C, FL, SR, SL, & Sub - 51Ω
I One 12VDC Output (2 pin removable screw terminal connector) - 100mA
J One ADA Bus™ I/O Port (4 pin removable screw terminal connector) - BiDirectional
K One AC Line Cord Connection (EIC type connector) - 50W

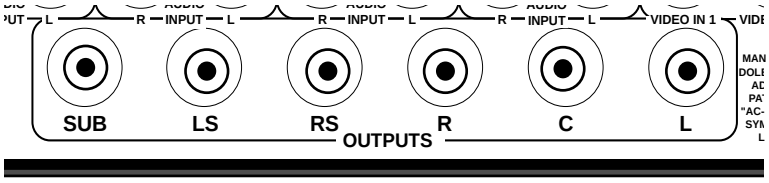


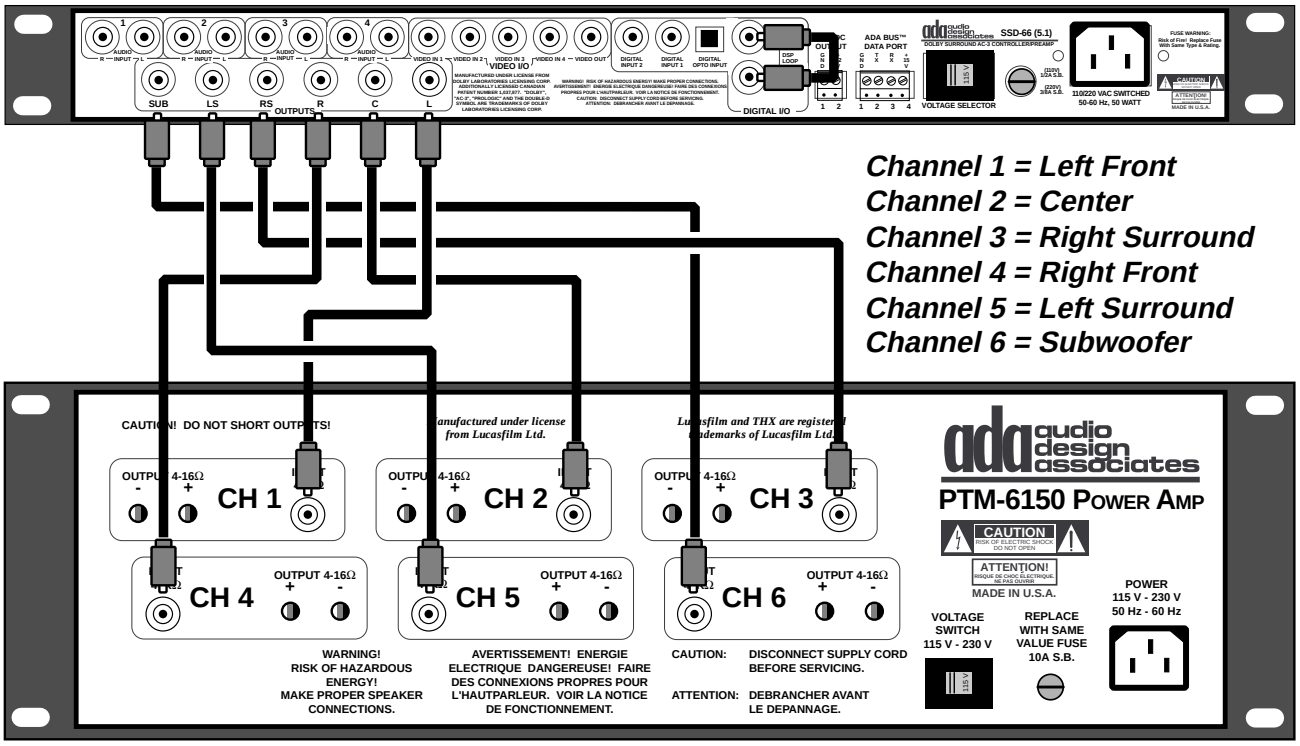
Connections (continued)

Audio Outputs

The rear-panel indicates a section called "Outputs". The six RCA type jacks in this area provide processed (decoded) audio signals to the power amplifier. Using most any type of RCA (male) cable, connect the "Outputs" to your power amplifier. It is best to RCA cables of equal length for all six channels. The following list details the "Outputs" and their respective speaker channel.

SUB	Subwoofer Audio Output
LS	Left Surround Speaker- Rear Channel
RS	Right Surround Speaker- Rear Channel
R	Right Front Speaker - Front Channel
C	Center Speaker - Front Channel
L	Left Front Speaker - Front Channel



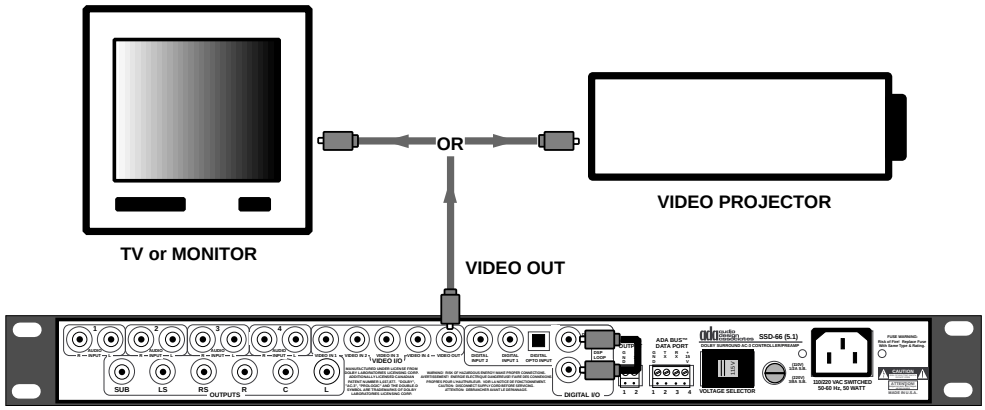


Self Powered Subwoofers

If you are using a powered subwoofer, you may need to run a longer audio cable to the subwoofer. When using more than one powered subwoofer, you can elect to use a "Y" adaptor to split the audio signal to both subwoofers. Using "Y" splits might induce line-noise or cause signal loss. Should this occur, you will require a line-level isolation amplifier (ADA's ISO-2) or a line-level audio distribution amplifier.

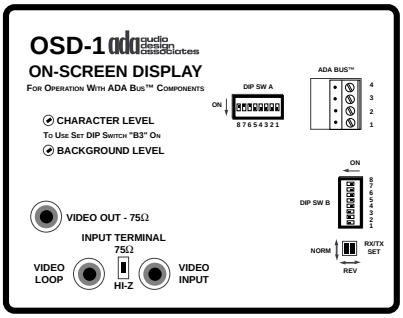
Video Output

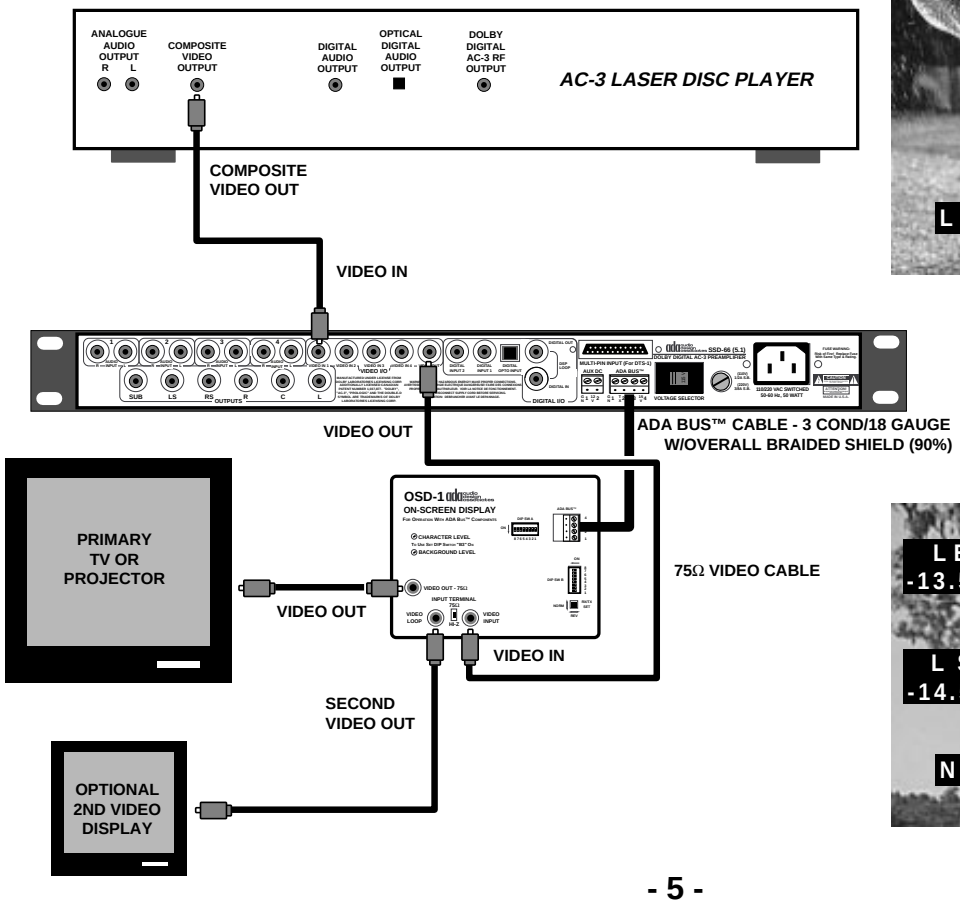
The SSD-66 (5.1) has a single (1) video output which can connect directly to your TV or projector. This composite video output will track the selected source.

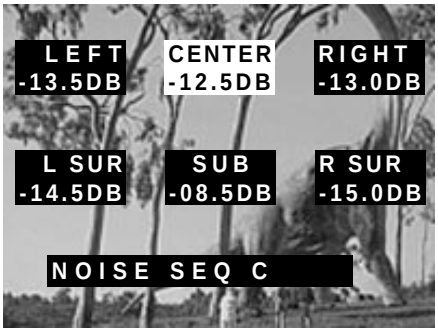


On-Screen Display - The OSD-1

The SSD-66 (5.1) includes an ADA Bus™ jack on its rear panel which not only permits input control of the SSD-66 (5.1) but also provides comprehensive status information. When connected to the OSD-1 On-Screen Display Device, the information displayed on the SSD-66 (5.1)'s front panel can also be displayed on the viewing surface. Therefore, all functions, including channel balance and system setup, can be viewed on screen. Furthermore, the OSD-1 has a video isolation amplifier built in, permitting splitting of the video signal to a second monitor or a VCR for recording.



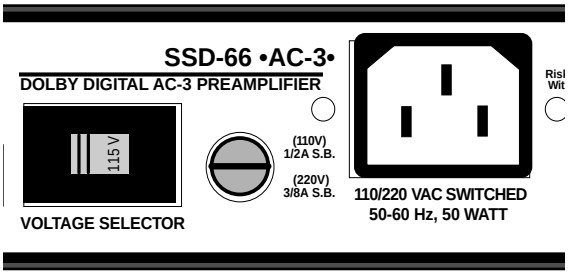




Connections (continued)

AC Connection

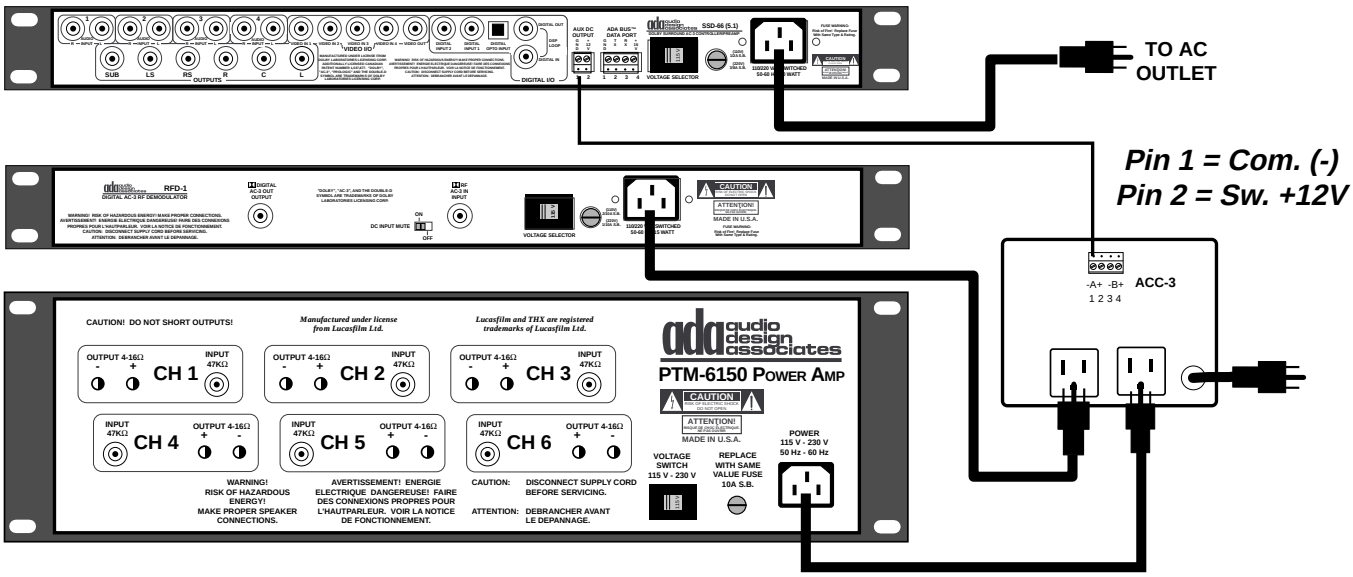
The SSD-66 (5.1) uses an EIC type AC cord which is a universal standard for most electrical components permitting use of various AC line cords consistent with local electrical standards. The SSD-66 (5.1) comes with an AC line cord for AC outlets in the United States. As you un-box the SSD-66 (5.1) and prepare to plug it into an AC outlet, <u>make certain that the "Voltage Selector" switch is set to the appropriate voltage position.</u>



In the United States, the switch needs to be set to the left in the 115V position with a Safety Fuse valued at 1/2 A S.B. In some countries, it will be necessary to set this switch to the right in the 230V position with a Safety Fuse valued at 3/8A S.B. If you are not certain as to which position the "Voltage Selector" switch needs to be set to, consult with your local ADA Dealer.

12 Volt DC Output

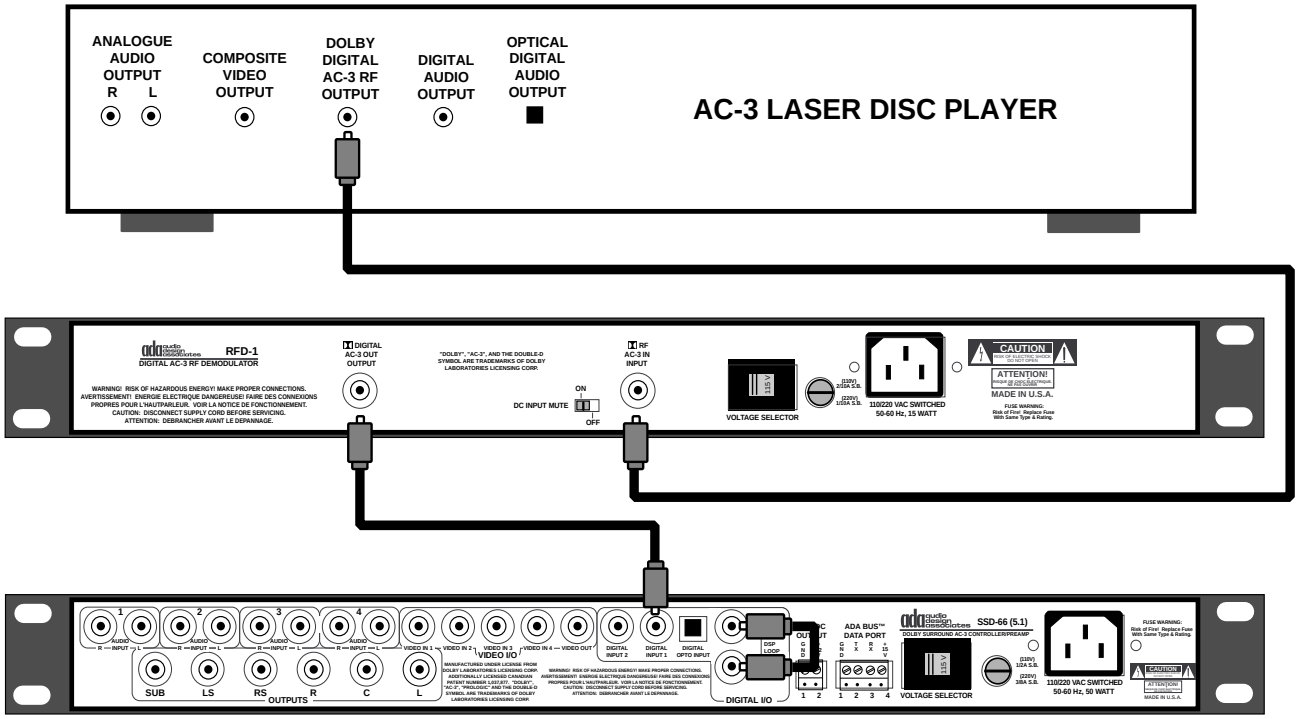
The SSD-66 (5.1) has a 12VDC output which is engaged whenever the SSD-66 (5.1) is on. This low voltage signal can be used to trigger ADA's ACC-3 Switched AC Outlet to automatically turn on the RFD-1 RF Demodulator and PTM-6150 Home Theater Power Amplifier.



When using both the DTS-1 and RFD-1, you can plug a multi-outlet power strip into one of the two switched AC outlets on the ACC-3. Thus, both units can be automatically switched on whenever the SSD-66 (5.1) turns on. Furthermore, you may also automatically switch other components such as laser disc, CD, and cassette players by simply plugging them into the power strip. Devices such as VCRs and DSS receivers may best be plugged directly into a non-switched AC outlet as they typically require constant voltage.

RFD-1 AC-3 RF Demodulator

The RFD-1 AC-3 RF Demodulator is used to convert the RF AC-3 signal coming out of an AC-3 laser disc player to a digital data stream which the SSD-66 (5.1) can decode. The cable which connects the AC-3 laser disc player's AC-3 output to the RFD-1's input and the RFD-1's output to the SSD-66 (5.1)'s Digital Input is a standard 75Ω video/digital cable.



The RFD-1 has a DC Input Mute Switch on its back panel which can be set to either ON or OFF. Normally, on laser disc players with an AC-3 output, DC voltage flows on the AC-3 RF Input and thus the mute switch is left in the ON position. For older laser disc players which have been modified to provide an AC-3 signal, the switch may need to be set to the OFF position.

It is easy to determine the position this switch needs to be set to. With the laser disc player connected to the RFD-1, begin playing a laser disc which is encoded with the Dolby AC-3 format. Making certain the RFD-1's Power Switch (front panel) is on (the Red power LED indicator will be lit), check to see if the LOCK green LED indicator is lit (front panel). If the LOCK indicator is off, switch the DC Input Mute Switch. The LOCK indicator should light up green.

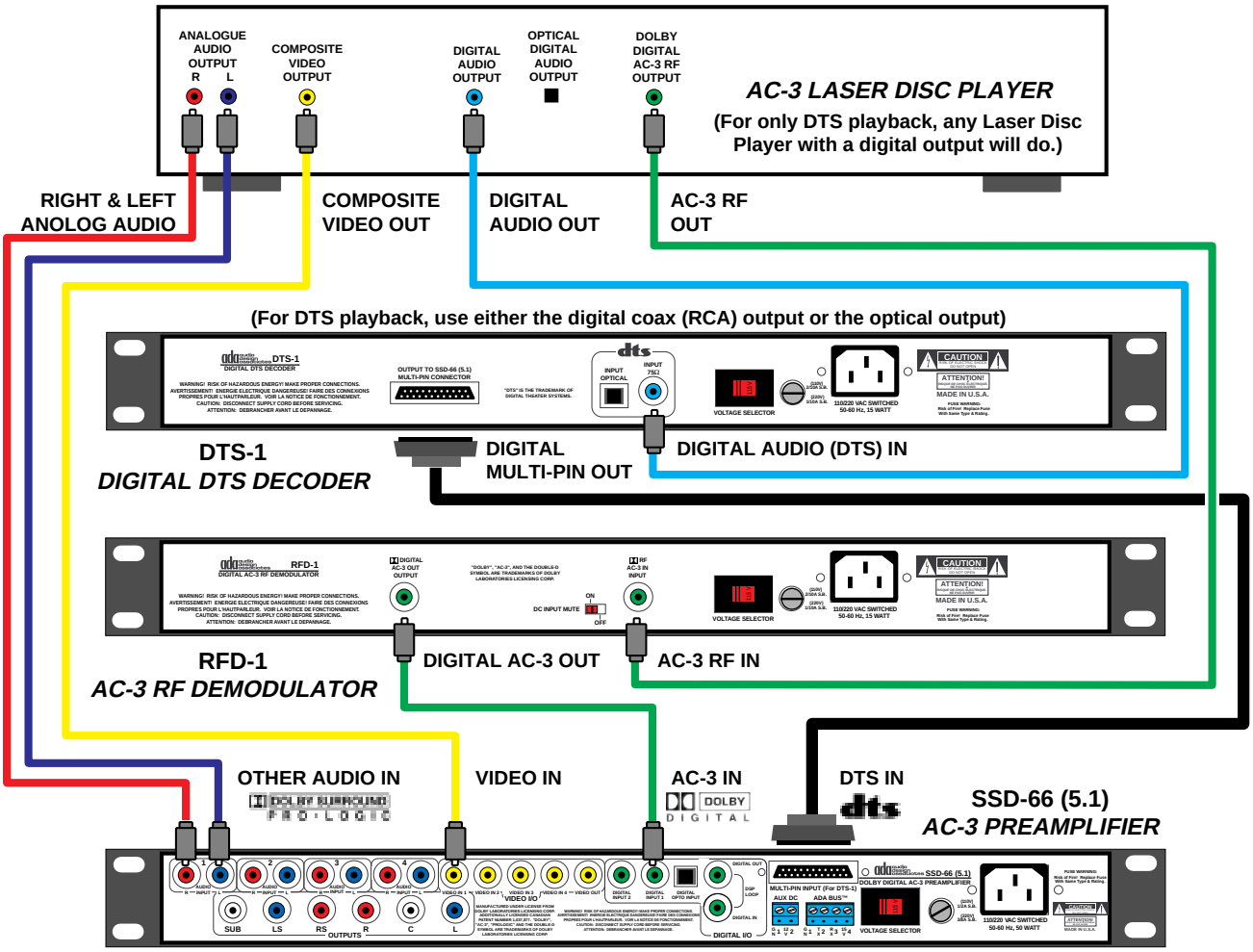
If the LOCK indicator is not on:

a. Make certain that the RFD-1 is on and that its Voltage Selector Switch is set to the appropriate voltage.
b. Make certain that you are connected to the laser disc player's AC-3 output.
c. Make certain that you are connected to the RFD-1's AC-3 Input.
d. Check to see if the laser disc you are playing is AC-3 encoded.
e. Confirm that the 75Ω video cable is in tact.
f. If your laser disc has been modified for AC-3, you may need to consult with the providers of the modification.

Connections (continued)

DTS-1 DTS Decoder

The DTS-1 DTS Decoder is used to provide playback of DTS laser discs and CDs. As most laser disc players have either a digital coax (RCA) or digital optical (TOS-Link) output, no special laser disc is necessary for playing DTS software. Some CD players offer these outputs and they too can be used to provide DTS CD playback. As the SSD-66 (5.1) has only one "Multi-Pin" input, only one DTS playback device can be connected to the SSD-66 (5.1).



The DTS-1 has two types of inputs for connection to either a CD player or laser disc player, a digital coax (RCA) input and an optical input (TOS-Link). To provide DTS playback, simply connect the laser disc or CD player to one of these two inputs. Please note, that both inputs perform identically and there is no additional benefit when using one or the other. **Do not use both the TOS-Link and the Digital RCA inputs on the DTS-1 <u>at the same time, especially for two different source components</u>. Since a source with a digital output always provides some type of sync signal when it is on, connection of two different types of digital sources to the DTS-1 at the same time, can crash the DTS-1.**

If the LOCK indicator is not on:

a. Make certain that the DTS-1 is on and that its Voltage Selector Switch is set to the appropriate voltage.
b. Make certain that you are connected to the laser disc player's digital PCM output.
c. Check to see if the laser disc or CD you are playing is DTS encoded.

Source Connections Introduction

The SSD-66 (5.1) is uniquely designed to provide you with several installation options, especially regarding the source components connected to the unit.

Audio•Video Inputs
The SSD-66 (5.1) has a total of eight audio inputs (4 digital) and four video inputs. All of the video inputs are composite video. Four of the audio inputs are analog. Three audio inputs are digital, two coax and one optical. The digital inputs can be used for either AC-3 Digital 5.1 sound or digital PCM audio. The other audio input is a multi-pin input which is for six channel digital audio from the DTS-1. The correlation of audio and video is programmed in software. Thus, there is great flexibility when connecting source components to the SSD-66 (5.1).

Acoustical Parameters
When a specific Input Label is selected, in addition to switching the audio/video inputs, the SSD-66 (5.1) will automatically call up a preprogrammed Acoustical Parameter. This Acoustical Parameter is programmed directly on the front panel of the SSD-66 (5.1) and will include active filters, active speakers, a specific surround sound mode, PCM scale, etc. Thus, when switching from VCR to CD, the SSD-66 (5.1) can be set to automatically go from Pro Logic to Stereo Bypass mode, change the active speakers in use, change the filtering, etc. Furthermore, the adjustable PCM scale permits you to maintain equal volume levels when changing from one source to another.

Input Labels
The SSD-66 (5.1) has a total of fourteen Input Labels. Each Input Label has a preassigned (default) audio and video input which is programable. Furthermore, an Acoustical Parameters is specific to each Input Label. Thus, when a specific Input Label is selected, from either the SSD-66 (5.1)'s front panel, an ADA keypad (3000 Series Control), ADA SSD-66 IR Remote Control, or computer based touch screen system, the corresponding audio and video inputs are switched in the SSD-66 (5.1) and the programmed Acoustical Parameter, for that Input Label, will engage.

Note
While the SSD-66 (5.1) has a total of fourteen Input Labels and only eight Audio Inputs, the additional Input Labels exist to permit you to have one source component assigned to more than one Input Label.

Example
A TV tuner can designated with two Input Labels. One will be labeled *TV MONO* and the other *TV Surround.* When the user selects *TV SURRND*, the SSD-66 (5.1) will access the Analog Audio Input Two and Video Input Three (for example) and engage the programmed Acoustical Parameter which would include all speakers active, the Pro Logic mode, and several other specific filters. When the user selects the *TV MONO* Input Label, the same A/V Input is called with a totally different Acoustical Parameter that might include only the front speakers as active, the Phantom surround mode, and different filters.

Defaults
The SSD-66 (5.1) has several default parameters. The primary default refers to the setup in which the SSD-66 (5.1) is shipped. Additional default parameters are programmed per Input Label or for the overall setup of the system.

Source Connections - Basic Setup

The SSD-66 (5.1), when new out of the box, will still maintain the settings programmed in at the factory (Factory Default Settings). These settings permit the quick connection of:

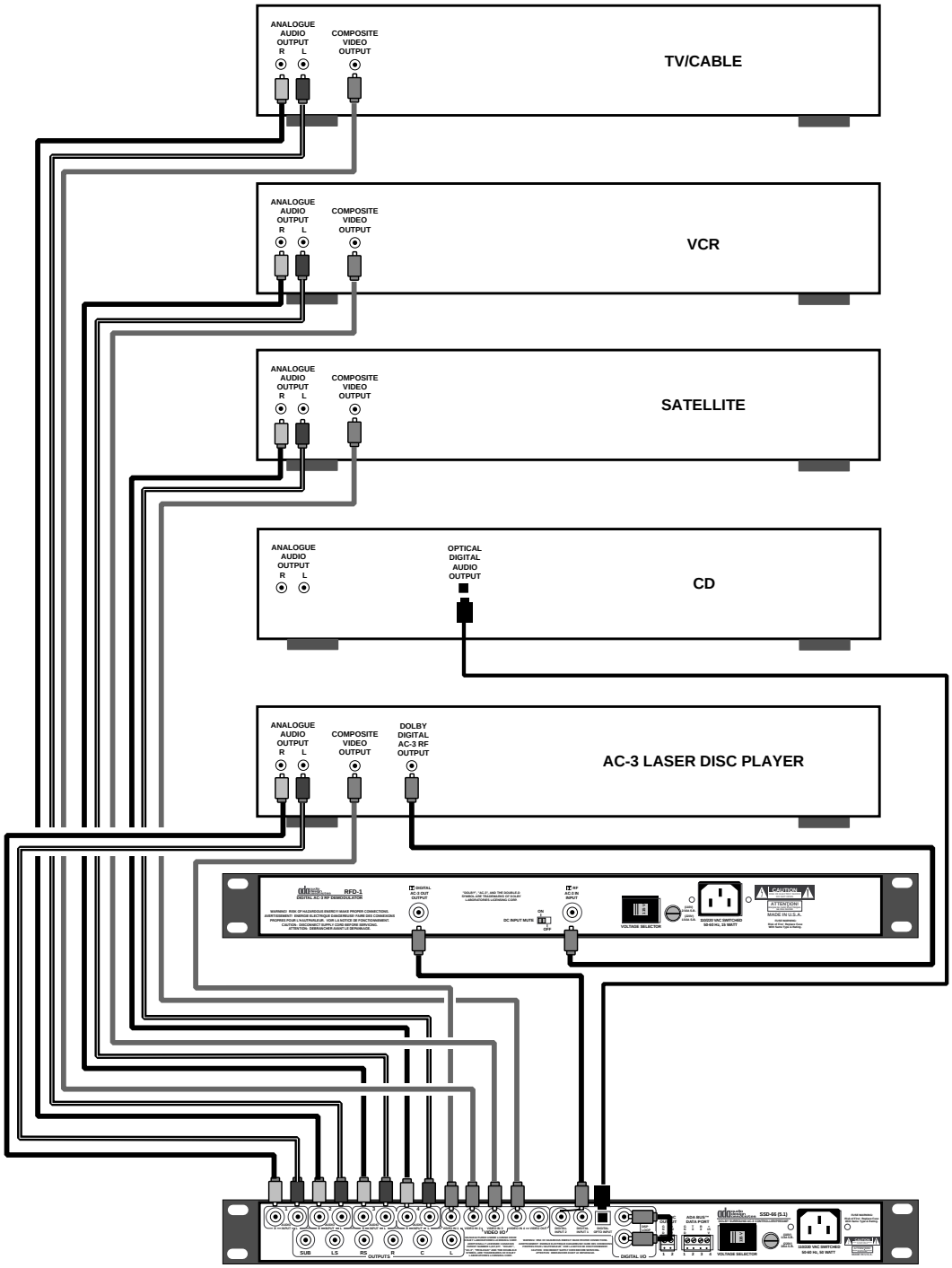
Souce Component	Input Label Name & #	Audio Conneciton	Video Connection
AC-3 Laser Disc	LASER AC3 1	Digital Input 1	Video 1
AC-3 Laser Disc	LASER PCM 2	Analog Input 1	Video 1
TV or Cable Tuner	TV/CABLE 3	Analog Input 2	Video 2
VCR Recorder	VCR 4	Analog Input 3	Video 3
Satellite or DSS Receiver	SATELLITE 5	Analog Input 4	Video 4
CD Player	CD PLAYER 6	OPTICAL	Video 1

Note

Please note, that this setup presumes that your CD player has an Optical TOS-Link digital audio output

Variations

The SSD-66 (5.1) is a uniquely designed component in which the ability to connect components, change Input Labels, link audio to video inputs, and much more is completely flexible and open. For information on how to completely setup the SSD-66 (5.1) for alternate source component configurations, please see "Advanced Connections", beginning on page 10.



Using the Basic four source setup with slightly Different Source Components

While the basic four source setup (five sources if your CD player has an optical output) is based on commonly used system sources, you may need to relabel an Input Name to correspond to your system.

Example - What do I do if I don't have a Satellite or DSS but do have a Camcorder?

If your system does not have a Satellite or DSS receiver, yet you are including a Camcorder, you could opt to connect the Camcorder to Analog Input 4 and Video Input 4 in place of the Satellite receiver. If this is the case, you will want to relabel the "SATELLITE 4" Input Label to read "CAMCORDER 4". Please note, the number "4" is fixed and refers to the input number as found on the SSD-66 (5.1)'s remote control.

To Change the "SATELLITE" label to read "CAMCORDER", follow these steps.

Step 1 Repeatedly press the INPUT SELECT button until the SSD-66 (5.1)'s display reads "SATELLITE 4".

Step 2 Repeatedly press the SETUP MODE button until the SSD-66 (5.1)'s display reads "LABEL INPUTS". Please note, the SSD-66 (5.1) is designed to time-out automatically from the "Setup Mode". If this should happen, the LED on the SETUP MODE button will turn off. To pickup where you left off, press the SETUP MODE button again.

Step 3 Press the "ALL" button to engage the character cursor. Please note, pressing and holding the ALL button will cause the SSD-66 (5.1) to scroll through all Input Label names without changing inputs. The words "LABEL INPUTS" will be replaced by the Input Label currently selected, "SATELLITE". Furthermore, the "S" in "SATELLITE" will begin to flash letting you know that this letter is ready to be changed.

Step 4 Use the RIGHT or LEFT button to scroll up and down (respectively) through alphanumeric characters, symbols, and numbers until the letter "C" replaces "S".

Step 5 Press the CENTER button to advance to the cursor to the next letter. Since the "A" is used for CAMCORDER, press the CENTER button again so that the "T" is flashing. Please note, if you pass a letter you wish to change, you can use the REAR button to go back to it.

Step 6 Again, use the RIGHT or LEFT button to change the letter "T" to the letter "M". Again, if you pass the correct letter in the character generator when pressing the LEFT button, pressing the RIGHT button will scroll back to it.

Step 7 Repeat this process of using the CENTER button to move the cursor and the RIGHT or LEFT buttons to change the letters until you spelled out "CAMCORDER".

Step 8 Press the INPUT SELECT button again. This will exit the "Setup Mode" and save the changes to the Input Label.

At this point, you have made it easy for yourself to access the Camcorder. Naturally, this same procedure can be used to alter any and all Input Labels. You can also change Input Labels at any time, permitting you to constantly expand and add new sources.

Source Connections - Advanced Setup

Accessing Input Labels

While most installations will commonly use no more than seven or eight Input Labels (the SSD-66 (5.1) has eight inputs), selecting these eight or all fourteen Input Labels will vary depending on the type of control you require. The following chart explains the control type and how it accesses Input Labels.

	DIRECT ACCESS OF INPUT LABELS	SCROLLING ACCESS OF INPUT LABE
SSD-66 (5.1) FRONT PANEL	NOT AVAILABLE	ALL 14 INPUT LABELS
SSD-66 (5.1) IR REMOTE	INPUT LABELS 1 -8 ONLY	ALL 14 INPUT LABELS
ADA MC-3000 OR MC-3800 KEYPAD	INPUT LABELS 1 -8 ONLY	ALL 14 INPUT LABELS
COMPUTER BASED TOUCH SCREENS	ALL 14 INPUT LABELS	ALL 14 INPUT LABELS

Determining Source Connections

As the SSD-66 (5.1) has a total of four video inputs and eight audio inputs (three of which are digital and one multi-pin), some care will need to be given when determining which inputs to use with which sources. The obvious first conclusion is that the SSD-66 (5.1) can only accept four video sources. The remaining audio inputs can be used for the AC-3 output of the laser disc player (via the RFD-1), the DTS output of a CD or laser disc (when using the DTS-1), and two more audio only sources.

The important factor here is that the Laser Disc Player will use up three audio inputs on the SSD-66 (5.1) with only one video input. The first audio input will have to be one of the two digital coax (RCA) inputs for the digital AC-3 data bit stream. The second audio input would be from the DTS-1 using the SSD-66 (5.1)'s multi-pin input using the laser disc players digital coax or digital optical output. The third audio input to the SSD-66 (5.1) can be either the laser disc players digital audio coax output, digital audio optical output, or stereo analog audio output connected directly to the SSD-66 (5.1). This output is needed to allow the SSD-66 (5.1) to decode standard (PCM) laser discs which are not formatted in either AC-3 or DTS. When either the *LASER AC3, LASER PCM, or LASER DTS* Input Label is selected, the SSD-66 (5.1) will select the appropriate audio input while maintaining the same signal video input.

Therefore, when connecting an AC-3 and/or DTS Laser Disc Player to the SSD-66 (5.1), you will have five remaining audio type inputs, three of which can be audio and video. Thus you can still connect a VCR, Satellite or DSS Receiver,Cable Box, CD, and Cassette or Tuner.

To maximize the number of components you can connect to the SSD-66 (5.1), you will need to use all of the digital inputs (2 coax and one optical). Some laser disc players, in addition to having an AC-3 output, also have a digital coax, digital optical, and analog audio output. Some however do not have all of these. Furthermore, certain CD players have either a digital coax or digital optical audio output in addition to an analog output. There are also a few other source components which may have digital audio outputs such as DVD players, DSS receivers, and DAT players. When planning how to connect sources to the SSD-66 (5.1), you will want to spare the analog inputs for sources that have no digital outputs and thereby first focus on connecting sources that have digital outputs.

Since there are several variables that need to be considered when planning source connections to the SSD-66 (5.1), it will be helpful to document the types of jacks your components have.

The chart below details a common array of sources typically connected to the SSD-66 (5.1). It also indicates the types of jacks these components may include on their rear panels. In the case of recording devices such as VCRs and Cassettes, make certain that you are using the jacks marked "Output".

SOURCE NAME	VIDEO OUTPUT	ANALOG AUDIO OUTPUT	AC-3 DIGITAL RF OUTPUT (RCA)	DIGITAL COAX (RCA) AUDIO OUTPUT	DIGITAL OPTICAL (TOS-LINK) AUDIO OUTPUT
AC-3/DTS LASER DISC PLAYER	X	X	MAY HAVE	MAY HAVE	MAY HAVE
TV TUNER OR CABLE BOX	X	X			
VCR	X	X			
SATELLITE	X	X		MAY HAVE	
DSS	X	X		MAY HAVE	
DVD	X	X	X	X	
CAMCORDER	X	X			
CD	X	X		MAY HAVE	MAY HAVE
RADIO TUNER	X				
CASSETTE	X				
MULTI-ROOM SYSTEM	X	MAY HAVE			

For Your System

At this time, it is suggested that you proceed to fill in the chart below marking the boxes with an "X" if they pertain to your particular source components. An additional six lines have been added as blanks for sources which you may have that are simply not listed below. Again, it is stressed to visually inspect the source components to make certain that the various outputs actually do exist or do not exist on your sources.

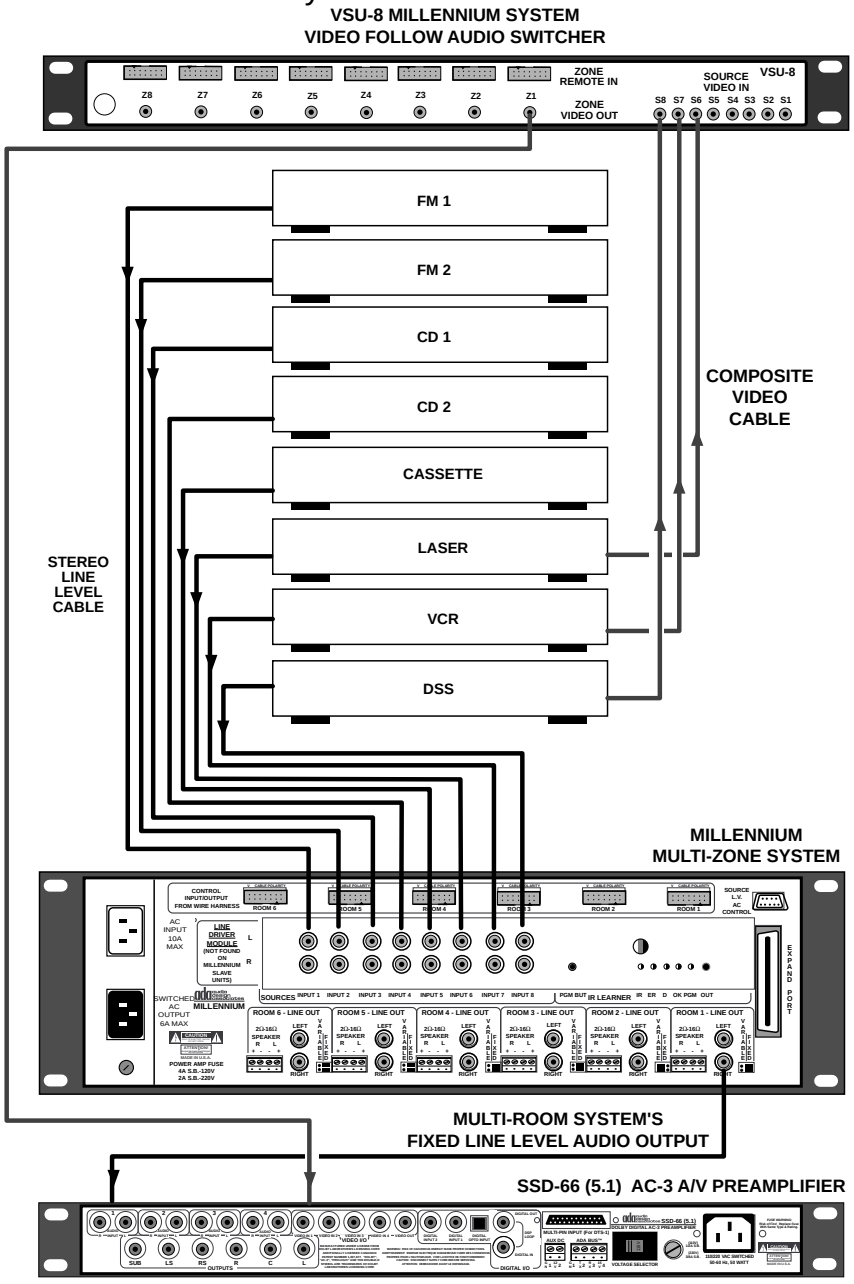
SOURCES TO INCLUD ON SSD-66 (5.1) - NUMBER 1 THROUGH (	SOURCE NAME	VIDEO OUTPUT	ANALOG AUDIO OUTPUT	AC-3 DIGITAL RF OUTPUT (RCA)	DIGITAL COAX (RCA) AUDIO OUTPUT	DIGITAL OPTICAL (TOS-LINK) AUDIO OUTPUT
	AC-3/DTS LASER DISC PLAYER					
	TV TUNER OR CABLE BOX					
	VCR					
	SATELLITE					
	DVD					
	CAMCORDER					
	CD					
	RADIO TUNER					
	CASSETTE					
	MULTI-ROOM SYSTEM					

Now that you have gotten a source profile for your system, number no more than six sources with the numbers 1-6 in the far left column, starting at the top with number 1 and going down. These will be the six sources connected to your SSD-66 (5.1) and you can now proceed with the instructions on page 14. If you have more than six sources and require additional input switching continue with the following page.

Source Connections - Advanced Setup (cont.)

Mutli-Room Input

Some systems will include several audio sources in addition to the four video sources that can be directly switched on the SSD-66 (5.1). While one basic option would include the ability to simply split one or two of the audio only sources to both the multi-room system and the SSD-66 (5.1), an option also exists where the home theater room is included as a room on the mutli-room system. When in the home theater, local video sources would be selected directly on the SSD-66 (5.1) by name. Multi-room sources would then be accessed by first setting the SSD-66 (5.1) to the multi-room Input Label. The multi-room sources would then be selected for that room on the Multi-Room System keypad. The example below shows this scenario when using ADA's Millennium Multi-Zone/Room A/V System.



Please note that the Millennium System in this example includes the VSU-8 Video Switcher which is used to distribute central video sources to several zones. As the Millennium will select a centrally distributed laser disc, DSS, and VCR, the SSD-66 (5.1) could access these devices in addition to three more local video sources.

As several multi-room systems only distribute music sources, the same principle would apply as in this diagram minus the video sources. If the laser disc, DSS, and VCR in this illustration where to be replaced by additional CD players and cassette players, the VSU-8 would not be needed. Since the multi-room system would only distribute music (no video), the SSD-66 (5.1) would have all four of its video inputs available for local home theater video sources and even one more local audio-only source. Now, the home theater system, instead of accessing only six sources, can access a total of thirteen sources.

Note: When using a multi-room systems line-level output to provide an audio feed to the SSD-66 (5.1), it is alwasy recommended to use a fixed line-level audio output.

A/V Switcher Input

While some home theater systems will benefit from increased source selection when using an output from a multi-room system, some home theater systems incorporate more than the standard four video sources/2 audio-only sources that could be connected to the SSD-66 (5.1). For these installations, ADA recommends using its VS-3 Audio Video Switcher in conjunction with the SSD-66 (5.1).

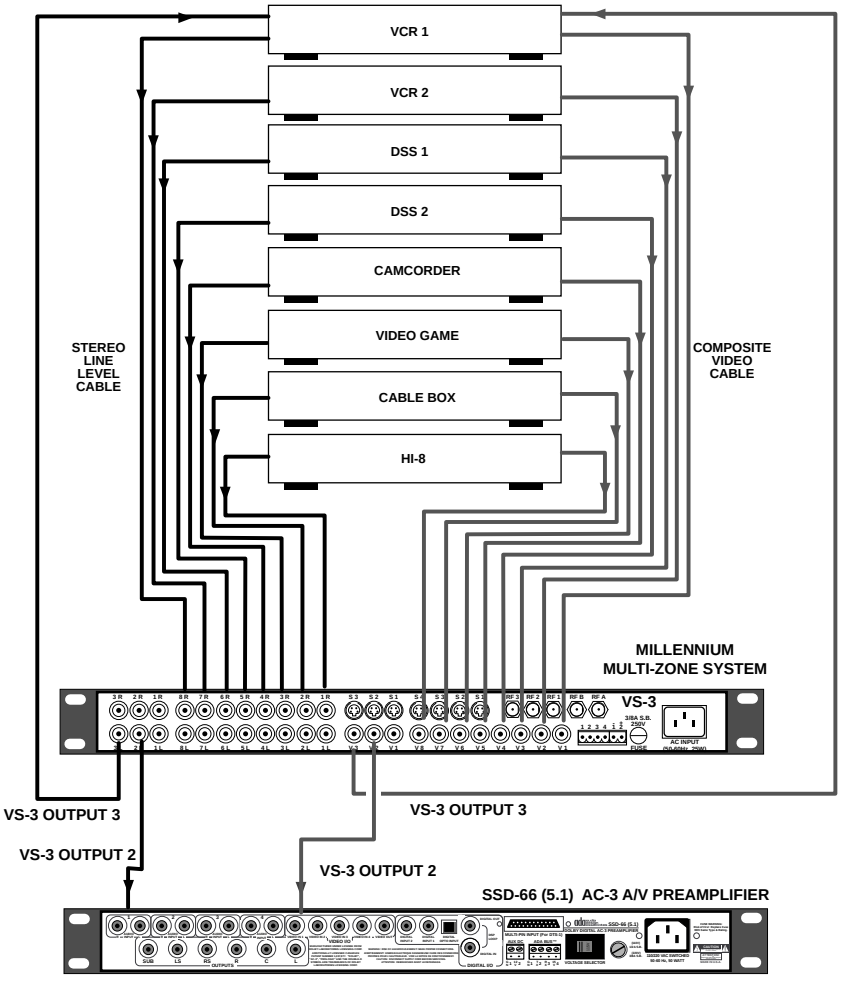
About the VS-3

The VS-3 is a matrixing A/V switcher with eight inputs, all of which are audio and video. This permits the connection of eight A/V components to a home theater system, all of which take up only one input on the SSD-66 (5.1). Thus an additional three video components could be added directly to the SSD-66 (5.1) with an additional two audio only sources. Again, this home theater system could access thirteen sources, eleven of which where audio and video.

Connection of the VS-3

The VS-3 has eight clearly marked inputs, all of which can be used. The VS-3 has three audio and video outputs.

When using an IR remote control to operate the home theater system, ADA suggests using "Output 2" of the VS-3 to provide an audio and video signal to SSD-66 (5.1). "Output 3" of the VS-3 can then be used to provide an independent signal to a second TV, monitor, or recording device (VCR). This second output can receive one of the VS-3's sources while the SSD-66 (5.1) receives a totally different source from the VS-3. "Output 1" of the VS-3 should remain unused since it operates on the same IR codes as the SSD-66 (5.1) and will subsequently track whatever input the SSD-66 (5.1) selects. As a point of information, the SSD-66 (5.1) should be set to address "00" while the VS-3 is set to address "STAND ALONE". The SSD-66 (5.1)'s IR remote can be programmed such that AUX 2 can directly access sources to the VS-3 for VS-3 Output #2 and that another remote button access sources to the additional monitor or VCR.



When using a computer system (i.e. touch screen) to control the home theater, all three outputs of the VS-3 can be used, not just 2 and 3. Thus the VS-3 could feed two external monitors in addition to the SSD-66 (5.1) providing video to the large screen. In such systems, it is recommended to use the "03" address for the SSD-66 (5.1) and the "STAND ALONE" address for the VS-3.

Source Connections - Advanced Setup (cont.)

Audio to Video Input Linking

The SSD-66 (5.1)'s audio and video inputs are linked in software. This flexible architecture permits you to maximize the digital inputs, analog inputs, and video inputs to best suit your system needs. Two important notes must be made clear at this time.

a. The available audio and video input links are specific as detailed in the chart below.

b. Even if a source component does not have a video output (such as the CD player and radio tuner), these two sources will still need to be assigned a video follower from one of the other sources.

The following chart details the available audio to video links.

AUDIO INPUT	VIDEO INPUT	LINK AS IT APPEARS ON THE SSD-66(5.1)
MULTI-PIN	VIDEO 1	MUTI PIN/V1
MULTI-PIN	VIDEO 2	MUTI PIN/V2
MULTI-PIN	VIDEO 3	MUTI PIN/V3
MULTI-PIN	VIDEO 4	MUTI PIN/V4
OPTICAL	VIDEO 1	OPTICAL/V1
OPTICAL	VIDEO 2	OPTICAL/V2
OPTICAL	VIDEO 3	OPTICAL/V3
DIGITAL 1	VIDEO 1	DIGITAL1/V1
DIGITAL 1	VIDEO 2	DIGITAL1/V2
DIGITAL 1	VIDEO 3	DIGITAL1/V3
DIGITAL 2	VIDEO 1	DIGITAL2/V1
DIGITAL 2	VIDEO 2	DIGITAL2/V2
DIGITAL 2	VIDEO 3	DIGITAL2/V3
ANALOG 1	VIDEO 1	ANALOG1/V1
ANALOG 1	VIDEO 2	ANALOG1/V2
ANALOG 1	VIDEO 3	ANALOG1/V3
ANALOG 2	VIDEO 2	ANALOG2/V2
ANALOG 2	VIDEO 3	ANALOG2/V3
ANALOG 2	VIDEO 4	ANALOG2/V4
ANALOG 3	VIDEO 3	ANALOG3/V3
ANALOG 3	VIDEO 4	ANALOG3/V4
ANALOG 4	VIDEO 3	ANALOG4/V3
ANALOG 4	VIDEO 4	ANALOG4/V4

As the above chart illustrates, the Video Input 1 will most commonly be coupled with a laser disc player using a Digital Input 1 for AC-3 decoding, the multi-pin input for DTS decoding, while the PCM audio signal will be provided to either Analog Input 1, Optical Input, or Digital Input 2.

When installing more than four source components, ADA strongly recommends connecting as many components that are equipped with digital outputs to the SSD-66 (5.1) using their digital outputs rather than their analog outputs. This will leave the analog inputs on the SSD-66 (5.1) available for components that do not have any digital audio output at all.

Example Source Planning • Six Source Installation

Using the example source configuration listed in the chart below, we will begin to configure the SSD-66 (5.1) using the available options as listed in the chart on the previous page.

		DIGITAL COAX (RCA) INPUTS FOR EITHER AC-3 OR TWO CHANNEL PCM PLAYBACK		FOR DTS PLAYBACK ONLY	FOR TWO CH PCM PLAYBACK	FOR 2 CH ANALOG PLAYBACK	VIDEO FOLLOW AUDIO INPUTS
	SOURCE NAME	**DIGITAL INPUT 1 (RCA COAX)**	**DIGITAL INPUT 2 (RCA COAX)**	**MULTI-PIN INPUT (6 CH DIGITAL)**	**OPTICAL AUDIO INPUT (DIGITAL)**	**ANALOG STEREO AUDIO INPUT (RCA)**	**COMPOSITE VIDEO INPUT (RCA)**
SOURCE 1	LASER DISC PLAYER	DIGITAL INPUT 1 (FROM RFD-1 FOR AC-3 PLAYBACK)		MULTI-PIN INPUT (FROM DTS-1 FOR DTS PLAYBACK)	OPTICAL INPUT (FOR PCM 2 CH AUDIO PLAYBACK)		VIDEO INPUT 1
SOURCE 2	VCR					STEREO INPUT 1	VIDEO INPUT 2
SOURCE 3	TV/CABLE					STEREO INPUT 2	VIDEO INPUT 3
SOURCE 4	DSS					STEREO INPUT 3	VIDEO INPUT 4
SOURCE 5	CD PLAYER		DIGITAL INPUT 2 (PCM DIGITAL 2 CHANNEL AUDIO)				
SOURCE 6	CASSETTE					STEREO INPUT 4	

Again, as previously stated, we can begin to connect source components to the SSD-66 (5.1). Use the chart on the previous page as a guide to make certain that the A/V Links you wish to use are available in the SSD-66 (5.1)'s software.

Step 1 Laser Disc Players AC-3 Connection • Connect the Laser Disc players AC-3 output to the RFD-1 AC-3 RF Demodulator and the RFD-1's output to the SSD-66 (5.1)'s Digital 1 Input. The Laser Disc Players Composite Video Output can be connected to the SSD-66 (5.1)'s Video 1 Input.

Step 2 Laser Disc Players DTS Connection • Connect the Laser Disc players digital audio coax output to the DTS-1 and the DTS's multi-pin output to the SSD-66 (5.1)'s multi-pin input. The Laser Disc Player's video output has already been connected in Step 1.

Step 3 Laser Disc Players Non-AC-3 Connection (PCM Audio) • Since this example uses six sources (the maximum without the use of an external switcher), special attention needs to be paid to the full use of the remaining two digital inputs. Since the CD player has only a coax digital audio output and the Laser Disc has both an optical and digital coax output, we will use the Optical Output of the Laser Disc and connect it directly to the SSD-66 (5.1)'s Optical Input. The Laser Disc Player's video output has already been connected in Step 1.

Step 4 TV Tuner or Cable Box • The TV Tuner can be directly connected to the SSD-66 (5.1)'s Analog Input 2 with its video connected to the SSD-66 (5.1)'s Video 2 Input.

Step 5 VCR • The VCR can be connected to the SSD-66 (5.1)'s Analog Input 3 with its video connected to the SSD-66 (5.1)'s Video 3 Input.

Step 6 Satellite or DSS Receiver • The Satellite or DSS Receiver's audio output can be connected to the SSD-66 (5.1)'s Analog Input 4 with its video output connected to the SSD-66 (5.1)'s Video 4 Input.

Step 7 CD Player • The CD players digital coax output can be connected to the SSD-66 (5.1)'s Digital 2 (RCA) input.

Step 8 Cassette • The Cassette Player can now be connected to the last open analog input on the SSD-66 (5.1), Analog Input 1.

Source Connections - Advanced Setup (cont.)

Programming Audio & Video Links & Input Labels

Now that the source components have been connected to the SSD-66 (5.1) and you have verified that the links between the audio and video inputs are in fact available on the SSD-66 (5.1), we can begin to program the Input Labels for the following:

a. Audio and Video Input Linking per Input Label
b. Changing the Input Label Names (Necessary when using the DTS-1)

Other functions, in particular Acoustical Parameters per Input Label as well as Global Parameters are discussed in the following sections. Because this setup example includes six sources, some programming will be required to alter the SSD-66 (5.1)'s factory default setup to accommodate all six components.

Programming Audio and Video Linking - General Overview

The SSD-66 (5.1) has a 12 character alphanumeric LED display where the Input Labels read nine character names (variable) and 3 characters for the Input Label number (fixed, 1-14).

L A S E R A C 3 1

Since the hand-held IR remote control that comes with the SSD-66 (5.1) permits direct access of the first 8 input labels (1-8) using the numbers 1-8 on the remote control, it is strongly suggested to use the first eight Input Labels for your sources.

Example - What if a source included in the system is labeled on an Input Label above 8?

If a source you are using, for example Cassette, does not appear in the first eight input names (Cassette appears in the SSD-66 (5.1) factory default as Input Label 12), you will not be able to access it directly from the SSD-66 (5.1)'s hand-held remote control. To permit direct accessing of the Cassette Player, you might want to use Input Label #8, Multiroom. Program the Cassette Player's audio link for Input Label #8 and then later change the name of the Input Label from "MULTIROOM" to "CASSETTE". The altering of Input Label names is discussed in the next section of this manual.

Note - What do you do with 14 Input Labels when the SSD-66 (5.1) has only eight inputs?

While the SSD-66 (5.1) has only eight potential inputs yet also incorporates a total of fourteen Input Labels, that in no way means that you can connect 14 sources to the SSD-66 (5.1). What it does permit you to do is have more than one Input Label for one or more of the eight Inputs (max) that are connected to the SSD-66 (5.1). Since each Input Label has a complete set of Acoustical Parameters assigned to it, the additional Input Labels can be used to access the same source with different acoustical characteristics.

Example - What do you do with multiple Input Labels?

A laser disc player will take at least three Input Labels when connected for both AC-3, DTS, and PCM (standard audio) playback. These three labels will access the same video input but different audio inputs. Furthermore, when using DTS, a fourth Input Label might be used for the laser disc player in addition to LASER AC3, LASER PCM, and LASER DTS. This fourth input label for the laser disc player could be labeled, DTS MUSiC. In such a situation, both LASER DTS and DTS MUSIC access the same A/V Inputs but are different in that LASER DTS has the Re-EQ filter on while DTS MUSIC has the Re-EQ filter off.

Confirming or Altering Audio & Video Links & Changing Input Label Names

Before proceeding with verification and alteration of Audio/Video Links per Input Label, please be advised that even sources which do not have a video output will need to be linked to a video input. If you have open video inputs, you may choose to link the audio from these audio-only sources to an open video (providing that link is available in the SSD-66 (5.1)'s A/V Link). Otherwise, simply link the audio to the video of another source. This will become clear as we proceed with the setup.

Step 1 Repeatedly press the INPUT SELECT button until the SSD-66 (5.1)'s display reads the appropriate Input Label. The list below indicates the factory default Input Label names and the corresponding Input Numbers.

LASER AC3	***1***	***LASER PCM***	***2***	***TV/CABLE***	***3***
VCR	***4***	***SATELLITE***	***5***	***CD PLAYER***	***6***
TUNER	***7***	***MULTIROOM***	***8***	***GAMES***	***9***
CAMERA	***10***	***DVD***	***11***	***CASSETTE***	***12***
AUX ONE	***13***	***AUX TWO***	***14***		

DTS Note: When using a DTS-1 with a six source system (see page 20), ADA suggests rewriting Input Label #3 (typically "TV/CABLE") as "LASER DTS". This will involve moving the "TV/CABLE" Input Label to another Input number. Please note, that only the first 8 input labels can be directly accessed from the SSD-66 (5.1) IR remote control. If you are using DTS in a five source system (see page 22), ADA suggests rewriting Input Label #7 (typically "TUNER") as "DTS MUSIC". "DTS MUSIC" will have the SSD-66 (5.1)'s Re-EQ filter in the off position (discussed under Acoustical Parameters) where it should be normally on in the "LASER DTS" Input Label.

Step 2 Repeatedly press the SETUP MODE button until the display reads either "MUTI PIN/V#", "OPTICAL/V#", "DIGITAL#/V#", or "ANALOG#/V#". The "#" refers to either Digital Audio Input number, Analog Audio Input number, and the Composite Video Input number.

Step 3 Using the VOL UP and VOL DN buttons to advance through the SSD-66 (5.1)'s available audio and video links until the correct A/V Link is displayed. (The list of available links is printed on page 14.)

Step 4 If you do not need to change the Input Label Name, skip to Step 8. If you want to change how the Input Label reads, repeatedly press the SETUP MODE button until the display reads "LABEL INPUTS". The SSD-66 (5.1) will exit the "Setup Mode" automatically if no other buttons are pressed (automatic time-out function).

Step 5 Press the "ALL" button to engage the character cursor. A letter on the SSD-66 (5.1)'s display will begin to flash.

Step 6 Use the CENTER and REAR buttons to advance the cursor right and left (respectively) until the cursor flashes the first letter you wish to alter.

Step 7 Use the RIGHT and LEFT buttons to scroll up and down (respectively) through alphanumeric characters, symbols, and numbers. When the correct character appears, press the CENTER or REAR button to advance to the next character and continue changing the next character using the RIGHT and LEFT buttons. Please note, you can only change the first nine characters. The remaining three characters refer to the input number (and a space) which are fixed. When name appears as you with it to, proceed to the next step.

Step 8 Press the INPUT SELECT button again. This will exit the "Setup Mode". If you have changed an Input Label Name, the change will also be stored.

Step 9 Press the INPUT SELECT button one more time to advance the SSD-66 (5.1) to the next Input Label.

Step 10 Repeat Steps 2-9 for all additional Input Labels.

Example A/V Input Linking • Six Source Installation

Using the example source configuration as discussed in previous pages, we will program the audio and video links for the system as layed out on the next page.

Step 1 Repeatedly press the INPUT SELECT button until the display reads "LASER AC3 1".

Step 2 Repeatedly press the SETUP MODE button until the display reads either "OPTICAL/V#", "DIGITAL#/V#", or "ANALOG#/V#". The "#" refers to either Digital Audio Input number, Analog Audio Input number, and the Composite Video Input number. It should already read "DIGITAL 1/V1".

Step 3 Press the VOL UP or VOL DN buttons to advance through the SSD-66 (5.1)'s available audio and video links until the display reads "DIGITAL1/V1".

Step 4 Press the INPUT SELECT button to lock in this A/V Link and exit the Setup Mode.

Step 5 Press the INPUT SELECT button again to advance to the SSD-66 (5.1) to the next Input Label, "LASER PCM 2".

Step 6 Press the SETUP MODE button and the SSD-66 (5.1) should automatically come back up with an AV Link. If the display does not read as described in Step 2, repeatedly press the SETUP MODE button until an AV Link does appear.

Step 7 Press the VOL UP or VOL DN buttons to advance through the SSD-66 (5.1)'s available audio and video links until the display reads "OPTICAL/V1".

Step 8 Press the INPUT SELECT button twice, once to exit the Setup Mode and once to advance the display to read "TV/CABLE 3".

Step 9 Again, press the SETUP MODE buton and the display sould read an A/V Link.

Step 10 Use the VOL UP or VOL DN buttons until the display reads "ANALOG2/V2"

Step 11 Repeatedly press the INPUT SELECT button until the display reads "VCR 4".

Step 12 Again, press the SETUP MODE buton and the display sould read an A/V Link.

Step 13 Use the VOL UP or VOL DN buttons until the display reads "ANALOG3/V3"

Step 14 Repeatedly press the INPUT SELECT button until the display reads "SATELLITE 5".

Step 15 Again, press the SETUP MODE buton and the display sould read an A/V Link.

Step 16 Use the VOL UP or VOL DN buttons until the display reads "ANALOG4/V4"

Step 11 Repeatedly press the INPUT SELECT button until the display reads "CD PLAYER 6".

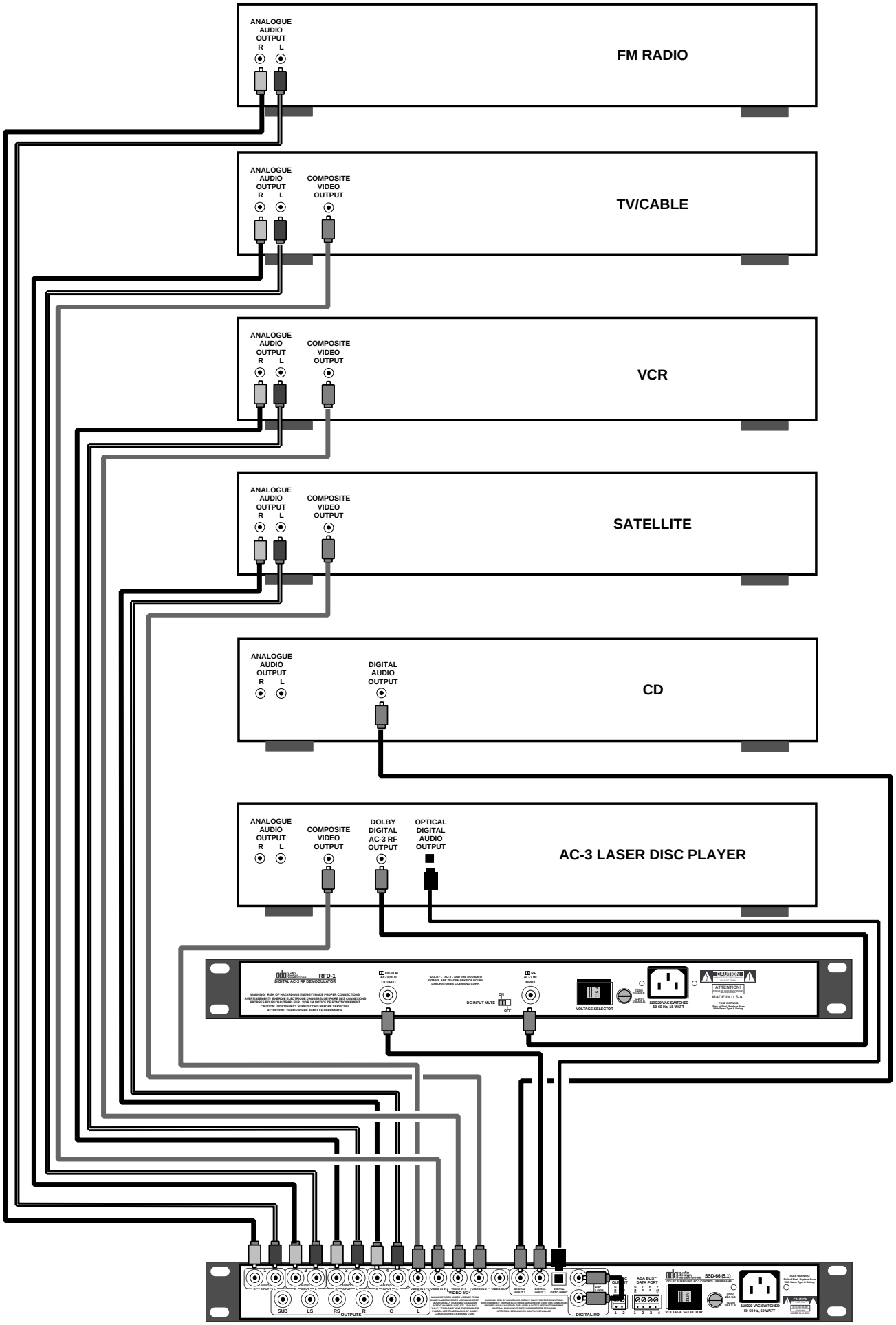
Step 12 Again, press the SETUP MODE buton and the display sould read an A/V Link.

Step 13 Use the VOL UP or VOL DN buttons until the display reads "DIGITAL2/V#". The "#" can be any video number. You may wish to select a video link which you might watch while listening to CD.

Step 11 Repeatedly press the INPUT SELECT button until the display reads "TUNER 7".

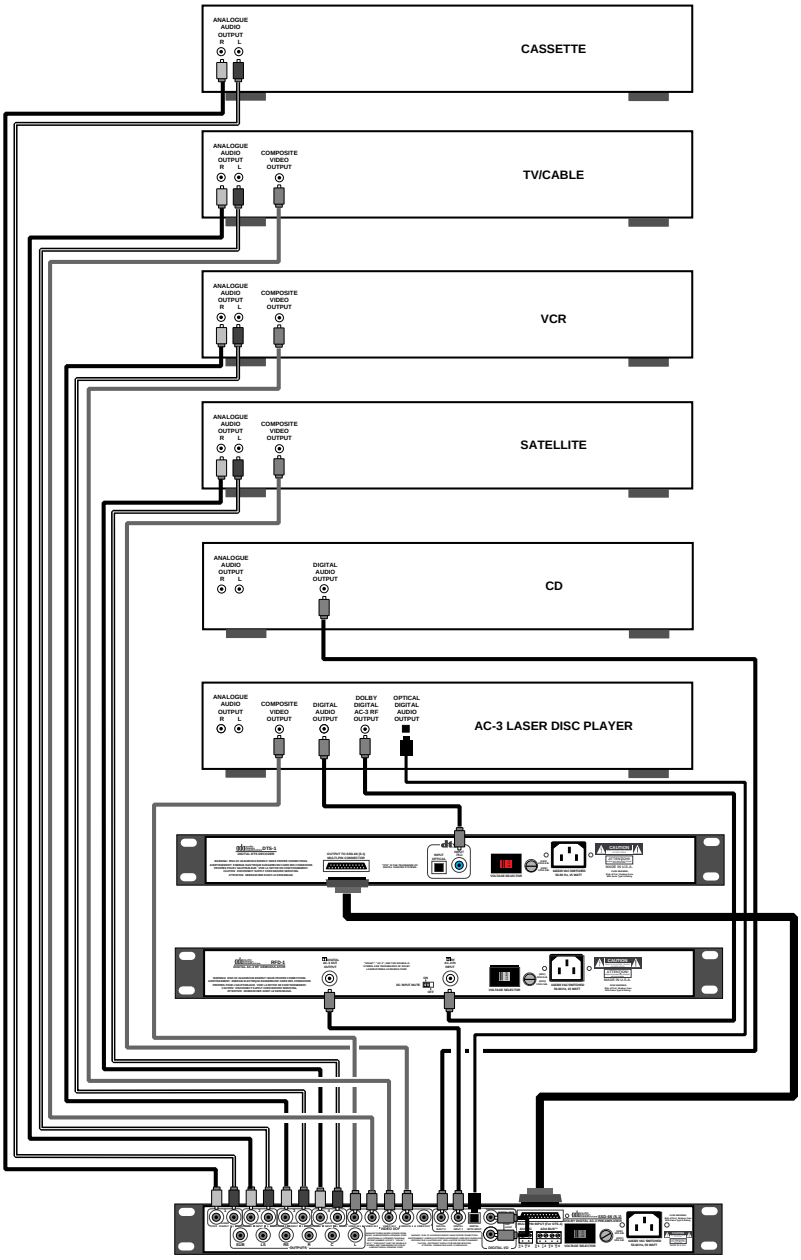
Step 12 Again, press the SETUP MODE buton and the display sould read an A/V Link.

Step 13 Use the VOL UP or VOL DN buttons until the display reads "ANALOG1/V#". The "#" can be any video number. You may wish to select a video link which you might watch while listening to radio.


ANALOGUE AUDIO OUTPUT R L
FM RADIO
ANALOGUE AUDIO OUTPUT R L
COMPOSITE VIDEO OUTPUT
TV/CABLE
ANALOGUE AUDIO OUTPUT R L
COMPOSITE VIDEO OUTPUT
VCR
ANALOGUE AUDIO OUTPUT R L
COMPOSITE VIDEO OUTPUT
SATELLITE
ANALOGUE AUDIO OUTPUT R L
DIGITAL AUDIO OUTPUT
CD
ANALOGUE AUDIO OUTPUT R L
COMPOSITE VIDEO OUTPUT
DOLBY DIGITAL AC-3 RF OUTPUT
OPTICAL DIGITAL AUDIO OUTPUT
AC-3 LASER DISC PLAYER
RFD-1
DIGITAL AC-3 RF DEMODULATOR
DIGITAL AC-3 OUT OUTPUT
RF AC-3 IN INPUT
DC INPUT MUTE
VOLTAGE SELECTOR
MADE IN U.S.A.
SSD-66 (5.1)
ADA BUS™ DATA PORT
VIDEO I/O
DIGITAL I/O
SUB
LS
RS
R
C
L
OUTPUTS

Example A/V Input Linking • Six Source Installation w/DTS

Using the example source configuration as discussed in previous pages, we will program the audio and video links for the system as layed out in the diagram were six sources are connected with DTS.



Step 1 Repeatedly press the INPUT SELECT button until the display reads "LASER AC3 1".

Step 2 Repeatedly press the SETUP MODE button until the display reads either "OPTICAL/V#", "DIGITAL#/V#", or "ANALOG#/V#". The "#" refers to either Digital Audio Input number, Analog Audio Input number, and the Composite Video Input number. It should already read "DIGITAL 1/V1".

Step 3 Press the VOL UP or VOL DN buttons to advance through the SSD-66 (5.1)'s available audio and video links until the display reads "DIGITAL1/V1".

Step 4 Press the INPUT SELECT button to lock in this A/V Link and exit the Setup Mode.

Step 5 Press the INPUT SELECT button again to advance to the SSD-66 (5.1) to the next Input Label, "LASER PCM 2".

Step 6 Press the SETUP MODE button and the SSD-66 (5.1) should automatically come back up with an AV Link. If the display does not read as described in Step 2, repeatedly press the SETUP MODE button until an AV Link does appear.

Step 7 Press the VOL UP or VOL DN buttons to advance through the SSD-66 (5.1)'s available audio and video links until the display reads "OPTICAL/V1".

Step 8 Press the INPUT SELECT button twice, once to exit the Setup Mode and once to advance the display to read "TV/CABLE 3". This Input Label will be used for the DTS Decoder and will need to be reset for both an A/V Link and its label.

Step 9 Again, press the SETUP MODE buton and the display sould read an A/V Link.

Step 10 Use the VOL UP or VOL DN buttons until the display reads "MUTI PIN/V1"

Step 11 Repeatedly press the SETUP MODE button until display reads "LABEL INPUTS".

Step 12 Press the ALL button to engage the Character Generator. Use the REAR and CENTER buttons to position the cursor under the letter "T" in "TV/CABLE". Use the LEFT button to move up the alphabet until the letter "L" replaces the letter "T". If you passed the letter "L", pressing of the RIGHT button will go down the alphabet. Use the CENTER button to advance the cursor one position until its flashing under the letter "V". Again, use the LEFT button to move up the alphabet until the letter "A" replaces the letter "V". Continue with this operation until the display reads "LASER DTS 3". Please note, the last three spaces on the display (blank, blank, 3) cannot be altered.

Step 13 Repeatedly press the INPUT SELECT button until the display reads "VCR 4".

Step 14 Again, repeatedly press the SETUP MODE buton untilthe display reads an A/V Link.

Step 15 Use the VOL UP or VOL DN buttons until the display reads "ANALOG3/V3"

Step 16 Repeatedly press the INPUT SELECT button until the display reads "SATELLITE 5".

Step 17 Again, press the SETUP MODE buton and the display sould read an A/V Link.

Step 18 Use the VOL UP or VOL DN buttons until the display reads "ANALOG4/V4"

Step 19 Repeatedly press the INPUT SELECT button until the display reads "CD PLAYER 6".

Step 20 Again, press the SETUP MODE buton and the display sould read an A/V Link.

Step 21 Use the VOL UP or VOL DN buttons until the display reads "DIGITAL2/V#". The "#" can be any video number. You may wish to select a video link which you might watch while listening to CD.

Step 22 Repeatedly press the INPUT SELECT button until the display reads "TUNER 7". This Input Label will be used for the Cassette and will need to be reset for both an A/V Link and its label.

Step 23 Again, press the SETUP MODE buton and the display sould read an A/V Link.

Step 24 Use the VOL UP or VOL DN buttons until the display reads "ANALOG 1/V#". The "#" can be any video number. You may wish to select a video link which you might watch while listening to Cassette.

Step 25 Repeatedly press the SETUP MODE button until display reads "LABEL INPUTS".

Step 26 Press the ALL button to engage the Character Generator. Use the REAR and CENTER buttons to position the cursor under the letter "T" in "TUNER". Use the LEFT button to move up the alphabet until the letter "C" replaces the letter "T". If you passed the letter "C", pressing of the RIGHT button will go down the alphabet. Use the CENTER button to advance the cursor one position until its flashing under the letter "U". Again, use the LEFT button to move up the alphabet until the letter "A" replaces the letter "U". Continue with this operation until the display reads "CASSETTE 7".

Step 27 Repeatedly press the INPUT SELECT button until the display reads "MULTIROOM 8". This Input Label will be used for the TV/CABLE and will need to be reset for both an A/V Link and its label.

Step 28 Repeatedly press the SETUP MODE buton until the display reads an A/V Link.

Step 29 Use the VOL UP or VOL DN buttons until the display reads "ANALOG 2/V2".

Step 30 Repeatedly press the SETUP MODE button until display reads "LABEL INPUTS".

Step 31 Press the ALL button to engage the Character Generator. Use the REAR and CENTER buttons to position the cursor under the letter "M" in "MULTIROOM". Use the LEFT button to move up the alphabet until the letter "T" replaces the letter "M". If you passed the letter "T", pressing of the RIGHT button will go down the alphabet. Use the CENTER button to advance the cursor one position until its flashing under the letter "U". Again, use the LEFT button to move up the alphabet until the letter "V" replaces the letter "U". Continue with this operation until the display reads "TV/CABLE 8".

Example A/V Input Linking • Five Source Installation w/DTS

Using the example source configuration as discussed in previous pages, we will program the audio and video links for the system as layed out in the diagram were five sources are connected with DTS. In this example, two Input Labels will be set to the DTS-1, one for music and one for video playback. Both Input Labels will share the same A/V Link.

Step 1 Repeatedly press the INPUT SELECT button until the display reads "LASER AC3 1".

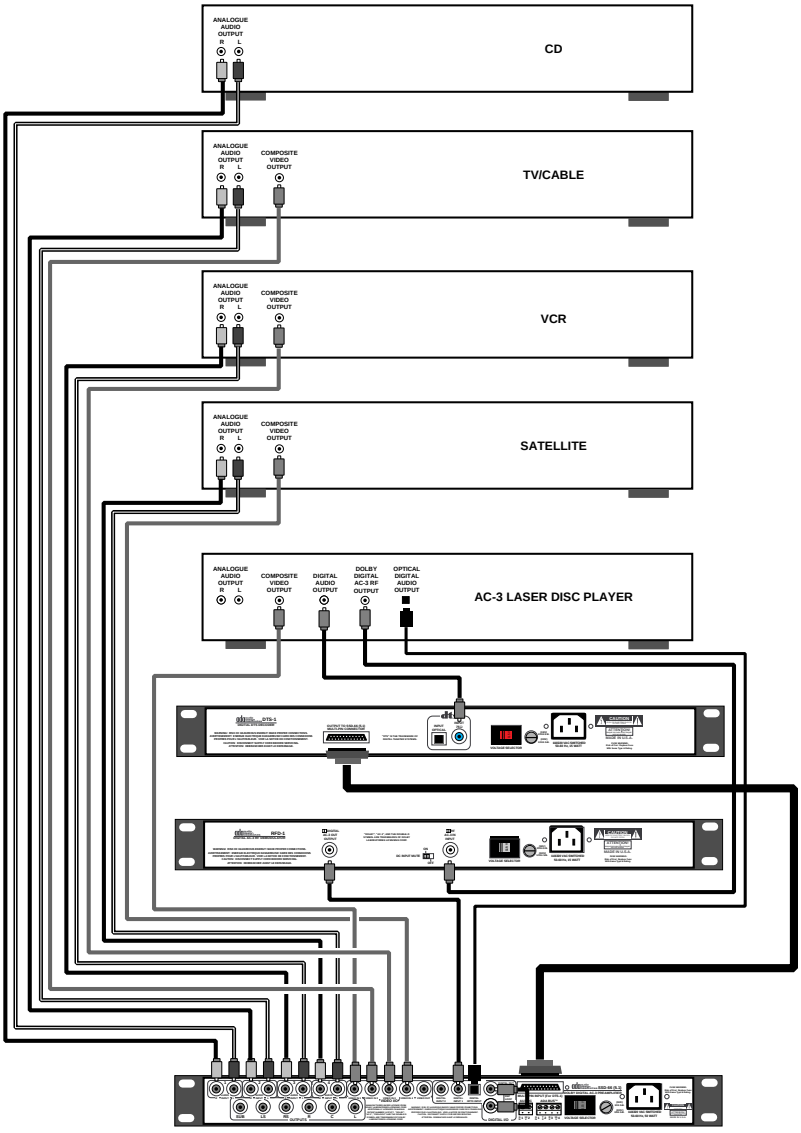
Step 2 Repeatedly press the SETUP MODE button until the display reads either "OPTICAL/V#", "DIGITAL#/V#", or "ANALOG#/V#". The "#" refers to either Digital Audio Input number, Analog Audio Input number, and the Composite Video Input number. It should already read "DIGITAL 1/V1".

Step 3 Press the VOL UP or VOL DN buttons to advance through the SSD-66 (5.1)'s available audio and video links until the display reads "DIGITAL1/V1".

Step 4 Press the INPUT SELECT button to lock in this A/V Link and exit the Setup Mode.

Step 5 Press the INPUT SELECT button again to advance to the SSD-66 (5.1) to the next Input Label, "LASER PCM 2".

Step 6 Press the SETUP MODE button and the SSD-66 (5.1) should automatically come back up with an AV Link. If the display does not read as described in Step 2, repeatedly press the SETUP MODE button until an AV Link does appear.



Step 7 Press the VOL UP or VOL DN buttons to advance through the SSD-66 (5.1)'s available audio and video links until the display reads "OPTICAL/V1".

Step 8 Press the INPUT SELECT button twice, once to exit the Setup Mode and once to advance the display to read "TV/CABLE 3". This Input Label will be used for the DTS Decoder and will need to be reset for both an A/V Link and its label.

Step 9 Again, press the SETUP MODE buton and the display sould read an A/V Link.

Step 10 Use the VOL UP or VOL DN buttons until the display reads "MUTI PIN/V1"

Step 11 Repeatedly press the SETUP MODE button until display reads "LABEL INPUTS".

Step 12 Press the ALL button to engage the Character Generator. Use the REAR and CENTER buttons to position the cursor under the letter "T" in "TV/CABLE". Use the LEFT button to move up the alphabet until the letter "L" replaces the letter "T". If you passed the letter "L", pressing of the RIGHT button will go down the alphabet. Use the CENTER button to advance the cursor one position until its flashing under the letter "V". Again, use the LEFT button to move up the alphabet until the letter "A" replaces the letter "V". Continue with this operation until the display reads "LASER DTS 3". Please note, the last three spaces on the display (blank, blank, 3) cannot be altered.

Step 13 Repeatedly press the INPUT SELECT button until the display reads "VCR 4".

Step 14 Again, repeatedly press the SETUP MODE buton untilthe display reads an A/V Link.

Step 15 Use the VOL UP or VOL DN buttons until the display reads "ANALOG3/V3"

Step 16 Repeatedly press the INPUT SELECT button until the display reads "SATELLITE 5".

Step 17 Again, press the SETUP MODE buton and the display sould read an A/V Link.

Step 18 Use the VOL UP or VOL DN buttons until the display reads "ANALOG4/V4"

Step 19 Repeatedly press the INPUT SELECT button until the display reads "CD PLAYER 6".

Step 20 Again, press the SETUP MODE buton and the display sould read an A/V Link.

Step 21 Use the VOL UP or VOL DN buttons until the display reads "DIGITAL2/V#". The "#" can be any video number. You may wish to select a video link which you might watch while listening to CD.

Step 22 Repeatedly press the INPUT SELECT button until the display reads "TUNER 7". This Input Label will be used for the DTS Music and will need to be reset for both an A/V Link and its label.

Step 23 Again, press the SETUP MODE buton and the display sould read an A/V Link.

Step 24 Use the VOL UP or VOL DN buttons until the display reads "MUTI PIN/V1".

Step 25 Repeatedly press the SETUP MODE button until display reads "LABEL INPUTS".

Step 26 Press the ALL button to engage the Character Generator. Use the REAR and CENTER buttons to position the cursor under the letter "T" in "TUNER". Use the LEFT button to move up the alphabet until the letter "D" replaces the letter "T". If you passed the letter "D", pressing of the RIGHT button will go down the alphabet. Use the CENTER button to advance the cursor one position until its flashing under the letter "U". Again, use the LEFT button to move up the alphabet until the letter "T" replaces the letter "U". Continue with this operation until the display reads "DTS MUSIC 7".

Step 27 Repeatedly press the INPUT SELECT button until the display reads "MULTIROOM 8". This Input Label will be used for the TV/CABLE and will need to be reset for both an A/V Link and its label.

Step 28 Repeatedly press the SETUP MODE buton until the display reads an A/V Link.

Step 29 Use the VOL UP or VOL DN buttons until the display reads "ANALOG 2/V2".

Step 30 Repeatedly press the SETUP MODE button until display reads "LABEL INPUTS".

Step 31 Press the ALL button to engage the Character Generator. Use the REAR and CENTER buttons to position the cursor under the letter "M" in "MULTIROOM". Use the LEFT button to move up the alphabet until the letter "T" replaces the letter "M". If you passed the letter "T", pressing of the RIGHT button will go down the alphabet. Use the CENTER button to advance the cursor one position until its flashing under the letter "U". Again, use the LEFT button to move up the alphabet until the letter "V" replaces the letter "U". Continue with this operation until the display reads "TV/CABLE 8".

Global Acoustical Setup - Speaker Configuration

There are several Acoustical Parameters that are fully programmable on the SSD-66 (5.1). Some of these parameters are specific to individual Input Labels and some are Global Parameters based on the type and size of speakers that you are using. Please note, that the SSD-66 (5.1) can be used with any combination of speakers:

a. Small home theater speakers (usually handling only 80-20,000 Hz)
b. Home THX Speakers (often set to handle 80-20,000Hz)
c. Full range speakers (capable of handling low frequencies - below 80 Hz)

As home theater speaker systems will vary, the SSD-66 (5.1) is designed to work with any combination of the above speaker types for the following speakers in any combination. The SSD-66 (5.1) should always be used with a subwoofer and a center channel speaker.

a. Center Speaker - Small or Large
b. Front Right & Left Speakers - Small or Large
c. Right & Left Surround Speakers - Small or Large

Example - What if I have a combination of the above speaker types in my system.
If you have a home theater speaker system comprised of a pair of full-range (larger) speakers to be used for front left & right, a shielded center channel speaker (small), and a pair of THX dipole surround speakers (also small), the SSD-66 (5.1) can be perfectly set to provide the very best home theater experience.

The following section will describe the various speaker placement options and how to use the SSD-66 (5.1)'s controls to obtain the best possible separation with whatever speaker combination you are using.

Setup - Center, Front Right, & Front Left Speakers

A Center channel speaker is normally installed with the SSD-66 (5.1). The center channel's main objective is to localize precisely on-screen sounds such as dialog. It also frees the viewer from having to sit in just one, closely-defined spot for a good central image. Together, the Left, Center, Right combination can provide a good discrete central image along with wide stereo: this is not possible with two-channel stereo reproduction.

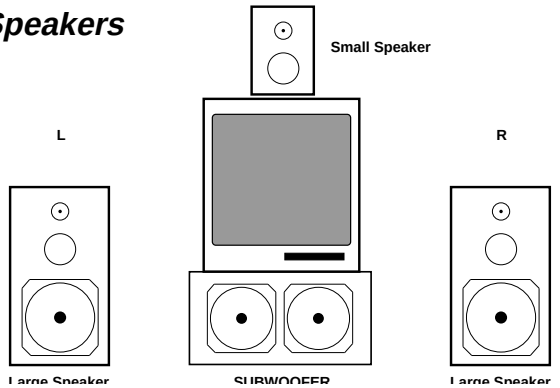
CAUTION
Loudspeakers positioned very close to the TV set can interfere with the picture, unless they have “magnetically shielded” or “screened” systems. This is often only important for the center speaker, as the front left and right speakers are usually sufficiently far away from the picture tube.

Speaker Options
Four options exist regarding the speakers you are using.

Option 1 This is used with two large front channel speakers and a small center channel.
Option 2 This is used when all three front channel speakers are small including the center.
Option 3 This is similar to option 2 except that while all three speakers are the same size, they are all large full-range speakers.

OPTION ONE - Small Center & Large Right/Left Speakers

You can use a small speaker placed either above or below the TV set for the Center channel. When working with larger full-range (good with bass frequencies) front channel speakers and a smaller (poor bass-handling) center channel speaker, as illustrated to the right, you will want to engage the 80Hz Cutoff filter for the center channel and make certain it is off for the front right and left channels.



Step 1 Press the SETUP MODE button. Please note, the SSD-66 (5.1) will automatically timeout of the "Setup Mode". If this happens, press the SETUP MODE button again.

Step 2 Repeatedly press the CENTER button until the display reads "SMALL SPKR".

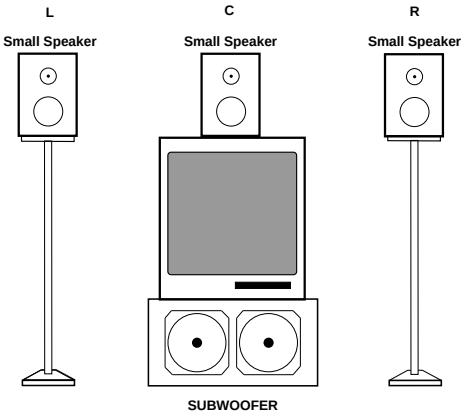
Step 3 Repeatedly press the RIGHT button until the display reads "LARGE SPKR".

Step 4 Press the INPUT SELECT b utton to exit the "Setup Mode".

At this time, you have set the 80Hz cutoff filter in the "on" position for the center channel while leaving it "off" for the front right and left speakers. You can now proceed to the next section describing surround speakers and subwoofers.

OPTION TWO - Small Center & Small Right/Left Speakers

For the best results, three identical loudspeakers should be used for the center, front left, and front right channels. These speakers can be THX Home theater speakers or other smaller type speakers were the bass handling capabilities are somewhat limited. The illustration to the right shows identical speaker sizes, and their appropriate placement.



In this option, you will want to engage the 80Hz Cutoff filter for the center channel and the front right and left channels.

Step 1 Press the SETUP MODE button. Please note, the SSD-66 (5.1) will automatically timeout of the "Setup Mode". If this happens, press the SETUP MODE button again.

Step 2 Repeatedly press the CENTER button until the display reads "SMALL SPKR".

Step 3 Repeatedly press the RIGHT button until the display reads "SMALL SPKR".

Step 4 Press the INPUT SELECT button to exit the "Setup Mode".

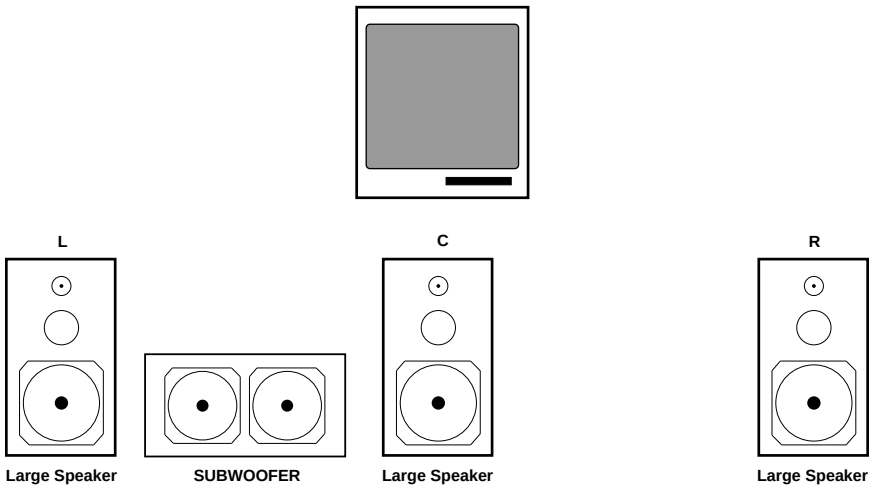
At this time, you have set the 80Hz cutoff filter in the "on" position for the center, left and right channels. You can now proceed to the next section describing surround speakers and subwoofers.

Global Setup (cont.) - Front Channel Setup - Option 3

OPTION THREE - Large Center & Large Right/Left Speakers

For the best results, three identical loudspeakers should be used for the center, front left, and front right channels. When these speakers are larger full-range speakers, capable of handling low bass frequencies, there is no need to engage the 80Hz Cutoff Filter for any of these speakers. Thus, when using this speaker placement option, the center, front right, and front left speakers will receive full bandpass and full bass response information.

Please note, the location of the subwoofer will vary depending on your room's layout. Most commonly, the best responce from a subwoofer occurs when the speaker is position in a corner.



In this option, you will want to make certain that the 80Hz Cutoff filter for these channels are off.

Step 4 Press the SETUP MODE button. Please note, the SSD-66 (5.1) will automatically time-out of the "Setup Mode". If this happens, press the SETUP MODE button again.

Step 5 Repeatedly press the CENTER button until the display reads "LARGE SPKR".

Step 6 Repeatedly press the RIGHT button until the display reads "LARGE SPKR".

Step 7 Press the INPUT SELECT button to exit the "Setup Mode".

At this time, you have set the 80Hz cutoff filter in the "off" position for the center channel and in the "off" position for the front right and left speakers. You can now proceed to the next section describing surround speakers and subwoofers.

Global Setup (cont.) - Surround Speaker Setup

The surround speakers should be located behind or to either side of the listener. As long as a good diffused sound can be obtained from the surround channel, it is not vital that these speakers should be at the same height as the other speakers in the system. . The following diagram shows one way of placing all the speakers.

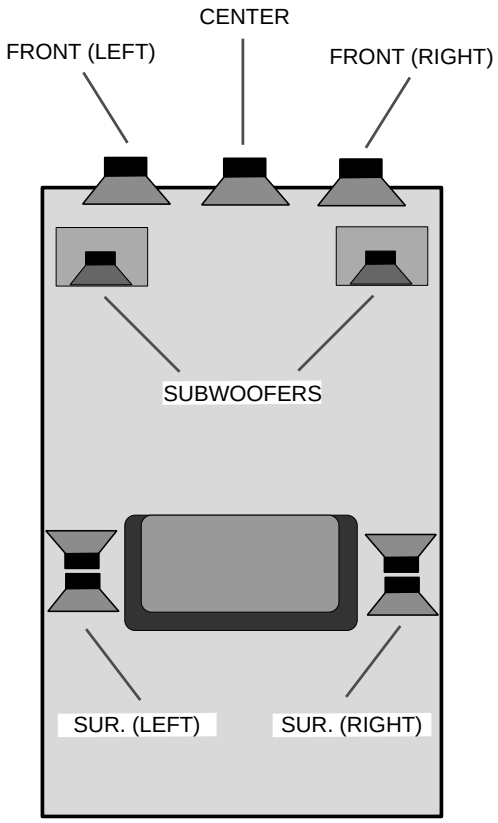
The surround speakers can also be set to either run full-range (for larger surrounds) or have the 80Hz cutoff filter on (for smaller surround speakers). To set the low-frequency filter:

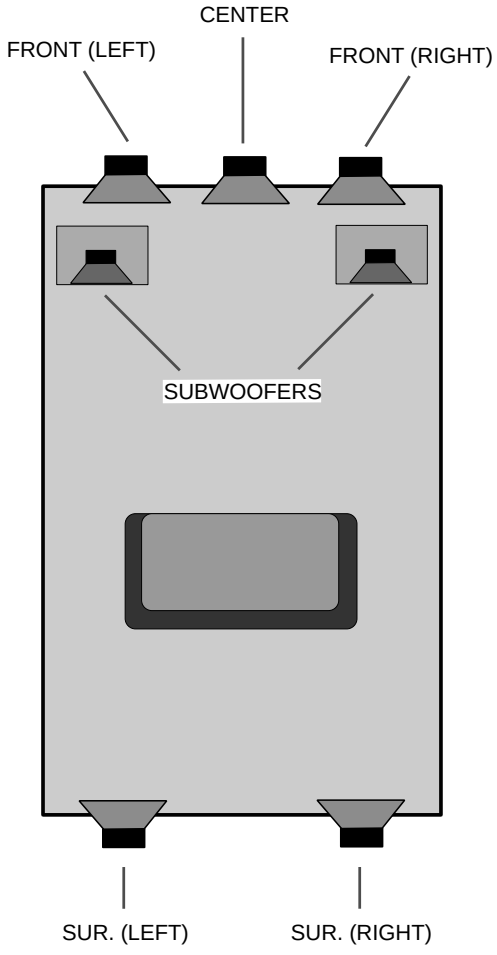
Step 1 Press the SETUP MODE button. Please note, the SSD-66 (5.1) will automatically time-out of the "Setup Mode". If this happens, press the SETUP MODE button again.

Step 2 Repeatedly press the REAR button until the display reads "LARGE SPKR" or "SMALL SPKR". If you are using full-range speakers, leave the display set to "LARGE SPKR". If you are using small speakers, leave the display set to "SMALL SPKR".

Step 3 Press the INPUT SELECT button to exit the "Setup Mode".

The two diagrams below detail the most common types of surround channel speaker configurations. The diagram to the left is illustrated with di-pole speakers that fire forward and reward where the surround information is reflected off of the front & rear walls (THX Configuration). The diagram to the left uses a "directional" surround channel speaker configuration.





Global Setup (cont.) - Time Delay Adjustment

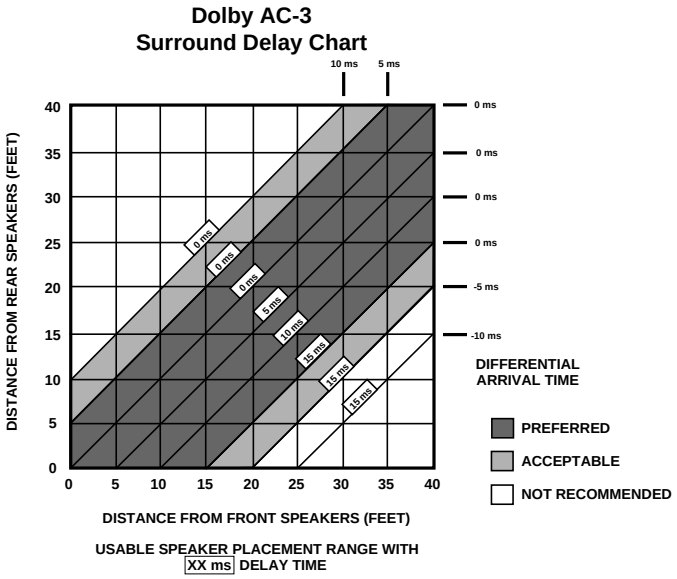
Surround Channel Delay

The concept of delaying the surround channel is designed to provide both a sense of space as well as offering compensation for the time it takes for the sound from the front speakers to reach the optimum seating position with respect to the sound from the surround channels. As sound travels approximately 1 ft. per millisecond, actual mathematics will determine the best delay setting, taking into consideration the surround speakers distance from the seating area and the front speakers distance from the seating area.

There are however distinct differences between the recommended surround channel delays for AC-3 source material and Pro Logic source material. Since AC-3 delivers discrete signals for each channel, there is no leakage between channels, and thus no need for delaying the surrounds to create a precedence effect. The surround and front channel sounds should arrive at the same exact time (coincident arrivals). The AC-3 mode consequently uses 15 ms less delay than the Pro Logic mode for the same speaker/seating arrangement.

AC-3 Surround Channel Delay Setting

Determine the distance of the seating area to the surround speakers and also the distance of the front speakers to the seating area. Make a note of these distances as you will also use them to determine the Time Delay setting for Pro Logic modes. Once you have determined these distances, use the chart to find the corresponding time delay setting.



Example

If your surround speakers are 10 feet from the seating area and the front speakers are 15 feet from the seating area, the surround (or rear) channel delay for AC-3 is determined by finding the cross points on the chart. First find the line on the vertical axis that is labeled "10". Then, find the point on the horizontal axis labeled "15". The cross point (or intersection of these two lines) is on a diagonal line marked "5 ms" or 5 milliseconds.

To adjust the delay times for the surround channels, follow these following steps.

1 Press the INPUT SELECT button until the SSD-66 (5.1) display indicates "LASER AC3" or any other AC-3 Input.

2 Press the MODE button and make certain that you are in either "DOLBY AC-3" or "AC-3 NIGHT" mode. Typically, an AC-3 mode can only be engaged if you are playing an AC-3 source. Thus, it may be necessary to start your laser disc player, using an AC-3 laser disc prior to continuing.

3 Press the DELAY button until it is lit.

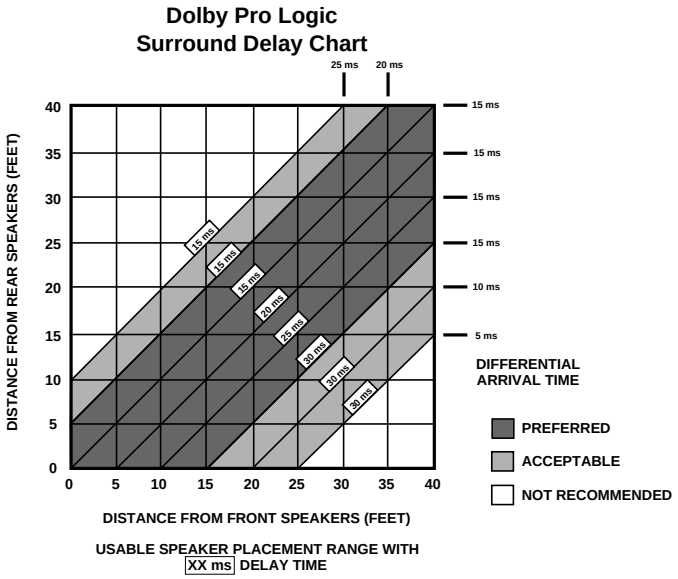
4 Repeatedly press the REAR button until the display reads the appropriate rear channel delay settings. As you press the REAR button, the display will advance in 1 ms increments between 0 ms and 15 ms.

5 Press the DELAY button again to exit this setup mode.

Global Setup (cont.) - Time Delay Adjustment

Pro Logic Surround Channel Delay Setting

Once you have set the surround channel delay for AC-3, you will need to also set it for Pro Logic. Use the same measurements taken for AC-3 and apply them to the Pro Logic Rear Channel Delay Chart. Note, while both the Pro Logic and AC-3 charts look similar, they are in fact marked differently.



Example (cont.)

Since the surround speakers are 10 feet from the seating area and the front speakers are 15 feet from the seating area, the surround (or rear) channel delay for the Pro Logic is 20 ms.

To adjust the delay times for the surround channels, follow these following steps.

1 Press the INPUT SELECT button until the SSD-66 (5.1) display indicates "LASER PCM" or any other Pro Logic Input.

2 Press the MODE button and make certain the "PRO LOGIC" mode is selected. If the SSD-66 (5.1) is not in the "PRO LOGIC" mode, you will not be able to continue with this time delay adjustment.

3 Press the DELAY button until it is lit.

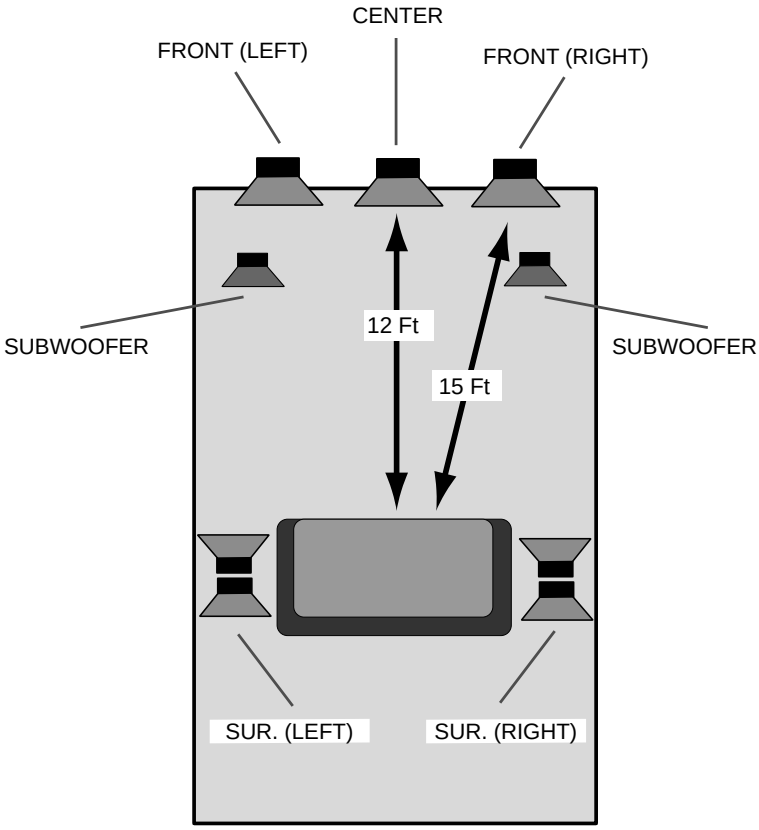
4 Repeatedly press the REAR button until the display reads the appropriate rear channel delay settings. As you press the REAR button, the display will advance in 1 ms increments between 15 ms and 30 ms.

5 Press the DELAY button again to exit this setup mode.

Center Channel Delay Setting

The Center channel has its own delay which can be set from 0 to 5 ms (milliseconds) in one millisecond increments and is active for either AC-3 or Pro Logic. This will permit you to perfectly balance the center channel with respect to the front right and left channels so that the intended sound arrives at the primary seating position at the same time.

While the center channel will typically appear to be the same distance to the seating area as the front right and left speakers, this may not be the case. As the front right and left speakers are outboard, they are usually slightly further away from the seating area than the center channel. You can use a tape measure to determine the distance to either front right or front left speakers and then measure the distance to center channel. Typically, the difference will be less than five feet and the SSD-66 (5.1) can compensate for this difference. For each linear foot the front right and left speakers are further away from the seating area than the center channel, adjust the Center Channel delay 1 ms (millisecond).



Example

If the distance of the front speakers to the seating area is 15 feet and the center channel's distance to the seating area is 12 feet, set the Center Channel delay to 3 ms (15 ft. - 12 ft. = 3 ft = 3 ms).

To adjust the delay times for the center channel:

1 Press the MODE button until the SSD-66 (5.1) display indicates either "PRO LOGIC" or "AC-3".

2 Press the DELAY button until it is lit.

3 Repeatedly press the CENTER button until the display reads the appropriate rear channel delay settings. As you press the CENTER button, the display will advance in 1 ms increments until 5 ms is reached. It will then begin at 0 ms.

4 Press the DELAY button again to exit this setup mode.

Global Setup (cont.) - ADA Bus™ Options

Setting the ADA Bus™ Address

The SSD-66 (5.1) has several different addresses available. In most any situation, you will want the SSD-66 (5.1) to be set to address "000". The SSD-66 (5.1) IR Remote Control only operates when the SSD-66 (5.1) is set to address "000". To verify the SSD-66 (5.1) Address:

1 Repeatedly press the SETUP MODE button until the display reads "ADA BUS" immediately followed by "ADA BUS 000".

2 If the address reads anything other than "000" or you wish to alter the ADA Bus™ address, press either the VOL UP or VOL DN buttons. The SSD-66 (5.1) has 256 addresses from 0-255.

3 When the correct address appears, press the INPUT SELECT button to exit the program mode.

Feedback On/Off Setting - Control Speed

The SSD-66 (5.1) two operating speeds, hi-gear and standard-gear. These two speed settings do not refer to how fast the SSD-66 (5.1) processes audio but rather how fast it processes commands. The standard factory default will have the SSD-66 (5.1) set to the slower, normal speed.

The speed factor is actually based on whether the SSD-66 (5.1) provides feedback or whether the SSD-66 (5.1) is not providing feedback. Since the SSD-66 (5.1) is uniquely equipped to not only be controlled from advanced two-way control systems such as touch-screen controls or an ADA System, it can actually provide data output. This data output is in hex-code and provides full SSD-66 (5.1) status including; input, mode, volume levels, etc. When providing this data output, the SSD-66 (5.1) will operate slightly slower. This operational rate is considered a standard operational rate. When the feedback is off, the SSD-66 (5.1) will operate significantly faster. Please note, when the SSD-66 (5.1) is set with its feedback in the off position, the SSD-66 (5.1) may respond too quickly.

Note: When do I absolutely need the SSD-66 (5.1)'s feedback in the on position?
If you are using the SSD-66 (5.1) in conjunction with the OSD-1 On-Screen Display Device, an ADA Bus™ Multi-Room System, or a computer based touch-screen system, you will need to leave the feedback in the ON position to get status feedback from the SSD-66 (5.1).

Note: When can I turn the SSD-66 (5.1)'s feedback to the off position for high-speed control?
If you are controlling the SSD-66 (5.1) from either its front panel or its hand-held infrared remote control, you can opt to have the feedback set to the off position.

To alter the SSD-66 (5.1)'s "Feedback" setting:

1 Repeatedly press the SETUP MODE button until the words "FEEDBACK ON" or "FEEDBACK OFF" appear.

2 Use the VOL UP or VOL DN buttons to change the "Feedback Setting" from off to on or on to off.

3 Once you have set the SSD-66 (5.1)'s feedback setting, press the INPUT SELECT button to exit the program mode.

Global Setup (cont.) - Turn-On Settings

Turn-On Volume Level Settings

The SSD-66 (5.1) has turn-setting that involve what volume level the SSD-66 (5.1) will turn on to.

1 Last Volume Used - This setting will have the SSD-66 (5.1) engage the volume settings that were last used before the unit was turned off.

2 Volume Preset - This setting will have the SSD-66 (5.1) engage the volume preset that is programmed into the SSD-66 (5.1).

Please note, the SSD-66 (5.1) can be turned on by either pressing the OFF button twice. The first time the OFF button is pressed, the SSD-66 (5.1) will mute. The second time it is pressed, the SSD-66 (5.1) will turn off.

The SSD-66 (5.1) can also be turned off by unplugging the unit. While you will typically never setup an SSD-66 (5.1) so that you will always unplug it, you may tie the SSD-66 (5.1) into a switched AC outlet on some other type of control device such that whenever this secondary device is turned off, the SSD-66 (5.1) will also turn off. As all parameters are programmed into nonvolatile memory on the SSD-66 (5.1), the unit will retain all programming information, even when it is unplugged.

To determine whether the SSD-66 (5.1) turns on to its last volume used or its programmed volume preset:

1 Repeatedly press the SETUP MODE button until the SSD-66 (5.1)'s display reads either "ON=LAST VOL" or "ON=PRE VOL". "ON=LAST VOL" refers to the SSD-66 (5.1) turning on to its last volume used. "ON=PRE VOL" refers to the SSD-66 (5.1) turning on to its programmed preset volume.

2 Use the VOL UP or VOL DN buttons to alter the between these two options.

3 When the correct option appears in the SSD-66 (5.1)'s display window, press the INPUT SELECT button exit the SSD-66 (5.1)'s program mode.

Determining the SSD-66 (5.1)'s Software Version Number

The SSD-66 (5.1) operates on a proprietary software program. As with all software, as improvements and new features are added to the preamplifier/decoder, software changes may not be uncommon. These upgrades are not expensive and insure the on-going value of your SSD-66 (5.1).

To determine the current software installed in your SSD-66 (5.1), simply remove power from the unit. This can be easily accomplished by:

a Simply unplugging the unit from the wall outlet and plugging it back in again.

b Unplug the AC cord going into the SSD-66 (5.1) and plug it back in again.

c Turn off a system power switch, which would remove power from the SSD-66 (5.1) and turn it back on again.

When the SSD-66 (5.1) first receives power, its display will momentarily show the version number.

Global Setup (cont.) - Turn-On Input Options

The SSD-66 (5.1) can be programmed to automatically turn on to a specific Input Label or the last input used. Whether you are turning the SSD-66 (5.1) on through from its front panel, IR remote, ADA Keypad, touch screen, or a switched AC outlet on some other system component, the SSD-66 (5.1) will always turn on to your preprogrammed Input Label. There is even a setting which will cause the SSD-66 (5.1) to always turn on to the last input used.

Example
If you most frequently view DSS, the SSD-66 (5.1) can be set to always turn on to DSS even if you last used the CD player.

To program the SSD-66 (5.1)'s "TURNON INPUT", follow these steps.

1 Repeatedly press the SETUP MODE button until the SSD-66 (5.1)'s display reads "TURNON INPUT".

2 Using the VOL UP or VOL DN buttons, select the "Turn On Input Label" you wish to use. As you press the VOL UP or VOL DN buttons, you will notice that the SSD-66 (5.1)'s display will advance through all fourteen Input Labels, displaying both their name and number. Even if you altered an Input Label name, the new name will appear in the display along with its corresponding Input Label number (1-14). Between Input Labels 14 and 1, the term "LAST USED" which refers to the SSD-66 (5.1) turning on to the last used input.

3 When the desired Turn On Input Label is displayed in the SSD-66 (5.1)'s window, press the INPUT SELECT button to exit the SSD-66 (5.1)'s program mode.

At this time, the SSD-66 (5.1) has been programmed to engage to your desired Input Label.

Global Setup - Channel Balance & Volume Preset

This section pertains to balancing the speaker channels. The SSD-66 (5.1) has a built-in "pink noise" generator that permits you to raise and lower individual channels' volume levels to precisely set volume levels in your room. While it is possible to set the speaker levels by listening to each channel, it is recommended to follow these procedures using a Sound Pressure Level Meter (SPL Meter).

Pink Noise

The SSD-66 (5.1) has two "pink noise" modes. One permits you to select a channel and manually switch to another channel when you are ready ("PINK NOISE" mode). The second "pink noise" mode automatically sequences through all speaker channels ("PINK NSE SEQ" mode). The first mode is typically used during initial setup and the second mode is used for confirming final calibration by automatically providing sweeps of the entire speaker array.

To engage the SSD-66 (5.1) "pink noise" generator:

1 Press the NOISE button. The SSD-66 (5.1)'s display will read either "PINK NOISE" or "PINK NSE SEQ". To toggle between "pink noise" modes, repeatedly press the NOISE button.

2 To exit the SSD-66 (5.1)'s "pink noise" generator, press either the INPUT SELECT button at any time.

Initial Channel Balance

Typically, it will be easier to balance channels correctly with the "pink noise' generator set to "PINK NOISE" rather than "PINK NSE SEQ". Situate the SPL meter in the center of the room and make certain that the meter's range is capable of reading 75 dB. Additional SPL meter settings call for the unit to be set to "C-Weighted, Slow Mode".

Front Channel Balance

1 Repeatedly press the NOISE button until the SSD-66 (5.1)'s display reads "PINK NOISE".

2 Press the CENTER button. The pink noise should be heard on the center speaker and the SSD-66 (5.1)'s vector scope will indicate center channel pink noise with a bobbing green line going upward from the center of the display.

3 Use the VOL UP or VOL DN buttons to raise or lower the pink noise level until the SPL meter shows a steady 75 dB.

4 Press the RIGHT button. The pink noise should be heard on the right speaker and the SSD-66 (5.1)'s vector scope will indicate right channel pink noise with a bobbing green line going diagonally upward to the right, from the center of the display.

5 Use the VOL UP or VOL DN buttons to raise or lower the pink noise level until the SPL meter shows a steady 75 dB.

6 Press the LEFT button. The pink noise should be heard on the left speaker and the SSD-66 (5.1)'s vector scope will indicate left channel pink noise with a bobbing green line going diagonally upward to the left, from the center of the display.

7 Use the VOL UP or VOL DN buttons to raise or lower the pink noise level until the SPL meter shows a steady 75 dB.

Surround Channel Balance

The surround channels need to deliver an SPL reading of 75 dB when pink noise is played through both speakers simultaneously. However, you will want to balance the two channels individually prior to setting the pink noise for both surround channels. The SSD-66 (5.1) permits you to select the left, right, or combined rear channel noise by repeatedly pressing the REAR button. This will toggle the SSD-66 (5.1) between the rear channel pink noise options.

8 While still in the "PINK NOISE" mode, repeatedly press the REAR button until the SSD-66 (5.1)'s display reads "NOISE R SURR". The pink noise should be heard on the right surround speaker and the SSD-66 (5.1)'s vector scope will indicate right surround channel pink noise with a bobbing green line going diagonally downward to the right, from the center of the display.

9 Use the VOL UP or VOL DN buttons to raise or lower the pink noise level until the SPL meter shows a steady 75 dB.

10 Repeatedly press the REAR button until the SSD-66 (5.1)'s display reads "NOISE L SURR". The pink noise should be heard on the left surround speaker and the SSD-66 (5.1)'s vector scope will indicate left surround channel pink noise with a bobbing green line going diagonally downward to the left, from the center of the display.

11 Use the VOL UP or VOL DN buttons to raise or lower the pink noise level until the SPL meter shows a steady 75 dB.

12 Repeatedly press the REAR button until the SSD-66 (5.1)'s display reads "NOISE L/R SR". The pink noise should be heard on both the left and right surround speakers and the SSD-66 (5.1)'s vector scope will indicate both surround channels' pink noise with a bobbing green line going downward from the center of the display.

13 At this point, your SPL meter should be reading a steady 75 dB. If the meter is reading a slightly lower or higher dB level, use the VOL UP or VOL DN buttons to raise or lower the pink noise level until the SPL meter shows a steady 75 dB.

Bass Channel Pink Noise - Subwoofer Level

The bass signal, when dealing with digitally encoded software, becomes an important and distinct component in home theater. No longer is bass strictly a summing characteristic, combining bass signals from other channels, for Pro Logic playback. With ".1" encoded material (5.1), the bass signal is its own discrete signal. Since each system incorporating an SSD-66 (5.1) will be used for both AC-3 (and DTS) digital playback as well as Pro Logic playback, the bass handling will need to be both mode and input specific. That is why the bass control aspects for the SSD-66 (5.1) will be discussed in greater detail under Acoustical Parameters. In addition to the Input Label specific setup features of bass summing and bass redirection, bass level control can also be set per input label. However, prior to proceeding with this setup, the "global" bass level for the home theater system will need to be set using the SSD-66 (5.1)'s Pink Noise generator.

14 Press the NOISE button twice. The first time the Pink Noise Sequence will engage and the second press will activate the Pink Noise per Channel. Press the ALL button to engage Bass Pink Noise.

15 Use the VOL UP or VOL DN buttons to raise or lower the pink noise level until the SPL meter shows a steady 75 dB.

Acoustical Preset Programming

At this time you will wish to preserve the settings that you have just calibrated for the five main channels & the subwoofer. To lock the settings into the SSD-66 (5.1):

16 Press and hold (do not let go) the VOL PRESET. The display will initially indicate "RECALL VOL". Continue holding down the VOL PRESET button until the display changes to "STORE VOL". Release the VOL PRESET button immediately after "STORE VOL" is displayed.

Pressing and holding the VOL PRESET button will toggle between "RECALL VOL" and "STORE VOL". If you are trying to store the volume parameters and have passed the "STORE VOL" indicator, continue holding the VOL PRESET button until the display returns to "STORE VOL". Release the VOL PRESET button as soon as the display indicates "STORE VOL".

Acoustical Parameters - Introduction

While the SSD-66 (5.1)'s Global Parameters, once set, are constant regardless of Input Label selection. Thus these parameters, will remain unchanged as you proceed to set the Acoustical Parameters for each Input Label that you are using.

The SSD-66 (5.1) is uniquely flexible in that each Input Label has its own set of Acoustical Parameters which include the following:

Input Labeling - Each Input Label, numbered 1-14, has a programmable nine character label which can be easily altered. Thus, if an existing Input Label is an inaccurate description of the source component, you can alter the name of the Input Label to suit your installation.

Active Speakers - The speaker channels that are going to be used can be independently set per Input Channel. For example, while all speakers will be used for a VCR (Pro Logic mode), only the front two speakers may be active for a CD PLAYER (Stereo mode).

PCM Scale - The term PCM (Pulse Code Modulation) typically refers to the digital stereo audio channels (PCM Stereo) on laser discs and CDs. For this reason, the Input Label for non-AC-3 formatted laser disc source material is labeled "LASER PCM". The term PCM Scale refers to the relative volume level based on a scale from 0-255. The standard PCM Scale setting is "127". This represents the highest volume level (most bits) which can be set using the PCM Scale as a volume contour control. Thus using "127" as the high point, volume will decrease as you either lower or increase the PCM Scale from the center "high point" value of 127. Please note, that when using the PCM Scale as a volume control, the reduction of volume level, as you increase or decrease from "127", is a result of the processor skipping bits. Since bits represent audio information, PCM Scale settings other than "127", will also result in some data loss. The PCM Scale can be individually set per Input Label. Thus, source input levels can be individually adjusted using the PCM Scale. This may result in a loss of information and should only be used if volume level balancing per input is absolutely essential.

THX Re-Equalization (Primarily for Film Soundtracks) - Home THX Controllers decode the audio track signals using Dolby's Pro Logic or digital 5.1 channel circuitries (AC-3 & DTS). This is precisely how it's done in the dubbing stage monitoring system during the original recording. However, unlike other systems which simply amplify and reproduce the resulting soundtrack channels, Home THX applies unique enhancements before these decoded signals are reproduced.

"Re-equalization," compensates for the effect of reproducing sounds in a smaller room that have been originally processed for a large movie theatre with high-frequency equalization. Without this process, the sound levels would be skewed toward the higher frequencies, making the sound seem overly "hissy" or brilliant. Unlike a large theatre, the smaller video-viewing rooms in a home would not acoustically attenuate those "highs." Home THX Re-equalization restores the original response characteristics before the signals are amplified and used to drive loudspeakers.

Bass Summing - The SSD-66 (5.1) has the ability to work a bass signal in three different ways. The first is only used when all speakers are large enough to handle full bass information and where the subwoofer is only used for low frequency effects similar to a movie theater's setup. This "bass sum" setting is "LFE ONLY = SUB". The more common bass sum setting is a sum of the five speaker channels bass information in addition to the LFE channel (low frequency effects). This "LCRS + LFE=SUB" setting is to be used in most theater setups. The final bass sum setting is specifically designed for DTS playback. When listening to DTS recordings, the bass sum filter should be set to "SUM -10DB=SUB" which reduces the heavy bass level found in most DTS recordings. Thus, when switching from an non-DTS input to a DTS input, the bass volume level does not need to be altered.

Bass Redirect - The SSD-66 (5.1) has the ability to redirect the bass information from a number of different channels to either the subwoofer or other channels. This is useful based on speaker configurations and surround mode and is therefore an Acoustical Parameter per Input Label rather than a Global Parameter.

Bass Level per Input Label - Bass volume level can be set per Input Label as bass will vary greatly per mode and source type. While the bass level for all Input Labels has already been set using Pink Noise (see page 35), the bass level can now be altered and stored per Input Label. For this procedure, it is recommended that a music, broadcast, or film source be in play as the adjustments are made per Input Label. As the new bass level is set and stored for each Input Label, it will track the volume with respect to the other channels.

For example, if Input Label #1 has the main five channels set to a volume level of -22 dB (overall) with each channels volume level at R=-23, L=-24, C=-23, RS=-22, & LS=-23, Input Label #2 will also have these same settings when selected (assuming volume is not changed prior to switching Input Labels). Furthermore, Input Label #1 can have a bass level of SUB=-28 while Input Label #2 has a bass level of SUB=-25. Again, when switching from Input Label #1 to Input Label #2, assuming volume has not been changed, while the main five channels will remain the same, the bass level will not. Please note, that the overall volume level is based on the highest level of all six channels, in this case RS. As volume is raised and lowered for ALL speakers, the bass level will raise and lower in proportion to the bass level for each Input Label.

Please note, that the reading for ALL channels (master volume level) will display the highest channel's volume setting. If the subwoofer level for one Input Label is greater than any of the other channels volume setting, the master volume level will seem to alter as you switch to an Input Label that has another channel as the highest volume level.

Default Mode - Each Input Label can have its own default mode such that when that input is selected, the SSD-66 (5.1) will automatically switch to a preprogrammed surround sound mode. This is especially useful if more than one input label is selected for the same source component. For example, if a TV Tuner source has two Input Labels assigned to it, TV SURROUND and TV MONO, the TV SURROUND Input Label will have a Pro Logic default mode accessed when viewing movies and the TV MONO Input Label will have a mono default mode for viewing news broadcasts or other non-stereo broadcasts.

Acoustical Parameters (cont.) - Input Labeling

The SSD-66 (5.1) has a total of fourteen Input Labels with corresponding Input Label numbers 1-14. While the Input Label numbers are fixed, the nine character Input Label names are fully variable. Thus you can customize your SSD-66 (5.1) to read Input Label names that correspond to your source component system configuration. Furthermore, since the SSD-66 (5.1) has a total of seven audio inputs and fourteen Input Labels, you can use more than one Input Label name to access the same source. This feature is especially useful if you wish to listen/view a particular component with different acoustical parameters. This becomes especially useful if your home theater system is controlled by a computer based touch screen system, since all fourteen Input Label names can be directly accessed with the touch of one button.

Example
If you will be listening to your CD player in both a Stereo Bypass mode and a Quad Bypass mode, depending on your pleasure, you can setup the SSD-66 (5.1) with two Input Labels assigned to the same CD player. One Input Label might read "CD STEREO" and the other "CD QUAD", where each Input Label would have its own default mode, active speaker setup, bass redirect setting, and PCM scale.

To change an Input Label, follow these steps.

Step 1 Repeatedly press the INPUT SELECT button until the SSD-66 (5.1)'s display reads the Input Label you wish to alter.

Step 2 Repeatedly press the SETUP MODE button until the SSD-66 (5.1)'s display reads "LABEL INPUTS". Note, the SSD-66 (5.1) is designed to time-out automatically from the "Setup Mode". If this should happen, the LED on the SETUP MODE button will turn off. To pickup where you left off, press the SETUP MODE button again.

Step 3 Press the "ALL" button to engage the character cursor. The words "LABEL INPUTS" will be replaced by the Input Label currently selected. Furthermore, the first letter of the displayed Input Label name will begin to flash letting you know that this letter is ready to be changed.

Step 4 Use the RIGHT or LEFT button to scroll up and down (respectively) through alphanumeric characters, symbols, and numbers until the letter for the first character you wish to change to is displayed.

Step 5 Press the CENTER button to advance to the cursor to the next letter.

Step 6 Again, use the RIGHT or LEFT button to change this next letter. If you pass the correct letter in the character generator when pressing the LEFT button, pressing the RIGHT button will scroll back to it.

Step 7 Repeat this process of using the CENTER button to move the cursor and the RIGHT or LEFT buttons to change the letters until you spelled out the Input Label name as you wish it to read.

Step 8 Press the INPUT SELECT button again. This will exit the "Setup Mode" and save the changes to the Input Label.

Step 9 You can now proceed to advance to the next Input Label name you wish to change (if any) by pressing the Input Select button. Once on the desired Input Label name is displayed, proceed by repeating steps 2-8.

Acoustical Parameters (cont.) - Active Speakers

The SSD-66 (5.1) can have several different active speaker setups which are programmed per Input Label. The chart to the right indicates the modes which permit setup of the Active Speaker function and also the modes which actually operate with this funciton. Please note, that in two modes, you cannot even setup this function. The Active Speaker parameters include the following:

MODE	ACCESS ACTIVE SPEAKER FUNCTION IN SETUP MODE	OPERATES ACTIVE SPEAKER FUNCTION WHEN IN MODE
DOLBY AC-3	YES	YES
AC-3 NIGHT	YES	YES
PRO LOGIC	YES	YES
3 CH STEREO	NO	NO
PHANTOM	NO	NO
STEREO	YES	NO
MUSIC	YES	YES
QUAD BYPASS	YES	NO
5 CH BYPASS	YES	YES
PHANTOM PLUS	YES	NO

LF/RF/C/LRS - This setting indicates that all speakers are active for a particular Input Label. Commonly, this Active Speaker configuration is used for both Pro Logic, AC-3, and all music modes.

LF/RF S-COMP - This speaker configuration will activate only the front right and left channels while down-mixing the surround channel AC-3 mix to the front right and left channels. When this format is assigned to an Input Label with a Pro Logic mode, this format will not operate.

CENTER ONLY - This setting indicates that only the center channel speaker is active. This Active Speaker setting is ideal for Input Labels specifically designed to play only a mono TV broadcast signal such as a news broadcast.

LF/RF NORMAL - This setting activates only front left and right speakers. This setting can be used for playback of stereo source material in a stereo bypass mode.

LF/RF/CENTER - This setting activates only the front right, front left, and center channel speakers.

LF/RF/RS/LS - This speaker configuration activates both right and left front and rear channels, leaving the center channel off. This Active Speaker setting can be used for Input Labels assigned to music sources and the Quad Bypass mode.

Assuming the bass settings have the subwoofer on, the subwoofer will always be active for any of the above Active Speaker configurations. To set the Active Speaker configuration:

Step 1 Repeatedly press the INPUT SELECT button until the first Input Label appears, typically this will read as "LASER AC3 1".

Step 2 Press the MODE button and make certain that you are in a mode other than "3 CH STEREO" or "PHANTOM".

Step 3 Repeatedly press the SETUP MODE button until the display reads one of the Active Speaker configurations.

Step 4 Repeatedly press the VOL UP button until the display reads the desired setup.

Step 5 Press the INPUT SELECT button once to exit the "Setup Mode". Press the INPUT SELECT button again, the SSD-66 (5.1) should advance to the next Input Label.

Step 7 Press the SETUP MODE button once, the SSD-66 (5.1) display should automatically come up with one of the Active Speaker setups.

Step 8 Repeat Steps 2-7 until all the Input Labels you are using have been set.

Acoustical Parameters (cont.) - PCM Scale Settings

As introduced on page 36, the term PCM (Pulse Code Modulation) typically refers to the digital stereo audio channels (PCM Stereo) on laser discs and CDs. The term PCM Scale refers to the relative volume level based on a scale from 0-255. The standard PCM Scale setting is "127". This represents the highest volume level which can be set using the PCM Scale as a volume contour control. Thus using "127" as the high point, volume will decrease as you either lower or increase the PCM Scale from the center "high point" value of 127. Please note, that when using the PCM Scale as a volume control, the reduction of volume level, as you increase or decrease from "127", is a result of the processor skipping bits. Since bits represent audio information, PCM Scale settings other than "127", will also result in some data loss. The PCM Scale can be individually set per Input Label. Thus, source input levels can be individually adjusted using the PCM Scale. This may result in a loss of information and should only be used if volume level balancing per input is absolutely essential.

The SSD-66 (5.1) will arrive with all Input Labels set to the standard PCM Scale factor of "127". To alter the PCM Scale for each Input Label follow these steps.

Step 1 Repeatedly press the INPUT SELECT button until the Input Label you wish to adjust appears in the SSD-66 (5.1)'s display.

Step 2 Repeatedly press the SETUP MODE button until the words "PCM SCALE" appear. Once "PCM SCALE" appears, the display will change and read the current PCM Scale for this Input Label, typically "127".

Step 3 Use the VOL UP or VOL DN buttons to alter the PCM Scale for this Input Label. Please note, that the volume level will lower as you reduce or increase the PCM setting away from "127", the highest output level available.

Step 4 Once a desired setting is reached, press the INPUT SELECT button to exit the program mode.

Step 5 Repeat Steps 1-4 for all additional Input Labels for which you wish to alter the PCM Scale settings.

Acoustical Parameters (cont.) - THX Re-Equalization

The SSD-66 (5.1) also has the added benifit of THX certified Re-Equalization filters for each of the fourteen input labels. This filter normalizes film sound tracks which were mixed for larger rooms (theaters). Thus, ADA suggests leaving this filter on for Input Labels which will play movies (i.e. laser disc and VCR inputs) and leaving it off for Input Labels which will play music (i.e. CDs, Cassette, and DTS MUSIC).

Step 1 Repeatedly press the INPUT SELECT button until the Input Label you wish to adjust appears in the SSD-66 (5.1)'s display.

Step 2 Repeatedly press the SETUP MODE button until the words "L/C/R EQ OFF" or 'L/C/R EQ ON" appear.

Step 3 Use the VOL UP or VOL DN buttons to turn the Re-EQ Filter on or off for this Input Label.

Step 4 Once a desired setting is reached, press the INPUT SELECT button to exit the program mode.

Step 5 Repeat Steps 1-4 for all additional Input Labels.

Bass Summing

The subwoofer(s) is an essential speaker in an advanced home theater system. You can use one or more subwoofers in any home theater system. It is designed to provide sound reinforcement of the low frequencies (below 80Hz). With AC-3 encoded source materials, the subwoofer takes on a whole new dimension. While it is typically used as a specialized "low frequency" speaker in standard Pro Logic or Stereo playback, with AC-3, the subwoofer acts more as an effects channel. The term "5.1" (Digital Discrete Home Theater) refers to the main five speaker channels ("5") and the ".1" refers to the channel more commonly called the "LFE" Channel or "Low Frequency Effects" Channel.

The LFE Channel, when playing an AC-3 and DTS encoded source (i.e. AC-3 Laser Disc), receives specialized bass information in addition to the standard bass information. This LFE signal contains information as its name would indicate, low frequency effects, such as explosions, drums, bass, rumbles, impacts, and others. This aspect of AC-3 and DTS Digital Surround makes the encoding format unique and more dramatic. Some material may have no LFE information or LFE channel. The SSD-66 (5.1) provides two means to determine the presance of LFE. The six quadrant vector-scope will indicate bass information with illumination of the outer segments on the right & left side of the scope. Also, when playing AC-3 material, the AC-3 Status Feedback (bottom of page 54) will indicate whether the source was encoded with an LFE channel. With DTS decoding, the bass is enhanced. For Input Labels set to the Multi-Pin Input (MUTI PIN/V#), the LFE information needs to be lowered 10 dB.

The SSD-66 (5.1) permits the subwoofer to receive either the LFE Channel (only), the LFE Channel summed (combined) with the bass information from all of the other five channels, or the summed bass information and the LFE were the LFE is lowered by 10 dB. Unless you are using large, full-range speakers for all of the speaker channels, you will want to sum the bass information from all of the speaker channels with the low frequency effects channel. Thus the subwoofer will pass not just the ".1" encoded special effects, but also the bass information which would normally be lost, as the other speakers in the system cannot properly handle low frequencies.

We will set the subwoofer's bass-sum filter for each Input Label in the following pages. Thus the bass-sum filter, bass redirect filter, and bass level control will all be set at the same time.

Bass Redirect

Bass redirection refers to the SSD-66 (5.1)'s ability to transfer the bass information of one speaker to another speaker(s) better capable of playing low frequencies. This option is essential, especially when the center channel speaker is relatively small in size and in adequate for playing heavy bass audio segments.

While the bass redirection option is typically associated to the global speaker setup, the SSD-66 (5.1) is flexible enough to permit each input its own redirect position. This permits you to setup the SSD-66 (5.1) where each source and even further, each Input Label, has its own bass redirection setting. Please note, that if you wish to use the same bass redirection setting for each source, you will need to set it for each Input Label individually. The available bass redirection options include:

No Redirect (Center Wide) - Used when all front speakers are of equal size. No redirection will keep each channels bass information directed to only that speaker. If the speaker is not capable of processing low frequencies, the 80Hz Cutoff Filter will already have been turned off during the Global Speaker Configuration Setup (pages 24-27). To provide the subwoofer with bass information, the previously discussed Bass Summing filter is used. No redirection is the ideal setting for non-digital (AC-3 or DTS) playback such as Pro Logic or music playback.

C To LF/RF(Center Normal) - Used when the center speaker is smaller than the front right and left speakers and the front right and left speakers are larger-full range speakers. This sends the center channels bass information to the front right and left speakers.

LRF/C To Sub - Used only if the subwoofer has an active crossover. This setting sends the front right, center, and front left speakers bass information to the subwoofer and is ideally used when all front speakers are smaller speakers, not capable of handling low frequencies and the subwoofer has an active filter. If the subwoofer does not have an active filter, the sub will receive wide band bass signal.

C To Sub - Used only if the subwoofer has an active crossover. This setting will send the center channel's bass information to the subwoofer. If the subwoofer does not have an active filter, the sub will receive wide band bass signal.

While you will most likely set all Input Labels to the same bass redirection option, depending on the source component being used, you may opt for different bass redirection options per Input Label in particular when the Input Label is set to either AC-3 or DTS decoding. Use the chart below to set the bass sum and bass redirect. The best way to determine alternate bass redirection options will be through trial and error, since each room, speaker package, etc. will vary from project to project. If you are in a rush to setup the system, use one of the three following options and set them up for each Input Label.

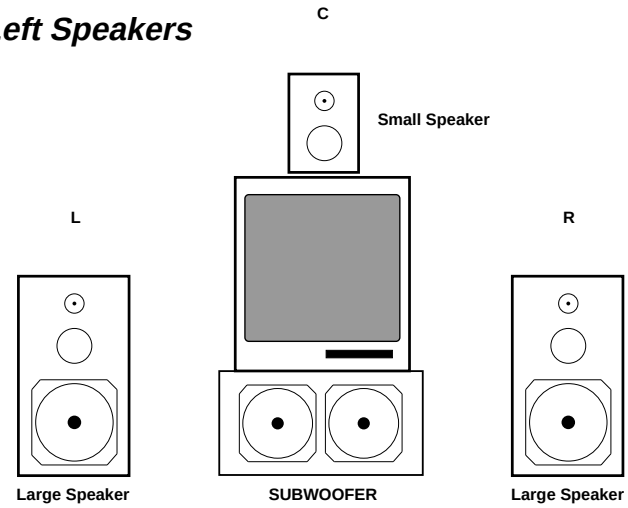
Please note, that in order to set bass redirection for an Input Label, you cannot be in either the "STEREO" or "QUAD BYPASS" modes.

MODE	CENTER SPEAKER	FRONT SPEAKERS	SURROUND SPEAKERS	BASS REDIRECT	BASS SUMMING	NOTES
PRO LOGIC & AC-3	SMALL	SMALL	SMALL	NO REDIRECT	LCRS+LFE=SUB	Use when the front speakers are of size.
PRO LOGIC & AC-3	LARGE	LARGE	LARGE	NO REDIRECT	LCRS+LFE=SUB	Use when the front speakers are of size.
PRO LOGIC & AC-3	SMALL	LARGE	SMALL	C TO LF/RF	LCRS+LFE=SUB	Use when the center channel is smaller than the front channels.
PRO LOGIC & AC-3	SMALL	LARGE	LARGE	C TO LF/RF	LCRS+LFE=SUB	Use when the center channel is smaller than the front channels.
DTS	SMALL	SMALL	SMALL	N/A	SUM-10DB=SUB	Use for any Multi-Pin Input Label
DTS	LARGE	LARGE	LARGE	N/A	SUM-10DB=SUB	Use for any Multi-Pin Input Label
DTS	SMALL	LARGE	SMALL	N/A	SUM-10DB=SUB	Use for any Multi-Pin Input Label
DTS	SMALL	LARGE	LARGE	N/A	SUM-10DB=SUB	Use for any Multi-Pin Input Label
AC-3	LARGE	LARGE	LARGE	NO REDIRECT	LFE ONLY=SUB	Use to recreate theater like bass, where the bass is its own signal. Please note, some digital software may not contain any bass signal and with these settings, no bass will be created from the sub.
DTS	LARGE	LARGE	LARGE	N/A	LFE ONLY=SUB	

Acoustical Parameters (cont.) - Bass Sum & Redirect

OPTION ONE - Small Center & Large Right/Left Speakers

When working with larger full-range (good with bass frequencies) front channel speakers and a smaller (poor bass-handling) center channel speaker, as illustrated to the right, you will want to redirect the center channels bass information to either the front right and left speakers or the subwoofer. While the option does exist to send the center channels bass information to the subwoofer, it is strongly recommended to send the center channels bass information to the front left and right speakers instead.



To bass sum filter, the bass redirection filter, and the bass level follow these steps.

Step 1 Repeatedly press the INPUT SELECT button until the first Input Label appears, typically this will read as "LASER AC3 1".

Step 2 Press the MODE button to make certain that you <u>are not</u> in the "STEREO", "QUAD BY-PASS", or "DIRECT" mode (the DIRECT mode is automatically engaged for an Input Label set to the Multi-Pin Input for DTS Decoding). If this is a DTS Input Label, skip to step 5.

Step 3 Repeatedly press the SETUP MODE button until the display reads one of the following: *"NO REDIRECT", " C TO LF/RF", "LRF/C TO SUB",* or *"C TO SUB"*

Step 4 Repeatedly press the VOL UP button until the display reads " C TO LF/RF".

Step 5 Press the ALL button to set the Bass Sum to the desired setting (typically "LCRS+LFE=SUB" for Pro Logic/AC-3/Music and "SUM-10DB=SUB" for DTS. "LFE ONLY=SUB" can be used for DTS and AC-3 playback of film material if desired.)

Step 6 Press the INPUT SELECT button once to exit the "Setup Mode".

Step 7 Turn on the source component for this Input Label and engage it into play. Momentarily press the VOL PRESET button to recall the volume level set with Pink Noise. During this setup, it is recommended that the volume levels for the five main channels not be altered.

Step 8 Press the ALL button until the display reads "SUB ### DB". Press the VOL UP and DN buttons to adjust the bass level for this Input Label. You will want to use a film or music segment which contains some bass information. Note that the bass level for each input is individually adjustable and you may need to listen to a particular segment repeatedly.

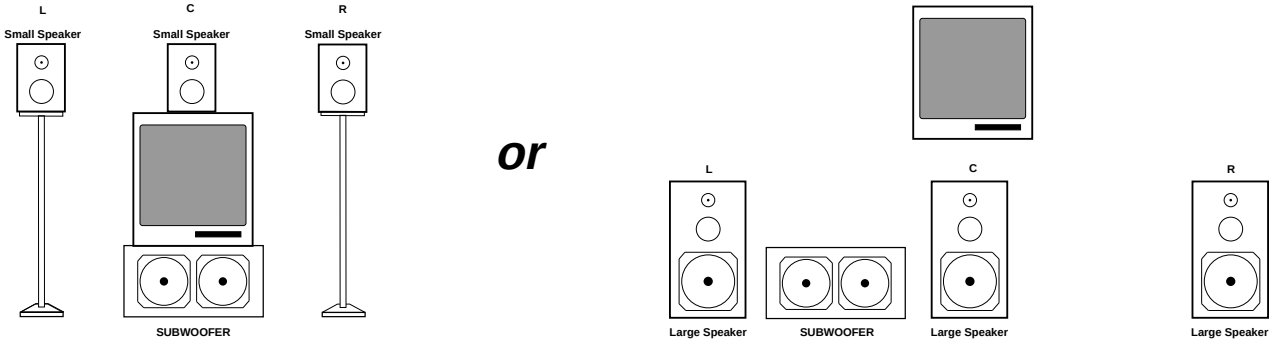
Step 9 When the desired bass level is set, press and hold the VOL PRESET button until the display reads "STORE VOL". This will add the new bass setting to the for this specific Input Label to the other five channel's volume preset calibrated with pink noise.

Step 10 Press the INPUT SELECT button to advance to the next Input Label.

Step 11 Repeat steps 2-10 for each Input Label. Please note, that the bass level adjustment and the storing of the VOL PRESET is specific for each Input Label. In fact the SSD-66 (5.1) permits a total of fourteen bass level volume presets, one for each Input Label.

OPTION TWO - All Three Front Channels are the same size.

For the best results, three identical loudspeakers should be used for the center, front left, and front right channels. These speakers can be THX Home theater speakers, other small front channel speakers, or large full-range speakers. For either speaker configuration, no bass redirection is required as the speakers will either process bass (large speakers) or not process bass (small speakers). When only using the bass crossover, built into the SSD-66 (5.1), redirection of any channels' bass information to the subwoofer will cause the subwoofer to process full frequency audio. Unless the subwoofer has a built-in active crossover (see option 3), this option should be used when the all front channel speakers are the same size.



Step 1 Repeatedly press the INPUT SELECT button until the first Input Label appears, typically this will read as "LASER AC3 1".

Step 2 Press the MODE button to make certain that you <u>are not</u> in the "STEREO", "QUAD BYPASS", or "DIRECT" mode (the DIRECT mode is automatically engaged for an Input Label set to the Multi-Pin Input for DTS Decoding). If this is a DTS Input Label, skip to step 5.

Step 3 Repeatedly press the SETUP MODE button until the display reads one of the following: *"NO REDIRECT", " C TO LF/RF", "LRF/C TO SUB",* or *"C TO SUB"*

Step 4 Repeatedly press the VOL UP button until the display reads "NO REDIRECT".

Step 5 Press the ALL button to set the Bass Sum to the desired setting (typically "LCRS+LFE=SUB" for Pro Logic/AC-3/Music and "SUM-10DB=SUB" for DTS. "LFE ONLY=SUB" can be used for DTS and AC-3 playback of film material if desired.)

Step 6 Press the INPUT SELECT button once to exit the "Setup Mode".

Step 7 Turn on the source component for this Input Label and engage it into play. Momentarily press the VOL PRESET button to recall the volume level set with Pink Noise. During this setup, it is recommended that the volume levels for the five main channels not be altered.

Step 8 Press the ALL button until the display reads "SUB ### DB". Press the VOL UP and DN buttons to adjust the bass level for this Input Label. You will want to use a film or music segment which contains some bass information. Note that the bass level for each input is individually adjustable and you may need to listen to a particular segment repeatedly.

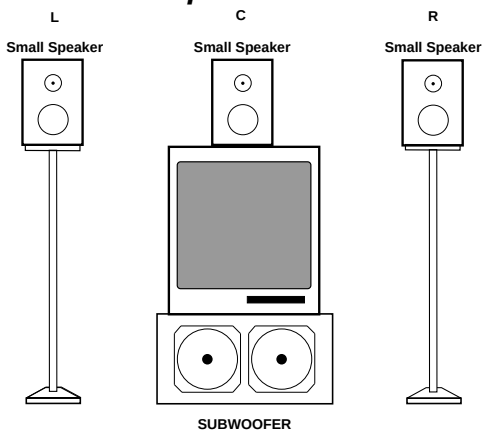
Step 9 When the desired bass level is set, press and hold the VOL PRESET button until the display reads "STORE VOL". This will add the new bass setting to the for this specific Input Label to the other five channel's volume preset calibrated with pink noise.

Step 10 Press the INPUT SELECT button to advance to the next Input Label.

Step 11 Repeat steps 2-10 for each Input Label.

Acoustical Parameters (cont.) - Bass Sum & Redirect

OPTION THREE - Subwoofer has an active crossover & all front speakers are small.



For the best results, three identical loudspeakers should be used for the center, front left, and front right channels. These speakers can be THX Home theater speakers or other small front channel speakers and for this option, need to be used with a subwoofer that has its own built-in active crossover. If the subwoofer has an active crossover, it can filter out high frequencies, permitting only low frequencies to go to the driver. If this is the case with your home theater system, you can redirect the bass signal from the front channel speakers directly to the subwoofer. It is presumed that the Global Speaker Configuration Settings for the main five channels is already set to "Small Speakers" (80Hz Filter On).

Step 1 Repeatedly press the INPUT SELECT button until the first Input Label appears, typically this will read as "LASER AC3 1".

Step 2 Press the MODE button to make certain that you <u>are not</u> in the "STEREO", "QUAD BYPASS", or "DIRECT" mode (the DIRECT mode is automatically engaged for an Input Label set to the Multi-Pin Input for DTS Decoding). If this is a DTS Input Label, skip to step 5.

Step 3 Repeatedly press the SETUP MODE button until the display reads one of the following: *"NO REDIRECT", " C TO LF/RF", "LRF/C TO SUB",* or *"C TO SUB"*

Step 4 Repeatedly press the VOL UP button until the display reads "LRF/C TO SUB".

Step 5 Press the ALL button to set the Bass Sum to the desired setting (typically "LCRS+LFE=SUB" for Pro Logic/AC-3/Music and "SUM-10DB=SUB" for DTS. "LFE ONLY=SUB" can be used for DTS and AC-3 playback of film material if desired.)

Step 6 Press the INPUT SELECT button once to exit the "Setup Mode".

Step 7 Turn on the source component for this Input Label and engage it into play. Momentarily press the VOL PRESET button to recall the volume level set with Pink Noise. During this setup, it is recommended that the volume levels for the five main channels not be altered.

Step 8 Press the ALL button until the display reads "SUB ### DB". Press the VOL UP and DN buttons to adjust the bass level for this Input Label. You will want to use a film or music segment which contains some bass information. Note that the bass level for each input is individually adjustable and you may need to listen to a particular segment repeatedly.

Step 9 When the desired bass level is set, press and hold the VOL PRESET button until the display reads "STORE VOL". This will add the new bass setting to the for this specific Input Label to the other five channel's volume preset calibrated with pink noise.

Step 10 Press the INPUT SELECT button to advance to the next Input Label.

Step 11 Repeat steps 2-10 for each Input Label.

Acoustical Parameters (cont.) - Default Modes

The SSD-66 (5.1) has a total of ten surround sound modes, two of which are dedicated to AC-3 decoding and eight surround sound modes for two channel audio. These modes are described in detail in the upcoming sections of this manual. The mode names are as follows:

DOLBY AC-3 *(AC-3 Sources Only)*	***AC-3 NIGHT*** *(AC-3 Sources Only)*
PRO LOGIC	***3 CH STEREO***
PHANTOM	***STEREO***
MUSIC	***QUAD BYPASS***
5 CH BYPASS	***PHANTOM PLUS***

One of the SSD-66 (5.1)'s best features is that as you switch through Input Labels, the SSD-66 (5.1) can automatically engage a specific surround sound mode. Thus, as you skip from "LASER AC3 1" to "CD PLAYER 6", the SSD-66 (5.1) will automatically change its decoding mode from "DOLBY AC-3" to "QUAD BYPASS". The ability to select a different "Default Mode" for each Input Label is programmed directly on the SSD-66 (5.1). Furthermore, you can also select that a specific Input Label, when selected, switch to the "Last Mode" used on that Input Label.

DTS Note: For DTS Input Labels set to a Multi-Pin Input, no default mode needs to be selected in that the DTS input is direct and bypasses all other decoding. While in the Setup Mode, it may be possible to set a default mode for a DTS input. Once out of the Setup Mode, the SSD-66 (5.1) will automatically engage the "DIRECT" mode.

ADA recommends that each Input Label that is used, be assigned a "Default Mode". To set the "Default Mode", follow these steps.

Step 1 Repeatedly press the INPUT SELECT button until your first Input Label name appears in the SSD-66 (5.1)'s display.

Step 2 Repeatedly press the SETUP MODE button until the words "DEFAULT MODE" appears in the display.

Step 3 Using the VOL UP or VOL DN buttons, select the desired "Default Mode" for this Input Label. As you press the VOL UP or VOL DN buttons, the SSD-66 (5.1)'s display will scroll through all modes relative to the audio/video link for this Input Label. Thus, if you are on an Input Label for a VCR with an A/V Link assigned to an analog audio input, you will not register "DOLBY AC-3" or "AC-3 NIGHT" modes as these modes are only available when an Input Label has an A/V Link assigned to one of the SSD-66 (5.1)'s digital audio inputs. Furthermore, if you wish this Input Label to always access the last mode used when this Input Label was selected, the term "LAST USED" is available as a "Default Mode".

Step 4 When the desired "Default Mode" appears in the SSD-66 (5.1)'s display, press the INPUT SELECT button to load the memory and exit the programming mode.

Step 5 Press the INPUT SELECT button to advance to the next used Input Label and repeat Steps 2-4 for all other Input Labels which you are using.

Music Surround Sound Modes

The SSD-66 (5.1) has a variety of modes for AC-3 decoding, Pro Logic decoding, TV viewing, and music listening. This section will describe the functions of each mode and the specific parameters available with each mode. As you will see, AC-3 has the most decoding options, Pro Logic has a portion of decoding options, and the music modes will have their own set of decoding options. Please spend some time to review this section to familiarize yourself with these modes.

Surround Sound Modes for Music

The following modes are designed for reproduction of two channel music source material.

Stereo, Music, Quad Bypass, & 5 Ch Bypass

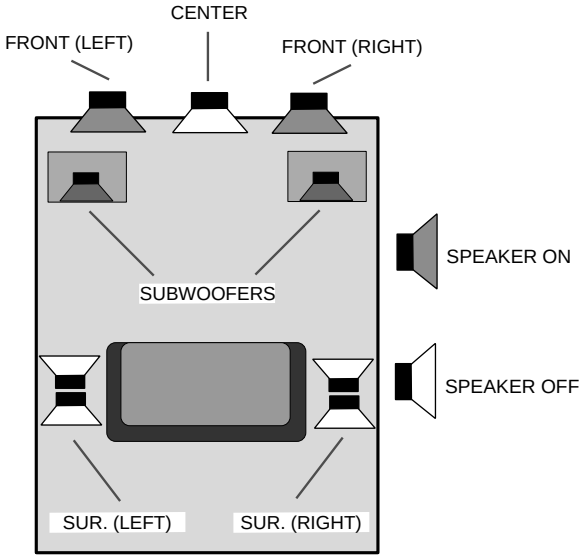
Please note that *Phantom and Phantom Plus* can also be used for music. Also, since some music material may be encoded in either Dolby AC-3 or Dolby Pro Logic, you may use these modes for music playback in addition to the more generic music modes.

Stereo Mode

The Stereo Mode is a two channel bypass mode in which the two front channels are active. The subwoofer is also active and will provide bass information dependent upon your system's setup.

The speakers shaded in gray are the active speakers. The speakers that are shaded white are the inactive speakers.

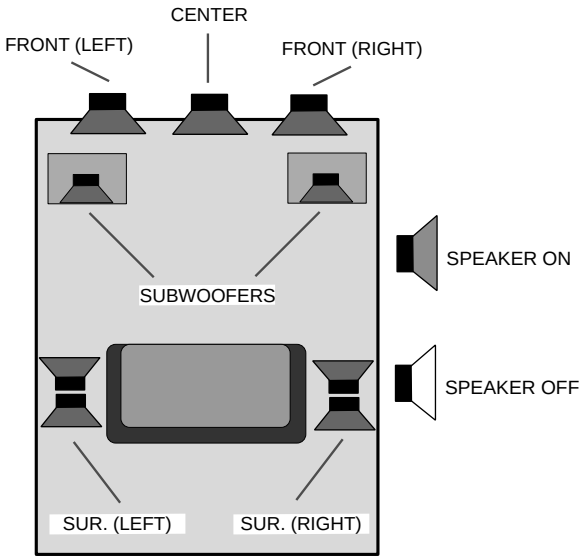
There are no optional settings for this mode other than the Acoustical Parameters set for each Input Label as previously discussed.



Music Mode

The Music Mode is based on Dolby Pro Logic mode and all speakers can be active for this mode including the subwoofer. What makes the Music mode different from the Dolby Pro Logic mode is that the Dolby Noise Reduction filters for the two surround channels is off in the Music mode. Thus the rear channels receive the full 20 Hz to 20,000 Hz bandwidth rather than the 20 Hz to 7,500 Hz bandwidth as mandated for Dolby Pro Logic.

The Music mode has one optional filter in addition to the variable Acoustical Parameters set for each Input Label. This is the Auto Balance filter which can be set to either on or off. When the



Auto Balance filter is on, the right and left channel input levels will automatically balance within 3 dB of each other. To set the Auto Balance feature when in the Music mode:

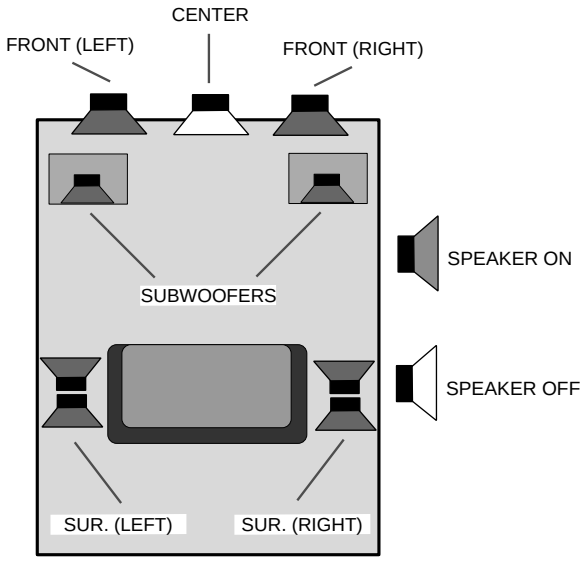
Step 1 Repeatedly press the SETUP MODE button until the display reads either "AUTO BAL ON" or "AUTO BAL OFF".

Step 2 Use the VOL UP or VOL DN buttons to change between the two Auto Balance settings (on or off).

Step 3 Press the INPUT SELECT button to exit the programming mode.

Quad Bypass Mode

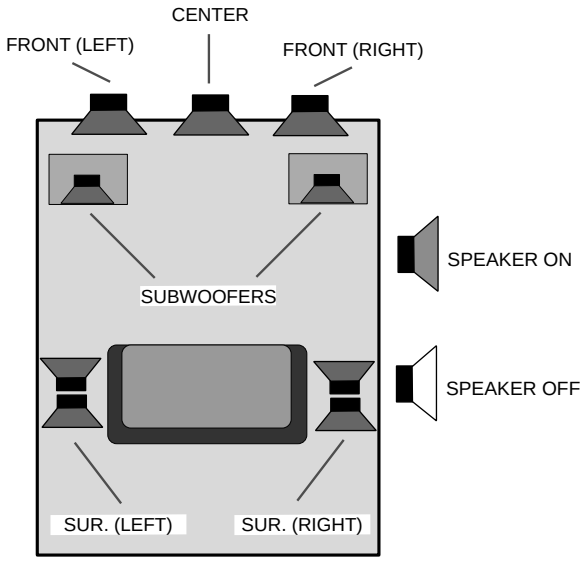
The Quad Bypass mode is most likely the ideal mode for music playback where it is desired to have the both the front right and left with the rear right and left speakers fully active. Thus, stereo is played through the four speakers and the subwoofer. The right front and surround speakers receive the same signal as do the left front and surround channels. The surround channels also operate at full frequency in that the rear channel Dolby Noise Reduction filter is off.



There are no variable adjustments to this mode other than the Acoustical Parameters which can be set per Input Label.

5 Ch Bypass Mode

The 5 Channel Bypass mode will activate all five speakers and the subwoofer. In this mode, the center channel receives the mono information in music. The front right and left receive right and left channel information along with the surrounds.



The 5 Ch Bypass mode has one optional filter in addition to the variable Acoustical Parameters set for each Input Label. This is the Auto Balance filter which can be set to either on or off. When the Auto Balance filter is on, the right and left channel input levels will automatically balance within 3 dB of each other. To set the Auto Balance:

Step 1 Repeatedly press the SETUP MODE button until the display reads either "AUTO BAL ON" or "AUTO BAL OFF".

Step 2 Use the VOL UP or VOL DN buttons to change between the two Auto Balance settings (on or off).

Step 3 Press the INPUT SELECT button to exit the programming mode.

Film & TV Surround Sound Modes

Surround Sound Modes for Film & Broadcast TV

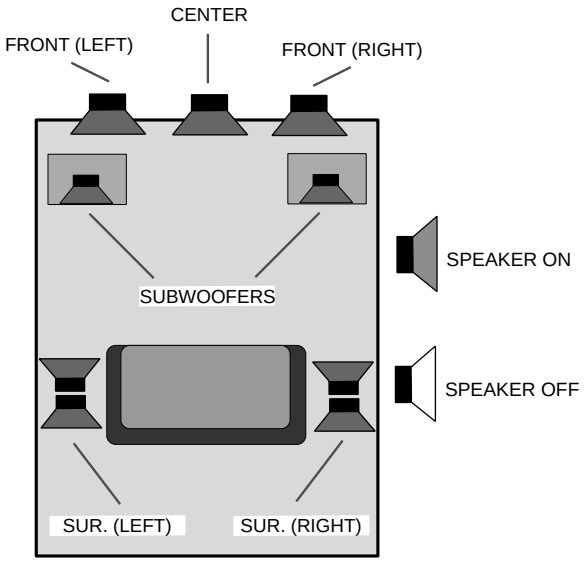
The following modes are designed for reproduction of movies that are encoded in Dolby Pro Logic or for viewing Pro Logic TV, cable, and satellite broadcasts.

Pro Logic, 3 Ch Stereo, & 5 Ch Bypass

While ADA does not recommend using the SSD-66 (5.1) with speaker systems that do not include a center channel speaker, Phantom and Phantom Plus modes are available to provide center channel information to the front left and right speakers.

Pro Logic Mode

Pro Logic is a widely used decoding format and is implemented on most film VCR tapes and laser discs, and movie broadcasts via satellite, cable, as well as off-air TV. Even some recorded musical material is encoded in Pro Logic. Pro Logic is based on a two channel (right & left) stereo mix, with a separate encoded center channel mix (normally for dialog) and surround channel mix. While a typical Pro Logic home theater will use two surround channel speakers (right & left), the surround channel information is mono and thus, both the right and left surround speakers receive the same information. When the SSD-66 (5.1) is in a Pro Logic mode, all speakers will be active as is the subwoofer.



While in the Pro Logic mode, the surround channels will also have a Rear Channel Noise Reduction filter fixed in the on position. This filter is designed to elliminate the higher frequencies by cutting off the bandwidth of the surround channels at 7,500 Hz. Thus, the surround channels in Pro Logic receive a bandwidth of 20 Hz to 7,500 Hz rather than the full audible bandwidth of 20 Hz to 20,000 Hz.

The Pro Logic mode has one optional filter in addition to the variable Acoustical Parameters set for each Input Label. This is the Auto Balance filter which can be set to either on or off. When the Auto Balance filter is on, the right and left channel input levels will automatically balance within 3 dB of each other. To set the Auto Balance feature when in the Pro Logic mode:

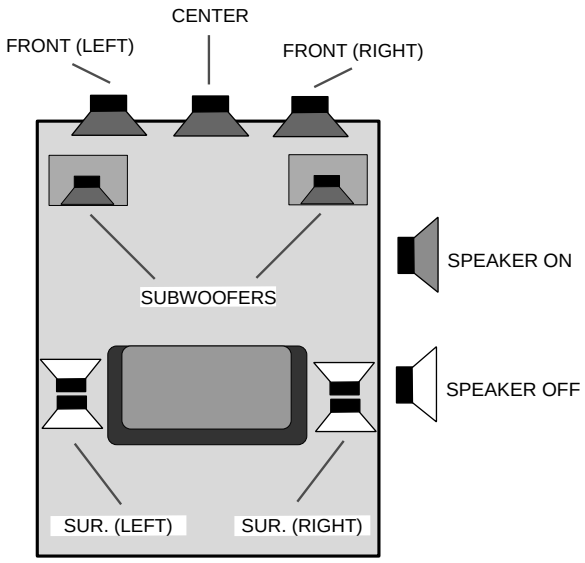
Step 1 Repeatedly press the SETUP MODE button until the display reads either "AUTO BAL ON" or "AUTO BAL OFF".

Step 2 Use the VOL UP or VOL DN buttons to change between the two Auto Balance settings (on or off).

Step 3 Press the INPUT SELECT button to exit the programming mode.

3 Ch Stereo Mode

The 3 Channel Stereo mode is used only when there are no surround speakers in the room or when the user wishes to eliminate the sound coming from the surround speakers. The front three speakers will still get the normal sound field as processed by the Pro Logic circuit. The subwoofer will also be active in this mode.



The 3 Ch Stereo mode has one optional filter in addition to the variable Acoustical Parameters set for each Input Label. This is the Auto Balance filter which can be set to either on or off. When the Auto Balance filter is on, the right and left channel input levels will automatically balance within 3 dB of each other. To set the Auto Balance feature when in the 3 Ch Stereo mode:

Step 1 Repeatedly press the SETUP MODE button until the display reads either "AUTO BAL ON" or "AUTO BAL OFF".

Step 2 Use the VOL UP or VOL DN buttons to change between the two Auto Balance settings (on or off).

Step 3 Press the INPUT SELECT button to exit the programming mode.

Phantom & Phantom Plus Modes

While ADA does not recommend using the SSD-66 (5.1) in a system without a center channel, there two modes can be used to redirect the center channels information to the front right and left channels. As this is a mode based on Dolby Pro Logic decoding, the center channels information is its own even though it is being redirected to the front right and left channels. The surround channels operate as though they were standard Pro Logic Channels. The *PHANTOM PLUS* mode is identical to *PHANTOM*, however, in this mode, the Dolby Rear Channel Noise Reduction filter is off. Thus the surround channels in Phantom Plus receive a bandwidth of 20-20KHz while the surround channels in Phantom receive a bandwidth of 20-15KHz. The active speakers are diagrammed on page 40.

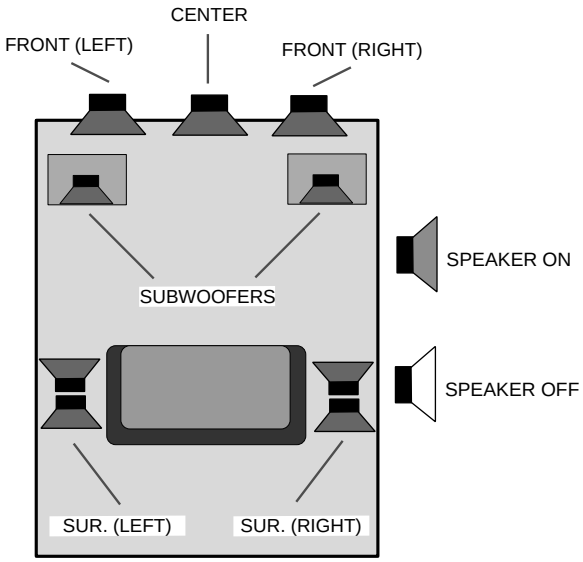
The Phantom and Phantom Plus modes have one optional filter in addition to the variable Acoustical Parameters set for each Input Label. This is the Auto Balance filter which can be set to either on or off. When the Auto Balance filter is on, the right and left channel input levels will automatically balance within 3 dB of each other. To set the Auto Balance feature when in either Phantom or the Phantom Plus mode:

Step 1 Repeatedly press the SETUP MODE button until the display reads either "AUTO BAL ON" or "AUTO BAL OFF".

Step 2 Use the VOL UP or VOL DN buttons to change between the two Auto Balance settings (on or off).

Step 3 Press the INPUT SELECT button to exit the programming mode.

Dolby AC-3 Surround Sound Modes



The SSD-66 (5.1) has two AC-3 surround sound modes which will decode AC-3 source material in a discrete six channel array. Each of the front three speakers and the two surround speakers receive their own distinct audio signal. The subwoofer also receives its own audio signal called "low frequency effects" or more commonly "LFE".

The two modes for AC-3 decoding are "DOLBY AC-3" and "AC-3 NIGHT". Both modes utilize the full complement of AC-3 filters. "AC-3 NIGHT" automatically engages two additional filter settings which reduce the loudest passages (bangs and booms) and raises the lowest passages (whispers). Thus, when in the "AC-3 NIGHT" mode, the sound levels are never to loud and never too low, making it ideal for viewing movies when loud passages could disturb persons who are sleeping.

The AC-3 data bit stream is more than just the audio information from the movie sound track or musical performance. AC-3 bit streams contain several flags and additional information which is read and understood by the SSD-66 (5.1). Thus, the SSD-66 (5.1) can adjust itself based on the type of information being provided by the laser disc, DVD disc, or broadcast.

Step 1 Repeatedly press the INPUT SELECT button until you are on an AC-3 Input Label.

Peak Limit Filter

Step 2 Repeatedly press the SETUP MODE button until the display reads "PEAK LIMIT ON" or "PEAK LIMIT OFF". The Peak Limit filter is a digital limiter to prevent overloading. ADA recommends that this filter always be in the "ON" position.

Step 3 Use the VOL UP or VOL DN buttons to switch between "PEAK LIMIT ON" or "PEAK LIMIT OFF".

Auto Balance Filter

Step 4 Press the SETUP MODE button once to advance the SSD-66 (5.1)'s display to read either "AUTO BALANCE ON" or "AUTO BALANCE OFF". The auto balance circuit will only work for Pro Logic signals encoded onto AC-3 channels. As this is irregular but may occur, ADA suggests that this filter be left in the "ON" position. The Auto Balance feature balances the two channels of a stereo input signal to with 3 dB.

Step 5 Use the VOL UP or VOL DN buttons to switch between "AUTO BALANCE ON" or "AUTO BALANCE OFF".

Repeat Count

Step 6 Repeatedly press the SETUP MODE button until the display reads "REPEAT COUNT". The Repeat Count filter is an error detector which samples the data coming into the SSD-66 (5.1). The range for the repeat counter is "000" through

"008". The setting used determines how many errors are detected before the SSD-66 (5.1) automatically mutes. The typical setting for the Repeat Count is "002".

Step 7 Use the VOL UP or VOL DN buttons to raise or lower the Repeat Counter.

Input Format

Step 8 Repeatedly press the SETUP MODE button until the display reads "SIF S/PDIF" or "SIF NON-FORM". This filter is in place for future AC-3 source material and AC-3 source components. At this time, the filter that must be used is "SIF S/PDIF". This is the current format of AC-3 laser disc software.

Step 9 Use the VOL UP or VOL DN buttons until the display reads "SIF S/PDIF".

Line Modes

Step 10 Repeatedly press the INPUT SELECT button until the display reads either "DIALNORM ON", "DIALNORM OFF", "RF MOD MODE", or "LINEOUT MODE". "RF MOD MODE" is built into the SSD-66 (5.1) for future use with AC-3 radio broadcast transmissions. The "LINEOUT MODE" is used for future two and five channel AC-3 television broadcasts. The "DIALNORM OFF" mode (dialog normalization off) is the most dynamic mode, providing complete dynamic response. The "DIALNORM ON" mode compresses the AC-3 signal so that if it appears to dynamic with the filter off, the signal will appear normalized when on. Thus, while you will not want to use the "RF MOD MODE" or "LINEOUT MODE", you can judge for yourself whether "DIALNORM ON" or "DIALNORM OFF" best suits your taste.

Step 11 Use the VOL UP or VOL DN buttons to select between "DIALNORM ON" or "DIALNORM OFF".

HDR Scale (Automatically Sets to "1=FULL ON" for the AC-3 Night Mode)

Step 12 Repeatedly press the SETUP MODE button until the display reads "HDR SCALE" followed by numbers. The numbers reflect the high level scale which can range from "0=OFF", "0.05", "0.10",...."0.95", and "1=FULL ON". The HDR Scale is used with the "DOLBY AC-3" mode to limit the high level audio signals by the numeric factor applied. Thus, when in "DOLBY AC-3" mode, the bangs and booms can be limited so they are never too loud. This level control is accomplished through digital compression of the AC-3 signal.

Step 13 Use the VOL UP or VOL DN buttons to alter the HDR Scale.

LDR Scale (Automatically Sets to "1=FULL ON" for the AC-3 Night Mode)

Step 12 Press the SETUP MODE button until the display reads "LDR SCALE" followed by numbers. The numbers reflect the high level scale which can range from "0=OFF", "0.05", "0.10",...."0.95", and "1=FULL ON". The LDR Scale is used with the "DOLBY AC-3" mode to the low level audio signals by the numeric factor applied. Thus, when in "DOLBY AC-3" mode, the whispers and subtle audio passages are raised to a level where they can always be heard.

Step 13 Use the VOL UP or VOL DN buttons to alter the LDR Scale.

The HDR Scale and LDR Scale can be selectively set for the "DOLBY AC-3" mode and are always fully engaged for the "AC-3 NIGHT" mode.

AC-3 Status Feedback

The SSD-66 (5.1) is unique among AC-3 processors. Not only can it read information from an AC-3 data bit stream to self adjust its output, but it can also display information coming off the AC-3 source material. This includes full feedback of AC-3 status. To read the information coming into the SSD-66 (5.1) from an AC-3 source material:

Step 1 Make certain that an AC-3 source is in play. When using the RFD-1 RF Demodulator, make certain that the green LED "Lock" indicator is "on".

Step 2 Press the INPUT SELECT button until you are on an AC-3 Input Label.

Step 3 Press the pause button on your laser disc or other AC-3 source component.

Step 4 Repeatedly press the SETUP MODE button until the display reads "AC-3 STATUS". These words will display for only a brief moment and then the display will change to read "AC-3 DST=#", where the "#" will range from "0-5". "0" refers to no errors detected. "1" informs you that the last output block was repeated. "2" informs you that since the input status was non-"0" the output was muted. All these functions indicate the decoders status. This is true since the AC-3 source is in pause.

Step 5 Press play on your laser disc or other AC-3 source component.

Step 6 Press the SETUP MODE button again. The display reads "AC-3 STATUS" followed by "AC-3 DST=0" inferring that no errors are detected.

Step 7 Press the VOL UP button and the display will read "AC-3 IST=0" which refers to AC-3 frame information. "0" refers to no errors, "1" indicates an invalid frame sync, "2" indicates an invalid sample rate, and "3" indicates an invalid data rate.

Step 8 Press the VOL UP button and the display will read "SR = ## KHZ", where the "##" refers to the sample rate in KHz which would normally be 48KHz, 44.1KHz, or 32KHz.

Step 9 Press the VOL UP button and the display will read "IDR=### KB/S", the "###" refers to the Input Data Rate. The range for the Input Data Rate is from 32, 40, 48, 56, 64, 80, 86, 112, 128, 160, 192, 224, 256, 320, 384, 448, 512, 576, and 640 Kilo-Bytes per second. For normal laser discs, the Input Data Rate is going to be 384 KB/s.

Step 10 Press the VOL UP button and the display will read "DW = YES" or "DW = NO". This refers to Extra Word Packed which will most likely be used for future AC-3 material sampled only at the 44.1KHz data rate.

Step 11 Press the VOL UP button and the display will read "LFE CHAN = YES" or "LFE CHAN = NO", which refers to the source material containing the Low Frequency Effects channel. This is the ".1" in the phrase "5.1". When the display reads "LFE CHAN = NO", you will need to gather bass information from the other audio channels which is normally the way the SSD-66 (5.1) is set.

Step 12 Press the VOL UP button and the display will read "CCFG=#/#". This refers to the Coding Configuration of Channels where the first "#" refers to the number of discrete front channels and the second number refers to the number of discrete rear channels. Typically, this display will read "CCFG=3/2" describing a mix for three front channels and two surround channels. Other possible displays can include "CCFG=0" which means dual-mono mode, "CCFG=2/2" which means two front and two surround channels, etc.

Step 13 Press the VOL UP button and the display will read "DS ID ###", in which the "###" refers to the Bit Stream Identification Number.

Step 14 Press the VOL UP button and the display will read "MAIN AUDIO", "MAIN AUDIO-D", "VISUALLY IMP", "HEARING IMP", "DIALOG", or "COMMENTARY", "EMERGENCY". "MAIN AUDIO" refers to main audio service. "MAIN AUDIO-D" refers to main audio minus the dialog. "VISUALLY INP" refers to main audio service for the visually impaired. "HEARING IMP" refers to main audio service for the hearing impaired. "DIALOG" refers to associated service dialog. "COMMENTARY" refers to associated service commentary. "EMERGENCY" refers to associated emergency service flash.

Step 15 Press the VOL UP button and the display will read "C MIX - #.# DB", which refers to the center channel mix level in dB from -3, -4.5, -6.

Step 16 Press the VOL UP button and the display will read "S MIX - #.# DB", which refers to the surround channel mix level in dB from -3, -6, or none.

Step 17 Press the VOL UP button and the display will read "DLBY SURND = #", which refers to the Dolby Surround number. If the "#" = "0" there is no indication. If the "#" = "1" the source is not Dolby Surround encoded. If the "#" = "2", the source is Dolby Surround encoded.

Step 18 Press the VOL UP button and the display will read "COPYRIGHT" or "NO COPYRIGHT", which indicates whether or not the source material is copyright protected.

Step 19 Press the VOL UP button and the display will read "ORIGINAL" or "COPY OF ORIG". "ORIGINAL" means the source material is the original bit stream and "COPY OF ORIG" means that the source material is a copy of the original.

Step 20 Press the VOL UP button and the display will read "DN2 = ###", which refers to dialog normalization for channel two.

Step 21 Press the VOL UP button and the display will read "DN = ###", which refers dialog normalization value for normal operation.

Step 22 Press the VOL UP button and the display will read "LNG CD2 = ###" which refers to the encoded language code for dual mono.

Step 23 Press the VOL UP button and the display will read "LNG CDE = ###", which refers to the encoded language code for normal operation.

AC-3 Status Feedback (cont.)

Step 24 Press the VOL UP button and the display will read "NO PROD INF2", which means that product information does not exist. If the display reads "PROD INFO 1" infers that product information does exist for dual mono operation.

Step 25 Press the VOL UP button and the display will read "RM TY2 = N/IND" (room type not indicated), "RM TY2 = LARGE" (room type is large), or "RM TYP = SMALL" (room type is small). These indicate the size of the room the audio was mixed for dual mono operation.

Step 26 Press the VOL UP button and the display will read "ML2 = ###", which indicates the mix level for channel two in dual mono operation.

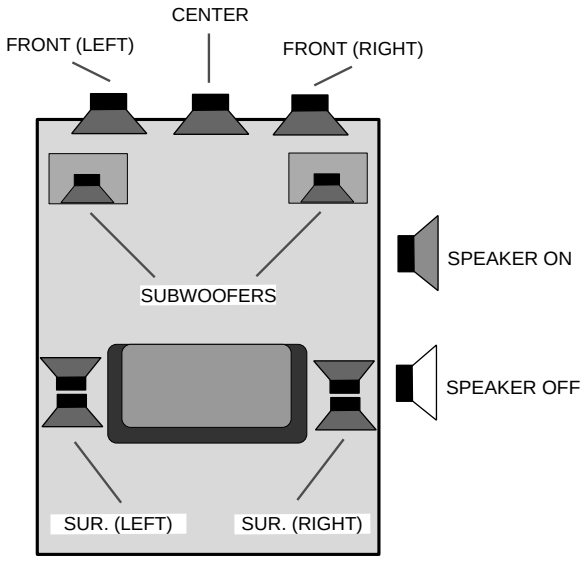
Step 27 Press the VOL UP button and the display will read "NO PROD INF1", which means that product information does not exist. If the display reads "PROD INFO 1" infers that product information does exist.

Step 28 Press the VOL UP button and the display will read "RM TYP = N/IND" (room type not indicated), "RM TYP = LARGE" (room type is large), or "RM TYP = SMALL" (room type is small). These indicate the size of the room the audio was mixed for.

Step 29 Press the VOL UP button and the display will read "ML = ###", which indicates the mix level for normal operation.

DIRECT Surround Sound Mode for DTS Playback

When the SSD-66 (5.1) has an Input Label set to the "Multi-Pin" input, the only mode available for DTS playback is the "DIRECT" mode. While the Setup Mode does permit you to seemingly set other modes for DTS, once out of the setup mode, the only mode available is the "Direct" mode. Please note, by the sheer fact the input is set to "Multi-Pin", this input, whenever selected, will always engage the "Direct" mode. In the "Direct" mode, the SSD-66 (5.1) acts more as a six channel digital preamplifier and D/A convertor. Thus, apart from the previously mentioned bass summing filter and bass level control, only one other filter is active for DTS playback, THX RE-EQ.



DTS encoded software is very dynamic, especially in the bass channels. Thus special attention needs to be given to the bass summing in that the DTS bass information will most likely need to be toned down approximately 10 dB.

Furthermore, since DTS is used for both film and music, listening to a movie soundtrack will sound better with the THX RE-EQ circuit on, while listening to music will sound better with it off. ADA suggests setting up two DTS Input Labels, one labeled as "LASER DTS 3" for film playback and one labeled as "DTS MUSIC". The only difference between these two Input Labels would be that the "LASER DTS" Input Label will default to the THX RE-EQ in the on position while the "DTS MUSIC" Input Label would default to the RE-EQ filter being off. To set the bass sum filter (may already be set since it was discussed in previous pages), the RE-EQ filter, and the bass level (may also already be set) for a DTS Input Label (multi-pin input):

Step 1 Repeatedly press the INPUT SELECT button until you are on an DTS Input Label.

Step 2 Repeatedly press the SETUP MODE button until the display reads "L/C/R EQ ON" or "L/C/R EQ OFF".

Step 3 Use the VOL UP or VOL DN button to turn the filter off or on. ADA suggests leaving it on for film playback and off for music playback.

Step 4 While still in the Setup Mode, repeatedly press the ALL button until the display reads the bass sum setting of "SUM-10DB=SUB". You could opt to use another bass setting but you will have to carefully adjust the bass level.

Step 5 Press the INPUT SELECT button to exit the setup mode.

Step 6 Momentarily press the VOL PRESET button to recall the volume levels set during pink noise calibration. While still on a DTS Input Label, begin to engage a DTS source component into play.

Step 7 Leaving the volume level untouched for all channels, press the ALL button until the display reads "SUB ### DB". Use the volume buttons to set the bass level and then press and hold the VOL PRESET button until the display reads "STORE VOL". You have now locked into the preset for this Input Label its specific bass level setting.

Appendix A
SSD-66 (5.1) Infrared Remote Control Operation

This remote control has been preprogrammed to operate the SSD-66 (5.1) Dolby Pro Logic and AC-3 Preamplifier. To operate this devices press the AUX 1 button. To program the remote control to operate other non-ADA components, consult the One-ForAll-6 instruction manual.

If the SSD-66 (5.1) IR Remote Control is not functioning properly, make certain that your SSD-66 (5.1) is set to ADA Bus™ Address "000". If you need to reset the IR Remote Control, the correct IR Code is "847".

In order to operate the SSD-66(5.1) you must first press the AUX 1 button.

The A/B button turns on the SSD-66(5.1)'s Pink Noise generator to Sequence mode. To select noise per channel, press the A/B button again. To turn off the pink noise, press the PWR (star) button once.

The directional buttons in the center of the control select the SSD-66(5.1)'s various speaker channels for volume adjustment during both normal play and pink noise mode.

RW = Left Channel
PLAY = Center Channel
FF = Right Channel
STOP = RS, LS, R&LS
SUR = SUB & All Ch.

1-8 direct access the SSD-66(5.1) Inputs.

1 = AC-3 Laser
2 = Normal Laser
3 = TV/Cable
4 = VCR
5 = CD Player
6 = FM Radio
7 = AM Radio
8 = Multi-Room Input

The PWR (star) button turns on the SSD-66 and repeated pressing will advance through the SSD-66(5.1)'s inputs.

The PGM button recalls the SSD-66(5.1)'s Volume Preset.

The DIS button turns on the SSD-66(5.1)'s Delay. Repeated pressing of the Rear and Center buttons advances these channel's delay settings.

When the MUTE button is first pressed, the SSD-66(5.1) will mute. Pressing the MUTE button a second time will turn the SSD-66(5.1) off. When in mute, press the PWR button to regain audio.

The VOL toggle switch raises and lowers the SSD-66(5.1)'s volume. If a particular channel has been selected, only that channels volume level will be controlled.

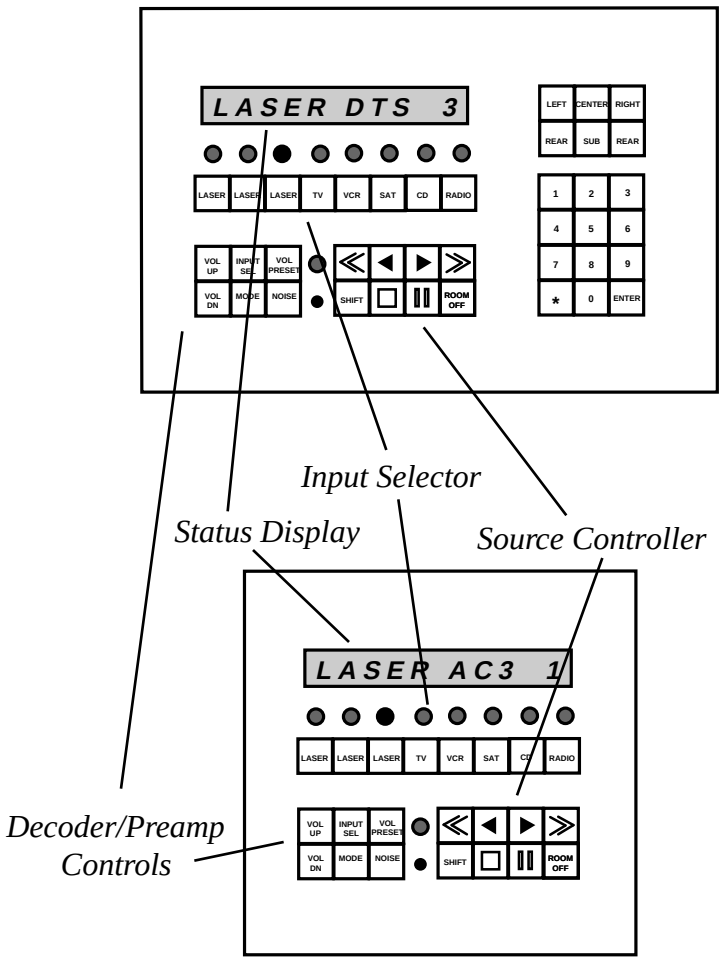
The RCL button toggles the SSD-66(5.1) through its Surround Modes.

Appendix B

MC-3000 or MC-3800 Keypad Control of the SSD-66 (5.1)

The SSD-66 (5.1) can be fully controlled from either the MC-3000 or MC-3800 keypads in either wall/table mount or tabletop control formats. Not only will the MC-3000 (or MC-3800) control the SSD-66 (5.1) but it will also display the decoders information on its 12 character LED display, exactly as it appears on the SSD-66 (5.1). Furthermore, the ADA keypad can also control any other source component, when using ADA's PCT-8 Source Controller. Please note, that the SSD-66 (5.1)'s "Feedback" setting must be in the on position when using a keypad (see page 31).

MC-3800 Control with Numeric Access



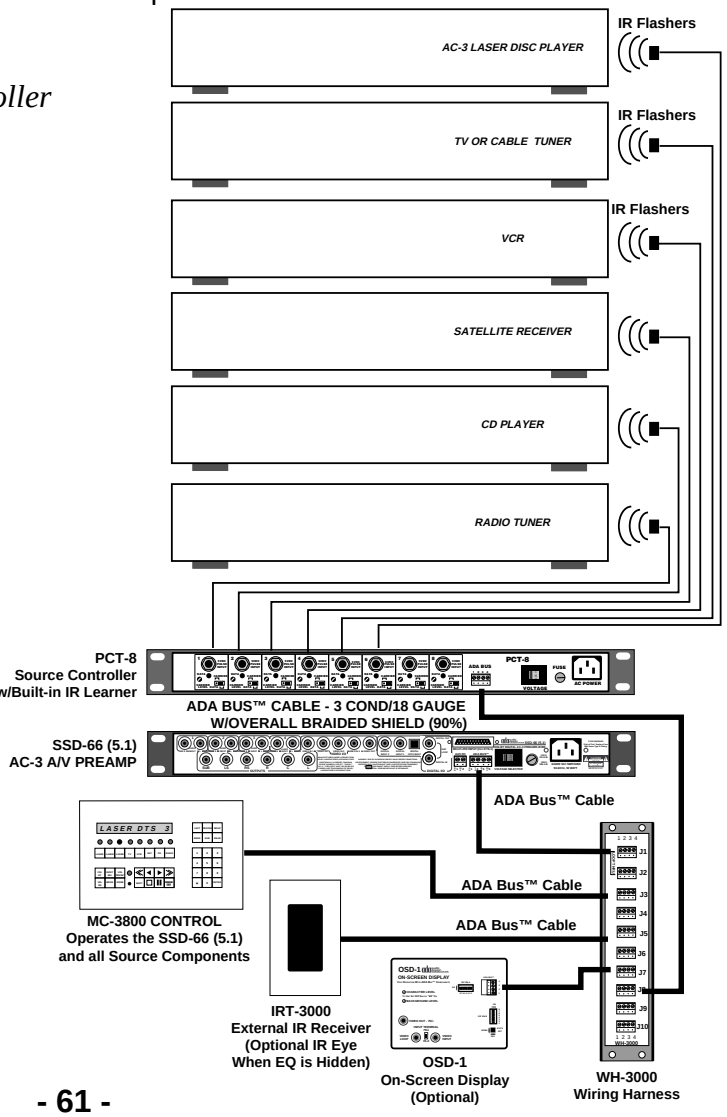
MC-3000 Control

PCT-8 • IR Leaner capable of controlling up to eight source components (i.e. VCR, Laser Disc Player) and learning 19 functions (i.e. Play, Stop, Pause) for each component (152 total commands). Functions are programmed directly into the PCT-8's front panel IR receiver using the source component's original IR remote control.

IRT-3000 • The IRT-3000 operates as an external IR receiver when the home theater components are located in a closet, behind cabinet doors, or in another room.

OSD-1 • On-Screen Display (see page 3).

Since the SSD-66 (5.1) operates on ADA's proprietary bi-directional serial data communications network, the ADA Bus™, it can interface with the many other ADA Bus™ components already available. Simply connect each ADA Bus™ component to the WH-3000 System Wiring Harness. The cable used to interconnect these devices (commonly called ADA Bus™ wire) is a three conductor cable (18 gauge) with an overall braided shield of 90% braid. Once the SSD-66 (5.1) is connected to the WH-3000, proceed to connect the MC-3000 Keypad (or MC-3800) and the PCT-8 Source IR Controller, as well as the many other ADA Bus™ components available.



Appendix C
SSD-66 (5.1) Trouble-Shooting Guide

1 Can I use the SSD-66 (5.1) with very old laser disc players (i.e. 1st generation)?

The oldest laser disc players, those dating back nearly 20 years, operated by reading audio from only the two FM Analog channels. Since AC-3 is modulated onto one of these two channels, these laser disc players, while having one channel that can be connected to the RFD-1 for AC-3 playback without modification to the player, will only have one channel for playback of non-AC-3 material. The SSD-66 (5.1) will arrive with each input level set to "IN=LR STEREO". You can set any of the analog inputs to an alternate setting including "IN=L TO LR", "IN=R TO LR", or "IN=L+R MONO". To change the setting follow these steps.

Step 1 Repeatedly press the INPUT SELECT button until you are on the old laser disc players input.
Step 2 Repeatedly press the SETUP MODE button until the display reads "IN=LR STE-REO" or perhaps another one of the above mentioned settings.
Step 3 Use the VOL UP or VOL DN buttons to alter between the available input channel redirection settings.
Step 4 Press the INPUT SELECT button to exit the program mode.

2 When on a specific Input Label, I see the picture but have no audio?

a Make certain that the Input Label has the correct A/V Link by checking that source components audio connection on the rear of the SSD-66 (5.1) and referencing that Input to the A/V Link (see pages 5-15).
b Make certain that if you are listening to a laser disc with AC-3 that both the RFD-1 is on, its green lock indicator is on, and the SSD-66 (5.1) is on the correct Input Label (typically Input 1).
c Make certain that the Processor Loop (short 75Ω RCA cable) is in place on the back of the SSD-66 (5.1) {see illust. on page 2} and that it has not been broken.
d If you are on an AC-3 Input Label, make certain that you are in an AC-3 mode by pressing the MODE button.

3 When listening to an audio source, why do I see the picture from another source?

On the SSD-66 (5.1), any input, even if its for a source component that has no video, such as a CD player, there will most likely be a video signal assigned to that source. This is especially true if you have more than four video sources.

4 Why is my remote control not working the SSD-66 (5.1)?

a Make certain that you have pressed the AUX 1 button on the SSD-66 (5.1) Remote Control.
b Make certain that the SSD-66 (5.1) has its ADA Bus™ Address set to "000" (see page 24).
c Make certain that the AUX 1 button on the SSD-66 (5.1) has been programmed with the correct remote program code "847" (see Appendix A, pg. 47).

5 When I press a button on the SSD-66 Remote Control, it moves too fast.

If operation of the SSD-66 (5.1) from its front panel or hand-held remote control is too fast, you can slow it down by making certain that the "FEEDBACK" is "ON" (see page 24).