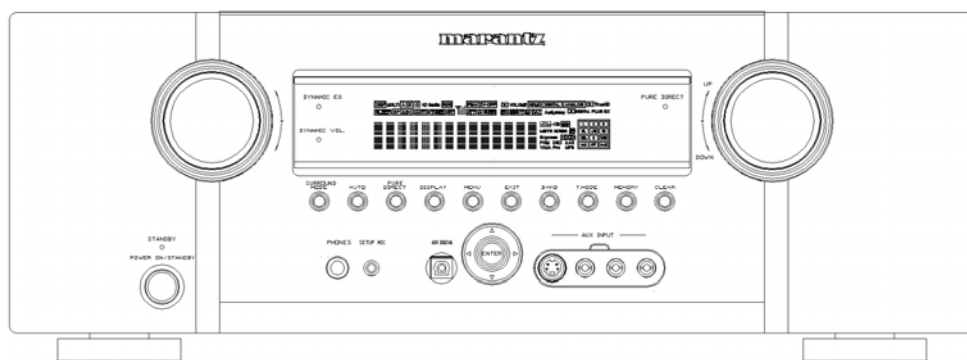




The Outlaws' Guide to the Marantz SR5004

marantz®



Marantz SR5004 7.1 Channel Receiver

Version 1.02

A Brief Note on this Guide

Thank you for purchasing the Marantz SR5004 surround sound receiver. The SR5004 is a full-featured surround sound product that offers a wide array of features such as decoding for lossless audio formats, accurate video scaling, and automatic room correction technology. All of these provide great improvements in audio and video performance, increasing your enjoyment of music, television, and movies. However, these amazing technologies carry with them an inevitable side-effect: you have to set it all up and learn how to take advantage of the power and flexibility it offers before you can see and hear the full benefit of all of these new wonders.

That brings us to this guide. The Marantz SR5004 User Manual covers every bell, whistle, and sprocket under the SR5004's hood, but we felt that a supporting document from an Outlaw perspective would benefit our customers. Some of you are seasoned 'philes when it comes to setting up a home theater. Some are veterans of the two-channel audio world, ready to make the move into surround and home theater. Still others are entirely new to the hobby. The home theater gurus will likely be able to fend for themselves, although we think there could still be a few useful tidbits here for them. For many, a surround receiver like the SR5004 can be a daunting challenge for which a 96-page manual offers little reassurance. Our goal with this guide is to provide you with a convenient reference to help navigate the challenging path ahead. We hope that it will help you reach the end of that road quickly and smoothly, so you can focus on enjoying this addition to your home theater system.

We will begin with a feature list to introduce the SR5004 and then explore the process of connecting the SR5004 to a typical home theater system. Following is a Quick Setup Guide to help steer users through their first contact with the SR5004's setup menus. We will also explore the different audio formats supported by the SR5004 and the listening modes that can be used in conjunction with them, followed by a reference (or a "roadmap") to the SR5004's setup menus. The last sections of the guide are an assortment of "Outlaw approved" tips and tricks and a troubleshooting checklist.

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SR5004 Features

The SR5004 surround receiver incorporates support for the newest audio formats, room correction and equalization, and video processing along with pre-amplifier outputs that allow it to be paired with a separate power amplifier. The result is a very powerful, flexible, and full-featured component with the technology to bring out the best in any source, display, or speaker system. It also offers the build quality and audio performance that has long been associated with the Marantz name. The SR5004 features:

- **Full Suite of Dolby Decoding and Processing Modes**
Dolby® Digital™, Dolby Digital EX™, Dolby Digital Plus™, Dolby® TrueHD™, Dolby Pro Logic IIx™, Dolby Pro Logic IIz™, Dolby Headphone™
- **Full Suite of DTS Decoding and Processing Modes**
DTS®, DTS 96/24™, DTS-ES Discrete™, DTS-ES Matrix™, DTS-HD® High Resolution™, DTS-HD® Master Audio™, DTS Neo:6™
- **DSD Input Support**
- **192kHz/24-bit Digital-to-Analog Converters**
- **Audyssey MultEQ™ Room Correction**
- **Audyssey DynamicEQ™ Loudness Correction**
- **Audyssey Dynamic Volume™**
- **Manual EQ**
User-adjustable 9-band EQ's for each of nine full-range channels
- **3 HDMI Inputs and 1 HDMI Output**
Each of the three HDMI® inputs is assignable, and all are HDMI version 1.3a. This includes support for bitstream input of Dolby Digital Plus, Dolby TrueHD, and DTS-HD High Resolution and Master Audio in addition to support for multi-channel PCM, DSD (SACD's), and legacy Dolby Digital and DTS bitstreams. On the video side there is 12-bit Deep Color™ and lip sync correction support.
- **1080p/24 Support**
The SR5004 will pass 1080p/24 video signals unaltered.
- **3 100MHz Component Video Inputs and 1 Component Video Output**
Each of the three component video inputs are assignable.
- **Transcoding of analog video sources**
Composite inputs can be transcoded to component video outputs.
- **HDMI upscaling of composite and component video sources**
Any analog video input can be deinterlaced, scaled, and converted to the HDMI output at resolutions up to 720p, 1080i, and 1080p.

- **5 Digital Inputs and 1 Digital Output**

Digital audio inputs and output include two coaxial inputs, two rear-panel optical inputs, one front panel optical input, and one optical output. All four rear-panel inputs are assignable.

- **7.1 Pre-Amp Outputs**

7.1 pre-amplifier outputs allows the use of an outboard power amplifier, such as Outlaw Audio's Model 7125 or Model 7200.

- **7.1 Multichannel Analog Input**

Multichannel input can be paired with any HDMI or component video input, or it can be set to use the previous video source.

- **Multi-room Capability with Zone A/Zone B**

Audio from any analog source can be routed to Zone A, and any digital source can be routed to Zone B.

- **RS-232 port**

The RS-232 port serves as control interface, allowing automation systems to connect to and control the processor.

- **AM/FM, XM[®]-Ready, and SIRIUS Connect[™]**

In addition to AM and FM radio reception and 60 radio presets, the SR5004 includes provisions for both XM and SIRIUS[™] Satellite Radio. XM and SIRIUS subscriptions and antenna modules are required (sold separately).

- **12V DC Trigger**

Low-voltage DC trigger can be assigned to activate and deactivate depending on the selected input and zone.

- **IR Input**

IR distribution systems can be connected directly to the SR5004 using this input, allowing for easy control of the unit even when it is located remotely or concealed inside a closed cabinet.

Connecting Your SR5004

Perhaps the most daunting task in setting up a new home theater component is connecting it to the other components in your system. This is particularly true for a surround receiver, as it is the hub through which virtually everything passes. The SR5004 User Manual offers examples for connecting typical components to the SR5004. We are going to do something similar here, but from a different perspective. This section will help you connect a SR5004 to a home theater system, starting with the video display and working back through the video signal path, then turning around and going from audio inputs back through audio outputs. Along the way, we will offer some pointers for VCR/DVR record outputs and Zone A/Zone B outputs. Near the end, we will touch on some miscellaneous connections such as trigger and antennas. We'll finish with a connection summary sheet that you can use to plan and document your connections.

Video Output

This is the last step in the signal path, but it is a good place to start because it will determine what connections to make from the source components. After all, the TV is where it all comes together, and we can't very well hook up an HDMI cable from your upscaling DVD player if your TV's best video input is a composite video jack. In the process of identifying the best video output connection for your system, we will define a series of five *Video Display Tiers* that will be used when connecting video inputs.

Most SR5004 owners will be connecting the receiver to a high definition video display, so we will begin with the optimal video output connection for such a case. We call that case *Video Display Tier HDMI*, which applies to two situations: displays with an HDMI input, and those that use DVI with HDCP rather than HDMI. If the TV has a DVI input, check the TV's manual to determine if it supports HDCP (High-Definition Digital Copy Protection). Many TV's with DVI ports will label the ports as "DVI-HDCP" to make this clear, but even if the port isn't labeled as such it may still be compatible with HDCP. DVI ports with HDCP can be treated exactly the same as HDMI ports for our purposes.

Without HDCP, a display will be unable to work with HDCP protected source devices (HD cable and satellite receivers, upscaling DVD players, and HD-DVD and Blu-ray players), forcing us to exclude HDMI from our supported video input connections later. As a result, a DVI-equipped display that lacks HDCP will be our second classification: *Video Display Tier DVI (no HDCP)*.

The third possible input type available on an HDTV is component video. Most displays will offer this input type, but you should only use it with the SR5004 if HDMI and DVI are not available. This is the last of the video display tiers that will support HD resolutions: *Video Display Tier HD-Component*.

Not everyone has a high definition display, and some SR5004 owners will be connecting to a standard definition TV. Even with standard definition displays, there are

several possible connections available. The preferred connection is component video, although because the display is not capable of supporting HD resolutions we have a separate category for this connection option: *Video Display Tier SD-Component*. The next best video connections are S-video and composite video. Because the SR5004 lacks S-video switching, systems that have a TV with S-video or composite video inputs will be combined in the *Video Display Tier Composite*.

Identify which of the five Video Display Tiers described above applies to your display. The five are summarized below for your convenience:

Video Display Tiers

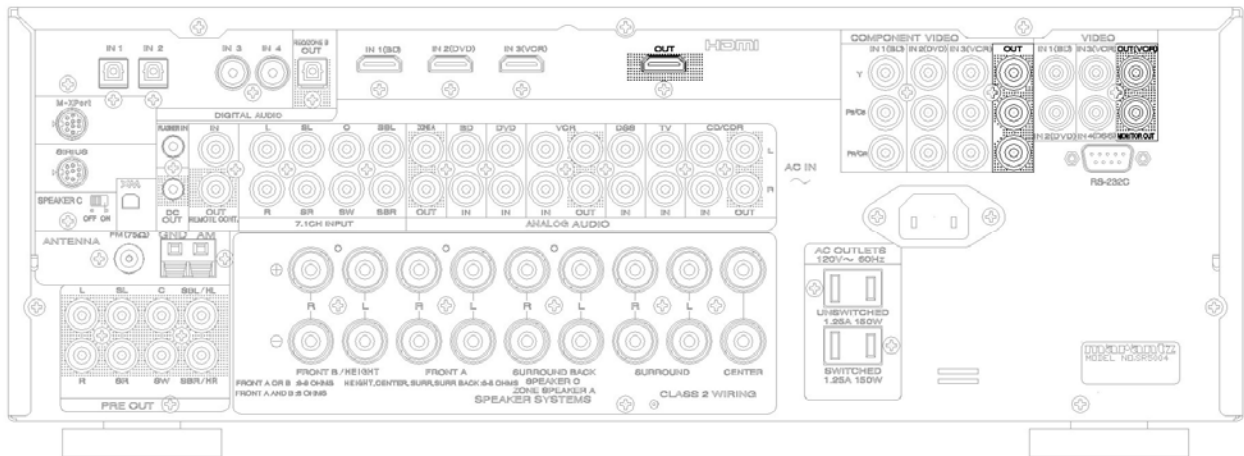
HDMI: HDTV with at least one HDMI input or DVI with HDCP input.

DVI (no HDCP): HDTV with at least one DVI input but no HDCP.

HD-Component: HDTV with component video input but no HDMI or DVI inputs.

SD-Component: Standard TV with component video input.

Composite: Standard TV with composite video input but no component input.



Video Output Connections

HDMI Video Display Tier

The *HDMI Video Display Tier* is the case for which the SR5004 was optimized. It is also in many ways the simplest to connect, both for the output and for the video and audio inputs that we will be looking at shortly. Connect an HDMI cable from the SR5004's HDMI output to the TV's HDMI input. If the TV's input is DVI with HDCP support, use an HDMI-to-DVI cable or an HDMI cable with an HDMI-to-DVI adapter to connect the SR5004's HDMI output to the TV's DVI input.

DVI (no HDCP) Video Display Tier

Some older displays and most data monitors include DVI inputs that lack HDCP, and this condition creates a unique case. The video output connection itself is straightforward. As with the DVI with HDCP output described in *HDMI Video Display Tier*, an HDMI-to-DVI cable or HDMI cable with HDMI-to-DVI adapter can be used to connect the SR5004's HDMI output to the display's DVI input. We will address the video input limitations imposed by the lack of HDCP in the next section.

HD-Component Video Display Tier

For older HDTV's that lack either HDMI or DVI input, we will find ourselves in the *HD-Component Video Display Tier*. In this case, connect a component video cable from the SR5004's component video output to the TV's component input. Make sure that the component input you use supports HD resolutions, as some HDTV's may designate one input for HD signals (often identified as 720p/1080i) and one input for SD signals (480i and 480p).

SD-Component Video Display Tier

The best connection type available to standard definition TV's is component video, bringing us to *SD-Component Video Display Tier*. If component video is available on your TV, connect the SR5004's component video output to the TV's component input. This operates much like *Video Display Tier HD-Component* until we configure the video processing to disable deinterlacing at the component video output (see page 24 for the "Component I/P Convert" setting).

Composite Video Display Tier

The *Composite Video Display Tier* applies to displays whose best input is composite video. In this case, connect the SR5004's composite video monitor output to the TV's composite input. We will address the video input limitations associated with this case in the next section.

VCR Record Video Output

The SR5004 offers an additional composite video output for recording (the VCR record output). Connecting a recording device to the composite video record output may require additional video input connections. We will address those near the end of the next section.

Video Inputs

Today's home theaters can include numerous video sources: DVD players; DVR's; cable, satellite, and other set-top boxes; game consoles; HD-DVD and Blu-ray players; network media players; and even the occasional VCR. The first step in connecting these sources is to take an inventory of your source components and determine where each component fits in relation to the *Video Display Tier* that we identified above. Use the descriptions below to determine which of the four *Video Source Tiers* each component belongs in.

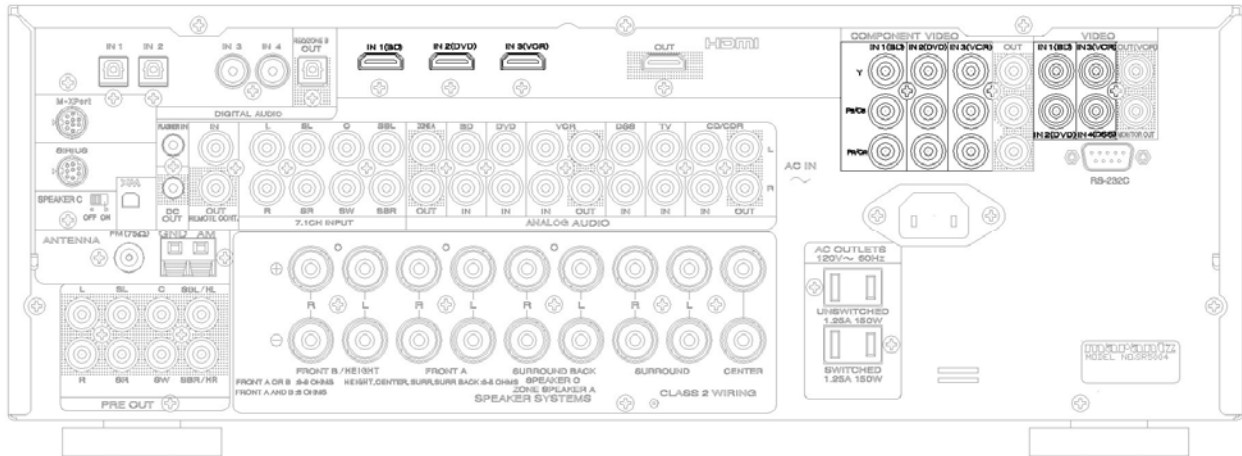
Video Source Tiers

HDMI: Any source with an HDMI or DVI-HDCP output.

DVI: Any source with a DVI output that lacks HDCP.

Component: Any source whose best video output is component.

Composite: Any source whose best video output is composite (such as VCR's). Sources whose best video output is S-video will also be included in this tier.



Video Input Connections

HDMI Video Display Tier

For displays that offer an HDMI input, the decision-making process becomes simple. Use the best possible video output offered by every source you have. For those *HDMI* sources, connect a cable from its HDMI output to one of the SR5004's four HDMI inputs. *DVI* sources (with or without HDCP) should be treated in the same manner, with either a DVI-to-HDMI cable or a DVI-to-HDMI adapter and an HDMI cable connecting the source to one of the SR5004's HDMI inputs. For *Component* sources, connect the component output to one of the SR5004's three component inputs. *Composite* sources should be connected to the composite video input of one of the four rear AV inputs (BD, DVD, VCR, or DSS) or the front AV input (AUX). The SR5004's video processing section will transcode and scale all video sources to the single HDMI output connected in the Video Output section.

DVI (no HDCP) Video Display Tier

The DVI (no HDCP) scenario is similar to the HDMI, with one difference. Sources that are *HDMI* (offering either an HDMI output or a DVI-HDCP output) cannot be connected using that output because they will not provide a video signal without being connected to an HDCP-equipped display. Sources such as this must instead use the next best video output. Typically, that will be a component video output. Sources that are *DVI* (offering a DVI output that does not include HDCP) can be connected using a DVI-to-HDMI cable or a DVI-to-HDMI adapter and an HDMI cable to connect to an HDMI input on the SR5004. The *Component* and *Composite* sources will be connected just as described in the *HDMI Video Display Tier* scenario.

HD-Component and SD-Component Video Display Tiers

The *HD-Component* and *SD-Component* tiers mark the point at which any dealings with digital video cease. *HDMI* and *DVI* sources cannot be connected to the SR5004's *HDMI* inputs. They must instead use the next best video connection, most likely component video. The *Component* and *Composite* sources will be connected just as described in the *HDMI Video Display Tier* scenario. For the *SD-Component Video Display Tier*, any

sources that support HD resolutions (such as Blu-ray Disc players and some game consoles) will need to be set to output a 480i video signal.

Composite Video Display Tier

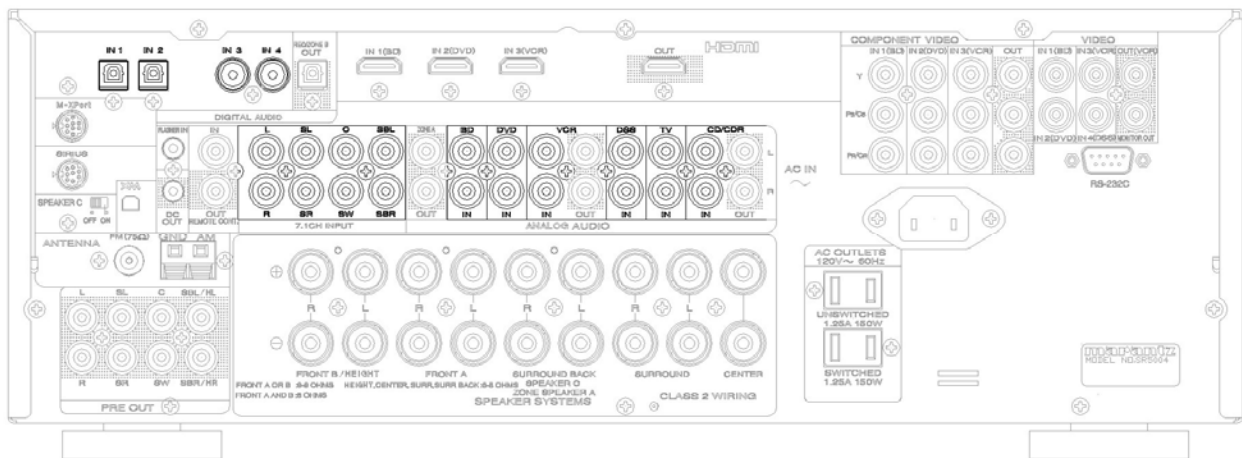
This final display tier is not likely to be common among SR5004 owners. For those rare cases, however, all sources (regardless of their capabilities) must be connected with a composite video cable to one of the four rear AV inputs or the front AV input.

Record Video Inputs

The record video output is limited to composite video. No transcoding is supported in conjunction with this output, so any sources that you intend to record from will need to be connected using composite video as well. Some sources may already be connected using a superior video connection. In those cases, the composite video connection will be ignored for the main display output, but will be used by the record output.

Audio Inputs

As video is only half of home theater, completing the video connections brings us roughly half-way through our wiring. The next step is audio. We have four possible options for delivering audio to the SR5004: HDMI, coaxial/optical digital, multichannel analog, and stereo analog.



Audio Input Connections (Digital and Analog)

For the *HDMI* sources previously connected under Video Inputs, the audio will typically already be covered. This is because HDMI was developed to provide a single-cable connection for both audio and video signals, and almost all HDMI sources make use of this capability.

For our other video sources (*DVI*, *Component*, and *Composite*) and for audio-only sources, we need to make a separate audio connection. Typically, a coaxial or optical digital audio connection will be the first choice. Sources that will normally offer this connection include DVD players, cable and satellite receivers (excluding analog cable boxes), network media players, and most recent game consoles (Xbox, Xbox360,

Playstation2, and Playstation3). Some components will only offer an optical output (the game consoles, for example), but many others will offer both. Because the SR5004's coaxial and optical inputs can be assigned to any input, there is no restriction on which is used. The only limitation is the quantity available: two coaxial inputs, two rear optical inputs, and one front optical input. Of those, the front optical input can only be used with the front input AUX, while the others can be used with any other inputs. Sources that have only coaxial or only optical digital output should get first priority for the inputs, after which sources that offer both outputs can use the remaining inputs.

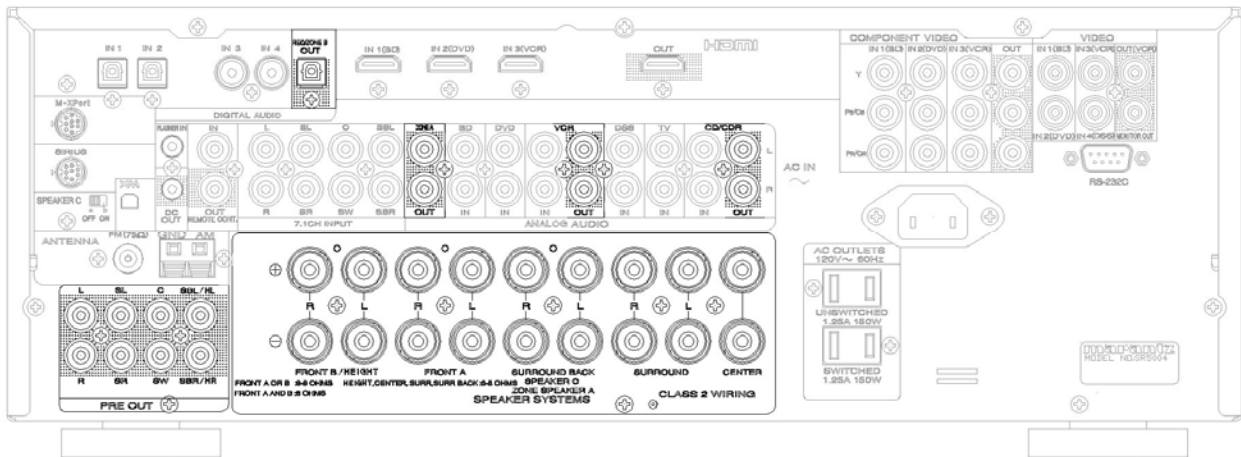
Some sources will offer a multichannel analog audio output. This is typically offered by DVD players that support DVD-Audio and/or SACD (both high-resolution audio formats that can only be output as multichannel analog or via HDMI) and by some Blu-ray players. The 7.1 channel analog audio connection is only required for DVD-Audio, SACD, and the newer audio formats offered by Blu-ray. With the SR5004's support for HDMI and for decoding of all of these formats, there should be no need to use 7.1 channel analog output with Blu-ray players. DVD-Audio can be output over HDMI for players that include an HDMI v1.1 output; otherwise, you will need to connect the 7.1 channel analog output of your player to the SR5004's 7.1 channel analog input. SACD can be output over HDMI v1.2, but without an HDMI v1.2 output (or an HDMI v1.1 player that can decode SACD's to multichannel PCM) you will need to connect the player's 7.1 channel analog output to the SR5004. For 5.1 analog outputs, connect the surround left and right to the surround left and right channels of the multichannel analog input, leaving the surround back inputs empty. See page 19 to configure the 7.1 channel analog input.

There are some sources that do not offer digital audio output or a multichannel analog output. These would include VCR's, cassette tapes, older CD players, LaserDisc players, camcorders, portable music players, and the Nintendo Wii. For these devices, connect the left (white) and right (red) jacks from the source's output to the left and right jacks of a free input.

In the next section, we will touch on audio outputs for recording and for Zones A and B. In order for sources to make use of the analog record and Zone A outputs, they must have stereo analog connections to the SR5004. Sources that have already been connected with a digital cable will also require stereo analog cables. The optical digital output will only work with inputs that have a digital (optical or coaxial) audio input. If this output will be used for either recording or Zone B output, the associated inputs will need to have a digital audio input connected and assigned. See page 18 for information about assigning digital inputs.

Audio Outputs

The SR5004 offers an array of audio outputs. The most important are the speaker outputs and the main multichannel pre-amp outputs, which will be connected to a separate power amplifier (if an amplifier is used) and subwoofer. We will also discuss the record outputs and Zone A/Zone B outputs.



Audio Output Connections

Some users will use the SR5004's internal amplifiers to drive their speakers. In that case, you will need to connect speaker wires to the SR5004's binding posts. There are several options available here. The front left/right speakers are connected to "FRONT A", the surround speakers are connected to "SURROUND", and the center speaker is connected to "CENTER". In addition to that, however, there are several options for the other speaker outputs. The "FRONT B/HEIGHT" speaker outputs are for either the front height speakers (see Pro Logic IIz on page 31 for a discussion of height speakers) or the "FRONT B" speakers. "FRONT B" speakers can be a second set of front speakers or a remote pair of speakers, and can be selected from the remote control using the "SPKR A/B" button. The "SURROUND BACK" speaker outputs can be used in one of three ways. The first is for surround back speakers. If the system uses surround back speakers (either powered from the internal amps or with an external amplifier), the two following options cannot be used. The second option for these outputs is "Speaker C" speaker connections, which is intended for use in bi-amping front speakers. To bi-amp front speakers using these connections, the "Speaker C" switch on the rear panel must be set to "On". Lastly, these outputs can be used to power Zone A speakers. If these outputs are used for Zone A speakers, see pages 36 and 42-43 for the associated menu settings.

The SR5004 also offers a set of pre-amp outputs for use with a separate amplifier. These outputs can be used for front, center, surround, and surround back speakers as well as the subwoofer. If you are pairing the SR5004 with a separate amplifier, connect these outputs to the inputs on the amplifier. Your speakers will then connect to the amplifier; refer to your amplifier's manual for any special instructions. For a system with only one surround back speaker, connect that amplifier channel to the SURR BACK L output. If front height speakers are attached to the SR5004, they must be connected to the receiver's internal amplifiers.

The pre-amp output includes a subwoofer output. This can be connected directly to the line input on your powered subwoofer.

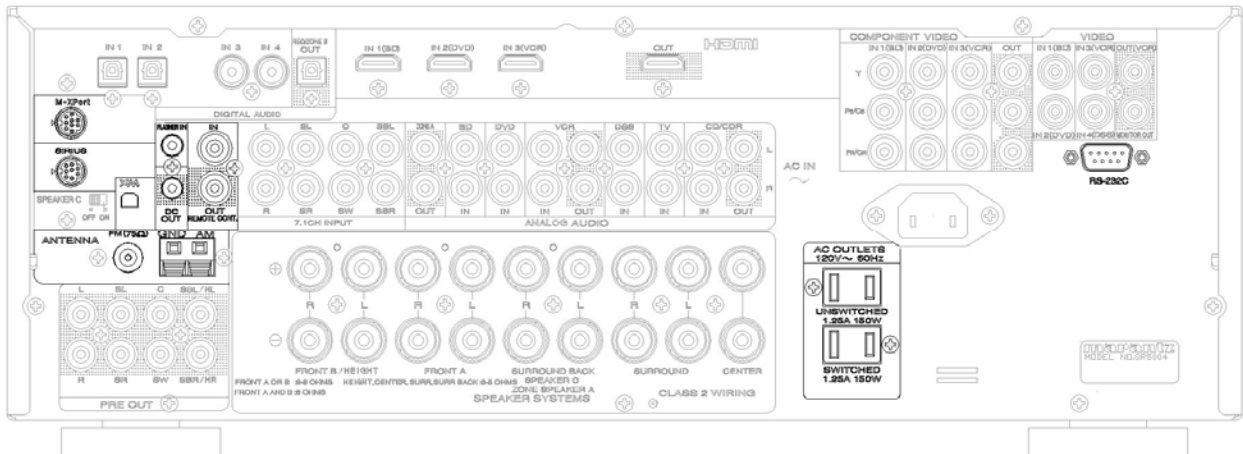
If you connected the video portion of the VCR record output, connect the left/right audio record outputs to the same device. The CD/CD-R input also offers a similar audio record output, which can be connected to an audio recording device (cassette deck, CD-R/RW deck, or similar). Both the VCR record output and the CD/CD-R record output work only with analog stereo inputs. Digital inputs are not available at these outputs.

The digital audio output is an optical connection. This connection can be used as a record output to a device with a digital record input, such as a MiniDisc recorder, or to send audio to Zone B. In either case, this output will only work with inputs that have a digital audio connection (coaxial or optical). See page 43 for instructions on configuring this output.

The last audio outputs available are the Zone A outputs. These share the same limitation as the record outputs: they can only be used with inputs that have stereo analog connections made. These outputs can be used to connect to a separate power amplifier that powers speakers in Zone A, allowing Zone A to be used even if the main zone has surround back speakers.

Other Connections

Additional rear panel connections include a 12V trigger, IR input, an RS-232 port, an assortment of radio antennas or satellite radio modules (FM, AM, XM, and Sirius), and a pair of switched 120VAC power outlets. The radio antennas are a good place to start with these final connections. The SR5004 comes with both AM and FM antennas. These can be connected to the AM and FM antenna connections near the top right corner of the rear panel. The XM and SIRIUS connections can be used with the onboard XM and SIRIUS receivers, but they are sold separately and a subscription to the satellite radio service(s) is required.



Other Rear Panel Connections

The SR5004 offers a 12VDC trigger labeled “DC OUT”. This trigger uses a mono 1/8” mini-plug and can be connected to equipment such as power amplifiers to turn them on and off simultaneously with the SR5004, power conditioners to switch outlets with the

SR5004, and accessories such as motorized blinds and projection screens to lower them when certain inputs are selected and raise them when those inputs are no longer active. See page 25 for instructions on configuring this trigger output.

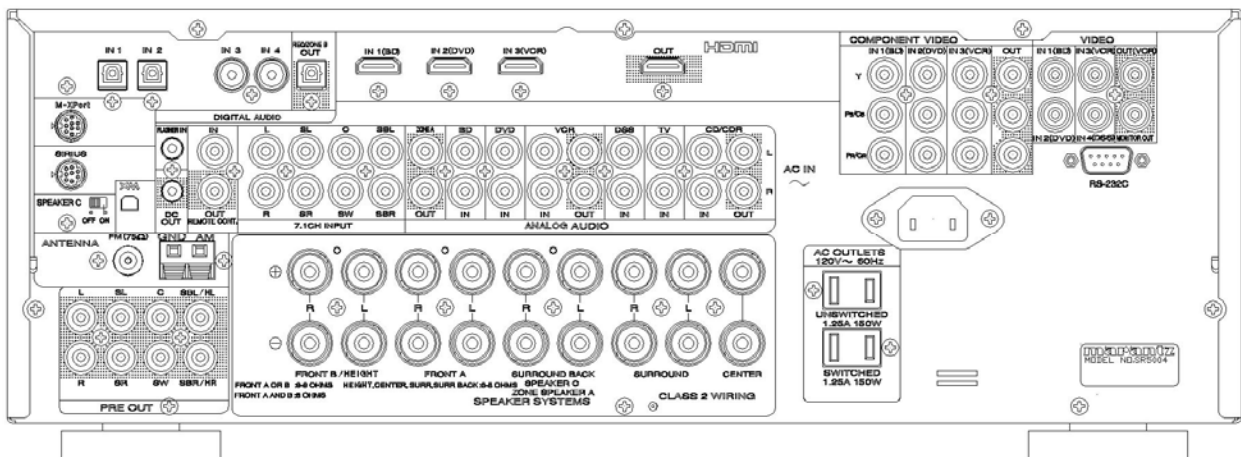
There are also two 120V power outlets, one of which is also switched (power available only when the SR5004 is turned on). The outlets offer limited current output, however, and should only be used either as a trigger or to provide power to low-current devices such as DVD or CD players or powered antennas. Equipment such as power amplifiers, video displays, and subwoofers should never be connected to these outlets. The switched 120V power outlet may be useful as an alternative means of triggering a separate power amplifier, as described on page 26.

The IR input is compatible with multiroom kits and IR distribution systems such as those made by Niles and Xantech. Connect a mono mini-plug from an IR sensor or IR connecting block to the rear panel IR input to allow the SR5004 to receive IR signals from other rooms. This can also be used for the main zone when the SR5004 is located out of the line-of-sight (inside a piece of furniture or in a remote equipment rack).

The RS-232 port provides a control connection for automation systems such as those manufactured by Crestron and AMX. It can be connected to a PC or an automation system using a standard serial cable (not a null modem cable) to provide a control interface. See page 43 for a note on a Standby Mode setting that affects RS-232 control.

Connection Summary Sheet

The chart on the following page allows a convenient record of the connections that have been made. For each input, there are spaces to record the associated source component, which video inputs are connected (HDMI, component, and/or composite), and which audio inputs are connected (coaxial, optical, multichannel analog, or stereo analog).



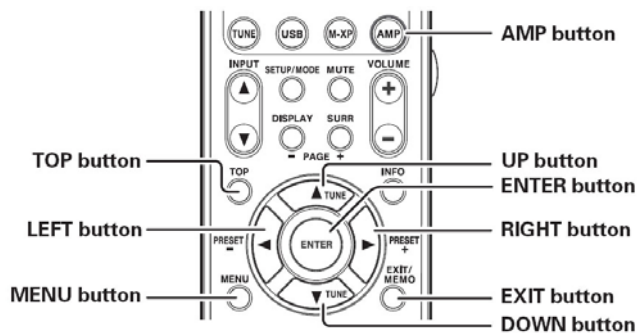
Rear Panel Diagram

CONNECTION SUMMARY SHEET		
BD Input Source: _____ HDMI: IN1 IN2 IN3 Component: IN1 IN2 IN3 Composite: <input type="checkbox"/> Optical: 1 2 Coaxial: 3 4 Stereo Analog: <input type="checkbox"/>	DVD Input Source: _____ HDMI: IN1 IN2 IN3 Component: IN1 IN2 IN3 Composite: <input type="checkbox"/> Optical: 1 2 Coaxial: 3 4 Stereo Analog: <input type="checkbox"/>	VCR Input Source: _____ HDMI: IN1 IN2 IN3 Component: IN1 IN2 IN3 Composite: In Out Optical: 1 2 Coaxial: 3 4 Stereo Analog: In Out
DSS Input Source: _____ HDMI: IN1 IN2 IN3 Component: IN1 IN2 IN3 Composite: <input type="checkbox"/> Optical: 1 2 Coaxial: 3 4 Stereo Analog: <input type="checkbox"/>	TV Input Source: _____ HDMI: IN1 IN2 IN3 Component: IN1 IN2 IN3 Composite: <input type="checkbox"/> Optical: 1 2 Coaxial: 3 4 Stereo Analog: <input type="checkbox"/>	CD/CD-R Input Source: _____ HDMI: IN1 IN2 IN3 Component: IN1 IN2 IN3 Optical: 1 2 Coaxial: 3 4 Stereo Analog: <input type="checkbox"/>
AUX Input Source: _____ HDMI: IN1 IN2 IN3 Component: IN1 IN2 IN3 S-Video: <input type="checkbox"/> Composite: <input type="checkbox"/> Optical: 1 2 Front Coaxial: 3 4 Stereo Analog: <input type="checkbox"/>	7.1CH Input Source: _____ HDMI: IN1 IN2 IN3 Component: IN1 IN2 IN3 Multichannel Analog: <input type="checkbox"/>	Zone A Output Zone: _____ Stereo Analog Out: <input type="checkbox"/> Surr. Back Speakers: <input type="checkbox"/>
	Monitor Output HDMI: <input type="checkbox"/> Component: <input type="checkbox"/> Composite: <input type="checkbox"/>	Zone B Output Zone: _____ Optical Digital Out: <input type="checkbox"/>
Speaker Connections		
Left Front A: <input type="checkbox"/> Right Front A: <input type="checkbox"/> L. Height: Fr.B Height R. Height: Fr.B Height	Center: <input type="checkbox"/> Subwoofer: <input type="checkbox"/> Surround Left: <input type="checkbox"/> Surround Right: <input type="checkbox"/>	Surr. Back Left: S.Back Fr.C Zone A Surr. Back Right: S.Back Fr.C Zone A
Pre-Amplifier Outputs		
Left: <input type="checkbox"/> Right: <input type="checkbox"/> Center: <input type="checkbox"/>	Subwoofer: <input type="checkbox"/> Surround Left: <input type="checkbox"/> Surround Right: <input type="checkbox"/>	Surr. Back Left: <input type="checkbox"/> Surr. Back Right: <input type="checkbox"/>

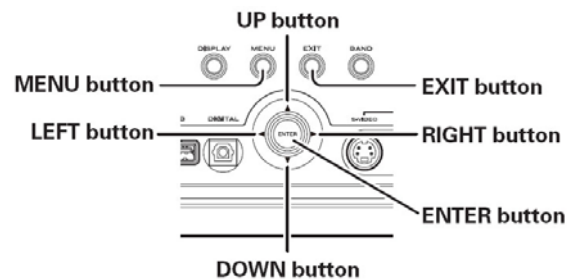
Quick Setup Guide

Both the Marantz User Manual for the SR5004 and the “Roadmap to the Setup Menus” section of this Guide provide detailed descriptions of the unit’s menus and how to configure them. This section will provide an introduction to the receiver’s menus as well as some recommended settings to assist in the initial setup. We will address each of the six main menu sections in order.

Before entering the SR5004’s setup menu, please take a moment to familiarize yourself with the remote control. Just above the volume and input buttons on the remote, there is a group of twelve buttons in a white box. For everything that you will be doing here, start by selecting the “AMP” button in the lower right corner of this group. This allows the remote to control the SR5004. The “On” button at the top right corner of the remote will switch the unit between Standby mode and On, while the “Standby” button next to it will place it in Standby mode (pressing this button when already in Standby mode will do nothing). The other controls needed for the setup process are the navigation pad at the center of the remote and the two buttons directly beneath it (“Menu” and “Exit”). The navigation pad provides navigation through the menus (▲ and ▼ to scroll through menu entries, ◀ and ▶ to adjust settings, and the “Enter” button to selected highlighted items), while “Menu” will toggle in and out of the setup menu and “Exit” will exit the setup menu. To step back to the previous menu screen, scroll to the bottom of each menu screen and select “Return.” These controls are also available on the front panel.

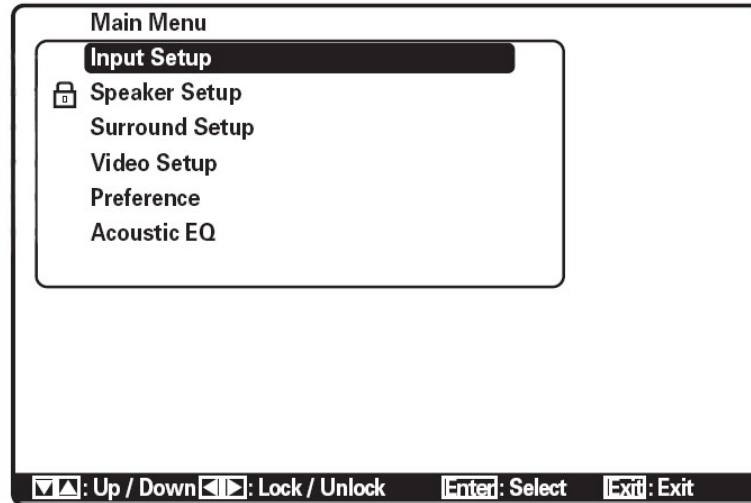


Menu Navigation Controls – Remote



Menu Navigation Controls – Front Panel

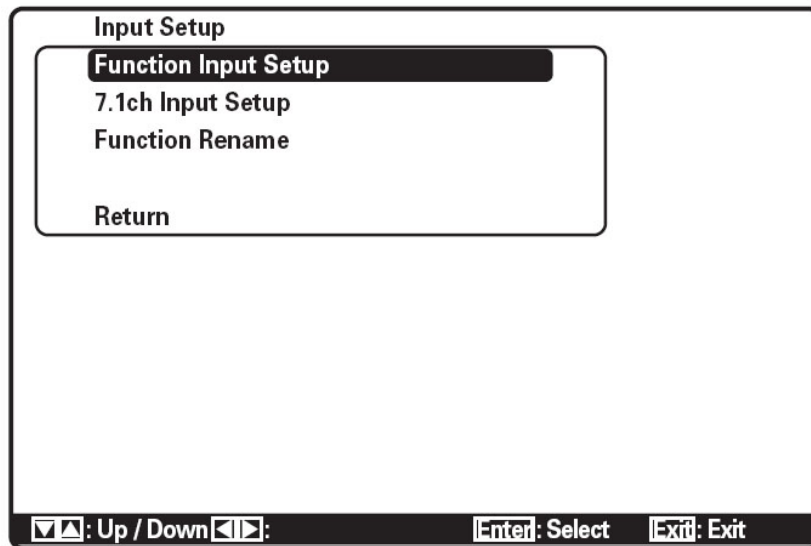
Start by turning your TV on and setting it to the input that is connected to the SR5004’s monitor output. This will let you navigate the menus on your video display. You may want to refer back to the previous section on connecting the SR5004 and to the video tiers described there, as the *Video Display Tier* selected there has an impact on some of the settings you choose. Once that is done, you can press the “Menu” button on the remote or front panel to enter the Main Menu.

*Main Menu*

Once you are in the main menu (as pictured above), you can begin the quick setup process. We will touch on each of the six menus in this section, focused only on items required for initial setup of the SR5004.

Input Setup

In this section, we will define which digital and analog connections the SR5004 uses with the different *Inputs* available to it. From this point forward, an *Input* refers to one of the eight inputs listed on the Connection Summary Sheet: BD, DVD, VCR, DSS, TV, CD/CD-R, AUX, and 7.1CH. If we refer to any of the cables plugged into the SR5004, we will identify them as *connections*.

*Input Setup Menu*

Our first stop upon entering the *Input Setup* menu is the *Function Input Setup* sub-menu. In this menu, you can select video and audio inputs for nine different inputs. You will want to refer to the Connection Summary Sheet on page 15 when adjusting this menu. For each of the first six inputs (BD, DVD, VCR, DSS, TV, and CD/CD-R), each of the five columns (Mode, Digital, HDMI, Comp., and Video) can be adjusted. For the AUX input, Mode, Digital, HDMI, and Comp. can be adjusted. For the M-XPort input, Comp. and Video can be adjusted. Lastly, the SIRIUS tuner input's Mode and Digital columns can be adjusted.

Each of the five columns in the *Function Input Setup* sub-menu relates to either an audio or video connection. Use the navigation controls on the remote control or front panel to highlight an entry in the table, press the “ENTER” button to select that entry, and use the ◀ and ▶ buttons to scroll through available options for that entry. Press “ENTER” again to save the selected setting.

Function Input Setup					
Function	Mode	Digital	HDMI	Comp.	Video
BLU-RAY	Auto	-	1	1	1
DVD	Auto	1	2	2	2
VCR	Auto	-	3	3	3
DSS	Auto	3	-	-	4
TV	Auto	4	-	-	Last
CD/CDR	Auto	2	-	-	Last
AUX	Auto	Front	-	-	(Front)
M-XPort	*	*	*	-	Last
SIRIUS	Analog	-	*	*	(Last)
Return					
▼▲: Up / Down ◀▶: [Enter]: Return [Exit]: Exit					

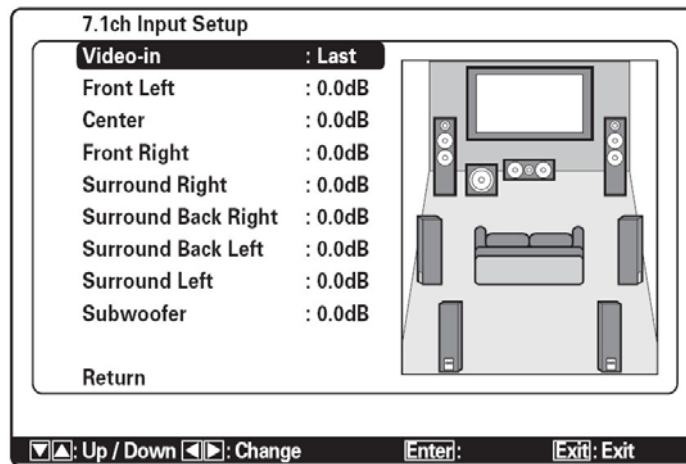
Function Input Setup sub-menu

First is the Mode column, which determines what digital audio connection the input will use. The default value of “Auto” will automatically determine which digital audio connection is available, and if none is available it will use analog audio. If Mode is set to “HDMI” for an input, then that input will use the HDMI connection specified (see the HDMI settings on the next page). If Mode is set to “Digital” for an input, then that input will use the specified digital audio connection. If Mode is set to “Analog” for an input, then that input will use its associated stereo analog connection. If using any setting other than “Auto” for Mode, we recommend making the necessary changes to the other columns before adjusting Mode.

The Digital column allows the user to select from the four digital audio connections. Connections 1 and 2 are optical ports on the rear panel, and connections 3 and 4 are coaxial ports. See the Connection Summary Sheet to determine which inputs are using digital audio connections. If no digital audio connection is required for an input, select “-”.

The HDMI column allows the user to select from the three HDMI connections. Note that each HDMI connection may be assigned to only one input. If an HDMI connection is specified, the Mode column may be set to “HDMI” to force the input to use the HDMI connection as an audio source. In some cases, users may prefer to use an HDMI connection for video only and to use a separate analog or digital audio connection for audio. Similarly, the Comp. column allows users to select from the three component video connections. The Video column allows users to select from the four composite video connections or the last video connection that was active (identified as 1 through 4 and Last). The AUX input's Video column only supports the “Front” setting (for the front composite and S-video connections) and the SIRIUS tuner input's Video column only supports the “Last” setting. Neither setting can be changed.

When finished in the *Function Input Setup* sub-menu, scroll down to “Return” and press “ENTER” to return to the *Input Setup* menu. If you will be using the 7.1 Channel analog input, scroll down one spot to the *7.1ch Input Setup* sub-menu and press “ENTER” to select it. The first item on this sub-menu is “Video-in”, which allows the 7.1ch Input to be assigned to a specific input (BD, DVD, etc.) or set to use whatever video input was active when “7.1ch” was selected (Last). Additionally, each of the eight channels for the 7.1ch Input can be adjusted from -12dB to +12dB (or -18dB to +12dB for the subwoofer).



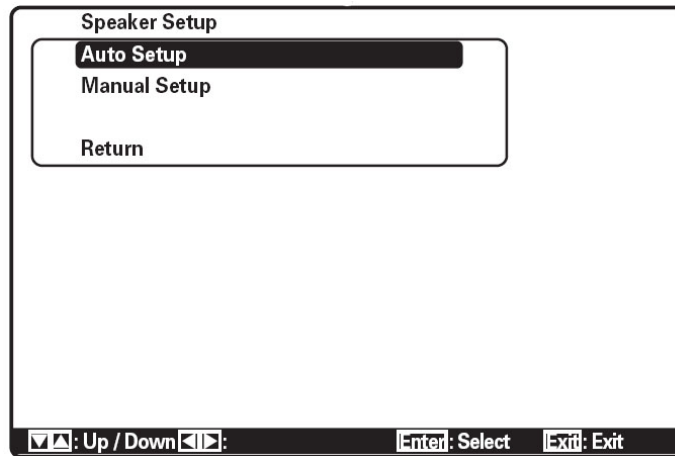
7.1ch Input Setup

Before leaving the *Input Setup* menu, you may want to edit the names used for the SR5004's inputs. This can be done in the *Function Rename* menu, but it is not essential for operating the receiver. We will talk in detail about this on page 34. For now, we will move on to the next step in the Quick Setup process: the speakers. To do that, select “Return” and press “ENTER” to return to the SR5004's main menu.

Speaker Setup

A number of settings in the *Speaker Setup* menu can be skipped for the purposes of a quick setup, as the Audyssey MultEQ automatic calibration process takes care of them.

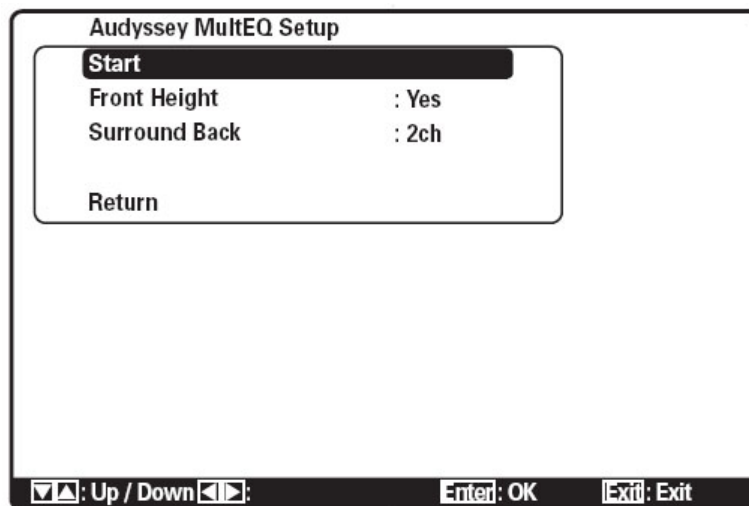
We will only touch on the *Auto Setup* sub-menu. The other sub-menu will be covered starting on page 35. For now, highlight the *Auto Setup* sub-menu and press “ENTER” to begin.



Speaker Setup Menu

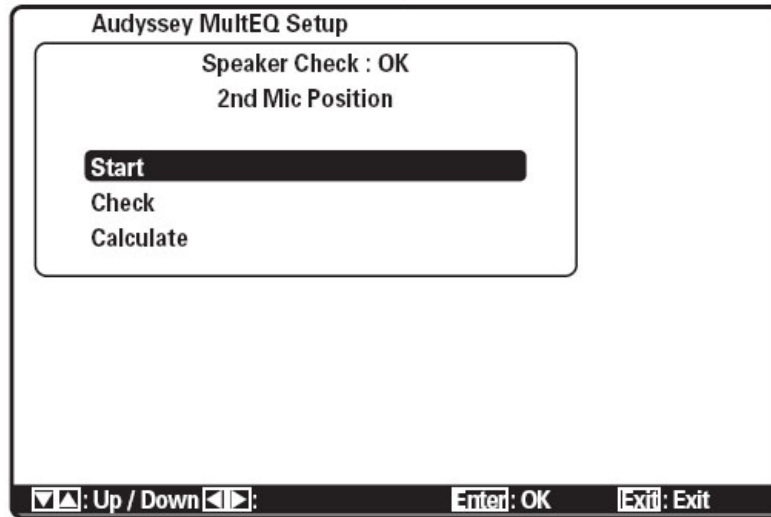
The Audyssey MultEQ software included on the SR5004 represents a powerful solution for room correction. The included microphone can be placed in one to six listening positions throughout the room, and the SR5004 will use measurements from those locations to determine speaker distance, channel trim, and bass management settings and to apply equalization to all channels to correct for room effects.

Pages 27 through 30 of the SR5004 User Manual provide a detailed description of the process of running the Audyssey MultEQ setup. Here, we will offer a quick overview of the process. First, plug the included microphone into the front panel SETUP MIC port. Place the microphone in the center of the listening area at ear height. If you have a tripod available, the microphone can be mounted to it and easily positioned at the correct height. Once that is done, you can select “Start” under the *Auto Setup* sub-menu.



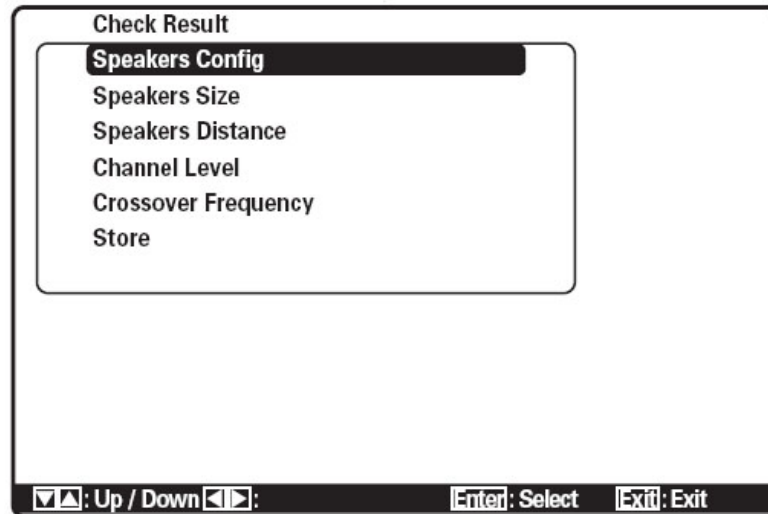
Audyssey MultEQ Setup – Start Screen

Follow the on-screen prompts, being careful to minimize ambient noise during the measurement process. When measurements of the first location are completed, the on-screen display will offer you three options.



Audyssey MultEQ Setup – Additional Mic Positions

The first is “Start”, which will start the measurement process for a second microphone position. You may want to take a moment to check that Audyssey properly identified all of the speakers that are connected to the SR5004, in which case you may select “Check” to see the speaker results.



Audyssey MultEQ Setup – Check Results

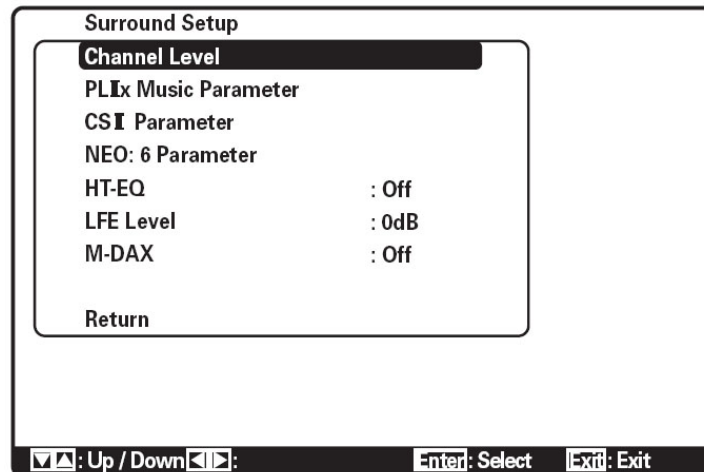
If any speakers are missing, you should cancel setup and verify wiring and power connections at speakers and amplifiers before re-starting Audyssey MultEQ auto setup. If you don't want to take measurements in other positions, you may also select “Calculate” and allow Audyssey to calculate the measurement results. If you move the

microphone to a second position and select “Start”, the test tones will resume. After the second location and every location thereafter, you can select to either continue with additional locations or finish the measurements and start calculating. After the sixth location, the only option available will be “Calculate”. Calculations will take several minutes. When they are complete, you can review the results (speaker configuration, speaker size, speaker distance, channel levels, and crossover frequency) or save the settings. Speaker size and crossover frequency will be listed as “Auto” because the settings were determined automatically. After the settings are saved, you can unplug the microphone.

At this point, the Audyssey setup process is complete. Some users may want to make adjustments to settings such as the crossover frequency, speaker size, or even channel levels. For example, Audyssey will have set the speaker channel trim levels to achieve equal output levels for all of the connected speakers, but users who prefer to use elevated channel trim settings for certain speakers (such as the center channel or the subwoofer) may “tweak” these settings to suit personal tastes. We will discuss how to do this in the Roadmap to the Setup Menus, on page 35.

Surround Setup

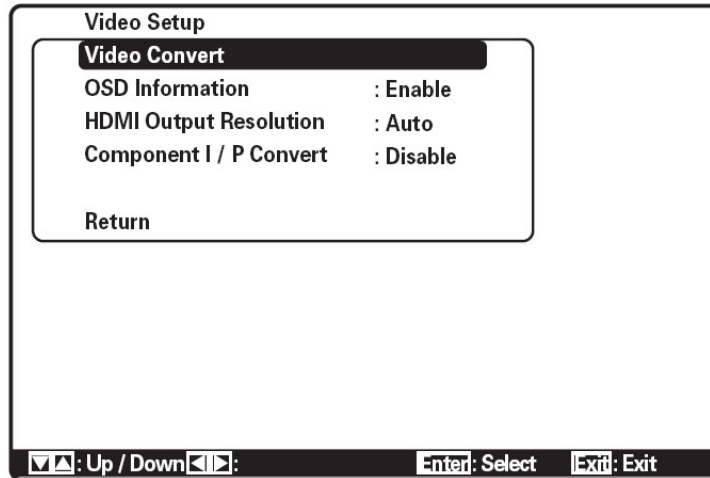
The *Surround Setup* menu includes a number of controls related to the SR5004’s surround sound processing features, but none are going to require immediate attention to configure or use the processor. For information on the settings that are available in this menu and what they mean, see the Roadmap to the Setup Menus later in this guide (starting on page 38).



Surround Setup Menu

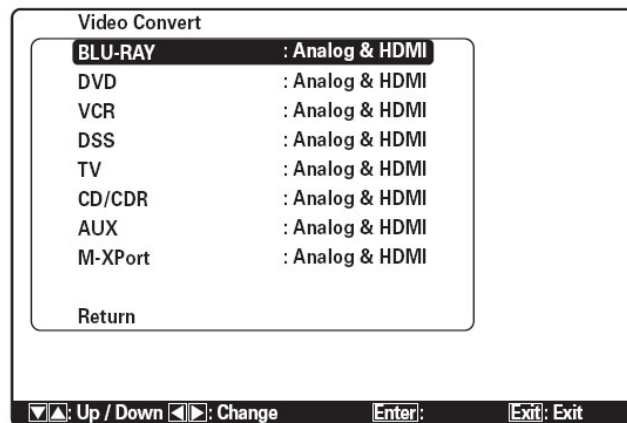
Video Setup

The *Video Setup* menu provides control over the video switching and video processing features of the SR5004.



Video Setup Menu

The first item in the *Video Setup* menu is the *Video Convert* sub-menu. This sub-menu determines how each input's video signal is converted and output from the SR5004's HDMI, component, and composite video outputs.



Video Convert Sub-Menu

Each input can be adjusted independently, and each has three options: “Analog&HDMI”, “Analog Only”, and “Off”. The options are described below.

- **Analog&HDMI:** Any analog signal (component video, composite video, and the front panel S-video) is up-converted and/or down-converted so that it is available at all analog video outputs. It also converts all analog video inputs to digital so they may be output via HDMI.

- **Analog Only:** Any analog signal (component video, composite video, and the front panel S-video) is up-converted and/or down-converted so that it is available at all analog video outputs. Analog video inputs are not output via HDMI.
- **Off:** No video conversion takes place. Composite video inputs are available at the composite video outputs only, and component video inputs are available at the component video output only.

Select inputs in the *Video Convert* sub-menu using the ▲ and ▼ buttons, and select the desired option for each input using the ◀ and ▶ buttons. When all inputs are set properly, select “Return” and press “ENTER” on the remote to return to the *Video Setup* menu. For most cases, the default setting “Analog&HDMI” will be appropriate.

The second option in the *Video Setup* menu is OSD Information. When OSD Information is enabled, the SR5004 can display status information such as volume and input on-screen. OSD information is only available for composite video and S-video inputs, as it is not overlaid onto component video or HDMI inputs. You may use the ◀ and ▶ buttons to change between “Enable” and “Disable” for this menu item.

HDMI Output Resolution defines the resolution of the video signal provided by the SR5004's HDMI output. The available options are listed and described below. Please note that this setting only affects analog video inputs (composite video and component video). HDMI video inputs are passed through to the HDMI output without processing.

- **Auto:** The SR5004 will select an output resolution based on information provided by your HDTV over the HDMI connection.
- **Through:** The SR5004 will apply no video processing to incoming signals. Analog video signals will be converted to 480i/576i digital and may or may not be deinterlaced to 480p/576p.
- **480p/576p:** All analog video inputs will be output as either 480p (for NTSC systems) or 576p (for PAL systems). NTSC is the standard for televisions in North America.
- **720p:** All analog video inputs will be converted to 720p.
- **1080i:** All analog video inputs will be converted to 1080i.
- **1080p:** All analog video inputs will be converted to 1080p.

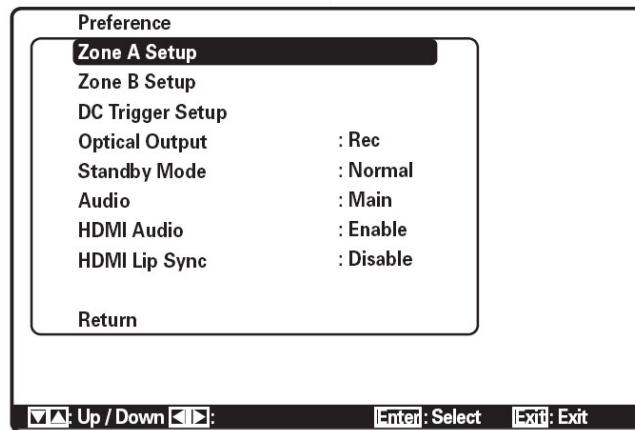
The preferred HDMI Output Resolution setting will be the setting closest to the HDTV's native resolution (such as 720p for 1366x768 displays, 1080i for most CRT HDTV's, and 1080i or 1080p for 1920x1080 displays). If you are unsure of the best resolution for your TV, you can use the “Auto” setting and allow the SR5004 to request a preferred resolution from your TV. If you are using sources that already have excellent video processing, or if you have an HDTV or an external video processor connected to the SR5004's HDMI output, you can use the “Through” setting to avoid applying extra video processing in the SR5004.

The last setting in the *Video Setup* menu is Component I/P Convert. By default, this setting is disabled. If enabled, any composite video, S-video, or standard definition

component video signal will be deinterlaced (converted from 480i/576i to 480p/576p). This setting should be left set to “Disable” for the SD-Component Video Display Tier, but it may need to be set to “Enable” for the HD-Component Video Display Tier because some HDTV’s will not accept a 480i/576i signal via component video.

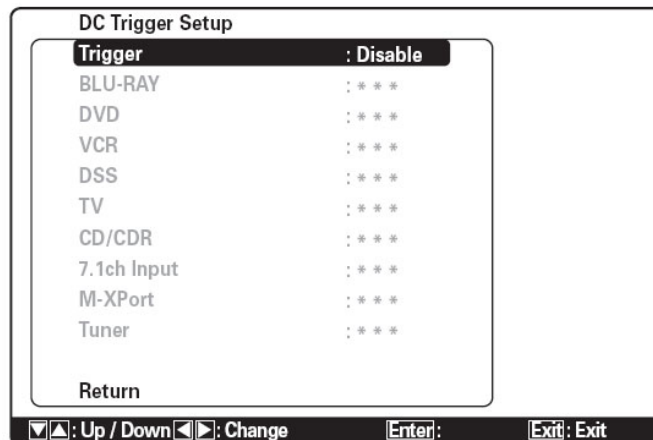
Preference

The *Preference* menu contains controls for Zone A, Zone B, the 12V DC trigger, and several other functions. Most of these will be discussed later, in the Roadmap to the Setup Menu, but some users will need to verify that the 12V DC trigger is set properly during the quick setup process.



Preference Menu

The third option in the *Preference* menu is the *DC Trigger* sub-menu. Select this sub-menu with the ▲ and ▼ buttons, then press “ENTER” to view the sub-menu.



DC Trigger Sub-Menu

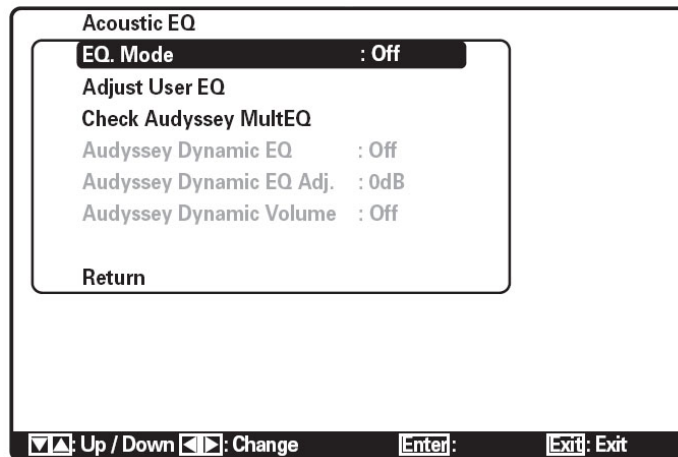
The first option in the sub-menu is Trigger, which is set to “Disable” by default. Other options are “Main Zone”, “Zone A”, “Zone B”, and “Remote.” To use the trigger to power on a separate amplifier, select Trigger and use the ◀ and ▶ buttons to set it to “Main

Zone.” Once Trigger is set to something other than “Disable,” the inputs below can all be adjusted. Each input can be set to either “On” or “Off” – these settings will determine what state the trigger is in when each input is active. Users who are turning an amp on with the trigger will want to set each input to “On”.

The *DC Trigger* sub-menu includes all but one of the SR5004’s inputs. The input that is omitted is Aux (the front panel input). Users who plan to pair the SR5004 with a separate power amplifier and trigger that amplifier on are advised to check if they will be using this input. If the Aux input will be used (either with a front panel connection or with a device connected using HDMI or component video and coaxial or optical digital audio), we recommend using the switched 120V output in place of the 12VDC trigger output. An AC adapter with a DC output that is matched with your amplifier’s trigger input can be plugged into the switched 120V output and used as a trigger signal. See your amplifier’s manual for details on the appropriate AC adapter.

Acoustic EQ

The Audyssey MultEQ automatic setup process calculated speaker distances, levels, and crossovers, but it also calculated EQ adjustments required to correct for room effects. The *Acoustic EQ* menu provides controls for the Audyssey EQ curves and a user-adjusted EQ. These adjustments will be discussed in the Roadmap to the Setup Menus, starting on page 44.



Acoustic EQ Menu

If an Audyssey EQ curve is engaged, both Audyssey Dynamic EQ and Audyssey Dynamic Volume can be selected. Those options will also be discussed in the Roadmap to the Setup Menus.

Audio Formats and Listening Modes

Because the SR5004 supports the new lossy and lossless digital audio formats used by HD-DVD and Blu-ray as well as the older digital audio formats used by DVD, HDTV, DVD-Audio and SACD, *and* more generic audio data such as analog, stereo PCM, and multichannel PCM, the number of different input formats that users may encounter is large. Additionally, the processing modes available to use in conjunction with those formats are even more numerous. To assist in understanding the supported input formats and processing modes of the SR5004, we are devoting one section of this guide to two separate subjects: audio formats (the incoming audio data), and listening modes (the decoding and processing schemes which can be applied to that audio data).

Know Your Inputs

As our home theaters have evolved over the last decade, the input audio formats have expanded to include an ever-growing number. Before we study the surround processing modes offered by the SR5004, it is important to understand what these formats are and when they appear.

Analog Stereo and PCM Stereo

These two sources are treated the same way by the SR5004. The first is analog stereo connections, similar to what you might find from a VCR or some game consoles (Nintendo Wii, for example). The second is digital connections with stereo PCM signals, including sources such as CD's and some digital cable channels. The first case (stereo analog) is converted to stereo PCM by an analog-to-digital converter (ADC), so both inputs may be handled by the digital signal processor (DSP).

Dolby Digital

Dolby Digital was first called AC-3 when it appeared in the 1990's on LaserDisc, and it was the first format to provide true multichannel digital audio for consumer use. When the DVD specifications were established a few years later, Dolby Digital (often abbreviated "DD") was included as the default audio format. Dolby Digital offers up to five discrete full-range channels (left, right, center, left surround, and right surround) and a low frequency effects (LFE) channel; these six channels are often referred to as "5.1" because the LFE channel is limited to low frequency data only. To allow these tracks to fit across digital connections originally designed for just two audio channels, lossy compression is used to compact the original data into a smaller size, allowing the audio tracks to use much less space than would be required for an uncompressed multichannel track.

Dolby Digital soundtracks are not required to use all six channels, so you will often encounter Dolby Digital 2.0 tracks (stereo) or even Dolby Digital mono tracks. Those mono tracks sometimes include two channels (left and right) with identical data in both (or "Dolby Digital 2.0 Mono"), but other times they contain a single channel ("Dolby Digital 1.0").

Dolby Digital Plus

Dolby Labs developed a successor to Dolby Digital for use with HD-DVD and Blu-ray. This audio format is called Dolby Digital Plus (DD+). Dolby Digital Plus offers 7.1 discrete channels (rather than 5.1). It also employs a lossy compression algorithm, but operates at a higher sampling rate. This format can only be delivered to the receiver in its native form via HDMI.

Dolby TrueHD

Dolby TrueHD was developed for use with the new HD disc formats, HD-DVD and Blu-ray. The technology is derived from the high-resolution audio format DVD-Audio. Like DVD-Audio, it uses Meridian Lossless Packaging (MLP) to store digital audio with lossless compression. Since the compression used does not discard any data, a TrueHD track preserves the original integrity of the uncompressed master.

DTS

DTS is a competitor of Dolby Digital that shares the same basic concept: six channels of audio, compacted using a lossy compression algorithm to save space. DTS is not as heavily compressed as Dolby Digital, which many people believe allows it to sound better. It was originally developed for use in theaters, but its creators extended it to consumer electronics and at one point tried to make it the standard audio format for DVD. Dolby Digital won that battle, but DTS was included in the DVD specifications as an option. As with Dolby Digital, the only DTS tracks affected by this setting are those with three or more channels of audio being used.

DTS-HD High Resolution

DTS responded to Dolby Digital Plus with DTS-HD High Resolution. Like DD+, DTS-HD HR supports 7.1 channels, may be included on both Blu-Ray and HD-DVD, and can only be transmitted via HDMI v1.3 or higher.

DTS-HD Master Audio

DTS has consistently answered each of Dolby's digital formats with one of their own. In the case of TrueHD, DTS has DTS-HD Master Audio. Despite the similarities in name, DTS-HD Master Audio is a separate audio format from DTS-HD High Resolution. Like Dolby TrueHD, DTS-HD MA employs lossless compression to provide a format that offers the sound quality of an uncompressed PCM track while offering a way to use less disc space.

Multich PCM

HDMI allows sources to output multichannel PCM because the connection can support the greater volume of data required to transmit up to eight channels of uncompressed digital audio. A multichannel PCM signal may be from a DVD-Audio disc; from decoded Dolby Digital Plus, Dolby TrueHD, DTS-HD, or other audio formats that are decoded inside the source players (Blu-ray, HD-DVD, or DVD); or from the uncompressed PCM tracks offered on some Blu-ray discs.

DSD

DSD (Direct Stream Digital) is a data format that differs significantly from PCM. It was originally developed for digital stereo receivers, and was then adapted for use with the high-resolution audio disc format SACD (Super Audio CD). There are a small number of DVD players available that will output an SACD's DSD signal via HDMI v1.2a or higher. Other players will decode DSD to PCM and output multichannel PCM via HDMI.

The Listening Mode Toolbox

In addition to the numerous audio formats supported by the SR5004, there are even *more* processing modes (also called "listening modes") available for use with those formats. To help understand the distinction between audio format and listening mode, we should review the three different basic forms of audio processing that may take place.

- **Decoding:** The digital audio formats (Dolby Digital, DTS, Dolby TrueHD, DTS-HD) must be decoded before anything else can happen.
- **Surround Processing:** One way or another and no matter how many channels of audio are involved, each audio input will end up as a PCM signal. At that point, the opportunity exists to apply additional processing. Some of the options include Dolby Pro Logic II/IIx, DTS Neo:6, Dolby Digital EX, THX Cinema, and an assortment of Onkyo DSP modes. These modes can expand the original signal, creating additional audio channels. Sometimes surround processing can even include reducing the number of channels, as when a system lacks a center channel and the data in that channel must be re-distributed to other channels.
- **Post Processing:** Once decoding and processing tasks have been completed and a final set of audio channels are in place, there are a number of other processes that may be carried out. These include bass management (redirecting low frequency data among the various speakers and the subwoofer), time delay, A/V sync (delaying the audio signal to synchronize it with the video signal), and Audyssey or manually-configured equalization. In some cases, the listening mode will force the SR5004 to skip portions of the signal processing in order to perform as little manipulation of the audio signal as possible.

The decoding of digital audio formats will happen without any user intervention, and the signal processing obeys settings selected in the SR5004's setup menus. It is that middle step, the surround processing, which may involve the greatest degree of user involvement. The remote control's "SURR" button will scroll through the available options for surround processing. A series of tables on pages 83 and 84 of the SR5004 User Manual identifies the listening modes that can be used with each source audio format. To aid in understanding those tables, we have provided a brief overview of the surround modes listed in the left column.

Auto

The Auto surround mode selects a listening mode based on the signal format. This is the SR5004's default behavior.

Source Direct

There is a tremendous amount of processing power available in the SR5004, but in some cases it is more desirable to preserve clean a signal path as possible. With this in mind, the Source Direct listening mode disables Acoustic EQ, bass management, and M-DAX. Each incoming channel is sent directly to its output, untouched by the DSP circuits. Analog inputs thus remain pure analog when in this listening mode, with only volume control touching the signal.

Pure Direct

The Pure Direct listening mode is similar to Source Direct. In addition to what Source Direct does, Pure Direct disables video output (composite, component, and HDMI) and turns off the front panel display. As with Source Direct, this means that no bass management, channel trim, speaker delay, or equalization is applied and analog inputs remain analog.

(Dolby Digital) EX/(DTS) ES

Dolby Digital EX first appeared in theaters for *Star Wars: Episode I* in 1999. Dolby Laboratories began licensing it for use in consumer electronics around late 2001. It can be used with Dolby Digital 5.1 sources to produce a surround back signal, and some Dolby Digital tracks include matrix information designed to be recognized by Dolby Digital EX. In many of those cases, the source includes a “flag” that is meant to notify the surround processor that Dolby Digital EX is available. Unlike Pro Logic IIx, it produces a mono surround back signal.

Shortly after Dolby Digital EX appeared, DTS introduced a variation of DTS called DTS-ES. A DTS-ES source includes six discrete audio channels, with the sixth being a rear surround signal.

Dolby Pro Logic II

Dolby Pro Logic is a matrix surround processing technology that has been available in consumer electronics since the 1980's, but it was replaced in 2001 by a significantly evolved successor called Dolby Pro Logic II. Pro Logic II can expand a stereo source into five discrete channels. It offers three different modes: Movie, Music, and Game. Movie and Game use pre-defined guidelines to determine how a stereo or matrix encoded signal is distributed throughout the five channels, but Music mode allows the user to adjust three settings to fine-tune the manner in which it generates surround sound. (See page 40 for those settings). When the SR5004 is operating with five or fewer speakers, Pro Logic II will be available. When one or more surround back speaker is available, Pro Logic II will be replaced by Pro Logic IIx in the listening mode options.

Dolby Pro Logic IIx

That brings us to Pro Logic IIx, which is an extension of Pro Logic II that first became available in 2003. It adds two capabilities to Pro Logic II: the ability to generate a maximum of seven channels (adding separate left and right surround back channels) instead of five, and the ability to be used with a 5.1-channel source such as Dolby

Digital or DTS to extend them to 7.1 channels. All three of Pro Logic II's modes are retained by Pro Logic IIx.

Dolby Pro Logic IIz

Unlike earlier processing modes in the Pro Logic family, Pro Logic IIz does not focus on expanding audio into surround channels. Instead, Pro Logic IIz is a "Height" system that extends audio into a pair of speakers located above the front channels. Pro Logic IIz retains the surround processing features of Pro Logic IIx (expanding stereo sources into multichannel as well as creating 7.1 channels from 5.1 channel sources). In addition to that, it adds processing to produce the height channels above the left and right front speakers that expand the traditional horizontal soundfield and create a greater vertical front soundstage.

Pro Logic IIz processing will only be available if speakers are connected to the "Front B/Height" speaker connections on the SR5004 and the height speakers are enabled in the *Speaker Setup* menu.

DTS Neo:6

Neo:6 could be considered DTS's version of Dolby Pro Logic II. Like Pro Logic II, it is designed to be used with stereo sources and it offers more than one mode. The Neo:6 Cinema mode is similar to Pro Logic II Movie, and Neo:6 Music is similar to Pro Logic II Music. (See page 40 for Neo:6 Music settings.) Unlike Pro Logic II, Neo:6 supports six discrete channels of audio (left, right, center, surround left, surround right, and a mono surround back). Due to this sixth audio channel, Neo:6 can also be used with 5.1-channel sources such as Dolby Digital and DTS to generate a mono surround back signal.

Circle Surround II

This processing mode can be used to expand two-channel sources to multichannel, similar to Dolby Pro Logic II and DTS Neo:6. CS II can be used with analog stereo, PCM stereo, and Dolby Digital 2.0 sources. As with Pro Logic II and Neo:6, CS II offers Cinema and Music modes. It also offers a Mono mode for use with mono mixes.

Stereo

The Stereo listening mode provides two possible processing scenarios. The first is to preserve a stereo input with no surround processing. In this case, the stereo audio signal will simply pass on to the signal processing. The second scenario is using Stereo with a multichannel source, in which case this mode will downmix the multiple channels into just two channels, followed in turn by signal processing.

Dolby Virtual Speaker

Virtual Speaker is a processing technology developed by Dolby Labs to simulate surround sound using just two speakers. This mode is only recommended for systems in which no surround speakers are available.

Multi Ch.

The “Multi Ch.” mode can be used with stereo sources. It expands the stereo signal into all of the speakers in your surround sound system by copying the left channel to the left surround, copying the right channel to the right surround, and creating a center signal from both left and right. Because this mode involves only minimal processing of the original signal, it is particularly popular for piping music throughout a room for a party. You will get consistent sound all the way around the room.

Neural Surround

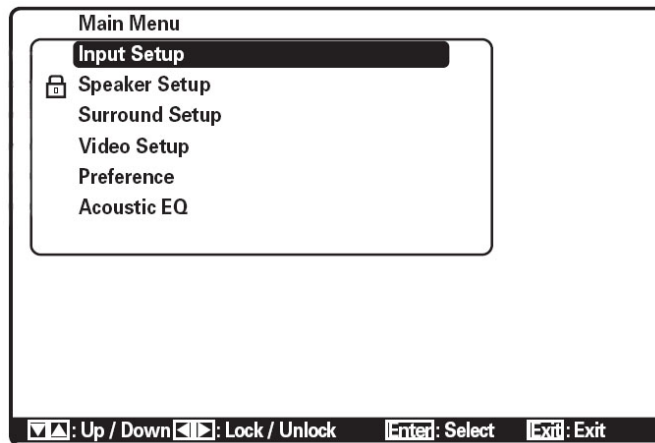
This processing mode is intended for use with XM Radio or other stereo music sources and produces surround sound using psychoacoustic frequency domain processing.

Dolby Headphone

When headphones are connected to the SR5004, Dolby Headphone processing can be employed to give a more immersive experience, particularly when listening to multichannel sources such as DVD and Blu-ray movies.

Roadmap to the Setup Menus

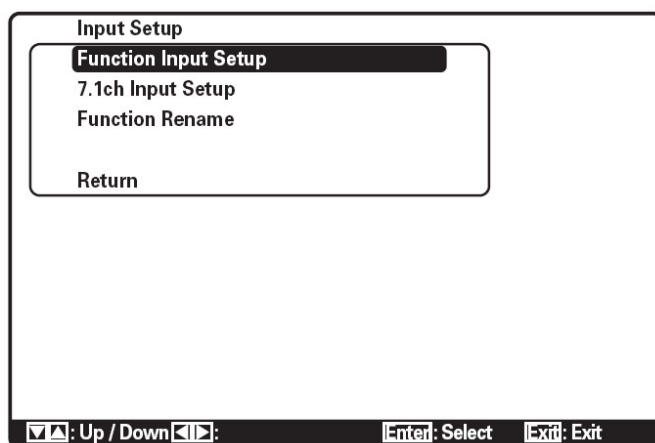
Many of the setup menu options have been covered in detail in the Quick Setup Guide, but there are some settings or menus that were intentionally skipped over. Here, we will briefly re-visit those menus as a supplement to the Quick Setup Guide, and provide additional information as well as page number references from the SR5004 User Manual for each menu and sub-menu.



SR5004 Main Setup Menu

Input Setup

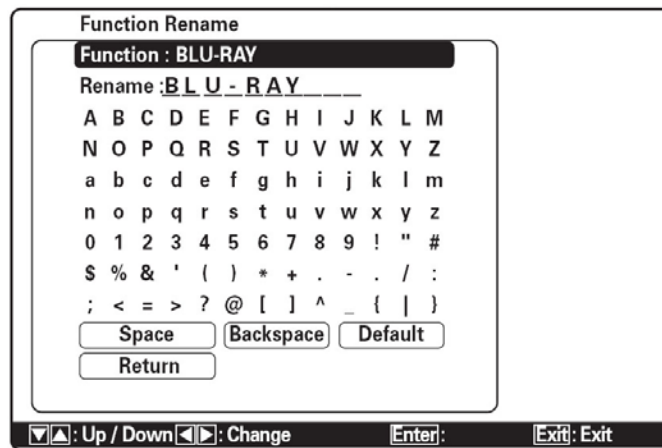
The Quick Setup Guide covered this menu in great detail, except for the *Function Rename* sub-menu that we will discuss below. We recommend using that section and the pages from the SR5004 User Manual referenced below to locate any information you might need about the settings they contain. In addition to the Quick Setup Guide, the page numbers listed on the next page will bring you to the relevant portions of the SR5004 User Manual.



Input Setup Menu

- Function Input Setup: *Page 25*
- 7.1ch Input Setup: *Page 26*
- Function Rename: *Page 26*

The *Function Rename* sub-menu allows editing of the default input names. As an example, the “DSS” entry might make more sense if it were labeled “CABLE”. The *Function Rename* menu allows that. Each input label can contain up to ten characters.

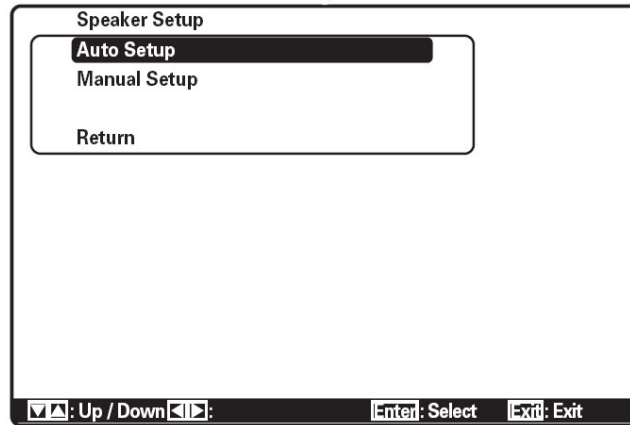


Function Rename Sub-Menu

To edit an input name, begin by highlighting “Function” with the ▲ and ▼ buttons and select the desired input using the ◀ and ▶ buttons. Once the desired input is selected, use the navigation buttons to select the first character to edit and then press the ▼ button to move to the keyboard. Use the navigation buttons to highlight the desired character and press “ENTER” to select it. Repeat the process for each character. Once an input’s name is complete, use the ▲ button to return to “Function:” and use the ◀ and ▶ buttons to select the next input to rename. When complete, highlight “Return” and press “ENTER” to return to the *Input Setup* menu.

Speaker Setup

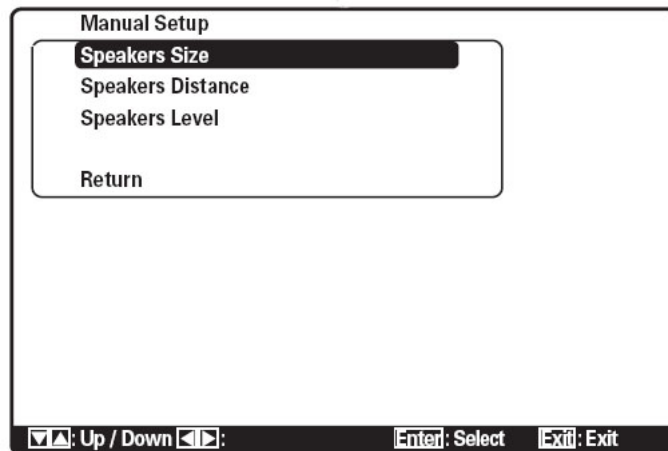
Portions of this menu are covered in the Quick Setup Guide. Also, some useful page references in the SR5004 User Manual are listed below.



Speaker Setup Menu

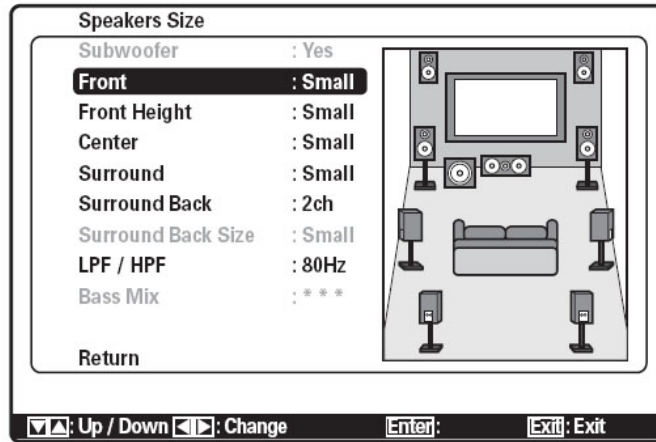
- Auto Setup: *Pages 27-30*
- Manual Setup: *Pages 31-32*

In the Quick Setup section, we discussed the Auto Setup using Audyssey MultEQ and the included calibration microphone. We did not discuss the Manual Setup sub-menu at that time, so we will discuss it below.



Manual Setup Sub-Menu

The *Manual Setup* sub-menu has three separate menus. The first is *Speakers Size*, which sets the bass management for the SR5004.



Speakers Size Sub-Menu

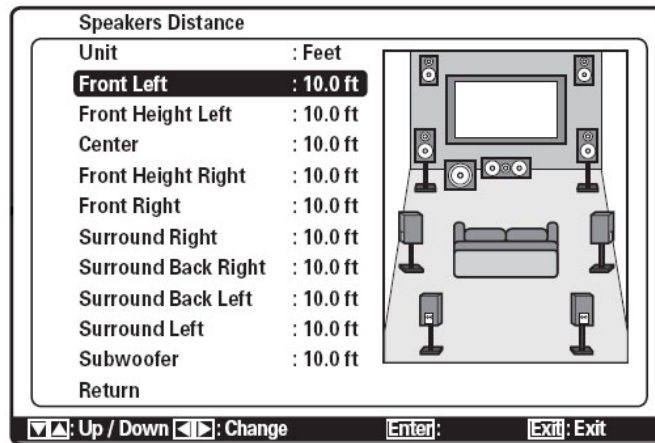
The bass management settings will determine how low frequency audio is managed between the speakers. “Large” defines a speaker as being capable of reproducing low frequencies. “Small” defines a speaker as one that should instead of those low frequencies re-directed to a subwoofer. Which setting is appropriate should not be determined solely by a speaker’s physical size. Instead, it should be determined by the speaker’s performance characteristics. Speaker manufacturers provide a number of specifications with each speaker, and the frequency response specification is the best way to determine if a speaker should be considered “large” or “small.” This specification may be listed as a range (such as “54Hz-21,000Hz +/-3dB”), or as a value for the lower limit (such as “Low Frequency Extension: 54Hz (-3dB)”). Some people will classify speakers as “large” if the low frequency limit is as high as 40Hz, and some people will require speakers to achieve close to 20Hz to be considered “large”. In general, a speaker should be considered to be “small” unless the low frequency limit is near or below 30Hz. We recommend finding out what the lower limit is for each of your speakers, as it is useful for several settings in this sub-menu.

Each set of speakers (Front, Front Height, Center, Surround, and Surround Back) can be set to “Large” or “Small”, and all of the speakers except for the Fronts can be set to “None.” Surround Back speakers can only be set to “Large” if the Surround speakers are also “Large”. The subwoofer can be set to “Yes” or “No”, but “No” is only an option if the Front speakers are set to “Large”.

Because the SR5004 supports either a single surround back speaker or a pair of surround back speakers, the “Surround Back” setting can be “None” (no surround back speakers), “1ch” (a single surround back speaker), “2ch” (a stereo pair of surround back speakers), or “Zone SPKR” (if the surround back speaker terminals are being used to power speakers in Zone A).

When any speakers are set to “Small”, the SR5004 will apply bass management to those speakers and redirect low frequencies to either the subwoofer or “large” front speakers. The crossover point used by this bass management can be adjusted to coordinate with the speakers in your system. This adjustment is the “LPF/HPF”

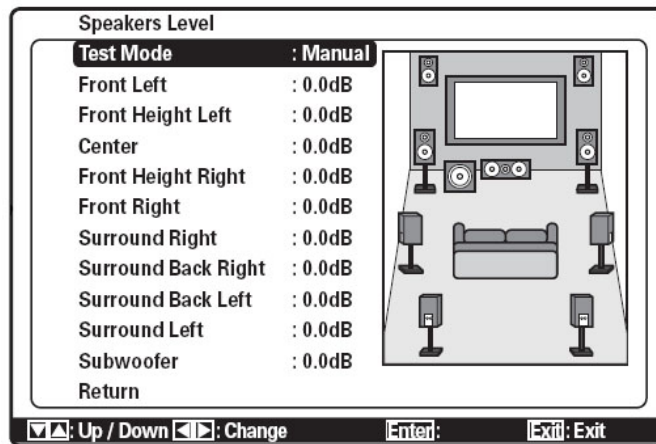
crossover value, which can be set to 40Hz, 60Hz, 80Hz, 100Hz, 120Hz, 140Hz, 160Hz, or 180Hz. This is the crossover point that will be used with all “small” speakers. The crossover point should be set to be higher than the low limit value (54Hz in the two examples on the previous page). We also suggest not setting the crossover exactly at the speaker’s low frequency roll-off point, particularly for the front and center speakers. Consider using a crossover point at least 10Hz or 20Hz above the front and center speakers’ lower limit. If you are using speakers that are THX certified, use an 80Hz crossover as this is the THX standard for speaker certification.



Speakers Distance Sub-Menu

Most home theaters cannot be set up with each speaker located the same distance from the listening position. In many cases, it is not even possible to have pairs of speakers (front left/right or surround left/right, for example) the same distance from the listening position. To compensate for these differences in distances, the SR5004 can delay each speaker signal separately so that all channels’ sound reaches the listening position at the same time. As with speaker size, the speaker distance settings can be determined automatically using the Audyssey MultEQ setup process, but it can also be set manually using the *Speakers Distance* sub-menu. To make these settings manually, use a tape measure to measure the distance from the listening position to each speaker. Use the ▲ and ▼ buttons to highlight each speaker and use the ◀ and ▶ buttons to adjust the distances in 0.1ft increments from 0.1ft to 30ft.

Some systems may have outboard subwoofer equalization equipment (such as a Behringer EQ or Velodyne SMS-1) connected between the SR5004 and the subwoofer. The signal processing performed by these units can produce a signal delay, and the Audyssey measurements will perceive that delay as a greater distance from the listening position. As a result, these systems will cause the subwoofer distances reported by Audyssey to not match the actual speaker placement. We recommend retaining the Audyssey-measured distances, as they include delays for both physical distance and for signal processing. For subwoofers with equalization built in, we also recommend disabling that equalization and using Audyssey alone; in most cases Audyssey will provide superior results.

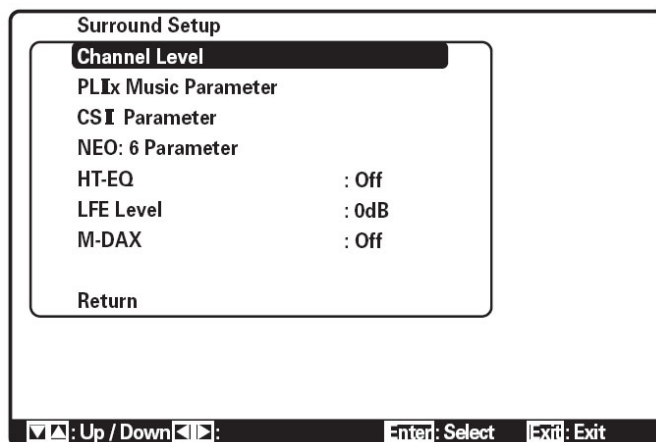


Speakers Level Sub-Menu

The Audyssey MultEQ automatic setup process also adjusts individual speaker levels. These adjustments can also be made manually in the *Speakers Level* sub-menu. A process for doing this using the SR5004's internal test tones is described on page 33 of the Marantz SR5004 User Manual. If the Audyssey MultEQ automatic calibration is not used, we recommend performing this manual calibration using an SPL (sound power level) meter. SPL meters are available at Radio Shack or online for under \$50.

Surround Setup

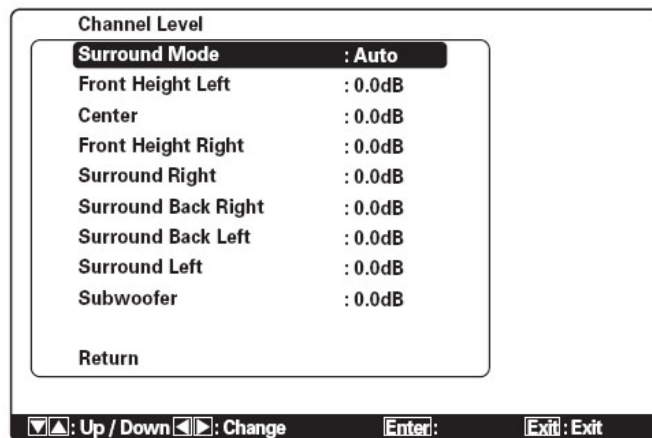
The *Surround Setup* menu provides an assortment of audio-related controls such as Pro Logic IIx and Neo:6 settings. The SR5004 User Manual provides information on the settings available in this menu (see page references on the next page), and we will also review each sub-menu and setting.



Surround Setup Menu

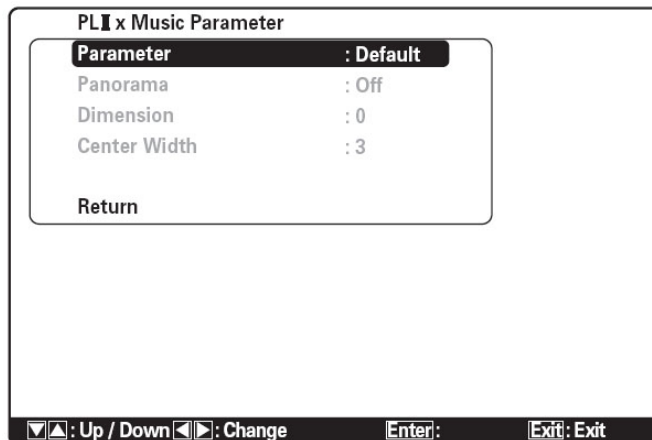
- Channel Level: *Page 33*
- PLIIx Music Parameter: *Page 34*
- CS II Parameter: *Page 34*
- Neo:6 Parameter: *Page 34*
- HT-EQ: *Page 33*
- LFE Level: *Page 33*
- M-DAX: *Page 33*

The first sub-menu in *Surround Setup* is *Channel Level*, which allows for speaker level adjustments for different surround modes. Speakers that are not enabled in the *Speakers Size* sub-menu will not be listed in *Channel Level*. If a source is active, the Surround Mode listed will be the mode currently in use, and changing Surround Mode will change the active mode. Changes made here will also affect the settings in *Speakers Level* sub-menu.



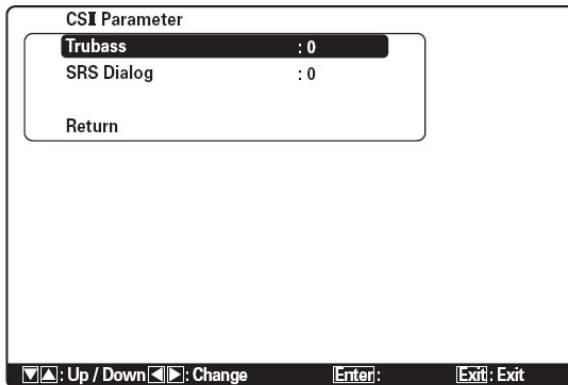
Channel Level Sub-Menu

The Music mode for Pro Logic IIx incorporates three settings that allow user adjustment to how the mode operates with two-channel sources. The *PLIIx Music Parameter* menu provides access to those adjustments.

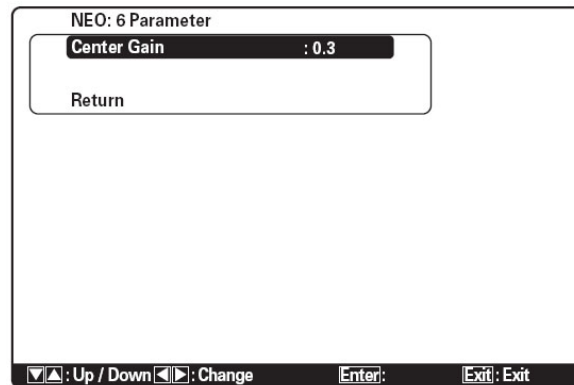


PLIIx Music Parameter Sub-Menu

Pro Logic IIx-Music offers three settings. These settings can only be adjusted if “Parameter” is changed from “Default” to “Custom”. When “Custom” is selected for Parameter, the three settings can be changed and those settings will be used when Pro Logic IIx-Music is applied. The first is setting “Panorama,” which can be set to “On” or “Off.” When set to “On,” Pro Logic IIx will extend the front soundstage into the surrounds. “Dimension” allows for settings ranging from -3 to +3, with a default of 0. Setting this value to less than zero will cause Pro Logic IIx to steer more information into the surrounds, moving the soundstage “back” into the room. This can help with sources that seem too much like mono. Setting this value to more than zero pulls the soundstage “forward” toward the front speakers, reducing the surround activity. The third Pro Logic IIx setting is “Center Width,” which can be adjusted from 0 to 7. At a Center Width of 0, all center channel information is sent to the center channel output. As the Center Width setting increases, more of the center channel data is spread out to the left and right channels. A Center Width of 7 will redirect all center channel data to the left and right channels. The default value is 3.



CS II Parameter Sub-Menu



NEO:6 Parameter Sub-Menu

Circle Surround II (CS II) offers two adjustments. The first is Trubass, which can be set from 0 to 6 in increments of 1. Settings above 0 will produce extra bass information at the lowest octave bands, and a higher setting will produce more bass. SRS Dialog is designed to make dialog (spoken words) easier to understand by steering dialog from surrounds to the center speaker. It can be adjusted from 0 (no change) to 6 (maximum change) in increments of 1.

The Neo:6 Music setting for “Center Gain” is similar to Pro Logic IIx’s Center Width setting, but (unlike PLIIx Center Width) it is applied before the center channel signal is derived from the stereo source. When Center Gain is set to 0 (the minimum setting), both left and right channels are attenuated by half in order to create the center channel signal. A Center Gain setting of 1 applies no attenuation to the left and right channels, preserving the original stereo signal. The default value is 0.3.

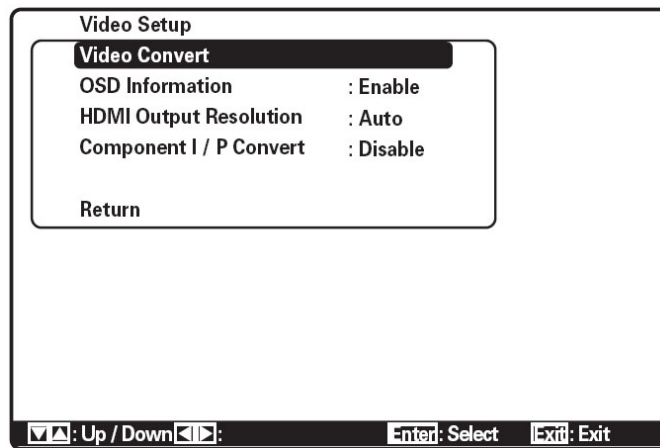
“HT-EQ” is a setting that will compensate for overly-bright movie soundtracks that were mixed for movie theaters rather than home use. It is not available for the 7.1 channel analog input or when Source Direct, Pure Direct, or Dolby Headphone mode is in use.

“LFE Level” allows adjustment of the output level of the LFE signal found on Dolby Digital and DTS sound track. The options are “0dB” (no change), “-10dB” (a 10dB reduction in LFE level), or “OFF” (no LFE signal).

The SR5004 offers a function called M-DAX (Marantz Dynamic Audio eXpander). M-DAX is intended to compensate for lost audio content in MP3 and AAC audio files. These file formats employ lossy audio compression that discards audio content to maximize compression. The menu setting “M-DAX” offers three options: “Low,” “High,” and “Off.” Both “Low” and “High” apply M-DAX to the active audio source, with “High” providing a stronger effect. In addition to the menu setting found here, M-DAX can be controlled from the remote control using the “M-DAX” button.

Video Setup

The *Video Setup* menu options are described in both the Quick Setup Guide (starting on page 23) and the SR5004 User Manual (see page references below).

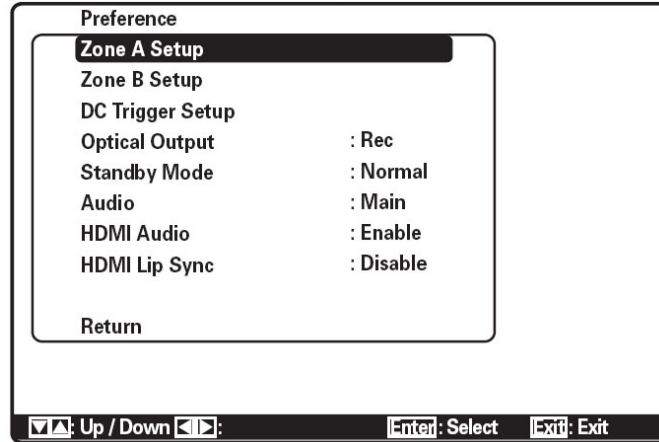


Video Setup Menu

- Video Convert: *Page 35*
- OSD Information: *Page 35*
- HDMI Output Resolution: *Page 35*
- Component I/P Convert: *Page 35*

Preference

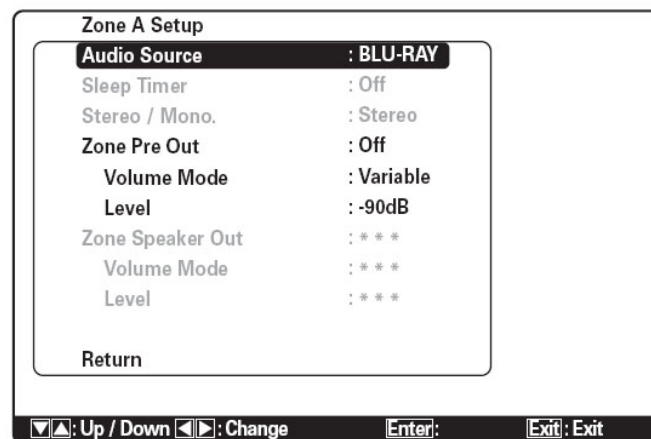
This menu offers an assortment of general setting preferences for the SR5004, including second zone, DC trigger, and HDMI audio options. The *DC Trigger Setup* sub-menu was discussed in the Quick Setup Guide (page 25). Page references for the SR5004 User Manual are provided below. In addition, we will discuss several items in detail.



Preference Menu

- Zone A Setup: *Pages 36-37*
- Zone B Setup: *Pages 36-37*
- DC Trigger Setup: *Page 37*
- Optical Output: *Page 36*
- Standby mode: *Page 36*
- Audio: *Page 36*
- HDMI Audio: *Page 36*
- HDMI Lip Sync: *Page 36*

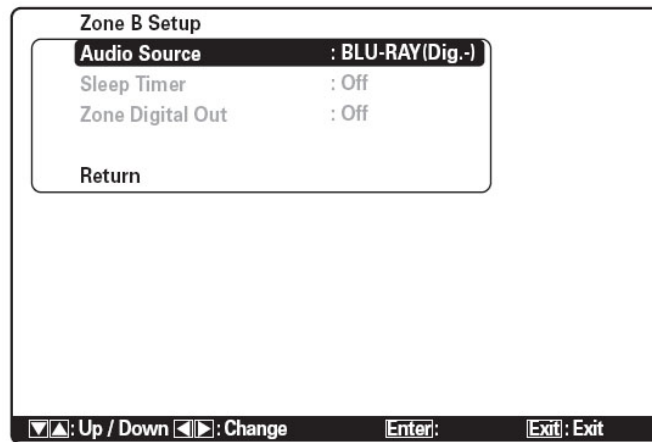
As discussed in the Connecting your SR5004 section, the SR5004 offers two extra zones for separately-controlled audio playback. These two zones (Zone A and Zone B) are controlled in the *Preference* menu, and each has a sub-menu for that control.



Zone A Setup

Zone A is the more flexible of the two zones, so the *Zone A Setup* sub-menu is the more extensive of the two sub-menus. The desired source can be selected in this menu, and if Zone A is turned on the sleep timer may be set in this menu. Additionally, the pre-amp output and speaker output can be configured here. If the pre-amp output is connected, set “Zone Pre Out” to “On”. If the speaker output is connected, verify that the

surround back speakers are disabled (set to “None” in the *Speakers Size* sub-menu of the *Speaker Setup* menu, see page 36) and the “Speaker C” switch on the rear panel is set to “Off” before setting “Zone Speaker Out” to “On”. If either the surround back speakers or Speaker C are engaged, the “Zone Speaker Out” controls will be disabled. For either “Zone Pre Out” or “Zone Speaker Out”, the “Volume Mode” may be set to either “Variable” (adjustable in this menu) or “Fixed”. When “Volume Mode” is set to “Fixed”, a separate volume control will be required. This may be provided by connecting the pre-amp output to a stereo receiver. It may also be provided by wall-mounted volume controls located between the amplifier and the speakers, as is often found in homes with in-wall or in-ceiling speakers.



Zone B Setup Sub-Menu

The *Zone B Setup* sub-menu can be used with the digital audio output. In order to make use of Zone B, the “Optical Output” setting in the *Preference* menu must be changed from the default “Rec” setting to “Zone B”. Once that is done, Zone B can be used in conjunction with any digital audio input (coaxial or optical). There is no volume control for Zone B. That must be provided by the component at the other end of the optical cable. As with Zone A, the sleep timer can be turned on for Zone B when Zone B is engaged.

Both Zone A and Zone B can be turned on and off from the remote control using the “ZONE A” and “ZONE B” buttons near the top of the remote.

“Standby Mode” can be changed from “Normal” to “Economy” to reduce the SR5004’s power consumption while in standby mode. The “Economy” setting disables RS232 control of the SR5004 when it is in standby mode, making it impossible to turn the unit on via RS232 control.

Some HDTV broadcasts include an audio track that offers two languages. This is done using bilingual AAC (MPEG2) audio that contains two separate audio channels, a “Main” and a “Sub,” that carry the two different languages (often English and Spanish in the US). The SR5004 can be set to recognize these and select either the Main or Sub channel. The “Audio” setting in the *Preference* menu provides this control, and the

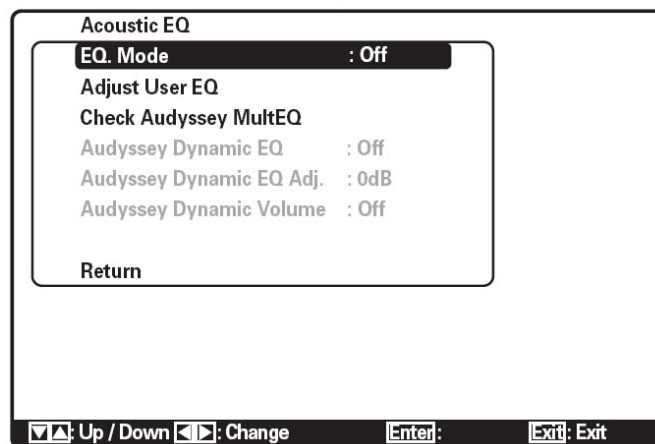
default value is “Main.” If you wish to hear the Sub channel when it is available, set “Audio” to “Sub.”

“HDMI Audio” should be set to “Enable” in most cases. This setting allows the SR5004 to play the audio delivered via HDMI. The “Through” setting will pass the incoming HDMI audio signal through to the TV, but will not allow the SR5004 to use the audio. If “Through” is selected, all inputs using an HDMI video connection will require a separate audio connection.

If the SR5004 is connected to an HDMI v1.3a display, “HDMI Lip-Sync” can be set to “Enable” to allow the SR5004 to automatically determine the audio delay required to compensate for delays in the video signal caused by video processing.

Acoustic EQ

The *Acoustic EQ* menu provides control over both Audyssey-calculated and manually-adjusted EQ curves as well as two Audyssey features. The menu is described in the SR5004 User Manual (see page references below) as well as here in the Roadmap to the Setup Menus.



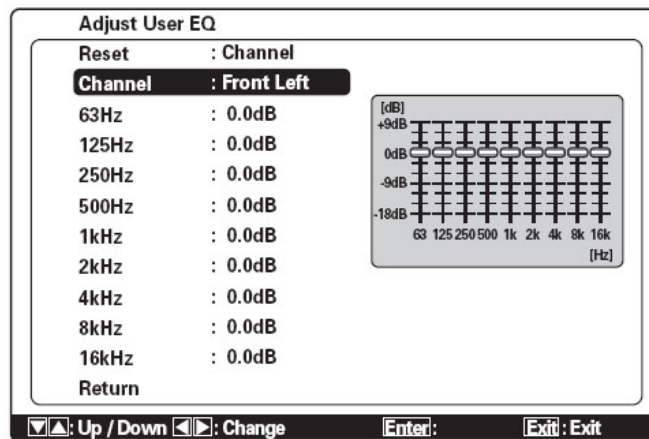
Acoustic EQ Menu

- EQ. Mode: *Page 38*
- Adjust User EQ: *Pages 38-39*
- Check Audyssey MultEQ: *Pages 38-39*
- Audyssey Dynamic EQ: *Page 38*
- Audyssey Dynamic EQ Adj.: *Page 38*
- Audyssey Dynamic Volume: *Page 38*

“EQ. Mode” can be set one of five ways. These five options are listed and described below. The Audyssey Dynamic EQ and Audyssey Dynamic Volume settings will not be accessible unless “EQ. Mode” is set to one of the three Audyssey options.

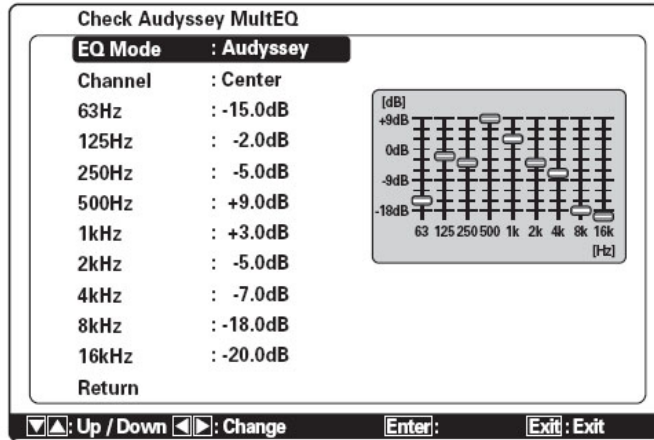
- Off: No equalization is applied.
- Audyssey Front: No equalization is applied to the front speakers. Equalization is applied to the other speakers based on Audyssey calculations.
- Audyssey Flat: Equalization is applied to all speakers based on Audyssey calculations. Additionally, the frequency characteristics of all speakers are flattened. This mode is recommended for multichannel music playback.
- Audyssey: Equalization is applied to all speakers based on Audyssey calculations to correct for the sound characteristics of the listening room.
- User: Equalization is applied to all speakers based on user-defined equalization curves set in the *Adjust User EQ* sub-menu.

In addition to the *Acoustic EQ* menu, the EQ mode can be changed using the “EQ” button on the remote control. Pressing the “EQ” button multiple times will scroll through the options in the order listed above.



Adjust User EQ Sub-Menu

The *Adjust User EQ* sub-menu provides a manual 9-band EQ for each of the nine speakers (left, right, center, both surrounds, both back surrounds, and both front height speakers), which provides you with the ability to directly set -20dB to +9dB of adjustment at frequencies of 63Hz, 125Hz, 250Hz, 500Hz, 1kHz, 2kHz, 4kHz, 8kHz, and 16kHz. Adjustments may be made in 0.5dB increments. Manually adjusting EQ's for each speaker in this manner is a complex task which will require measurement equipment and computer software to implement properly.



Check Audyssey MultEQ Sub-Menu

When we ran the Audyssey MultEQ setup in the Quick Setup Guide, we had the option of reviewing the speaker settings that Audyssey produced. Audyssey MultEQ also generated a series of EQ settings during the calculation process. These EQ settings can be reviewed in the *Check Audyssey MultEQ* sub-menu. The ▲ and ▼ arrows can be used to select either “EQ Mode” or “Channel”, and the ◀ and ▶ arrows can be used to select one of the three EQ modes (Audyssey, Audyssey Flat, and Audyssey Front) or one of the nine speakers (left, right, center, left height, right height, left surround, right surround, left surround back, and right surround back). No adjustment is possible for these EQ settings.

Audyssey Dynamic EQ is a function which adjusts frequency response and surround levels based on user-selected volume setting and the source material being played. This adjustment serves as a compensation for human perception and room acoustics at lower volume levels. If Audyssey Dynamic EQ is turned on, the Audyssey Dynamic EQ Adjust setting can be changed from 0dB (the default value) to 5dB, 10dB, or 15dB. Marantz recommends 5dB for sources with a very wide dynamic range, such as classical music. They recommend 10dB for musical sources such as jazz (which also have a wide dynamic range) and for TV content. The 15dB setting is recommended for pop/rock music or other material that is mixed at a high level or has a compressed dynamic range.

The last option is Audyssey Dynamic Volume, a system which monitors the volume of program material and adjusts the volume level to compensate for passages that are significantly louder (such as TV commercials). Audyssey Dynamic Volume cannot be used unless Audyssey Dynamic EQ is already engaged. Audyssey Dynamic Volume offers three levels of compression: Light, Medium, and Heavy.

The settings for Audyssey Dynamic EQ and Audyssey Dynamic Volume can be adjusted in the *Acoustic EQ* menu or directly from the remote using the “D.EQ/VOL” button. Each time the “D.EQ/VOL” button is pressed, the SR5004 will cycle through one of five options: Audyssey Dynamic EQ off and Audyssey Dynamic EQ on with each of the four Audyssey Dynamic Volume settings (Off, Light, Medium, and Heavy).

Tips and Tricks

The following items detail several features, capabilities, shortcuts, and conveniences that we felt deserved some special mention.

Multiple Inputs Configured for a Single Source

The *Listening Modes* menu allows a great deal of control over which listening modes are used with each input and audio format, but there may still be cases where more control flexibility is needed. Some users may prefer to use two different listening modes for a single audio format from the same source. An example would be a DVD player that is also used as a CD player. When listening to CD's, the preferred listening mode for stereo/PCM may be "Stereo" or even "Direct." When watching DVD's, you may want to listen to the occasional stereo/PCM material in "Pro Logic IIx Movie" or "All Stereo." Similar cases may exist with other sources. Manually changing the listening mode is an annoyance in cases like this.

One solution is to configure more than one input for a single source. Stereo analog inputs, the multichannel analog input, and HDMI inputs can only be associated with a single input, but the coaxial and optical digital inputs can each be assigned to multiple inputs. A coaxial digital audio cable from one source could be assigned to both the CD and the DVD inputs, each using different listening mode preferences, and the user need only select a different input. When using an audio-only input such as CD, a specific video input can still be viewed by selecting the video input before selecting the CD input (the video switching will remain in its previous state).

Maximizing Video Inputs by using Front Input "AUX"

Some users may find that they start to run out of rear panel connections if their system includes many sources. Between DVD, Blu-ray, HD-DVD, cable/satellite, and a game console or three, even the SR5004's offerings can begin to get crowded. One option for a system that includes HDMI sources is to assign one HDMI connection to the AUX input. This front panel audio/video input cannot be used with rear panel component, coaxial, or optical connections, but it can be tied to any one of the three HDMI connections, thus allowing other components that use component video or composite video connections to have access to the rear panel connections.

Note that if you are using the SR5004 with a separate power amplifier and the amplifier is being triggered by the SR5004, you will need to use an AC adapter instead of a trigger cable. See page 26 for more information.

Dimming the Front Panel

Ambient light control is important to the total home theater experience. With that in mind, the SR5004 offers a way to turn off the front panel display. The DISPLAY button (available on both the remote control and the front panel) toggles between three options. The first will cause the front panel to display current volume level in place of the surround processing mode. Pressing DISPLAY a second time will select "Auto Display" mode, in which the front panel display will only turn on when a change occurs (volume,

input, surround mode, etc.). Pressing DISPLAY a third time will select “Display Off” mode, in which the front panel display is disabled entirely. Pressing DISPLAY a fourth time will return the front panel display to normal.

Discrete Remote Codes

One of the great conveniences offered by many third-party universal remotes is the ability to create *macros*: single-button controls that issue multiple commands to carry out a specific task. When creating macros, discrete remote commands (particularly for “power on” and “power off” commands) are highly sought after. The SR5004’s remote clearly identifies its discrete “power on” and “power off” commands: the “On” and “Standby” buttons.

The SR5004’s remote does not include discrete codes for the inputs. Instead, it uses an input up/down control to scroll through the inputs. The SR5004 does support discrete commands for the inputs, however. These commands can be accessed by users with third-party universal remotes such as Logitech Harmony, Universal Remote Controls, and Philips Pronto.

Adjusting Channel Levels “On the Fly”

The speaker levels are set in the *Speakers Level* sub-menu and many can also be adjusted in the *Channel Level* sub-menu, but it is also possible to adjust individual channel levels manually without entering the setup menu. To make these changes, select the “CH SEL” button. The bottom line of the front panel display will list the speaker and its channel trim setting. Scroll through the available speakers using the ▲ and ▼ buttons, and use the ◀ and ▶ buttons to adjust the setting for each speaker. Press “CH SEL” again when finished.

Audyssey Dynamic Volume Function

Audyssey Dynamic Volume is an excellent feature, particularly when watching TV programs with objectionably loud commercials. It is not always appropriate, however. The “D.EQ/VOL” button on the remote control can provide a convenient way to engage and disengage this function as needed. Additionally, discrete remote codes are available for some third-party remotes (Logitech Harmony, Universal Remote Controls, Philips Pronto, etc.) that provide direct access to the different Audyssey Dynamic Volume modes. Similar discrete codes are available for Audyssey Dynamic EQ.

Keep A Record of Your Settings

This guide includes two ways to record some input-related settings: the Connection Summary Sheet and the Listening Modes Menu Reference Sheet. Obviously, that only helps with some of the settings required to get the SR5004 configured in the event of a system reset. The Quick Setup Guide and Roadmap to the Setup Menus combine to mention every menu available on the SR5004, however, and a few notes in those two sections – even just some settings circled and a few numbers jotted in the margins – could serve as a convenient record for future reference.

Resetting the SR5004

To reset the SR5004, turn the unit on and go to the front panel. Hold down the SURR. MODE and CLEAR buttons for three seconds. This will erase all user settings and radio station presets, returning the unit to its default state. For this reason, we suggest that you use the Connection Summary Sheet and Listening Modes Menu reference sheet to record your settings before a reset. You will also need to re-run the Audyssey MultEQ system and restore tuner memories after a reset.

Locking the Setup Menus

Once you have set up the SR5004 and everything is just the way you like it, you may want to prevent accidental changes. Each of the SR5004's main setup menus (Input Setup, Speaker Setup, etc.) may be locked separately, such that the menu cannot be accessed. To lock a menu, enter the Main Menu, highlight the menu you want to lock, and use the ◀ or ▶ button to lock the menu. The menus can be unlocked using the same procedure.

Troubleshooting

Pages 78 through 82 of the SR5004 User Guide offer a detailed list of troubleshooting suggestions. We have compiled a shorter list here to cover the most common problems that are likely to be encountered. If the list below does not resolve the issue, the more extensive list in the SR5004 User Guide may help. Outlaw Audio customer support is also available during regular business hours (EST) at 866-688-5292, as is Outlaws' online forum (the Outlaw Saloon, available by clicking on the Hideout near the top of our website, www.outlawaudio.com, and selecting the "Outlaw Hideout" saloon doors).

No Audio Output

- If using the internal amplifiers, verify that speaker cables are properly connected to the receiver's binding posts and the speakers.
- If using a separate power amplifier, verify that pre-amp outputs are properly connected to power amplifier and that speakers are properly connected to amplifier.
- If using a separate power amplifier, verify that power amplifier is turned on.
- If a 12V trigger cable is used to turn amplifier on, verify that trigger cable is connected and that trigger is enabled in setup (see pages 25 and 26).
- Verify that correct input is selected and that input is set to use correct analog or digital audio connection (see page 18).
- Verify that speaker "A" output is engaged. If front panel does not show "SP:A" on upper left portion of display, press the "SPKR A/B" button on the remote control until it does show "SP:A".
- Verify that headphones are not plugged in.
- Verify that unit is not muted. When muted, MUTING indicator will flash on front panel display.

No Video Output

- Verify that a video output is connected to the TV, that the TV is on, and that the TV is set to the correct input (see pages 6 and 16 for video output connection).
- Verify that the video source is connected to the SR5004 and the current video input is configured to use that video connection (see page 18).
- HDMI video inputs will only be available at the HDMI video output. Verify that the TV is not displaying the component or composite video output when the active video input is HDMI.
- For analog video inputs, verify that Pure Audio is not selected as the current listening mode.
- For long HDMI cables, verify that overall cable length does not exceed ten meters (approximately 35 feet). For overall cable lengths between three and ten meters, test individual cables (connect directly from source to display or SR5004 to display) to isolate possible cabling faults.

On-Screen Menus Not Available

- Verify that the display is turned on and set to the correct input.
- Verify that the menus have not been locked. See page 24 of the SR5004 User Manual.

No Audio/Video at Record Output

- Verify that the active input is connected using stereo analog audio cables. For VCR record output of a video input, verify that composite input is connected for the active video input.
- Verify that recorder is set to the correct input.
- For VCR recording, verify that Pure Direct listening mode is not active. Pure direct will disable video record output.

Remote Control Does Not Work

- Press the AMP button to control the SR5004.
- Verify that the SR5004's remote sensor window is not obstructed.
- Check batteries and replace if needed.

Cannot Find 7.1ch Input, or Cannot Change Inputs after Selecting 7.1ch Input

- The 7.1ch input is not available using the input ▲ and ▼ buttons. Press the "7.1" button on the remote control to engage the 7.1ch input.
- To return to other inputs, press the "7.1" button on the remote again to disengage the 7.1ch input.

Front Panel Controls Do Not Work

- Front panel lock is enabled. Hold down the PURE DIRECT and EXIT buttons on the front panel for three seconds to toggle between front panel lock and unlock modes.

Notes

Notes

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