

CONCERT AVR-6

CONCERT AVR-8

Home Theater Surround Sound Receiver User Experience Manual

AudioControl[®]
Making Good Sound Great[®]

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Greetings from the rainforest

On behalf of everyone at AudioControl we want to congratulate you on your selection of the Concert AVR-6 / AVR-8 Home Theater Surround Sound Receiver. Whether this is your first venture into home theater or you are a long time seasoned audio veteran, you will truly enjoy the performance of our amazing sounding receivers.

While there are many components involved in creating a truly awesome home theater from room design, speaker placement, and ultimately system calibration, selecting the proper products is always very critical. For that reason AudioControl created the Concert AVR-6 / AVR-8 to provide maximum enjoyment and flexibility which all contribute to a truly awesome home theater experience.

AudioControl's passion for high quality, meticulous attention to detail and professional sound heritage shows itself in the dozens of awards we have won for our designs, products and service. This manual is designed to help you get the most from your Concert AVR-6 / AVR-8 home theater receiver. Even though you're dying to plug it in and start pushing buttons, please read through this user guide and learn about the Concert AVR-6 / AVR-8. Any component that does as much as the Concert AVR-6 / AVR-8, deserves all the explanation it can get. Given the complicated nature of the Concert AVR-6 / AVR-8, we also recommend you visit our website for updates to this manual. Continued technology changes/improvements will require more information. (www.audiocontrol.com - click "Home Theater")
Enjoy the experience.

Your Friends At AudioControl

Key Features Of the Concert AVR-6 / AVR-8

While the AudioControl Concert AVR-6 / AVR-8 is equipped with a large number of features and functions that were designed to maximize your theater experience, we want to draw your attention to a few that deserve extra attention. These will be the features you will want to mention to your friends, family and co-workers to impress them when they ask you about the home theater components you have auditioned.

UltraHD 4k Scaling and Pass Thru

Your Concert AVR-6 / AVR-8 has been equipped to deliver stunning UHD resolution – 3840x2160 – 4 times the pixel density of a 1080p signal from any source. Just set the resolution to 4k in the Video Settings menu and connect to a 4k UltraHD display, then sit back and enjoy!

Video Bypass

Out of the box, the Concert AVR-6 / AVR-8 is configured with the video bypass on. This enables high definition and 3D HDMI video signals to pass through directly to the display device, leaving the Concert AVR-6 / AVR-8 to make good sound great. With Video Bypass on, analog video inputs, such as component or composite, will still be passed through the scaler for upconversion and output via HDMI. Please keep in mind that when the Concert AVR-6 / AVR-8 is in Video Bypass mode, on screen volume overlays, audio mode changes, base/treble adjustments etc...will not be displayed. Pressing “Menu” however will engage the video scaler and yield a menu screen to your display so that you can make adjustments if necessary.

HDMI Inputs and Outputs

The Concert AVR-6 / AVR-8 is equipped with numerous, individual audio and video inputs and outputs, including a large number of HDMI (High-Definition Multimedia Interface) inputs and outputs. The new generation HDMI inputs will allow the Concert AVR-6 / AVR-8 to interface with Blu-Ray players, satellite and cable decoding boxes plus traditional DVD players that also have HDMI connectors. HDMI is an uncompressed all digital interface standard used on many home theater products. This format can

be used for sending audio, video, and control signals over short distances.

The dual HDMI outputs are assignable to allow for priority switching via the display device. Component and composite signals can also be automatically upconverted, scaled to their maximum potential resolutions and output through the HDMI ports.



Powerful and Cool Running Class H Amplification

The Concert AVR-8 utilizes AudioControl's legendary Class H amplifier topology to powerfully drive even the most demanding speaker systems. Known for pristine sonics, cool operating temperatures, and ultra reliability, this highly efficient amplifier design literally "sips" current, which helps it to satisfy even the "greenest" of customers. Despite its minimal current draw, the Class H design is powerful enough to drive 120 watts per channel (840 watts total), with all channels being driven into 8 ohms. The Concert AVR-8 also has the additional ability of driving into lower impedance's when necessary.

Dolby™ Volume



A constant annoyance for home theater users has been the significant differences in volume levels as you switch between channels or sources on your televisions and in your home entertainment systems. Variances in volume levels in DVD and Blu-ray Disc™, digital music files, compact discs, and broadcast entertainment programming each compound the problem, forcing you to reach for the remote controls to adjust. Dolby Volume lets you select a preferred listening level and enjoy all of your entertainment sources at the same volume level. For complete information on Dolby Volume, go to www.dolby.com/us/en/consumer/technology/hometheater/dolby-volume.html

Multiple Surround Sound Formats

The Concert AVR-6 / AVR-8 supports the latest surround codecs of Dolby True HD and DTS-HD Master along with traditional formats of Dolby Digital 5.0 and DTS High Resolution. A powerful 32 bit DSP processor enables the Concert AVR-6 / AVR-8 to decode all current discrete surround digital formats available for 5.1, 6.1 and 7.1. In addition your Concert AVR-6 / AVR-8 has the capabilities to process two channel signals using Dolby Pro Logic II, Pro Logic IIX and DTS Neo to provide multi-channel output.

Audio Return Channel

Connect either of the 2 HDMI outputs to an HDMI 1.4 display device ARC (Audio Return Channel) enabled input to receive the audio signals from the sources connected directly to the display. The ARC source selection on your Concert AVR-6 / AVR-8 is labeled Display.

Multi-Zone Operations For 2nd Zone

Since we know your audio and experiences may extend beyond one room, the Concert AVR-6 / AVR-8 is equipped with outputs for a secondary zone. This means you could be enjoying your home theater in one room and another member of the family could be listening to their favorite CD

in another room. The Second Zone is also equipped with a video output so you can expand your video options even more.

Inputs For Networked Audio and USB Sources

The Concert AVR-6 / AVR-8 is designed to operate with most of today's traditional source units, like CD and DVD players. Additionally it can receive audio signals over a computer network via an Ethernet input or from a USB source. You will want to contact a professional audio integrator for more information on properly using these functions.

Extensive Automation Integration

An automation system is what really pulls most high-end home theaters together. It puts the full power of the system at your fingertips. While the Concert AVR-6 / AVR-8 will operate with a number of IR remote controls, it is equipped with a dedicated RS-232 control (labeled "Control") and an extensive command library to control all aspects of the Concert AVR-6 / AVR-8. Using this port requires a fair amount of programming and automation skills which are typically best done by professional custom installations companies. Check out the AudioControl dealer locator on our web site for more info: www.audiocontrol.com

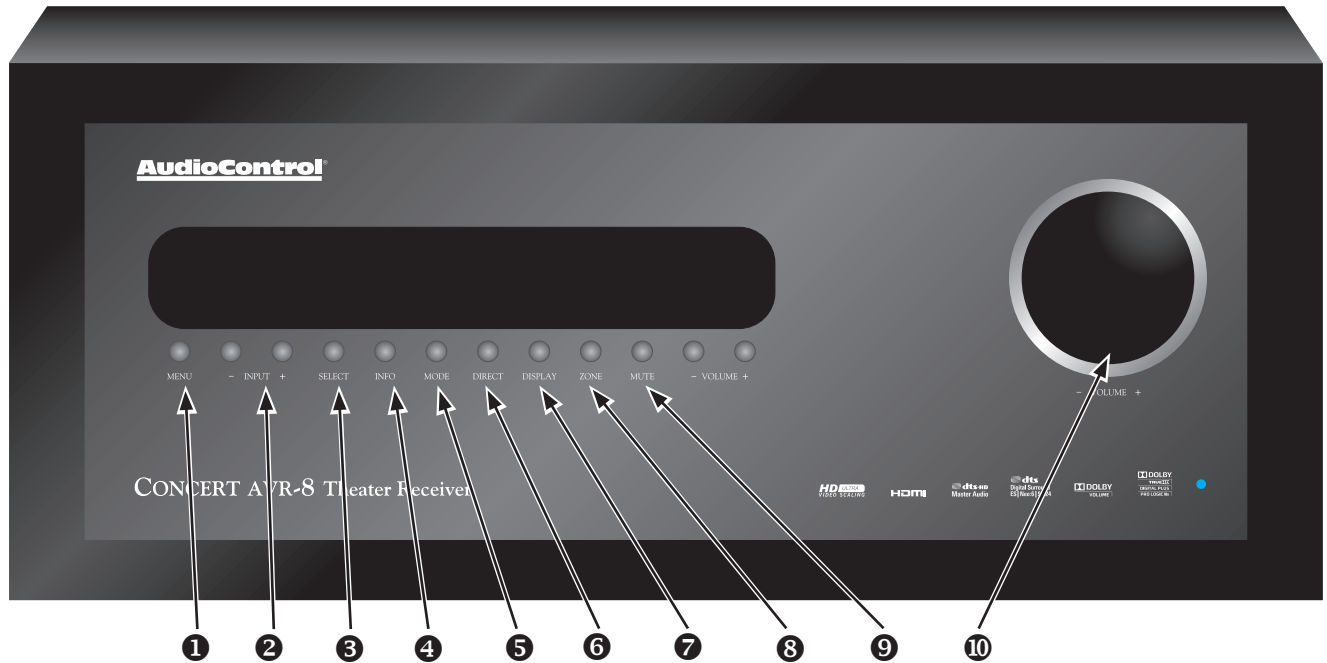
Award-Winning Quality

The Concert AVR-6 / AVR-8, like all AudioControl Perfection Theater components, is backed with a comprehensive five-year parts and labor warranty. This comes from a company that has been designing and manufacturing performance audio components in the USA since 1977.

We Want to Hear From You

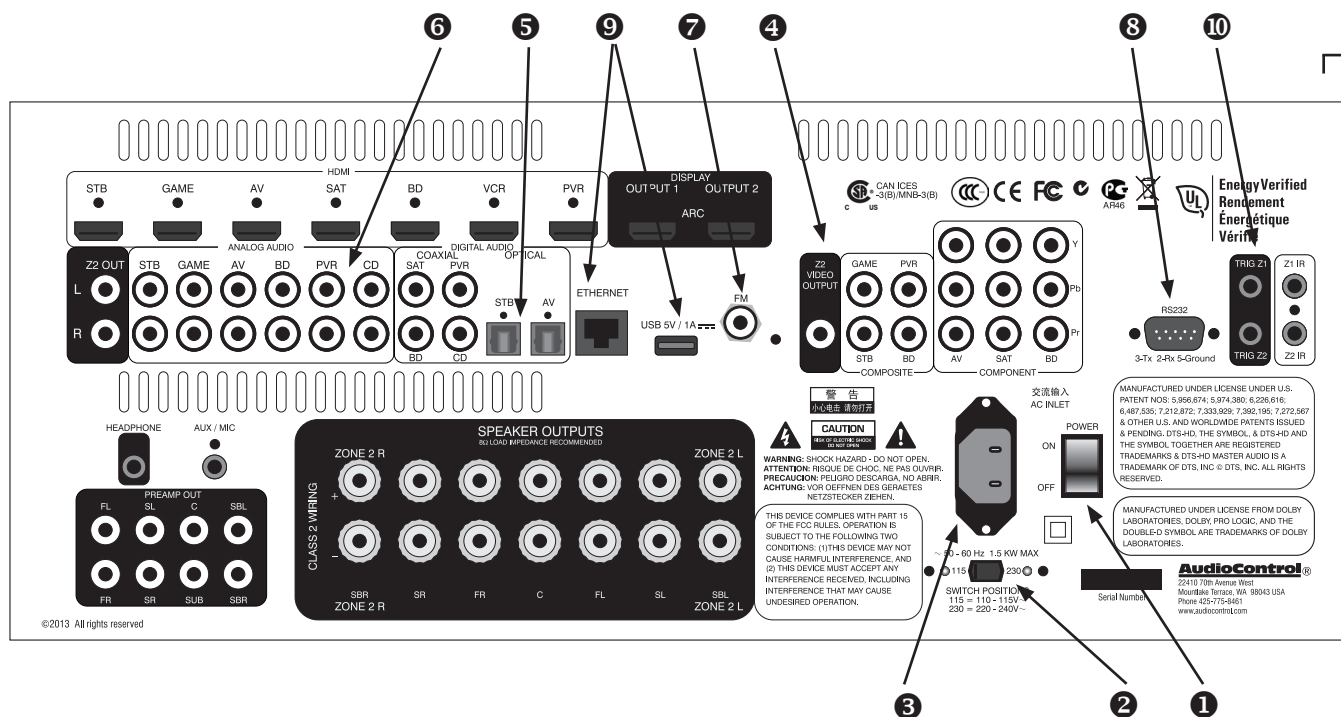
Before you get too entrenched in the features of your Concert AVR-6 / AVR-8, we encourage you to take a moment and visit the AudioControl web site at www.audiocontrolregistration.com and register your new Concert AVR-6 / AVR-8. It allows us to keep a record of your purchase of the Concert AVR-6 / AVR-8. Needless to say when you are in the pleasure business like we are, we love to hear from our customers so feel free to include some comments. You will also want to keep your own record of the serial number and put your sales receipt or invoice in a safe place. This is very important in the unlikely event that the Concert AVR-6 / AVR-8 needs to be serviced or for proof of ownership if somebody takes a fancy to your theater system in the middle of the night. Insurance companies have no imagination when it comes to components like the Concert AVR-6 / AVR-8 being part of the theater system. This concludes the "gentle reminder" section of this manual.





Front Panel Features

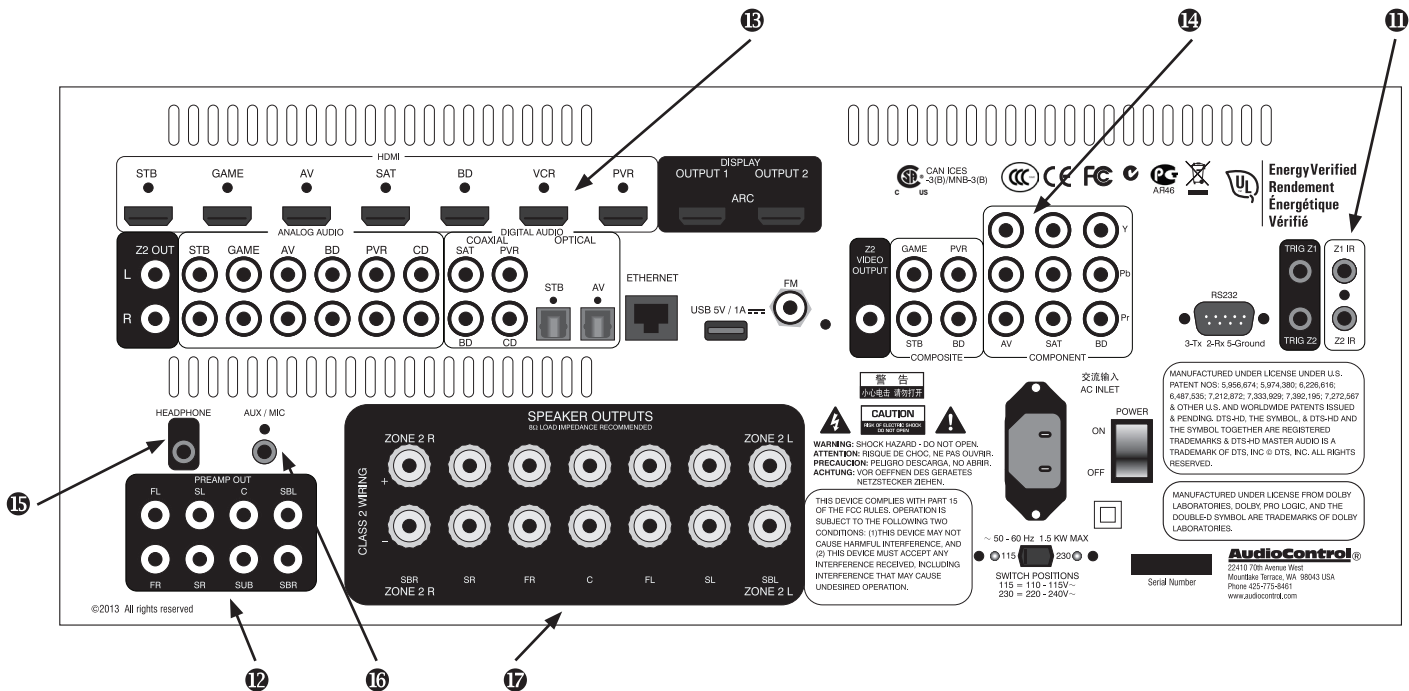
- ➊ **MENU** - Pressing this button will allow access to the Set-Up Menu functions of the Concert AVR-6 / AVR-8.
- ➋ **INPUT (+ and – buttons)** - These buttons allow the user to select an audio and video source for playback or scroll through the OSD (On-Screen Display) when using the menus.
- ➌ **SELECT** - Used in conjunction with the Set-up Menu function, this button allows you to enter selections you have made.
- ➍ **INFO** - User can select the information that appears on the display of the Concert AVR-6 / AVR-8 and also is used in navigating the OSD (On-Screen Display).
- ➎ **MODE** - User can select between Stereo and surround modes that are available from the source unit and also is used in navigating through the OSD (On-Screen Display).
- ➏ **DIRECT** - When using two-channel *analog* inputs, this button defeats all digital signal processing and directs the two-channel analog input from the selected source to the front outputs. Use this button when you want to do some serious quality two-channel listening.
- ➐ **DISPLAY** - This cool blue display allows you to see the basic functions of your Concert AVR-6 / AVR-8. *It is important that you have an external display device connected to one of the rear video connectors for complete viewing of all menus during set-up.*
- ➑ **ZONE** - Allows user to select between the Main Zone and Zone 2.
- ➒ **MUTE** - Need to answer the phone, but still keep an eye on the TV? Just press the Mute button to turn off the sound. Press it again and the audio gracefully ramps back up to where you were so rudely interrupted.
- ➓ **MASTER VOLUME CONTROL KNOB** - This nice polished knob lets you adjust the volume in selected zones (Main and Zone 2).



Rear Panel Features

- 1 MAIN POWER SWITCH** - The only time to turn OFF the Concert AVR-6 / AVR-8 with this switch is when the system will not be used for some time. Normally this switch is left on. When this switch is turned off, you cannot turn the Concert AVR-6 / AVR-8 On or Off via any other method.
- 2 VOLTAGE SELECTION** - The Concert AVR-6 / AVR-8 is designed to operate with either 110-120V volt or 220-240V line voltages. You will want to set this switch to match up with your local power voltages.
- 3 POWER CONNECTION** - All good AC power flows in here.
- 4 ZONE 2 VIDEO OUTPUT** - This second zone output enables viewing a source independently of the main theater system.
- 5 DIGITAL AUDIO CONNECTIONS** - The Concert AVR-6 / AVR-8 features assignable coaxial and optical digital audio inputs and outputs. While we have labeled them with the names of typical source units, these connections as assignable via the internal menus.

- 6 ANALOG AUDIO INPUTS AND OUTPUTS** - Connect the appropriate analog two channel stereo outputs and inputs from your source units here.
- 7 ANTENNA CONNECTIONS** - These inputs should be connected to the AM and FM antennas that are supplied with your Concert AVR-6 / AVR-8. For optimum reception you may want to consider a roof mounted external antenna.
- 8 CONTROL PORT** - Use this connection to control the Maestro M4 with an automation system.
- 9 NETWORKED AND USB AUDIO INPUTS** - Your Concert AVR-6 / AVR-8 has the ability to accept audio files via an Ethernet connection or from a USB mass storage device.
- 10 12 VOLT TRIGGER OUTPUTS** - These three outputs provide a +12 volt signal to control the power amplifiers, source units, video projector, screens and curtains in the theater. The Main Trigger output is active whenever the Concert AVR-6 / AVR-8 is turned on; the Video Trigger 2 is active whenever a video source is selected.



11 IR (INFRARED) INPUTS - These jacks enable use of external IR sensors and emitters for installations where it is not desirable (or practical) to use the front panel IR.

12 MAIN AUDIO OUTPUTS - These RCA outputs can feed external power amplifier(s), should you choose to not use the amplifier built-in to your Concert AVR-6 / AVR-8. (Our customers tell us that our AudioControl Savoy 7-channel amplifier works great in these situations).

13 HDMI INPUTS & OUTPUTS - These inputs allow the Concert AVR-6 / AVR-8 to accept digital audio and video signals from source units equipped with HDMI (High Definition Multimedia Interface) outputs. Make sure your HDMI cables are properly inserted into these connectors and that there no sharp “pulls” on the cable that may prevent your connectors from making a complete connection.

14 COMPOSITE AND COMPONENT INPUTS - These are for the video inputs and outputs from your source units. If you are planning on using the second zone video outputs, you should ALWAYS connect a Composite video input from each source.

15 HEADPHONE CONNECTOR - This jack accepts an 1/8” input for using headphones with impedance ratings of 32 to 600 ohms.

16 AUX INPUT - This Aux input is used in conjunction with the auto-setup microphone. Additionally it can also accept either analog or optical digital signals.

17 SPEAKER CONNECTIONS - These 5 way binding posts allow you to connect the main speakers for your two, five, or seven channel systems. Make sure that the red (positive/+) wires are connected to the red (positive/+) connector on the back if your Concert AVR-6 / AVR-8. Likewise the black (negative/-) wires should be connected to the black (negative/-) connectors on the back of the Concert AVR-6 / AVR-8 to maintain proper speaker polarity.

Control app for the Concert AVR-6 / AVR-8

The Concert AVR-6 / AVR-8 ships with the HTR-1 remote however you have another convenient option for set up! Download a remote for your iPad! Just search iTunes for the “AudioControl Remote” and download it to your iPad.



To set up your Concert AVR-6 / AVR-8 with the app, connect your AudioControl receiver to your home network using an Ethernet cable. Make sure you have a display (TV or projector) connected. Press the menu button and go to the General Settings window (one down from the Input Configuration). Navigate to the bottom of this settings page and under “Control” select “IP”. Now open the AudioControl Remote app and select your receiver from the menu.

Important note: your iPad and your Concert AVR-6 / AVR-8 receiver must be on the same network. There is a video tutorial at the app page in iTunes – likewise on our website if you need more info about how the app works.

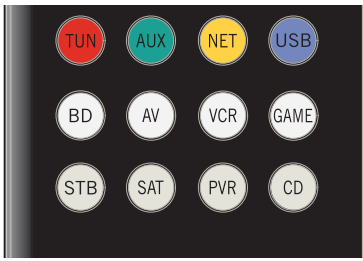
And another important note – the app is designed for the iPad only.

HTR-1 Remote Control

The AudioControl HTR-1 Home Theater Remote is an eight device “universal” IR remote controller with back-lit buttons. You can set up the remote for full control of your AudioControl receiver plus various AV sources and displays via the extensive library of device codes found on our web site. The HTR-1 is also a “learning remote” which means that you can capture the codes of your existing remotes if you find that the library does not contain the codes for your device.

Being that the HTR-1 can control your Concert AVR-6 / AVR-8 as well as many other AV sources and displays, many of the buttons have more than one function depending on which device/source or mode you are using the remote in. We will ease into the complexities of the remote’s multi-function modes after a quick description of the basic features below.

Please note: Device code library, instructions on programming the remote and more control and automation documents are available on our website at: <http://www.audiocontrol.com/t35/c5568/1033/Support.html>

Remote Features:*Multifunction Remote*

Multifunction Remote - It can control up to 8 devices! Automatically configures to the mode of control of the source selected per the source buttons.

LED indicator - This red LED will blink when a key is pressed. It will also blink multiple times when a device code is input for programming or signal the beginning and end of a programmed sequence.

Back-lit Keys - The keys are back-lit to make it easy for you control your AV devices in a dimly lit room.

Low Voltage Indicator - The red LED will flash 5 times after a normal key press to tell you that new batteries are needed.

*LED Indicator***Other useful items:**

Time Out - After entering into the programming state of the remote, 30 seconds after the last button is pressed, the remote returns to normal operation.

Stuck Key Timeout - If the remote has slipped into the cushions of your couch and a button is pushed in for more than 30 seconds, the remote will stop sending IR information to conserve the battery. It will resume normal operation after the button has been released.








General Functions:












The Device or Source keys allow you to switch between your various inputs on the AVR-6 /AVR-8. After pressing the device key, the remote actually changes it's configuration - it now is the source's remote control. So if you have programmed the STB with the learned codes from an Apple TV remote – after pressing the AV button, the remote buttons will automatically configure to the Apple remote key-map as programmed. Volume control remains locked to the Concert AVR-6 / AVR-8 “AMP” mode however. This is so that anytime you press these keys, you are controlling the Volume or Mute state of the AVR-6 /AVR-8 regardless of the device you are controller (BluRay or your Cable box for instance).
















Buttons/Functions in the Amp Device Mode:

Pressing the AMP button puts the remote into the mode for controlling the functions of the Concert AVR-6 / AVR-8. This allows to access the menus, adjust bass/treble, turn Room EQ on or off, cycle through decode modes etc...

Please note: Not all buttons have a function in AMP mode.

#ID	Button	Description
1	Power 	Single press - toggles your Concert AVR-6 / AVR-8 on or back to standby. Press and hold - Forces both Zones to Standby
2	Eject EQ 	Access Room EQ settings menu
3	0-9 keys 	These number keys change the input source of the Concert AVR-6 / AVR-8 without changing the mode of the remote. 0 -SAT input 1 -STB input 2 -AV input 3 -TUNER input 4 -BD input 5 -GAME input 6 -VCR input 7 -CD input 8 -AUX input 9 -DISPLAY (ARC) input
4	DISP 	Adjusts the Front panel Display brightness levels
5	MODE (RPT) RPT 	Cycle through the available decode mode.
6	DIRECT DIREC 	Stereo Direct mode toggle button. This turns off any processing on your analog input source so that there is a direct path form the input to the amp.
7	TRIM TRIM 	Brings up the speaker trim menu and allows you to temporarily adjust the trim level of the speakers in your particular configuration. These temporary adjustments are independent of the speaker levels set in the Speaker Level Menu settings. Being a temporary adjustment, when putting the Concert AVR-6 / AVR-8 to standby, these trim adjustments are not retained. However if you switch away from the input, these adjustments are retained.

#ID	Button	Description
8	FAV+ FAV- 	Rewind. When using the tuner, the currently displayed station can be added to your favorites when using the internet radio.
9	SYNC SYNC 	Access LipSync menu - < & > keys allow you to make your adjustments
10	INFO DISC MENU 	Cycle through the info displayed on the front panel display.
11	EFFECT EFFECT 	Dolby Volume on/off toggle
12	SUB SUB 	Access Subwoofer trim menu for temporary control – left right arrow keys allow for adjustment. These adjustments are not retained as a permanent setting
13	MENU POP UP 	Access the main system menu for your Concert AVR-6 / AVR-8
14	UP/DOWN/LEFT/RIGHT OK 	Allows for navigation on any menu in the Concert AVR-6 / AVR-8
15	HOME 	Returns to top level menu when using the network source/radio menu
16	BASS AUDIO 	Access bass setting menu - applies discretely to current input.
17	TREBLE SUBT 	Access treble setting menu - applies discretely to current inputs
18	MUTE 	Mute toggle button

#ID	Button	Description
19	VOL+ 	Increase volume
20	VOL- 	Decrease Volume
21	AMP 	Returns remote to Concert AVR-6 / AVR-8 (AMP) control mode
22	TUN 	Select TUNER input and changes remote to control the tuner interface
23	AUX 	Select AUX input
24	NET 	Select Network/Ethernet source and changes remote to network control
25	USB 	Select USB input source and changes remote to USB control
26	BD 	Select BluRay input and changes remote to BluRay/DVD control
27	AV 	Select the AV Input and changes remote to AV control
28	VCR 	Select VCR input and changes remote to VCR control
29	GAME 	Select Game input
30	STB 	Select STB (Set Top Box – cable box usually) as input and change remote to STB control
31	SAT 	Select Satellite input and changes remote to satellite receiver control
32	PVR 	Select PVR (personal video hard disk recorder) and changes remote to PVR control
33	CD 	Select CD input

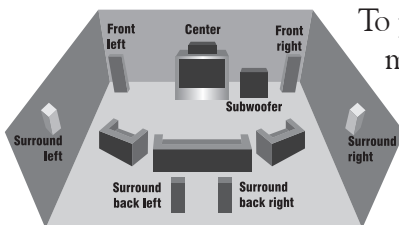


Set-up and Configuration

Unit Placement

The Concert AVR-6 / AVR-8 can be placed almost anywhere in your audio equipment stack. It is good practice to ensure that the equipment location is properly ventilated and to make certain not to block the ventilation slots on any other component. Avoid placing the Concert AVR-6 / AVR-8 directly over large power amplifiers or any other component that generates a lot of heat. Unless they are made by AudioControl, some amplifiers can get pretty hot and have big power transformers that can induce hum into other audio components like Concert AVR-6 / AVR-8.

Front LCR (Left, Center, Right) Speakers



To present the most realistic sound stage, all three of the front speakers must be tonally balanced. Ideally, these speakers should be identical models. This ensures that the sound doesn't change as it pans across the screen. Place the speakers at the seated ear level. Whenever possible, the three front speakers should also be placed at the same horizontal level for best imaging.

Side Surround Speakers

The surround speakers provide the reverberant, or ambient, sound effects in a multi-channel theater audio system. These speakers should be placed on the sidewalls approximately 36" above the seated ear height of the listeners. If you are using surround speakers, which have a dipole sound pattern, they should be mounted in-line with the main seating position. If the surrounds are direct radiator, they should be just behind the main listening seat.

Rear (Back) Surround Speakers

Some software provides extra channels that are used in 7.1 mode systems to provide extra depth in the sound field. Place these speakers approximately 36" above the seated ear height of the listeners. Additionally, they should be mounted close together on the rear wall of the theater facing the screen.

Subwoofer(s)

The subwoofer is a large speaker that provides the bottom end "kick" in the system. Depending on the size of your listening space, you may require more than one subwoofer to get the bass volume levels that you desire. Make certain you remember to include the size of all spaces that are open to the theater in determining how many harmony subwoofers you need.

Connection Tips

Even if you're an electronics veteran, this part may seem repetitive, but some things can never be repeated too many times.

- Turn off all components before making any connections.
- When making connections, make sure that “left goes to left” and “right goes to right.” The obvious and time-honored way to assure this is to assign RED plugs to Right and WHITE/GREY/BLACK plugs to the left. Yellow is usually used for video cables or digital audio connections.
- Wherever possible, keep power cords away from signal cables (i.e., inputs from disk players, VCRs, etc.) to prevent induced hum. Bundle all power cords down one side of your equipment cabinet and all the signal cables down the other.
- Use high quality interconnect cables. We're not going to get into the debate about whether \$100 per meter interconnects improve the sound and picture quality of your system. We do know from experience however that really, REALLY cheap connections can cause problems.
- Don't stand in a bucket of water when working with electricity.

Power Wiring

Like many of today's intelligent home electronics, the Concert AVR-6 / AVR-8 should be plugged into an unswitched AC outlet so that it always has power. This allows the RS-232 and remote control features to work even when the Concert AVR-6 / AVR-8 is in standby. We always recommend the use of a high quality surge protection device to keep all of your electronics safe from the evils of spikes on power systems.

Audio Connections

INSTALL TIP

Most of the sources will have two audio connections to the Concert AVR-6 / AVR-8; an analog 2-channel connection, a digital audio connection plus HDMI. Whenever possible, **connect both** types of audio signals to the Concert AVR-6 / AVR-8. This will provide the digital audio signal necessary for high-quality digital surround sound along with the analog audio for tape recording plus it provides the necessary analog signals for the zone audio outputs.

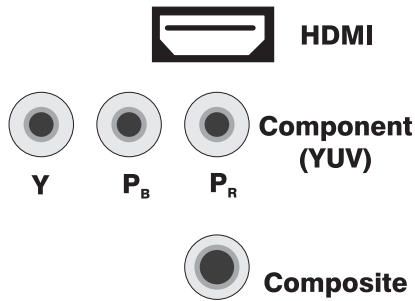
Don't worry if your satellite receiver has a coaxial digital output and the Concert AVR-6 / AVR-8 SAT input is optical. Refer to the advanced configuration section on page 26 of this manual for more information regarding assigning a digital input to the optical or coaxial connection.

Video Connections

Choosing your video

There are four video signal connection formats ranging from Good to Best; Composite, Component Video and HDMI digital video. Depending on the particular source unit you are using, you may have the option of more

Types of video connections



than one of these video connections. Whenever possible *connect as many as possible* as the processor in your Concert AVR-6 / AVR-8 will identify the best format and route that to your main HDMI, or Zone 2 composite video outputs. Because of the higher bandwidths involved with video signals, the quality of the interconnect cables you choose is important especially with HDMI. We recommend using HDMI cables labeled as High Speed with Ethernet to ensure the appropriate bandwidth for the system when transporting high bandwidth content such as 1080p or 4k video. Video connections should always be made with

cables specifically designed for video. Don't be tempted to grab some extra audio RCA cables lying around. Without the proper 75 ohm cabling, your picture quality will suffer from smear, ghosting or noise. It is always a good idea to make certain that the video and audio signal cables are routed away from any power wiring.

Video Transcoding

INSTALL TIP

To simplify your installations, the Concert AVR-6 / AVR-8 provides video transcoding which routes the Composite signals, and Component video signals to the HDMI outputs of your Concert AVR-6 / AVR-8 regardless of video bypass selection. As we mentioned before it is best to connect all analog and digital audio/video signals from your source units to your Concert AVR-6 / AVR-8 to allow proper use of the Main and Secondary.

HDMI Signals

Your Concert AVR-6 / AVR-8 is equipped with seven discrete HDMI inputs and dual assignable HDMI outputs. All the HDMI outputs are assignable to various display devices, the signals on both will be the same.

Output 1 - Connect this to the primary display device located in your main theater - such as a projector or other primary display device.

Output 2 - Connect this to your secondary display device.

Audio Return Channel

Connect *either* of the 2 HDMI outputs to an HDMI 1.4 display device ARC (Audio Return Channel) enabled input to receive the audio signals from the sources connected directly to the display. The ARC source selection on your Concert AVR-6 / AVR-8 is labeled Display. From the Display Input Menu in the AVR, set CEC Control to On for your chosen output and enable the ARC Control to receive the audio from the display.

IR (Infra-red) Remote Control Connections

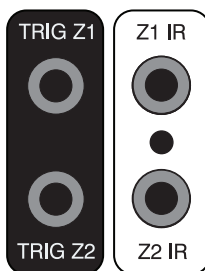
We have equipped the Concert AVR-6 / AVR-8 with two Infrared (IR) inputs to allow for maximum control flexibility with standard IR remote controls. This allows you to place the infrared receiver where it can “see” the signal from the remote control when the equipment may be hidden. The IR connections are designed for “modulated” signals and wired for stereo or mono 3.5mm jacks with “Tip” being the modulated signal and “Sleeve” being ground.

Zone 1 IR - This is ideal for when the front panel of the Concert AVR-6 / AVR-8 is hidden away in some dark closet or equipment rack. To prevent the possibility of receiving multiple commands, when you connect an IR receiver to this input, it will disable the front panel IR receiver.

Zone 2 IR - Allows for control of source and volume functions of Zone 2

12V Trigger Connections

There are two stereo mini-jack 12 volt trigger outputs on the rear panel of the Concert AVR-6 / AVR-8 which are used to remotely control such things as the power amplifier turn-on, projector power, screen automation. The jacks are designed for 3.5mm mono connectors with “Tip” being the trigger output and “Sleeve” being ground. Each jack is capable of outputting a 12V 70 mA switching signal.



Setup Menus

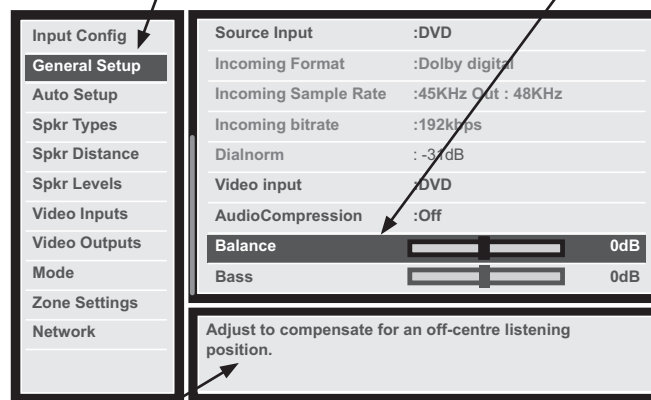
This section of the manual discusses how to navigate the set-up menus of your Concert AVR-6 / AVR-8 home theater receiver. As you have probably determined by now, if you have read the rest of this manual, the Concert AVR-6 / AVR-8 is an incredibly flexible and sophisticated processor that you can literally “personalize” for use with your performance theater system. While the set-up menus incorporate a number of default settings that we determined will work well with many theater systems, you will want to take the time to go through each of these set-up screens and make the appropriate adjustments to the settings. Once you have made the changes, you will not have to change these again unless you make equipment or usage settings to your system.

To get started and view these set-up menus it is very important that you have one of the video outputs (Component, HDMI or composite) of your Concert AVR-6 / AVR-8 connected to your video display device (i.e. projector, flat panel, TV). This is absolutely necessary to see the set-up menus. ***In the event you need to reduce the resolution for troubleshooting, press and hold the Select button for 3 seconds. This will change the output resolution down to 480p.***

INSTALL TIP

Menu Panel - The left-hand panel lists the setup screens available for adjustment. The selected menu is highlighted with a dark blue band.

Adjustment Panel - The upper right-hand panel lists the parameters you can change as a user. The selected line is highlighted with a dark green band. Lines that cannot be selected are greyed-out.



Help Screen - The lower right-hand panel gives a short help text for the feature being adjusted.

Scroll Bars - These indicate the position of the displayed screen within longer menus.

If at any point you need to reset the video output resolution and frame rate to the default setting, push and hold the “Select” button for 3 seconds.

Initial Display Configurations

Your Concert AVR-6 / AVR-8 is set to “Preferred” in the Video Output settings menu. This allows the AVR’s output resolution to be defined by the display’s capabilities in regards to it’s pixel count and frequency output. You can change this setting to a fixed Output Resolution or you can Bypass the resolution setting in order to bypass the scaler used by the Concert AVR-6 / AVR-8. You do this by way of the Video Output settings menu. **Please note, any Component or Composite source will be upscaled to the display’s native resolution if Bypass has been selected.**

Configurations For 1080p/24 Applications

The Concert AVR-6 / AVR-8 supports both 1080p/24 fps (frames per second) and the more commonly used 1080p/60 fps video formats. To properly utilize the 1080p/24 format you will want to make sure that the source device (i.e. Blu-ray player) and the display device (i.e. projector or TV) are both capable of supporting this format. In the Video Output section of the Setup menus, set the Output Resolution of your Concert AVR-6 / AVR-8 to 1080p (not Preferred) and make sure that the Frame Rate is set to follow input. Failure to do any of the above could result in no image.

Navigating

Navigating the Set-Up Menus is a very simple process that can be done using the appropriate front panel controls on your Concert AVR-6 / AVR-8 or by using the HTR-1 remote control that incorporates the appropriate IR codes.

1. Press the Menu button once to enter the Setup Menus. The word “Menu” will appear on the display of your Concert AVR-6 / AVR-8 and the actual menu will appear on your display device.
2. Use the Input selection button “Input ^” and “Input v” to navigate among the menu’s and use the “< Info” and “Mode >” buttons to select appropriate menu screen.
3. Press the “SELECT” button or “OK” to select the menu options.
4. Press the Menu button anytime to exit the Menu screens and any setting changes will be saved automatically.

Input Configuration

Each input on your Concert AVR-6 / AVR-8 has individual audio and video settings that can be adjusted specifically for its use.

INPUT - Identifies the currently selected source which settings are displayed below.

NAME - Specific name/label for this input that will show on display device and OSD. Very useful when you have more than one source unit that may do similar functions (i.e. 2 two Satellite receivers could be named SAT1 and SAT2 accordingly)

LIP SYNC - Many video processors and line multipliers cause a slight delay between the sound and the video picture. Highly compressed video signals such as MPEG encoded satellite receivers and some DVD's also suffer from this problem. The Lip Sync setting delays the audio a small amount to allow the video image to catch up.

MODE - Sets the initial audio decode mode for *stereo* sources on this input

EXT. MODE - Sets the initial audio decode mode for multi-channel digital sources on this input.

BASS and TREBLE - Changes the bass and treble response for all speakers when using this input. Very useful when you have a source unit that has reduced frequency response due to the format (i.e. older VCR's)

ROOM EQ - The Auto Speaker Set-Up in the Concert AVR-6 / AVR-8 utilizes a special algorithm that calculates many of the major frequency resonance's that occur due to room acoustics and speaker locations and creates specific equalization filters to offset this. This menu allows you to select whether to engage the Room Equalization filter for each source. Options are "Not Calculated", "ON" or "OFF" with the default being "Off".

INPUT TRIM - Selects the maximum analog signal for this input before clipping. This setting should match the audio output of your source units with the available settings being 0.5, 1, 2, and 4 volts RMS and the default being 2 Volt. Source units with low output levels can benefit from being set to higher output settings such as .5 or 1V.

DOLBY VOLUME - Selects whether Dolby is engaged for this input with the options being "Off", "Cinema" or "Music" and the default being "Off". Dolby Volume corrects for volume inconsistencies and improves audio frequency response at lower levels. This feature is not available when using the Multi-channel audio or "Direct" modes. *For more information go to www.dolby.com/consumer/technology/dolby-volume-works.html*





DOLBY LEVELLER - The setting options are “0” (minimum) and “10” (maximum) with the default being “9”. This Dolby Volume feature allows matching of quiet and loud sources of source unit inputs regardless of recording levels of content being played by a particular source unit.

DV CALIB OFFSET - Dolby Volume provides a Calibration Offset parameter that compensates for speaker efficiencies and listening positions. If you set the Speaker Levels on the Concert AVR-6 / AVR-8 properly using an SPL meter (like the AudioControl SA-3052) then you can leave this setting at 0.

Dolby D EX Modes - When playing Dolby Digital EX encoded material, the Concert AVR-6 / AVR-8 gives you the option of selecting the Surround settings, provided you have Surround Back loudspeakers connected. Setting options are “Auto DD EX”, “Auto PLIIx” and “Manual”.

Auto Dolby D EX - The Concert AVR-6 / AVR-8 will automatically switch to Dolby Digital EX mode when a Dolby Digital EX bit stream is detected.

Auto PLIIx Movie - The Concert AVR-6 / AVR-8 will automatically switch to Pro Logic IIx Movie mode decoding when a Dolby Digital EX bit stream is detected.

Manual - If a Dolby Digital Ex bit stream is detected, the Concert AVR-6 / AVR-8 will treat it as a normal Dolby Digital signal. The EX or Pro Logic IIx decode modes may be implemented by pressing the “MODE” button.

STEREO MODE - If you are using an external subwoofer, and are listening to stereo (two channel) sources, either digital or analog, you can select to configure how the subwoofer receives it’s bass information. The “Stereo Mode” functions are bypassed when using an analog source and you have selected the “Stereo Direct” mode.

As Speaker Types - Your normal speaker configuration (as selected in the “Spkr Types” menu) determines your subwoofer output.

Left/Right - Full frequency audio will be sent to your front left and right speakers with no information going to the subwoofer.

Left/Right+Sub - Full frequency audio will be sent to your front left and right speakers plus bass information is directed to your subwoofer effectively duplicating the lower frequencies

Sat+Sub - Full frequency audio signals are sent to your front left and right speakers with the bass information being directed to only your subwoofer. Your front speakers will only reproduce the upper frequencies.

SUB STEREO - If you have selected the “Left/Right+Sub” or “Sat+Sub” setting in the “Stereo Mode” menu, then this setting adjusts the level of the subwoofer when you are using a two-channel source.

BRIGHTNESS - This video setting adjusts the brightness for this input, providing you are using a video equipped source unit.

CONTRAST - This video setting adjusts the contrast for this input.

COLOR - This video setting adjusts the color saturation for this input.

FILM MODE - The settings options are Auto and Off with the default being Auto. The video processor in the Concert AVR-6 / AVR-8 will automatically detect the the original source type and properly sets the different modes when set to Auto. Setting this option to Off will stop the video processor from automatically configuring according to the source type.

EDGE ENHANCEMENT - This video feature sharpens the picture.

MPEG N.R. - This video feature removes MPEG artifacts in overly compressed digital video signals.

NOISE REDUCTION - This video feature removes random video noise that may appear on the picture from a source unit.

VIDEO SOURCE - Selects whether the video signal for this source is detected automatically or locked to a particular signal type. Setting options are, “HDMI”, “Component”, or “Composite” with “HDMI” being the default.

AUDIO SOURCE - Allows you to select how the Concert AVR-6 / AVR-8 receives audio signals for this source. Settings options are “HDMI”, “Digital”, or “Analog”.

General Setup

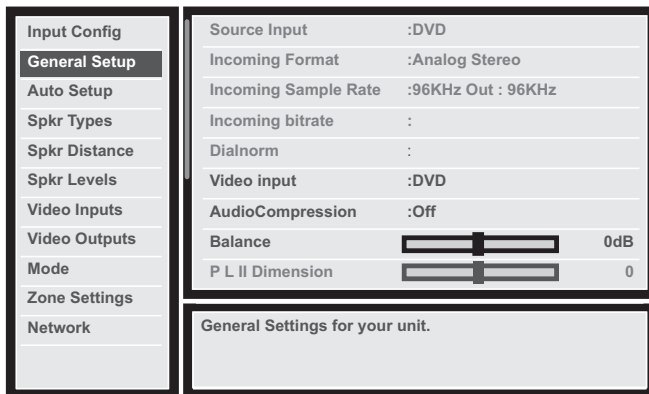
These menu screens display general information and system control
(*Information Only*)

Source Input: Displays the currently active audio source input.

Incoming Format: Displays format of digital audio stream

Incoming Sample Rate: Displays incoming sample rate of digital audio stream, if present.

Incoming Bitrate: Displays bit rate of digital audio stream, if present.



Dialnorm: When a Dolby Digital audio stream is connected to this input this is the Dialogue Normalization setting requested.

Video Input: The audio and video inputs on the Concert AVR-6 / AVR-8 generally follow the source selected. This setting allows you to temporarily override and change the video settings so you can utilize a different video source. Setting resets itself when source is change.

Audio Compression: Compressing the dynamic bandwidth of the audio can be a good thing, especially for those late night action movie festivals. Compression increases the volume of quiet sections and and reduces the volume of the louder sounds. These 3 options for this setting only apply to some Dolby Digital or DTS soundtracks. As part of the general set up, this setting applies to all inputs with digital audio streams that support this function and is recalled each time the unit is powered up.

Off: Audio compression is not applied (default)

Medium: For loud segments of the audio stream, compression is applied to reduce the level. Dolby True HD content will be compressed automatically

High: Maximum compression is applied with this setting. The differences between quiet passages and loud portions of the audio track are minimized

Balance: Adjusts the left/right balance of the front outputs.

Dolby Prologic II Music Mode Settings

These settings apply to all two-channel inputs when PLII or PLIIx Music mode is selected.

Dimension - Adjusts the depth of the front/rear sound stage. For normal listening this should be set to +3. Setting options are -3 to +3 with default setting being "0".

Center Width - Determines how strongly the Pro Logic II decoder processing creates the center channel image. Normally this signal is fed only to the center channel speaker output, but if the center speaker is set to "None" in the speaker setup, a phantom center channel is created using the front left and right channels. Normally this setting is left at +3.

Panorama - When the Panorama Mode is enabled, the front center image is extended to include the rear surround speakers. This provides a more enveloping wrap-around effect.

Digital Output Frequency - Sets the sampling frequency of the audio Analogue-to-Digital converter. Settings options are 44.1/ 48 /96 kHz. Default is 96 kHz

INSTALL TIP ➔ **Maximum Volume** - Limits the highest volume that the Concert AVR-6 / AVR-8 will play. This is useful if you have speakers or amplifiers with limited power handling abilities.

Max On Volume - This is the highest volume that the Concert AVR-6 / AVR-8 will play when it is first switched on. This prevents the Concert AVR-6 / AVR-8 from being turned on at shock volume levels from the last time you were watching a good movie.

Display On Time - This sets the amount of time the display is lit after a command has been initiated. The options are: 5 seconds, 10 seconds, 30 seconds, 1 minute, Always On

CEC Control - Enables the HDMI CEC control for one of the two HDMI outputs. CEC set to enabled is required if ARC is desired in the system configuration. Options are: Off, Output 1 or Output 2

ARC Control - Enables the Audio Return Channel of HDMI 1.4. When enabled and the display is properly configured, Audio will be retruned to the AVR-6 / AVR-8 via the Display input. ARC Control depends on the CEC Control to be enabled as well.

HDMI Audio to TV - Enables the audio from the AVR-6 / AVR-8 to be sent to the TV for listening to the TV speakers.

Control - Front Panel and IR control are always active. This control setting defines the 3rd option for controlling your AVR-6 / AVR-8. You may select between RS-232 or IP control if you have an automated control system. Default setting is Off

Power On - This setting defines the state of your AVR-6 / AVR-8 once the Mains Power switch has been turned off or if there was a power outage where power turns off and then back on again. You have 3 options in this setting:

Last State - where the unit returns to the last On or Standby state before power was lost or the Main power switch was turned to off

Standby - where the unit comes up to Standby once power has returned

On - where the unit turns on completely once power has been restored

Auto Setup & Room Correction

Important Note:

Auto Setup works with 5.1 or 7.1 speaker systems. You will need to manually set up other types of speaker configurations by way of the Speaker Types, Speaker Distance and Speaker Levels menus discussed on the following pages of this manual.

Your Concert AVR-6 / AVR-8 is equipped with an Auto Setup feature that assists in setting all of the essential speaker settings for your system, including which speakers are present, types of speakers, crossover settings for the subwoofer, sound level and distance compensation. It will also calculate basic room equalization filters to offset frequency resonances caused by acoustics and speaker placement. While there is no substitution for proper acoustical treatments, speaker placement and theater calibration, the Auto Setup Mode is useful for maximizing the acoustical performance of many theaters.

Microphone Positioning

The calibration microphone that comes with Concert AVR-6 / AVR-8 is designed to be placed in the center of your theater in the main listening position preferably at the same height as your head. Connect the microphone jack to the "Aux" input on the rear of your Concert AVR-6 / AVR-8.

Make sure you minimize any background sounds in the theater by turning off any fans or noisy air conditioning systems, and close all doors and windows as outside sounds will negatively affect your measurement. Additionally if the microphone is positioned too close to the speakers this will result in a signal Clipping error.

INSTALL TIP

Run Auto Setup - In this menu, press the "Select" button on the front panel and the Concert AVR-6 / AVR-8 will begin generating test tones out of each channel, a process that takes about two minutes. During this process the AVR-6 / AVR-8 identifies which speakers are being utilized in the system and what the recommend system adjustments are, based on the measurements.

Accept Setup - Once the Auto Setup has completed its testing, you can select to accept the settings or reject them. Options are “No” or “Yes”.

Auto Setup Progress - Displays a status summary of the Auto Setup function and identifies any measurement errors during the testing process. Options are “Calculating EQ” or “Completed Error”.

After running the test, this screen will display any system errors for each speaker

Not Present - Speaker was not detected – check connections if necessary and move mic and rerun test.

Clipped - If you have highly efficient speakers or the microphone is measuring over reflective sounds, this could result in a distorted or “Clipped” measurements. Try repositioning the microphone and running the test again.

Mic Too Close - This is generally a result of the microphone being too close to the speakers. Try repositioning the microphone and running the Auto Setup test again.

Crossover Frequency - Based on the speaker measurements your Concert AVR-6 / AVR-8 processes, it will recommend a crossover frequency between your subwoofers and your main speakers.

Speaker Types

This series of menus allows you to select the types of speakers that you will be connecting to your Concert AVR-6 / AVR-8. Please note that if you set all speakers to small then you must indicate in the menus below that a subwoofer is present in the system.

“**Large**” speaker is one that is capable of reproducing a full range (20-20KHZ) audio signal. Use this setting when *not* using a subwoofer.

“**Small**” speaker is one that is not designed to reproduce deep bass frequencies and is generally used *with* a subwoofer (i.e. Satellite speakers typically can’t play below 80 Hz).

“**None**” If you do not have a speaker connected to an output (i.e. No Subwoofer or Back Speakers) then set that speaker size to “None”.

“**Subwoofer**” Selects whether a subwoofer is present in your system.

Crossover Frequency - This controls the frequency at which bass is re-directed from speaker channels set to “Small” and sent to the Subwoofer outputs. This frequency is adjustable from 40 Hz to 150 Hz.

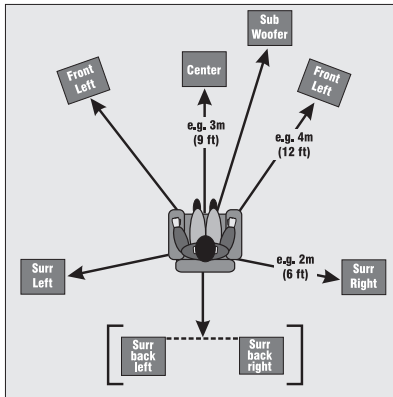
USING CHANNELS 6 + 7 FOR - If your main speaker system consists of only 5 main speakers and no Surround Back Left & Right speakers, you can redirect signals from the unused amplifier channels to the front speakers or for Zone 2.

Speaker Distance

The Speaker Distance settings help the sound from each speaker arrive at the listening seat at the same time. This provides a much more believable and immersive sound environment. Precise delay settings should be done by a trained professional with audio test equipment such as the AudioControl Iasys HT to measure the precise sound delay. You can get a rough delay setting using Auto Set-up. Measure the distance from the center of a speaker to the seated ear position of the main listening seat. Write each of these distances down and enter them into the Concert AVR-6 / AVR-8 or use auto setup.

Speaker Levels

It is critical to properly match the levels from each speaker to achieve a correct sound stage. The realism is totally lost if the footprints of a person walking across the screen change in volume as they move from left to center to right. We strongly recommend using a test analyzer such as our Iasys HT for this calibration. The levels are nearly impossible to judge by ear alone. Though not as accurate as using the Iasys HT, you can use a sound level meter for this adjustment.



With the internal test noise generator of the Concert AVR-6 / AVR-8, adjust each speaker for a sound pressure level (SPL) of 75 dB using a “slow” response time on the SPL meter placed at the main listening position at ear height.

Video Inputs

Settings to optionally assign a video source to each of the normal “audio only” inputs. The default for each of these settings is “None”.

This is a great way to listen to the ball game over the Internet Radio and watch it over your normal video display device, though timing might be a little off.

Video Outputs

The Concert AVR-6 / AVR-8 is not only a great sounding home theater processor but it is also a very powerful video processor. To that extent it has a number of video settings that need to be selected carefully to optimize your video performance.

Zone 1 OSD (On Screen Display): While the set-up menus will always show on your display device, you have the option of selecting whether your Main Zone general settings (volume, subwoofer level, etc.) show up on the bottom of the screen as an On Screen Display (OSD). The options are “On” or “Off”.

Zone 2 OSD (On Screen Display): If you have an composite video display with your Zone 2 configuration, you have the option of selecting whether your Zone 2 receives general setting information (volume, source selection etc...) via that display. The options are “On” and “Off”.

HDMI Output: Selects the output resolution for HDMI Outputs with the options being a list of the available display devices or “Preferred”. *In the Preferred mode, this output matches the highest preferred resolution of the display device.*

HDMI Output Frame Rate: Selects the output frame rate for HDMI Outputs with the available options being displayed in the drop down menu's. Frame rates that are not supported by the display device cannot be selected.

Lipsync (Information Only): When this feature is supported by the display device, this setting displays how much lip sync is applied to HDMI Outputs.

Surround Modes

This screen allows the user to select the specific decode and downmix options that will be available to the listener in Stereo and Multi-channel applications. The options for each format are “Yes” or “No” and are accessible by touching the “Mode” button on the front panel of your AVR-6 / AVR-8.

Formats Available For Stereo Sources: The following formats are available when using media that contains either digital or analog stereo signals (Dolby 2.0, digital PCM stereo, DTS 2.0 etc.)

For more detailed information on the various Dolby and DTS surround formats you can visit www.dolby.com or www.dts.com.

Dolby Pro Logic - Original Dolby surround format that produces five-channels of output from two-channel stereo material. Best used when material is encoded in Dolby Pro Logic, otherwise it is recommended that you use Dolby Pro Logic II.

Dolby Pro Logic IIx - Advanced Dolby decoding process that produces five-channels of output when using two-channel stereo material. This format offers three different modes; Movie, Music, and Game which provide various enhancements depending upon the source materials.

DTS Neo: 6 - This DTS based format outputs six channels of audio when using two-channel stereo material. This format also offers two different modes, Cinema and Music which provide various enhancements depending upon the source materials.

7ch Stereo - This setting allows for two channel sources to be played out to 5.1 or 7.1 speakers depending on the Speaker Type configuration. In this mode, all left channel information will be sent to the left speakers and the right channel information will be sent to the right channel speakers - the center channel speaker will receive a mix of both the left and the right.

Stereo Downmix - this setting mixes down a Dolby Digital 5.1 or DTS audio stream to Left and Right Speakers.

Zone Settings

This menu allows you select the audio and video control and volume settings for Zone 2.

Zone 2 Input - Selects the analog audio and video to be used for Zone 2.

Zone 2 Status - Displays current status at Zone 2 with options being “Standby” or “On”

Zone 2 Volume - Displays current volume level in Zone 2.

Zone 2 Maximum Volume - Selects the maximum volume setting for Zone 2.

Zone 2 Fixed Volume - Allows the Zone 2 volume to be fixed at the current volume level.

Zone 2 Max On Volume - Selects the maximum volume level for Zone 2 when the Concert AVR-6 / AVR-8 is powered on or comes out of stand-by mode.

Zone 2 Format - This settings is for the composite analog video output for Zone 2. You can select between “NTSC” or “PAL”.

Network Settings

Your Concert AVR-6 / AVR-8 has the ability of playing Internet radio stations as well as music stored on a network storage device like a PC or USB flash drive. Typically the computer network may use DHCP to automatically make the necessary network settings although the Concert AVR-6 / AVR-8 can also be configured manually when using a static IP address.

USE DHCP Use this setting if your network uses DHCP for assigning an IP address.

IP Address - When not using DHCP, use this setting to assign a unique IP address to your Concert AVR-6 / AVR-8.

Subnet Mask - When not using DHCP, use this setting to assign the subnet mask to your Concert AVR-6 / AVR-8.

Gateway - When not using DHCP, use this setting to enter the IP address of the router connected to your Concert AVR-6 / AVR-8.

Primary DNS - When not using DHCP, use this setting to enter the Primary DNS IP address of your Internet service provider.

Alternate DNS - When not using DHCP, use this setting to enter the Secondary DNS IP address of your Internet service provider.

MAC Address (Information Only) - Displays the unique network card address of your Concert AVR-6 / AVR-8.

Playing Audio Files via Network Audio or USB

The network audio client on the Concert AVR-6 / AVR-8 is capable of supporting the following file formats:

- MP3
- WMA (Windows Media Audio)
- WAV
- FLAC (Free Lossless Audio CODEC)
- MPEG-4 AAC (iTunes with DRM10 support)
- Ogg Vorbis

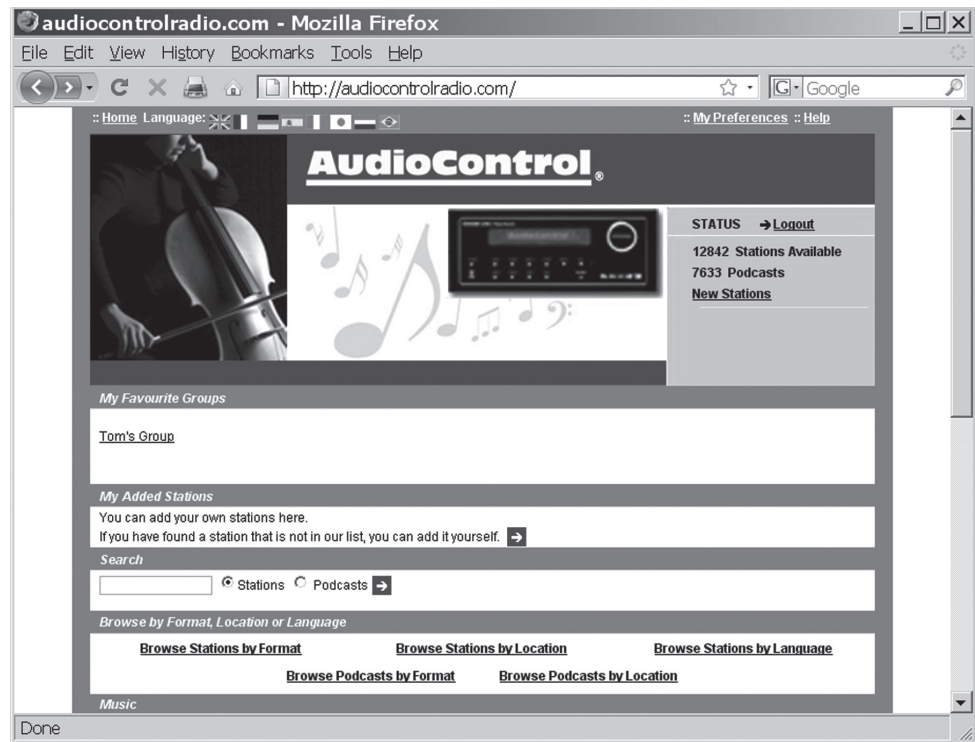
Network devices must also be running a universal plug and play (uPnP) service such as Windows Media Player. This feature is standard with Windows 7 or it can be downloaded free of charge from www.microsoft.com. While each device may operate differently, here are some basic commands to follow:

- 1) With the Concert AVR-6 / AVR-8 in “Standby”, make all of the Ethernet network and/or USB connections and then take the unit out of “Standby”.
- 2) Using the front panel source selection controls, select Network Audio “NET” as a source. A “Home Page” page will appear on your display device and show all available storage devices.
- 3) Navigate through these using the arrow keys on the front panel of your Concert AVR-6 / AVR-8 or using an optional infrared (IR) remote control. Folders displaying a musical note symbol (♪) have playable files in them.
- 4) Select the file/track you wish to play and press the OK or “>” key. Pressing the “Select” button will also serve to pause the track. Pressing and holding “Select” button for two seconds will stop playback.

Internet Radio Stations

Once you have established an Internet connection for your Concert AVR-6 / AVR-8, you can manually enter the URL of any Internet radio station. You can use the vTuner service to easily browse through Internet radio stations. You will want to go to *www.audiocontrolradio.com* to set up this service for use in your system.

Review the “Network” set-up menu of your Concert AVR-6 / AVR-8 and locate the unique MAC (Media Access Controller) address of your unit, as it will be required to setup up your service. Once activated you can visit various stations and podcasts and then set up groups of favorite stations. These will show up as favorites on your display device when you next connect to the Internet.



Concert AVR-6 / AVR-8 Automation Integration

Automation Integration

Part of the joy of a great home theater is that you don't have a tray of remote controls staring at you whenever you want to watch a movie. Hidden away behind the scenes is a workhorse that takes care of the mundane tasks of turning on all the components, lowering the curtains, dimming the lights, popping the corn, etc. This faithful servant can take the form of a simple learning remote control or a system as capable as a whole house automation system with touch screens. There are a wide variety of theater controllers available.

There are 2 methods of controlling the Concert AVR-6 / AVR-8, other than through the IR remote and the Front Panel. You may choose either RS-232 or IP control via the General Settings menu. Both methods use the same command structure format as defined in the automation documentation found on our website. The Concert AVR-6 / AVR-8 command set also takes advantage of the extensive discrete IR command library with the IR simulation command. This adds a great deal of flexibility to system design, general functionality and personal customization. It is possible to use both hand held remotes and control panels in the same installation depending on your needs.

RS-232 Serial Control

You must set the external RS-232 control system serial port of your control system to match the data communication speed and format of the Concert AVR-6 / AVR-8. If these settings are incorrect, the Concert AVR-6 / AVR-8 will not respond to the commands.

Concert AVR-6 / AVR-8 communication parameters:

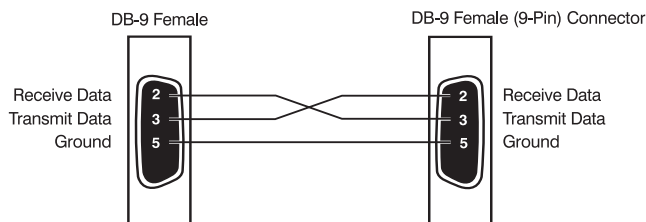
Baud Rate:	38,400
Start Bit:	1
Data Bits:	8
Stop Bit:	1
Parity:	None
Flow Control:	None

Please Note:

*Automation documentation, modules and other control docs are available from the product pages on our website:
www.audiocontrol.com*

Cable Wiring

The cable wiring to connect the Concert AVR-6 / AVR-8 to your control system will depend on the RS-232 output connection on the controller. Make certain that you wire the Transmit Data output on the serial controller to the Receive Data on the Concert AVR-6 / AVR-8 and vice versa on the Receive Data line on the controller system. Connect the signal grounds on the control system and the Concert AVR-6 / AVR-8 together. The RS-232 connection on the Concert AVR-6 / AVR-8 is a DB-9 Male connector, labeled Control and is wired as follows:



- Pin 2 Receive Data (RXD)
- Pin 3 Transmit Date (TXD)
- Pin 5 Ground

To connect the Concert AVR-6 / AVR-8 to a standard PC serial com port; wire the cable in a 'null modem' arrangement using the appropriate serial cable.

Command Structure - Issuing

The RS-232 serial control structure of the Concert AVR-6 / AVR-8 is a string of hexadecimal values with a minimum of six bytes. When issuing a command, the structure of the string is as follows: Start Transmission, Zone Number, Command Code, Data Length, Data and End Transmission. We will use an abbreviated form for easy reference in the following format:

<ST> <ZN> <CC> <DL> <Data> <ETR>

Parameter	Command	Description
START	0x21	Begins transmission to Concert AVR-6 / AVR-8
ZONE NUMBER	0x01	Zone 1
	0x02	Zone 2
COMMAND CODE	See code list	The code of the command
DATA LENGTH	0x01, 0x02 etc...	Number of data units to follow
DATA	See code index	The parameters for the command
ETR	0x0D	End transmission

As an example:

To change the Concert AVR-6 / AVR-8 video source in Zone 1 to SAT:
 0x21 0x01 0x0A 0x01 0x01 0x0D

Command Structure - Receiving

Command processing begins when the first 0x0D (carriage return) is received. The Concert AVR-6 / AVR-8 will respond, either by making the change specified with a status update answer code or by replying with an error answer code, within 3 seconds. More commands, however, may be sent before the Concert AVR-6 / AVR-8 responds to the first command. When a command is received, the Concert AVR-6 / AVR-8 echoes the command back in the following format:

<ST><ZN><CC><AC><DL><Data><ETR>

Parameter	Command	Description
START	0x21	Begins transmission to Concert AVR-6 / AVR-8
ZONE NUMBER	0x01	Zone 1
	0x02	Zone 2
COMMAND CODE	<i>See code list</i>	The code of the command
ANSWER CODE	0x00	No problems – status updated
	0x82	Incorrect Zone
	0x83	Incorrect Command
	0x84	Incorrect Parameter
	0x85	Invalid Command in current state
DATA LENGTH	0x86	Data length is incorrect
	0x01, 0x02 etc...	Number of data units to follow
DATA	<i>See code list</i>	The parameters for the response, limited to 255
ETR	0x0D	End transmission

As an example:

Answer code for source change in Zone 1 to DVD: 0x21 0x01 0x0A 0x00 0x01 0x00 0x0D

Simulating the RC-5 IR command via RS-232

A key feature in the Concert AVR-6 / AVR-8 is the ability to simulate RC5 format IR commands via serial commands. The IR simulation command will contain 7 bytes as there will be 2 <Data> bytes for the RC-5 command. The actual command <CC> is 0x08 with the 2 <Data> bytes being the IR command values. The 2 data bytes are the system code then the command code, both these codes are in decimal format. Depending on your software or remote control device, a conversion of these codes to the appropriate format may be needed.

Changes in state from different inputs

While the Concert AVR-6 / AVR-8 is controlled by a serial command, its state may be changed by other inputs such as the front panel or through IR. Such changes in state will yield a response with an answer code from the Concert AVR-6 / AVR-8. In order to determine the command code, you may use the response to get the code for the desired function if you can't find the listing for it in the table below.

Serial and IR Code Tables

You can also download this information from the AudioControl web site at www.audiocontrol.com. Click on "Support" and then "Automation Support". You may also want to contact the manufacturers of your control systems and remotes as we proactively provide automation codes to many of them.

Troubleshooting Common Problems

General

There are no lights on the Concert AVR-6 / AVR-8

- ✓ Pressing any button or the Standby button on the front panel should wake the Concert AVR-6 / AVR-8.
- ✓ Verify that the power cord is plugged into a live AC outlet.
- ✓ Verify that the rear panel Power switch on the Concert AVR-6 / AVR-8 is “On”.

The main front panel display is blank

- ✓ Press the Display button. This button controls the display brightness and also allows you to turn the display off entirely.

The main zone changes while selecting sources from Zone 2

- ✓ Change the Zone 1 Control option in the Zone 2 Configuration Menu to Off.

Video

No video/picture

- ✓ Verify your video display or projector is turned on and set to the correct input for the Concert AVR-6 / AVR-8. Press the Menu button on the Concert AVR-6 / AVR-8 and look for the Main Menu to show on the video display.
- ✓ Verify the correct input on the video display is selected for the output of the source (i.e. Component Video if the output of the DVD player is Component).
- ✓ Verify the Video Input assignment configurations. Make certain that the correct video input is assigned to the source you are playing.
- ✓ If at any point you need to reset the video output resolution and frame rate to the default setting, push and hold the “Select” button for 3 seconds.
- ✓ If you are using a Blu-ray player with a 1080p/24 fps (frames per second) format, you will want to confirm the output format of the player you are using matches with the input format of your display device. The Concert AVR-6 / AVR-8 supports both 1080p/24 fps (frames per second) and the more commonly used 1080p/60 fps video formats. To properly utilize the 1080p/24 format you will want to make sure that the source device (i.e. Blu-ray player) and the display device (i.e. projector or TV) are both capable of supporting this format. In the Video Output section of the Setup menus, set the Output Resolution of your Concert AVR-6 / AVR-8 to 1080p (not Preferred) and make sure that the Frame Rate is set to Auto. Failure to do any of the above could result in no image.

No Video on Zone 2

- ✓ Verify the composite video input from source is connected.

There is no On-Screen Display (OSD)

- ✓ Verify the OSD is turned on in the Concert AVR-6 / AVR-8 configuration settings.
- ✓ Verify that the correct input is selected on the video display or projector.

Audio**The audio doesn't match the video**

- ✓ The Video and Audio input can be selected independently in the Main Menu. Verify they are set the same.
- ✓ Verify the correct Video Input and Digital Audio input assignments are configured for the Source input button.

The sound is poor or distorted

- ✓ Verify the speaker settings configuration matches your speakers. If a speaker is set to Large and it cannot reproduce full range bass, you will hear distortion.
- ✓ If the trouble is only on some channels: Verify the audio RCA cables to the power amplifiers are working and seated properly.
- ✓ If the trouble is in all channels: Verify the Input Trim setting in the Advanced Configurations is not set too low.

Cannot select Dolby Digital or DTS decoding mode

- ✓ The Concert AVR-6 / AVR-8 can only decode formats encoded onto the source. Normally these are marked on the packaging or liner notes of the material.
- ✓ Verify that the correct format is selected in the Start menu of the DVD.
- ✓ Verify that the digital input from the source is properly connected to the Concert AVR-6 / AVR-8.
- ✓ Verify that the digital output of the source is enabled. Some DVD players have a setup menu that can only be accessed if there is no disk in the player.

Hum on analog inputs

- ✓ Verify that all the two channel analog audio cables are connected properly.
- ✓ If the hum only occurs on one source, try a different set of connecting cables.
- ✓ If the hum occurs on a source with an external connection such as an antenna or cable TV, try disconnecting that input. If the hum disappears, put a ground isolator on that connection.

No audio on Zone 2

- ✓ Zone 2 and Zone 3 are muted when units is first turned on.
- ✓ make sure you are using a source with analog outputs

No Zone 2 audio when playing a DTS encoded video

- ✓ Most DVD players cannot output a stereo analog version of the soundtrack while playing a DTS encoded disk. If you want to watch the movie in the second zone, select the Dolby Digital soundtrack on the disk.

Unable to adjust the Bass and Treble controls

- ✓ The Bass and Treble tone controls are defeated.

WARRANTY

...and now a word from the legal department...

People are scared of warranties. Lots of fine print. Months of waiting around. Well, fear no more. This warranty is designed to make you rave about us to your friends. It's a warranty that looks out for you and helps you resist the temptation to have your friend, who's "good with electronics", try to repair your AudioControl product. So go ahead, read this warranty, then take a few days to enjoy your new Concert AVR-6 / AVR-8 home theater system before logging onto the our web site at www.audiocontrol.com to register your purchases.

"Conditional" doesn't mean anything ominous. The Federal Trade Commission tells all manufacturers to use the term to indicate that certain conditions have to be met before they'll honor the warranty. If you meet all of these conditions, we will warrant all materials and workmanship on the Concert AVR-6 / AVR-8 for five (5) years from the date you bought it, and we will fix or replace it, at our option, during that time. Here are the conditional conditions:

1. You need to register your purchases of the Concert AVR-6 / AVR-8 with us by going to the AudioControl web site (www.audiocontrol.com), click on the "Home Theater" tab and then go to the warranty registration department and follow the directions.
2. You must keep your sales receipt for proof of purchase showing when and from whom the unit was bought. We're not the only ones who require this, so it's a good habit to get into with any major purchase.
3. The Concert AVR-6 / AVR-8 must have originally been purchased from an authorized AudioControl dealer. You do not have to be the original owner, but you do need a copy of the original sales receipt or invoice.
4. You cannot let anybody who isn't: (A) the AudioControl factory; (B) somebody authorized in writing by AudioControl to service the Concert AVR-6 / AVR-8. If anyone other than (A) or (B) messes with the Concert AVR-6 / AVR-8, that voids your warranty.
5. The warranty is also void if the serial number is altered or removed, or if the Concert AVR-6 / AVR-8 has been used improperly. Now that sounds like a big loophole, but here is all we mean by it:

Unwarranted abuse is: (A) physical damage (don't use the Concert AVR-6 / AVR-8 to level your projection TV); (B) improper connections (120 volts into the RCA jacks can fry the poor thing); (C) sadistic things. This is the best product we know how to build, but if you strap it to the front bumper of your Range Rover, something will break.

Assuming you conform to 1 through 5 (and it really isn't all that hard to do) we get the option of fixing your original unit or replacing it with a new one.

LEGALESE SECTION

This is the only warranty given by AudioControl. This warranty gives you specific legal rights that vary from state to state. Promises of how well the Concert AVR-6 / AVR-8 will perform are not implied by this warranty. Other than what we have covered in this warranty, we have no obligation, express or implied. Also, we will not be obligated for direct or indirect consequential damage to your system caused by hooking up or operating the AudioControl Concert AVR-6 / AVR-8.

Failure to complete the warranty registration process negates any service claims.

SHOULD YOU EVER NEED SERVICE...

Normally service will be handled by your AudioControl system professional who installed the system. If you're the take charge kind of person who wants to do this yourself, contact AudioControl, either by phone 425/775-8461 or email to sound.better@audiocontrol.com. We'll verify if there is anything wrong that you can fix yourself, or assist you in arranging to have it sent back to our factory for repair. Please include the following items with the returning unit:

1. A copy of your proof of purchase (that sales receipt we've been harping about). No originals please. We cannot guarantee returning them to you.
2. A brief explanation of the trouble you are having with the Concert AVR-6 / AVR-8.
3. A return street address. (No P.O. Boxes, please)
4. A daytime phone number in case our technician has a question about the problem you are having.

You're responsible for the freight charges to us, but we'll pay the return freight back. We match whatever shipping method you send it to us, so if you return the unit overnight freight, we send it back overnight. We recommend UPS for any shipments.

Specifications

Concert AVR-6 / AVR-8 Home Theater Receiver Specifications

Inputs	AVR-8	AVR-6
Analog Audio Inputs	6 Stereo Pairs	6 Stereo Pairs
Nominal Audio Input sensitivity	1V-4V.	1V-4V
input Impedance	47kOhm.	47kOhm
Signal to Noise	100dB	100dB
Digital Audio Inputs	6.	6
Video inputs	7 HDMI	7 HDMI
	3 Component.	3 Component
	4 Composite	4 Composite
Outputs		
Speaker Level Channels	7.	7
Power Output	110 Watts per ch into 8 ohms	100 Watts per ch into 8 ohms
	200 Watts per ch into 4 ohms	
Minimum Speaker Load	4 ohms.	8 ohms
Total Harmonic Distortion	-100dB	-100dB
Frequency Response	20Hz – 20kHz.	20Hz – 20kHz
Preamp Audio Outputs	7 main channels, 1 subwoofer	7 main channels, 1 subwoofer
Main Video Outputs	Dual (2) HDMI	Dual (2) HDMI
Second Zone Output	1 Composite video, Stereo analog audio	1 Composite video, Stereo analog audio
Control		
12 Volt Trigger Outputs	2 – 1 Main Zone, 1 Zone 2.	2 – 1 Main Zone, 1 Zone 2
RS-232 Serial control	1 DB-9	1 DB-9
IR Receiver Inputs	2 – 1 Main Zone, 1 Zone 2.	2 – 1 Main Zone, 1 Zone 2
General		
Power Consumption (Stand By)	Less than .5 watts	Less than .5 watts
Power Consumption (typical usage)	100 watts	100 watts
Power Consumption (maximum)	1500 watts.	1500 watts
Dimensions	17"W x 16.5"D x 7"H.	17"W x 16.5"D x 7"H
Weight	37lbs	33lbs

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For Those Who Consider Perfection Possible®

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