## **Audio-Consumer Buying Guide**



## **Setup and Connections**

Setting up your new system involves more than just plugging in cables. Where you place the speakers, what types of connections and cables you use, and even the orientation of your room can drastically affect sound quality. Here are some practical tips for setting up your new audio system.

TOPIC	DETAILS		
Speaker Placement	To recreate the movie theater or concert hall experience at home, you will want to position your speakers just right.		
	Speaker	Placement Tips	
	Front, left and right	<ul> <li>Place speakers symmetrically in room flanking video display if system is home theater</li> <li>For "mostly movie" systems, speakers should be spread at a 45° angle when viewed from main viewing/listening position</li> <li>Widen angle to 60° for "mostly music" system</li> </ul>	
	Center	Place as close to the video display as possible (usually directly above or directly below screen) and facing listening position	
	Surround	For "mostly movie" systems: place surround speakers on or near side walls slightly behind main viewing/listening position and well above ear level - Do not point them directly at listening position     For "mostly music" systems, place surround speakers so that they are approximately the same height as the front speakers and are pointing at the listening position	
	Subwoofer	<ul> <li>Placing subwoofers in a corner gives the most but not necessarily the best bass</li> <li>Placing subwoofers along a wall gives less bass than placing them in a corner but the sound quality may be better</li> <li>Placing subwoofers towards the center of the room gives the least bass but often produces the most natural sound</li> </ul>	
How Your Room Affects Sound	Certain characteristics of your room will affect how your system sounds. Consider these factors as you create your listening space.		
	Factor	Solution	
	Echo	Strike a balance – leave some reflective surfaces to avoid "stuffed in the coat closet" sensation but add some absorbency as necessary to avoid echoes.	
	Reflections	Break up large, flat expanses (particularly on side walls of viewing/listening area) with furniture, like bookcases, wall hangings or any irregular shaped objects.	
	Dimensions	Rectangular rooms work better than square or cubical rooms. Changing speaker location and/or main viewing/listening position will change perceived sound quality. Experiment with speaker placement.	







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System Calibration	Here are three common audio system calibration problems and solutions for each.			
	Symptom	Explanation	Solution	
	Too much surround	Sound from surround speakers should be subtle.	Reduce output levels to surround channels.	
	Too much bass	Too much bass can obscure other sounds and frequencies and make dialogue more difficult to understand.	Fine-tune bass levels.	
	Improper delay	Too much delay in the surround channels can affect surround and special effects.	Adjust delay settings and set speaker- distance settings.	
Must-Have Accessories	These must-have accessories will help you get the most enjoyment and the best possible performance from your audio system.			
	Accessory	Benefit	Considerations	
	Universal remote	Programmable or pre-programmed remotes add convenience. You are more likely to use your entire system when all components can be operated from single remote. Also, upscale remotes often easier to use than supplied remotes.	Consider a remote with RF-feature for multi-room operation     Models range from simple replacements to elaborate touch-screens	
	Cables and interconnects	High-quality cables and interconnects can improve system performance compared to supplied cables.	Interconnects:  • Better materials, construction, signal transmission and shielding than supplied "patch cords"	
			Speaker cables and connectors:     Usually much heavier gauge for better signal transmission     Connectors much more dependable and convenient than "screw type" connections	
	Power filters and conditioners	Protects components and improves system performance.	Line conditioners must be able to meet total amperage draw of all components connected to them to be effective.	
	Furniture	Décor-friendly racks or shelving systems improves look of home entertainment components.	Shelving systems or racks can enhance access to equipment, simplify hookup and provide easier operation.	
	Speaker stands and brackets	Essential for proper positioning of bookshelf or satellite speakers.	Ideal speaker placement positions main speakers at listening level and surrounds slightly above listening level. See Speaker setup section for more details.	







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Audio and Video Connections	Video Connections	Connection Color	Typically Connects To
	Composite	Yellow	DVD Players     VCRs     Digital Cable Boxes     Satellite Receivers
	S-Video	• N/A	DVD Players     VCRs     Digital Cable Boxes     Satellite Receivers     LaserDisc Players
	Component Video	Red, Green and Blue	DVD Players     Progressive-Scan DVD Players     HDTV Receivers     Gaming Consoles
	HDMI	• N/A	Most HDTV receivers     "Up-convert" DVD Players     Next-generation high-resolution DVD players     Gaming Consoles
	Audio Connections	Connection Color	Typically Connects To
	Stereo Audio	White and red	<ul> <li>DVD Players</li> <li>Progressive-Scan DVD Players</li> <li>HDTV Receivers</li> <li>Gaming Consoles</li> </ul>
	Multi-Channel	Red, White and Black	DVD-Audio Players     SA-CD Players
	Optical (TOSLINK)	• N/A	<ul> <li>DVD Players</li> <li>Digital Cable Boxes</li> <li>Satellite Receivers</li> <li>HDTVs</li> <li>Digital Music Server</li> </ul>
	Coaxial	Orange	DVD Players     LaserDisc players
	Speakers	Left - White Right - Red Center - Green Left Surround - Blue Right Surround - Grey Subwoofer - Purple	Speakers
	Subwoofer Pre-Out	Black	Powered Subwoofer     Bass "shakers"





