5 Steps for Neat and Tidy AV Wiring

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When it comes to AV wiring, the old axiom "out of sight, out of mind" applies. We tend to forget about what we don't see. Take the "infrastructure" of your entertainment system.

When was the last time you thought twice about the cables that run between your TV, DVD/Blu-ray player, AV receiver, cable/satellite box, and whatever other components you may have? For most of us, it's the last thing we think about - as long as everything is working properly. But the minute there's a problem, all those wires suddenly take on a life of their own.

When faced with a glitch that requires you (or a professional) to check, replace, or upgrade a component and/or the cables connected to it, the last thing you want to see when you get on your knees and peer into the bowels of your AV cabinet, or crawl behind your AV rack, is a rat's nest of tangled wires. Yet, for most of us, that's exactly what we find - and it's enough to make you scream.

Get Organized

Pros take a number of steps to avoid the panic that cable chaos can cause, starting with organization.

1. Choose the right AV furniture (and location).

When setting up (or overhauling) an entertainment system, the first step is to choose an AV cabinet or rack that makes it easy to access the "business end" of your gear as well as a location that lends itself to accessibility; if you can't position the cabinet or rack so there's some room behind it, you at least want to be able to pull it away from the wall without too much trouble.

It's also worth looking for AV furniture that offers built-in cable management; things like cutouts and channels for cabling and built-in power strips can come in handy. And while you're at it, choose a cabinet or rack that takes ventilation into account (not all do). Bottom line: You want to be able to get behind your gear without becoming a contortionist.

2. Create a plan.

Take the time to map out the best position for your components and, more important, where the cables protruding from them will go. For example, it doesn't make sense to put your primary disc player on a bottom shelf. Put it where it's easy to get to! Next, take the time to neatly arrange all cables and use stickers (or tape) to label where each one goes.

3. Keep cables tidy.

In addition to avoiding tangles (a.k.a. "black spaghetti") use tie wraps or wire clamps to bundle cables (not too tight).

Each of these steps requires a little foresight and patience but the payoff will be huge when it's time for a system upgrade or maintenance.

Cable Type and Integrity

Looking beyond the physical location of your component stack, here are a few other things to keep in mind.

4. Integrity of wire runs.

Snaking wires haphazardly through walls, ceilings and crawl spaces can lead to frayed cables, which can degrade or, worse yet, cut off signal transmission. A professional installer will make sure that holes drilled in joists and studs are not only large enough to accommodate the cable(s) passing through, but also smooth. Pulling wire through ragged holes can damage a cable's protective outer jacket or the insulation that separates the conductors within.

5. Quality and type of wire.

It's important to select the cables and connectors that are best suited for the task at hand. This means using cables that are sufficiently flexible and rugged, especially if they run through crawl spaces or exposed/semi-exposed areas; poor cable construction can lead to wear and tear that hinders signal transmission.

It also means using cables that have the appropriate insulation and electrical characteristics for the intended application. For example, for long speaker runs - say, from one side of a large room to the other - it's important to use wire that's thick enough to ensure signal integrity. Using too thin of a cable - the higher the "gauge," the thinner the wire - can degrade the quality (and volume) of the sound; professional installers consider a variety of factors, including component type, speaker impedance, and more.

To learn more about the ins and outs of audio/video installation, consult a CEDIA professional. Click here for a list of CEDIA-member home technology professionals in your area.

- See more at: http://www.cedia.org/blog/5-steps-for-neat-and-tidy-av-wiring#sthash.jOM2TMtZ.dpuf