



PERFORMANCE MEDIA INDUSTRIES, LTD.

Choose Wisely
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These days, many of the things that you typically put in a home theater are obsolete almost before you install them. As a little as a month later, you realize that ABC component won't work with XYZ new technology. You've got to spend \$X to replace it. This is not a happy thought, particularly if ABC component cost a lot of money. You can't avoid buying some things that are likely to become obsolete, but what if you allocate the majority of your budget to things you know will last for years and go the affordable route in the high risk categories?

The trick is defining low and high risk categories. It's no easy task, and things occasionally jump from one camp to the other. Still, it behooves you to try. Here is my take. You can use it as a starting point, if nothing else.

What Things Don't Become Obsolete

- AC Power Products - AC power isn't always what it should be, and the performance of home theater components can suffer as a result. Be sure you deal with voltage regulation, as well as surge suppression and grounding issues. Also beware of the almost-square waves that many power companies are providing these days. You'll need to smooth them out.
- Conduit - You may think you can future-proof your system by running every type of cable in existence, but what about cables that don't exist yet? People weren't running HDMI everywhere two years ago, were they? Don't run cables; run conduit. And folks, conduit isn't half inch any more. Try three inches.
- Equipment Rack - Think the rack isn't important? Try defending the quality of your work as people stare in disbelief at the rat's nest behind your rack.
- Interior Acoustic Treatment - Fuzz absorbs sound. Weird broken shapes diffuse sound. Combining the two in a room results in vastly improved sound character. Unless wave physics changes, acoustic treatments are always going to work just like they do right now.
- Interior Decoration, Lighting, and Furnishing - Styles do come and go, but a pretty room is always a pretty room. Equip it with sound-absorbing carpet, light-absorbing walls, and focused lighting. You should never have to touch it

again. Properly designed interior décor can improve sound and picture quality, too!

- Noise Control – HVAC, equipment fans, refrigerators, etc., are always going to make noise. The ways to silence them are tried and true. Anything billed as “new” is just a fresh spin on something old.
- Power Amplifiers – Make sure they are big and stable enough to supply adequate power to the speakers. That’s all you’ll ever need.
- Projection Screen – If a material reflects light correctly right now, it’s still going to 10 years from now. The same is true of acoustical transparency. If it’s transparent, it’s transparent. It’s not going to get transparent-er with a future firmware update. Size is a slightly different story. Because the proper viewing angles for SD and HD vary from 30 degrees to upwards of 45 degrees, the only way to completely future-proof a screen is to go with four way masking and an overall width that supports a 45 degree viewing angle. Yeah, it’s expensive, but so is buying multiple screens.
- Sound Isolation – No new technology just around the corner is going to magically block sound transmission...unless the Vulcans show up with force fields.
- Speakers and Subwoofers – Speakers take electrical energy and transform it into acoustical energy. In the foreseeable future, sound will be processed in electrical form and (barring major human evolution) heard in acoustic form, so you’re pretty safe buying a device that changes one to the other. Engineers have been designing speakers long enough to have a pretty good handle on how to do it. A speaker today with appropriate dispersion and frequency response is always going to have those qualities. Other than the normal processes of wear and tear, there should be no reason to change speakers if you picked good ones in the first place.
- Powered Speakers and Subwoofers – Combine two stable elements. Plus, you don’t have to play engineer yourself and figure out if a speaker goes well with an amp.
- Speaker Mounting and Baffling – If you don’t securely mount a speaker in a manner that allows it to be aimed properly, you can kiss good sound goodbye. Better yet, stick it in a baffle and you can kiss a whole bunch of acoustic problems goodbye. Baffles are lumber and nails. What’s to upgrade?

What Things Do

- A/V Controllers and Receivers – It seems that every new source component these days requires a new type of connection or processing. Firmware can only go so far. Here’s a hint. Buy separates or A/V controllers and powered speakers. That way, you don’t have to pay for an amp every time you upgrade processing and switching.

- Cables – This is a minefield. The only approach that works every time is the scientific one. Determine the electrical properties you need from your cables and find some that get the job done.
- Control Systems – IP? Cresnet? Something new Microsoft will tell us about in a press release tomorrow morning? Your guess is as good as mine. Use your noodle to figure out how to control everything with universal remotes and relays.
- Source Components – If sound or picture originates with it, it's going to be upgraded soon. You can bet lots and lots of money on it.
- Video Displays – This hurts. Picture quality is directly related to the display, and nice displays are big-ticket items. Prepare for the worst. Install a two-piece system. At least then the screen stays constant!

I don't want you to come away with the impression that I'm bashing equipment upgrades, because I'm not. Upgrades are a necessary part of any system. However, there's a big difference between upgrading, where you step up to a higher level of performance, and replacing a perfectly good component simply because it's incompatible with the latest technology. The former is great; the latter will drive you nuts!

This article is based on a column published by A. Grimani in Residential Systems magazine August 2006. Chase Walton contributed to this article.