Subject: Subwoofer Pre-amp out vs. Speaker Line Out and Lighting
Posted by FloydV on Tue, 13 Mar 2012 08:07:55 GMT
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First, there are two ways to connect a receiver to a subwoofer:

1. Shielded pre-amp out cable
2. Speaker line out (balanced)

What are the advantages of the first over the second? Does LFE come over both connections? If so, why pick one over the other?

Second, if I use a light dimmer in my theater room, is that going to inject hum into the system? I plan on using blue fluorescent lighting at low levels. The particular bulbs I have in mind are almost into the ultraviolet range.

These lights are easier to see by than red, but they are almost invisible on a rear projection screen. I'm thinking two ceiling spots behind the TV and two over the seating area. At a low level of course. You can find a beer or remote, but forget about reading any labels. Thoughts on this?

Floyd

Subject: Re: Subwoofer Pre-amp out vs. Speaker Line Out and Lighting
Posted by Wayne Parham on Wed, 14 Mar 2012 20:41:30 GMT
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Yes, the speaker wire is balanced and that combined with its low impedance makes it very noise tolerant. But I would not choose to use the speaker outputs as the inputs for another amplifier, like connecting an old car-stereo to a booster amp. It can be made to work, sure, but it means you have a lot more stuff in the signal path. That kind of interface is what I'd consider a jury rig: The first amp has a ton of gain (and the unintentional signal modification that inevitably comes from it), which you then throw out, just to run it back into a second amplifier. By going with the preamp output, you bypass the gain stages of the first amp, applying the low-level signal directly to the subwoofer system. This is a better approach.

About fluorescent lights, the reason they are electrically noisy is actually due to a switching circuit in the ballast. There is a resonator or other switching circuit that provides a ~10kHz signal to drive the bulb. It doesn't require this frequency, some are driven directly with 120Hz power through a passive (usually inductive) ballast. But the bulb is much brighter when driven at 10kHz, so most of the time, the ballast is an active circuit that provides both protective current limiting and higher drive frequency.

Subject: Re: Subwoofer Pre-amp out vs. Speaker Line Out and Lighting
Posted by FloydV on Wed, 14 Mar 2012 21:03:21 GMT
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Argh!!! That means that I would need to use incandescent lighting, which is fast disappearing with a dimmer or pick brightness by trying to find the right wattage or lumen s of incandescent to get to the desired light level.

I thought what you say about the line to subwoofer being a poor idea. Oh well, I see that monoprice.com has long lenths of shielded wire with RCA plugs attached. Now I need two wall plates with RCA jacks at the rear. I'm already going to use 180 feet of speaker wire. Now, probably 60 feet of cable to the rear subs.