

Equipment Specific Power Cables

We've seen an increasing number of companies who have adopted the habit of creating cables that are said to be optimal for specific electronic equipment. One power cable design for digital electronics, another for pre-amplification, and still another for power amplification. But is this a valid way to approach power cable design? In this paper we will briefly explore this idea using logical deduction to see if it has any merit.

Some say that the power cable is the most important cable in a stereo system. This is because, technically speaking, it is the true source of the energy that will eventually be turned into musical reproduction. We've found that identifying exactly which cable is "most" important in a system is actually very system dependent. Never the less, the power cable IS very important, and sometimes it does prove to be most important. To the layman, this may also imply complexity. But this is not actually so. The requirements of a power cable are actually quite simple.

In North America our power grid delivers 60Hz alternating current (AC) at what should be precisely 120 volts. While these aspects are not perfectly consistent, it is wholly outside of the realm of the power cable to have any effect on either of these two parameters in any meaningful way. An incompetent design could potentially reduce the voltage supplied to the electronic equipment. But we'll assume that nobody is silly enough to actually claim that this would be a good thing. The same holds true for altering the frequency of the incoming power.

This leaves only two other aspects that can affect the performance of a power cable. These two aspects are current delivery and AC line noise. But before we get into these two issues, let's first establish what actually goes on inside the equipment that our power cables are supplying.

The first thing to happen inside every single piece of electronics, whether it be a CD player or some sort of amplifier, is the transformation of the 120 Volts sourced from the wall to whatever the actual voltage requirement of that particular piece of equipment needs. It is then immediately converted into Direct Current (DC). The exact complexity of this conversion is nearly infinite in its variety and is a large part of what makes one design sound different from another. However, no matter what the design inside the equipment is, it will always work best when provided an unlimited source of current and minimal AC line noise. Said differently, there is no reason to ever intentionally limit the current that a power cable is capable of delivering. Nor is it ever advisable to allow one type of AC line noise and not another. But let's look at each of these aspects separately, starting with current delivery.

The number one aspect of a power cable's ability to deliver current is directly linked to the overall gauge being used. This is why cables needing to deliver large amounts of current are necessarily large and others that don't have large current demands are sometimes smaller. Of course, this is what leads many to believe that a massive, extreme gauge power cable is best suited for large amplifiers and that smaller gauge cables are better suited for low current demands, such as CD players. But this is an overly simplistic way to look at the situation and completely disregards other aspects that are actually in control. Because, the number one constraint on current delivery in your home is not your High End

power cable, it's your home's wiring. And even if you have had special 20amp circuits installed, the overall gauge of the wire that is feeding your special power cable is a mere 12 gauge solid wire. This is the true limiter of current in our stereo system. Fortunately, it is quite beyond what we actually require. Also, fortunately, we've yet to come across a High End power cable that was significantly less than this same 12 gauge. And, yes, it's true that things get more complex when you look at all of this in terms of actual impedance. (This is actually a very important design aspect detailed elsewhere.) But what does not change is the fact that all stereo equipment, no matter what it is, benefits from unlimited current.

So what about noise? Maybe this is what makes certain power cables sound "better" on certain equipment? Well, that's what many will tell you. But that doesn't make much logical sense either.

The way it's said is that digital equipment emits a different frequency of noise relative to analogue equipment and that certain cable designs deal with this better than others. Or, maybe it's the other way around. That digital equipment responds to certain types of line noise differently than analogue equipment. Or maybe it's both! The bottom line is that, no matter how you look at it or what its source is, AC line noise is a bad thing. And it doesn't matter what type of noise it is. It's all bad!

So why allow one type of noise into the power supply of your favorite CD player and another into the power supply of your favorite amplifier?

The answer, we're sorry to say, is rather cynical. Assuming the company manufacturing a multitude of task specific power cable designs is competent at actual design, it really comes down to having more models to sell. Create the perception that more models are better and that one type works better on your CD player versus your amplifier and you create pseudo credibility. But only for those who don't know any better.

We are of the opinion that a power cable that is sufficient for delivering unlimited current to your power amplifier is equally important in delivering unlimited current to your CD player. We are also of the opinion that every power cable should be as quiet as possible, regardless of what it's plugged into. And this is why the only differences between our power cables are the price and the degree to which they accomplish these ends. Every model is designed for superior performance regardless of what it's plugged into. The more complex, and consequently more expensive, designs simply do all of the same good things to a greater degree.

This is why we are happy to put even our most affordable designs up against any other competing design, regardless of their cost. Ours are simply designed to accomplish more, right from the start. It doesn't matter what you plug them into. They will deliver the cleanest and most unlimited current available. And you won't ever have to be concerned with not having the right power cable for any specific piece of equipment.

Just plug in. Hit play. And enjoy!