Cleaner AC Power

Expanding on last month's theme of diminishing the deleterious effects of the power feeding our systems leads me to offer three more tips, all absolutely free! Dirty, spikey, fluctuating power is responsible for significant and irretrievable losses to the resolving ability of your music system. In essence, anything that is "running" contributes to the degradation of the AC in your home by injecting noise and disrupting stability, with the worst offenders being anything digital or using a motor. These tips can help even if you have dedicated AC lines and/or a power conditioner.

First, turn off all your computers, monitors, printers, scanners, digital picture frames, unnecessary lights (especially fluorescents or those with dimmers), televisions, streaming devices (don't forget things like WiFi routers and wireless bridges), and especially "heavy" appliances, like fans, de- or humidifiers, dishwashers, clothes washers and dryers, sump pumps, furnaces or air conditioners, etc. Stifling your air conditioning or furnace can bring further sonic benefits by alleviating the additional mechanical noises of the blowers and air handlers.

Further, actually unplug all those "wall wart" AC charging devices for your phones, tablets, and other rechargeable devices, including any that are used to power the devices listed above. Many items today, like monitors or printers, use these type power supplies. When plugged in, even when nothing is connected to the receiving end, besides dissipating and wasting power with no benefit, their coils and transformers are generating spurious noise and electromagnetic interference, which they inject into your AC lines.

Eliminating these devices from your home AC network eradicates all the noise and hash they spawn and put back into it, contributing significantly to enhanced resolution, pitch definition, and speed, quieter backgrounds, more focused and stable imaging and soundstaging, more accurate and truthful tone, and better fleshed out and textured harmonics. I've even noted meaningful improvement to critical LP listening sessions by unplugging my music server and DAC.

Second, check with your local electric utility company to learn what the peak-usage times are for your area, and listen during off-peak times. Peak usage refers to those hours when the highest residential and industrial demands are made on power consumption. The surges required to overcome inertia and start an induction motor turning create uneven current demands and present a back flush of electro-motive force (EMF) from the motor's primary coil to the power network. These irregularities create instability and introduce hash, spikes, and otherwise undesirable grunge and disruptions to the power your equipment uses. Most areas consider noon to 6:00 PM to be peak-usage times during the week.

While weekends are typically considered off peak, if you live near an industrial park or factory complex, your peak-usage times may vary. And peak-usage hours can vary widely from season to season, in large part because people don't typically run their air conditioning or furnace as often in the spring and fall. A visit to your utility company's website, or a call to their customer service line, will arm you with information that will guarantee you better listening, with typical improvements much along the lines of those noted with tip one.

Third, after leveraging all these other electrical optimizations, plan your listening and turn all your gear on one hour before you plan to do any critical listening. All your electronics, from preamplifiers to source components, sound their best after they have reached their optimum operating temperature and achieved thermal stability. Output devices, be they semiconductors or tubes, are constantly changing operating characteristics as they warm up. Because thermal equilibrium is dependent on the heat sink area and other solid mass used to dissipate the heat generated by the output devices, the larger that mass is, the longer it will take to reach stability. Because the current in the circuit is in constant fluctuation until the bias settles, the sound may be all over the map until it does. Once stasis is achieved, sonics are consistently as good as they can be from that device, which are typically expressed as purer timbre, richer harmonics, and more stable images. These effects are usually achieved within an hour, but listen and make your own assessments. **—Greg Weaver**

Have a tip you'd like to share? Email **rharley@nextscreen.com**