



Getting to Know Advanced Power Strips

As Put Forward by the NEEP APS Working Group, Working Document, December 2014

Advanced Power Strips (APS) are simple to use products that create a significant opportunity to save energy in residential and commercial applications. APS look just like ordinary power strips, except that they have built-in features that are designed to reduce the amount of energy used by many electronics. There are several different types of APS on the market, but they all operate on the same basic principle of shutting off the supply power to devices that are not in use. By replacing your standard power strip with an APS, you can significantly cut the amount of electricity used by your devices and save money on your electric bill.

This document is intended to walk through several questions and misconceptions regarding APS.

Question: Are Advanced Power Strips a fire hazards?

Answer: No, APS are UL listed, meaning they have been testing for fire safety. They are as safe as traditional power strips and additionally often have greater capacity to handle power surges.

Question: What are the different outlets for?

Answer: There are typically 3 types of outlets on any APS: Always-on, Primary, and Secondary. The Always-on outlet provides power at all times and should be use for things such as modems and cable boxes that need to be constantly on. The primary outlet is where you plug the key device, such as the TV or computer. The secondary outlets are where you plug in the devices that should be turned off if the key device is not being operated, such as a printer, dvd player, speakers, or a monitor. These should be clearly labeled on your APS.

Question: Will Advanced Power Strips interfere with the use of the devices plugged into it?

Answer: No. While you are using your devices, the APS supplies power as any power strip would. When the device is not is use, the APS will help the devices power down and save energy. For devices such as cable boxes, modems, or refrigerators that need to be on at all times, APS have an "always on" outlet. For other devices with clocks such as microwaves, if you choose to save energy wasted by keeping the microwave in stand-by mode all night, then the APS disrupts the clock setting just as unplugging it would.

Question: Why are Advanced Power Strips so much more expensive than standards power strips?

Answer: APS are designed to help you save energy by cutting off power to devices that aren't being used. Because of this, they have more complicated mechanics than a standard power strip. If you use an APS with several devices that you used to leave on, however, the energy savings will quickly add up and the device may end up paying for itself in savings.

Question: What type of Advanced Power Strip is right for my needs?

Answer: There are different types of APS depending on what you're trying to do and where you are trying to use it. Some more simple APS such as timer power or remote switch power strips turn off power to the strip on a preset schedule or based on a signal you send remotely. Some more complex APS will actually turn off your TV or computer for you if you have fallen asleep or left the area for a long time. The decision tree here: <http://www.nrel.gov/docs/fy14osti/60461.pdf> can help you identify your needs and the right APS for you.

Question: Can I daisy-chain Advanced Power Strips?

Answer: No. As with most power strips, daisy-chaining can put an unsustainable amount of load on a single outlet and it is not advised. In most cases, daisy-chaining will void any warranty that might exist for the APS.

Question: What are the different tiers of APS?



Answer: There are currently 2 different tiers of APS. Tier 1 products go after the energy wasted when you're not using a device. This can be called "passive" wasted energy. An example is turning off your DVD player and speakers when your television is turned off. Tier 1 products exist for many applications both at home and in a business. Tier 2 APS target "active power down savings;" they save the energy that you're using that you don't mean to. Tier 2 products, for example, can turn off your television (and DVD player and speakers) for you when they sense you've left the room or fallen asleep. These have the potential to have greater energy savings than Tier 1 products. Tier 2 products have been developed for home entertainment and home office applications. These products will typically be labeled as "Activity Monitor APS with Active Power Down Savings"

Video Resources:

Efficiency Vermont: <https://www.youtube.com/watch?v=sCb5k8rFqIM>.

TrickleStar: https://www.youtube.com/user/TrickleStarUS?feature=creators_corner-%2F%2Fs.ytimg.com%2Fyt%2Fimg%2Fcreators_corner%2FYouTube%2Fyoutube_32x32.png

Embertec: <http://embertec.com/advanced-powerstrip/>, <http://embertec.com/video-av.html>

BITS Ltd: <http://bitsltd.net/videos>