

tech tips

TECHNICAL INFORMATION AND PRODUCT SOLUTIONS

Power Conditioning Questions and Answers

What is power conditioning and why do I need it?

The electricity that powers your computerized equipment carries with it some harmful properties called transients, surges, or noise. Quite simply, these phenomena are excessive spurts or spikes of electrical energy that travel along the power line and enter your system. This noise, if allowed to pass through to the electronics of your system, will cause Disruption, Degradation, and Destruction, — the 3 Ds, in your microprocessors and cause them to malfunction and ultimately to fail.

Effective power conditioning filters out these harmful disturbances, preventing malfunctions and the degradation of your equipment and substantially enhancing its reliability and overall operation.

What types of equipment can benefit from power conditioning?

Any computer-based equipment will show improved performance when protected against noise. To name a few common applications:

- Computers and networking — from a single computer to complete data centers
- Telecommunications PBXs, key systems, and VoIP
- Automatic test equipment
- Computer aided design/engineering/manufacturing
- Medical diagnostic equipment and instrumentation
- And more

What causes electrical noise?

Electrical noise can be caused by major disturbances like lightning, but are most often the natural by-product of the use of electricity. For example, noise that gets into your computer can be caused by the elevator in your building, the air conditioner, the copy machine in the next office or even by your printer. No matter where you plug in your computer, you find electrical noise. In fact, it's only safe when it's unplugged.

I don't have any power problems. Why do I need power conditioning?

Electrical noise is truly an invisible problem since the damage it does may not cause your computer to fail immediately. This unseen damage frequently causes soft failures, those unexplainable errors in printing, garbled data on your terminal or even minor calculation errors. Ultimately, the cumulative effect of these problems will show up as hard failures — your systems stop functioning.

What benefits will I see if I use an ONEAC power conditioner?

You will see a dramatic decline in failures of all types. Your equipment will run more smoothly. You will experience fewer random errors, fewer instances of lost or garbled data, and fewer outright equipment failures.

You will have fewer horror stories to tell about how the system went down when you had to make the deadline for that important report or how you lost productivity during a busy time. In essence, you will be a more satisfied system user.



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Why is ONEAC the best power conditioning product I can buy?

ONEAC is the only power conditioner that was designed with the latest of computers and electronic equipment in mind. The designers of ONEAC thought through all of the issues around the effects of electricity on sensitive circuitry and designed a product that protects your system at all times, even when you're not using it. ONEAC has been extensively evaluated and recommended by the major computer, telecommunications and electronic test manufacturers.

Some special features that distinguish ONEAC power conditioned products from competitive models are:

- Greater efficiency
- Quieter operation
- Much less generation of heat
- Smaller size
- Clean, portable ground; dedicated lines not required
- Five year warranty

Why don't manufacturers build this protection into their system?

Some level of protection is built into most systems. However, since the electrical noise levels vary dramatically from location to location and there is considerable pressure to keep equipment price levels down, manufacturers usually build in a lower level of protection. In effect, it's up to the user to provide the proper environment, which includes clean electrical power.

Do I need an electrician to install an ONEAC power conditioned products?

Most ONEAC units do not require any special wiring. Simply plug the units into the existing wall outlets. Also, because of the particular design of the ONEAC power conditioners, the need for special isolated grounds or dedicated lines is eliminated.

How long will my ONEAC power conditioned products last?

All ONEAC products come with a five year warranty. Because of the design of the product, we have every reason to believe that they will last considerably longer than your computer.

Are there any products available which cost less?

Yes! Any computer store or catalog can sell you one of many of the low-cost surge/spike protectors. They go by many names, (surge suppressors, spike arrestors, MOV's, etc.). These were originally designed to protect devices like your TV from damage during a lightning storm. Generally they have certain things in common, some of which are harmful to electronic equipment, i.e. they often cannot filter spikes of several hundred volts and can actually wear out or fail without you knowing it. In summary, they provide limited protection at low cost.