SURGE PROTECTOR 2

QUESTION: I respectfully disagree with your conclusion and response to Hugh regarding the need for a surge protector. You actually mentioned a case where "one string of campsites had 220 VAC on the outlets." The surge suppressor that I use on my Airstream trailer has a built-in over-voltage protection system that would automatically protect me from this situation. That your group detected this condition prior to connecting trailers to the over-voltage supply was purely good luck. My unit has both over-voltage (132 VAC) protection and under-voltage (105 VAC) protection. A relay inside the box will immediately open when either condition occurs. My electrical system management unit also has a digital readout showing voltage, frequency in Hertz, current draw in amps, and any error codes such as open ground, wrong polarity, etc. When I plug the unit into a campground electrical supply, a 2 minute interval must pass before the relay closes and supplies power to my trailer. The unit also contains several MOV, metal oxide varistors, which provide "surge" suppression such as spikes on the supply line. Surge suppressors are rated in joules, a measurement of the charge or surge power that it can absorb and not pass through to the load. Since I have amateur radio equipment and occasionally a computer connected, I also use separate surge suppressors inside the trailer with the highest possible joule rating to further absorb voltage transients. You are probably aware that an open neutral in the electrical supply distribution panel or circuit breaker panel can cause 220 VAC to appear on a 120 VAC receptacle on that circuit. It has been my observation that some campground owners know very little about their electrical distribution systems or how to maintain them. Your recommendation of an electrical circuit tester was appropriate so long as the user knows how to interpret the combination of lights they see and what to do to remedy any improper indication. No one should attempt to fix the problem without getting a professional, licensed journeyman electrician involved. While many campgrounds may have excellent power, many WBCCI members participate in rallies held at fairgrounds where electrical system maintenance has not been a high priority due either to intermittent use or that limited resources dictate other maintenance items receive higher priority.

In conclusion, please do not confuse the term "surge suppressor" with today's newer RV electrical management systems, which offer the user greater protection of their valuable investment.

ANSWER: You are certainly allowed to disagree and it does not even have to be respectful. The reason I described the 220 volt incident was that the Caravan leaders (years ago) used to run into poorly wired campgrounds and felt the need to have the outlets checked before the members arrived. They gave that up many years ago, because they felt there was no longer a need to do that.

I agree with that conclusion and that includes fairgrounds as well. I camp at many fairgrounds all around the country and they are professionally wired and maintained especially since they are all concerned about liability. In fact, most of them have gone to GFCI receptacles because of liability protection.

The unit you are describing is indeed an RV Electrical Management System. That was not the question asked of me. I was not the least bit confused by the question which was

about the “need for a surge protector.” I am quite familiar with both devices and all of those in between, with the Management System being the ultimate.

Had the question been the need for a Management System the answer would have been an even bigger NO. Knowing the frequency and voltage on a continuing basis and having over and under voltage cutoff is nice but certainly not needed by most of our members, especially since you are now in the $600 price range. Good surge protectors ($15 variety) also use metal oxide varistors for spike suppression. They also use “joules” but I don’t think our members really care. I would recommend that our members put their money into a better battery charging system, which will reap many more cost benefits than an electrical management system.

You can spend from $15 to $600, with several steps in between, to protect your surge sensitive equipment. I am also a Ham operator and sometimes carry a full set of Amateur Radio Equipment in my rig. I protect my equipment with the same $15 surge protector I recommended. campgrounds, fairgrounds, state and Federal parks provide excellent power these days, because they have to.

Camping World sells most of these products and they are all high quality and made by reputable manufacturers. If you feel more comfortable than by all means spend the money. You can purchase an AC voltmeter that plugs into a wall socket and gives you a constant reading of the voltage. I do not consider this to be a good choice but instead would recommend a good multi-meter which will measure the AC voltage when you desire but also provide battery testing and troubleshooting capability. To me it is a question of maximizing your return for the dollars spent and that is what I base my recommendations on.

The simple $5 (from Harbor Freight) circuit tester (with three lights) will provide an indication for open neutral, open ground, open hot line, reverse wiring etc. With the instruction card that comes with the tester anyone can read the results. If something is wrong then you tell the campground owner or fairground manager. Could not be simpler or less costly.

The Airstream Tech Help Committee was established to provide easily understood answers for the majority of our members who are not technically trained. Yes, sometimes our answers will seem trivial for some members, but they are always welcome to send us an Email requesting further details.