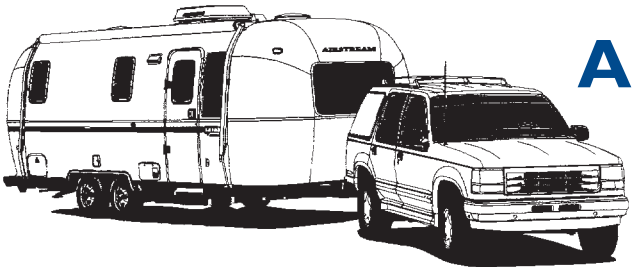

# Airstream Tech Help Group

Howard Lefkowitz, #6077
Phil Broomall, #2654
Jim Cooper, #3056
Jamie King, #7018

This group has been established by WBCCI to help the membership with any of their technical RV problems. Examples of questions that might be of interest to many members will be published in the *Blue Beret*. We will respond directly to you, in response to your email or letter describing a problem you are having. We hope you will find this new service of value in the care and feeding of your RV. You may contact us as follows: techhelp@wbcci.org or by mail: Howard Lefkowitz, 11508 Colt Terrace, Silver Spring, MD 20902

## 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.

John

**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.

Thanks for your input, Howard.

## Airstream Door Sag

If your Airstream trailer or motorhome is more than a few years old, you may find yourself having to slam the door to make it close tightly.

If that description fits you, look at the door side of your Airstream. If the horizontal stripe on the door doesn't match up with the same stripe on the side of the Airstream, you may have the affliction known as ***Door Sag***.

Go to the local hardware store or home improvement store and buy a packet of ¼ inch nylon washers. These are about an eighth of an inch thick and have a ¼ inch hole in the middle. Take two out of the packet and save the rest for another year.

Using electrician's "diagonal cutters" or other cutters that are handy, clip out a wedge from each of the two washers. The wedge should be one-quarter of the washer; not more. A smaller wedge will work but is harder to install.

Now get a friend to help you, and open the Airstream door. Have your friend lift the door by pulling straight up on it from the bottom. Sometimes it helps to swing the door on its hinges a little while lifting.

You should find that a space has appeared between the part of the door hinge that is attached to the door and the part that is attached to the Airstream, at the bottom of the hinge.

Slide the clipped nylon washer into that space. You may have to push it in with a flat-blade screwdriver. Make it go all the way in, so that the hole fits around the hinge pin and the washer is between the parts of the door hinge.

Now let your friend relax while you swing the door on its hinges. It should open and close easily, without slamming or pressing hard on it. And the horizontal stripe on the door should line up with the horizontal stripe on the side of the Airstream much more closely than before.

You have solved the problem for about a year. The nylon washers will wear and get thinner as you use the door, so you should check again next year to see if you need to repeat the process.

Happy travels! Jamie

## Disc Brake Safety Note

**Bill Kindle #4126**

I just thought I would pass along to you some info on brake hoses. I have a 2006 31' Classic with disc brakes. Coming through Austin, Texas, the other day, I had to get on the brakes pretty hard to avoid a car pulling in front of me and found I had no trailer brakes.

Upon inspection, I found that the rubber brake hoses could rub against the frame, which rubbed a hole in the hose when the axle moved up and down. I suggest everyone with disc brakes do a check and inspect their hoses. My street side hoses were OK, but both curb side hoses were worn through.

My Airstream dealer did a good job of quickly getting the hoses to me, but in the meantime NAPA Auto can match.