

SURGE GUARDS

These come in both portable and hard-wired versions. They can protect the RV from electrical surges, incorrect polarity, open neutral, reverse polarity and over/under shore power voltage input. They range in cost from \$100 (surge/ spike protection only, for 30-amp) up to \$400, for all of the above, with a 50-amp line. They are available for hard-wired installation in a motorhome or a portable device for trailers.

Every camper should have a \$5, 120- volt AC line tester, Figure (1), which provides a simple check for any of the defective wired conditions above. This tester will work fine on a 30 or 50-amp outlet box by using the proper 20-amp adaptor.

You can check the AC voltage level with your multimeter and determine if it is adequate for running the air conditioner. For protecting my sensitive electronic equipment, I prefer using a good quality spike and interference circuit strip (computer, phone and tablet chargers, ham gear etc.) which costs in the \$15 range. Therefore, unless you want an automatic protection system you can provide a manual system for about \$20. Nothing you can put in an RV will protect you from a lightning strike.



Figure 1 AC line tester