

## The Good Governor

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Power Watch Technologies presents a simple way to monitor the voltage, frequency, and polarity of any power source —and prevent expensive damage to electrical devices.

e didn't appreciate the value of accurate voltmeters, ammeters, and frequency meters until we moved into our third and current coach, which came equipped with these gauges. Our first two motorhomes did not have these devices. Although we habitually turned off electrical devices before connecting or disconnecting from shore power or the

generator, we were surprised when the ammeter indicated how many times we forgot something. This practice of unloading is much kinder to the entire electrical system. It cools down generator components prior to shutdown, and avoids power surges during startup and shutdown, which prevents damage to circuit breakers, fuses, and appliances. Circuit breakers can lose their sensitivity when they are frequently turned off under load. This means they may not respond properly to power surges and, therefore, could lose their ability to protect circuits. While a voltmeter and ammeter can be installed for approximately \$100, an accurate hertz (frequency) meter can be very expensive. A frequency meter was included as part of the digital voltmeter option with Trace inverter model #2012/2512. Other than this application, frequency meters can be hard to find.

Having been an RV technician for many years, Larry Veenstra recognized the need for an accurate, user-friendly, and affordable frequency meter to adjust generator governors. In the past, however, the type of meters used by technicians were expensive (approximately \$350). They also needed test probes or special wiring. In 1997, Mr. Veenstra introduced the Good Governor through his company, PowerWatch Technologies.

Most generators in the United States are designed to run at one specific speed and produce a standard 60 hertz (Hz) alternating current sine wave output. Mr. Veenstra explained. If the frequency output is correct, the engine is turning at its designed speed. The generator's governor keeps the speed constant across the range of operating loads. This has been compared to driving your car up and down a hill. When you go up the hill, you must apply more pressure to the accelerator to maintain speed. When coming down the hill, you release the accelerator so you don't go too fast.

The governor on the generator does a similar job automatically. Depending upon the workload, voltage can range from 100 to 135 volts AC, and the frequency can range from 58 to 63 Hz. If the governor is not adjusted correctly, improper voltage and frequency can be produced.

The Good Governor is a highquality instrument that can test and monitor the voltage, frequency, and polarity of any device that produces 120 volts AC and 60 Hz power. This includes grid power, inverters, and generators. The Good Governor simply plugs into any wall outlet, and since it has a special microprocessor that operates with an input of 40 to 200 volts AC and 20 to 100 Hz, it does not require batteries. A three-position slide switch selects a display mode. The Good Governor can singly lock on to incoming voltage or frequency, or it can alternately display both. In addition, a series of LED displays warn of improper wiring in the electrical circuit. The Good Governor is not designed just for technicians who are adjusting generator governors; it provides benefits to

every motorhome owner. Monitoring the voltage and frequency outputs can alert an owner to maintenance and repair needs of the generator and the inverter. It also warns when a campground has inadequate power and, with the polarity monitor, can alert to improperly wired circuits. By plugging the Good Governor into the campground electrical hookup prior to connecting your coach, you can prevent costly damage to appliances and other electronic equipment, such as computers and VCRs.

The Good Governor retails for \$110, which makes it an economical way to protect thousands of dollars worth of equipment. It is available at many RV accessory stores, including Camping World, Until April 30, 1999, PowerWatch Technologies is offering a special FMCA member price of \$89.95 plus shipping and handling when ordering directly from the company. For more information, contact PowerWatch Technologies, P.O. Box 22988, Denver, CO 80222; (800) 443-9948, (303) 753-1691.