

## TECH NEWS

### BAE DEVELOPING HYBRID PROPULSION SYSTEM

Fuel-thrifty hybrid drivetrains may become more readily available for motorhomes soon. The HybriDrive series-propulsion system, which uses a diesel-electric system consisting of a generator, electric motor, and lithium-ion batteries developed by BAE Systems, is designed for urban driving and is currently being used in more than 3,000 buses around the world. BAE reports it's developing a new parallel-hybrid propulsion system that's better for higher speeds and less frequent stops. The HybriDrive parallel system integrates an electric motor/generator between the engine and the transmission. BAE reports that the system reduces fuel consumption and emissions and is in the final stages of development, with road tests slated this spring.

In a related development, Eaton, a pioneer in large hybrids, is conducting a demonstration project with hybrid trucks using Ford F-50 chassis. Eaton reports that a 70 percent gain in fuel economy is expected compared with similar standard vehicles, along with similar emission reductions.

starting batteries at that time. I was told the charging system checked out normal and no other issues were found.

Since then, I've noticed the same symptoms, but the gauge seems less jumpy and doesn't swing as far above or below normal. I haven't had any starting problems but would like your thoughts on the symptoms. I think that while under heavy load the fuel pump is the cause for the drop and then coasting downhill it is not using the pump so it jumps to 14 to 15 volts.

**HAROLD HANSEN | ATLANTA**

*If a battery were internally shorted, that would account for some of the low readings. However, it's more likely that the gauge or voltage regulator is erratic. First, clean, inspect and retighten all battery cables and terminals, including both ends and ground straps. Temporarily connect a separate digital voltmeter set on its 20-volt DC scale. Run test leads right to the engine-starting batteries (with a low-*

## COACH & POWERTRAIN

*amperage fuse to protect the wiring from a short). Test drive the coach in the conditions you mentioned, and compare the results to your previous readings. If the voltage readings are still erratic, it's likely the voltage regulator. If the digital readings are steadier and in the ballpark, then the voltage gauge is probably faulty.*

### REFRIGERATOR TOO COLD

We have a Dometic model DM2852 refrigerator that stays too cold. Liquids in the refrigerator start to freeze. The temperature adjuster is set all the way to warm. This happens in both hot and cold weather. Is there a way to check the temperature sensor or do I need to replace something?

**JOHN ARTZ | OKLAHOMA CITY**

*According to Dometic, if the control circuit cannot read the temperature sensor and control the preset temperature, the control will run the cooling unit continuously on the energy source available. The refrigerator will continue to operate in this mode indefinitely, or until a new sensor is installed and the system reset.*

### DINGHY DRAWS

I have a 2010 Jeep Wrangler that I flat tow. Because of the ignition in the UNLOCK position it will draw down the battery if the battery isn't disconnected. But in order to maintain braking in the towed vehicle I need 12-volt power. I've read that I can disconnect the Ignition Off Draw (IOD) fuses. There are four of them, one a 60-amp fuse that my dealer said not to disconnect, but couldn't tell me which to pull. Or would I be better off running a lead from the charge circuit in the motorhome to the battery in the Jeep? If so, what gauge wire and fuse should I use?

**BURT THOMAS | PORTLAND, ORE.**

*LSL Products offers its Toad Charge ([www.lslproducts.com/ToadChargePage.html](http://www.lslproducts.com/ToadChargePage.html)) charging kit that comes with everything you need. Roadmaster also has a new Automatic Battery Disconnect system ([www.roadmasterinc.com](http://www.roadmasterinc.com)) that will do the job of protecting your dinghy's battery from discharge. I think it's easier to install a charging circuit or battery disconnect once rather than having to fiddle with fuses every time you tow.*

### DAMP BASEMENT CURE

In your November 2010 column, Gerald Eskow wrote about a damp basement in a 1999 Coachmen Mirada ("Damp Basement"). I may be able to solve his problem very easily. We had a similar issue with a 1999 coach and struggled for years. I am assuming he has the same basement compartment doors that we had — oval-cut doors that hinge at the top and open to clip flush with the vertical side of the coach.

My wife finally figured out that as we went down the road, the airflow around the coach created a vacuum that slightly sucked out the front compartment doors just enough to allow water inside the vertical seals. In a hard rain, we could have two inches, sometimes just damp. We made numerous trips to the dealer. Seals and door latches were adjusted. All we did was take some masking tape and place it along the door opening on the vertical sides (not necessary on the top or bottom)



### REFUELING BIB PROTECTS COACH SURFACES

Diesel and gas spills when filling the tank can harm paint and fiberglass and make a mess. The patented Chadd Padd catches and contains minor spills or overages that may occur at the pump. The new disposable refueling bib protects motorhomes' and other vehicles' surfaces from hose and nozzle damage. The 10-inch by 10-inch Chadd Padd is antistatic treated and is made from absorbent polymers that can hold up to 4.5 ounces of petroleum products. The Chadd Padd accommodates most filler ports for refueling or adding oil and can be used multiple times. For more information, contact Chadd Padd, 888-393-8358, [www.chaddpadd.com](http://www.chaddpadd.com). Enter promo code EZFUEL8 at [www.chaddpadd.com](http://www.chaddpadd.com) to save 10 percent.