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## **Factory Direct Sales . . . Five-Star Approach to Customer Service**

by Marty Wellington

One of our most frequently asked questions is, “Where do I find a dealership for New Horizons RVs?”

It’s also one of the easiest questions to answer and one of the most important differences that sets our company apart from the rest of the “cookie cutter” crowd. The owners at New Horizons believe foremost in the customer and the attention to detail that is so important in building a luxury fifth wheel or travel trailer.

- Dealers have to be educated about a manufacturer’s process and constantly kept abreast of new products and developments.
- Dealers never feel the same connection to a product that the company owners do.
- Dealers will not have full understanding of cutting edge technologies or customization options, nor will they be able to offer potential customers “the best deal.”
- Dealers do not have the customer’s best interests at heart—once you leave their parking lot, they are not obligated to honor warranties or provide the most pertinent service.

Factory direct sales are the best—a win/win situation for both customers and owners. There is no middle man to “muddy” the waters or cause confusion. As both parties come to the table to develop a luxury coach, friendships are forged, plans are clearly shared, and a life-long relationship is begun.

Why not stop by and discover for yourself what makes New Horizons the top-rated, full-time RV for eleven years running by *RV Consumer Group*? Our state-of-the-art manufacturing facility is located in the heart of the nation, just two hours west of the Kansas City metropolitan area, right off of I-70, in Junction City, KS.

Call for a plant tour today at (800) 235-3140 and see first hand the quality, safety, and technology that goes into every unit we build. From our heavy-duty steel frame to our custom-built, hardwood cabinetry and exquisite interior design touches, you will never experience any other fifth wheel that can compare. It’s our promise to you!

# Living “Off-Grid” in Your RV – Is Solar A Feature You Need?

## Part 2: Creating an Optimal System

(Jack Mayer, [www.jackdanmayer.com](http://www.jackdanmayer.com))  
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In the last article we discussed the electrical components to add to your RV to enhance off-grid living:

- An upgraded battery bank.
- A battery monitor so you know how much power is available.
- An inverter/charger to turn 12-volt power into 120-volt power and to charge your battery bank.
- A generator – either portable or built into the RV – to use with the charger.
- And solar panels to help with charging.

It is important that these components be compatible with each other, sized correctly, and installed utilizing the “best practices” of the industry. While you would expect (and hope) this would be the norm, it is not. I have corrected many electrical systems installed by “professional solar installers” and RV manufacturers that are simply done incorrectly.

So what are the things to look for in a proper system, and why do so many systems perform poorly?

1. The system is under-wired. The wire run from the solar panels to the controller, and then on to the battery bank, is sized too small. It should never be less than #6 cable, and I use #4 routinely now. Manufacturers commonly use #10. That is way too small for all but the smallest system. The only exceptions to this are with higher-voltage systems. Use the wiring tables or calculators to determine the correct size wire, and then go a little heavier. New Horizons uses no less than #4 cable.
2. The solar panels are shaded at certain times of the day. Why an installer would place panels where they know they will get shaded is a mystery. But it is not that uncommon. Even the shadow of the shaft of a TV antenna can greatly cut the output of a panel. You want no shadows. One of the advantages to the solar panels that New Horizons uses is that they are very narrow – thus they can be placed in areas where other panels would be shaded.
3. The solar controller is too far from the battery bank. It should be as close as practical, but not in the same compartment. Do not use a controller that has an in-built display and place it in the RV so you can read it. Instead use a controller with a remote display capability. Separately calculate the wire size needed from the controller at max output to the battery bank - this will likely be heavier than what is required from the panels to the controller. New Horizons uses remote display Morningstar solar controllers that are among the best in the industry and they wire them properly.
4. The solar and charger settings are not set optimally on many systems. On flooded cell batteries, the absorption setpoint (the bulk charge rate) should be 14.8 volts unless the battery manufacturer says otherwise. The default setting for wet-cell batteries in almost all controllers/chargers is 14.4-

14.6 volts. That is not adequate to get a good charge on the battery bank. The other common issue is that the controller does not allow enough time during the absorption phase of the charge. Thus, the battery bank never approaches a "proper" charge.

5. Battery temperature sensors are not employed. To get a proper charge, both the inverter/charger and the solar controller should have a battery temperature sensor placed on the battery bank. The charge voltage varies depending on battery bank temperatures. The battery bank will not get a good charge without the temperature sensors. New Horizons uses Magnum inverters and Morningstar solar controllers – both come with temperature sensors.
6. Batteries are not checked and equalized when they should be. You need to check the battery bank water levels at least monthly until you learn how your system performs. You need to check wet-cell batteries with a hydrometer at least two times a year and equalize if required. A properly performing system will never show corrosion on the battery terminals.
7. Battery terminals are dirty and/or loose. You would not think this would be that common, but it is. Lugs and nuts loosen over time and need to be checked at least yearly.
8. There is no instrumentation that records cumulative amp hours drawn from the battery bank. Without this information it is difficult to evaluate the current battery condition. As a result, many battery banks are drawn down too far and their life is unnecessarily shortened.

When evaluating a system, or discussing adding a system to your current RV, these factors are critical to the overall success of your implementation – whether you do that implementation yourself, or you have an RV manufacturer or outside installer do it.

New Horizons utilizes “best practices” for wiring their RVs, and some of the best equipment available in their optional solar and electrical packages. Having a system properly designed so that all the components work together and are installed and configured properly is of great benefit.

### *Phasing In the Solar*

If you are considering adding solar and advanced electrical components to your RV it is best done from the beginning. If you are not sure you will boondock enough to justify the expense, you can defer some of the initial cost by ordering a “solar prep” package. This pre-wires the RV for solar so adding it later does not involve pulling wires after the manufacturing process – they are already in place. This saves a lot of effort later when you decide to add the solar capabilities.

Ideally, when doing this you should order the inverter and larger battery bank with proper instrumentation. That will allow you to “try out” boondocking using a generator (either an external portable generator or an inbuilt genset) for recharging. The charge section of your inverter will handle the charging of the battery bank, driven by the generator.

Later, if you decide you want/need solar to assist in the charging process it will be simple to add the solar controller, the rooftop panels, and combiner box to your RV.

*In the next article we will discuss some of the technical issues to look for in an optimal system, and show a sample of a well implemented solar system – using state of the art components - that you can order from New Horizons, or add to your existing RV.*



## RECIPES OF THE MONTH (Treating Father to a Fabulous Day--June 19th )

### *Chipotle Bourbon Rib Marinade*

#### Rib Marinade

1 quart apple cider

1 cup bourbon (non-alcoholic version: 1 cup apple cider plus 1/2 tsp vanilla extract)

4 racks baby back pork ribs

#### Spice Rub

1/4 cup salt

1/4 cup dark brown sugar

1/4 cup paprika

2 T ground chipotle chile pepper

2 T ground mustard

1 tsp ground cumin

For cooking: 2 cups wood chips (applewood, hickory or oak)

Mix cider and bourbon in large glass measure or bowl. Pour 1 cup into squeeze bottle and refrigerate until ready to cook ribs. Put ribs in strong plastic zip-lock bags. Pour remaining mixture over ribs. Seal and chill overnight in refrigerator.

Meanwhile make spice rub: Mix salt, brown sugar, paprika, ground chipotle chile pepper, ground mustard and cumin in medium bowl. Make in advance and store in a zip-lock plastic bag. This rub is hot so use caution if handling with hands - do not touch your eyes. Wear gloves when rubbing into meat.

When ready, remove ribs from bags and pat dry with paper towels. Discard marinade and bags. Apply spice rub to ribs, patting it with your hands. Let rest at room temperature for 1 hour. Meanwhile, soak wood chips in cold water & cover for 1 hour. Heat grill to low (about 300 degrees F).

Gas griller: Drain all wood chips and place in smoker box or in perforated foil directly over one of the heated burners. Heat grill to high until you see lots of smoke, then turn heat to medium-low. Turn off middle burner(s), or if you only have two burners, turn off the burner that doesn't have the foil pouch over it. Put ribs in a metal rib rack or directly on grate over unheated part of grill. Cover and cook until ribs are well-browned, tender, and shrunken back from ends of bones, 90 minutes to 2 hours. Spray ribs with reserved cider-bourbon baste every 20 minutes or so to keep meat moist. During last 30 minutes, brush ribs all over once or twice with barbecue sauce. Transfer ribs to a cutting board and let rest 10 minutes. Cut into individual servings and serve with leftover barbecue sauce.

**STAY IN TOUCH WITH US** - Facebook (give us the “thumbs up” as you hit the “Like” button); join the New Horizons Owners Group Forum (NHOG) at <http://www.ircv2.com/forums/f269>; or stop by next time you're in Central Kansas.

As always, we hope to see you down the road.

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