



ELECTRICAL SYSTEM

Every RV has two electrical systems. One is 12v and the other is 110v.

The 12v system powers all the lights, water pump, monitor panel, am/fm stereo cassette deck, power booster on the TV antenna, electric step, wall mounted thermostats, ignitors for the water heater and refrigerator and all the automotive portion of the chassis such as dash air conditioning, cruise control, gauges, etc.

The 110v system powers the roof air conditioners, microwave oven, TV and VCR (if applicable).

12v SYSTEM

Most motorhomes have at least two 12v batteries, one for the 12v automotive portion of the coach and one for the 12v “house” portion of the coach. Some units are equipped with 2 batteries for the “house” portion of the system.

Low charge in the batteries will cause many things not to work properly on the coach. You can usually check the charge condition of the batteries by using the “battery condition” button located on the monitor panel if your unit is so equipped. The unit must be disconnected from all outside power sources in order to get a correct reading. Unplug the coach power cord and turn off the generator before checking battery condition.

The batteries can be charged from three different sources. When the automotive engine is running, the alternator will charge both batteries. When the unit is plugged in to a 30amp/50amp power source, this powers the on board converter which charges the batteries. Finally, when the generator is running it charges the batteries.

In most cases, there is a switch on the dash of a motorhome that will allow you to access the power from both batteries at the same time. This should be used to start the engine if the engine battery is weak or to start the generator if the “house” battery is weak. This switch is most often called an “Emergency Start” switch and must be held down while attempting to start the engine or generator.

If the battery condition is good and one or more of the 12v items on the coach won’t work, you should check the 12v fuses. There are usually 2 12v fuse panels on the coach. One is usually located under the dash on the drivers side. These fuses power the automotive portion of the 12v system. The other panel is usually located toward the rear of the coach on the inside. (A few manufacturers locate this panel in the outside electrical compartment of the coach.) The panel is usually located behind a cabinet door near the floor.

If an automotive item quits working, check the fuses in the front 12v fuse panel. If a 12v RV item quits working, check the 12v fuses in the rear panel.

The 12v battery in an RV will last only approximately 6 to 8 hours without re-charging. You will need to either be plugged into a 110v power source such as a generator or shore power. The 12v batteries will only run the lights and water pump. They will NOT run any of the 110v accessories such as A/C, Microwave, etc.

110v SYSTEM

Power for the 110v system can come from two sources, the generator or a land based 30amp power source found in most RV parks.

The generator can be used while traveling or while you’re parked. In most cases, when the generator is being used for power, the coach power cord must be plugged into the 30amp power receptacle found in the compartment that houses the coach power cord. **If the power cord isn’t plugged into this receptacle, you won’t get 110v power in the coach.**

Before starting the generator, **make sure all 110v appliances are off** and the power cord is plugged in to the 30amp power receptacle. Start the generator using either the remote generator start switch inside the coach or the start/stop switch located on the generator itself. Allow the generator to run for approximately one minute before turning on air conditioners and other 110v appliances.

The generator is designed to run while you are driving and should provide enough power to run all the appliances. You will not be able to run both roof A/C units at the same time on some coaches. If you repeatedly trip the breakers on the generator, turn off either the front or rear roof A/C and try again. If the problem persists, see the page on "Breakdown Procedures".

If you lose power inside the coach while operating off of the generator, the first thing to check are the 110v breakers. There are two places to check. The most likely breakers to trip are the ones **located on the generator. These are located on the generator itself.** Depending on the size of the generator, it could have one or two breakers.

To check the breakers on the generator you should first turn off as many of the 110v appliances as possible. Go outside to the generator compartment and open the access door. Locate the breakers on the front or side of the generator. Flip them to the OFF position and back to the ON position. The generator doesn't have to be off when doing this. Turn on any 110v appliance and see if this fixed the problem.

If it didn't, go to the 110v breaker/12v fuse panel inside the coach. Flip the 110v breakers off and back on. Turn on a 110v appliance and see if you now have power. (The quickest way to see if you have power is to look at the display on the microwave oven. If you have power, the clock will be flashing.)

The second source for 110v power is the land based power source sometimes referred to as "shore power". To connect the coach to a land based power source you simply unplug the 30amp power cord from the on-board 30amp receptacle located in the power cord compartment, pull the power cord out and plug it in to the 30amp power source.

If you lose 110v power while plugged into "shore power", check the 110v breakers in the inside 110v breaker/12v fuse panel first. If these breakers are not tripped, check the GFI (Ground Fault Interrupt) breakers in the coach. These are generally located in either the bathroom near the sink or the kitchen near the sink. They are incorporated into a 110v wall socket and must be reset if tripped. If you still don't have power, check the breakers on the pole where the 30amp "shore power" source is located.

IMPORTANT NOTE: We provide an electrical adapter with every coach. This adapter allows you to plug the 30amp power cord into a regular 110v power source. This is to allow you to keep your batteries charged while you're parked but IS NOT designed to run the air conditioners or microwave on the coach. Attempting to run the air conditioner(s) while using this adapter can cause severe damage to the coach and/or air conditioner. In addition, on some coaches you will not be able to run both roof A/C's at the same time. Doing so may cause you to repeatedly trip breakers on the generator.