

## **MOTORHOME JACKS SOME IMPORTANT LESSONS**

It was the end of the rally and most of the attendees had gone home. A knock on the door and a loud HELP! It seems one of the motor homes was still sitting there with all of the jacks up in the air, two wheels off the ground, the towed hooked up and no way to leave. The jacks would not budge. We tried several procedures including:

1. Run the engine and pump up the air bags to full pressure (This can cause the problem so you should always fill the bags first and with the engine running then retract the jacks).
2. Make sure the air dump switch was in the closed position.
3. Turn off the air brake, run through the transmission including park, drive and reverse.

(No help) This is not going to be an easy one and it is Memorial Day so no one is open. Let's check the fuses. Found two fuse boxes, one in engine compartment and one under dash. Each had a fuse that mentioned jacks but both tested OK.

Do you have a manual for the jack system? No! They are hydraulic with springs that pull them up once something is released. No detailed information in the coach manual. Do you know the manual procedure for retracting them? No!

Another helper with a similar motorhome (Land Yacht on a gas motor chassis) stops by. Great, he has a jack manual which says if they do not work, check the fuse on the control panel. The manual says there are 5 fuses on this panel. We remove the panel and guess what? There are no fuses on the control panel (must be a different model).

There is a dump valve on the hydraulic system just above the fluid tank. Let's try activating it with 12 volts. Leads spark but nothing happens. This is a solenoid valve which is actuated with 12 volts. Let's remove the valve and see if that will relieve the pressure and allow the springs to pull the jacks up. Nothing makes any difference.

New suggestion, let's drive forward and see if that will make the jacks go up. Not a cool idea, this will just break the jacks and result in a large expensive requirement for a new set.

Maybe there are other fuses. Big search turns up three more fuse boxes and several in line fuse holders. In line fuses all OK, however, in one of the boxes there is a string of fuses on one side that do not have power input. A quick check reveals several other things in the coach also do not work.

Quick checks of the battery disconnect switch revealed that the battery on light was off. Trying to reset the switch did nothing. These are very heavy duty switches which normally ark and over the years can develop deposits of carbon. Where is the solenoid switch? A search of the RV did not reveal its location since they are easily bypassed. Sometimes if they have overheated you can turn them off for five or ten minutes and then rapidly reset them a few times. This works - the jack panel light comes on and up go the Jacks. Eureka success!

### **Lessons:**

1. Always have a manual for your jacks, slide outs and steps that show how they work and include an electrical schematic.
2. Make sure you have the procedure for manually retracting slide outs, jacks and steps that could keep you from closing up the RV. Carry any special wrenches or tools needed to accomplish this.
3. Know where every fuse box is and what the fuses in the box are for. On motorhomes, you need not only the Airstream but the Workhorse or Freightliner fuse boxes as well. On the Class A units there could be as many as 8 or 9 boxes. Of course you carry lots of spare fuses for all of your boxes and appliances. Remember, you need at least two fuses so that when you replace the burned out fuse and it burns out again you can now find the short and still have a working fuse.
4. Never jack your RV up so high that the wheels are off the ground. That is what wood boards are for. On a gas motorhome you can easily bend the frame or crack a windshield. On a Freightliner you will not bend the frame; however, you could crack a windshield and be in an unsafe parked condition.
5. There are two types of switches usually provided by Airstream:  
A single switch for the coach with a use and store position for trailers and a dual switch with both a coach and chassis switch for motorhomes. These are shown in Figure (1).



Figure 1 Battery Disconnect Switches

These are usually located near the front door. The coach switch only disconnects the appliances, seats, etc. to conserve the battery during storage. Your converter charger is still functioning in the store mode.

Figure (2) illustrates the solenoid relay used for actually turning the battery circuit on and off. The two screws in front are connected to the control circuit of the disconnect switches above which actually operate the solenoid relay that moves the large high current contacts.

Make sure you know where in the coach these are located. If this solenoid goes bad, you can easily bypass it by simply moving both battery cables to the same terminal.



Figure 2 Battery Circuit Solenoid Switch