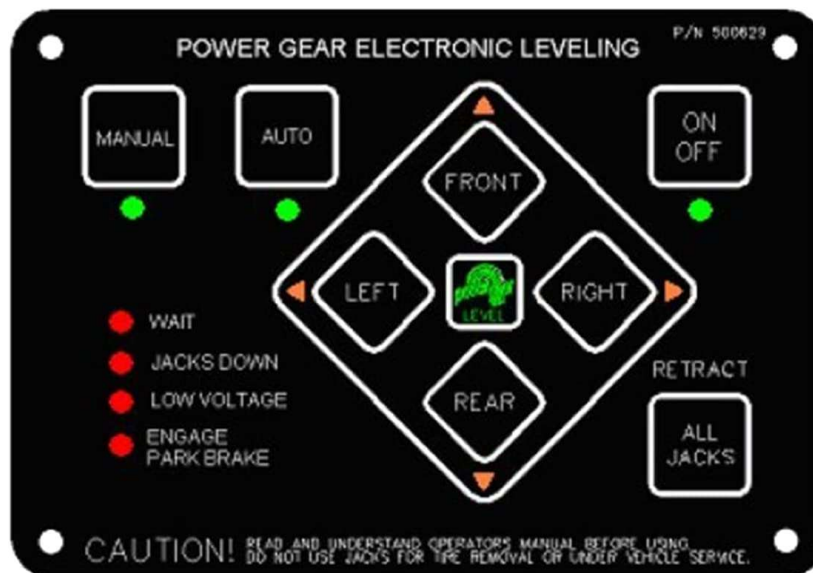


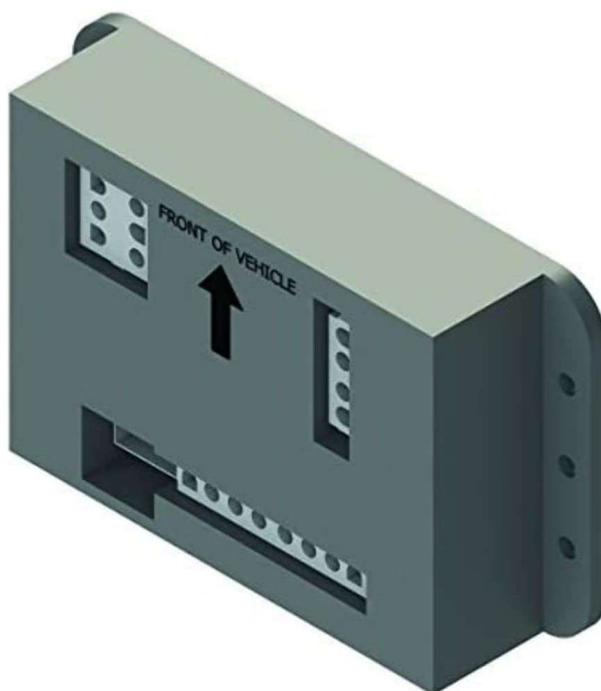
## How my PowerGear Hydraulic Levellers Work

We purchased our current RV in 2011. Unlike our previous rigs, it has PowerGear hydraulic levellers and they are great.

There are several components to the system. The keypad looks similar to this:



It is mounted near the driver's seat and is connected to the brain which is a box hidden away someplace. It looks similar to this:



Mine is mounted on the top (ceiling) of the frontmost passenger side basement storage bay. There are wiring harnesses running from the brain to the keypad, to power, and to the actual hydraulic pump. On my rig, the pump is near the front driver's side tire mounted to the frame. There are lots of wires and hoses going out of the pump to the 4 individual jacks.

Here's my system's processes:

**Always:** engine running, in Park, ebrake set, press ON OFF on the jack keypad until power light comes on. I put wooden blocks on the ground under where the jacks will come down to reduce the extension distance.

Decide if you want auto or manual levelling. I usually choose manual because the automatic is inconsistent and usually requires a little fiddling anyways.

### **Automatic levelling,**

Once the power light is on, press AUTO until the light below the button comes on (if it is not already on). In a moment, things will start to happen. First the front jacks go down until they lift the front end an inch or two. Note the two front jacks are on one hydraulic circuit and lift the front end at whatever angle you are parked at on uneven ground. After pausing to catch its breath, both rear jacks go down until one makes firm contact with the ground and it stops. The other rear jack will continue down, lifting the low side of the motorhome.

When it does this, the jack that stopped first will now be in the air. Both front jacks are still on the ground since they are on one hydraulic circuit and side to side movement doesn't change that. The levelling system does not go back and extend the now up in the air jack so that it contacts the ground. If the system managed to get you (what it thinks is) level, the green light in the centre flashes and you are good to extend the slides and finish setting up camp.

To reduce wiggle and flex, you can press the MANUAL button until that light comes on, then press the LEFT or RIGHT button until you feel it contact the ground. Too far? Fiddle with LEFT and RIGHT, and maybe FRONT until its level. Or RETRACT ALL and start over!

### **For manual levelling,**

1. press MANUAL until the light below the button comes on.
2. press the FRONT button until the front jacks both contact the ground but don't lift it.
3. press LEFT or RIGHT until I am level side to side.
4. run the other rear jack down until it makes contact. Now all 4 jacks are on the ground.
5. if I am not level front to back, I press the FRONT or REAR button until I am level.

Raising the front end will not affect the rear jacks, they will still both be on the ground. Raising the rear by pressing the REAR button will extend both rear jacks evenly and both front jacks will still be on the ground.

If you would prefer, you can recalibrate the jacks for automatic levelling. Instructions are on Lippert's web site.

### **Warning**

These jacks have more than enough power to raise either axle off the ground when the RV is fully loaded. This is ok for the front axle, although you will have lots of wiggle unless the front tires are on the ground.

**Never ever** raise the rear axle or even one side off the ground – even one set of tires off the ground can be catastrophic because both Park gear and your e-brake work on the driveshaft, not the wheels, and on uneven ground, your RV may move by itself resulting in a very bad day.

### **Retracting the Jacks**

When it is time to leave, retracting the jacks is the last step after putting everything away, retracting the awning and TV antenna, dropping external connections to power, water, sewer, etc. and pulling in the slides.

The engine must be running, in Park, ebrake set, press ON/OFF on the jack keypad until power light comes on. Press and hold the RETRACT ALL JACKS button on the keypad. The jacks will slowly retract for safe travel. The springs on each jack do the work of retracting; retraction is not hydraulically powered.

Don't forget to stow the wooden block if you used them.

### **Support**

I had problems with my jacks a few years ago. They refused to work so after exhausting my troubleshooting skills, I called the manufacturer. They took the time to walk me through the correct diagnostic procedure and sold me a new (and improved design) keypad and wiring harness adapter. They were great to deal with.