



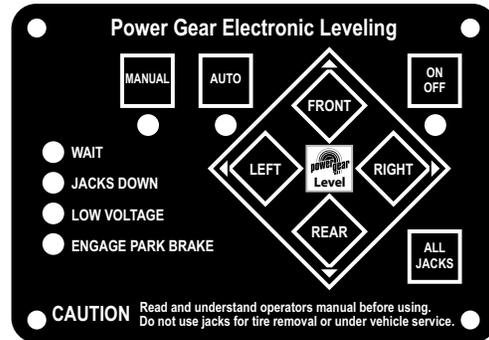
Operation Manual for Automatic Leveling Systems with Touch Pad # 140-1226 and Control Box # 140-1229

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Operation Manual for Automatic Leveling Systems

with Touch Pad # 140-1226 and Control Box # 140-1229



Contents

Before you Level Your Coach	1
Operating Instructions	2
Retracting your Leveling Jacks	2
Manually Operating your Jacks	3
Preventive Maintenance	4
Troubleshooting Tips	5
Manual Override Valves	6
Warranty Information	7

Before You Level Your Coach

1. Park brake must be set and transmission must be in “park” (“neutral” for diesel coaches) before jacks will operate.
2. Check leveling site to make sure obstructions have been cleared away for proper jack operation.
3. Selecting a site: When the coach is parked on an excessive slope the leveling requirements may exceed the jack lift stroke capability. If the coach is parked on an excessive slope, the coach should be moved to a more level surface before the leveling system is deployed.

CAUTION

- Keep people clear of coach prior to turning the leveling system on and while leveling system is in use.
- Never expose hands or other parts of the body near hydraulic leaks. High-pressure oil leaks may cut and penetrate the skin causing serious injury.
- If your coach is equipped with a slide out(s) always level your unit first, and then operate the slide out room(s). When retracting the slide(s), always retract the room(s) first then retract the leveling jacks. Following this procedure will produce the least amount of stress on your chassis.
- Please read the owners’ manual from the manufacturer who built and designed your motor home for further leveling and slide out room operating information and safety features.

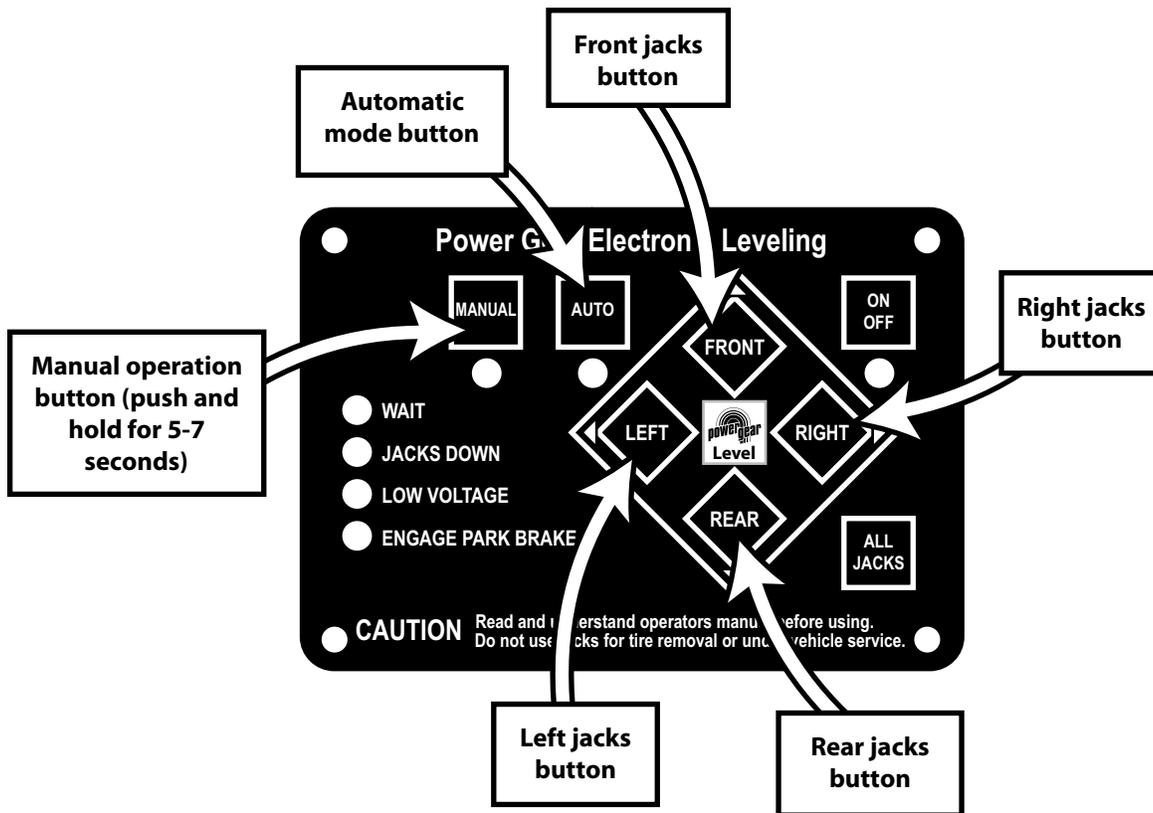
WARNING

This is a leveling system only and is not intended to lift your coach’s tire or tires completely off the ground. Attempting to lift your coach completely off the ground (for example, to use this leveling system to change a tire) could cause damage to the system and serious injury to the parties involved. If a tire should require changing please have the proper equipment and contact a professional.



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Operating Instructions



Leveling Your Coach

1. Turn on the ignition and start the coach. Your leveling control will start a self check sequence indicated by the lights on the panel blinking in a rotating pattern. It will turn off when it has finished its self check.
2. Push the "On/Off" button on control panel. The system is now operational and the "On/Off" LED will turn on.
3. Check to see that the engage park brake light is not illuminated. If so, engage the parking brake. (Your coach will have to be in neutral or park to operate the system).
4. Push the "AUTO" button. The automatic leveling system will begin its leveling procedure. Please avoid movement in the coach during automatic leveling as it can cause errors in the results. It will signal that it has completed the process by illuminating the center green "Power Gear LEVEL" light. Check to make sure that all jacks are on the ground. Also check to make sure that no tire is off the ground. If so, your leveling process is complete. If further adjustments are needed, refer to the "Manual Operation" section.
5. You can then turn the system off by pushing the on/off button again.

Retracting Your Leveling Jacks

1. Turn on the ignition
2. Turn on the system by pushing the "on/off" button. The system is now operational and the "On/Off" LED will turn on.
3. Push the "RETRACT-ALL JACKS" button. When the "JACKS DOWN" light turns off, visually check to make sure that all jacks have fully retracted. If so, your coach leveling system is ready to travel.

Manually Operating Your Leveling Jacks

There are certain conditions where manually leveling your coach may be desirable. Conditions where large amounts of side to side leveling are necessary may work better using the manual leveling procedures that follow.

1. Turn on the ignition and start the coach.
2. Push the "On/Off" button to turn on the system.
3. Push and hold the "MAN" button for 5-7 seconds in order for the system to switch to the manual mode. It will signal that it is in the manual mode when the light under the "MAN" button is illuminated.
4. Push "FRONT" button until the front of the coach rises at least 3". This is important and necessary to allow the coach to pivot when leveling side to side. If there is insufficient jack stroke to lift the front of the coach at least 3 inches the coach will have to be moved to an area with less front to back slope, or a weight distribution block will have to be placed under the jack.
5. Push the "REAR" button until jacks contact the ground.
6. Level the coach from front to rear by pushing the "REAR" button if the light under the "REAR" button is illuminated. If the light is illuminated above the "FRONT JACKS" button, push the "FRONT" button. In either case, keep button depressed until the green center "LEVEL" light is illuminated, or both front and rear lights are dark.
7. Level the coach from side to side by pushing the "RIGHT" button if the light beside the "RIGHT" button is illuminated. If the light beside the "LEFT" button is illuminated, push the "LEFT" button until the "LEVEL" light is illuminated.
8. Repeat steps 6 and 7 if needed.
9. Turn power off to leveling system by pushing "ON/OFF" button.
10. Visually inspect jacks to ensure all pads are touching ground. Should one of the rear jacks not be touching the ground, press the corresponding left or right rear jack buttons to lower the appropriate jack to the ground. Never lift the wheels off the ground to level the coach. This can lead to an unsafe condition and damage to the leveling system or coach.

NOTE: The right and left rear jacks are used to level the coach side to side. Pushing the "LEFT" button on the control panel will extend left rear jack. Pushing the "RIGHT" button on the control panel will extend right rear jack.

NOTE: If the "Wait" LED is ever flashing by itself, it means the control is busy and you cannot operate the jacks. After a short period of time (from 5 to 30 seconds), the "Wait" LED will go off again, and you can resume operation as normal.

Preventative Maintenance

1. Check and/or fill the reservoir with the jacks and room(s) in the fully retracted position, each month. The fluid should be one inch onto the dipstick (on models so equipped) or to the bottom of the fill port on models without dipsticks.
2. Change fluid every 24 months.
3. Inspect and clean all hydraulic pump electrical connections every 12 months.
4. Remove dirt and road debris from jacks as needed.
5. If jacks are down for extended periods, it is recommended to spray exposed leveling jack chrome rods with a silicone lubricant every 5 to 7 days for protection.
6. If your coach is located in a salty environment (within 60 miles of coastal areas), it is recommended to spray the rods every 2 to 3 days with a silicone lubricant.
7. Grease the fitting on the bottom of each jack cylinder with Lithium grease every 20-30 uses.

WARNING

Your coach should be supported at both front and rear axles with mechanical jack stands, not Power Gear hydraulic jacks, before working underneath. Failure to do so may result in personal injury or death.

Recommended Hydraulic Fluids for Your Hydraulic Pump

The fluids listed here are acceptable to use in your pump assembly. Contact coach manufacturer or selling dealer for information about what specific fluid was installed in your system.

- It is not recommended that hydraulic fluid and automatic transmission fluids be mixed in the reservoir.
- In most applications, Type A automatic transmission fluid (ATF, Dexron III, etc.,) will work satisfactorily. Mercon V is also recommended as an alternative fluid for Power Gear hydraulic systems.
- If operating in cold temperatures (less than -10° F) the jacks may extend and retract slowly.
- For cold weather operation, fluid specially-formulated for low temperatures may be desirable. Mobil DTE 11M, Texaco Rando HDZ-15HVI, Kendall Hyden Glacial Blu, or any Mil. Spec. H5606 hydraulic fluids are recommended for cold weather operation.

Please consult factory before using any other fluids than those specified here.

Troubleshooting Tips

Locations of breakers, fuses, fuse panels, etcetera are coach specific. Consult your coach owner's manual or the coach manufacture for locations of these components.

The following information will guide you to repairs that may be made on site. For problems not covered here, contact your service center or our website for more extensive troubleshooting information in the service manual for your system.

System will not turn on, indicator light does not light

Probable Cause	Corrective Action
Coach ignition not in run position.	Turn ignition to run position.
Transmission not in park or neutral.	Place transmission in park or neutral.
Parking brake not set.	Set brake.
Control has been left on for more than four minutes, auto shut off.	Push on/off button twice.

Jacks will not extend, pump is not running

Probable Cause	Corrective Action
Battery voltage is low.	Recharge battery.

Jacks will not extend, pump is running

Probable Cause	Corrective Action
Fluid level low.	Fill tank to proper level with automatic transmission fluid, see tip sheet 140.

All jacks will not retract or will not retract fully

Probable Cause	Corrective Action
System overfilled with fluid.	Drain fluid to recommended level-see tip 140.

Any one or two jacks will not retract at all

Probable Cause	Corrective Action
Jack rod guide is rusted or dirty.	Clean chrome rod, grease rod guide if equipped with grease fittings. Otherwise lubricate with silicone fluid. It may be necessary to reseal jack or replace.

Any jack retracts very slowly

Probable Cause	Corrective Action
Jack rod guide is rusted or dirty.	Clean chrome rod, grease rod guide if equipped with grease fittings. Otherwise lubricate with silicone fluid. It may be necessary to reseal jack or replace.

Any jack retracts with no power, with possible popping sound

Probable Cause	Corrective Action
Air in system.	Check for coils in hose. Remove the coil if present then extend all jacks to full extension, then retract fully, repeat 4 cycles waiting a few minutes between cycles, check fluid level in between cycles.
Contaminated fluid.	Replace fluid, see page 4, tip sheet 140 and 141.
Jack legs create popping sound.	Extend jack legs, clean rod, lubricate with light weight grease if equipped with grease fittings or lubricate with silicone spray.
	Due to changes in temperature, expanding and contracting of fluid will magnify the problem of popping jacks, to help minimize this replace fluid with Mercon V fluid.

Panel jacks down light illuminated, buzzer is on- jacks are retracted

Probable Cause	Corrective Action
Low fluid level.	Fill tank with Dexron III automatic transmission fluid, see tip sheet 140.

Panel jacks down light and alarm will go on while driving, jacks retracted

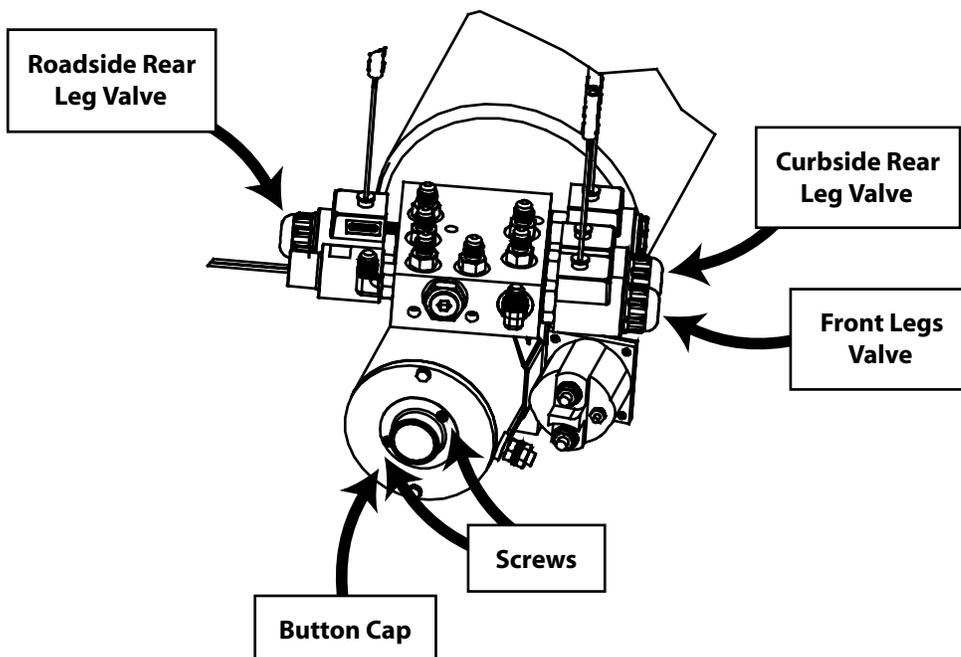
Probable Cause	Corrective Action
Low fluid level.	Fill tank with Dexron III automatic transmission fluid, see tip sheet 140.

Manual Override Valves

In case of a loss of power at the pump assembly, the manual override valves (MOV's) can be used to retract the leveling jacks. Not all Power Gear leveling system pumps have manual override valves. Power units for double acting systems that have manual override valves have flexible rubber caps on the valves and a hex override nut under the button cap on the electric motor.

To use the MOV's:

1. Remove the button cap from the end of the electric motor. First remove the two Phillips head screws from the top of the motor. The button cap can now be removed from the electric motor. You should now see a 7/16" over ride nut on the end of the electric motor shaft.
2. After verifying all personnel and tools are clear of the coach, press the rubber cap on the valve for the front legs valve. The front end of the coach will start to descend. Only allow the coach to descend for 2 inches.
3. Push and hold the rubber cap on the Roadside Rear valve. Allow the coach to descend for 2 inches.
4. Push and hold the rubber cap on the Curbside Rear valve. Allow the coach to descend for 2 inches.
5. Repeat procedures 2-4 until the weight of the coach is transferred off the jacks and onto the suspension and tires.



⚠ WARNING

Care must be taken during the manual retraction of jacks to prevent bodily injury or death. The next step will allow fluid to transfer from the legs to the reservoir. This procedure will allow the coach to descend. Keep all personnel and equipment clear of the coach. Make sure no one is under the coach prior to this procedure. Do not have any body parts or equipment positioned such that the coach will descend on it.

6. This procedure will retract the front legs. Using a 7/16" socket attached to a drill, spin the override nut clockwise while holding the button on the front legs valve. Stop when the legs are fully retracted.
7. This procedure will retract the roadside rear leg. After the front legs are retracted, press the button on the roadside rear leg valve and spin the override nut clockwise. Stop when the leg is fully retracted.
8. This procedure will retract the curbside rear leg. After the front legs are retracted, press the button on the curbside rear leg valve and spin the override nut clockwise. Stop when the leg is fully retracted.
9. Replace the button cap on the electric motor and securely tighten the Phillips head screws.

Power Gear Limited Warranty

Power Gear warrants to the original retail purchaser that the product will be free from defects in material and workmanship for a period of (2) years following the retail sales date. Power Gear will, at its option, repair or replace any part covered by this limited warranty which, following examination by Power Gear or its authorized distributors or dealers, is found to be defective under normal use and service. No claims under this warranty will be valid unless Power Gear or its authorized distributor or dealer is notified in writing of such claim prior to the expiration of the warranty period. Warranty is transferable pending documentation of original sale date of product.

THIS WARRANTY SHALL NOT APPLY TO:

- Failure due to normal wear and tear, accident, misuse, abuse, or negligence.
- Products which are modified or altered in a manner not authorized by Power Gear in writing.
- Failure due to misapplication of product.
- Telephone or other communication expenses.
- Living or travel expenses.
- Overtime labor.
- Failures created by improper installation of the product's slide out system or slide out room to include final adjustments made at the plant for proper room extension/retraction; sealing interface between slide out rooms and side walls; synchronization of inner rails; or improper wiring or ground problems.
- Failures created by improper installation of leveling systems, including final adjustments made at the plant, or low fluid level, wiring or ground problems.
- Replacement of normal maintenance items.

There is no other express warranty other than the foregoing warranty. THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL POWER GEAR BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. Some states do not allow the limitations of implied warranties, or the exclusion of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

For service contact your nearest Power Gear authorized warranty service facility or call 1-800-334-4712. Warranty service can be performed only by a Power Gear authorized service facility. This warranty will not apply to service at any other facility. At the time of requesting warranty service, evidence of original purchase date must be presented.



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