



***Advanced
Actuation Solutions***

by  Lippert Components®

**HYDRAULIC MOTORIZED
LEVELING (82-L0356)
OWNER'S MANUAL**

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Introduction

NOTE: Information for this document was based on Power Gear document 82-L0356, with a revision date of June 2003.

The Power Gear manual leveling system on the coach is designed and built to provide years of trouble-free leveling and stabilizing operation.

The Power Gear manual leveling system consists of several components, including spring return jacks rated at a lifting capacity appropriate for the coach. Each jack has a large diameter shoe for maximum surface area on soft surfaces. Each jack is powered from a central 12V DC motor/pump assembly, which also includes the hydraulic oil reservoir tank, control valve manifold and solenoid valves. The system is controlled by the solid state control panel assembly, which is located by the driver.

Additional information about this product can be obtained from lci1.com/support or by downloading the free myLCI app. The app is available on iTunes® for iPhone® and iPad® and also on Google Play™ for Android™ users.

iTunes®, iPhone®, and iPad® are registered trademarks of Apple Inc. Google Play™ and Android™ are trademarks of Google Inc.

For information on the assembly or individual components of this product, please visit:

<https://support.lci1.com/hydraulic-leveling-support-motorized-leveling>.

NOTE: Images used in this document are for reference only when assembling, installing and/or operating this product. Actual appearance of provided and/or purchased parts and assemblies may differ.

Safety

Please read and study this manual before operating the leveling system.

This manual provides general instructions. Many variables can change the circumstances of the instructions, e.g., the degree of difficulty, operation and ability of the individual performing the instructions. This manual cannot begin to plot out instructions for every possibility, but provides the general instructions, as necessary, for effectively interfacing with the device, product or system. Failure to correctly follow the provided instructions may result in death, serious personal injury, severe product and/or property damage, including voiding of the LCI limited warranty.

The use of the Lippert Components, Inc. Hydraulic Motorized Leveling to support the coach for any reason other than which it is intended is prohibited by the Lippert Limited Warranty. The system is designed as a leveling system only and should not be used for any reason to provide service under the coach, e.g. changing tires or servicing the leveling system.

Lippert Components, Inc. recommends that a trained professional be employed to change the tires on the coach. Any attempts to change tires or perform other service while the coach is supported by the leveling system could result in damage to the coach and/or cause serious injury or death.

WARNING

The “WARNING” symbol above is a sign that a procedure has a safety risk involved and may cause death or serious personal injury if not performed safely and within the parameters set forth in this manual.

WARNING

Failure to follow instructions provided in this manual may result in death, serious personal injury and/or severe product and/or property damage, including voiding of the component warranty.

WARNING

The coach MUST be supported per manufacturer's recommendations before working underneath. Failure to do so may result in death or serious personal injury, severe product and/or property damage, including voiding of the LCI limited warranty.

CAUTION

The “CAUTION” symbol above is a sign that a safety risk is involved and may cause personal injury and/or product or property damage if not safely adhered to and within the parameters set forth in this manual.

CAUTION

Always wear eye protection when performing service, maintenance or installation procedures. Other safety equipment to consider would be hearing protection, gloves and possibly a full face shield, depending on the nature of the task.

CAUTION

Moving parts can pinch, crush or cut. Keep clear and use caution.

Operation

Operating Conditions

WARNING

Do not use the leveling jacks to support the coach while under the coach or changing tires. The hydraulic leveling system is designed only as a leveling system. It is recommended that a trained professional change tires. Attempts to change tires while supporting the coach with the hydraulic system could result in death or serious personal injury, severe product and/or property damage.

WARNING

Keep people and pets clear of the coach prior to turning on the leveling system and while the system is in use.

The leveling system should only be operated under the following conditions:

1. The coach is parked on a reasonably level surface.
2. The coach parking brake is engaged.
3. The coach transmission is in park (or neutral for a diesel coach).
4. The coach engine is running.
5. Make sure all people, pets and property are clear of the coach while the leveling system is in operation

Selecting A Site

CAUTION

Check that potential jack contact locations are clear of obstructions or depressions before operation. Park coach on reasonably solid surface or jacks may sink into the ground. On extremely soft surfaces, use load distribution pads under each jack.

When the coach is parked on an excessive slope, the leveling requirements may exceed the jack lift stroke capability. The coach must be moved to a more level surface before the leveling jacks are deployed.

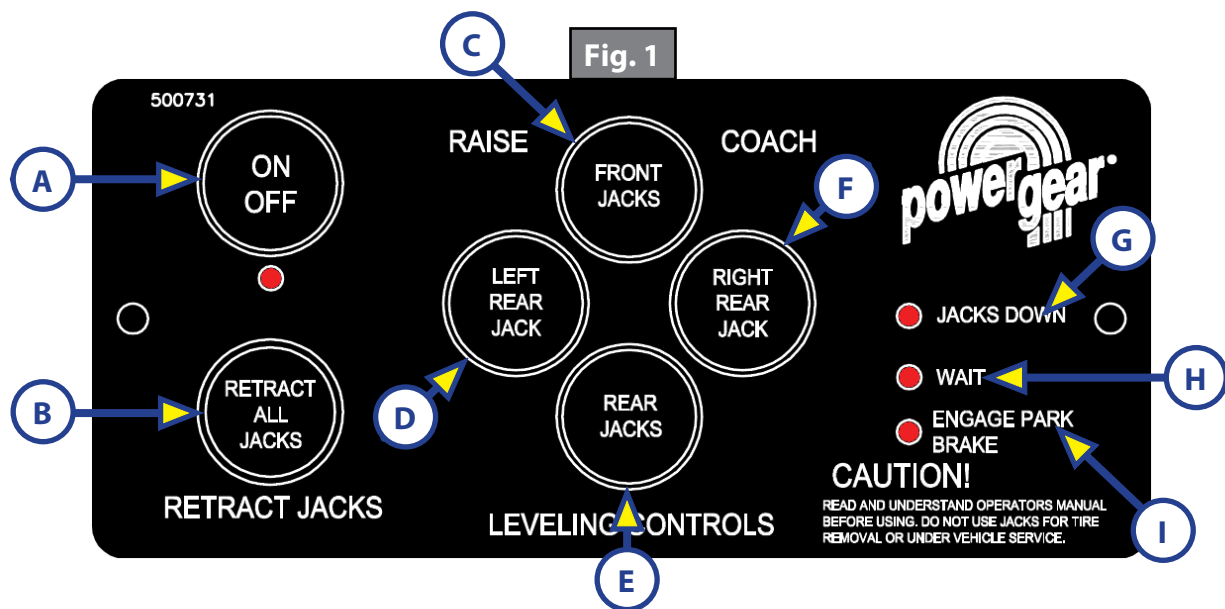
Leveling Procedures

1. Press the ON/OFF button (Fig. 1A) to turn on the system. The ON/OFF light will illuminate.
2. Check to see if the ENGAGE PARK BRAKE light (Fig. 1I) is not flashing. If light is flashing, engage the parking brake.
3. Check to see if the ON/OFF (Fig. 1A) and WAIT (Fig. 1H) lights are flashing. If both lights are flashing, put the coach into park or neutral for a diesel engine.

WARNING

Never lift wheels off the ground when leveling the coach. Lifting the wheels off the ground during leveling may result in death or serious personal injury, severe product and/or property damage.

4. Push the appropriate jack buttons to level the coach (Fig. 1C, Fig. 1D, Fig. 1E and Fig. 1F).
5. Push the ON/OFF button to turn off the system.



Callout	Description
A	ON/OFF - Turns leveling system on and off. The LED will be on if the system is operational. If flashing with the WAIT LED, it signals the coach transmission must be placed in park.
B	RETRACT JACKS - Retracts all jacks.
C	FRONT JACKS - Extends both front jacks.
D	LEFT REAR JACK - Extends left rear jack.
E	REAR JACKS - Extends both rear jacks.
F	RIGHT REAR JACK - Extends right rear jack.
G	JACKS DOWN - Illuminates when jacks are down.
H	WAIT - If flashing by itself, the control is busy and jacks cannot be operated. After 5 to 30 seconds, the WAIT LED will go off again and operation can be resumed.
I	ENGAGE PARK BRAKE - Flashes if parking brake is not engaged.

Jack Retract Procedures

NOTE: Coach ignition must be on.

1. Press the ON/OFF (Fig. 1A) button to turn on the system. The ON/OFF and JACKS DOWN (Fig. 1G) lights will be illuminated.
2. Push and release the RETRACT ALL JACKS button (Fig. 1B).

NOTE: All the jacks will retract and automatically return to the full retract position. As the jacks approach the full retract position the WAIT light (Fig. 1H) will flash for about 30 seconds. This is to ensure the jacks retract all the way. During this 30-second period, the control panel cannot be turned off. When the jacks return to the full retract position, the JACKS DOWN light (Fig. 1G) will turn off.

3. When the JACKS DOWN light (Fig. 1G) turns off, push the ON/OFF button (Fig. 1A) on the touchpad to turn off the system.
4. Visually inspect underneath the coach to verify all of the jacks are fully retracted.
5. The coach is ready for travel.

Troubleshooting

Automatic Safety Shutoff Feature

If the control panel is left on and inactive for four minutes, it will automatically shut off. To reset the system, the coach ignition must be turned off and then back on.

Drive Away Protection System

If the ignition is in the run position, the jacks are down and the operator takes the transmission out of neutral or park or releases the parking brake, the JACKS DOWN indicator (Fig. 1G) will flash and the alarm beeper will activate. The system will then automatically retract the jacks and continue until they are fully retracted. During this time the control panel cannot be turned off.

Troubleshooting Table

What Is Happening?	Why?	What Should Be Done?
System will not operate	Transmission not in park.	Put transmission in park.
	Coach not running.	Turn on coach ignition.
	Parking brake not engaged.	Engage parking brake.
Controller shuts off	Control inactive for four minutes.	Turn off coach ignition and then turn it on again.
Jacks will not operate, control panel will not shut off	System is busy.	Wait until WAIT light quits flashing. Then continue operations.

Maintenance



WARNING

The coach should be supported at both front and rear axles with jack stands before working underneath. Failure to do so may result in death or serious personal injury, severe product and/or property damage.

Fluid Recommendation

Automatic transmission fluid (ATF) with Dexron®III or Mercon®V or a blend of both is recommended by Lippert Components, Inc. For a list of approved fluid specifications, see [TI-188](#). To obtain this Technical Information sheet online, go to documents/ti-188-hydraulic-operation-fluid-recommendation. Look for TI-188: Hydraulic Operation Fluid Recommendation within the listings.

NOTE: In colder temperatures (less than 10° F) the jacks may extend and retract slowly due to the fluid’s molecular nature. For cold weather operation, fluid specially formulated for low temperatures may be desirable.

Preventative Maintenance

1. Check fluid level every month.
2. Inspect and clean hydraulic pump electrical connections every 12 months.
3. Remove dirt and road debris from jacks as needed.
4. Change fluid every 36 months.
 - A. Fill the reservoir with the jacks in the fully retracted position.
 - B. On coach models 1998 and after, the fluid should be filled to within 1/4" of the fill port lip and checked only with the jacks retracted.
 - C. On pre-1998 model year coaches, the fluid level should be filled to approximately 1/8" on the dipstick and checked only with the jacks retracted.
5. If jacks are down for extended periods, it is recommended to spray exposed chrome rods with a silicone lubricant every seven days for protection. If the coach is located in a salty environment, it is recommended to spray the rods every two to three days.



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For all concerns or questions, please contact
Lippert Components, Inc.

Ph: (574) 537-8900 | Web: lci1.com | Email: customerservice@lci1.com



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