

# BASIC OPERATION GUIDE

This guide provides basic operational instructions pertaining to the components, devices, or equipment that may be installed on your motorhome. Please refer to the component manufacturer owner's manual for safety, troubleshooting, maintenance, and more detailed operating information.



Made to fit.

## Hydraulic Leveling

COMPONENT MANUFACTURER: LCI  
(Lippert Components)

### BASIC OPERATION

#### **⚠ DANGER**

- FAILURE TO ACT IN ACCORDANCE WITH THE FOLLOWING INSTRUCTIONS MAY RESULT IN DEATH OR SEVERE INJURY.
- READ THE ENTIRE OPERATORS MANUAL AND ALL PRECAUTIONS PRIOR TO OPERATING THIS EQUIPMENT.
- DO NOT ATTEMPT TO OPERATE THE SYSTEM WHILE THE MOTORHOME IS IN MOTION. IF THE 'JACKS DOWN' ALARM SOUNDS WHILE DRIVING THE MOTORHOME, IMMEDIATELY FIND A SAFE PLACE TO PULL OVER AND STOP. SET THE PARKING BRAKE AND WHEN IT IS SAFE, INSPECT THE LEVELING SYSTEM.

#### **⚠ WARNING**

- DO NOT OPERATE ANY SYSTEM FUNCTIONS WHILE ANYONE IS UNDER THE MOTORHOME. IF WORK UNDERNEATH YOUR MOTORHOME IS REQUIRED, SUPPORT BOTH FRONT AND REAR AXLES WITH JACK STANDS. DO NOT RELY ON THE SUPPORT OF THE LEVELING SYSTEM! FAILURE TO DO SO MAY RESULT IN DEATH OR SEVERE INJURY.
- DO NOT USE THE LEVELING JACKS TO CHANGE TIRES. THE SYSTEM IS DESIGNED FOR LEVELING AND STABILIZING AND IS NOT MEANT TO LIFT THE WHEELS OFF THE GROUND! LIFTING THE WHEELS OFF THE GROUND MAY RESULT IN AN UNSTABLE VEHICLE CONDITION, WHICH MAY RESULT IN DEATH OR SEVERE INJURY.
- MAKE SURE THERE ARE NO OBSTRUCTIONS IN THE 'EXTEND' OR 'RETRACT' PATHS OF THE LEVELING JACKS. KEEP ALL PEOPLE AND PETS CLEAR OF THE MOTORHOME WHILE OPERATING THE LEVELING SYSTEM. ALWAYS VISUALLY CONFIRM THE JACKS HAVE FULLY RETRACTED BEFORE MOVING THE MOTORHOME. MOVING THE MOTORHOME WHILE THE JACKS ARE EXTENDED COULD CAUSE DAMAGE TO THE JACK SYSTEM AND THE MOTORHOME.
- NEVER EXPOSE HANDS OR OTHER PARTS OF THE BODY NEAR HYDRAULIC LEAKS. HIGH-PRESSURE OIL LEAKS MAY CUT AND/OR PENETRATE THE SKIN CAUSING SEVERE INJURY.

#### **⚠ WARNING**

- ALWAYS DISCONNECT TRAILERS OR TOWED VEHICLES FROM THE MOTORHOME'S HITCH BEFORE USING THE LEVELING SYSTEM.

#### **⚠ CAUTION**

OPERATE THE HYDRAULIC LEVELING SYSTEM ONLY UNDER THE FOLLOWING CONDITIONS:

- Be sure all persons, pets, and property are clear of your motorhome while operating the leveling system.
- If you are operating an automatic system with occupants inside the motorhome, they must stay seated during the leveling process. Shifting weight inside the motorhome can disrupt the leveling system's sensing mechanism, while motorhome movements could cause falls or personal injuries.

#### **⚠ CAUTION**

MOTORHOMES WITH AIR SUSPENSION:

Before lowering (dumping) the air suspension, always ensure that the front wheels are pointing straight-ahead. Damage due to contact of the front tires with wheel wells and body panels is possible.

#### **NOTICE**

- Your parking site may present surface irregularities that would require leveling distances beyond the deployment stroke of the leveling jacks.
- If one or more wheels remain off the ground after attempting to level the motorhome by automatic or manual leveling, it is likely that the motorhome will need to be moved to a more level location.
- Blocks may need to be placed under the jack pads to effectively increase their stroke length; however, blocks can be somewhat unstable.
- If possible, re-position the motorhome to a more flat and uniform parking area so that blocks are not needed.



**IMPORTANT—PLEASE READ:** This guide may include information for suggested customer purchased items, and component parts on some vehicles that may be optional or not available on your particular model. The inclusion of this information does not indicate or imply that the components or options were at any time available, or can be retrofitted to your vehicle, and is subject to change. If you, the purchaser, have any questions or concerns regarding this Basic Operation Guide, or information contained in the various individual appliance or component manufacturer's instructions, please contact your selling dealership or TMC Customer Care at (877) 855-2867 (EST-Indiana) for assistance. Component part and appliance manufacturers issue limited warranties covering portions of the vehicle not covered under the TMC Limited Warranty. Copyright Thor Motor Coach, Inc. © TMC 020019 Rev 221202.

**NOTICE**

- **Soft soils and surfaces may require the use of enlarged jack pads, boards, or other devices that increase the contact surface area of the jack pad.**
- **For the hydraulic leveling system to operate (extend or retract), the motorhome’s engine MUST be running with the gear selector in PARK and the parking brake must be ENGAGED.**
- **For DIESEL PUSHERS ONLY: the engine MUST be running, while the gear selector is in NEUTRAL and the parking brake is engaged.**
- **Always level the motorhome BEFORE extending slideout**
- **Always retract slideouts BEFORE retracting the hydraulic leveling jacks.**

The Hydraulic Leveling system installed on your motorhome consists of three main components:

- Electronic Control Panel and Control Unit
- Hydraulic Pump Unit
- Hydraulic Jacks

The Control Panel is conveniently located near the driver’s seat in Class A motorhomes. This control panel is often located near the entrance door or Monitor Panel on Class C motorhomes. The hydraulic pump is located in an outside service bay, usually on the driver’s side of the motorhome. The leveling system has been calibrated by the manufacturer and can be operated in Automatic or Manual Mode.

The leveling system installed on your motorhome is designed to provide safe and reliable vehicle leveling and stabilization. However, due to the functions of a leveling system, which consists of moving parts, high-pressure hoses, cylinders, and components under heavy load stresses, please observe all safety instructions listed here and in the manufacturer’s instruction manual.

The following instructions are general and apply to a range of leveling systems. Your leveling system control panel may look different than what is illustrated here but will function similarly. For more detailed operating and maintenance information, refer to the manufacturer’s instruction manual included with your TMC Owner’s Packet and on-line TMC Owners Resource service.

**To Extend:**

1. Park the motorhome on a reasonably level surface.
2. If towing a trailer or vehicle, disconnect it from the motorhome’s hitch and chock trailer or towed vehicle’s wheels.
3. Engage the motorhome’s PARKING BRAKE.
4. Start the motorhome’s engine and place the motorhome’s transmission in:
  - a. NEUTRAL for rear mount diesel engine vehicles.
  - b. PARK for Class A and Class C front engine gas or diesel motorhomes.



Typical Leveling Control Panels (above), which may contain an LCD read-out. Hydraulic pump assembly (below)



Air suspension control lever

5. Turn ON the master battery disconnect switch.
6. Turn OFF all unnecessary electrical devices. Doing this while keeping the motorhome's engine running will help ensure the hydraulic pump motor has adequate electrical power.
7. FOR DIESEL PUSHERS WITH AIR SUSPENSION: Slide the air suspension lever to the LOWER position, thus lowering the motorhome's suspension. Proceed with leveling only after the motorhome is completely lowered.  

NOTE: Ensure front wheels are pointed straight-ahead; otherwise, tires could contact wheel arches.
8. Push ON/OFF button on Control Panel. The system is now operational and the electronic level lights will become active.
9. Push the AUTO LEVEL button to begin the automatic leveling cycle. The system will automatically level your vehicle. The control panel will send out a series of beeps to let you know that AUTO-LEVEL is operating. When completed, the panel will signal a 'Successful Auto Level.' After ten minutes, the panel will enter sleep mode.  

NOTE: Some panels indicate 'Successful Leveling' by illuminating a green light located in the center of the four jack buttons.
10. Push ON/OFF button to de-energize the system and turn OFF the motorhome's engine, keeping the parking brake engaged.
11. Inspect each tire of the motorhome to ensure they are NOT lifted off the ground. IF AUTOMATIC LEVELING CAUSES ONE OR MORE TIRES TO BE OFF THE GROUND, ALL THE JACKS MUST BE RETRACTED AND LEVELING MUST BE PERFORMED MANUALLY.

### NOTES:

- When parked on soft surfaces, the use of jack pads is recommended. Jack pads can be easily made from 3/4-inch-thick plywood, cut into 12 to 16-inch squares or circles. Do not place or retrieve jack pads while the jack rams are in motion.
- As the system is leveling the motorhome, you may experience a certain amount of motorhome movement; up and down, and side-to-side. This movement is normal as the system automatically adjusts the hydraulic jack rams.
- During the automatic leveling cycle, it is very important that you and passengers do not move around in the motorhome until the unit is level and either the LCD display indicates "Successful Leveling" or the green LCI logo light illuminates in the center of the touchpad. Failure to remain still during the leveling cycle could influence the leveling performance of the system.

### To Retract:

#### **⚠ CAUTION**

##### **BEFORE RETRACTING THE LEVELING JACKS:**

- **Ensure that all slideout rooms are fully retracted BEFORE retracting leveling jacks.**
  - **Ensure all people and pets remain clear of the jacks and from underneath the motorhome.**
  - **Remove any equipment or items that may have been stored underneath the motorhome.**
  - **Always visually confirm that the jacks have fully retracted before moving the motorhome.**
1. Ensure the motorhome's gear selector is in PARK and the parking brake is ENGAGED.  
For Class A Diesel Pushers ONLY: the motorhome's gear selector must be in NEUTRAL and the parking brake must be ENGAGED.
  2. START the motorhome's engine and keep it running while operating the leveling system.
  3. Turn ON the master battery disconnect switch.
  4. Energize the system by pushing ON/OFF button on the control panel. The LED or LCD screen will display JACKS DOWN.
  5. Push the RETRACT button and the jacks will automatically retract. If your controller has an LCD screen, select AUTO RETRACT by pressing the up and down buttons, then press ENTER.
  6. When the JACKS DOWN display or LED goes off, the jacks are fully retracted. Push the ON/OFF button on the Control Panel to de-energize the system.
  7. Perform a visual inspection around the motorhome to verify the jacks are fully retracted.
  8. FOR DIESEL PUSHERS WITH AIR SUSPENSION: Return the Air Suspension Lever to the AUTOMATIC position.

If you wish to stop the jacks from retracting, turn the system off and back on again by pushing the ON/OFF button twice.

To retract in MANUAL Mode, push the RETRACT button until it lights. By pushing any of the JACK buttons, the jacks will retract in pairs, i.e., FRONT, REAR, LEFT, RIGHT.

### Manual Leveling with Hydraulic Jacks

You may encounter conditions where automatic leveling of the motorhome cannot be accomplished. If possible, retract the jacks and re-position the motorhome to a more level parking area. If that is not possible or feasible, you may attempt to level the motorhome manually by deploying the jack rams in pairs.

**NOTE:** Jacks always operate in pairs, i.e., Right Pair, Left Pair, Front Pair, Rear Pair. Pushing the corresponding control button operates both jacks.

1. Follow all hydraulic leveling system safety precautions before and during operation of the leveling system.
2. Start the motorhome's engine, ensuring the parking brake is engaged and the transmission is in:
  - a. NEUTRAL for Class A Diesel Pushers;
  - b. PARK for Class A and Class C front engine gas or diesel motorhomes.
3. Press the ON button on the Leveling Jacks Control Panel.
4. Press either the FRONT or REAR button on the Control Panel. Depending on which switch is pushed, either the front or rear pair of jack rams will deploy. Release the switch when the jacks contact the ground (you should feel the motorhome slightly rise).
5. Press the opposite switch and hold until the motorhome rises slightly. Watch the control panel for an indication that the motorhome is level front-to-back.
6. Press either the LEFT or RIGHT button on the Control Panel (this will move the left or right-side pair of jack rams). Watch the control panel to determine if the controller can sense that the motorhome is level left-to-right.
7. If needed, press the opposite side switch while watching the control panel for an indication that the motorhome is level left-to-right.
8. Repeat this process, FRONT-to-BACK and LEFT-to-RIGHT until the controller indicates the motorhome is level.
9. Turn OFF the Leveling Jack Control Panel; turn off the motorhome's engine, while keeping the parking brake engaged.

**IMPORTANT:** never completely lift a wheel or wheels off the ground with the leveling jacks. This creates an unstable situation. You may need to manually adjust the jacks or re-position the motorhome so that all wheels remain in contact with the ground.

### Zero Point Calibration

Your hydraulic leveling system was calibrated at the factory with an unloaded vehicle. This is known as Zero-point calibration and is the point where the system will return the jacks when an auto-leveling cycle is initiated.

Vehicle loading and other factors can make it necessary to re-calibrate the Zero-point. Refer to the manufacturer's operation guide for further information regarding calibration and maintenance procedures.

### Troubleshooting

If Auto-leveling is not operating correctly:

- Make sure the main battery disconnect switch is ON.
- Make sure there is adequate power to the leveling system. Are the auxiliary batteries charged? Is the parking brake engaged? Transmission correctly set? Engine Running?
- The Leveling Jacks Control Panel may have timed-out. Turn engine ignition Off, then back ON.
- Check the circuit breaker to the hydraulic pump (usually located near auxiliary battery). Reset if tripped.
- Check the hydraulic fluid reservoir. If low, refill to proper level; do not overfill. Use Dextron III or Phillips 66 Super ATF (automatic transmission fluid) only.

**NOTE:** Complete manufacturer's instructions regarding the operation, maintenance and system diagnostics of the hydraulic leveling system installed on your motorhome are available through your on-line TMC Owners Resource account:

<https://www.thormotorcoach.com/owners>