



Master Owner's Manual

LEVELING & STABILIZATION

PART I

The Master Owner's Manual is intended to provide information on Lippert's most widely used products. Products described in the Master Owner's Manual may not be on every trailer. The trailer may also have products not included in this manual. All manual information is subject to change without notice. Revised editions will be available for free download at lippert.com/support. Manual information is considered factual until made obsolete by a revised version. Manual information may be distributed as a complete document only, unless Lippert provides explicit consent to distribute individual parts.

User's Note

The Table of Contents is interactive. Click on the title to navigate to the first page of the manual. In the top right corner see "**RETURN to TOC**" that will return you to the Table of Contents.

TABLE OF CONTENTS

Auto Level Pro

Auto Level Pro System Owner's Manual

Electric Leveling

Ground Control 2.0 Owner's Manual

Ice House w/LCD Touchpad Owner's Manual

Ground Control 3.0 (5th Wheel) 4 Point or 6 Point Owner's Manual

Ground Control (5th Wheel) 4 Point and 6 Point OneControl Touch Panel Owner's Manual

Ground Control TT Leveling with OneControl Touch Panel Owner's Manual

Ground Control TT Leveling System with LCD Touch Pad Owner's Manual

Ground Control TT Lite MS Owner's Manual



AUTO LEVEL PRO™ SYSTEM OWNER'S MANUAL

TABLE OF CONTENTS

Introduction	3
Safety	4
Preparation	5
Touchscreen	5
Touchscreen Operation	5
Screens	5
Features Unique to Electric Jack Leveling Systems	6
Auto-Ground	6
Rehome	6
Retract Rear	6
Jack Extension Length Display	6
Personalization	7
Operation	7
Electric Landing Gear	7
Landing Gear	7
All Jacks	7
Unhitching	8
Auto Leveling Sequence	8
Hitch Recognition	9
Options	9
Current Level	9
Setpoints	10
Jack Lights	10
Modes	11
Light Controls	11
Dark Theme	12
Phone Pairing	12
Mobile App and OneControl Touch Panel Operation	13
Returning to the OneControl Mobile App Main Menu	13
Device Troubleshooting	14
Pin Access	14
Errors and Faults	14
Mobile Interface Features	15
Fault Mode	16
Over-the-Air Updates (OTA)	16
Requirements for updating	16
Locating Revision Levels	16
Preparing to Update	17
Performing the Update	17
OTA Troubleshooting	18
Potential Issues	18
Troubleshooting	19
Preventive Maintenance	21
Wiring Diagram (Electric Leveling System)	22
Wiring Diagram (Hydraulic Leveling System)	23
Notes	24

Introduction

Please read and study the operating manual before operating the leveling system. The Auto Level Pro™ 5th Wheel Leveling Controller and Touchscreen is a 5th Wheel Leveling controller system for use with Lippert leveling jacks. The system uses one main control board and a separate waterproof remote level sensor to measure and manage level point.

Additional information about this product can be obtained from [lci1.com/support](https://support.lci1.com/support) or by downloading the free LippertNOW app. The app is available on Apple App Store® for iPhone® and iPad® and also on Google Play™ for Android™ users.

Apple App Store®, 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/auto-level-pro>

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

Read and understand all instructions before installing or operating this product. Adhere to all safety labels.

This manual provides general instructions. Many variables can change the circumstances of the instructions, i.e., 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 Lippert limited warranty.

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.

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.

WARNING

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

WARNING

The 5th Wheel MUST be supported per manufacturer's recommendations before working underneath. Any attempts to change the tires, or perform other service, while 5th Wheel is supported solely by the leveling system could result in death or serious personal injury, severe product and/or property damage.

CAUTION

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

Preparation

Operate the leveling system only under the following conditions:

1. The trailer is parked on a reasonably level surface.
2. Make sure all persons, pets, and property are clear of the trailer while the leveling system is in operation.
3. Make sure the battery of the trailer is fully charged or that the trailer is plugged into shore power before attempting to operate the system. The automatic leveling system requires a minimum of 12V DC for proper operation.

Touchscreen

Touchscreen Operation

- To open the touchscreen, place a finger underneath the latch (Fig. 1) and pull outwards. The door will unlatch.
- To close the touchscreen, close the door and press the latch toward the housing. The latch will snap closed.

NOTE: Failure to close the touchscreen door could result in damage to the screen while driving or during inclement weather.

Fig. 1



Screens

The primary features are shown on three different screens: The Arrival Screen (Fig. 2), the Camping Screen (Fig. 3), and the Departure Screen (Fig. 4). For convenience, only the controls primarily used during each phase of camping are shown. To prevent accidental operation, certain controls are grayed-out while other controls are in use.

Fig. 2

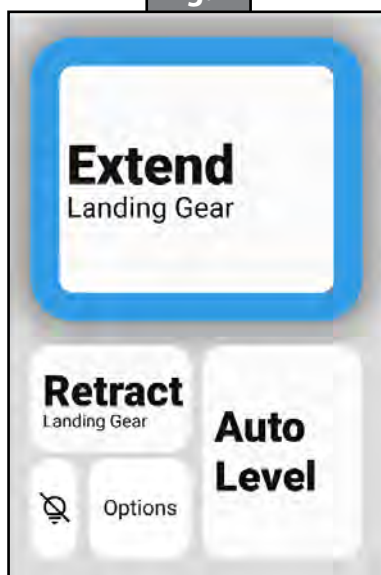


Fig. 3

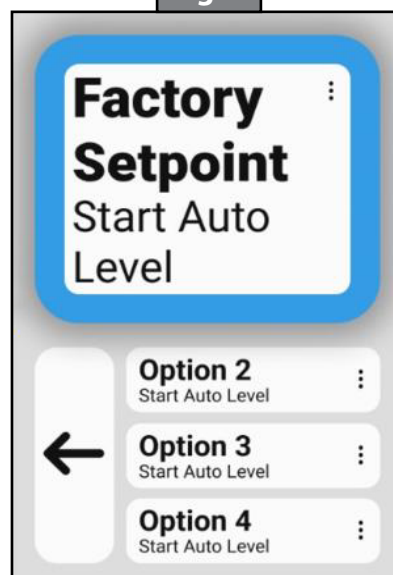


Fig. 4



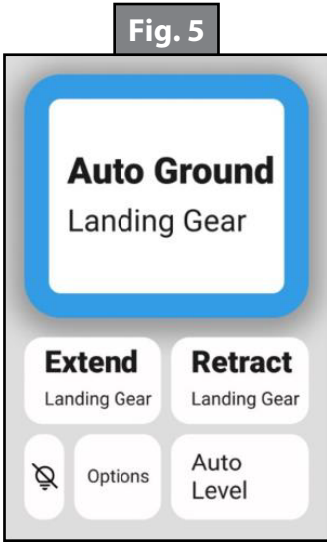
Features Unique to Electric Jack Leveling Systems

Auto-Ground

Electric-jack leveling systems can automatically ground the landing gear before unhitching. When the Auto-Ground button is pressed, the front jacks will lower to the ground without the user needing to hold the button. The jacks will automatically stop when they make ground contact. Auto-grounding will not lift the RV off the hitch. The Auto-Ground Landing Gear feature only appears on the arrival screen of Electric Jack Leveling systems (Fig. 5).



The Rehome feature fully retracts all leveling jacks. Rehitch and remove any items from under the RV before rehomeing.



Rehome

Electric jack systems have a Rehome feature. This feature is found in the Settings menu under Modes (Fig. 6A). This feature returns the jacks to the fully retracted position, then recalibrates the controller to recognize the position of the jacks as fully retracted.

Retract Rear

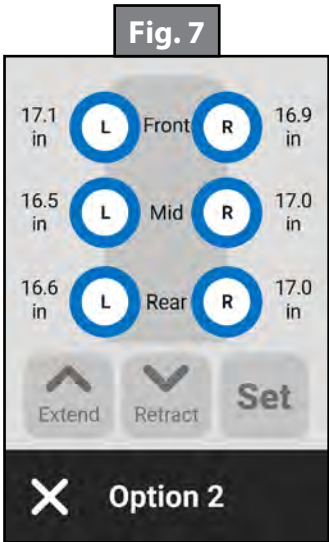
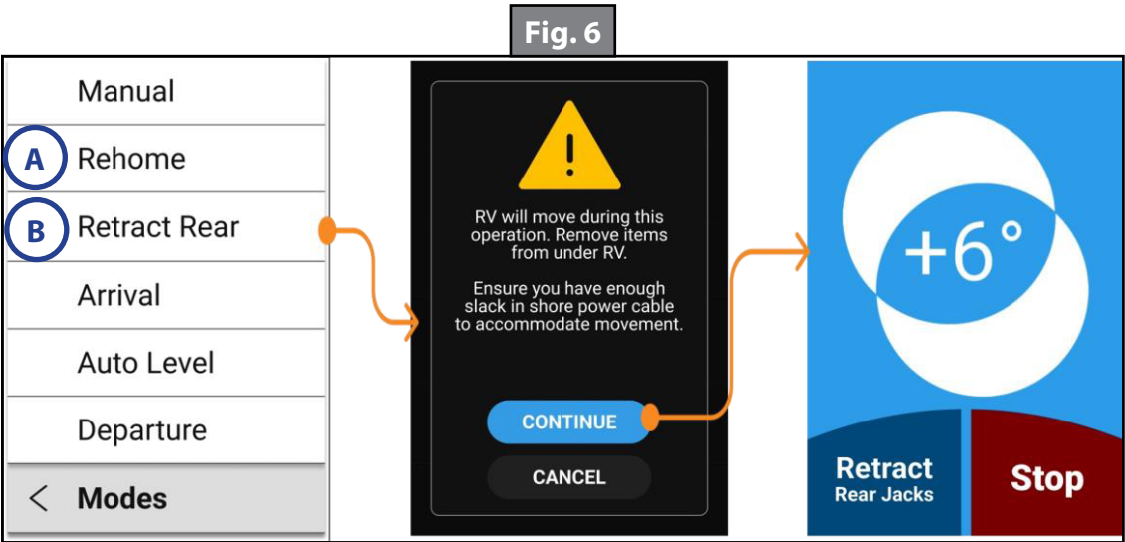
Electric jack systems have the Retract Rear feature. This feature is found in the Settings menu under Modes (Fig. 6B).

NOTE: This feature will retract the rear and middle jacks without retracting the landing gear. Remove items from under the RV.

Jack Extension Length Display

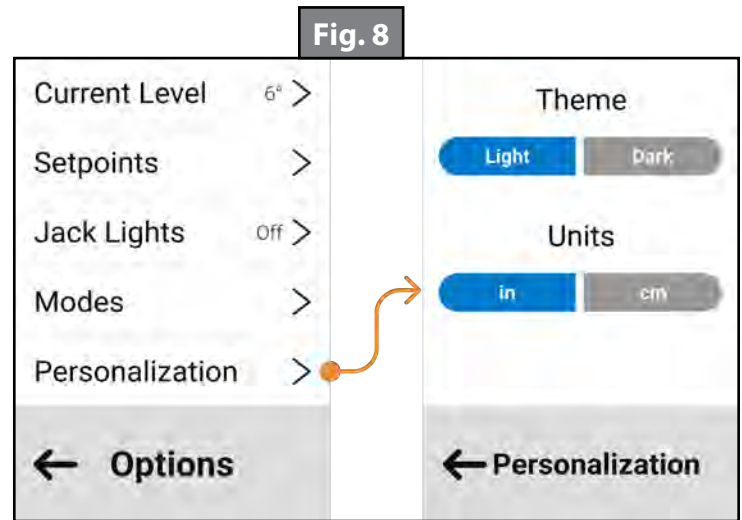
The Auto Level Pro™ detects the electronically controlled travel of the jacks. When using manual mode, the touchscreen displays the extended length of the jacks (Fig. 7).

NOTE: This feature detects only the electronically controlled travel of the jacks. It will not detect whether the jacks' inner drop legs (if equipped) have been extended or stowed. This feature will not detect jack travel caused by a manual override of the leveling controller. If the controller is overridden, the system must be rehomed in order to display accurate jack extension length.



Personalization

On electric jack systems, the theme and units can be changed from the Personalization menu. (Fig. 8). On mobile devices, the unit selection occurs automatically based on location data.



Operation

Electric Landing Gear

- Before operation of electric landing gear, extend the inner legs of both landing gear (front jacks) to within 4" - 5" of the ground by pulling on the quick release pins.

Landing Gear

1. Landing gear can be operated any time the system is on, but not in Auto Level mode. From the Arrival Screen, press and hold the Extend button (Fig. 9) to extend the landing gear.

NOTE: The Retract button will be grayed out until the landing gear have extended.

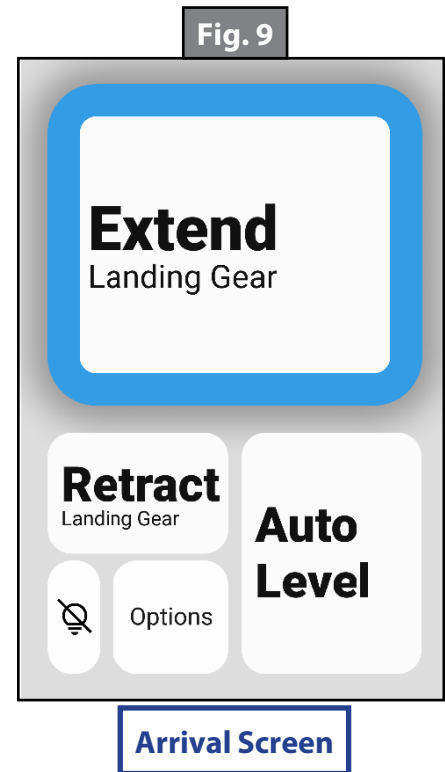
2. Press and hold the Retract button to retract the landing gear.

All Jacks

1. All jacks operate when the system is performing an automatic operation such as Auto Level, Return to Hitch Height, or Retract All.
2. In Manual mode, the corner jacks can be operated independently or in pairs. Middle jacks operate in unison with the same-side rear jack.

NOTE: The default is Auto Level. Manual mode can be selected through the Options menu.

3. In Fault Mode, all jacks can be operated independently. Fault Mode is only available when a fault is active.

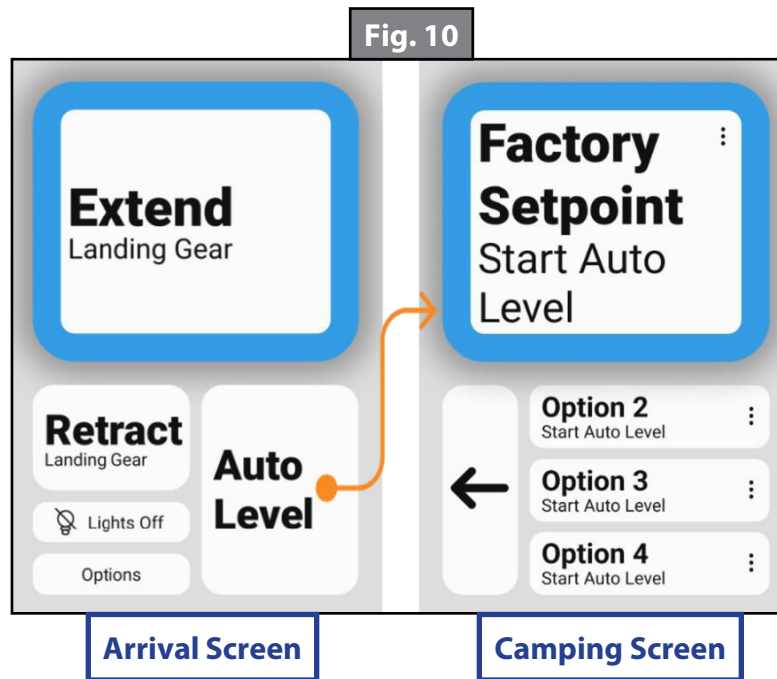


Unhitching

Unhitching is done from the Arrival Screen (Fig. 10).

1. Tap the screen to turn the system on.
2. Press Extend Landing Gear to extend the landing gear jacks to lift the front and take the weight of the trailer off the hitch.
3. Uncouple the 5th wheel connection on the tow vehicle.
4. Pull the tow vehicle away and park it at a safe distance.

NOTE: To use the Return Hitch Height function later, make sure the front of the RV is above level before pressing the Auto Level button.



Auto Leveling Sequence

NOTE: Before unhitching from the tow vehicle, make sure the trailer is parked on a reasonably level surface and the wheels are chocked.

1. After unhitching from tow vehicle, if still on the Arrival Screen, press Auto Level (Fig. 10).

NOTE: Pressing any button or the screen during an Auto Level sequence will cancel the auto leveling cycle.

NOTE: For the hitch recognition feature to work, the auto level sequence must be started with the front of the trailer above level.

2. On the Camping screen, press Factory Setpoint/Start Auto Level. To use a custom setpoint instead, press Option 2, 3, or 4 and then Start Auto Level.
3. The front landing gear will retract, lowering the front of the unit below level, stopping, then lifting the front end to level the unit front-to-back.
4. The left side leveling jacks will extend and raise the road side of the unit.
5. The right side leveling jacks will extend and raise the curb side of the unit, beginning side-to-side leveling.
6. The front landing gear will extend to complete the leveling sequence.
7. Additional left-to-right or front-to-back leveling may occur if necessary.

NOTE: If the auto level sequence does not happen as stated above, check to ensure proper manual function in all zones.

Hitch Recognition

- 1. Tap the screen to turn on touchpad.
- 2. Press Return Hitch Height (Fig. 11).
- 3. The front of the trailer will raise to the height where the auto level sequence was started.

NOTE: If the auto level sequence was started with the front of the trailer in a below-level condition, the hitch recognition will not function. For hitch recognition to function, the auto level sequence must be started with the front of the trailer above level.

- 4. Use the Extend Landing Gear and Retract Landing Gear buttons to put the weight of the RV onto the tow vehicle.
- 5. Connect tow vehicle and make sure 5th Wheel and hitch are connected and locked.
- 6. Press Retract All to automatically retract all the jacks.

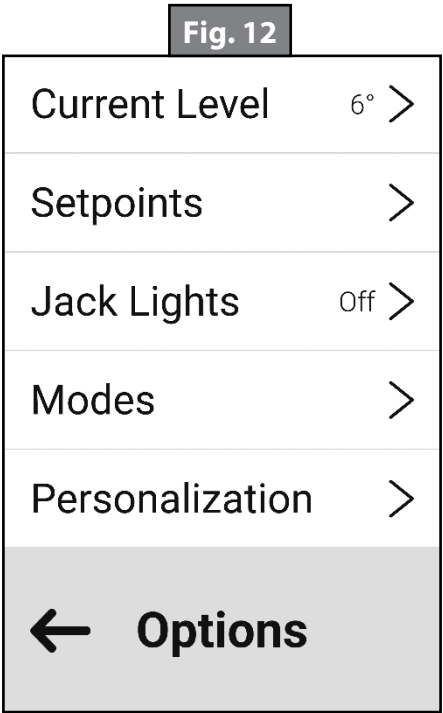
NOTE: You can stop the automatic Retract All sequence at any time by pressing the screen.

Options

This is where various leveling system options can be viewed or changed (Fig. 12).

Current Level

This displays the current angle sensed by the controller, relative to the current setpoint (Fig. 13). If no setpoint is selected, it displays the current angle relative to the factory setpoint.



Setpoints

This is where the setpoints can be calibrated to custom positions. Custom names can be set for setpoints in this same section using the OneControl™ Mobile App.

NOTE: Custom setpoint names were added to the production units in January 2024. For prior units, an over-the-air update may be available. See the Over-the-Air Update (OTA) section to learn how to check whether an update is available and how to perform an OTA.

Custom setpoints may be used to create a small tilt in your RV to allow the rain to run off in a preferred direction, to create a large tilt to assist with draining tanks, or for any other reason.

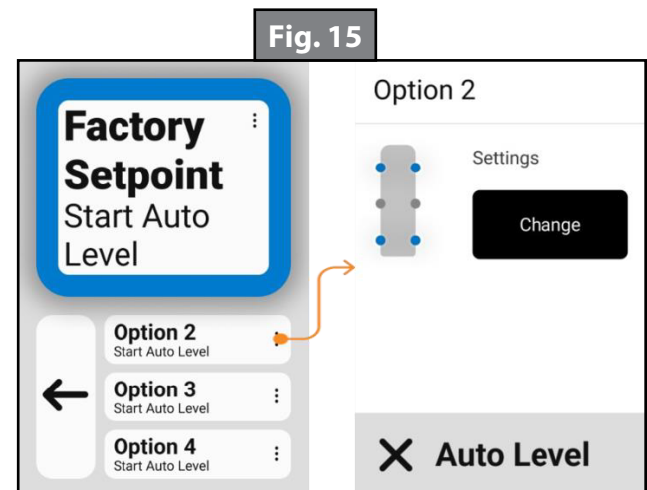
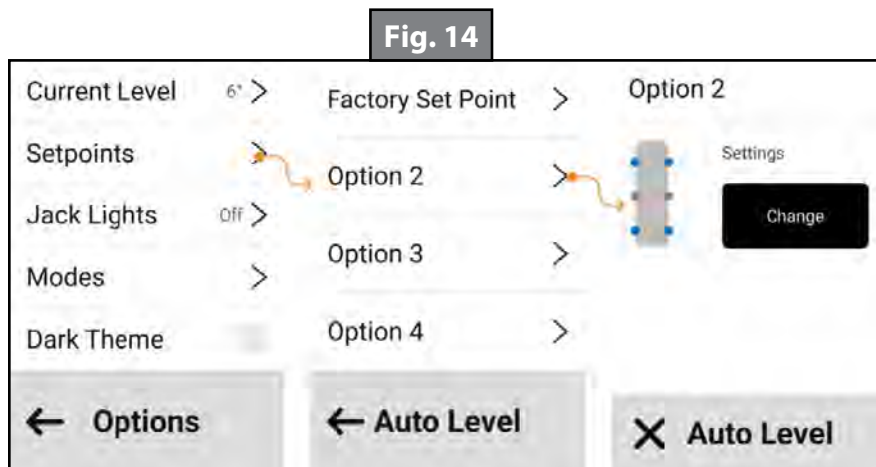
NOTE: The RV will not allow you to exceed an angle of 5° from front-to-rear, or an angle of 1.5° from side to side.

To enter custom setpoints:

1. Enter Setpoint Calibration Mode. This can be done in the Options menu by selecting Setpoints and then selecting the setpoint you wish to adjust, or from the Camping Screen by tapping the upper right corner of the Option 2, 3, or 4 buttons (Fig. 14).

NOTE: The factory setpoint can be adjusted as well. The large Start Auto Level button on the Camping Screen will automatically level the vehicle to the factory setpoint. In Setpoint Calibration Mode, select Factory Set Point and adjust the position of the RV. (Fig. 14)

2. Once the desired position is achieved, press Set to record the new setpoint position.



To achieve a level RV, it is best to place a bubble level in the center of the trailer in the front-to-back position and adjust the front and rear jacks in pairs until level first. Then, turn the level to the side-to-side position and adjust the position of the left and right jacks in pairs until level. Then confirm level in the front-to-back position again.

NOTE: When changing to a new setpoint after initial arrival setpoint, the initial hitch height will be retained. When switching from one setpoint to another, the rear jacks will fully retract and redeploy. Remove items from under the RV and ensure there is enough slack in the shore power cable to accommodate movement.

Jack Lights

When jack lights are present, the user can adjust the brightness and sleep timer. The lights will turn on during auto-operations, and will turn off automatically, unless they had been manually turned on prior to the auto-operation.

NOTE: This option will not be present if there are no jack lights.

Modes

The Modes menu is where users can access various control modes for their RV, and find shortcuts to the three main screens. The Modes menu can be accessed from the Options menu.

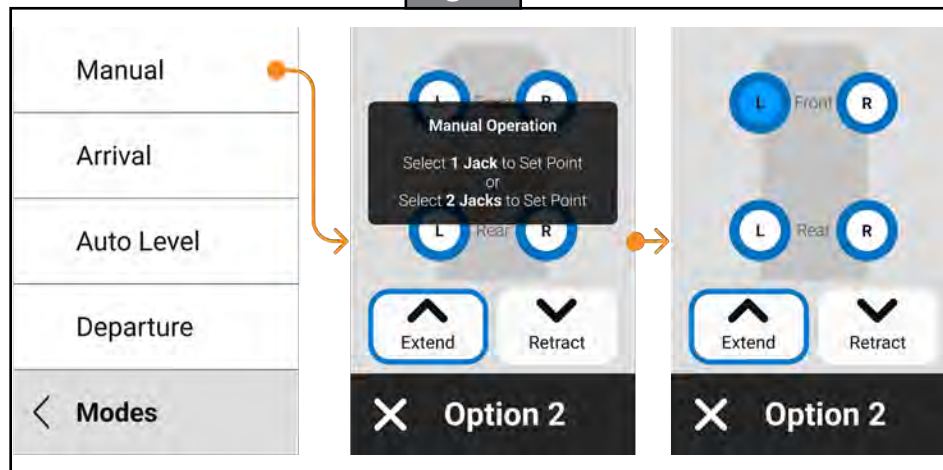
- Manual Mode (Fig. 16) allows for the corner jacks to be operated independently or in pairs. Middle jacks operate in unison with the same-side rear jack. To enter Manual Mode:

- To enter Manual Mode, press Options, then Modes, and select Manual.
- Select one or two jacks to control.

NOTE: Only adjacent corners can be selected.

- Press Extend or Retract.
- Press the X to exit from Manual Mode.

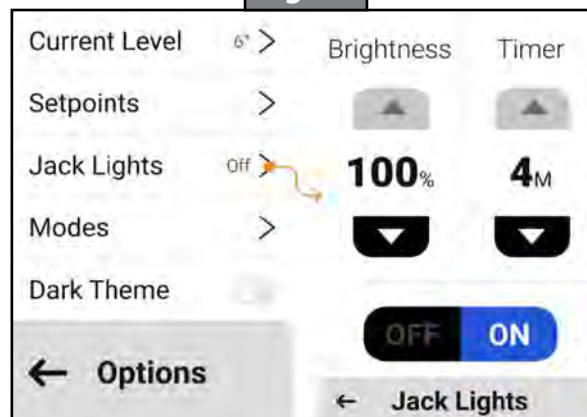
Fig.16



Light Controls

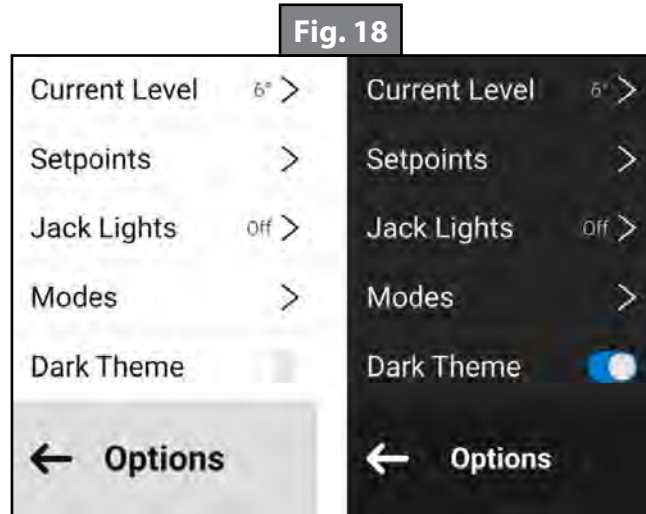
- Press the Lights On/Off button on any screen to toggle the lights on and off (Fig. 17).
- To adjust the brightness of the lights, or to adjust the auto-off timer, enter the Options menu and select Jack Lights.
- If the lights were off, the lights will automatically turn on to the selected brightness when adjusting the brightness. They will quickly turn off after the adjustment has been made, unless they are manually turned on.
- The auto-off timer will automatically turn your lights off after the selected period of time. The timer will restart after the lights have been turned on, whether manually, or automatically during auto-operations.

Fig. 17



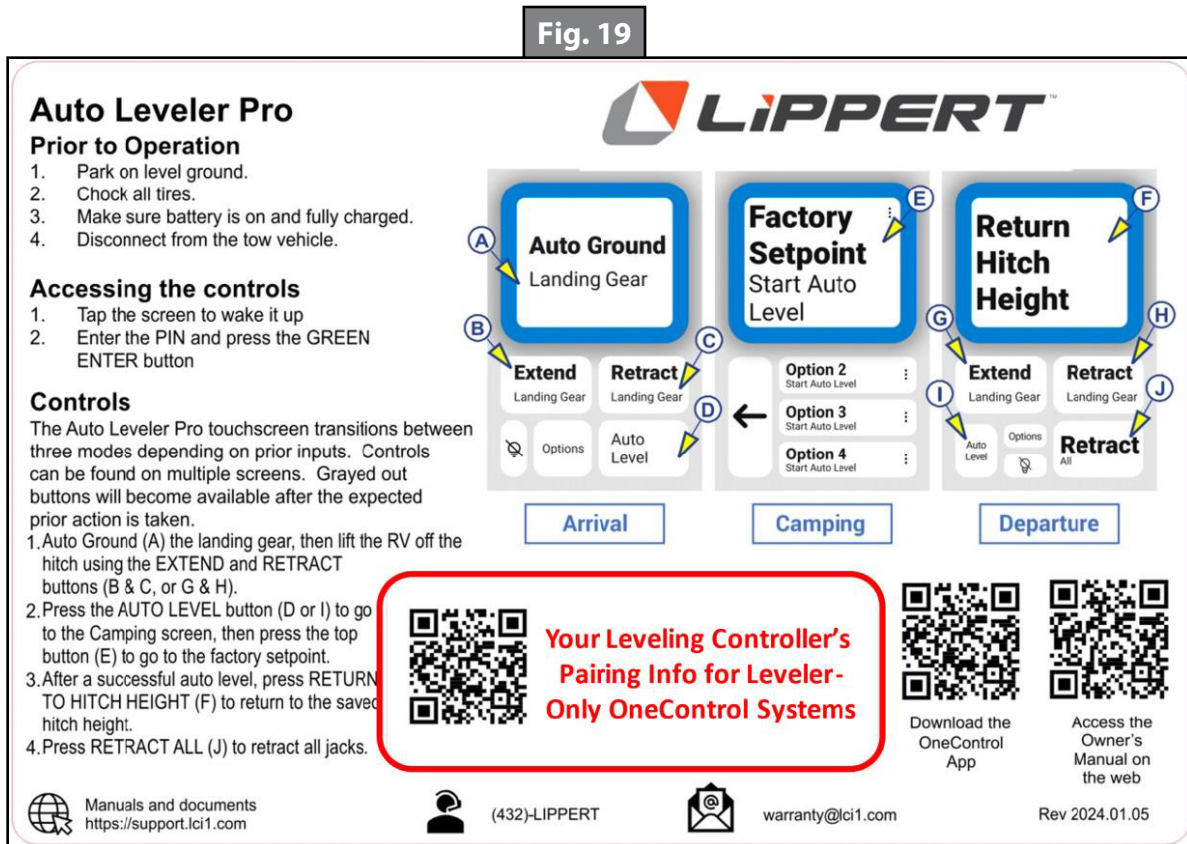
Dark Theme

- You can change the look of the controls by toggling between dark theme and light theme. To do this, press the toggle switch. (Fig. 18)



Phone Pairing

- If your RV came equipped with OneControl, your leveler will be present in the OneControl system. Simply pair your phone to your RV and it will appear under the Leveling heading.
- For Leveling-only OneControl™ Systems, you can pair your phone directly to the leveler inside the OneControl app. Your leveler's pairing information can be found on the door label (Fig. 19).



To pair to a phone, locate the leveler's pairing code. The pairing code will likely be located on documentation supplied with your RV. If not, it is located on the leveling controller. Your leveling controller is likely located in the basement or pass-through.

1. Open the app and select the Plus icon in the upper right.
2. Select Search for Devices.
3. Select your Titan leveling controller.
4. Enter the Pairing Code.

You should now see leveling controls in your OneControl Mobile App.

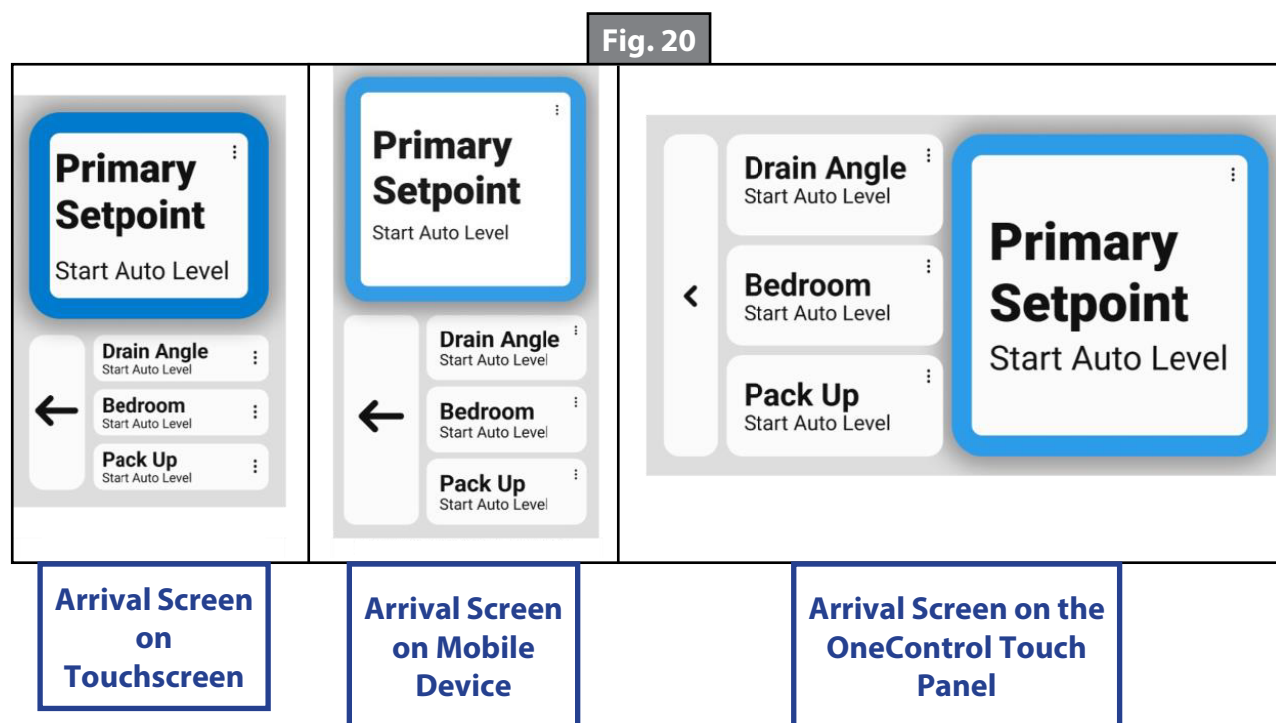
Mobile App and OneControl Touch Panel Operation

The Auto Level Pro™ System can also be operated by the OneControl™ mobile app and OneControl™ Touch Panel. These interfaces are designed to match the touchscreen interface as much as possible, but do vary slightly.

The OneControl™ Touch Panel has a landscape layout. The buttons have been arranged to resemble the portrait mode layout.

Returning to the OneControl Mobile App Main Menu

The Arrival, Camping, and Departure screens include a back arrow for returning to the main menu of the OneControl Mobile App. (Fig. 20)



- (Electric jack systems only) The mobile app will display the extended length of the jacks in inches or centimeters (Fig. 20).



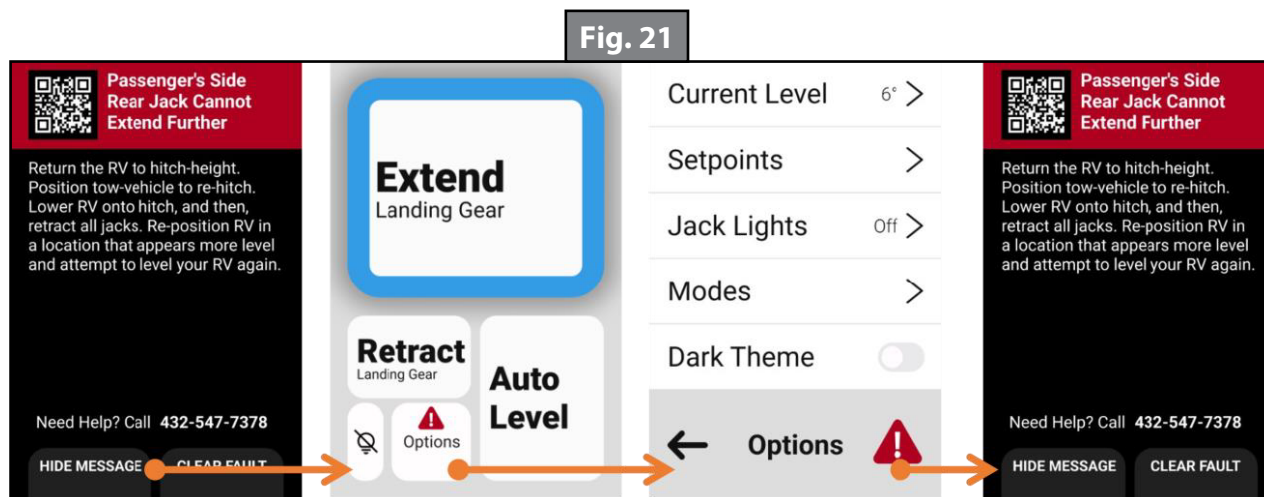
Device Troubleshooting

Pin Access

- The keypad PIN required to access the touchscreen is 5241.

Errors and Faults

- When the leveling controller detects an error, it will be presented to the user on the screen, along with some instructions for troubleshooting when appropriate. (Fig. 21)



- Most faults will clear automatically when the fault condition no longer exists.

NOTE: Manual control of the middle jacks is only available in Fault Mode, when a fault is present.

- To hide the message while troubleshooting, press HIDE MESSAGE. You can view the message at any time by pressing the caution icon in the Options Screen. A caution icon will appear next to options button on the main screens until the fault is cleared.
- To manually clear the fault, press Clear Fault.

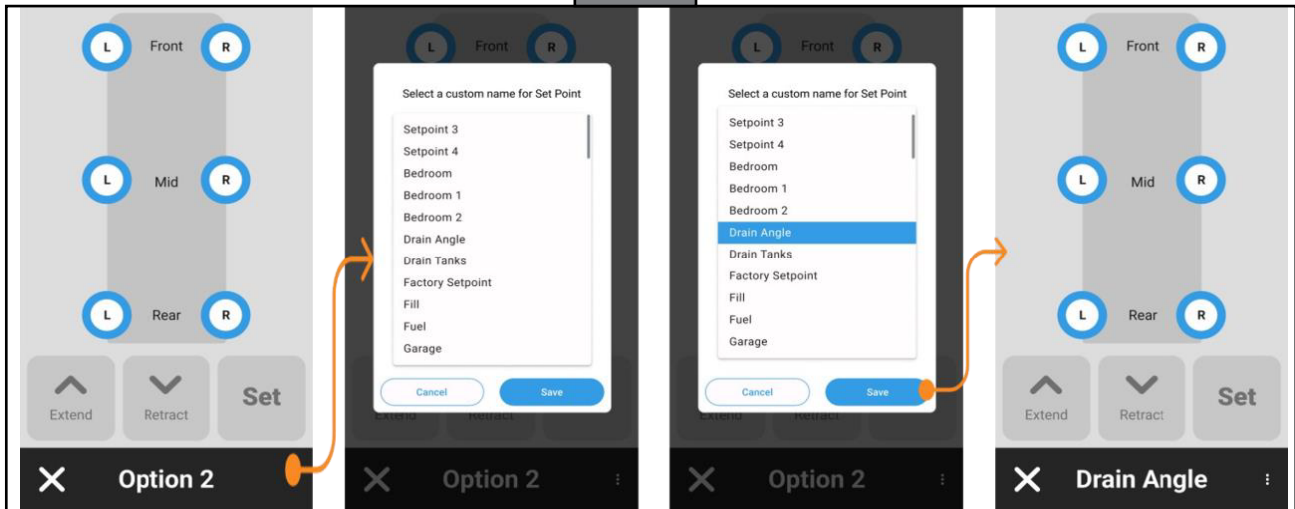
NOTE: Some faults will remain until the fault condition no longer exists.

Mobile Interface Features

NOTE: These features are available on newer versions of the leveling system. If your RV did not come with these features, check the software updates section of the OneControl Mobile App to see if an Over-the-Air update is available for your leveling system.

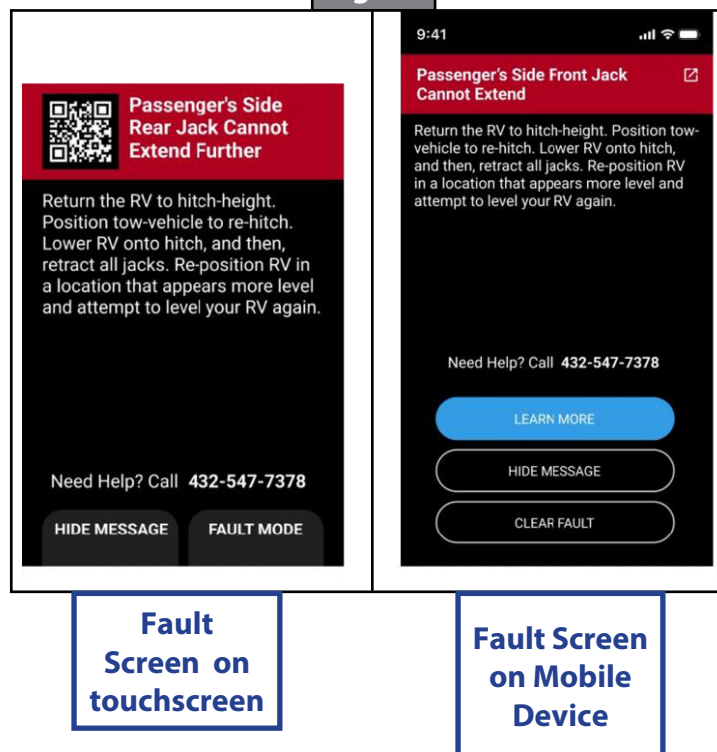
- The mobile interface allows the user to set custom setpoint names (Fig. 21). Once selected, the custom names will appear on the Auto Level Pro™ touchscreen and OneControl touch panel. To set a custom name:
 1. Enter the Setpoints settings of the Options menu.
 2. Select the setpoint you want to change, then tap the three vertical dots next to it.
 3. Select the name you would like to use, then tap Save. The new name will appear across all devices and interfaces.

Fig. 21



- On the mobile interface, links replace QR codes on fault screens (fig. 22).

Fig. 22

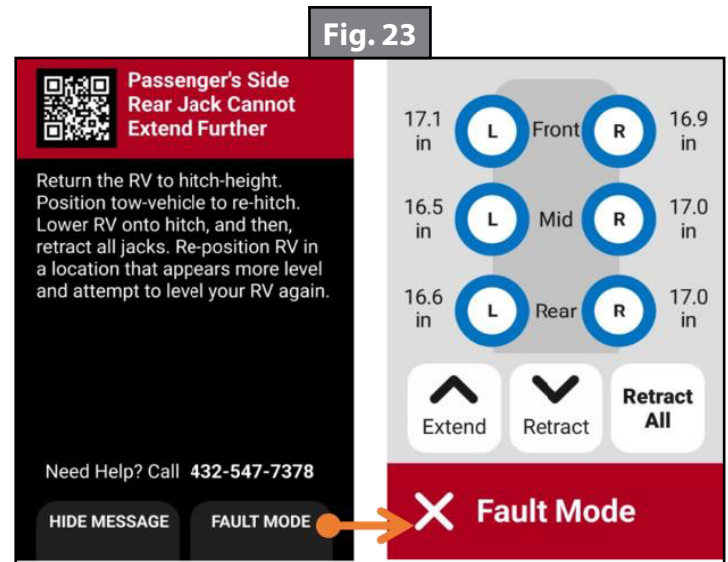


Fault
Screen on
touchscreen

Fault Screen
on Mobile
Device

Fault Mode

Normally, the leveling controller automatically adjusts the middle jacks to support the RV when other jacks are adjusted. For certain faults, it may be necessary to manually manipulate the middle jacks independently of the rear jacks. When this occurs, the controller enters Fault Mode. When in this mode, Fault Mode is displayed prominently in the manual mode screen. (Fig. 23) You can enter manual mode directly from the fault screen by pressing the FAULT MODE button.



Over-the-Air Updates (OTA)

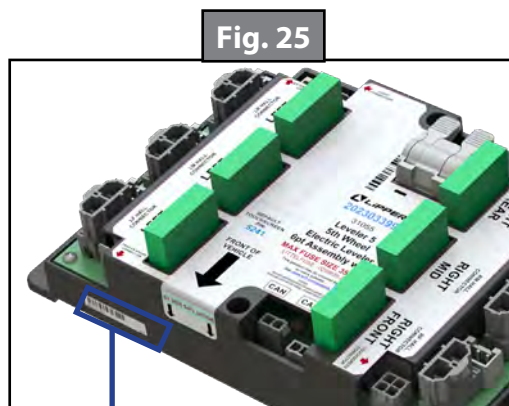
When new features are available for older versions of the leveling system, the Auto Level Pro™ is updateable with a mobile device with the latest version of the OneControl™ Mobile App. This allows users who purchased a system prior to product updates to receive the same features as new users.

Requirements for updating

- OneControl Mobile App, CompassConnect App, or Lippert Connect App Version 5.6 or later.
- A compatible controller and touchscreen of revision F or later.
- A data connection on the mobile device.
- The touchscreen and controller must remain powered on during the entire update.
- The OneControl app must remain open during the entire update.

Locating Revision Levels

The revision is located on the serial number label. It is a smaller label, placed on the side of the controller. Fig. 24 shows the serial number label on a hydraulic controller, and Fig. 25 shows the serial number label on an electric controller. The revision letter will be the 6th character in the serial number. To check the serial number of an installed touchscreen, it must be removed from the baseplate (Fig. 26).



Preparing to Update

- The mobile device must be connected to the RV's OneControl system or leveling system via Bluetooth to start the update and must remain connected during the update.
- The leveling touchscreen and controller must remain powered on during the update.
- It is recommended that users power cycle their leveling controller and touchscreen before starting the update. This reduces the likelihood of an active fault being present that may interfere with the update. Power cycle by disconnecting your battery, shore power, and other power sources.

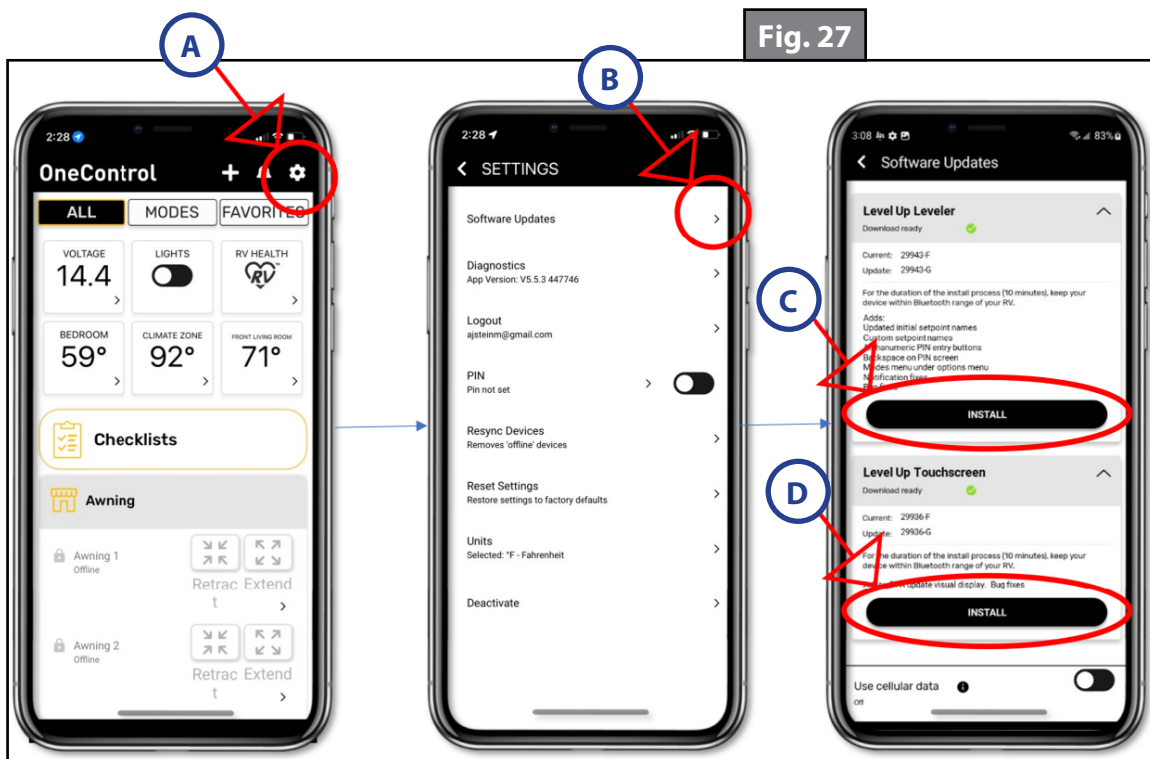
NOTE: Failure to remain connected to the RV and to keep the touchscreen and controller powered during the update may prevent the controller from working until it is updated.

NOTE: The update can take up to ten minutes. The progress of the controller update is displayed in the mobile app and on the touchscreen interface. The progress of the touchscreen update is only displayed on the mobile app.

- Do not use your leveling system during the update.

Performing the Update

1. Open the OneControl Mobile App, the Lippert Connect App, or the Compass Connect App.
2. Enter the Settings menu by tapping the gear icon in the upper right corner of the device's screen (Fig. 27A). Then select Software Updates (Fig. 27B). A list of available updates will appear.
3. Tap the INSTALL button (Fig. 27C, 27D) on each update to install.
4. When updates are installed, they will no longer appear on the Software Updates screen. The new features will be active immediately.



OTA Troubleshooting

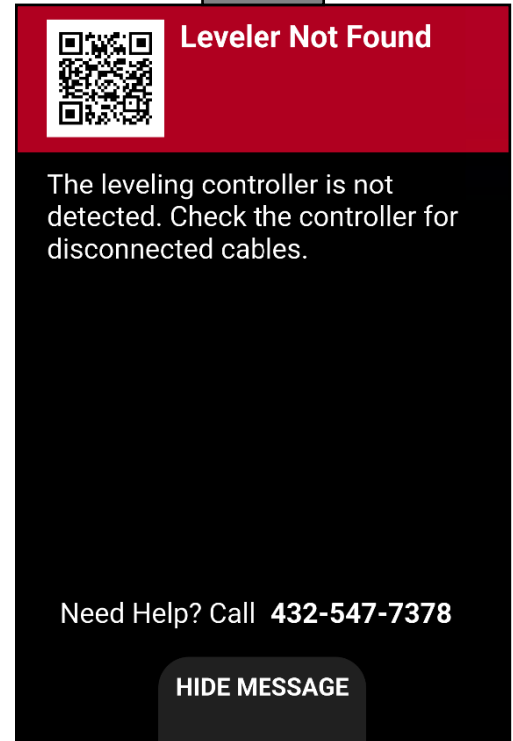
The most common reasons for an update failing are:

1. Not maintaining a Bluetooth Connection to the RV during the update.
 - Make sure your mobile device is connected via to the RV prior to starting the update and remains within range. The update will not work if your mobile device is connected to the RV via WIFI.
2. An active leveler or touchscreen fault is preventing the update from occurring.
 - Make sure your mobile device is connected via to the RV prior to starting the update and remains within range. The update will not work if your mobile device is connected to the RV via WIFI.
3. Power loss during the update
 - A power interruption while the update is occurring will prevent the devices from updating.

Potential Issues

1. Power loss to controller during update
 - If the controller loses power during the update, the controller may not respond to commands for up to five minutes after power is restored. The touchscreen will appear to be functioning, but the jacks will not move. To reduce the likelihood of this occurring, do not disconnect power to the leveling system, or the RV while the update is occurring.
2. Leveler not found after update attempt
 - The controller enters a bootloader mode during the update and does not exit until the update is completed. If the leveling controller software is interrupted during the update, the controller will not broadcast itself in the OneControl system (Fig. 44) . It can still be updated. Attempt to update it again using the steps listed above.

Fig. 28



Troubleshooting

Problem	Solution	
	Hydraulic Jack Systems	Electric Jack Systems
Controller Failure	Power cycle the leveler. If the problem persists, return to a service center for replacement of leveling controller	
Low Battery Voltage Detected	Charge the battery or connect to shore power and ensure your converter is working. Give the battery time to charge before attempting again. If the problem persists, check the health of the battery.	
No Auto Level Position Configured	To configure, enter Set Point mode. Place a bubble level on the RV floor in front-to-back orientation. Adjust the front and rear jacks until the bubble is level. Adjust bubble level for right-to-left orientation. Adjust the right and left jacks until the bubble is level. Press SET to set the level position. Attempt to Auto Level again.	
Short Circuit Detected In Jack Light Output	Check the jack lights' harnesses and the connections on the jacks and on the controllers.	
Rear Level Sensor Communication Failure	N/A	Check that the communication harness is plugged in securely at the leveling controller. Check for broken, cut, crushed, or detached wires in the wire harness.
Rear Level Sensor Short Detected	N/A	Check for broken, cut, crushed, or detached wires in the wire harness.
Hall Effect Power Short Detected	N/A	Check for broken, cut, crushed, or detached wires in the jack hall effect wire harnesses.
Open Circuit Detected on Jack	N/A	Check the jack harness for loose connectors or damaged wires.
High Current Detected on Jack	N/A	Leveling was stopped due to detected high current. To clear the fault, re-hitch the RV and then press Retract All.
Jack Out of Stroke	The jack cannot extend further. If trying to auto level, re-hitch to the tow vehicle and reposition the RV on more level ground.	
Position Sensor Signal Lost from Jack	N/A	Check the jack harness for loose connectors or damaged wires. To clear the fault, re-hitch the RV and then press Retract All.
Position of Jack Lost	N/A	Use the Rehome Jacks feature under the Modes Menu. This will retract all jacks, so use manual controls to re-hitch if you prefer to not let the front of the RV lower close to the ground.

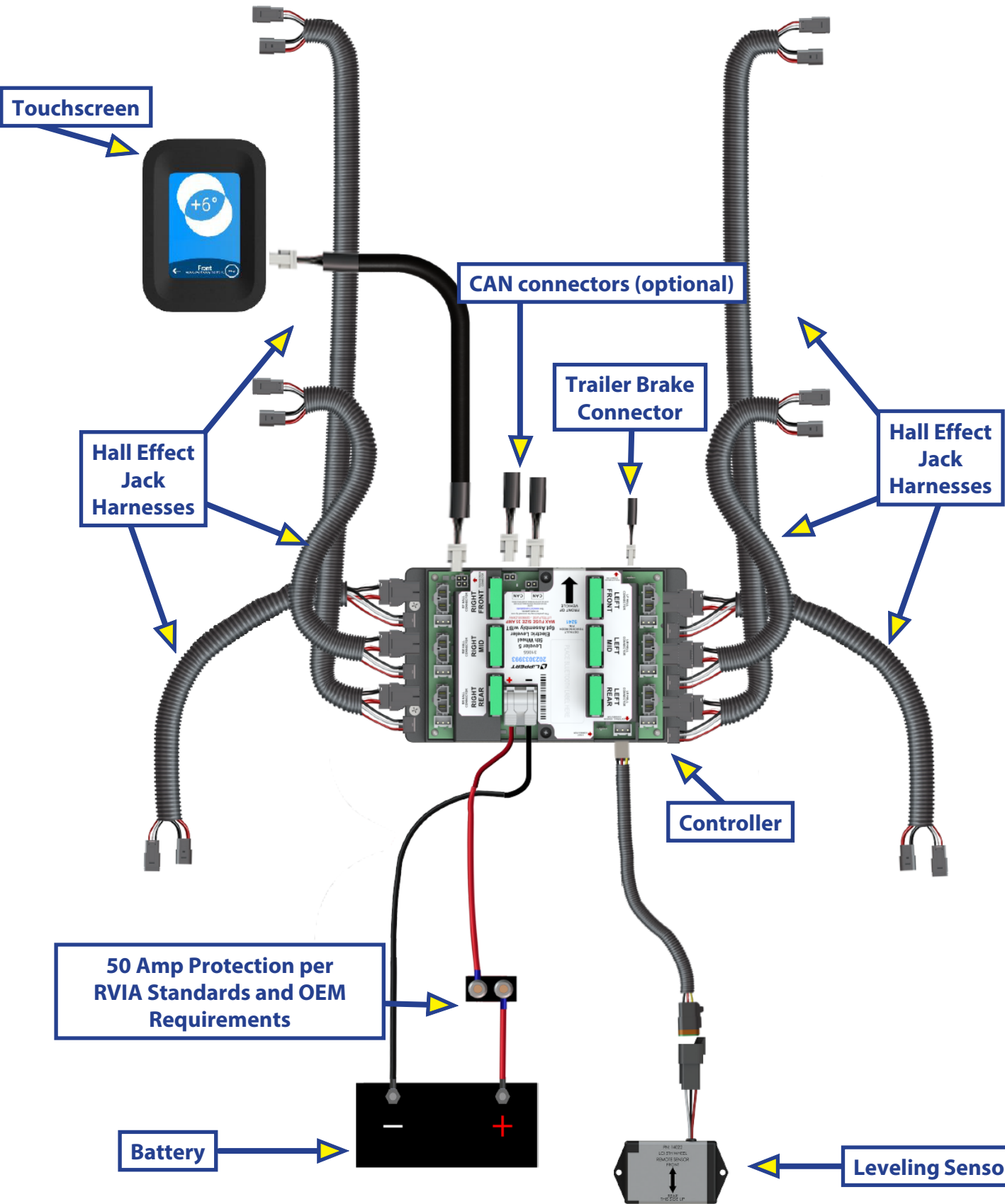
Problem	Solution	
	Hydraulic Jack Systems	Electric Jack Systems
Controller Power Failure	The controller's power input is no longer working correctly. Check wire harnesses and connections. The module may need to be replaced in order for function to be restored.	N/A
Auto Level Timeout	Return to hitch height and try again. If problem persists, return the RV to hitch-height. Position tow-vehicle to re-hitch. Lower RV onto hitch, and then, retract all jacks. Re-position RV in a location that appears more level and attempt to level your RV again.	
Auto Retract Timeout	Check fluid level in hydraulic reservoir. Make sure batteries are fully charged. Check inline breaker between pump and batteries.	The jacks did not fully retract in the required time. Check if the jacks are moving. Ensure batteries are fully charged. Retract jacks manually if problem persists.
Auto Hitch Timeout	Check if the jacks are moving. Check fluid level in hydraulic reservoir. Check inline breaker between pump and batteries. Ensure batteries are fully charged. Adjust jacks manually to hitch height if problem persists.	The RV could not reach the hitch height in the required time. Check if the jacks are moving. Ensure batteries are fully charged. Adjust jacks manually to hitch height if problem persists.
Ground Jacks Timeout	Re-hitch the RV and retract all jacks. Re-position RV on more level ground and attempt to level your RV again. If error persists, take in for service.	
Excess Angle Detected	The automatic operation was stopped due to the RV reaching the maximum allowed angle. If possible, adjust the jacks manually to achieve the desired result.	
Auto Operation Interrupted	Another interface has caused an automatic operation to stop. Please try again.	
Action Temporarily Unavailable	Wait a moment and try the action again.	
Touch Screen Power Failure	Remove the touchscreen bezel. Remove mounting screws. Check connector on touchscreen for damage. Check for broken, cut, crushed, or detached wires in wire harness. Reconnect cable and remount touchscreen and bezel. Check connector on controller for damage. Reconnect cable and remount touchscreen and bezel.	
Hitch Point Not Set	Adjust the RV manually to connect to your vehicle. The hitch point is saved at the start of auto level.	
Front Jacks Cannot Extend Further	Reposition RV in a location that appears more level and attempt to level your RV again.	
Action Prevented	The attempted action is not allowed due to a device lockout being active. Disconnect from your tow vehicle and try again.	

Problem	Solution	
	Hydraulic Jack Systems	Electric Jack Systems
Frame Twist Relief Active	N/A	Frame twisting was detected. To protect your RV, one or more jacks may be limited to moving in one direction to relieve the twist.
Frame Twist Prevented Movement	N/A	Move the jack on the same side on the opposite end. E.g. if the attempted action was "Left Front Jack Extend", relieve the twist by performing "Left Rear Jack Extend" first. Or, select more than 1 jack to allow the leveler to relieve the twist automatically.

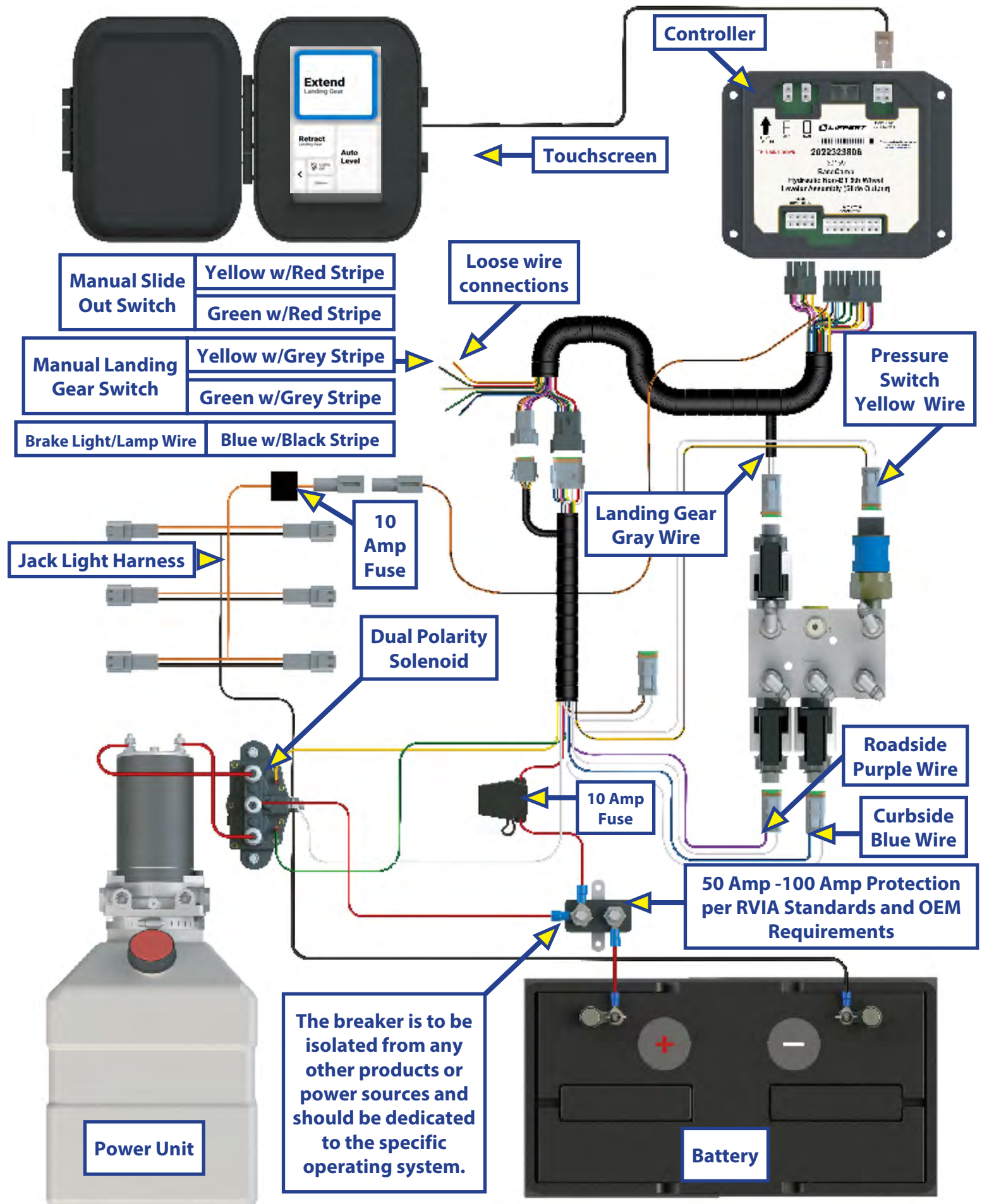
Preventive Maintenance

1. For optimum performance, the system requires full battery current and voltage. The battery must be maintained at full capacity.
2. Check the terminals and other connections at the battery, the controller, and the jacks for corrosion, and loose or damaged connections
3. Remove dirt and road debris from jacks as needed.
4. If jacks are down for extended periods, it is recommended to spray exposed leveling jack rods with a silicone lubricant every three months for protection. If the trailer is located in a salty environment, it is recommended to spray the rods every four to six weeks.

Wiring Diagram (Electric Leveling System)



Wiring Diagram (Hydraulic Leveling System)





The contents of this manual are proprietary and copyright protected by Lippert. Lippert prohibits the copying or dissemination of portions of this manual unless prior written consent from an authorized Lippert representative has been provided. Any unauthorized use shall void any applicable warranty. The information contained in this manual is subject to change without notice and at the sole discretion of Lippert. Revised editions are available for free download from lippert.com.

Please recycle all obsolete materials.

For all concerns or questions, please contact Lippert
Ph: 432-LIPPERT (432-547-7378) | Web: lippert.com | Email: customerservice@lci1.com



GROUND CONTROL® 2.0

OWNER'S MANUAL

L I P P E R T
C O M P O N E N T S®

TABLE OF CONTENTS

System and Safety Information	2
Prior to Operation	2
Basic Jack Operation	3
Dropping Off Unit	3
Taking Up Strut Pin Slop (If JT Strong Arm Stabilizers Are Installed ONLY)	4
Reconnecting the Unit to A Tow Vehicle	4
Truck Hauler Operation (Manual ONLY)	4
Zero Point Calibration	5
Troubleshooting	5
Special Jack Error Codes	5
Touch Pad Error Codes	6
Preventative Maintenance Procedures	6
Ground Control® 2.0 - 4 Point Assembly	7
Ground Control® 2.0 - 6 Point Assembly	8
Ground Control® 2.0 Components	9
Ground Control 2.0 Components	10
Notes	11

System and Safety Information

WARNING

Failure to act in accordance with the following may result in death or serious injury.

The use of the Ground Control® 2.0 to support the unit for any reason other than that which it is intended is prohibited by Lippert's limited warranty. The Lippert Ground Control® 2.0 is designed as a "leveling" system only and should not be used to provide service for any reason under the coach such as changing tires or servicing the leveling system.

Lippert Components Inc. recommends that a trained professional be employed to change the tire on the unit. Any attempts to change tires or perform other service while unit is supported by the Ground Control® 2.0 could result in death, serious injury or damage to the 5th Wheel.

NOTES:

- A.** Be sure to park the unit on solid, level ground.
- B.** Clear all jack landing locations of debris and obstructions. Locations should also be free of depressions.
- C.** When parking the unit on extremely soft surfaces, utilize load distribution pads under each jack.
- D.** People and pets should be clear of unit while operating leveling system.
- E.** Never lift the unit completely off the ground. Lifting the unit so the wheels are not touching the ground will create an unstable and unsafe condition.

Prior to Operation

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

- 1.** The unit is parked on a reasonably level surface.
- 2.** Be sure all persons, pets and property are clear of the coach while Lippert Ground Control® 2.0 is in operation.
- 3.** Make sure battery(ies) are fully charged and load test at 12+V DC.
- 4.** Drop inner leg of both landing gear jacks to within 4-5 inches of the ground.

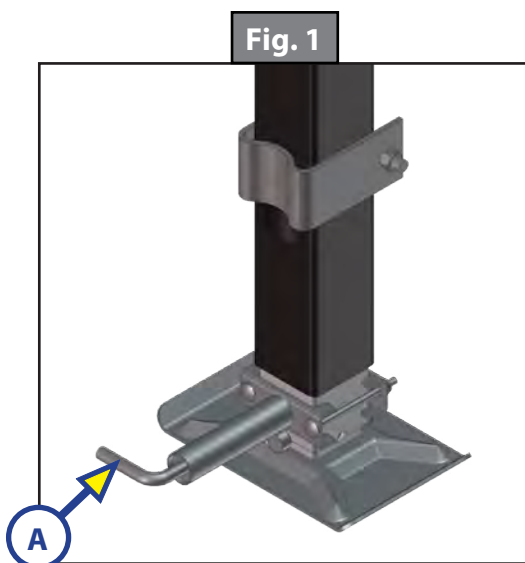
Basic Jack Operation

1. Front Landing gear jacks.
2. Rear leveling jacks.

Landing Gear jacks can be operated any time the system is "ON" but NOT in the "AUTO MODE." By pushing the "FRONT" button, both front or landing gear jacks can be extended. By pushing either the "LEFT" or "RIGHT" button, the individual front jacks can be extended. If the touch panel is put in the "RETRACT" mode, indicated by the orange illuminated LED next to the "RETRACT" button, the front jacks can be retracted together by pushing the "FRONT" button or individually by pressing either the "LEFT" or "RIGHT" button. The rear jacks can only be operated when the touch panel is in the "MANUAL MODE." Once system is in "MANUAL MODE," pressing the "REAR" button will extend both rear jacks at the same time. To operate individual rear jacks, press the "LEFT" or "RIGHT" button first, depending on what is needed at the time, then press the "REAR" button and hold both at the same time.

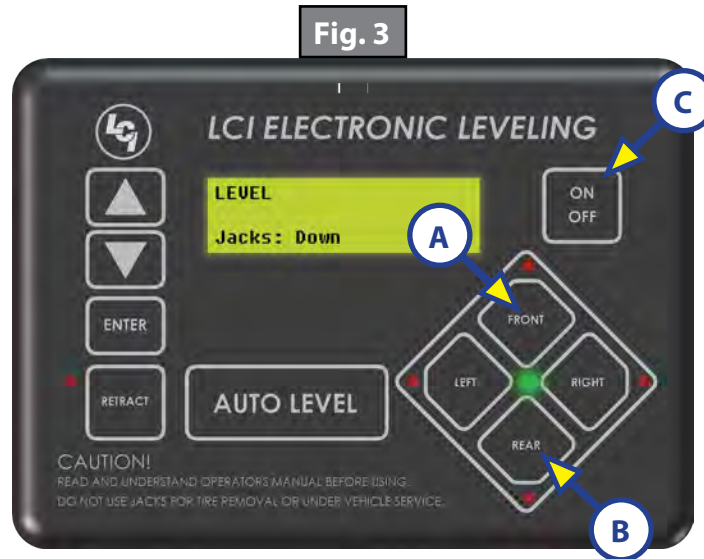
Dropping Off Unit

1. Park coach on level ground.
2. Chock all tires.
3. Make sure battery power is on.
4. Release front jack legs to within 4-5 inches from the ground by pulling out the quick release pin (Fig. 1A).
5. Release inner legs on rear leveling jacks — 2 (4-point) or 4 (6-point) — by pulling the quick release pins.
6. At this point, you may use automatic controls on your Linc™ remote if supplied. If no Linc remote is supplied, continue to step 7. IMPORTANT: For Linc™ automatic leveling and retraction instructions, refer to your owner's packet.
7. Press "ON/OFF" button to turn panel on (Fig. 2E).
8. Push "UP ARROW" button (Fig. 2A) and scroll to "DROP FRONT JACKS" option on LCD screen.
9. Push "ENTER" button (Fig. 2B). Front legs will lower to ground and stop.
10. Disconnect 5th wheel latch.
11. Push "FRONT" button (Fig. 2D) to extend front landing gear jacks manually and lift front of vehicle to clear 5th wheel plate.
12. Pull tow vehicle away and park at a safe distance.
13. Push "AUTO LEVEL" button (Fig. 2C). The unit will commence auto-level feature by setting front landing gear jacks to level, then dropping rear jacks followed by a leveling sequence check. On the 6 point system, the middle jacks will now lower to the ground to stabilize the unit. When auto-level sequence is complete, LCD screen will indicate, "AUTO LEVEL SUCCESS." "Level Jacks: Down" will then appear, along with a green light in the middle of the jack buttons.
14. Press the "ON/OFF" button (Fig. 2E) to turn system off.



Taking Up Strut Pin Slop (If JT Strong Arm Stabilizers Are Installed ONLY)

1. Ensure the leveling process has completed. LCD screen should read "Level Jacks: Down" (Fig. 3).
2. Push "FRONT" button (Fig. 3A) momentarily until front stabilizer pins are tight.
3. Enter manual mode, then push "REAR" button (Fig. 3B) momentarily until rear stabilizer pins are tight.
4. Push "ON/OFF" button (Fig. 3C) to turn system off.

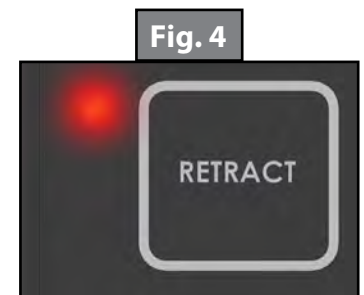


Reconnecting the Unit to A Tow Vehicle

1. Be sure main power switch is "ON."
2. Loosen J.T. Strong Arm Stabilizer "T" handles (if applicable).
3. Push Touch Pad "ON/OFF" button to turn system on.
4. Push "UP ARROW" to scroll to AUTO RETRACT REAR JACKS and push "ENTER." Rear jacks will fully retract and stop.
5. Push "LEFT" & "RIGHT" button together. Front will raise to previous drop off height. Push "FRONT" button if more height is needed.
6. Back tow vehicle to align 5th wheel hitch.
7. Push the scroll arrow to display "AUTO RETRACT ALL."
8. Push "ENTER." Landing Gear jacks will automatically retract and then stop.
9. Raise inner drop legs on all jacks and secure with quick release pull pin.
10. Turn "ON/OFF" button off.

Truck Hauler Operation (Manual ONLY)

1. Loosen J.T. Strong Arm Stabilizer "T" handles (if applicable).
2. Turn the Touch Panel "ON." LED lights up green.
3. Push "FRONT" button to extend FRONT jacks to gain height.
4. To retract jacks:
 - A. Push "RETRACT" button; Orange LED lights up (Fig. 4).
 - B. Push the "FRONT" button to retract jacks and hook up vehicle. Once 5th wheel is coupled, push "FRONT" button and hold until jacks are fully retracted.
 - C. Push "ON/OFF" button to turn system off. Green light will go out.
 - D. Double check 5th wheel latch is secure and that all jacks are retracted.
 - E. Ready to tow.

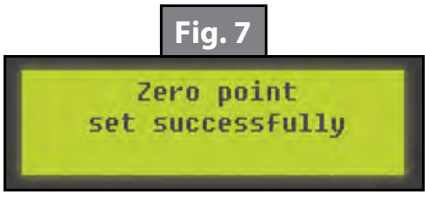
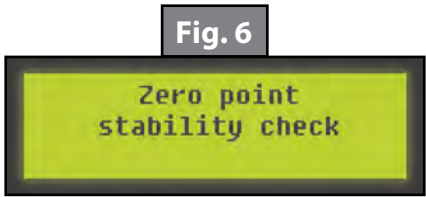
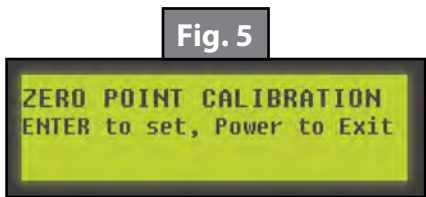


Zero Point Calibration

The “Zero Point” is the programmed point that the unit will return to each time the Auto Level feature is used. The “Zero Point” must be programmed prior to using the Auto Level feature to ensure the proper operation of the system.

NOTE: Prior to starting this procedure, double check all connections on the controller, jacks and touch pad.

- 1. Manually run the jacks to level the unit. This is best achieved by placing a level in the center of the unit and leveling it both front to back and then side to side. (See “Basic Jack Operation” for instructions on how to manually operate the system).
- 2. Once the unit is level, turn off the touch pad.
- 3. With the touch pad off, press and release the “FRONT” button 10 times and then press and release the “REAR” button 10 times.
- 4. The touch pad will flash and beep and the display will read “ZERO POINT CALIBRATION ENTER to set, Power to Exit” (Fig. 5).
- 5. To set the current position as the zero point, press the “ENTER” button.
- 6. LCD display will read “Zero point stability check” (Fig. 6).
- 7. LCD display will read “Zero point set successfully” once process is complete (Fig. 7).
- 8. The system will set this point as its level state and the touch pad will turn off.



Troubleshooting

Special Jack Error Codes

To clear one of these errors:

- 1. Correct or otherwise repair the issue (see the table below).
- 2. Extend all of the jacks at least 6 inches, then press and hold the “RETRACT” button on the touch pad until the jacks begin retracting.
- 3. All of the jacks will retract fully to clear the error.

NOTE: Landing gear will also retract at this time. Ensure the 5th wheel hitch pin is supported by either the tow vehicle or a tripod stand.

LCD Message	What's Happening?	What Should Be Done?
ERROR LF Jack RF Jack LM Jack RM Jack LR Jack RR Jack	Error at a specific jack (left front, right front, left rear, right rear).	Check harness connections at controller and at jack. Check jack for damage. Check harness for damage. Repair or replace as necessary.
	Unexpected high amp current stall.	

Touch Pad Error Codes

NOTE: To clear an error from the touch pad, repair or otherwise correct the issue, then press "ENTER." If the error is still present, the message will be displayed again.

LCD Message	What's Happening?	What Should Be Done?
****ERROR**** Excess Angle	Controller not properly secured.	Check and secure controller placement.
	Excessive angle reached during auto operation.	Relocate the coach.
****ERROR**** Bad Calibration	Sensor calibration values are out of range.	Reset zero point.
****ERROR**** Feature Disabled	Front of coach below level when starting Auto Level process (only when trying to initiate Hitch Recognition).	Raise front of coach above level and restart Auto Level process.
	Touch pad power not cycled between consecutive leveling operations.	Turn touch pad off and then back on to reset the system.
	Zero point not set.	Set zero point.
****ERROR**** Low Voltage	Battery voltage dropped below 10.8V.	Check wiring for loose connection.
		Test battery voltage under load - charge or replace.
****ERROR**** Out Of Stroke	Jack has reached maximum stroke length and is unable to lift.	Check disposition of jacks. Relocate the coach.
****ERROR**** External Sensor	Bad connection or wiring from the controller to the rear sensor.	Replace or repair connection to rear remote sensor.
****ERROR**** Jack Time Out	Time limit exceeded for the requested auto operation.	Check disposition of jacks.
****ERROR**** Auto Level Fail	Unable to auto level due to uneven ground.	Check disposition of jacks. Relocate the coach.
	Unable to auto level due to zero point being set incorrectly.	Reset zero point.
PANIC STOP Function Aborted	The user pressed a button on the touch pad during an automatic operation.	Restart automatic operation and then refrain from pressing any buttons on the touch pad.

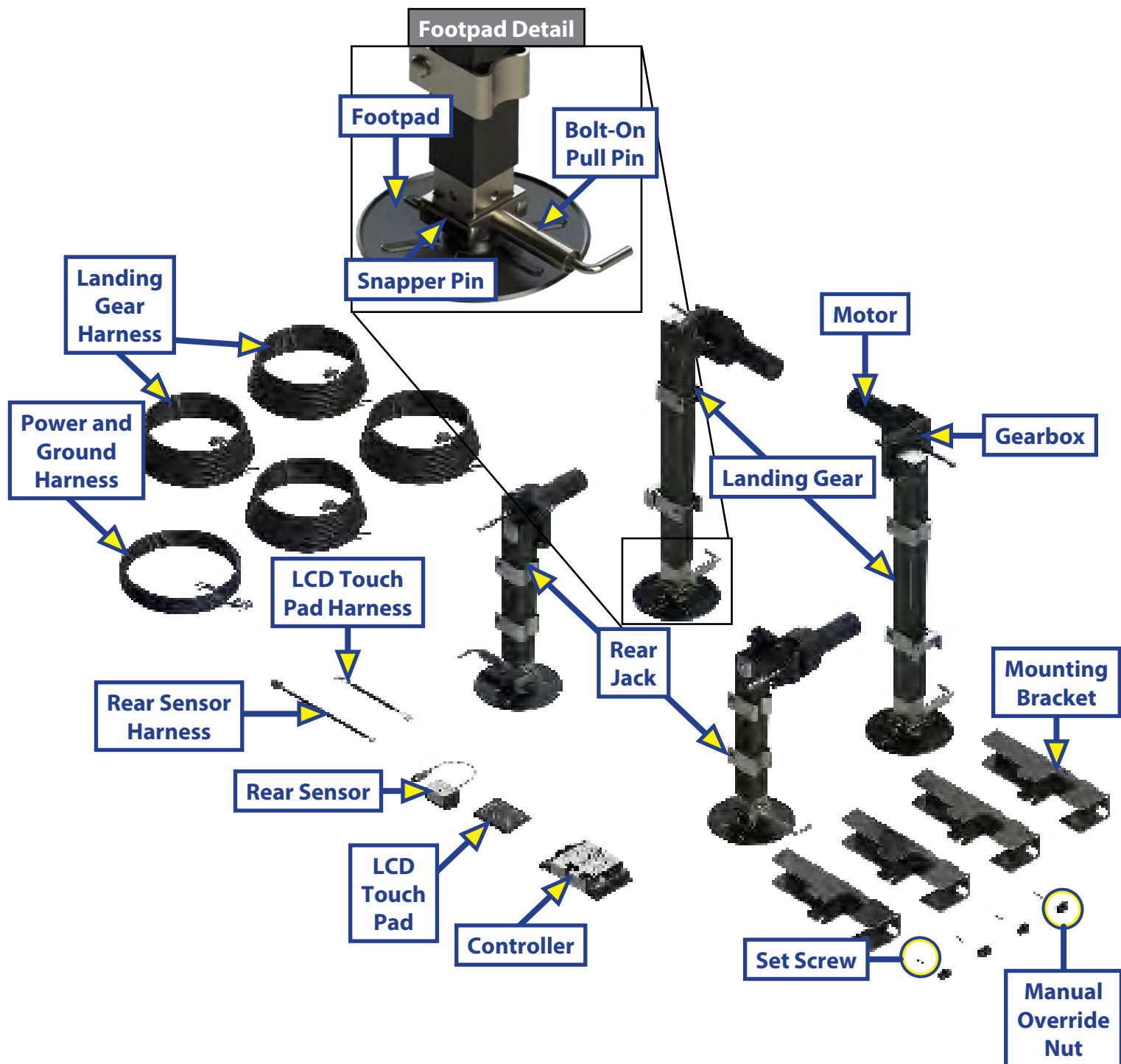
Preventative Maintenance Procedures

1. Remove dirt and road debris from jacks (and stabilizer struts if equipped) as needed.
2. If jacks are down for extended periods, it is recommended to spray exposed leveling jack tubes with a spray lubricant every 3 months for protection. If your coach is located in a salty environment, it is recommended to spray the rods every month.

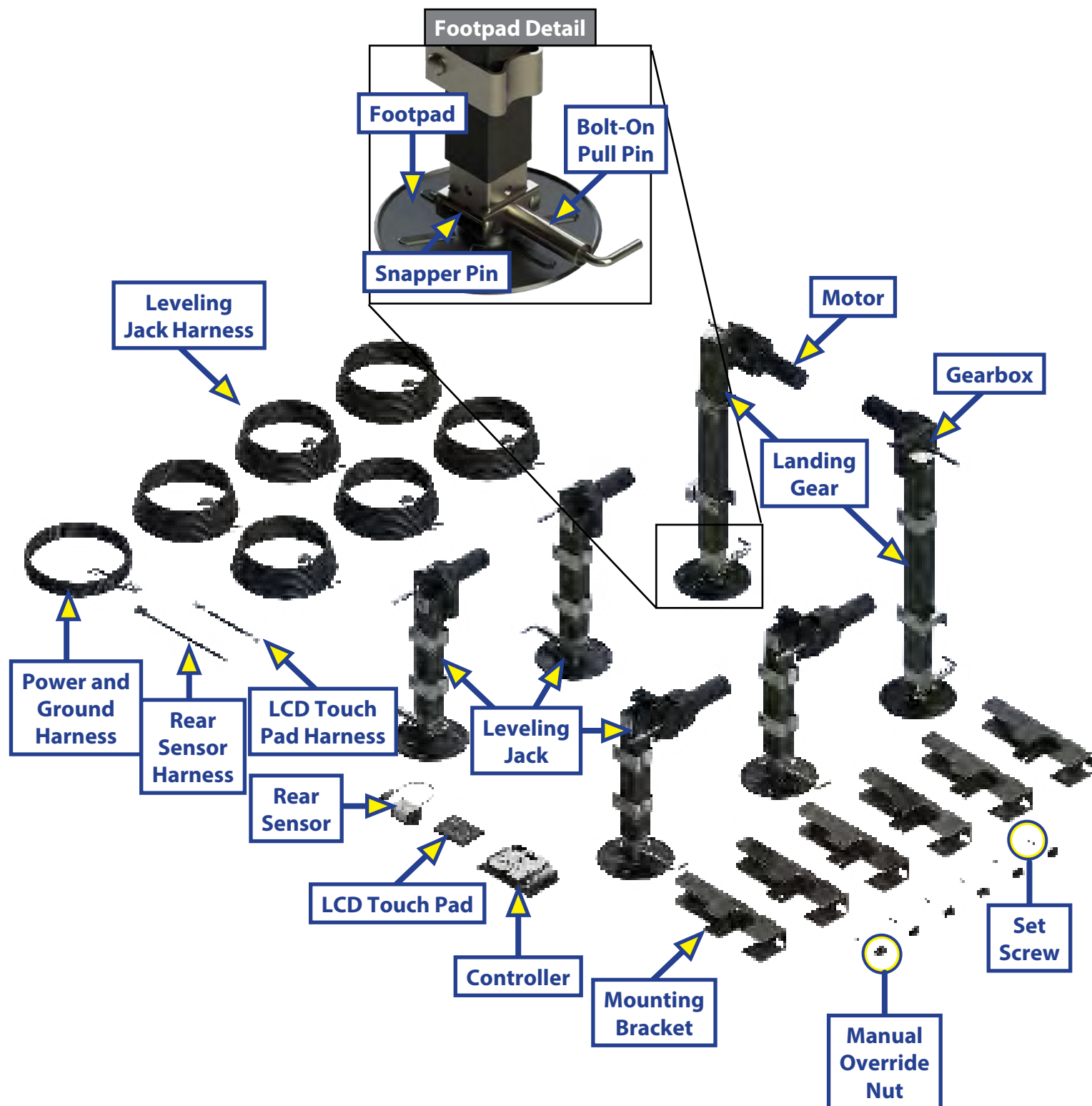


Ensure the unit is supported at both the front and rear with jack stands before performing any troubleshooting or service to the unit. Failure to do so may result in death or personal injury.

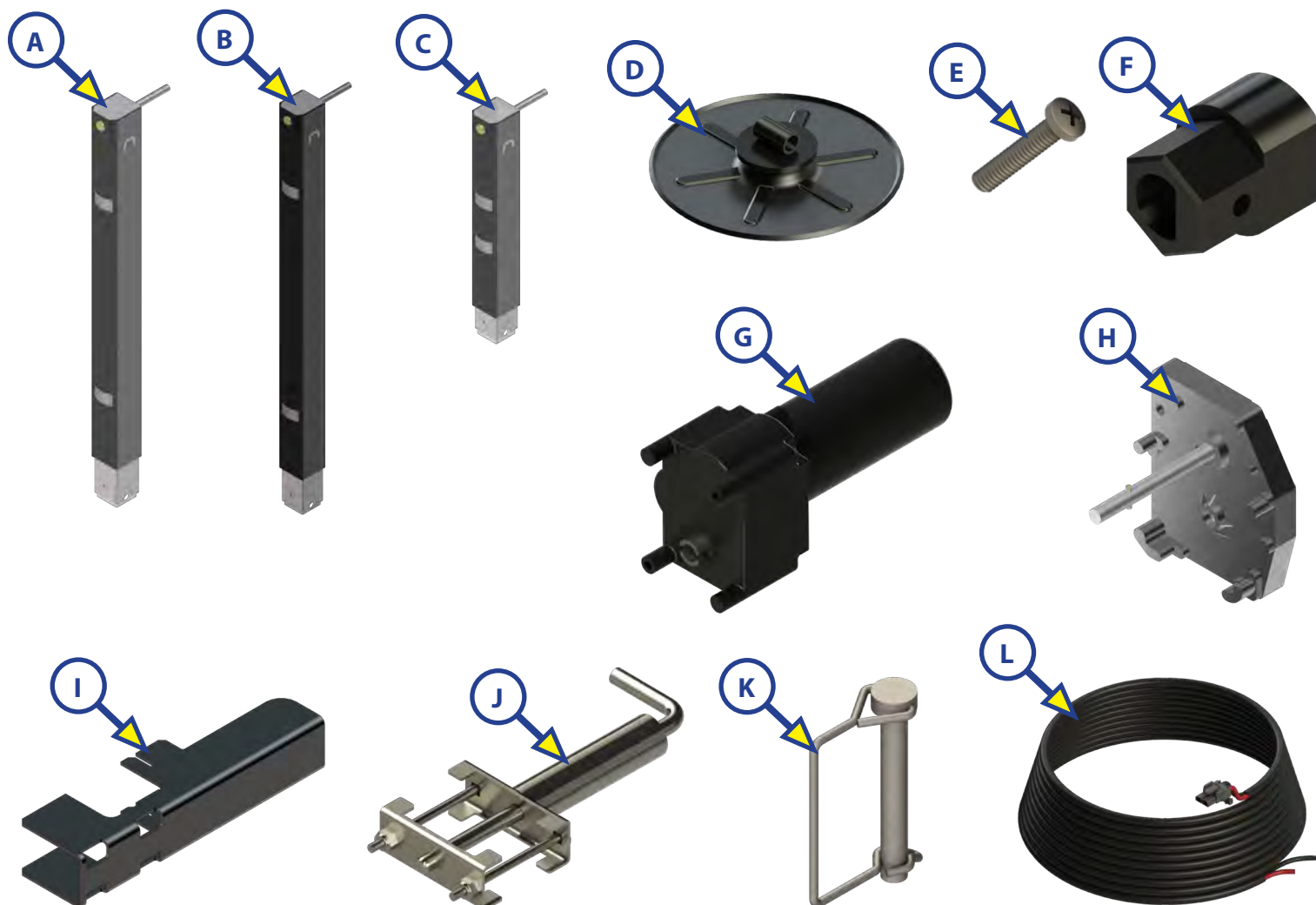
LEVELING AND STABILIZATION



LEVELING AND STABILIZATION

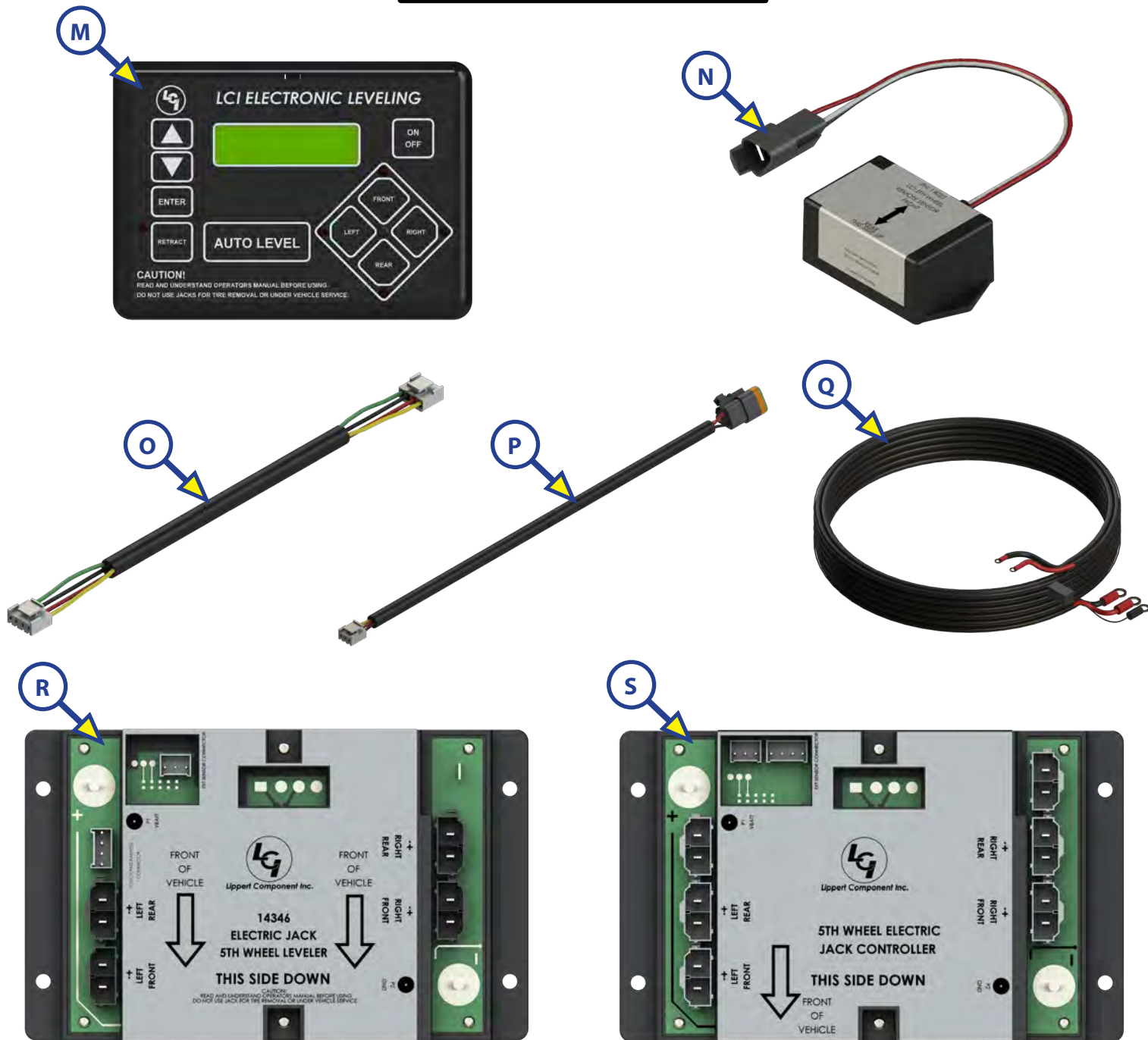


LEVELING AND STABILIZATION



Callout	Part #	Description
A	241846	Standard Landing Gear
B	241845	Extended Landing Gear
C	241844	Leveling Jack
D	297788	Footpad
E	280296	Set Screw
F	228031	Manual Override Nut
G	241795	Tuson Motor
H	179015	Gear Box
I	275403	Mounting Bracket
J	119113	Bolt-On Pull Pin
K	225598	Snapper Pin
L	245794	Rear Leveling Jack Harness
	277984	Middle Leveling Jack Harness
	245795	Landing Gear Harness

LEVELING AND STABILIZATION



Callout	Part #	Description
M	234802	LCD Touch Pad
N	232201	Rear Sensor
O	232937	LCD Touch Pad Harness
P	243688	Rear Sensor Harness
Q	245796	Power and Ground Harness
R	242623	Ground Control 2.0 4 Point Controller
S	276452	Ground Control 2.0 6 Point Controller

This image shows a full page of blank, lined paper. It features approximately 30 evenly spaced horizontal grey lines across its entire width, typical of notebook or school paper. There are no margins, text, or other markings present.



LIPPERT COMPONENTS®

The contents of this manual are proprietary and copyright protected by Lippert Components, Inc. ("LCI"). LCI prohibits the copying or dissemination of portions of this manual unless prior written consent from an authorized LCI representative has been provided. Any unauthorized use shall void any applicable warranty. The information contained in this manual is subject to change without notice and at the sole discretion of LCI.

Revised editions are available for free download from lci1.com.

Please recycle all obsolete materials.

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

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



ICE HOUSE
w/ LCD TOUCHPAD
OWNER'S MANUAL



Scan for product support

TABLE OF CONTENTS

System Information	2
Safety	3
Touchpad Diagram	4
Menu	4
Prior to Operation	5
Operation	5
Cabin Mode	5
Travel Mode	5
Maintenance	6
Grease Specification	6
Grease Application	6
Programming	6
Troubleshooting	8
Error Codes	8
Manual Override - Top of Jack Motor	9
Manual Override - Bottom of Jack Motor	10
Wiring Diagram	11

System Information

The Ice House is equipped with Ground Control™ 3.0 and pivot axles. Lippert has taken its Ground Control Automatic Electric Leveling System to the next level. Its new leveling jacks are driven by Hall Effect Technology, which measures the jack leg motor revolutions instead of amps, ensuring more accurate leveling. The pivot axles offer a smooth operation to lower the ice house without disturbing the ice. We are continually offering better options for a better camping experience. Lippert Components, Inc. recommends that inspections, troubleshooting, component replacement, and verifications be completed only by certified RV technicians.

Additional information about Lippert products can be obtained from support.lci1.com or by downloading the free LippertNOW app. The app is available on Apple App Store® for iPhone® and iPad® and also on Google Play™ for Android™ users.

App Store®, iPhone®, and iPad® are registered trademarks of Apple Inc.

Google Play™ and Android™ are trademarks of Google Inc.

For additional support on this product go to: <https://support.lci1.com/ice-house-axle>

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

Read and understand all instructions before installing or operating this product. Adhere to all safety labels.

This manual provides general instructions. Many variables can change the circumstances of the instructions, i.e., 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 Lippert limited warranty.

WARNING

The "WARNING" symbol above is a sign that an installation procedure has a safety risk involved and may cause death, serious personal injury and/or severe product or property damage 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 property damage, including voiding of the component warranty.

WARNING

The trailer MUST be supported per manufacturer's recommendations before working underneath. Failure to do so may result in death or serious personal injury.

CAUTION

The "CAUTION" symbol above is a sign that an installation procedure has a safety risk involved and may cause personal injury and/or product or property damage if not performed safely and within the parameters set forth in this manual.

CAUTION

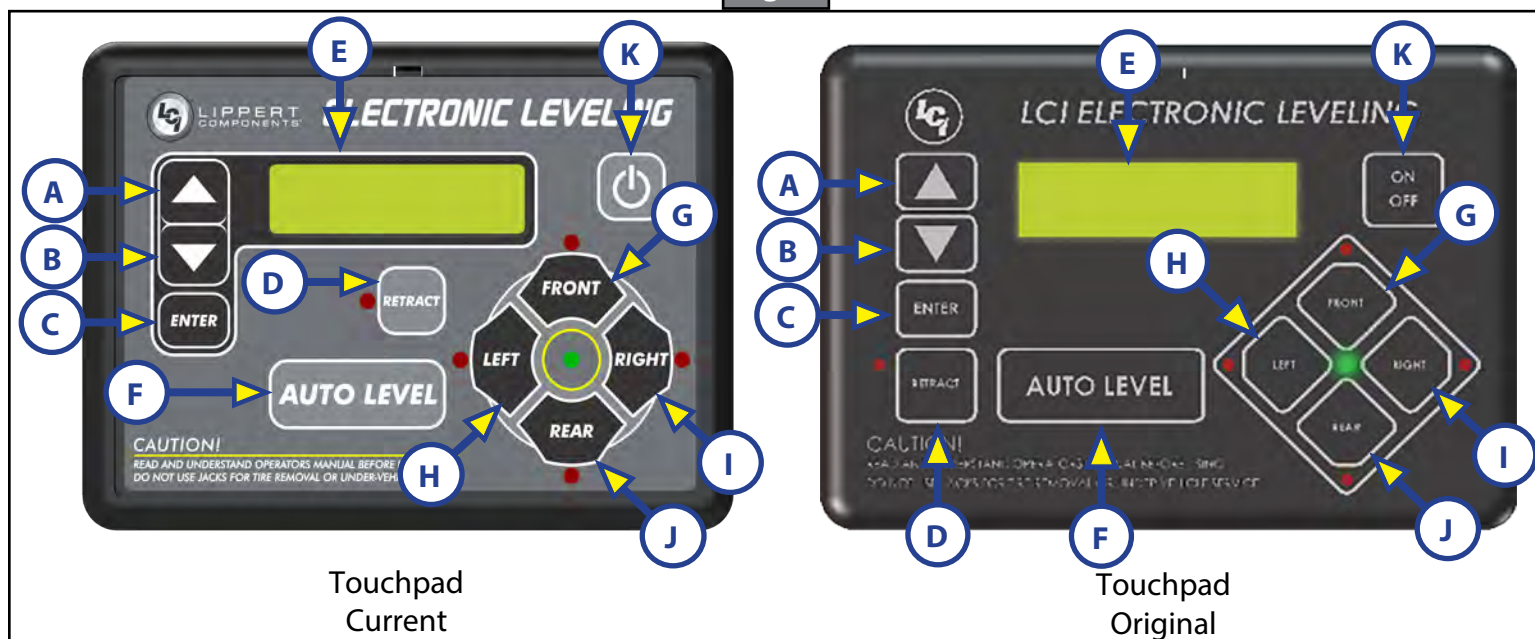
Always wear eye protection when performing service, maintenance or installation procedures. Other safety equipment to consider would be hearing protection, gloves and possibly a full face shield, depending on the nature of the task.

CAUTION

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

Touchpad Diagram

Fig. 1



Callout	Description
A	Up Arrow - Scrolls up through the menu on LCD.
B	Down Arrow - Scrolls down through the menu on LCD.
C	Enter - Activates modes and procedures indicated on LCD.
D	Retract - Places leveling system into retract mode. Press and hold down for 1 second to initiate Auto Retract.
E	LCD Display - Displays procedures and results.
F	Auto Level - Extends all jacks simultaneously when pressed and held. NOTE: If retract button is pressed first, all jacks will retract simultaneously when pressed and held.
G	Front Jack Button - Activates front jack.
H	Left Jack Button - Activates left jack.
I	Right Jack Button - Activates right jack.
J	Rear Jack Button - Activates both rear jacks.
K	Power Button - Turns leveling system on and off.

Menu

Jack State – Displays the current state for the jack system (if at least one jack is not fully retracted, displays “Jacks: Down”, otherwise displays “Jacks: Up”).

Auto Retract All – Press Enter to automatically retract all of the jacks.

Auto Retract Rear – Press Enter to automatically retract the left rear and right rear jacks.

Front Stroke – Displays the stroke (inches of extension) of the front jack.

Rear Stroke – Displays the stroke (inches of extension) of the rear jacks.

Battery – Displays the current battery voltage.

Error - Displays an error. To clear the error, auto retract all jacks by pressing and holding retract (Fig. 1D).

NOTE: If any of the jacks are already retracted, extend them 6 inches and then retract all.

Prior to Operation

1. Park the trailer on level and stable ground/ice.
2. Be sure all persons, pets and property are clear of the trailer before and during operation.
3. Make sure battery(ies) are fully charged and test at 12+VDC under load.



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

Operation

Cabin Mode

1. Extend the front jack.

NOTE: This can also be done with the switch on the front jack.

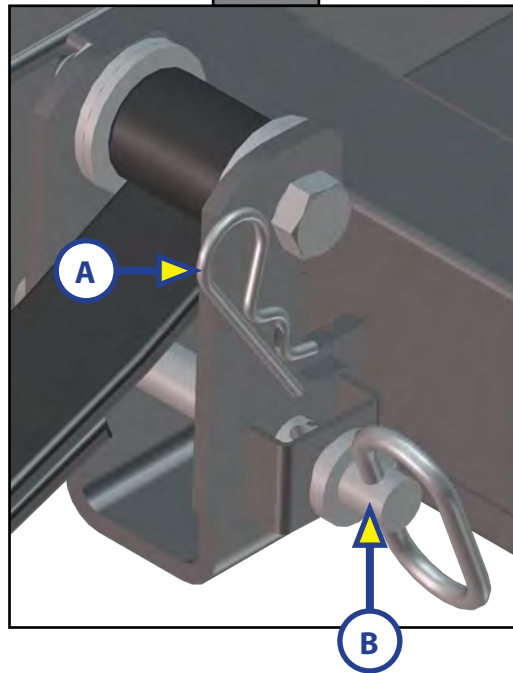
2. Disconnect the trailer coupler from the tow vehicle hitch.
3. Extend the rear jacks to make contact with the ground or ice.
4. Remove the cotter pin (Fig. 2A) from each hitch pin (Fig. 2B).
5. Remove the hitch pins (Fig. 2B) from the axle assemblies to free the axles.
6. Retract all jacks until the trailer sets flat to the ground or ice.

Travel Mode

1. Extend all jacks until axle assembly is returned to travel position.
2. Insert hitch pins (Fig. 2B) into each axle assembly and secure the cotter pins (Fig. 2A).
3. Retract rear jacks completely.
4. Connect the trailer coupler to the tow vehicle hitch.
5. Retract the front jack.

NOTE: This can also be done with the switch near the front jack.

Fig. 2



Programming

NOTE: Begin with the touchpad off.

1. Press the "LEFT" button (Fig. 1H) on the touchpad 10 times.
2. Press the "RIGHT" button (Fig. 1I) on the touchpad 10 times.
3. The touchpad will read "Wireless Configuration" (Fig. 3).

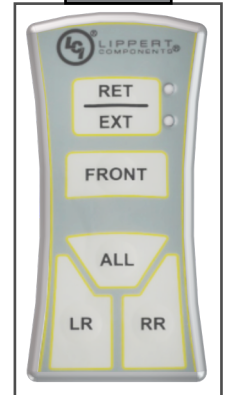
NOTE: If the touchpad does not read "Wireless Configuration", repeat steps 1 and 2.

4. Press any button on the remote (Fig. 4) to sync the system.

Fig. 3



Fig. 4



Maintenance

Grease Specification

Lippert recommends a NLGI #2 grade lithium complex EP grease for all applications contained within this manual. A molybdenum-based grease is preferred.

⚠ CAUTION

Do not mix lithium, calcium, sodium or barium complex greases. Chemical compatibility problems may occur. If you are changing from one chemical grease to another, be sure all old grease is removed prior to applying new grease. If the old grease is not removed completely, chemical compatibility problems may result in component failure or damage.

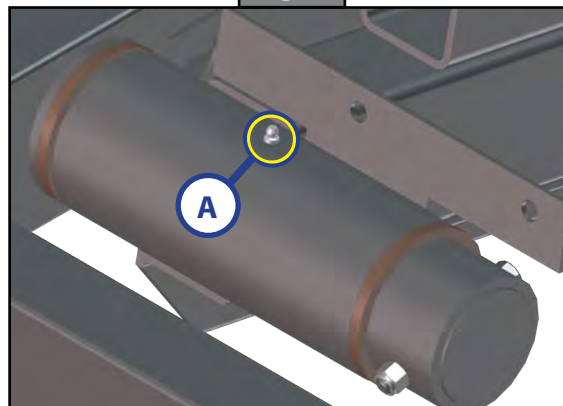
Grease Application

This maintenance must be completed every 3,000 miles or 3 months, which ever comes first.

1. Use a grease gun to grease the zerk (Fig. 5A) located on the front pivot tube.

NOTE: 80 milliliters or $\frac{3}{8}$ of a cup of lithium-based multipurpose grease should be used on each side of the unit.

Fig. 5



Pivot Axle and Brake Maintenance Schedule					
Item	Function Required	Weekly	3 Months / 3,000 Miles	6 Months / 6,000 Miles	12 Months / 12,000 Miles
Brakes	Test that they are operational.	At Every Use			
Breakaway System	Check battery charge and switch operation.	At Every Use			
Brake Adjustment	Adjust to proper operating clearance.		◆		
Brake Magnets	Inspect for wear and current draw.			◆	
Brake Linings	Inspect for wear or contamination.				◆
Brake Controller	Check for correct amperage and modulation.			◆	
Trailer Brake Wiring	Inspect wiring for bare spots, fray, etc.				◆
Hub/Drum	Inspect for abnormal wear or scoring.				◆
Wheel Bearing	Inspect for corrosion or wear. Clean and repack.				◆
Seals	Inspect for leakage. Replace if removed.				◆
Springs	Inspect for wear, loss of arch.				◆
Suspension Parts	Inspect for bending, loose fasteners, wear.			◆	
Hangers	Inspect welds.				◆
Wheel Nuts and Bolts	Tighten to specified torque values.		◆		
Wheels	Inspect for cracks, dents or distortion.			◆	
Tire Inflation Pressure	Inflate tires to mfg's. specifications.	◆			
Tire Condition	Inspect for cuts, wear, bulging, etc.		◆		
Pivot Shaft	Apply grease through grease zerk (see grease specifications on page 5).		◆		

Electric Leveling Maintenance Schedule				
Item	Function Required	Monthly (or as needed)	3 Months	16 Months
Jacks	Remove dirt and road debris.	◆		
	² Lubricate inner jack legs.		◆	
	Jack mounting bolt torque (90 ft-lb).			◆
Wiring/Electrical	Inspect wiring for bare spots, fray, etc.			◆
	Inspect and ensure that all wiring harness connections are tight and free of corrosion.			◆
	Battery voltage (should be 12.75V DC)	At each use		
¹ 6-month interval could also be the beginning and end of the travel season if not a full-time traveler.				
² Lubricate inner jacks legs: A 3-month interval is for normal environments. A 4- to 6-week interval would be appropriate for units located in a salty environment.				

Troubleshooting

Error Codes

To clear one of these errors:

1. Correct or otherwise repair the issue (see the table below).
2. Extend all of the jacks at least six (6) inches, then press and hold the "RETRACT" button on the touchpad until the jacks begin retracting.
3. All of the jacks will retract fully to clear the error code.

LCD Message	What Is Happening?	What Should Be Done?
ERROR Left Jack Right Jack	Error at a specific jack (front, left rear, right rear). Hall signal issue (open, short, malfunction).	Check harness connections at controller and at jack. Check that harness connections are in the proper location on the controller by verifying the labels on the harness and controller.
	Unexpected high amp current stall.	Check harness for damage. Repair or replace as necessary.
****ERROR**** Low Voltage	Battery voltage dropped below 10.8V.	Check wiring for loose connection.
		Test battery voltage under load - charge or replace.
****ERROR**** Comm Error	Communication between controller and touchpad has been lost.	Check harness for proper connections or damage. Replace if necessary.
****ERROR**** Internal Sensor	Internal sensor problem.	Replace controller.
PANIC STOP Function Aborted	The user pressed a button on the touchpad during an automatic operation.	Restart automatic operation and then refrain from pressing any buttons on the touchpad.

Manual Override - Top of Jack Motor

NOTE: Use of a 12V-18V cordless screw gun or pneumatic screw gun is acceptable to manually override the jacks. Do not use an impact screw gun to perform the override procedure, as this may damage the motor.

If manual override is necessary on any jack in the system, there are two options. The following process will describe how to use the top override. See next page for the bottom override.

Tools needed: $\frac{3}{8}$ " drive ratchet and extension (no socket).

1. Find the port on the top of the jack motor (Fig. 6A).
2. Remove the rubber plug.
3. Insert the $\frac{3}{8}$ " drive into the port (Fig. 7).
4. Turn override until the jack extends or retracts to desired position.

Fig. 6

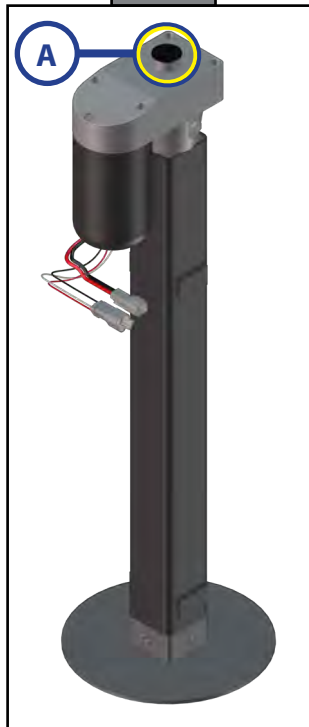


Fig. 7



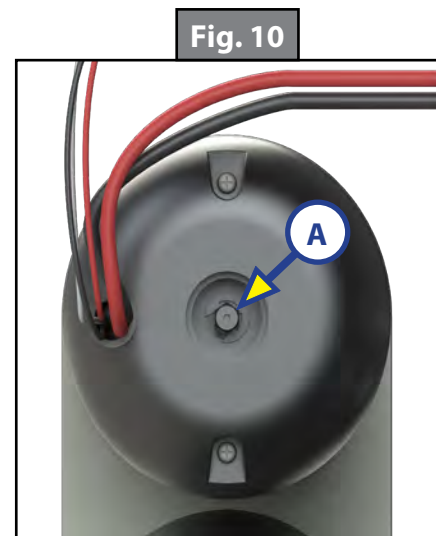
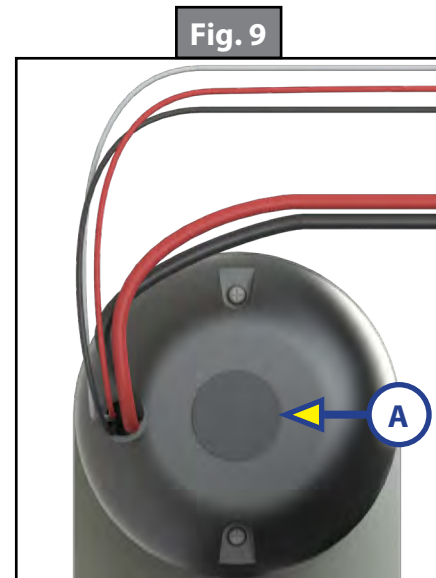
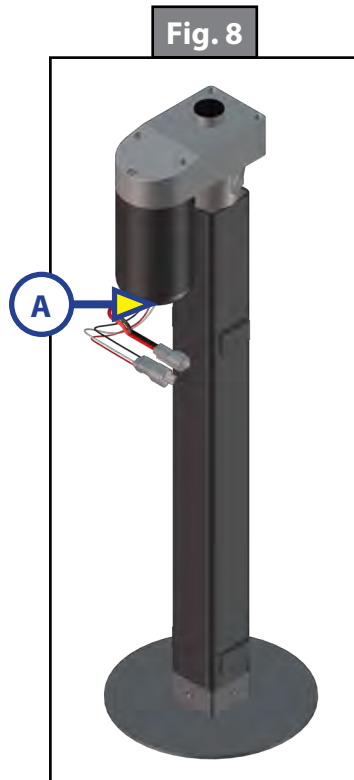
Manual Override - Bottom of Jack Motor

NOTE: Use of a 12V-18V cordless screw gun or pneumatic screw gun is acceptable to manually override the jacks. Do not use an impact screw gun to perform the override procedure, as this may damage the motor.

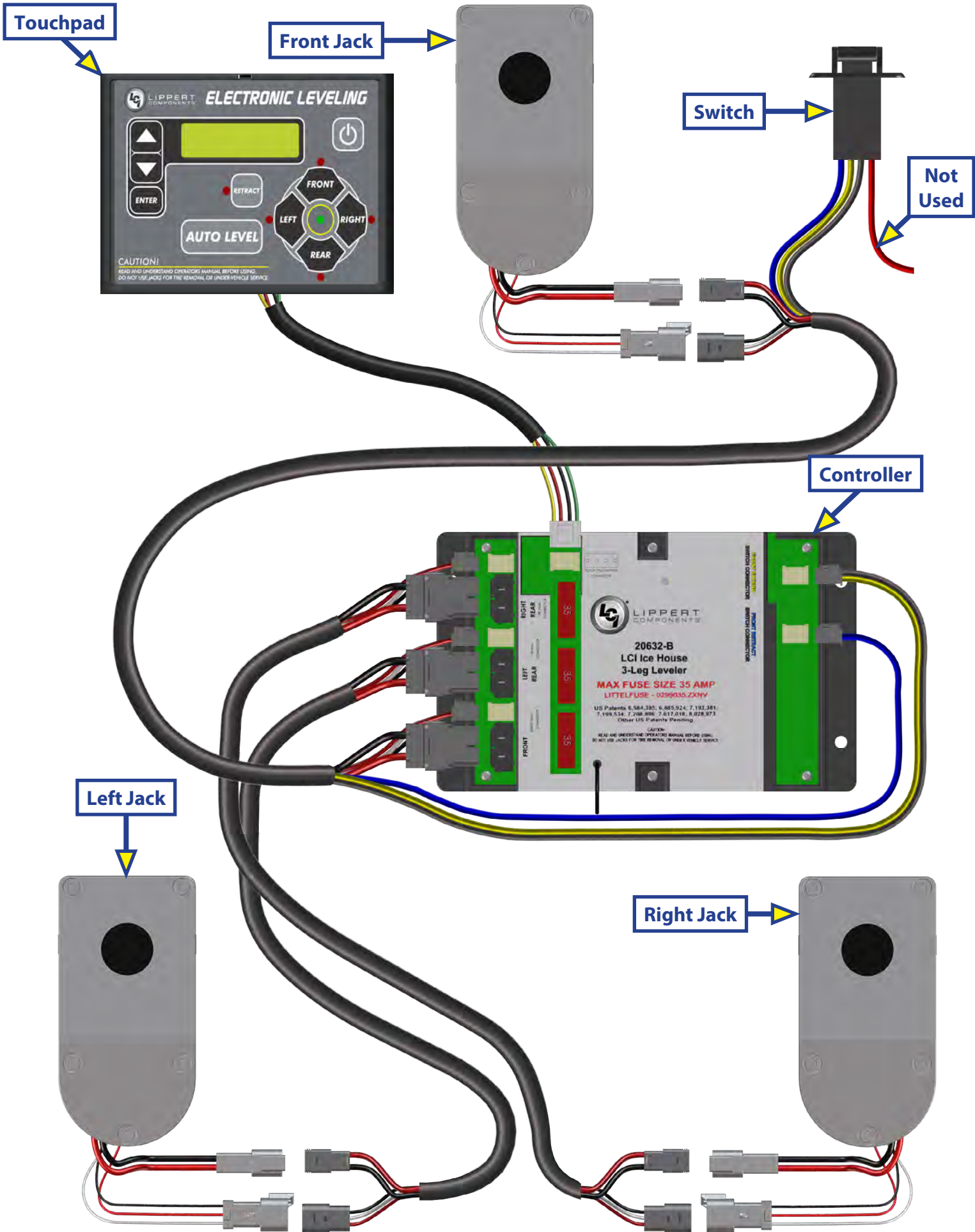
If manual override is necessary on any jack in the system, there are two options. The following process will describe how to use the bottom override. See the previous page for the top override.

Tools needed: $\frac{3}{8}$ " drive ratchet and extension, $\frac{5}{16}$ " socket.

1. Find the port on the bottom of the jack motor (Fig. 8A).
2. Remove the rubber plug (Fig. 9A).
3. Insert the $\frac{5}{16}$ " socket into the port (Fig. 10A).
4. Turn override until the jack extends or retracts to desired position.



Wiring Diagram





The contents of this manual are proprietary and copyright protected by Lippert. Lippert prohibits the copying or dissemination of portions of this manual unless prior written consent from an authorized Lippert representative has been provided. Any unauthorized use shall void any applicable warranty. The information contained in this manual is subject to change without notice and at the sole discretion of Lippert. Revised editions are available for free download from lippert.com.

Please recycle all obsolete materials.

For all concerns or questions, please contact Lippert
Ph: 432-LIPPERT (432-547-7378) | Web: lippert.com | Email: customerservice@lci1.com



GROUND CONTROL[®] 3.0
(5TH WHEEL) 4 POINT
OR 6 POINT
OWNER'S MANUAL



Scan for product support

TABLE OF CONTENTS

System and Safety Information	2
Prior to Operation	3
Touch Pad Diagram	3
Gray	3
Black	3
Operation	4
Unhitching From A Tow Vehicle	4
Auto Level	5
Auto Level Sequence	5
Hitch Recognition	6
Troubleshooting	6
Manual Override	6
Touch Pad Error Codes	8
Special Jack Error Codes	9
System Settings	9
Zero Point Calibration	9
Preventive Maintenance	10
Notes	11

System and Safety Information

WARNING

Failure to act in accordance with the following may result in death or serious personal injury. The use of the Ground Control® 3.0 leveling system to support the trailer for any reason other than which it is intended is prohibited by Lippert's limited warranty. The Lippert leveling system is designed as a "leveling" system only and should not be used to provide service for any reason under the trailer such as changing tires or servicing the leveling system. Any attempts to change tires or perform other service while trailer is supported by the Ground Control 3.0 leveling system could result in damage to the 5th wheel and/or cause death or serious injury.

CAUTION

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

NOTE: The Ground Control 3.0 system is for 5th wheel applications only.

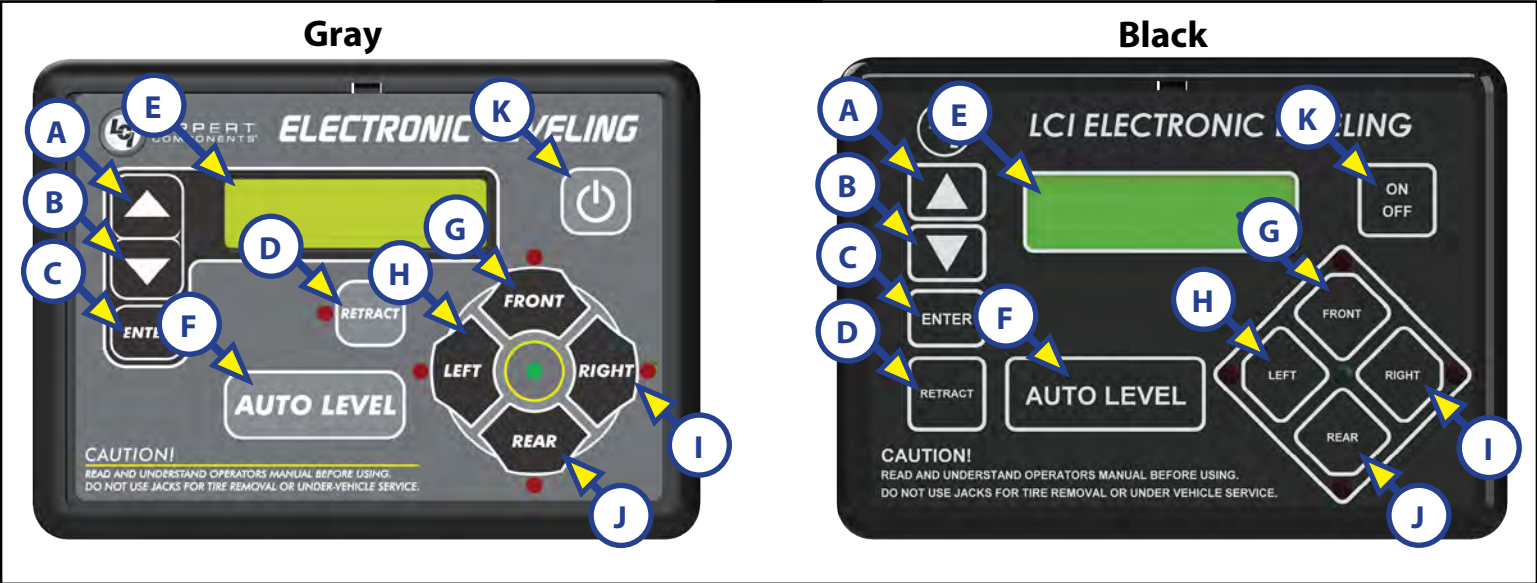
Prior to Operation

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

- 1. The trailer is parked on a reasonably level surface.
- 2. Be sure all persons, pets, and property are clear of the trailer while the leveling system is in operation.
- 3. Make sure battery(ies) are fully charged and test at 12+VDC under load.

Touch Pad Diagram

Fig. 1



NOTE: Units manufactured before January 2018 will utilize the black touchpad.

Callout	Description
A	Up Arrow - Scrolls up through the menu on LCD.
B	Down Arrow - Scrolls down through the menu on LCD.
C	ENTER - Activates modes and procedures indicated on LCD.
D	RETRACT - Places leveling system into retract mode. - Manual mode ONLY Press and hold for several seconds to activate Auto Retract Function.
E	LCD Display - Displays procedures and results.
F	AUTO LEVEL - Places leveling system into auto level mode.
G	FRONT - Activates both front jacks in manual mode.
H	LEFT - Activates left rear jack in manual mode.
I	RIGHT - Activates right rear jack in manual mode.
J	REAR - Activates both rear jacks in manual mode.
K	Power Button - Turns leveling system on and off.

Operation

⚠ WARNING

Be sure to park the trailer on solid, level ground. Clear all jack landing locations of debris and obstructions. Locations should also be free of depressions. When parking the trailer on extremely soft surfaces, utilize load distribution pads under each jack. People and pets should be clear of trailer while operating leveling system. Never lift the trailer completely off the ground. Lifting the trailer so the wheels are not touching the ground will create an unstable and unsafe condition.

Basic Jack Operation

Landing gear (front jacks) can be operated any time the system is "ON". By pushing the "FRONT" button (Fig. 1G), both front jacks can be extended. By pushing either the "FRONT" and "LEFT" (Fig. 1H) or "FRONT" and "RIGHT" (Fig. 1I) buttons, the individual front jacks can be extended. If the touch pad is put in the retract mode, indicated by the orange illuminated LED next to the "RETRACT" button (Fig. 1D), the front jacks can be retracted together by pushing the "FRONT" button (Fig. 1G) or individually by pressing "LEFT" (Fig. 1H) or "RIGHT" (Fig. 1I) buttons, while simultaneously pressing the "FRONT" button (Fig. 1G).

Middle jacks, if equipped, can not be extended or retracted in standard mode or manual mode. Middle jacks can only be operated in the special jack code error mode. In order to operate the middle jacks press "LEFT" (Fig. 1H) and "RIGHT" (Fig. 1I) buttons simultaneously.

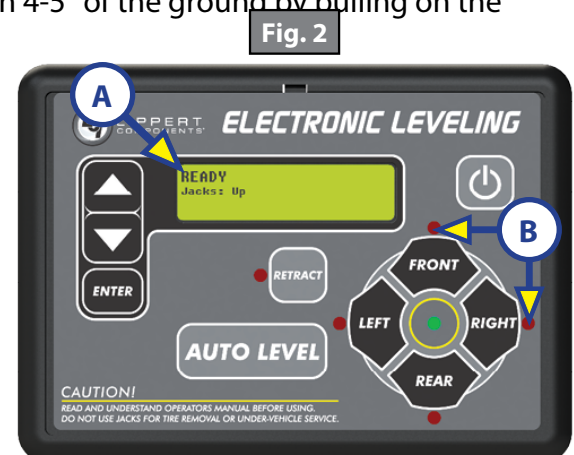
The rear jacks can only be extended when the touch pad is in the manual mode. Once system is in manual mode, pressing the "REAR" button (Fig. 1J) will extend both rear jacks at the same time. To extend individual rear jacks, press the "LEFT" (Fig. 1H) or "RIGHT" (Fig. 1I) buttons while simultaneously pressing the "REAR" button (Fig. 1J), depending on which jack needs to be operated. If the touch pad is put in the retract mode, indicated by the orange illuminated LED next to the "RETRACT" button (Fig. 1D), the rear jacks can be retracted together by pushing the "REAR" button (Fig. 1J) or individually by pressing either the "LEFT" (Fig. 1H) or "RIGHT" (Fig. 1I) buttons, while simultaneously pressing the "REAR" button (Fig. 1J).

NOTE: If the rear jacks will not operate individually using the method described above, but they operate properly when Auto Level is performed, the Twist Prevention Protection system has locked out the operation to prevent damage to the frame of the trailer.

Unhitching From A Tow Vehicle

NOTE: Prior to unhitching from the tow vehicle, ensure the trailer is parked on a level surface and be sure to chock the tires of the trailer.

1. Extend the inner legs of both landing gear (front jacks) to within 4-5" of the ground by pulling on the quick-release pins.
2. Push "ON/OFF" (Fig. 1K). LCD Screen will light up and display "READY JACKS: UP" (Fig. 2A).
3. Push the "UP" arrow (Fig. 1A) to scroll to "Drop Front Jacks" option on LCD screen.
4. Red indicator lights (Fig. 2B) may come on, indicating the current disposition of the trailer. In this case, the front and right sides of the trailer are low.
5. Push "ENTER" (Fig. 1C). Both front jacks will go to ground and stop.
6. Push the "FRONT" button (Fig. 1G) extending the front jacks to a sufficient height, which raises the front of the trailer off of the tow vehicle's 5th wheel hitch plate.
7. Pull tow vehicle away and park at a safe distance.



Auto Level

1. After unhitching from tow vehicle and parking the vehicle at a safe distance away from the trailer, press the "ON/OFF" button (Fig. 1K) and then press "AUTO LEVEL" (Fig. 1F).

NOTE: Once the automatic leveling cycle has been started, it is important that there is no movement in the trailer until the trailer has completed the leveling process. Failure to remain still during the leveling cycle could have an effect on the performance of the leveling system.

NOTE: In order for hitch recognition feature to function, the auto level sequence must be started with the front of the trailer above level.

Auto Level Sequence

1. When Auto Level Sequence begins, the front of the trailer will lower slightly to a point below level.
2. Rear jacks will be grounded.
3. A side to side leveling sequence occurs.

NOTE: At this point on the 6 point system, the 2 middle jacks are grounded to stabilize the trailer. These 2 jacks do not level the trailer.

4. Each jack will perform a final grounding touch.
5. LCD will read "AUTO LEVEL SUCCESS" (Fig. 3).
6. LCD will then read "READY Jacks: Down" (Fig. 4A), and the green LED at the center of the 4 jack buttons will be illuminated (Fig. 4B).



NOTE: If the AUTO LEVEL sequence does not perform as described, place the system in manual mode and test that the jacks operate correctly by pushing their coordinating buttons on the touch pad; i.e. "FRONT" button operates only the front jacks, etc.

Hitch Recognition

1. Turn on the touch pad.
2. Push the "UP" arrow (Fig. 5A) to scroll to "Auto Reconnect" option on LCD screen.
3. Push "ENTER" (Fig. 5B). The rear jacks and middle jacks (if equipped) will retract first, then the front jacks will extend to raise the trailer to the height where the auto level sequence was started.

NOTE: If the auto level sequence was started with the front of the trailer in a below-level condition, the Hitch Recognition will not function and the LCD will display "Feature Disabled." In order for the Hitch Recognition feature to function, the auto level sequence must be started with the front of the trailer above level.

4. Once jacks are retracted, pull the pin and retract the inner legs of the landing gear (front jacks). Make sure the pin latches again when complete.



Troubleshooting

⚠ WARNING

Ensure the trailer is supported at both the front and rear with jack stands before performing any troubleshooting or service to the trailer. Failure to do so may result in death or personal injury.

Manual Override

NOTE: For ease of manual override it is recommended to unplug the power harness to the motor prior to performing the manual override procedure.

NOTE: Use of a 12-18 volt cordless screw gun or pneumatic screw gun is acceptable to manually override the jacks. Do not use an impact screw gun to perform any of the override procedures, as this may damage the motor. If manual override is necessary there are two options.

Top of Jack Motor Override:

Tools needed: 3/8" drive ratchet and extension (no socket)

1. Find the port on the top of the jack motor (Fig. 6A).
2. Remove the rubber plug (Fig. 7A).
3. Insert the 3/8" drive into the port (Fig. 8).
4. Turn override until the jack extends or retracts to desired position.

Fig. 6

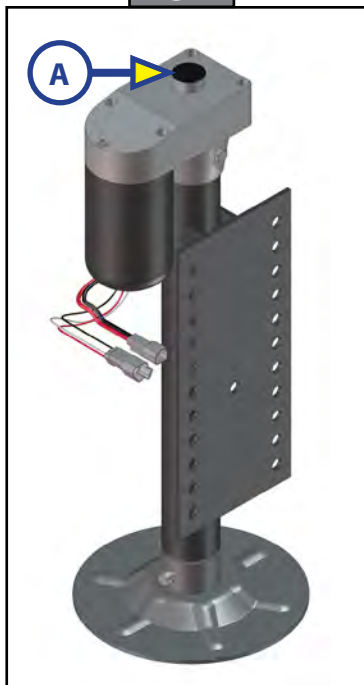


Fig. 7

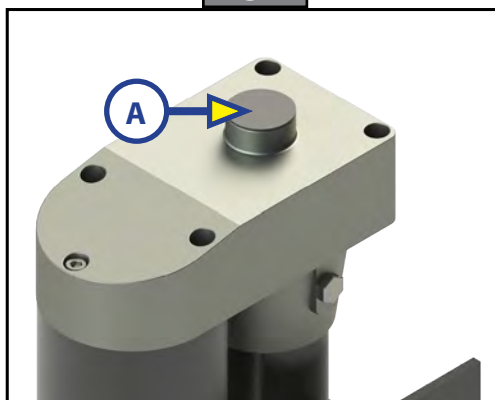


Fig. 8



Bottom of Jack Motor Override:

Tools needed: $\frac{3}{8}$ " drive ratchet and extension, $\frac{5}{16}$ " socket

1. Find the port on the bottom of the jack motor (Fig. 9A).
2. Remove the rubber plug (Fig. 10A).
3. Insert the $\frac{5}{16}$ " socket into the port (Fig. 11).
4. Turn override until the jack extends or retracts to desired position.

Fig. 9

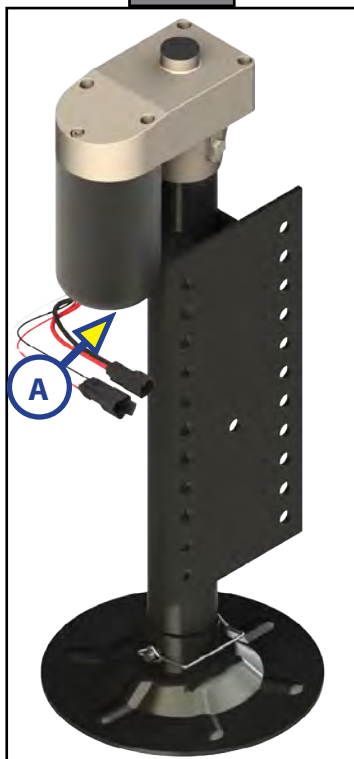


Fig. 10

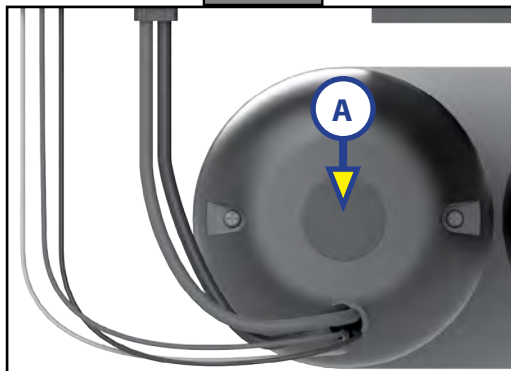


Fig. 11



Touch Pad Error Codes

NOTE: To clear an error code from the touch pad, repair or otherwise correct the issue, then press "ENTER."
If the error is still present, the message will be displayed again.

LCD Error Code	What's Happening?	What Should Be Done?
Excess Angle	Controller not properly secured.	Check and secure controller placement.
	Excessive angle reached during auto operation.	Relocate the trailer.
Excessive Angle	Controller not properly secured.	Check and secure controller placement.
	Excessive angle reached during auto operation.	Relocate the trailer.
Feature Disabled	Front of trailer below level when starting Auto Level process (only when trying to initiate Hitch Recognition).	Using manual mode on the touch pad, retract rear (which includes the middle, if equipped) jacks and set landing gear (front jacks) to hitch height.
	Touch pad power not cycled between consecutive leveling operations.	Turn touch pad off and then back on to reset the system.
	Zero point not set.	Set zero point.
Low Voltage	Battery voltage dropped below 10.8V.	Check wiring - repair or replace.
		Test battery voltage under load - charge or replace.
Out Of Stroke	Jack has reached maximum stroke length and is unable to lift.	Check disposition of jacks. Relocate the trailer.
	Unexpected high amp current stall.	Check jacks in manual mode or perform manual override procedure. Repair or replace as needed.
		Check for bent or damaged jacks. Repair or replace as needed.
External Sensor	Bad connection or wiring from the controller to the rear sensor.	Replace or repair connection to rear remote sensor.
Jack Time Out	Time limit exceeded for the requested auto operation.	Check disposition of jacks.
Auto Level Fail	Unable to auto level due to uneven ground.	Check disposition of jacks. Relocate the trailer.
	Unable to auto level due to zero point being set incorrectly.	Reset zero point.
Comm Error	Communication between controller and touch pad has been lost.	Check harness for proper connections or damage. Replace if necessary.
Bad Calibration	Sensor calibration values are out of range.	Replace controller
Internal Sensor	Internal sensor problem.	Replace controller
Function Aborted	The user pressed a button on the touch pad during an automatic operation.	Restart automatic operation and then refrain from pressing any buttons on the touch pad.
Hall Effect Short	Short circuit detected in one of the hall effect circuits.	Test for short and repair or replace.

Special Jack Error Codes

To clear 1 of the error codes listed below:

1. Correct or otherwise repair the issue (see the table below).

NOTE: In order to clear the special jack error code the jacks need to be "homed." In order to "home" jacks, each jack must be able to retract a minimum of 6".

2. Extend all jacks to reach the 6" of minimum retract needed.
 - A. Press "FRONT" (Fig. 1G) to extend the front jacks (if required).
 - B. Press "REAR" (Fig. 1J) to extend the rear jacks (if required).
 - C. Press "LEFT" and "RIGHT" (Fig. 1H and Fig. 1I) simultaneously to extend the middle jacks (if equipped and required).
3. Press and hold the retract button until all of the jacks begin to retract. The jacks will retract until they reach the hard current limit.
4. The jacks are now "homed" and the special jack error code will be cleared.

NOTE: If the jacks do not retract, an error should display on the touch pad screen. This is typically caused by wiring interruption.

LCD Error Code	What's Happening?	What Should Be Done?
LF Jack	Error at a specific jack (left front, right front, left middle, right middle, left rear, right rear). Hall signal issue (open, short, malfunction or loss of communication); open or short circuit between controller and motor.	Check harness connections at controller and at jack.
RF Jack		
LM Jack		Check harness for damage.
RM Jack		Check fuses at controller.
LR Jack		
RR Jack		Repair or replace as necessary.

System Settings

Zero Point Calibration

The "Zero Point" is the programmed point that the trailer will return to each time the Auto Level feature is used.

NOTE: Prior to starting this procedure, double check all connections on the controller, jacks, and touch pad.

1. In manual mode, run the jacks to level the trailer. This is best achieved by placing a level in the center of the trailer and leveling it both front to back and then side to side. (See "Basic Jack Operation" for instructions on how to manually operate the system).
2. Once the trailer is level, turn off the touch pad.
3. With the touch pad off, press and release the "FRONT" button (Fig. 1G) 5 times and then press and release the "REAR" button (Fig. 1J) 5 times.
4. The touch pad will flash and beep and the display will read "ZERO POINT CALIBRATION ENTER to set, Power to Exit" (Fig. 12).
5. To set the current position as the zero point, press the "ENTER" button (Fig. 1C).
6. LCD display will read "Zero point stability check" (Fig. 13).
7. LCD display will read "Zero point set successfully" once process is complete (Fig. 14).
8. The system will set this point as its level state and the touch pad will turn off.

Fig. 12

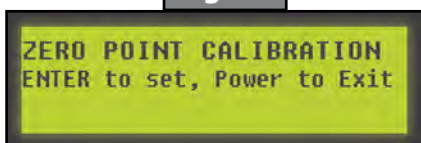


Fig. 13

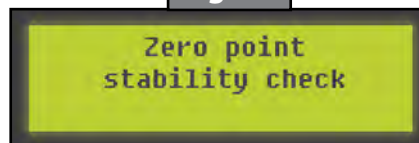
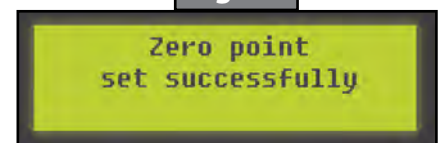


Fig. 14



Preventive Maintenance

1. For optimum performance, the system requires full battery current and voltage. The battery must be maintained at full capacity.
2. Check the terminals and other connections at the battery, the controller, and the jacks for corrosion, and loose or damaged connections.
3. Remove dirt and road debris from jacks as needed.
4. If jacks are down for extended periods, it is recommended to spray exposed leveling jack rods with a silicone lubricant every three months for protection. If the trailer is located in a salty environment, it is recommended to spray the rods every 4-6 weeks.

Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



The contents of this manual are proprietary and copyright protected by Lippert. Lippert prohibits the copying or dissemination of portions of this manual unless prior written consent from an authorized Lippert representative has been provided. Any unauthorized use shall void any applicable warranty. The information contained in this manual is subject to change without notice and at the sole discretion of Lippert. Revised editions are available for free download from lippert.com.

Please recycle all obsolete materials.

For all concerns or questions, please contact Lippert
Ph: 432-LIPPERT (432-547-7378) | Web: lippert.com | Email: customerservice@lci1.com



GROUND CONTROL®

(5TH WHEEL)

4 POINT AND 6 POINT

ONECONTROL™ TOUCH PANEL

OWNER'S MANUAL



Scan for product support

TABLE OF CONTENTS

Introduction	3
Safety	3
Touch Pad Diagram - Auto Leveling Control Touch Pad	4
Operation - Auto Leveling Control Touch Pad	5
Unhitching Instructions	5
Auto Level	5
Auto Level Sequence	5
Hitch Recognition	5
Touch Panel Diagram - OneControl Touch Panel	6
Operation - OneControl Touch Panel	7
Standard Mode and Menu	7
Basic Jack Operation	7
Unhitching Instructions	8
Auto Level	8
Auto Level Sequence	8
Hitch Recognition	8
Touch Panel Diagram - OneControl App From MyRV	9
Operation - OneControl App	10
Accessing the OneControl App	10
Standard Mode and Menu	10
Basic Jack Operation	10
Unhitching Instructions	11
Auto Level	11
Auto Level Sequence	11
Hitch Recognition	11
Touch Panel Diagram - Linc Remote Control - Optional	12
Configuring Linc Remote to Sync to The One Control Touch Panel	12
Basic Jack Operation	13
Unhitching Instructions	13
Auto Level	13
Auto Level Sequence	13
Troubleshooting	14
Red/Green LED Indicator on Auto Leveling Control Touch Pad (Rev. A)	14
Red/Green LED Indicator on Auto Leveling Control Touch Pad (Rev. B)	14
OneControl Touch Panel or OneControl App Error Codes (Rev. A)	15
OneControl Touch Panel or OneControl App Error Codes (Rev. B)	15
Special Jack Error Codes on OneControl Touch Panel or OneControl App (Rev. A)	16
Special Jack Error Codes on OneControl Touch Panel or OneControl App (Rev. B)	16
Clearing Faults From Auto Leveling Control Touch Pad (Rev. B)	16
Manual Override	17
Zero Point Calibration	18
To Set the Zero Point	18
Preventive Maintenance	19

Introduction

Ground Control is an automatic leveling system for 5th wheel applications. The system utilizes one main control board and a separate waterproof remote level sensor to measure and manage level point, and can be operated from several user interface devices, including:

- **Auto Leveling Control Touch Pad** - Mounted outside the trailer within view of the hitch.
- **MyRV® OneControl™ Touch Panel (OCTP)** - Mounted on a wall inside the living space of the trailer.
- **MyRV® OneControl™ Leveling 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.
- **Linc® Remote Control** - Optional.

NOTE: Ground Control **IS FOR 5TH WHEEL APPLICATIONS ONLY.**

Additional information about this product can be obtained from [lci1.com/support](https://support.lci1.com/support) or by downloading the free LippertNOW app. The app is available on Apple App Store® for iPhone® and iPad® and also on Google Play™ for Android™ users.

Apple App Store®, 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/ground-control-support-ground-control-leveling-onecontrol-touch-panel>

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

Read and understand all instructions before installing or operating this product. Adhere to all safety labels.

This manual provides general instructions. Many variables can change the circumstances of the instructions, i.e., 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 Lippert limited warranty.

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 act in accordance with the following may result in death, serious injury, trailer damage or voiding of the component warranty.

WARNING

Lippert recommends that a trained professional be employed to change the tires on the trailer. Ensure that the trailer is properly supported with jack stands or other adequate devices under the frame of the trailer prior to commencing any service or repair procedure. Any attempts to change the tires or perform other service while trailer is supported solely by the Ground Control jacks could result in death, serious injury, trailer or property damage.

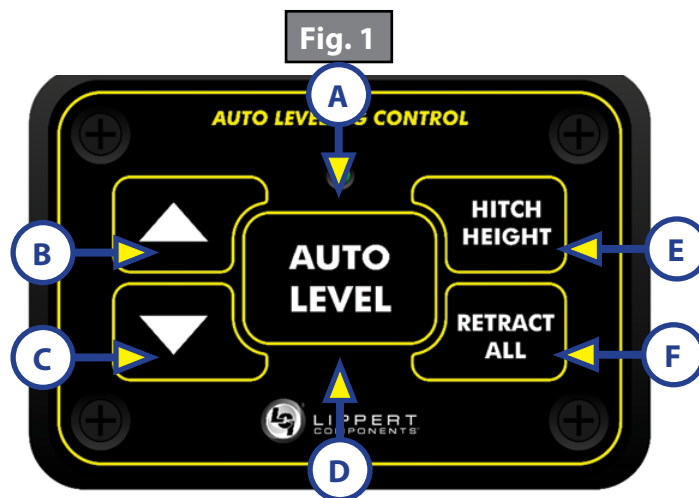
⚠ CAUTION

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

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

Touch Pad Diagram - Auto Leveling Control Touch Pad



Callout	Description	
A	Red/Green LED - Indicates the status of the system.	
B	Up Arrow - Extends front jacks (landing gear).	To turn on the touch pad, press the Up and Down arrow buttons at the same time.
C	Down Arrow - Retracts front jacks (landing gear).	
D	Auto Level Button - Places leveling system into auto level mode.	
E	Hitch Height Button - Initiates the Hitch Recognition feature.	
F	Retract All Button - Places leveling system into full retract mode.	

Operation - Auto Leveling Control Touch Pad

Unhitching Instructions

NOTE: Prior to unhitching from the tow vehicle, ensure the trailer is parked on a level surface and chock the tires of the trailer.

1. Extend the inner legs of both front jacks (landing gear) to within 4-5" of the ground by pulling on the quick-release pins.
2. To turn on the touch pad, press both "UP" and "DOWN" arrows (Fig. 1B and Fig. 1C) at the same time. The green indicator LED (Fig. 1A) will turn on.

NOTE: The touch pad will remain on as long as the user is pressing buttons. It will time out after approximately seven minutes without use.

3. Press the "UP" arrow (Fig. 1B) to extend the front jacks and lift the front of the trailer to take the weight of the trailer off of the hitch.
4. Uncouple the trailer connection on the tow vehicle.
5. Pull the tow vehicle away and park at a safe distance.

Auto Level

1. After unhitching from the tow vehicle and parking the vehicle at a safe distance away from the trailer. Press both "UP" and "DOWN" arrows (Fig. 1B and Fig. 1C) at the same time if the green indicator LED is not on. Press "AUTO LEVEL" (Fig. 1D).

NOTE: Once the automatic leveling cycle has been started, it is important that there is no movement in the trailer until the leveling process is complete. Failure to remain still during the leveling cycle could have an effect on the performance of the leveling system.

Auto Level Sequence

1. When Auto Level Sequence begins, the front of the trailer will seek a position near a level state.
2. Rear jacks will be grounded.
3. A side-to-side leveling sequence will occur. Middle jacks may be used to help lift and level the trailer.

NOTE: At this point on the 6-point system, the two middle jacks will be grounded to stabilize the trailer. These two jacks do not level the trailer.

4. Each jack will perform a final grounding touch.

NOTE: If the AUTO LEVEL sequence does not perform as described above, locate the OneControl Touch Panel inside the trailer or use the OneControl App to place the system in manual mode. Test that the jacks operate correctly by pushing their corresponding buttons on the OneControl Touch Panel or app; e.g., "FRONT" button operates only the front jacks, etc. See Operation - OneControl Touch Panel or Operation - OneControl App in this manual.

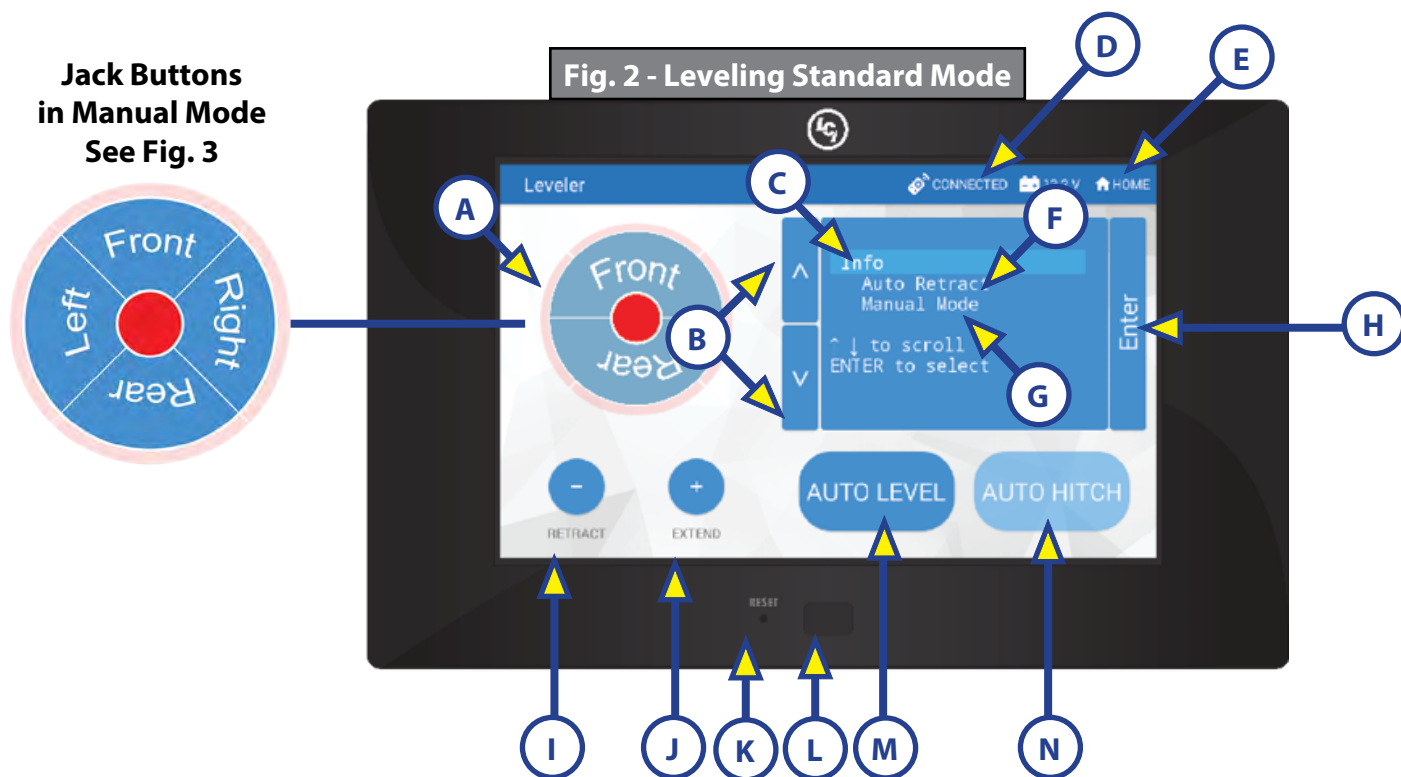
Hitch Recognition

1. To turn on the touch pad, press both "UP" and "DOWN" arrows (Fig. 1B and Fig. 1C) at the same time. The green indicator LED (Fig. 1A) will turn on.
2. Press "HITCH HEIGHT" (Fig. 1E). The rear jacks will retract. The front of the trailer will raise to the height where the auto level sequence was started.

NOTE: If the front of the trailer was below level when the Auto Level process was initiated, the hitch recognition feature will retract the rear jacks but will not retract the front jacks to lower the trailer to the initial hitch height. This feature helps prevent injury and/or damage to anything underneath the trailer.

3. Connect tow vehicle and make sure trailer and hitch are connected and locked.
4. Press "RETRACT ALL." (Fig. 1F). System will immediately retract all jacks.
5. Use the quick release pins on the landing gear to manually return the inner jack leg to fully retracted position.

Touch Panel Diagram - OneControl Touch Panel



Callout	Description
A	Jack Buttons - Select front, rear, right and left jacks to be operated depending on mode. Jacks available to be operated will be highlighted in blue. The front jacks can be extended/retracted in Standard Mode. Rear jacks can only be retracted from this mode. In Manual Mode (Fig. 3), all jacks are available to be operated.
B	Up and Down Arrows - Scrolls through options on screen.
C	Info - Displays system information, e.g. angle, jack stroke or software version.
D	Connected Icon - Press 6 times to program zero point/ wireless configurations.
E	Home Icon - Returns screen to home page.
F	Auto Retract - Enters Auto Retract mode. Choose to retract "All Jacks" or "Rear Jacks."
G	Manual Mode - Enters Manual Mode to manually operate jacks.
H	Enter - Push to select various modes.
I	Retract - Retracts jacks in several modes. Jacks available will be highlighted in blue.
J	Extend - Extends jacks in several modes. Jacks available will be highlighted in blue.
K	Reset - Resets to factory default.
L	Power Button - Turns touch panel on and off.
M	Auto Level - Starts the Auto Level sequence.
N	Auto Hitch - Returns trailer to previous hitch height for reconnecting to tow vehicle.

Operation - OneControl Touch Panel

Standard Mode and Menu

To reach Standard Mode (Fig. 2) for leveling:

1. Power on the OneControl Touch Panel (Fig. 2L).
2. Press "MyRV Control Panel" on the main screen.
3. Press the "Leveler" icon.
4. The screen will show the system menu (Fig. 2) for Standard Mode. The front jacks can be extended/retracted in Standard Mode. Rear jacks can only be retracted from this mode.

Basic Jack Operation

While in Standard Mode:

1. Press "RETRACT" (Fig. 2I) or "EXTEND" (Fig. 2J) and "FRONT" (Fig. 2A) to retract or extend front jacks.
2. Press "RETRACT" and "REAR" to retract rear jacks.
3. Press the "AUTO LEVEL" (Fig. 2M) button to start the auto leveling sequence.
4. Press the "AUTO HITCH" (Fig. 2N) button to start the hitch recognition sequence when reconnecting to the tow vehicle.
5. Use the "UP" or "DOWN" arrow (Fig. 2B) buttons to cycle through the menu screen options:
 - A. Info:** Scroll to "INFO" (Fig. 2C) and press "ENTER" (Fig. 2H) button to display system information, e.g., angle, jack stroke or software version.
 - B. Auto Retract:** Scroll to "AUTO RETRACT" (Fig. 2F) and press the "ENTER" button. Choose either "ALL JACKS" or "REAR JACKS." Press the "ENTER" button again to start the "Auto Retract" sequence.
 - C. Manual Mode:** Scroll to "MANUAL MODE" (Fig. 2G) and press "ENTER" button to start Manual Level operation.

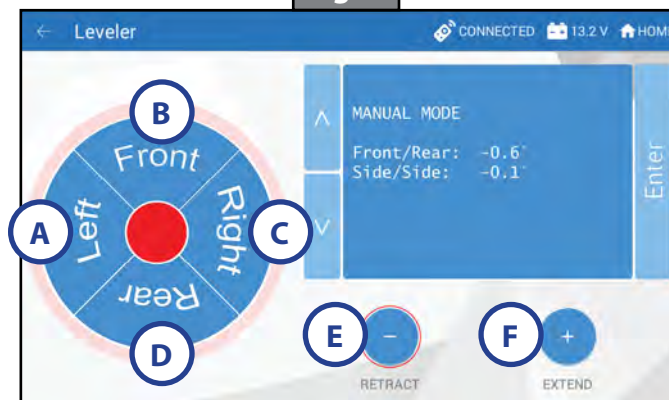
NOTE: Upon entering Manual Mode, a tutorial on operating the jacks will appear on the screen. Press "OK" to clear the tutorial. To delete the tutorial, click the "Don't show this again" box in the bottom right of the screen.

- I. Press "EXTEND" (Fig. 3F) or "RETRACT" (Fig. 3E) and "FRONT" (Fig. 3B) to operate front jacks.
- II. Press "EXTEND" or "RETRACT" and "REAR" (Fig. 3D) to operate rear jacks.
- III. Press "EXTEND" or "RETRACT" and "RIGHT" (Fig. 3C) to operate right jacks.
- IV. Press "EXTEND" or "RETRACT" and "LEFT" (Fig. 3A) to operate left jacks.

NOTE: To operate jacks individually, press "EXTEND" or "RETRACT" then press the "LEFT" (Fig. 3A) or "RIGHT" (Fig. 3C) button while simultaneously pressing the "FRONT" (Fig. 3B) or "REAR" button (Fig. 3D), depending on which jack needs to be operated.

NOTE: If the rear jacks will not operate individually using the method described above, but they operate properly when Auto Level is performed, the Twist Prevention Protection system has locked out the operation to prevent damage to the frame of the trailer.

Fig. 3



Unhitching Instructions

NOTE: Prior to unhitching from the tow vehicle, ensure the trailer is parked on a level surface and chock the tires of the trailer.

1. Extend the inner legs of both front jacks (landing gear) to within 4-5" of the ground by pulling on the quick-release pins.
2. Push touch panel "ON/OFF" (Fig. 2L) to turn system on.
3. Press "MyRV Control Panel" on the main screen.
4. Press the "Leveler" icon.
5. The screen will show the system menu (Fig. 2) for Standard Mode. Push "EXTEND" (Fig. 2J) and "FRONT" button (Fig. 2A) to extend front jacks and lift front of the trailer to take the weight of the trailer off of the hitch.
6. Uncouple the trailer connection on the tow vehicle.
7. Pull the tow vehicle away and park at a safe distance.

Auto Level

1. After unhitching from the tow vehicle and parking the vehicle a safe distance away from the trailer, press the "ON/OFF" button (Fig. 2L) if the OneControl Touch Panel is not on and then press "AUTO LEVEL" (Fig. 2M).

NOTE: Once the automatic leveling cycle has been started, it is important that there is no movement in the trailer until the leveling process is complete. Failure to remain still during the leveling cycle could have an effect on the performance of the leveling system.

Auto Level Sequence

1. When Auto Level Sequence begins, the front of the trailer will seek a position near a level state.
2. Rear jacks will be grounded.
3. A side-to-side leveling sequence will occur. Middle jacks may be used to help lift and level the trailer.

NOTE: At this point on the 6-point system, the two middle jacks will be grounded to stabilize the trailer. These two jacks do not level the trailer.

4. Each jack will perform a final grounding touch.

NOTE: If the AUTO LEVEL sequence does not perform as described above, locate the OneControl Touch Panel inside the trailer or use the OneControl App to place the system in manual mode. Test that the jacks operate correctly by pushing their corresponding buttons on the OneControl Touch Panel or App; e.g., "FRONT" button operates only the front jacks, etc. (See "Operation - OneControl Touch Panel" or "Operation - OneControl App" in this manual).

Hitch Recognition

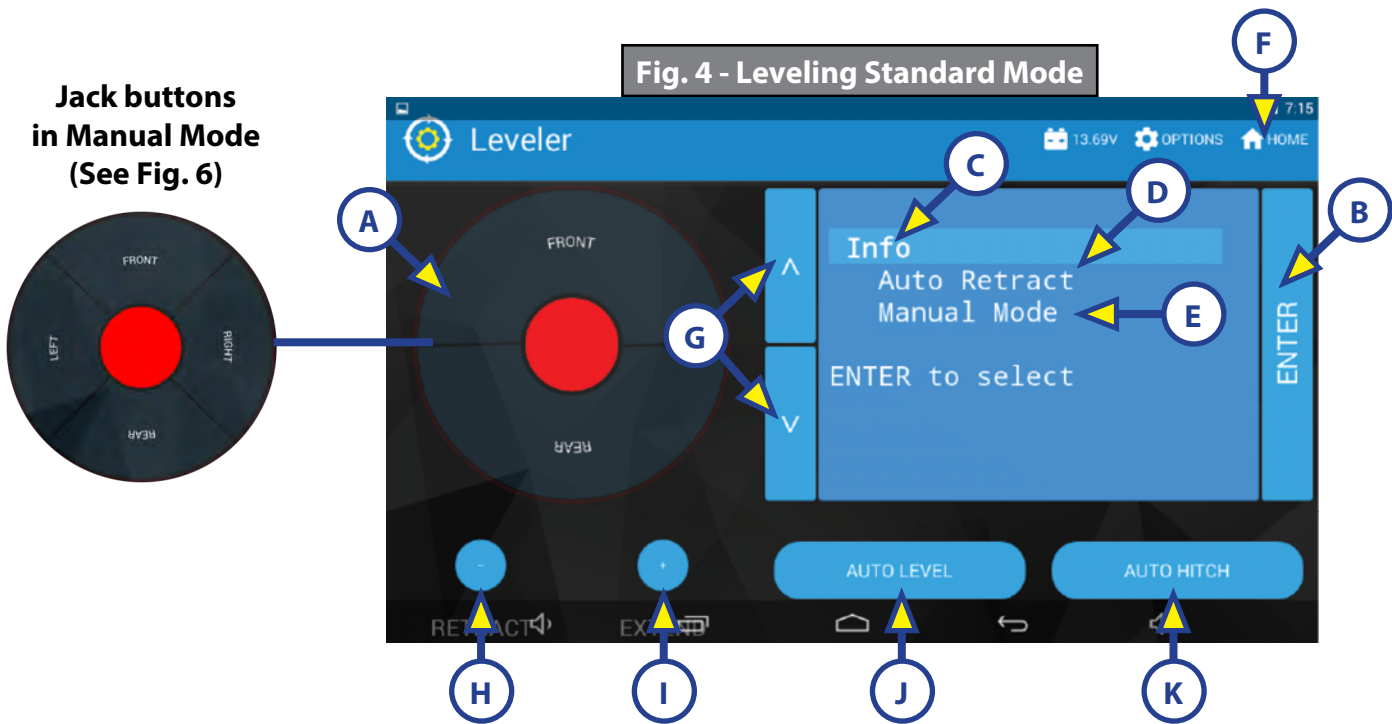
1. Push touch panel "ON/OFF" (Fig. 2L) to turn system on.
2. Press "MyRV Control Panel" on the main screen.
3. Press the "Leveler" icon.
4. The screen will show the system menu (Fig. 2) for Standard Mode.
5. Press "AUTO HITCH" (Fig. 2N). Rear jacks will retract.
6. The front of the trailer will raise to the height where the auto level sequence was started.

NOTE: If the front of the trailer was below level when the Auto Level process was initiated, the hitch recognition feature will retract the rear jacks but will not retract the front jacks to lower the trailer to the initial hitch height. This feature helps prevent injury and/or damage to anything underneath the trailer.

7. Connect tow vehicle and make sure trailer and hitch are connected and locked.
8. On the Standard Mode screen (Fig. 2) use the "UP" and "DOWN" arrows (Fig. 2B) to scroll to "AUTO RETRACT" (Fig. 2F). Press "ENTER."
9. Choose "ALL JACKS." Press "ENTER." System will immediately retract all jacks.
10. Use the quick release pins on the landing gear to manually return the inner jack leg to the fully retracted position.

Touch Panel Diagram - OneControl App from MyRV

NOTE: The OneControl Leveling App is available on iTunes® for iPhone® and iPad® and also on Google Play™ for Android™ users.



Callout	Description
A	Jack Buttons - Select front, rear, right and left jacks to be operated depending on mode. Jacks available to be operated will be highlighted in blue. The front jacks can be extended/retracted in Standard Mode. Rear jacks can only be retracted from this mode. In Manual Mode (Fig. 6), all jacks are available to be operated.
B	Enter - Push to activate various modes.
C	Info - Displays system information, e.g., angle, jack stroke, software version.
D	Auto Retract - Enters Auto Retract mode. Choose to retract "All Jacks" or "Rear Jacks."
E	Manual Mode - Enters Manual Mode to manually operate jacks.
F	Home Icon - Returns screen to home page.
G	Up and Down Arrows - Scroll through options on screen.
H	Retract - Retracts jacks in several modes. Jacks available will be highlighted in blue.
I	Extend - Extends jacks in several modes. Jacks available will be highlighted in blue.
J	Auto Level - Starts the Auto Level sequence.
K	Auto Hitch - Returns trailer to previous hitch height for reconnecting to tow vehicle.

Operation - OneControl App

Accessing the OneControl App

1. Ensure there is power to the trailer's wireless network.
2. Navigate to the device's (smart phone, tablet, etc.) wifi settings. Turn wireless feature on and connect to the myRV wireless network.

NOTE: If this is the first time connecting to the myRV wireless network, a password will be required. The password is located on the trailer's wifi hub (Fig. 5).

3. Open the OneControl application on the compatible device.

NOTE: If the device states "Unresolved Network Connection," retry connecting to the myRV wireless network and/or wait for the connection to resolve and display "Connected" under the myRV wireless connection.

4. The application will request the user "Agree" to an end user license agreement, create a PIN and "Re-enter PIN to confirm."
5. The OneControl app will now display all functions. Choose "Leveler."

Fig. 5



Standard Mode and Menu

Standard Mode is the mode launched when the OneControl app "Leveler" function is powered up. The screen will show the system menu (Fig. 4). The front jacks can be extended/retracted in Standard Mode. Rear jacks can only be retracted from this mode.

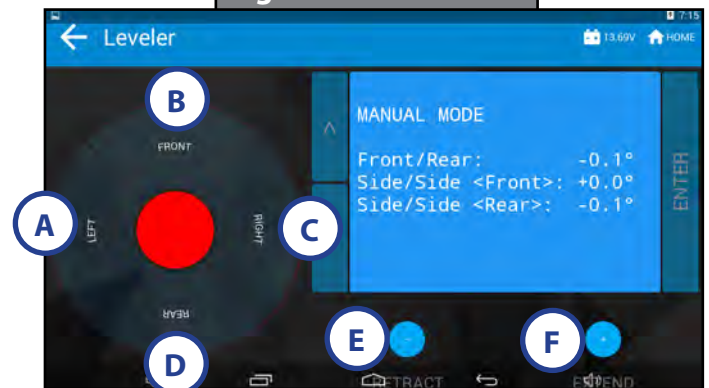
Basic Jack Operation

While in Standard Mode:

1. Press "RETRACT" (Fig. 4H) or "EXTEND" (Fig. 4I) and "FRONT" (Fig. 4A) to extend or retract front jacks.
2. Press "RETRACT" and "REAR" (Fig. 4) to retract rear jacks.
3. Press the "AUTO LEVEL" (Fig. 4J) button to start the leveling sequence.
4. Press the "AUTO HITCH" (Fig. 4K) button to start the hitch recognition sequence when reconnecting to the tow vehicle.
5. Use the "UP" or "DOWN" arrow buttons (Fig. 4G) to cycle through the menu options:
 - A. **Info:** Scroll to "INFO" (Fig. 4C) and press "ENTER" button to display system information, e.g., angle, jack stroke or software version.
 - B. **Auto Retract:** Scroll to "Auto Retract" (Fig. 4D) and press the "Enter" button. Choose either "ALL JACKS" or "REAR JACKS." Press the "ENTER" button again to start the "Auto Retract" sequence.
 - C. **Manual Mode:** Scroll to "MANUAL MODE" (Fig. 4E) and press "ENTER" button to start Manual Level operation.
 - I. Press "EXTEND" (Fig. 6F) or "RETRACT" (Fig. 6E) and "FRONT" (Fig. 6B) to operate front jacks.
 - II. Press "EXTEND" or "RETRACT" and "REAR" to operate rear jacks.
 - III. Press "EXTEND" or "RETRACT" and "RIGHT" to operate right jacks.
 - IV. Press "EXTEND" or "RETRACT" and "LEFT" to operate left jacks.

NOTE: To operate jacks individually, press "EXTEND" or "RETRACT" then press the "LEFT" (Fig. 6A) or "RIGHT" (Fig. 6C) button while simultaneously pressing the "FRONT" or "REAR" button (Fig. 6B and 6D), depending on which jack needs to be operated.

Fig. 6 - Manual Mode



NOTE: If the rear jacks will not operate individually using the method described above, but they operate properly when Auto Level is performed, the Twist Prevention Protection system has locked out the operation to prevent damage to the frame of the trailer.

Unhitching Instructions

NOTE: Prior to unhitching from the tow vehicle, ensure trailer is parked on a level surface and chock the tires of the trailer.

1. Extend the inner legs of both front jacks (landing gear) to within 4-5" of the ground by pulling on the quick-release pins.
2. Open the OneControl App.
3. Press the "Leveler" icon.
4. The screen will show the system menu (Fig. 4) for Standard Mode.
5. Push "Extend" (Fig. 4I) and "FRONT" buttons (Fig. 4) to extend front jacks and lift front of trailer to take the weight of the trailer off of the hitch.
6. Uncouple the trailer connection on the tow vehicle.
7. Pull tow vehicle away and park at a safe distance.

Auto Level

1. After unhitching from the tow vehicle and parking the vehicle at a safe distance away from the trailer, open the OneControl App and then press "AUTO LEVEL" (Fig. 4J).

NOTE: Once the automatic leveling cycle has been started, it is important that there is no movement in the trailer until the trailer has completed the leveling process. Failure to remain still during the leveling cycle could have an effect on the performance of the leveling system.

Auto Level Sequence

1. When Auto Level Sequence begins, the front of the trailer will seek a position near a level state.
2. Rear jacks will be grounded.
3. A side-to-side leveling sequence will occur. Middle jacks may be used to help lift and level the trailer.

NOTE: At this point on the 6-point system, the two middle jacks will be grounded to stabilize the trailer. These two jacks do not level the trailer.

4. Each jack will perform a final grounding touch.

NOTE: If the AUTO LEVEL sequence does not perform as described above, locate the OneControl Touch Panel inside the trailer or use the OneControl App to place the system in manual mode. Test that the jacks operate correctly by pushing their corresponding buttons on the OneControl Touch Panel or App; e.g., "FRONT" button operates only the front jacks, etc. (See "Operation - OneControl Touch Panel" or "Operation - OneControl App" in this manual).

Hitch Recognition

1. Open the OneControl App.
2. Press the "Leveler" icon.
3. The screen will show the system menu (Fig. 4) for Standard Mode.
4. Press "AUTO HITCH" (Fig. 4K). Rear jacks will retract.
5. The front of the trailer will raise to the height where the auto level sequence was started.

NOTE: If the front of the trailer was below level when the Auto Level process was initiated, the hitch recognition feature will retract the rear jacks but will not retract the front jacks to lower the trailer to the initial hitch height. This feature helps prevent injury and/or damage to anything underneath the trailer.

1. Connect tow vehicle and make sure trailer and hitch are connected and locked.
2. On the Standard Mode screen (Fig. 4) use the "UP" and "DOWN" arrows (Fig. 4G) to scroll to "AUTO RETRACT" (Fig. 4D). Press "ENTER."
3. Choose "ALL JACKS." Press "ENTER." System will immediately retract all jacks.
4. Use the quick release pins on the landing gear to manually return the inner jack leg to the fully retracted position.

Touch Panel Diagram - Linc Remote Control - Optional

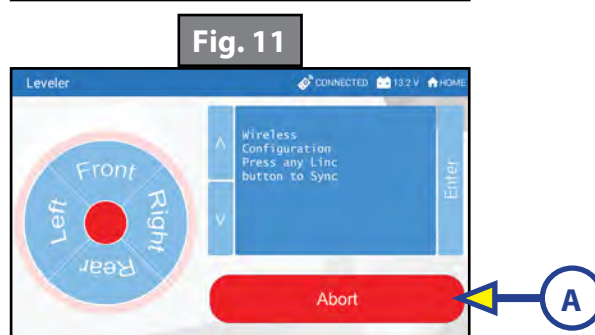
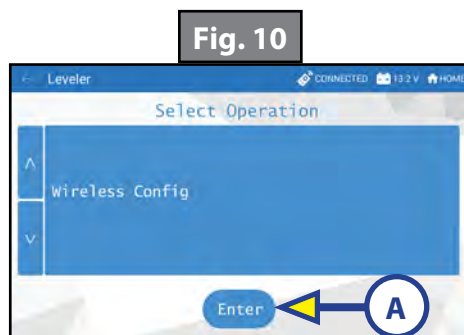
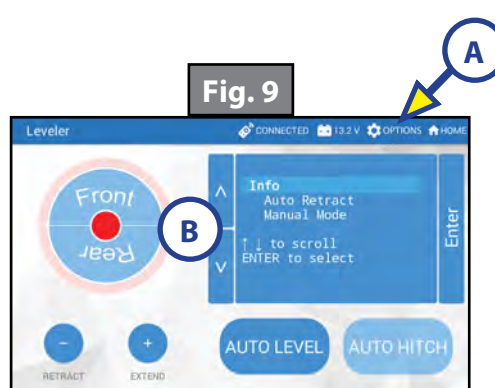
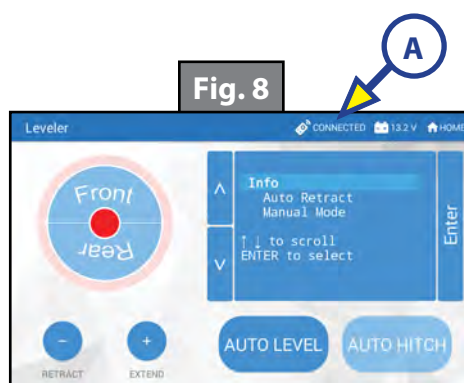
Callout	Description
A	Retract - Retracts front jacks and rear jacks.
B	Front Arrow - Operates front jacks.
C	Left Arrow - (See Note below)
D	Help - Provides contact information for Lippert.
E	Extend - Extends front jacks. (See Note below)
F	Right Arrow - (See Note below)
G	Rear Arrow - Retracts rear jacks. (See Note below)
H	Auto Level- Initiates Auto Level sequence.
I	Power Button - Turns remote control on and off.

NOTE: When the OneControl Touch Panel inside the trailer is placed in Manual Mode, the Linc remote will operate the jacks in a similar fashion as the OneControl, with the exception of operating individual jacks. See Operation - OneControl Touch Panel.



Configuring Linc Remote to Sync to The One Control Touch Panel

1. Turn on the Linc™ remote control (Fig. 7I) and enter a PIN.
2. Choose "Leveler" from the menu screen.
3. Turn on the OneControl Touch Panel (Fig. 2L).
4. On the OneControl Touch Panel, press the "CONNECTED" icon at the top of the screen (Fig. 8A) quickly six times. Wait a few seconds until the gear icon with "OPTIONS" appears (Fig. 9A).
5. Press the gear icon with "OPTIONS" (Fig. 9A).
6. Use the "UP" and "DOWN" arrows (Fig. 9B) to scroll to "WIRELESS CONFIG" (Fig. 10).
7. Press "ENTER" (Fig. 10A). The screen will display "Wireless Configuration Press any Linc button to Sync" (Fig. 11).
8. Press any button in "Leveler" mode on the Linc Remote Control (Fig 7).
9. Pressing "ABORT" on the OneControl Touch Panel (Fig. 11A) will cancel configuration sequence.



Basic Jack Operation

Press "EXTEND" (Fig. 7E) or "RETRACT" (Fig. 7A). Press "FRONT" arrow (Fig. 7B) to operate front jacks.

Press "RETRACT". Press "REAR" arrow (Fig. 7G) to operate rear jacks.

Press "AUTO LEVEL" (Fig. 7H) to start auto level sequence.

If the OneControl Touch Panel is in manual mode press, "EXTEND" (Fig. 7E) or "RETRACT"(Fig. 7A). Press "LEFT" (Fig. 7C), "RIGHT" (Fig. 7F) or "REAR" (Fig. 7G) arrow to operate left, right or rear jacks.

Unhitching Instructions

NOTE: Prior to unhitching from the tow vehicle, ensure the trailer is parked on a level surface and chock the tires of the trailer.

1. Extend the inner legs of both front jacks (landing gear) to within 4-5" of the ground by pulling on the quick-release pins.
2. Turn the Linc remote on (Fig. 7I) and enter a PIN code to turn system on.
3. Press the "LEVELER" button.
4. Press "EXTEND" (Fig. 7E) and "FRONT" arrow (Fig. 7B) to extend front jacks and lift the front of trailer to take the weight of the trailer off of the hitch.
5. Uncouple the trailer connection on the tow vehicle.
6. Pull tow vehicle away and park at a safe distance.

Auto Level

1. After unhitching from the tow vehicle and parking the vehicle a safe distance away from the trailer, press the "ON/OFF" button (Fig. 7I) on the Linc remote if the Linc is not on.
2. Enter a PIN.
3. Choose the "LEVELER" option.
4. Press "AUTO LEVEL" (Fig. 7H).

NOTE: Once the automatic leveling cycle has been started, it is important that there is no movement in the trailer until the trailer has completed the leveling process. Failure to remain still during the leveling cycle could have an effect on the performance of the leveling system.

Auto Level Sequence

1. When Auto Level Sequence begins, the front of the trailer will seek a position near a level state.
2. Rear jacks will be grounded.
3. A side-to-side leveling sequence will occur. Middle jacks may be used to help lift and level the trailer.

NOTE: At this point on the 6-point system, the two middle jacks will be grounded to stabilize the trailer. These two jacks do not level the trailer.

4. Each jack will perform a final grounding touch.

NOTE: If the AUTO LEVEL sequence does not perform as described above, locate the OneControl Touch Panel inside the trailer or use the OneControl App to place the system in manual mode. Test that the jacks operate correctly by pushing their corresponding buttons on the OneControl Touch Panel or App; e.g., "FRONT" button operates only the front jacks, etc. (See "Operation - OneControl Touch Panel" or "Operation - OneControl App" in this manual).

NOTE: There is no Hitch Recognition sequence programmed for the Linc remote.

Troubleshooting

Red/Green LED Indicator on Auto Leveling Control Touch Pad **(Rev. A)**

What Is Happening?	Why?
Off	Touch pad is locked.
Solid Green	Touch pad is active.
Blinking Green	Jacks are moving.
Solid Red	Low battery.
Blinking Red	Error - Refer to OneControl Touch Panel or the OneControl App for the specific error, then consult the Troubleshooting section of this manual to clear the error.

Red/Green LED Indicator on Auto Leveling Control Touch Pad **(Rev. B)**

What Is Happening?	Why?
Off	Touch pad is locked.
Solid Green	Touch pad is active.
Blinking Green	Jacks are moving.
Solid Red	Low battery.
Blinking Red	Error - Refer to OneControl Touch Panel or the OneControl App for the specific error, then consult the Troubleshooting section of this manual to clear the error.
Slowly Blinking Faded Red (Red and Green Blinking Simultaneously)	Error - Refer to OneControl Touch Panel or the OneControl App for the specific jack error code, then consult the Special Jack Error Code section of this manual to clear the error.

OneControl Touch Panel or OneControl App Error Codes (Rev. A)

NOTE: Faults can only be cleared via the OneControl Touch Panel or OneControl App. The only exception is when the Auto Leveling Control Touch Pad (Fig. 1) was used to abort an auto-sequence. In this case the fault can be cleared by pressing any Auto Leveling Control Touch Pad button.

OneControl Touch Panel or OneControl App Error Codes (Rev. B)

NOTE: Faults can be cleared via the OneControl Touch Panel, OneControl App or Auto Leveling Control Touch Pad. Most standard faults can be cleared from the Auto Leveling Control Touch Pad by pressing "Retract All."

OneControl Touch Panel or OneControl App Error Codes		
Touch Panel Message	What's Happening?	What Should I Do?
"EXCESS ANGLE"	Unsecured controller. Uneven or sloped site.	Check and secure controller placement. Relocate the trailer.
"EXCESSIVE ANGLE"	Excessive angle reached during manual operation.	Stop manual operation and reset jacks to a more level state. The code will self clear. There is no need to hit "OK."
"BAD CALIBRATION"	Trailer zero point was not set correctly.	Reset zero point.
"FEATURE DISABLED"	Hitch recognition requested but no hitch height set.	Perform "AUTO LEVEL" sequence to establish hitch height.
	Zero point not set.	Set zero point.
"LOW VOLTAGE"	Bad connection or wiring. Discharged or bad battery.	Check wiring - repair or replace. Test battery voltage under load - charge or replace.
"OUT OF STROKE"	Unsecured controller. Uneven or sloped site.	Check and secure controller placement. Relocate the trailer.
"EXTERNAL SENSOR"	Bad connection or wiring.	Replace or repair connection to rear remote sensor.
"JACK TIME OUT"	System could not level in expected time.	Check disposition of jacks.
"AUTO LEVEL FAIL"	Unsecured controller. Voltage drop.	Check and secure controller placement. Test battery voltage under load - charge or replace.
"FUNCTION ABORTED"	User has aborted an automatic leveling sequence.	Hit OK. Restart the sequence.
"HALL POWER SHORT"	Short circuit detected on one or more of the jack hall effect power lines.	Check harness and replace or repair.

Special Jack Error Codes		
Touch Panel Message	What's Happening?	What Should I Do?
ERROR Left-Front Jack Fault Right-Front Jack Fault Left-Mid Jack Fault Right-Mid Jack Fault Left-Rear Jack Fault Right-Rear Jack Fault	Error at a specific jack (left front, right front, left middle, right middle, left rear, right rear). Hall signal issue (open, short, malfunction or loss of communication); open or short circuit between controller and motor.	Check harness connections at controller and at jack. Check harness for damage. Check fuses at controller. Repair or replace as necessary.

Special Jack Error Codes on OneControl Touch Panel or OneControl App (Rev. A)

To clear the error code:

1. Correct or otherwise repair the issue (see Special Jack Error Codes chart).

NOTE: In order to clear the special jack error code the jacks need to be "homed." In order to "home" jacks, each jack must be able to retract a minimum of 6".
2. Extend all jacks to reach the 6" of minimum retract needed.
 - A. Press "FRONT" (Fig. 3B or Fig. 6B) to extend the front jacks (if required).
 - B. Press "REAR" (Fig. 3D or Fig. 6D) to extend the rear jacks (if required).
 - C. Press "LEFT" and "RIGHT" (Fig. 3A and Fig. 3C or Fig. 6A and Fig. 6C) simultaneously to extend the middle jacks (if equipped and required).
3. Press "ENTER" to AUTO RETRACT. The jacks will retract until they reach the hard current limit.
4. The jacks are now "homed" and the special jack error code will be cleared.

NOTE: If the jacks do not retract, an error should display on the touch panel screen. This is typically caused by wiring interruption.

Special Jack Error Codes on OneControl Touch Panel or OneControl App (Rev. B)

To clear the error codes:

1. Correct or otherwise repair the issue (see the Special Jack Error Codes chart).

NOTE: In order to clear the special jack error code the jacks need to perform a successful "Auto Retract."
2. Press "ENTER" to AUTO RETRACT. The jacks will retract until they reach the hard current limit.
3. The jacks are now "homed" and the special jack error code will be cleared.

NOTE: If the jacks do not retract, an error should display on the touch panel screen. This is typically caused by wiring interruption.

Clearing Faults From Auto Leveling Control Touch Pad (Rev. B)

NOTE: Landing gear can still be extended/retracted in the "Special Jack Error Code" mode.

1. To clear most standard faults, press "Retract All."
2. To clear jack faults, press and hold "Retract All" until the jacks begin to retract.

NOTE: Three faults cannot be cleared from the Auto Leveling Control Touch Pad and must be addressed from the OneControl Touch Panel or OneControl App: HALL POWER SHORT, BAD CALIBRATION and EXTERNAL SENSOR.

Manual Override

NOTE: For ease of manual override it is recommended to unplug the power harness to the motor prior to performing the manual override procedure.

NOTE: Use of a 12-18 volt cordless screw gun or pneumatic screw gun is acceptable to manually override the jacks. Do not use an impact screw gun to perform any of the override procedures, as this may damage the motor. If manual override is necessary there are two options:

Top of Jack Motor Override:

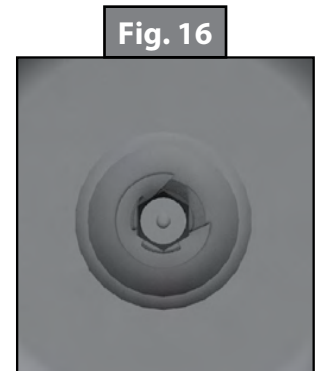
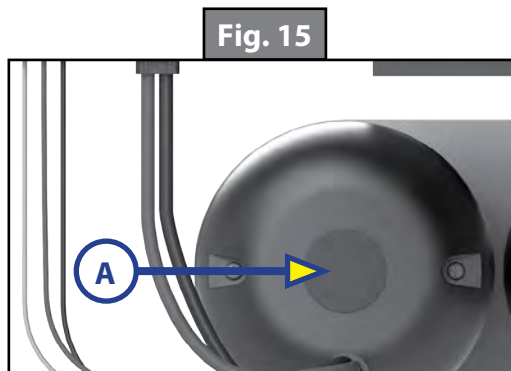
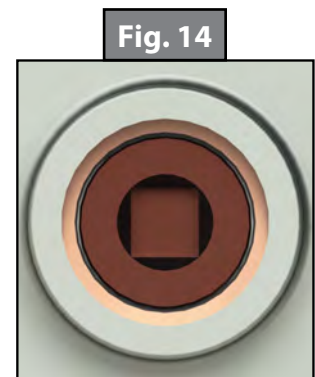
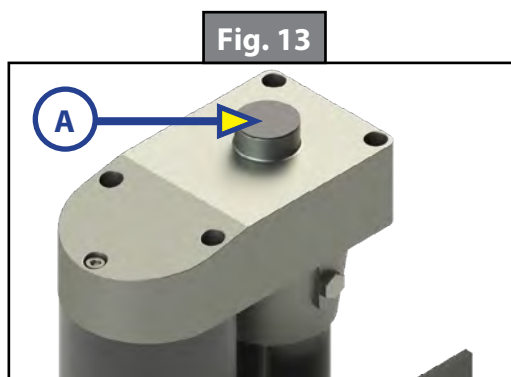
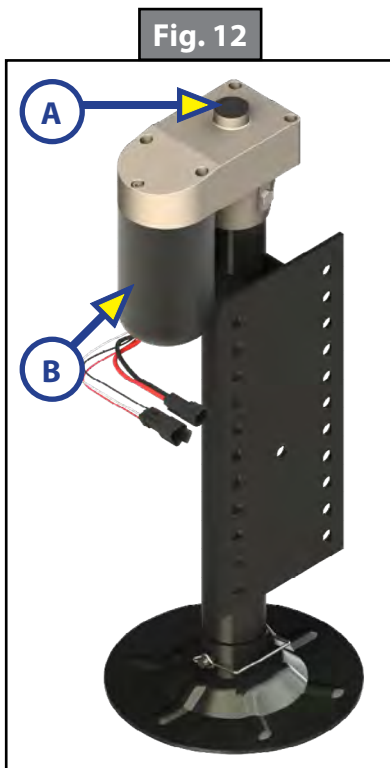
Tools needed: $\frac{3}{8}$ " drive ratchet and extension (no socket)

1. Find the port on the top of the jack motor (Fig. 12A).
2. Remove the rubber plug (Fig. 13A).
3. Insert the $\frac{3}{8}$ " drive ratchet into the port (Fig. 14).
4. Turn the override until the jack extends or retracts to desired position.

Bottom of Jack Motor Override:

Tools needed: $\frac{3}{8}$ " drive ratchet and extension, $\frac{5}{16}$ " socket

1. Find the port on the bottom of the jack motor (Fig. 12B).
2. Remove the rubber plug (Fig. 15A).
3. Insert the $\frac{5}{16}$ " socket into the port (Fig. 16).
4. Turn the override until the jack extends or retracts to desired position.



Zero Point Calibration

The Zero Point Calibration has been set by the RV manufacturer and verified by the RV dealer. If a new zero point is desired, see To Set the Zero Point section. Otherwise, proceed to Automatic Leveling Procedure. The "Zero Point" is the programmed point that the trailer will return to each time the Auto Level feature is used. The "Zero Point" must be programmed prior to using the Auto Level feature to ensure the proper operation of the system. The "Zero Point" feature is only available on the OneControl Touch Panel and OneControl App with this system. (Figs. 17-22 depict OneControl Touch Panel.) To set the Zero Point, first run a manual leveling sequence to get the coach to the desired level point. Then activate the Zero Point configuration mode. This mode is enabled by performing the following sequence:

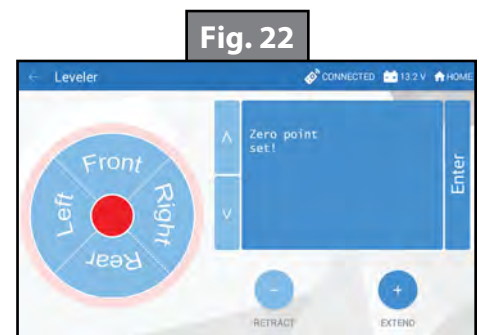
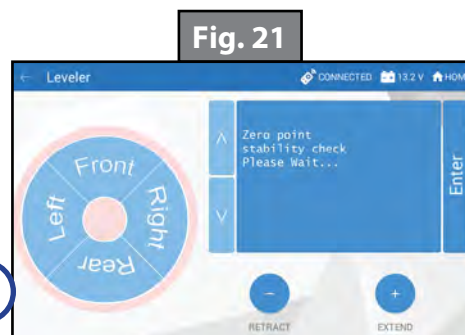
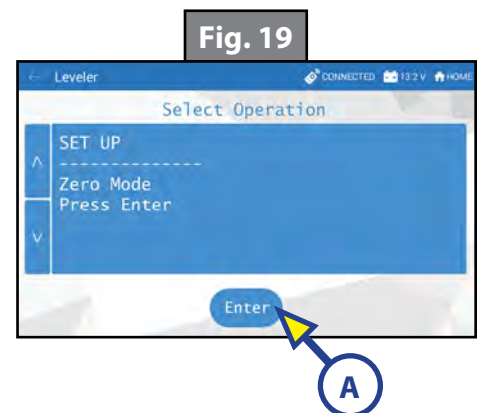
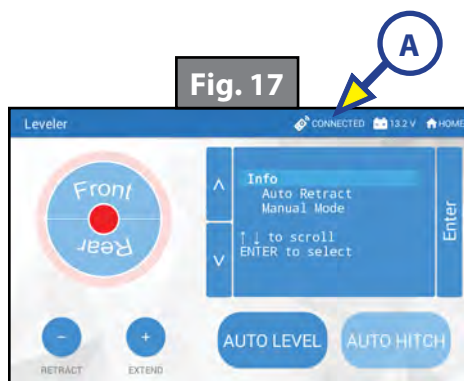
NOTE: Prior to starting this procedure, double check all connections on the controller, jacks, and touch panel.

NOTE: When calibrating Zero Point, the user has full manual control over the jacks. See "Basic Jack Operation - Manual Mode" to adjust to the desired level position. Press the enter button to set.

To Set the Zero Point

NOTE: The following procedure works from Standard Mode only. See Standard Mode and Menu to reach standard mode.

1. Press the "CONNECTED" icon (Fig. 17A) at the top of the leveling screen quickly 6 times. Wait a few seconds until the gear icon with "OPTIONS" appears (Fig.18A).
2. Press the gear icon with "OPTIONS" (Fig. 18A).
3. The screen will show "SET UP: Zero Mode Press Enter" (Fig. 19).
4. Press the "Enter button" (Fig. 19A).
5. The touch panel will present options for further leveling of the trailer if needed. The screen will also state "ZERO POINT CALIBRATION - Press Enter to Set" (Fig. 20).
6. Press "ENTER" (FIG. 20A).
7. Screen will show "Zero Point Stability Check ... Please Wait" (Fig. 21), followed by "Zero Point Set" (Fig. 22).



Preventive Maintenance

1. For optimum performance, the system requires full battery current and voltage. The battery must be maintained at full capacity.
2. Check the terminals and other connections at the battery, the controller, and the jacks for corrosion, and loose or damaged connections.
3. Remove dirt and road debris from jacks as needed.
4. If jacks are down for extended periods, it is recommended to spray exposed leveling jack rods with a silicone lubricant every three months for protection. If the trailer is located in a salty environment, it is recommended to spray the rods every four to six weeks.



The contents of this manual are proprietary and copyright protected by Lippert. Lippert prohibits the copying or dissemination of portions of this manual unless prior written consent from an authorized Lippert representative has been provided. Any unauthorized use shall void any applicable warranty. The information contained in this manual is subject to change without notice and at the sole discretion of Lippert. Revised editions are available for free download from lippert.com.

Please recycle all obsolete materials.

For all concerns or questions, please contact Lippert
Ph: 432-LIPPERT (432-547-7378) | Web: lippert.com | Email: customerservice@lci1.com



GROUND CONTROL[®]
TT LEVELING WITH
ONECONTROL[™] TOUCH PANEL
OWNER'S MANUAL



Scan for Product Support

TABLE OF CONTENTS

Introduction	3
Safety	4
Prior to Operation	4
Operation - Power Tongue Jack	5
Unhitching From A Tow Vehicle	5
Reconnecting to Tow Vehicle	5
Operation - Auto Leveling Control Touch Pad	6
Basic Power Tongue Jack Operation	6
Unhitching From A Tow Vehicle	6
Diagram - Auto Leveling Control Touch Pad	6
Auto Level	7
Hitch Recognition	7
Diagram - OneControl Touch Panel	8
Operation - OneControl Touch Panel	9
Basic Jack Operation In Standard Mode	9
Basic Jack Operation In Manual Mode	9
OneControl Touch Panel In Standard and Manual Modes	9
Unhitching From Tow Vehicle	10
Auto Level	10
Auto Level Sequence	11
Hitch Recognition	11
Diagram - OneControl App	12
Operation - OneControl App	13
Accessing the OneControl App	13
Basic Jack Operation In Standard Mode	13
Basic Jack Operation In Manual Mode	14
OneControl Touch Panel App In Standard and Manual Modes	14
Unhitching From A Tow Vehicle	15
Auto Level	15
Hitch Recognition	15
Diagram - Linc Remote Control - Optional	16
Operation - Linc Remote	17
Configuring the Linc Remote	17
Resetting the Remote	18
Configuring Linc Remote to Sync to The OneControl Touch Panel	19
Basic Jack Operation	19
Unhitching From A Tow Vehicle	20
Auto Level	20
Troubleshooting	21
Red/Green LED Indicator Light - Auto Leveling Control Touch Pad	21
Error Display Screen - OneControl Touch Panel/App	22
Special Jack Error Codes	23
Zero Point Calibration	24
Setting the Zero Point	24
Manual Override	25
Preventive Maintenance	27

Introduction

With the push of a button, the Ground Control® TT Leveling System levels and stabilizes your travel trailer quickly and accurately, enhancing your overall camping experience. It can take up to an hour to get a travel trailer level with manual jacks, chocks and wedges. The Ground Control® TT Leveling System saves you time by leveling and stabilizing the travel trailer in a matter of minutes, and prevents annoying rocking and swaying at the campsite.

Features:

1. Saves time setting up camp
2. Fast, accurate automatic electric leveling
3. Auto re-hitch memory function
4. Level travel trailers function more efficiently than non-level trailers.

The controllers for this system are automatic leveling controls and interface to the Ground Control TT Leveling system to level the trailer. The system utilizes one main control board and a separate waterproof remote level sensor to measure and manage level point, and can be operated from several user interface devices, including:

- Auto Leveling Control Touch Pad - Mounted outside the trailer within view of the hitch.
- myRV® OneControl™ Touch Panel (OCTP) - Mounted on a wall inside the living space of the trailer or in a trailer compartment.
- myRV® OneControl™ Leveling 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.
- Linc® Remote Control - Optional.

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

<https://support.lci1.com/ground-control-tt-leveling-onecontrol-touch-panel> .

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.

NOTE: The Ground Control ® TT Leveling is specific to travel trailer applications only.

There are five different options for the controller depending on which jacks are installed:

- A. Install SE Green Controller (P/N 433633) for a four 3K C-Jack configuration using Auto Leveling Control Touch Pad and OneControl Touch Panel.
- B. Install Red Controller (P/N 695502) for a two 2K C-Jack and two 3K C-Jack configuration using Auto Leveling Control Touch Pad and OneControl Touch Panel.
- C. Install Purple Controller (P/N 695501) for a two 2K C-Jack and two 5K Jack configuration using Auto Leveling Control Touch Pad and OneControl Touch Panel.
- D. Install HD Blue Controller (P/N 433632) for a two 3K C-Jack and two 5K Jack configuration using Auto Leveling Control Touch Pad and OneControl Touch Panel.
- E. Install Gold Controller (P/N 767693) a four 5K Jack configuration using Auto Leveling Control Touch Pad and OneControl Touch Panel.

Safety

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 act in accordance with the following may result in death or serious personal injury. The use of the Ground Control® TT Leveling system to support the trailer for any reason other than which it is intended is prohibited by Lippert’s limited warranty. The Lippert leveling system is designed as a “leveling” system only and should not be used to provide service for any reason under the trailer such as changing tires or servicing the leveling system. Any attempts to change tires or perform other service while trailer is supported by the Ground Control TT Leveling system could result in damage to the trailer and/or cause death or serious injury.

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

People and pets should be clear of the trailer while the leveling system is operated. Never lift the trailer completely off the ground. Lifting the trailer so the wheels are not touching the ground will create an unstable and unsafe condition.

Prior to Operation

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

1. **Make sure the trailer is parked on solid and level ground. The locations should also be free of surface depressions and moisture.**
2. Make sure all persons, pets, and property are clear of the trailer while the leveling system is in operation.
3. Make sure battery(ies) are fully charged at a minimum of 12V DC.

Operation - Power Tongue Jack

⚠ WARNING

When parking the trailer on extremely soft surfaces, utilize load distribution pads under each jack.

NOTE: The "ON" and "OFF" switch (Fig. 2A) controls the Power Tongue Jack's light only. If left on for an extended period of time, the light will drain the trailer's battery.

NOTE: The Power Tongue Jack is designed for vertical movement of the trailer only.

Unhitching From A Tow Vehicle

1. Prior to unhitching from the tow vehicle, make sure the trailer is parked on a level surface and chock the tires of the trailer.
2. Make sure the footpad of the Power Tongue Jack is pinned securely in place with the clevis pin and hairpin cotter pin (Fig. 1B).
3. Disconnect any wires, chains, or sway control that may be equipped between the tow vehicle and the trailer. Unlatch the trailer coupler.
4. Push "EXT" (Fig. 2C) two times holding on the third time approximately five seconds, then release the switch. The Power Tongue Jack will automatically extend to the ground.
5. Push "EXT", again, until the coupler clears the hitch ball.
6. Move the tow vehicle away from the trailer.
7. Push "RET" (Fig. 2B) as needed to return the front of the trailer to level or use the Auto Level function on the Touch Pad (Fig. 3D) to level the trailer. See "Auto Level" in "Auto Leveling Control Touch Pad" section.

Reconnecting to Tow Vehicle

1. Chock the tires of the trailer.
2. Press "EXT" (Fig. 2C) if needed to allow the coupler to clear the hitch ball.
3. Push "RET" (Fig. 2B) to retract the Power Tongue Jack until the coupler properly mounts the hitch ball and the leg.
4. Latch the tow vehicle hitch and connect any wires, chains or sway control that may be equipped between the tow vehicle and trailer.
5. Press "RET" two times and hold on the third time approximately 5 seconds until the Power Tongue Jack pauses. Let go of the switch and the Power Tongue Jack will automatically retract.
6. Be sure the leg of the Power Tongue Jack (Fig. 1A) is fully retracted prior to moving the tow vehicle.

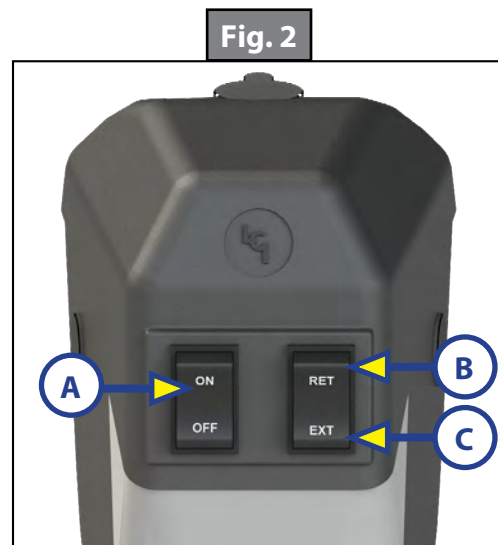
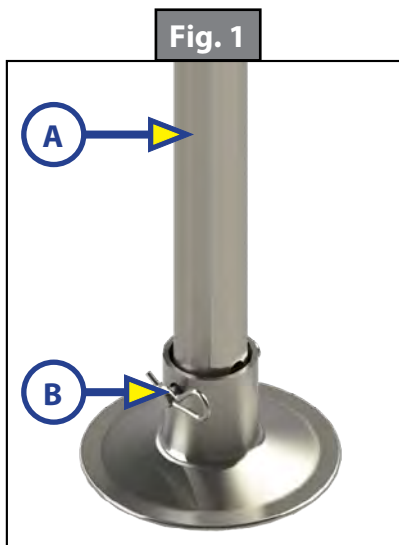
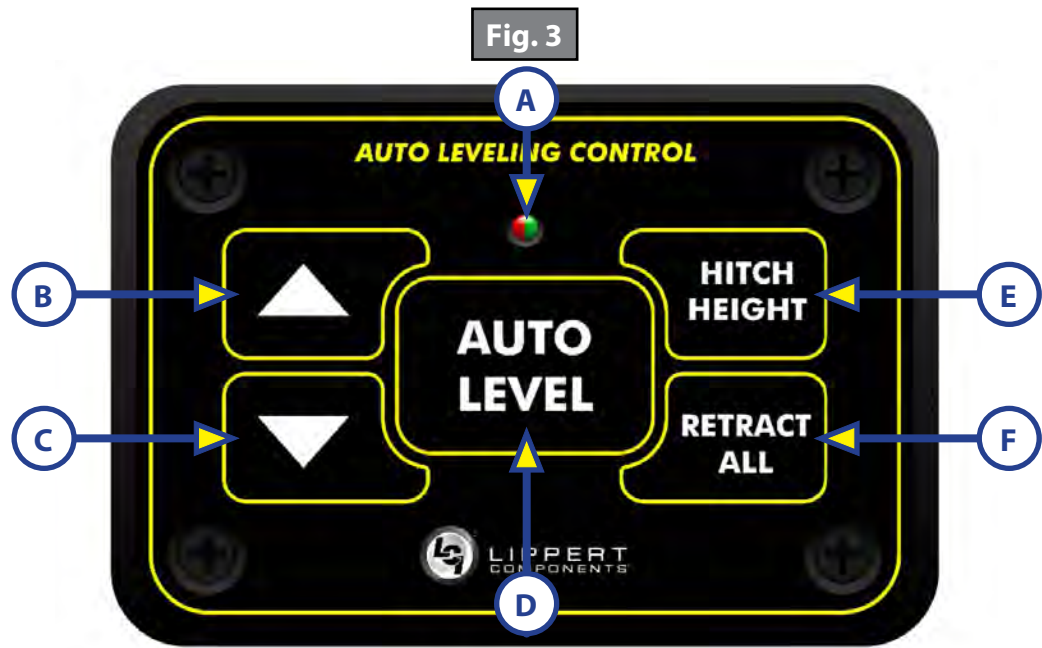


Diagram - Auto Leveling Control Touch Pad



Callout	Description	
A	Red/Green LED - Indicates the status of the system.	
B	Up Arrow - Extends Power Tongue Jack .	To turn on the touch pad, press the UP and DOWN arrow buttons at the same time.
C	Down Arrow - Retracts Power Tongue Jack.	
D	AUTO LEVEL Button - Places leveling system into auto level mode.	
E	HITCH HEIGHT Button - Initiates the Hitch Recognition feature.	
F	RETRACT ALL Button - Places leveling system into full retract mode. Power Tongue Jack does not retract.	

Operation - Auto Leveling Control Touch Pad

Basic Power Tongue Jack Operation

1. To turn on the touch pad, press both "UP" and "DOWN" arrows (Fig. 3B and 3C) at the same time. The green indicator LED (Fig. 3A) will turn "On".
2. Press the "UP" arrow (Fig. 3B) to extend the Power Tongue Jack and lift the front of trailer to take the weight of the trailer off of the hitch.
3. Press the "DOWN" arrow (Fig. 3C) to retract the Power Tongue Jack.

Unhitching From A Tow Vehicle

1. Prior to unhitching from the tow vehicle, make sure the trailer is parked on a level surface and chock the tires of the trailer.
2. Make sure the footpad of the Power Tongue Jack is pinned securely in place with the clevis pin and hairpin cotter pin.
3. To turn on the touch panel, press both "UP" and "DOWN" arrows (Fig. 3B and 3C) at the same time. The green indicator LED (Fig. 3A) will turn "On".

NOTE: The touch pad will remain "On" as long as the user is pressing buttons. The touch pad will time out after five minutes without use.

4. Press the "UP" arrow (Fig. 3B) to extend the Power Tongue Jack and lift the front of trailer to take the weight of the trailer off of the hitch.
5. Uncouple the trailer and disconnect the electrical wire harness from the tow vehicle.
6. Pull tow vehicle away from the trailer and park at a safe distance.

Auto Level

1. Prior to auto leveling, make sure the trailer is unhitched from the tow vehicle and the tow vehicle is parked a safe distance away from the trailer.
2. Press both "UP" and "DOWN" arrows (Fig. 3B and 3C) at the same time if the green indicator LED is not "On".
3. Press "AUTO LEVEL" (Fig. 3D).

NOTE: Once the automatic leveling cycle has been started, it is important that there is no movement in the trailer until the trailer has completed the leveling process. Failure to remain still during the leveling cycle could have an effect on the performance of the leveling system.

NOTE: Pressing any button during an Auto Level sequence will abort the auto leveling cycle.

NOTE: Auto Leveling sequence may vary slightly based on the height of the trailer coupler prior to leveling.

4. When the Auto Level sequence begins:
 - A. The system checks that the rear jacks are retracted.
 - B. The Power Tongue Jack may adjust depending on the orientation of the trailer.
 - C. Front jacks will extend until movement of the trailer is sensed.
 - D. The Power Tongue Jack will then retract.
 - E. The front jacks will extend/retract near level.
 - F. Rear jacks will extend and ground.
 - G. Trailer will level front-to-rear and then side-to-side.
 - H. The Auto Level sequence will ground all jacks to ensure all foot pads are on the ground.
 - I. The Auto Leveling sequence is complete when the indicator light turns solid green.

NOTE: If the "AUTO LEVEL" sequence does not perform as described, locate the OneControl Touch Panel, or use the OneControl App, to place the system in Manual Mode. Test that the jacks operate correctly by pushing their corresponding buttons on the OneControl Touch Panel or OneControl App; e.g., "Front" button operates only the front jacks, etc. See "Operation - OneControl Touch Panel" or "Operation - Linc Remote" section.

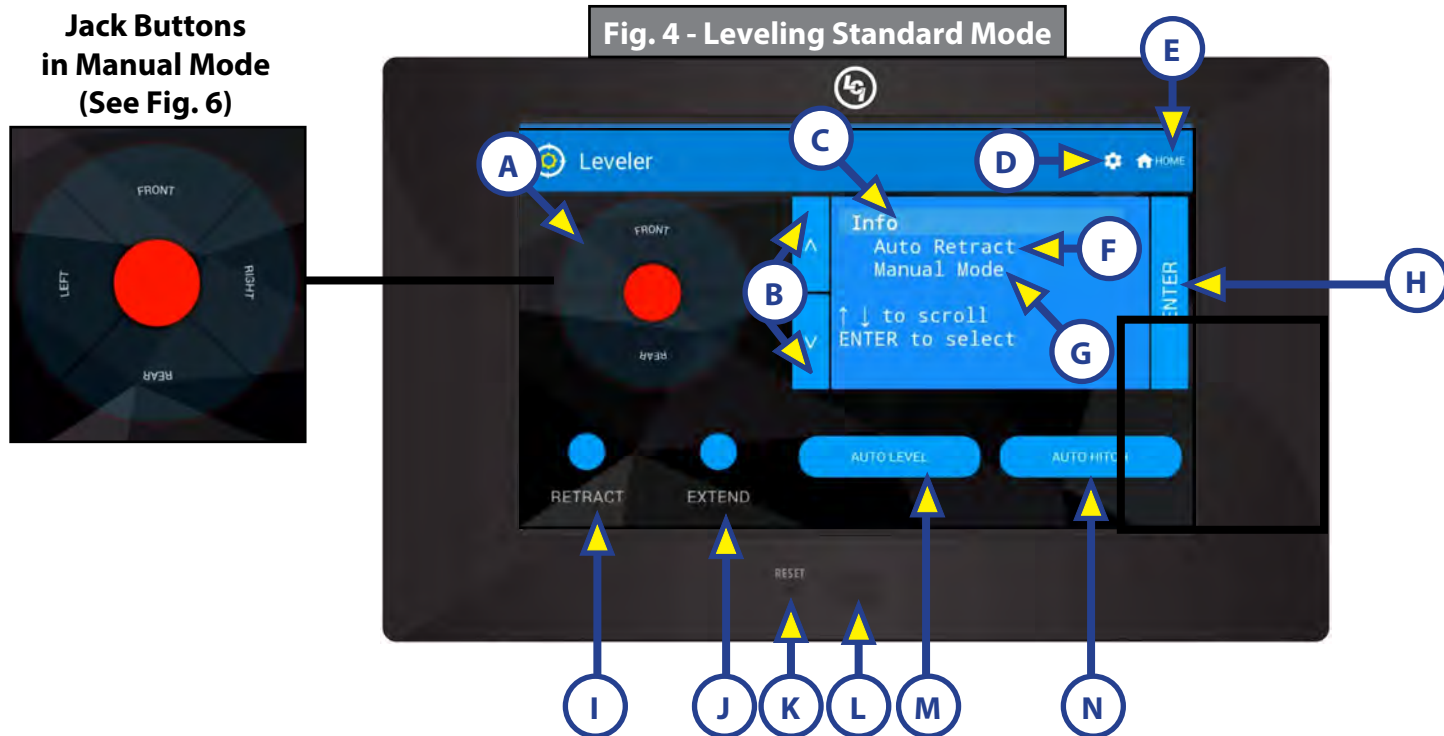
Hitch Recognition

1. To turn on the Auto Leveling Control Touch Pad, press both "UP" and "DOWN" arrows (Fig. 3B and 3C) at the same time. The green indicator LED (Fig. 3A) will turn "On".
2. Press "HITCH HEIGHT" (Fig. 3E).
 - A. Rear jacks will retract.
 - B. The Power Tongue Jack will extend to the ground.
 - C. The front leveling jacks will retract.
 - D. The tongue jack will then adjust the height of the front of the trailer coupler to the point at which the "AUTO LEVEL" button was most recently pressed.
3. The front of the trailer will raise to the height where the auto level sequence was started.

NOTE: If the front of the trailer was below level when the Auto Level process was initiated, the hitch recognition feature will retract the rear jacks, but will not retract the Power Tongue Jack to lower the trailer to the initial hitch height. This feature helps prevent injury and/or damage to anything underneath the trailer.

4. Back the tow vehicle into position to align the tow vehicle hitch and trailer coupler with each other.
5. Press and hold the "DOWN" (Fig. 3C) arrow to retract the tongue jack until the coupler sets into position on top of the tow vehicle hitch.
6. Latch the tow vehicle hitch and reconnect any wires, chains or sway controls that may be equipped between the tow vehicle and trailer.
7. Press and hold the "DOWN" (Fig. 3C) arrow until the Power Tongue Jack is fully retracted.
8. Press "RETRACT ALL" (Fig. 3F) button. System will immediately retract all jacks.

Diagram - OneControl Touch Panel



Callout	Description
A	Jack Buttons - Select Front, Rear, Right and Left jacks to be operated depending on mode. Jacks available to be operated will be highlighted in blue. In Standard Mode (Fig. 4), only the Power Tongue Jack can be operated and rear jacks can only be retracted. In Manual Mode (Fig. 6), only front and rear jacks are available to be operated (no Power Tongue Jack operation available).
B	UP and DOWN Arrows - Scrolls through options on screen.
C	Info - Displays system information, e.g. angle, jack stroke or software version.
D	Options Icon - Press to program zero point/wireless configurations.
E	HOME Icon - Returns screen to home page.
F	Auto Retract - Enters Auto Retract mode to retract all jacks. Power Tongue Jack does not retract.
G	Manual Mode - Enters Manual Mode to manually operate jacks.
H	Enter - Push to select various modes.
I	RETRACT - Retracts jacks in several modes. Jacks available will be highlighted in blue.
J	EXTEND - Extends jacks in several modes. Jacks available will be highlighted in blue.
K	RESET - Resets to factory default.
L	Power Button - Turns touch panel on and off.
M	AUTO LEVEL- Starts the Auto Level sequence.
N	AUTO HITCH - Returns trailer to previous hitch height for reconnecting to tow vehicle.

Operation - OneControl Touch Panel

Basic Jack Operation In Standard Mode

To reach Standard Mode (Fig. 4) for leveling:

1. Power on the OneControl Touch Panel (Fig. 4L).
2. Press the "Leveling" icon (Fig. 5A).

NOTE: On previous versions of the One Control Touch Panel, the screen will open to "myRV." Press MyRV Control Panel. The screen will show multiple function icons: choose "Leveler."

3. The screen will show the system menu (Fig. 4) for Standard Mode. The Power Tongue Jack can be extended/retracted in Standard Mode. Front and rear jacks cannot be operated in standard mode.

Basic Jack Operation In Manual Mode

To reach Manual Mode (Fig. 6) for leveling:

1. While in Standard Mode (Fig. 4), use the arrows (Fig. 4B) to scroll to Manual Mode (Fig. 4G). Press "Enter" (Fig. 4H).
2. Front and rear jacks can be operated in Manual Mode. The Power Tongue Jack cannot be operated in Manual Mode.

Fig. 5

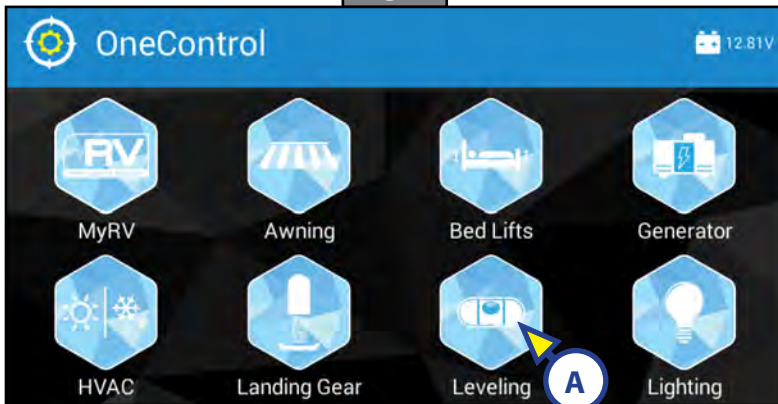
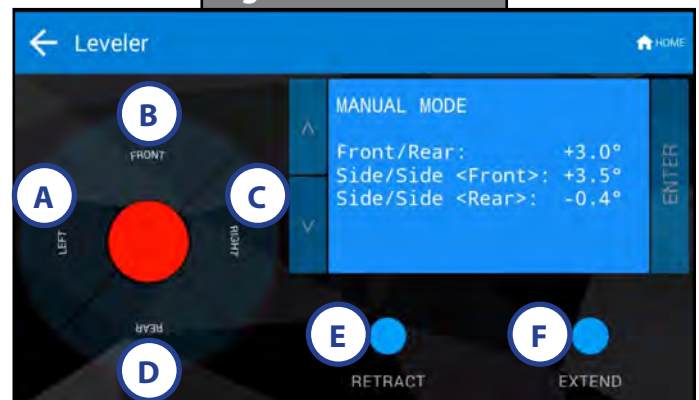


Fig. 6 Manual Mode



OneControl Touch Panel In Standard and Manual Modes

Standard Mode Features

- "EXTEND" (Fig. 4J) or "RETRACT" (Fig. 4I) and "FRONT" (Fig. 4A) extends or retracts the Power Tongue Jack.
- "AUTO LEVEL" (Fig. 4M) button starts the auto leveling sequence.
- "AUTO HITCH" (Fig. 4N) button starts the hitch recognition sequence when reconnecting to the tow vehicle.
- Use the "UP" or "DOWN" arrow (Fig. 4B) buttons to cycle through the menu screen options:
 - **Info:** Scroll to "Info" (Fig. 4C) and press "Enter" (Fig. 4H) button to display system information, e.g., angle, jack stroke or software version.
 - **Auto Retract:** Scroll to "Auto Retract" (Fig. 4F) and press "Enter" button to start the "Auto Retract" sequence, which will retract all jacks. The Power Tongue Jack does not retract.

Manual Mode: Scroll to "Manual Mode" (Fig. 4G) and press "Enter" button to start manual leveling process.

Manual Mode Features

Upon entering Manual Mode, a tutorial on operating the jacks will appear on the screen. Press "OK" to clear the tutorial. To delete the tutorial, click the "Don't show this again" box in the bottom right of the screen.

NOTE: The jacks operate in pairs. If at any time in manual mode the jacks operate individually, the Twist Protection Prevention System has been activated to prevent frame twist. The OneControl Touch Panel or OneControl App will display "Relieving frame twist." The jacks will resume operating in pairs when the potential frame twist has been relieved.

Press "EXTEND" (Fig. 6F) or "RETRACT" (Fig. 6E) and "Front" (Fig. 6B) to operate front jacks.

Press "Extend" or "Retract" and "Rear" (Fig. 6D) operate rear jacks.

Press "Extend" or "Retract" and "Right" (Fig. 6C) operate right jacks.

Press "Extend" or "Retract" and "Left" (Fig. 6A) operate left jacks.

NOTE: To operate jacks individually, press "EXTEND" or "RETRACT" then press the "Left" (Fig. 6A) or "Right" (Fig. 6C) button while simultaneously pressing the "Front" (Fig. 6B) or "Rear" button (Fig. 6D), depending on which jack needs to be operated.

NOTE: If the jacks will not operate individually as intended, but they operate properly when Auto Level is performed, the Twist Prevention Protection system has locked out the operation to prevent damage to the frame of the trailer.

Unhitching From Tow Vehicle

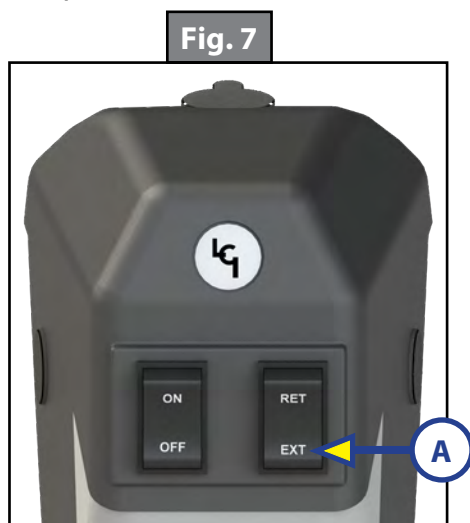
1. Before unhitching the trailer, make sure trailer is parked on a level surface.
2. Make sure the ground surface under the Power Tongue Jack is firm and level.
3. Make sure the footpad of the Power Tongue Jack is pinned securely in place with the clevis pin and hairpin cotter pin.
4. Chock all tires of the trailer.
5. Disconnect any wires, chains, or sway controls that may be equipped between the tow vehicle and the trailer.
6. Unlatch the trailer coupler.
7. Press and hold the "EXT" button (Fig. 7A) on the Power Tongue Jack or press the "Front" button (Fig. 4A) on the OneControl Touch Panel in standard mode to extend the Power Tongue Jack until the footpad touches the ground and the coupler clears the hitch ball.
8. Once the coupler is clear of the hitch ball, move the tow vehicle a safe distance away from the trailer.

Auto Level

NOTE: Once the automatic leveling cycle has been started, it is important that there is no movement in the trailer until the leveling process is complete. Failure to remain still during the leveling cycle could have an effect on the performance of the leveling system.

1. Follow steps 1-6 in "Unhitching From Tow Vehicle" section.
2. Use Power Tongue Jack to lift coupler off of hitch ball.
3. Move the tow vehicle a safe distance away from the trailer.
4. Press "AUTO LEVEL" button (Fig. 8A).

NOTE: Pressing any button on the touch panel will "ABORT" the auto leveling cycle during an Auto Level sequence.



Auto Level Sequence

NOTE: Sequence may vary slightly based on the height of the trailer coupler prior to leveling.

5. When the Auto Level Sequence begins, it will make sure that the rear jacks are retracted first.
6. The Power Tongue Jack will ground.
7. Front jacks will lower close to level.
8. Rear jacks will deploy and ground.
9. Trailer will level front-to-rear and then side-to-side.
10. The Auto Level Sequence will ground all leveling jacks to ensure all foot pads are on the ground, then the display will show complete.

NOTE: Step 5 may repeat several times, if the controller deems necessary.

If the "AUTO LEVEL" sequence does not perform as intended, place the system in Manual Mode. Test that the jacks operate correctly by pushing their corresponding buttons on the touch panel; e.g., "Front" button only operates the front jacks.

Hitch Recognition

1. Press the "On/Off" button (Fig. 9A) to turn the touch panel "On".
2. Press "AUTO HITCH" (Fig. 9C) button to retract rear jacks.

NOTE: The rear leveling jacks will retract, followed by the tongue jack extending to the ground, then followed by the front leveling jacks retracting. The tongue jack will then adjust the height of the front of the trailer coupler to the point at which the "AUTO LEVEL" button (Fig. 9B) was most recently pressed.

3. Press the "On/Off" button (Fig. 9A) to turn the touch panel "Off".
4. Back the tow vehicle into position to align the tow vehicle's hitch with trailer's coupler.
5. Press and hold "RET" button (Fig. 10A) on the tongue jack to retract the Power Tongue Jack until the coupler sets into position on top of the tow vehicle hitch.
6. Latch the tow vehicle hitch and reconnect any wires, chains or sway control that may be equipped between the tow vehicle and trailer.
7. Press the "RET" button (Fig. 10A) twice, then press and hold the "RET" button for 3-5 seconds to engage the tongue jack's Auto Retract feature.

NOTE: To utilize the Power Tongue Jack for the hitching process, see "Operation - Power Tongue Jack" section.

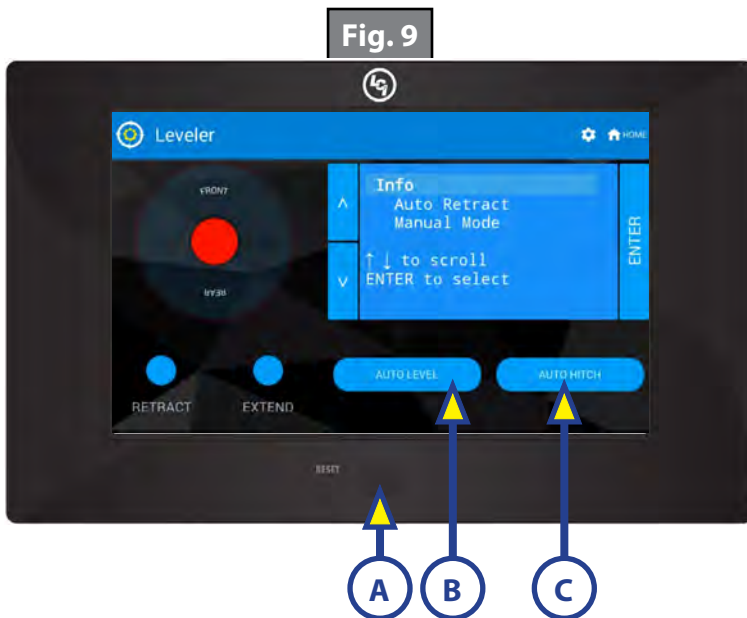
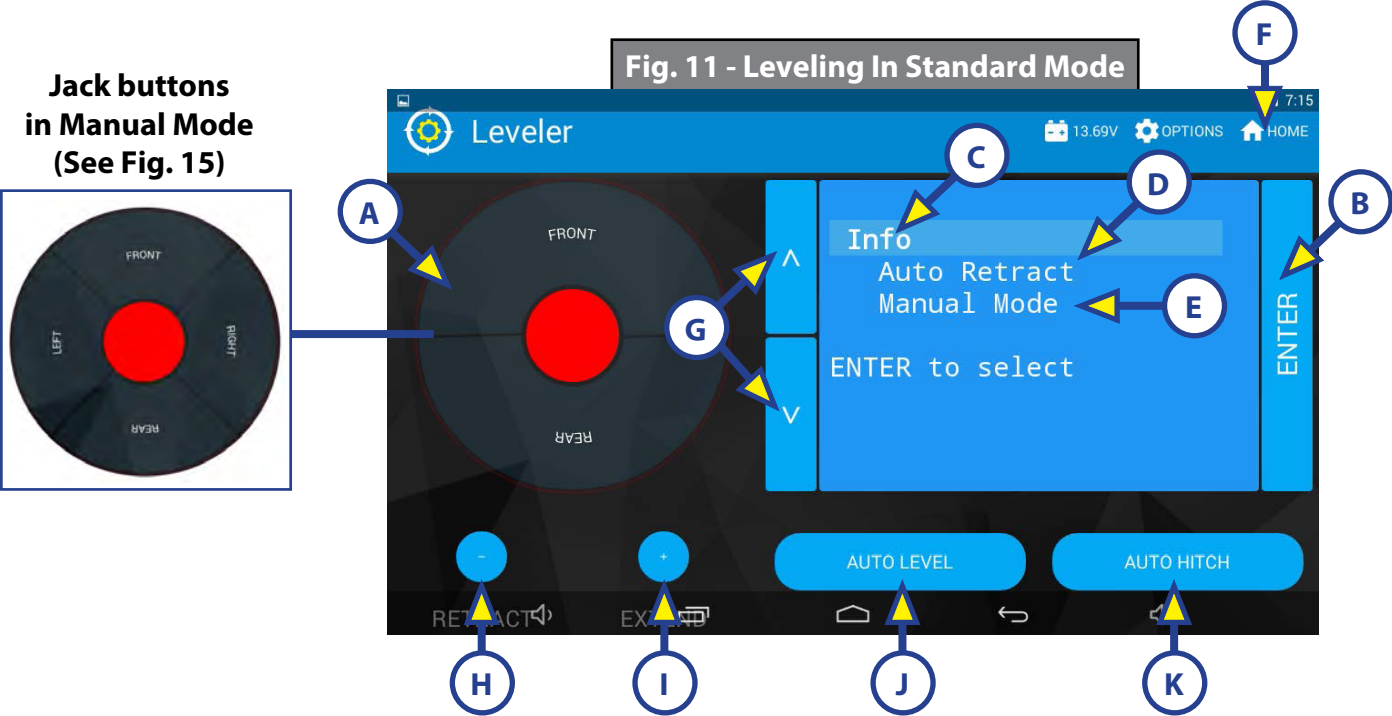


Diagram - OneControl App

NOTE: The OneControl Leveling App is available on iTunes® for iPhone® and iPad® and also on Google Play™ for Android™ users.



Callout	Description
A	Jack Buttons - Select FRONT, REAR, RIGHT and LEFT jacks to be operated depending on mode. Jacks available to be operated will be highlighted in blue. Only the Power Tongue Jack can be operated in Standard Mode (Fig. 11). In Manual Mode (Fig. 15), all jacks are available to be operated (no Power Tongue Jack operation available.)
B	ENTER - Push to activate various modes.
C	Info - Displays system information, e.g., angle, jack stroke, software version.
D	Auto Retract - Enters Auto Retract mode to retract all jacks. Power Tongue Jack does not retract.
E	Manual Mode - Enters Manual Mode to manually operate jacks.
F	HOME Icon - Returns screen to home page.
G	Up and Down Arrows - Scroll through options on screen.
H	RETRACT - Retracts jacks in several modes. Jacks available will be highlighted in blue.
I	EXTEND- Extends jacks in several modes. Jacks available will be highlighted in blue.
J	AUTO LEVEL - Starts the Auto Level sequence.
K	AUTO HITCH - Returns trailer to previous hitch height for reconnecting to tow vehicle.

Operation - OneControl App

Accessing the OneControl App

1. Make sure there is power to the trailer's wireless network.
2. Navigate to the device's (smart phone, tablet, etc.) wifi settings. Turn wireless feature on and connect to the myRV wireless network.
 - A. If this is the first time connecting to the myRV wireless network, a password will be required.
 - B. The password is located on the trailer's wifi hub (Fig. 12).
3. Open the OneControl application on the compatible device.
 - A. If the device states "Unresolved Network Connection," retry connecting to the myRV wireless network.
 - B. Wait for the connection to resolve and display "Connected" under the myRV wireless connection.
4. The application will request the user to "Agree" to an End User License Agreement (EULA).
 - A. Create a 4-digit Personal Identification Number (PIN).
 - B. Enter the PIN when prompted by the "Re-enter PIN to confirm." command.
5. On "Initial Setup", choose "myRV" (Fig.13A).
6. The OneControl app will now display all functions (Fig. 14).

Fig. 12



Basic Jack Operation In Standard Mode

To reach Standard Mode (Fig. 11) for leveling:

1. Power on the OneControl Touch Panel App. See "Accessing the OneControl App," steps 3-5.
2. Press the "Leveler" icon (Fig. 14A).
3. The screen will show the system menu (Fig. 11) for Standard Mode. The Power Tongue Jack can be extended/retracted in Standard Mode. Front and rear jacks cannot be operated in Standard Mode.

Fig. 13

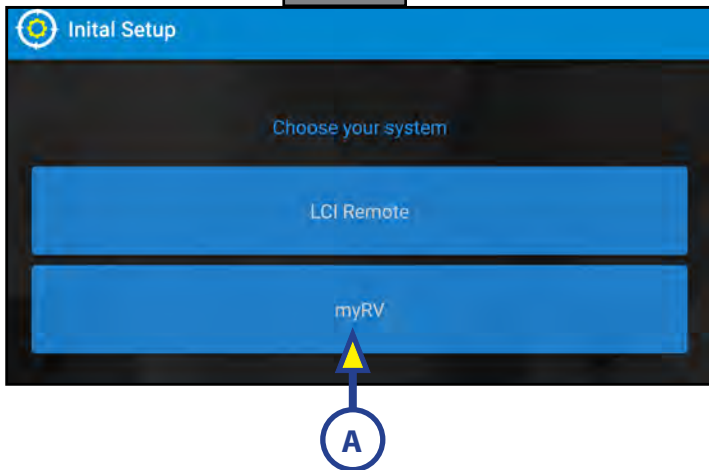
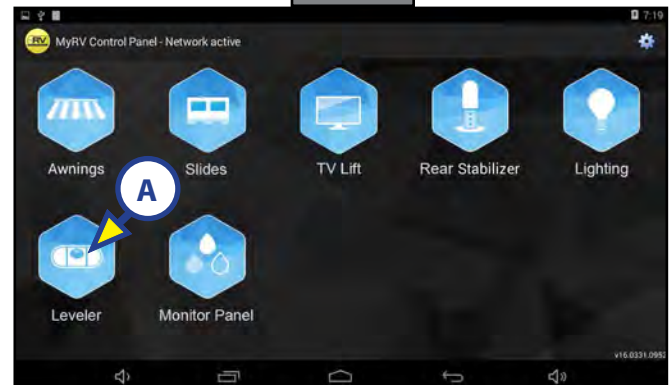


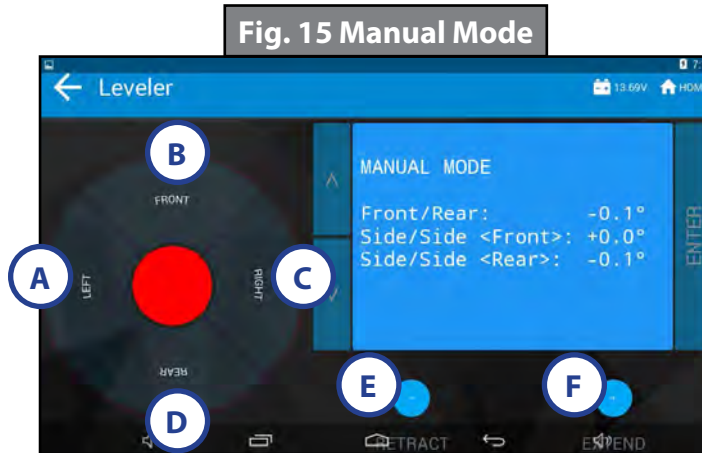
Fig. 14



Basic Jack Operation In Manual Mode

To reach Manual Mode (Fig. 15) for leveling:

1. While in Standard Mode (Fig. 11), use the arrows (Fig. 11G) to scroll to "Manual Mode" (Fig. 11E). Press "ENTER" (Fig. 11B).
2. Front and rear jacks can be operated in Manual Mode. The Power Tongue Jack cannot be operated in Manual Mode.



OneControl Touch Panel App In Standard and Manual Modes

Standard Mode Features

- "EXTEND" (Fig. 11I) or "RETRACT" (Fig. 11H) and "FRONT" (Fig. 11A) extends or retracts the Power Tongue Jack.
- "AUTO LEVEL" (Fig. 11J) button starts the auto leveling sequence.
- "AUTO HITCH" (Fig. 11K) button starts the hitch recognition sequence when reconnecting to the tow vehicle.
- Use the "UP" or "DOWN" arrow (Fig. 11G) buttons to cycle through the menu screen options:
 - **Info:** Scroll to "Info" (Fig. 11C) and press "ENTER" (Fig. 11B) button to display system information, e.g., angle, jack stroke or software version.
 - **Auto Retract:** Scroll to "Auto Retract" (Fig. 11D) and press "Enter" button to start the "Auto Retract" sequence, which will retract all jacks. The Power Tongue Jack does not retract.
 - **Manual Mode:** Scroll to "Manual Mode" (Fig. 11E) and press "Enter" button to start manual leveling process.

Manual Mode Features

Upon entering Manual Mode, a tutorial on operating the jacks will appear on the screen. Press "OK" to clear the tutorial. To delete the tutorial, click the "Don't show this again" box in the bottom right of the screen.

NOTE: The jacks operate in pairs. If at any time in manual mode the jacks operate individually, the Twist Protection Prevention System has been activated to prevent frame twist. The OneControl Touch Panel or OneControl App will display "Relieving frame twist." The jacks will resume operating in pairs when the potential frame twist has been relieved.

Press "EXTEND" (Fig. 15F) or "RETRACT" (Fig. 15E) and "FRONT" (Fig. 15B) to operate front jacks.

Press "Extend" or "Retract" and "REAR" (Fig. 15D) operate rear jacks.

Press "Extend" or "Retract" and "RIGHT" (Fig. 15C) operate right jacks.

Press "Extend" or "Retract" and "LEFT" (Fig. 15A) operate left jacks.

NOTE: To operate jacks individually, press "EXTEND" or "RETRACT" then press the "LEFT" (Fig. 15A) or "RIGHT" (Fig. 15C) button while simultaneously pressing the "Front" (Fig. 15B) or "Rear" button (Fig. 15D), depending on which jack needs to be operated.

NOTE: If the jacks will not operate individually as intended, but they operate properly when Auto Level is performed, the Twist Prevention Protection system has locked out the operation to prevent damage to the frame of the trailer.

Unhitching From A Tow Vehicle

1. Prior to unhitching from the tow vehicle, make sure trailer is parked on a level surface and chock the tires of the trailer.
2. Make sure the foot pad of the Power Tongue Jack is pinned securely in place with the clevis pin and hairpin cotter pin.
3. Disconnect any wires, chains, or sway controls that may be equipped between the tow vehicle and the trailer. Unlatch the trailer coupler.
4. Press the "FRONT" button (Fig 11A) on the OneControl Touch Panel App in Standard Mode to extend the Power Tongue Jack until the foot touches the ground and the coupler clears the hitch ball.
5. Pull tow vehicle away from the trailer and park at a safe distance.

NOTE: To utilize the Power Tongue Jack for the unhitching process, see "Operation - Power Tongue Jack."

Auto Level

1. Prior to auto leveling, make sure the trailer is unhitched from the tow vehicle and the tow vehicle is parked a safe distance away from the trailer.
2. Power on the OneControl Touch Panel App. See "Accessing the OneControl App," steps 3-5.
3. Press the "Leveler" icon (Fig. 14A).
4. Press "AUTO LEVEL" (Fig. 11J).

NOTE: Once the automatic leveling cycle has been started, it is important that there is no movement in the trailer until the leveling process is complete. Failure to remain still during the leveling cycle could have an effect on the performance of the leveling system.

NOTE: Sequence may vary slightly based on the height of the trailer coupler prior to leveling.

5. When the Auto Level Sequence begins:
 - A. The system checks that the rear jacks are retracted.
 - B. The Power Tongue Jack may adjust depending on the orientation of the trailer.
 - C. Front jacks will extend until movement of the trailer is sensed.
 - D. The Power Tongue Jack will then retract.
 - E. The front jacks will extend/retract near level.
 - F. Rear jacks will extend and ground.
 - G. Trailer will level front-to-rear and then side-to-side.
 - H. The Auto Level sequence will ground all jacks to ensure all foot pads are on the ground.
 - I. The Auto Level sequence is complete when the OneControl Touch Panel indicates, "Auto Level Success".

If the AUTO LEVEL sequence does not perform as intended, locate the OneControl Touch Panel or use the OneControl App to place the system in Manual Mode. Test that the jacks operate correctly by pushing their corresponding buttons on the OneControl Touch Panel or App; e.g., "FRONT" button operates only the front jacks, etc. See "Operation - OneControl Touch Panel" or "Operation - OneControl App".

Hitch Recognition

1. Power on the OneControl Touch Panel App. See "Accessing the OneControl App", steps 3-5.
2. Press the "Leveler" icon (Fig. 14A).
3. Press "AUTO HITCH" (Fig. 11K).

NOTE: Rear jacks will retract. The Power Tongue Jack will extend to the ground. Front leveling jacks will retract. The tongue jack will then adjust the height of the front of the trailer coupler to the point at which the "AUTO LEVEL" button was most recently pressed.

4. Back the tow vehicle into position to align the tow vehicle hitch and trailer coupler with each other.
5. Press "RETRACT" button (Fig. 15E) then press the "FRONT" button (Fig. 15B) to retract the tongue jack until the coupler sets into position on top of the tow vehicle hitch.
6. Latch the tow vehicle hitch and connect any wires, chains or sway controls that may be equipped between the tow vehicle and trailer.
7. Press the "RETRACT" button (Fig. 15E), then press and hold the "FRONT" button (Fig. 15B) until the Power Tongue Jack fully retracts.

NOTE: To utilize the Power Tongue Jack for the hitching process, see "Operation - Power Tongue Jack."

Diagram - Linc Remote Control - Optional

NOTE: When the OneControl Touch Panel is placed in Manual Mode, the Linc Remote will operate the jacks in a similar fashion as the OneControl, with the exception of operating individual jacks. Jacks will operate in pairs only. See "Operation - OneControl Touch Panel".

Fig. 16



Callout	Description
A	RET - Retracts front and rear jacks.
B	Front Arrow - Operates front jacks.
C	Left Arrow - Operates left rear jacks.
D	Help - Provides contact information for Lippertyt.
E	EXT - Extends front and rear jacks.
F	Right Arrow - Operates right rear jacks.
G	Rear Arrow - Operates rear jacks.
H	AUTO LEVEL - Initiates Auto Level sequence.
I	Power Button - Turns remote control "On" and "Off".

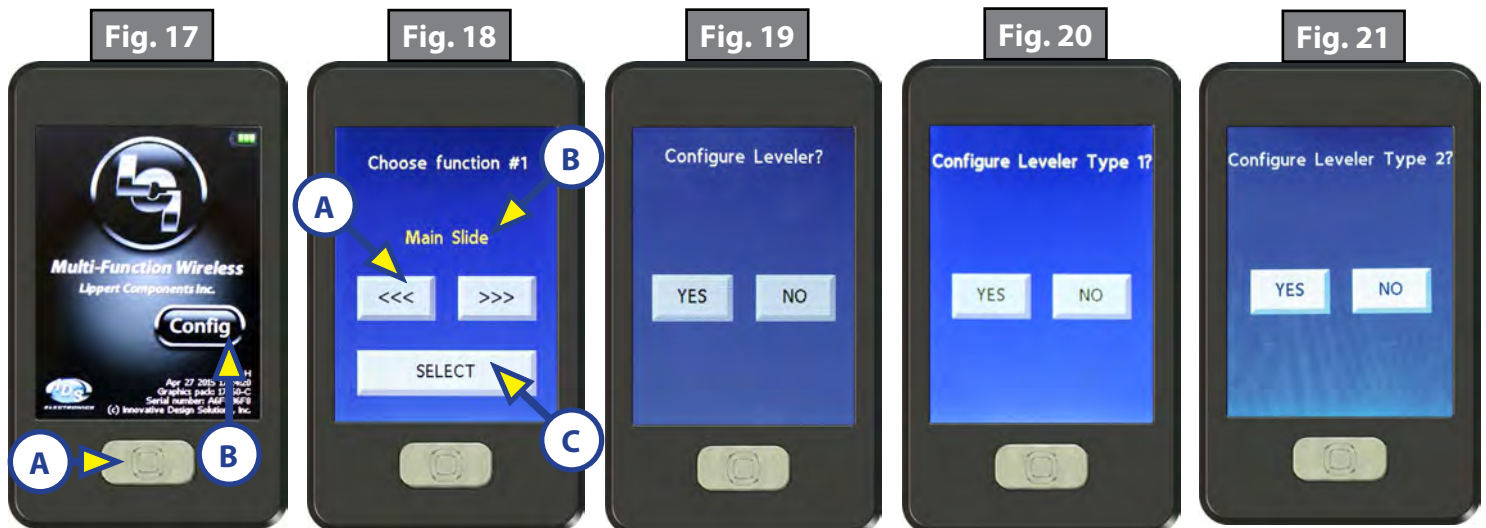
Operation - Linc Remote

Configuring the Linc Remote

NOTE: If the trailer does not have a Lippert Multifunction wireless system installed, each of the listed functions (Fig. 22) steps 1-7 will read as "NONE."

1. Turn the Linc Remote "On" by pressing and releasing the large silver button at the bottom of the remote (Fig. 17A).
 - A. If the remote has never been configured, it will display the "Config" button (Fig. 17B) immediately after it is turned on.
 - B. To reconfigure the remote after the initial programming, push the silver button five times (Fig. 17A).
2. Press the "Config" button (Fig. 17B) on the touch screen to begin configuring the remote.
3. Using the arrow buttons (Fig. 18A) at the bottom of the screen, navigate to the specific items the remote will control.
4. When the name of the item appears in the middle of the screen (Fig. 18B), press the large "SELECT" button (Fig. 18C).
5. Assign an item or "None" to each of the function spaces available.
6. Press the SELECT button at each screen.

NOTE: Without a LCI Multifunction Wireless system installed on the trailer, no other functions will be able to be programmed on the remote.



7. If remote was purchased before July 2013, refer to Step A, if purchased after July 2013, refer to Step B.
 - A. After all the functions have been assigned a "title," the next screen will ask: "Configure Leveler?" (Fig. 19). If trailer is so equipped, and you want to have leveling available on your transmitter, select "YES." If not, select "NO" (Fig. 19).
 - B. After all the functions have been assigned a "title," the next screen will ask: "Configure Leveler Type 1?" (Fig. 20) and then "Configure Leveler Type 2?" (Fig. 21) will appear. If syncing the transmitter to a LCI Level Up, Ground Control® or Motorized Dual Sensor system, select "YES" for Type 1 and "NO" for Type 2. If you will not be syncing the transmitter to either of these leveling systems select "NO" for both Type 1 and Type 2.
8. A confirmation screen will appear showing all of the configured functions (Fig. 22). If the trailer does not have a LCI Multifunction Wireless system installed, the screen will show "NONE" for the listed functions, then "Leveler Type 1: Yes" and "Leveler Type 2: No." Press "OK" button to save the configuration or the "Cancel" button to restart the process.
9. Once a configuration is saved, a "Config Fuses?" screen (Fig. 23) will appear. Press "NO" button, since any fuse configuring will need to be done by the manufacturer of the trailer.



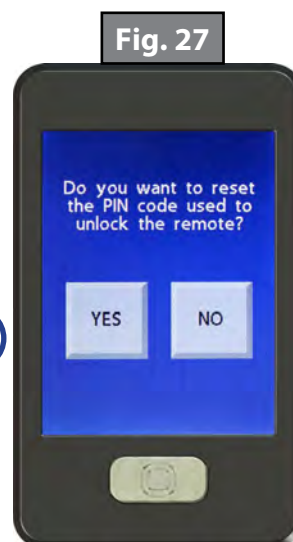
10. Enter a 4-digit PIN security code for accessing the remote (Fig. 24).
11. Once a PIN is entered, the "Save" button (Fig. 25A) will appear at the bottom right of the screen.
12. Press "Save" to confirm the PIN.
13. Re-enter the PIN, then press "Save" to confirm it.

NOTE: This PIN will be required to access the remote and any functions configured into it. Write the PIN down for later reference.

Resetting the Remote

Once the remote has been configured it can be reconfigured in the event of a function change or when a new security PIN is required.

1. Turn the remote "On" by pressing and releasing the large silver button at the bottom of the remote (Fig. 26C).
2. Press the large silver button five times (Fig. 26C).
3. Two options come up for reconfiguration:
 - A. Option 1 - "Set PIN" (Fig. 26A) will allow the user to reset the PIN and enter a new one.
 - I. Once the "Set PIN" option is selected, the user will be asked for verification that they want to reset the PIN (Fig. 27).
 - II. Select "YES" and the PIN will be reset, follow steps 10-12 of the "Configuring the Linc Remote" section.
 - III. Select "NO" to keep the current PIN.



B. Option 2 - The "Config" (Fig. 26B) button allows the user to adjust the configuration.

I. Select "Config".

II. Do steps 1-9 of the "Configuring the Linc Remote" section.

Configuring Linc Remote to Sync to The OneControl Touch Panel

1. Turn on the Linc Remote control (Fig. 16I) and enter a PIN.
2. Choose "Leveler" from the menu screen (Fig. 16).
3. Turn on the OneControl Touch Panel (Fig. 4L).
4. On the OneControl Touch Panel, press the gear icon with "OPTIONS" appears (Fig. 29A).
5. Press the gear icon with "OPTIONS" (Fig. 29A).
6. Use the "Up" and "Down" arrows (Fig. 29B) to scroll to "Wireless Config" (Fig. 30).
7. Press "Enter" (Fig. 30A). The screen will display "Wireless Configuration, Press any Linc button to Sync" (Fig. 31).
8. Press any button in "Leveler" mode on the Linc Remote control (Fig. 16).
9. Pressing "Abort" on the OneControl Touch Panel (Fig. 31A) will cancel the configuration sequence.

Fig. 28

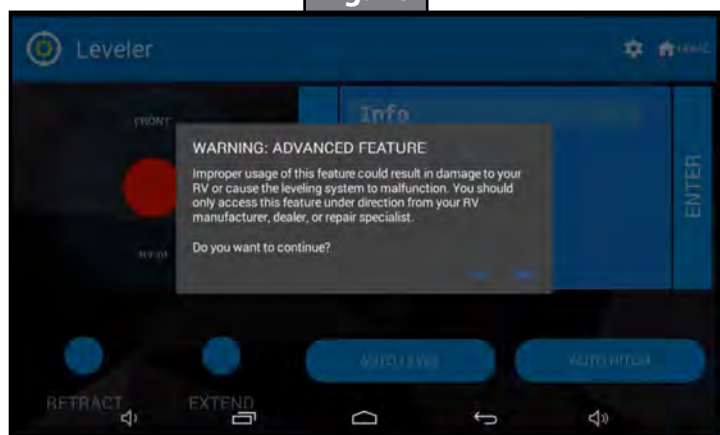


Fig. 29

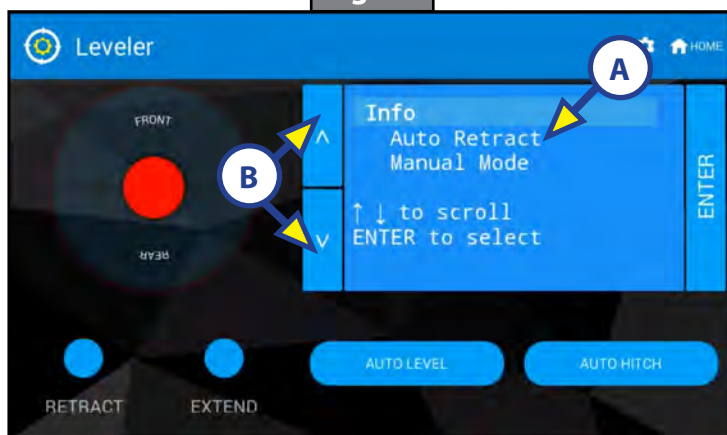


Fig. 30

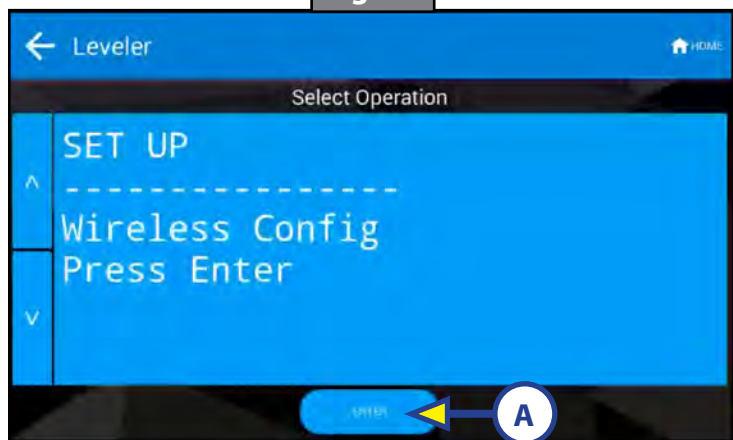
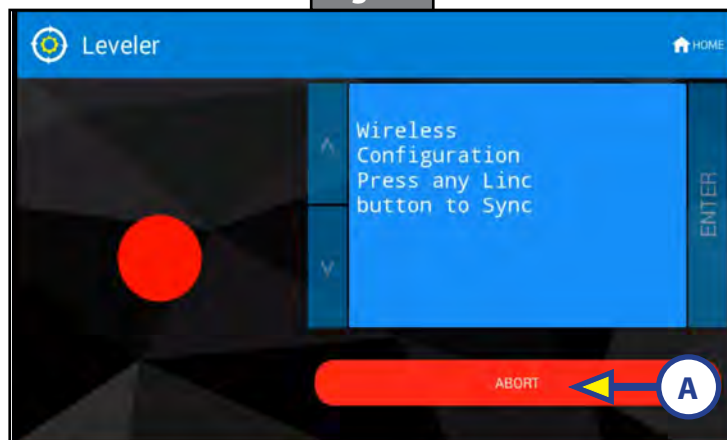


Fig. 31



Basic Jack Operation

1. Press "RET" (Fig. 16A) or "EXT" (Fig. 16E) and Front Arrow (Fig. 16B) to retract or extend the front jacks (left front, right front).
2. Press "RET" or "EXT" and Rear Arrow (Fig. 16G) to retract or extend the rear jacks (left rear, right rear).
3. Press "RET" or "EXT" and Right Arrow (Fig. 16F) to retract or extend the right jacks (right front, right rear).
4. Press "RET" or "EXT" and Left Arrow (Fig. 16C) to retract or extend the left jacks (left front, left rear).
5. Press "AUTO LEVEL" (Fig. 16H) to start the auto leveling sequence.

Unhitching From A Tow Vehicle

1. Prior to unhitching the trailer from the tow vehicle, make sure the trailer is parked on a level surface.
2. Chock the tires of the trailer.
3. Make sure the footpad of the Power Tongue Jack is pinned securely in place with the clevis pin and hairpin cotter pin.
4. Disconnect any wires, chains, or sway controls that may be equipped between the tow vehicle and the trailer.
5. Unlatch the trailer coupler.
6. Turn "On" the Linc Remote (Fig. 16I), then enter a PIN code to access the system.
7. Choose the "Leveler" option.
8. Press "EXT" (Fig. 16E) and Front Arrow (Fig. 16B) to extend front jacks to lift the front of the trailer to take the weight of the trailer off of the hitch.
9. Uncouple trailer from tow vehicle.
10. Pull tow vehicle away from the trailer and park at a safe distance.

NOTE: To utilize the Power Tongue Jack for the unhitching process, see "Operation - Power Tongue Jack" section.

Auto Level

1. Prior to auto leveling, make sure the trailer is unhitched from the tow vehicle and the tow vehicle is parked a safe distance away from the trailer.
2. Press the "On/Off" button (Fig. 16I) on the Linc Remote to turn the device "On."
3. Enter a PIN.
4. Choose the "Leveler" option.
5. Press "AUTO LEVEL" (Fig. 16H).

NOTE: Once the automatic leveling cycle has been started, it is important that there is no movement in the trailer until the leveling process is complete. Failure to remain still during the leveling cycle could have an effect on the performance of the leveling system.

NOTE: Pressing any button on the Linc Remote during an AUTO LEVEL sequence will abort the auto leveling cycle. To restart the AUTO LEVEL process, refer to "Operation - OneControl Touch Panel" section.

6. When the auto leveling sequence begins:
 - A. The system checks that the rear jacks are retracted.
 - B. The Power Tongue Jack may adjust, depending on the orientation of the trailer.
 - C. Front jacks will extend until movement of the trailer is sensed.
 - D. The Power Tongue Jack will then retract.
 - E. The front jacks will extend/retract near level.
 - F. Rear jacks will extend and ground.
 - G. Trailer will level front-to-rear, then side-to-side.
 - H. The AUTO LEVEL sequence will ground all jacks to ensure all foot pads are on the ground and auto leveling is complete.
 - I. The Auto LEVEL sequence is complete when the indicator light turns solid green.

NOTE: Step 6 may repeat several times, if the controller deems necessary.

NOTE: If the AUTO LEVEL sequence does not perform as described above, test that the jacks operate correctly by pushing their corresponding buttons on the Linc Remote; e.g., "Front" button only operates the front jacks, etc. The jacks can also be tested in manual mode from the OneControl Touch Panel (Fig. 4). See "Operation - OneControl Touch Panel" section.

NOTE: There is no Hitch Recognition sequence programmed for the Linc Remote.

Troubleshooting

Red/Green LED Indicator Light - Auto Leveling Control Touch Pad

LED Condition	Mode
Off	Touch pad is locked.
Solid Green	Touch pad is active.
Blinking Green	Jacks are moving.
Solid Red	Low battery.
Blinking Red	Error - Refer to OneControl Touch Panel or the OneControl App. screen for the specific error code, then consult the OneControl Touch Panel/App. chart to clear the error.

Error Display Screen - OneControl Touch Panel/App.

NOTE: Errors can only be cleared via the OneControl Touch Panel (Fig. 4) or the OneControl App. The only exception is when the Auto Leveling Control Touch Pad (Fig. 3) was used to abort an auto sequence. In this case, the error can be cleared by pressing any Auto Leveling control button. Correct Error to clear it, then press "OK." If Error persists, message will continue to display.

LCD Message	What Is Happening?	What Should Be Done?
"EXCESS ANGLE"	Unsecured sensor.	Check and secure sensor placement.
	Uneven or sloped site.	Relocate the trailer.
"EXCESSIVE ANGLE"	Sensor not properly secured.	Check and secure sensor placement.
	Excessive angle reached during manual operation.	Relocate the trailer.
"BAD CALIBRATION"	Trailer Zero Point was not set correctly.	Reset Zero Point. See "Zero Point Calibration" section.
"FEATURE DISABLED"	Hitch recognition requested but no hitch height set.	Perform "AUTO LEVEL" sequence to establish hitch height.
	Zero Point not set.	Set Zero Point. See "Zero Point Calibration" section.
"LOW VOLTAGE"	Bad connection or wiring.	Check wiring - repair or replace.
	Discharged or bad battery.	Test battery voltage under load - charge or replace.
"OUT OF STROKE"	Unsecured controller.	Check and secure controller placement.
	Uneven or sloped site.	Relocate the trailer.
"EXTERNAL SENSOR"	Bad connection or wiring.	Replace or repair connection to rear remote sensor.
"JACK TIME OUT"	System could not level in expected time.	Check for obstructions, leaks, fluid level and voltage to power unit motor under load.
"AUTO LEVEL FAILURE"	Unsecured controller.	Check and secure controller placement.
	Voltage drop.	Test battery voltage under load - charge or replace.
"FUNCTION ABORTED"	User has aborted an automatic leveling sequence.	Restart the sequence.
"HALL POWER SHORT"	Short circuit detected on one or more of the jack power lines.	Check harness and replace or repair.
"CAN'T COMPLETE LEVEL IN THIS LOCATION. PLEASE RELOCATE RV TO FLATTER TERRAIN"	The trailer is parked on a steep incline during auto level. The front cannot be leveled and the front jacks are already fully retracted.	Relocate the trailer.

Special Jack Error Codes

To clear special jack error code, do as follows:

1. Correct or otherwise repair the issue. See Touch Panel Error Code Chart.
- NOTE:** In order to clear special jack error codes the jacks need to be “homed.” In order to “home” jacks, each jack must be able to retract a minimum of 6”.

NOTE: The Power Tongue Jack does not need to be “homed.” The Power Tongue Jack cannot be operated from the OneControl Touch Panel or OneControl App from myRV while clearing special jack error codes. The Power Tongue Jack can be operated using the “RET/EXT” switch on the tongue jack during this procedure.
2. Extend all jacks to reach the 6” of minimum retract needed.

A. If required, press “EXTEND” and “FRONT” to extend the front jacks. Refer to “Operation - OneControl Touch Panel” and “Operation - OneControl App. from myRV” sections.”

B. Press “EXTEND” and “REAR” to extend the rear jacks (if required). Refer to “Operation - OneControl Touch Panel” and “Operation - OneControl App. from myRV” sections.”
3. Press “ENTER” to AUTO RETRACT. The jacks will retract until they reach the hard current limit. The Power Tongue Jack will perform an automatic grounding during the AUTO RETRACT sequence.
4. The jacks are now “homed” and the special jack error code will be cleared.

Touch Panel Error Code Chart

Touch Panel Message?	What Is Happening?	What Should Be Done?
ERROR Left-Front Jack Fault Right-Front Jack Fault Left-Rear Jack Fault Right-Rear Jack Fault Tongue Jack Fault	Error at a specific jack (left front, right front, left middle, right middle, left rear, right rear, tongue). Hall signal issue (open, short, malfunction or loss of communication); open or short circuit between controller and motor.	Check voltage at the battery under load.
		Check harness connections at controller and at jack.
		Check harness for damage.
		Check fuses at controller.
		Repair or replace as necessary.

Zero Point Calibration

The "Zero Point" is the programmed point that the trailer will return to each time the Auto Level feature is used. Zero Point must be programmed prior to using the Auto Level feature to ensure the proper operation of the leveling system. The Zero Point feature is only available on the OneControl Touch Panel leveling system.

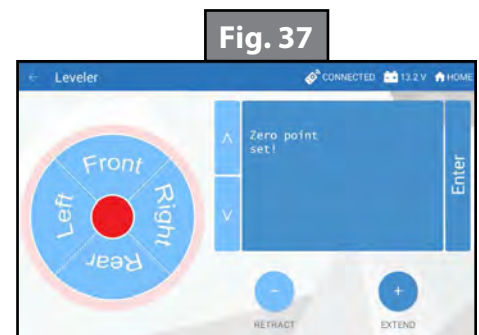
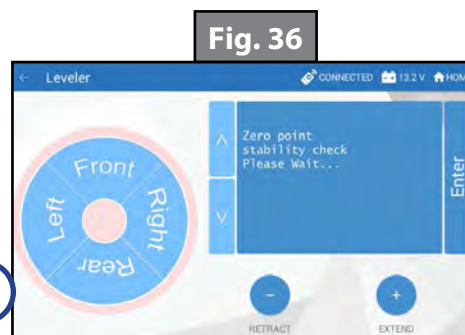
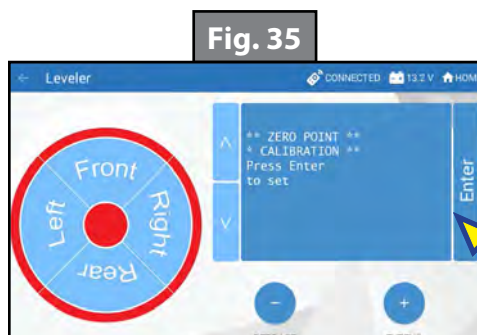
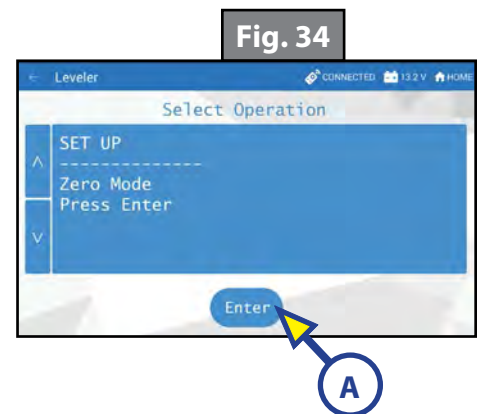
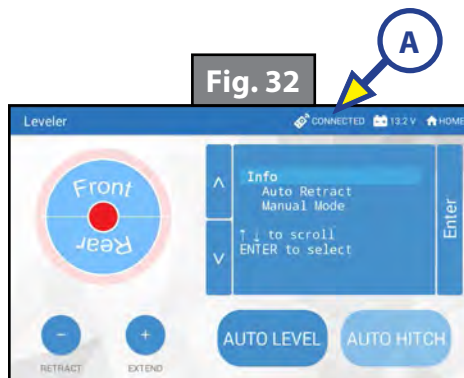
NOTE: Prior to starting this procedure, double check all connections on the controller, jacks and touch panel.

NOTE: When calibrating Zero Point, the user has full manual control over the jacks. See "Basic Jack Operation In Manual Mode in the "Operation - OneControl Touch Panel" section to adjust to the desired level position. Press the "Enter" (Fig. 4H) button to set.

Setting the Zero Point

NOTE: The following procedure works from Standard Mode only. See "Basic Jack Operation In Standard Mode" in the "Operation - OneControl Touch Panel" section.

1. Press the "CONNECTED" icon (Fig. 32A) at the top of the leveling screen, quickly six times. Wait a few seconds until the gear icon with "OPTIONS" appears (Fig. 33A).
2. Press the gear icon with "options" (Fig. 33A).
3. The screen will show "SET UP: Zero Mode, Press Enter" (Fig. 34).
4. Press the "Enter" button (Fig. 34A).
5. The touch panel will present options for further leveling of the trailer, if needed. The screen will also state "ZERO POINT CALIBRATION. Press Enter to set" (Fig. 35).
6. Press "Enter" (Fig. 35A).
7. Screen will show "Zero point stability check. Please wait..." (Fig. 36), followed by "Zero point set!" (Fig. 37).



⚠ CAUTION

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

Manual Override

NOTE: For ease of manual override it is recommended to unplug the power harness to the motor prior to performing the manual override procedure.

⚠ CAUTION

Do not use an impact screw gun to perform any of the override procedures, as this may damage the motor

NOTE: Use of a 12-18 volt cordless screw gun or pneumatic screw gun is acceptable to manually override the jacks. If manual override is necessary there are two options for each style of jack.

NOTE: If the travel trailer is equipped with four C-Jacks, the override procedure is the same for the front and rear.

2K or 3K C-Jack Motor Override:

Tools needed: A $\frac{3}{8}$ " drive ratchet and extension, no socket.

1. Find the port on the jack gearbox (Fig. 38A).
2. Remove the rubber plug (Fig. 39A).
3. Insert the $\frac{3}{8}$ " drive ratchet into the port.
4. Turn the override until the jack extends or retracts to desired position.

2K or 3K C- Jack Manual Override Nut:

Tools needed: $\frac{3}{4}$ " socket and ratchet

1. Locate the manual override nut (Fig. 38B).
2. Place $\frac{3}{4}$ " socket and ratchet over the manual override nut (Fig. 40A) and turn the override nut until the jack extends or retracts to desired position.

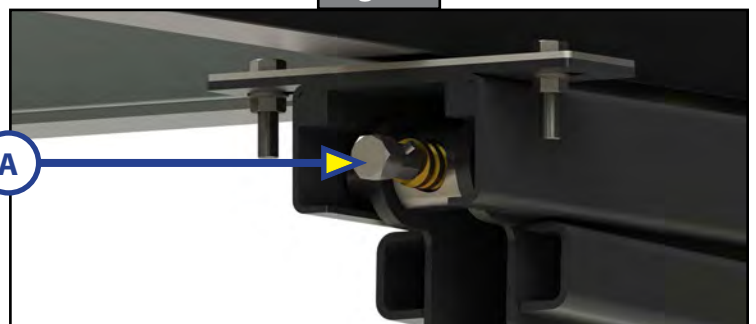
Fig. 38



Fig. 39



Fig. 40



5K Jack - Top of Jack Motor Override:

Tools needed: $\frac{3}{8}$ " drive ratchet and extension, no socket.

1. Find the port on the top of the jack motor (Fig. 41A).
2. Remove the rubber plug (Fig. 42A).
3. Insert the $\frac{3}{8}$ " drive ratchet into the port (Fig. 43).
4. Turn the override until the jack extends or retracts to desired position.

5K Jack - Bottom of Jack Motor Override:

Tools needed: $\frac{3}{8}$ " drive ratchet and extension, and a $\frac{5}{16}$ " socket.

1. Find the port on the bottom of the jack motor (Fig. 41B).
2. Remove the rubber plug (Fig. 44A).
3. Insert the $\frac{5}{16}$ " socket into the port and onto the nut (Fig. 45A).
4. Turn the override until the jack extends or retracts to desired position.

Fig. 41

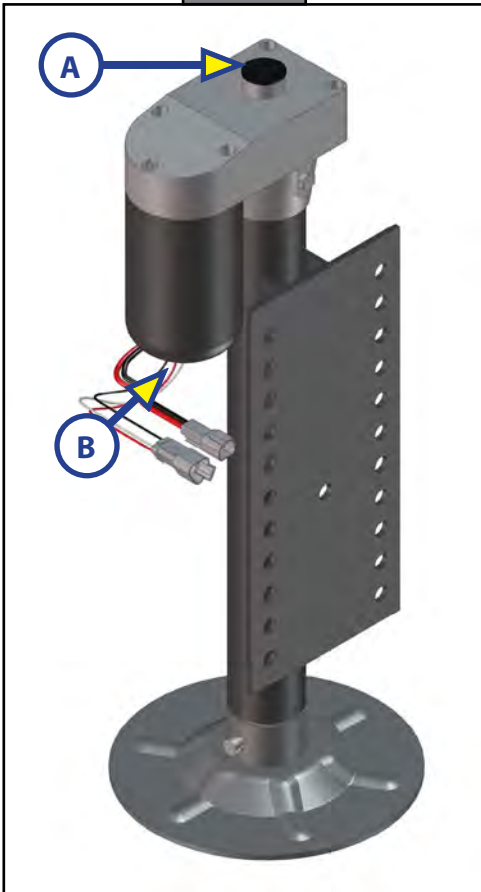


Fig. 42

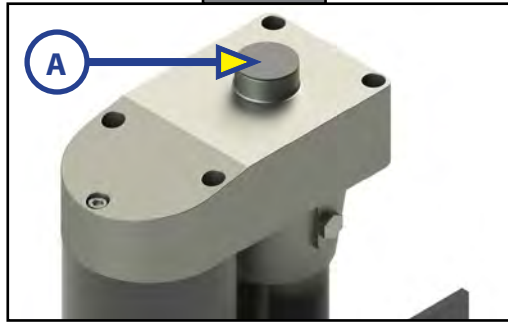


Fig. 43



Fig. 44

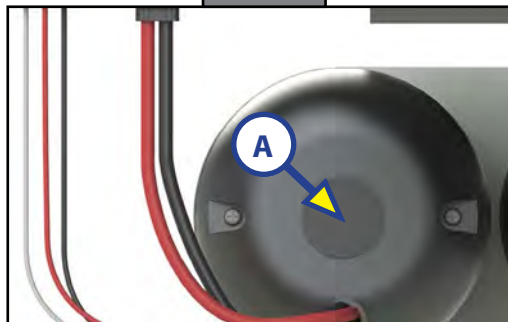
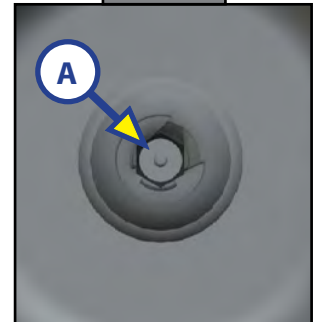
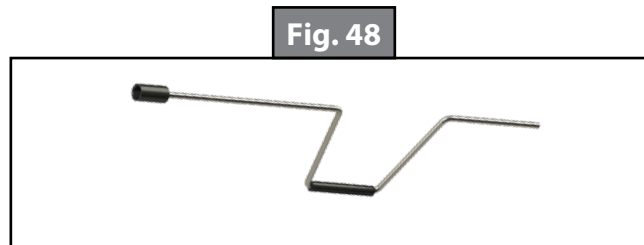
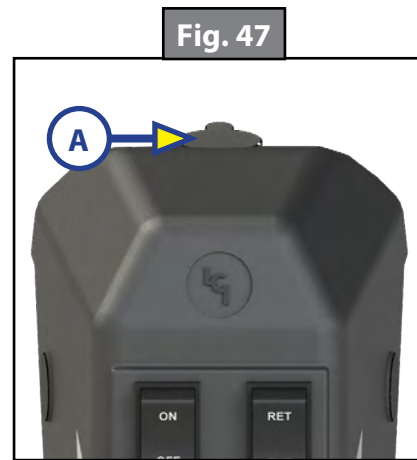
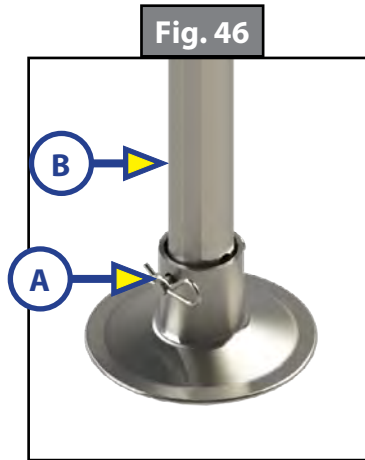


Fig. 45



Power Tongue Jack Manual Override

1. Chock the tires of the trailer.
2. Make sure the footpad of the Power Tongue Jack is pinned securely in place with the clevis pin and hairpin cotter pin (Fig. 46A).
3. Open the rubber plug (Fig. 47A) on top of the Power Tongue Jack's gearbox to expose the override nut. Insert the manual crank handle (Fig. 48).
4. Turn the override until the jack extends or retracts to desired position.
5. Remove the crank handle.
6. Replace the rubber plug.
7. Make sure the leg (Fig. 46B) of the Power Tongue Jack is fully retracted prior to moving the tow vehicle.



Preventive Maintenance

1. For optimum performance, the system requires a fully charged battery to maintain required currents and voltages. Keep battery at full capacity whenever possible.
2. Check battery terminals and other battery connections, the controller and the jacks for corrosion and loose or damaged connections.
3. Remove dirt, road debris and grease from jacks as needed. Then lightly lubricate the jack screw and wipe off any excess lubrication, leaving only a thin coating for protection.



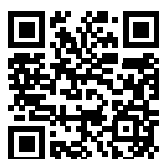
The contents of this manual are proprietary and copyright protected by Lippert. Lippert prohibits the copying or dissemination of portions of this manual unless prior written consent from an authorized Lippert representative has been provided. Any unauthorized use shall void any applicable warranty. The information contained in this manual is subject to change without notice and at the sole discretion of Lippert. Revised editions are available for free download from lippert.com.

Please recycle all obsolete materials.

For all concerns or questions, please contact Lippert
Ph: 432-LIPPERT (432-547-7378) | Web: lippert.com | Email: customerservice@lci1.com



GROUND CONTROL[®]
TT LEVELING SYSTEM
WITH LCD TOUCH PAD
OWNER'S MANUAL



Scan for Product Support

TABLE OF CONTENTS

System Information	2
Features	2
Safety Information	2
Touch Pad Diagram	3
Operation	4
Basic Jack Operation	4
Unhitching From Tow Vehicle	4
Auto Level	5
Auto Level Sequence	5
Reconnecting To Tow Vehicle	6
Troubleshooting	7
Manual Override	7
Touch Pad Error Codes	9
System Settings	10
Zero Point Calibration	10
Preventive Maintenance	11

System Information

With the push of a button, the Ground Control® TT Leveling System levels and stabilizes your travel trailer quickly and accurately, enhancing your overall camping experience. It can take up to an hour to get a travel trailer level with manual jacks, chocks and wedges. The Ground Control TT Leveling System saves you time by leveling and stabilizing the travel trailer in a matter of minutes, and prevents annoying rocking and swaying at the campsite.

Features

1. Saves time setting up camp
2. Fast, accurate automatic electric leveling
3. Auto re-hitch memory function
4. Level travel trailers function more efficiently than non-level ones

Safety Information

⚠ WARNING

Failure to act in accordance with the following may result in death or serious personal injury:

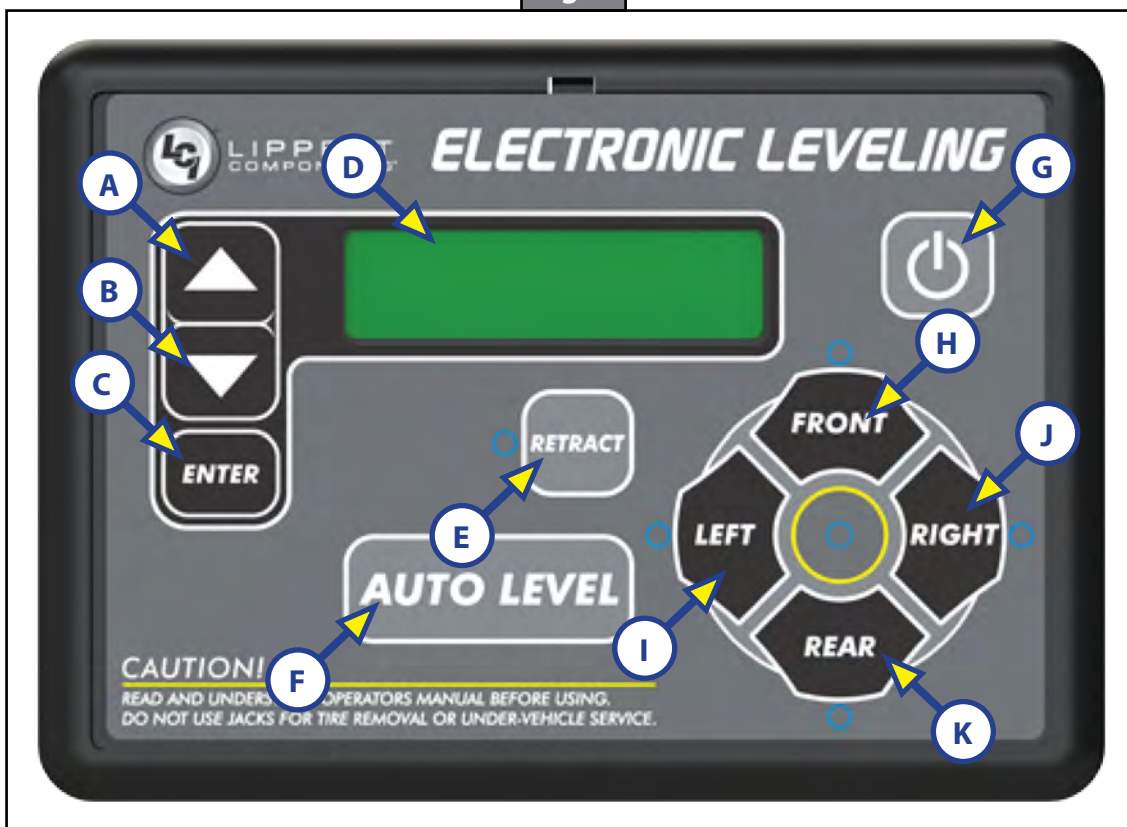
1. **The use of the Ground Control TT Leveling System to support the travel trailer for any reason other than which it is intended is prohibited by Lippert's limited warranty.**
2. **The Ground Control TT Leveling System is designed as a "leveling" system only and should not be used to provide service for any reason under the travel trailer, such as changing tires or servicing the leveling system.**
3. **Any attempts to change tires or perform other service while travel trailer is supported by the Ground Control TT Leveling System could result in damage to the travel trailer and/or cause death or serious injury.**

⚠ CAUTION

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

Touch Pad Diagram

Fig. 1



Callout	Description
A	Up Arrow - Scrolls up through the menu on LCD.
B	Down Arrow - Scrolls down through the menu on LCD.
C	Enter - Activates modes and procedures indicated on LCD.
D	LCD Display - Displays procedures and results.
E	Retract - Places leveling system into retract mode.
F	Auto Level - Places leveling system into auto level mode.
G	Power Button - Turns leveling system on and off.
H	Front Jack Button - Activates tongue jack in standard mode - Activates front jacks in manual mode.
I	Left Jack Button - Activates left jacks in manual mode.
J	Right Jack Button - Activates right jacks in manual mode.
K	Rear Jack Button - Activates rear jacks in manual mode.

Operation

⚠ WARNING

Be sure to Park the travel trailer on solid and level ground. Prior to operation, clear all jack landing locations of debris and obstructions. The locations should also be free of surface depressions and moisture. When parking the travel trailer on extremely soft surfaces, utilize load distribution pads under each jack.

⚠ CAUTION

People and pets should be clear of travel trailer while operating leveling system. Never lift the travel trailer completely off the ground. Lifting the travel trailer so the wheels are not touching the ground will create an unstable and unsafe condition.

Basic Jack Operation

The power tongue jack can be operated at any time using the buttons on the front of the tongue jack motor enclosure or by pressing the "FRONT" button (Fig. 1H) of the touch pad in standard mode.

The leveling jacks can only be extended when the touch pad is in manual mode. Once in manual mode, pressing the "FRONT" button (Fig. 1H) will extend both front jacks at the same time. By pushing the button combination of "FRONT" and "LEFT" (Fig. 1I), or "FRONT" and "RIGHT" (Fig. 1J) buttons, the individual front jacks can be extended. Pressing the "REAR" button (Fig. 1K) will extend both rear jacks at the same time. To extend individual rear jacks, press the button combination of "REAR" and "LEFT" (Fig. 1I), or "REAR" and "RIGHT" (Fig. 1J) buttons, depending on which jack needs to be operated. Pressing the "LEFT" button (Fig. 1I) will extend both the left front jack and the left rear jack. Pressing the "RIGHT" button (Fig. 1J) will extend both the right front jack and the right rear jack.

If the touch pad is put in the retract mode, which is indicated by the orange illuminated LED next to the "RETRACT" button (Fig. 1E), the front jacks can be retracted together by pushing the "FRONT" button (Fig. 1H). Individual front jacks can be retracted by pushing the combination of the "FRONT" and "LEFT" (Fig. 1I), or "FRONT" and "RIGHT" (Fig. 1J) buttons. Similarly, the rear jacks can be retracted together by pushing the "REAR" button (Fig. 1K), or individually by pushing the combination of the "REAR" and "LEFT" (Fig. 1I) or "REAR" and "RIGHT" (Fig. 1J) buttons. Pressing the "LEFT" button (Fig. 1I) will retract both the left front jack and the left rear jack. Pressing the "RIGHT" button (Fig. 1J) will retract both the right front jack and the right rear jack.

NOTE: If the leveling jacks will not operate individually using the method described above, but they operate properly when Auto Level is performed, the Twist Prevention Protection system has locked out the operation to prevent damage to the frame of the travel trailer.

Unhitching From Tow Vehicle

1. Park travel trailer on level ground.
2. Chock all tires.
3. Make sure battery power is on.
4. Disconnect any wires, chains, or sway control that may be equipped between the tow vehicle and travel trailer. Unlatch the travel trailer coupler.
5. Press and hold the "EXT" button on the tongue jack or press the "FRONT" button (Fig 1H) on the touch pad in standard mode to extend the tongue jack to the ground (Fig. 2A). Continue extending until the travel trailer coupler releases from the tow vehicle hitch.
6. Once the coupler is clear of the hitch, pull the tow vehicle away and park at a safe distance.

Fig. 2



Auto Level

NOTE: Once the automatic leveling cycle has been started, it is important that there is no movement in the travel trailer until the travel trailer has completed the leveling process. Failure to remain still during the leveling cycle could have an effect on the performance of the leveling system.

1. After unhitching from the tow vehicle and parking the vehicle at a safe distance away from the travel trailer, locate the leveling touch pad on the unit (Fig. 3). It will usually be in a side compartment near the front of the travel trailer.
2. Press the "ON/OFF" button (Fig. 3A) and then press "AUTO LEVEL" (Fig. 3B).



Auto Level Sequence

NOTE: Sequence may vary slightly based on the height of the travel trailer coupler prior to leveling.

1. When the Auto Level Sequence begins, the front of the travel trailer will seek a position near a level state using a combination of the tongue jack and front jacks. During this sequence the tongue jack will partially retract.
2. The rear jacks will then extend and complete a rear leveling sequence.
3. When the rear leveling sequence has been completed, the travel trailer will adjust front to back and side-to-side.
4. Each jack will perform a final grounding touch.
5. Once this has been completed the LCD screen will read "AUTO LEVEL SUCCESS."
6. The LED screen will then read "READY" followed by the current battery voltage. The green LED in the center of the four leveling jack buttons will be illuminated (Fig. 4A).



NOTE: If the AUTO LEVEL sequence does not perform as described above, place the system in manual mode and test that the jacks operate correctly by pushing their coordinating buttons on the touch pad; i.e. "FRONT" button operates only the front jacks, etc. If the jack functions are incorrect, check that the correct jack wiring harnesses are plugged into the correct ports on the controller.

Reconnecting To Tow Vehicle

1. Press the "ON/OFF" button to turn panel on (Fig. 5B).
2. Press the "UP ARROW" (Fig. 5A) button on the touch pad until "AUTO HITCH HGT, ENTER TO BEGIN" is displayed on the LCD. Press the "ENTER" button (Fig. 5C).
3. The rear leveling jacks will retract, followed by the tongue jack extending to the ground, then followed by the front leveling jacks retracting. The tongue jack will then adjust the height of the front of the travel trailer coupler to the point at which the "AUTO LEVEL" button was most recently pressed.
4. Press the "ON/OFF" button to turn system off (Fig. 5B).
5. Back the tow vehicle into position to align the tow vehicle hitch and travel trailer coupler with each other.
6. Press and hold "RET" on the tongue jack to retract the tongue jack (Fig. 6A) until the coupler sets into position on top of the tow vehicle hitch.
7. Latch the tow vehicle hitch and connect any wires, chains, or sway control that may be equipped between the tow vehicle and travel trailer.
8. Press the "RET" button (Fig. 6A) twice and then press and hold the "RET" button for 3-5 seconds to engage the tongue jack's auto retract feature.

NOTE: The "RET" button (Fig. 6A) can also be pressed and held until the jack is fully retracted.

Fig. 5



Fig. 6



Troubleshooting

⚠ CAUTION

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

Manual Override

NOTE: For ease of manual override it is recommended to unplug the power harness to the motor prior to performing the manual override procedure.

NOTE: Use of a 12-18 volt cordless screw gun or pneumatic screw gun is acceptable to manually override the jacks. Do not use an impact screw gun to perform any of the override procedures, as this may damage the motor. If manual override is necessary there are two options for each style of jack.

2K or 3K C-Jack Motor Override:

Tools needed: $\frac{3}{8}$ " drive ratchet and extension (no socket)

1. Find the port on the top of the jack motor (Fig. 7A).
2. Remove the rubber plug (Fig. 8A).
3. Insert the $\frac{3}{8}$ " drive into the port.
4. Turn the override until the jack extends or retracts to desired position.

2K or 3K C-Jack Manual Override Nut:

Tools needed: $\frac{3}{4}$ " socket wrench

1. Locate the manual override nut (Fig. 7B).
2. Place $\frac{3}{4}$ " socket wrench over the manual override nut (Fig. 9A) and turn the override nut until the jack extends or retracts to desired position.

Fig. 7



Fig. 8

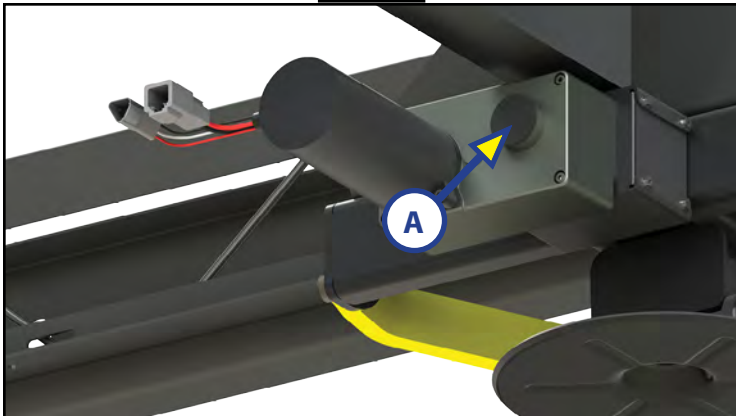
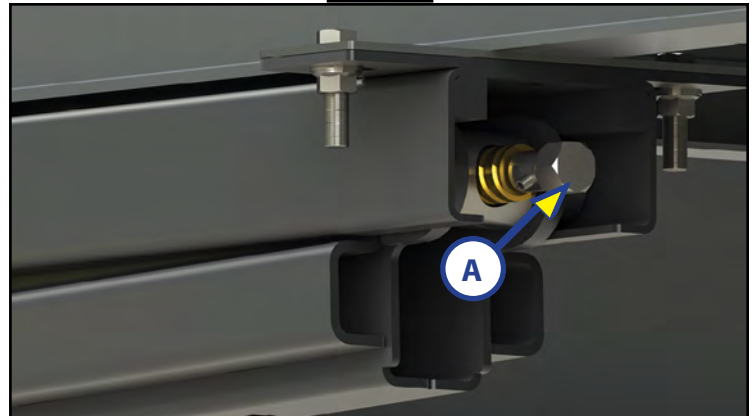


Fig. 9



5K Jack - Top of Jack Motor Override:

Tools needed: $\frac{3}{8}$ " drive ratchet and extension (no socket)

1. Find the port on the top of the jack motor (Fig. 10A).
2. Remove the rubber plug (Fig. 11A).
3. Insert the $\frac{3}{8}$ " drive ratchet into the port (Fig. 12).
4. Turn the override until the jack extends or retracts to desired position.

Fig. 10

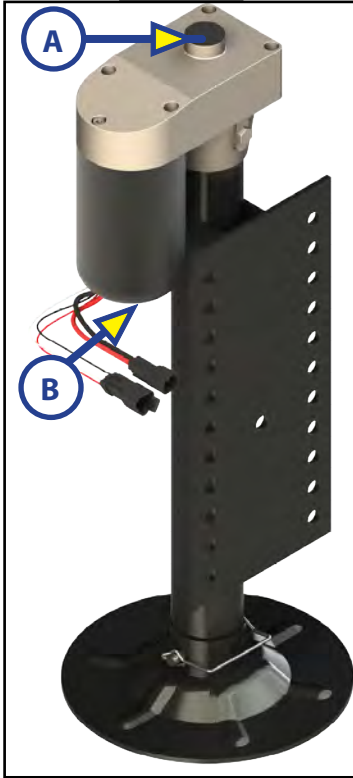


Fig. 11

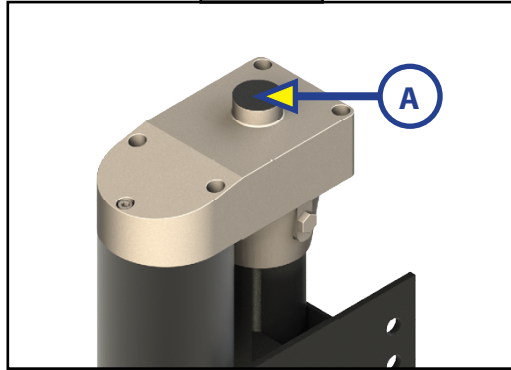


Fig. 12



5K Jack - Bottom of Jack Motor Override:

Tools needed: $\frac{3}{8}$ " drive ratchet and extension, $\frac{5}{16}$ " socket

1. Find the port on the bottom of the jack motor (Fig. 10B).
2. Remove the rubber plug (Fig. 13A).
3. Insert the $\frac{5}{16}$ " socket into the port (Fig. 14).
4. Turn the override until the jack extends or retracts to desired position.

Fig. 13

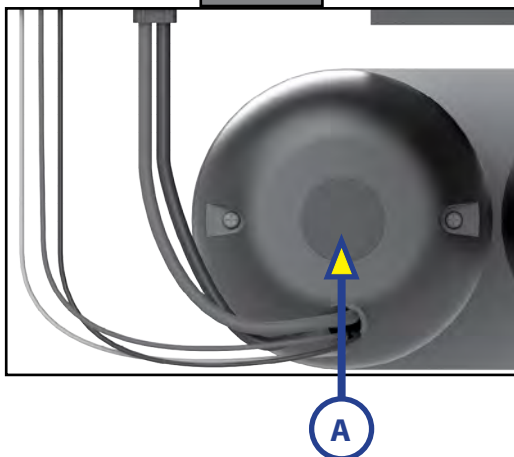


Fig. 14



Touch Pad Error Codes

NOTE: To clear an error from the touch pad, repair or otherwise correct the issue, then press "ENTER." If the error is still present, the message will be displayed again.

Touch Pad Error Codes		
LCD Error Codes	What's Happening?	What Should Be Done?
Excess Angle	Excessive angle reached during auto operation.	Relocate the travel trailer.
Excessive Angle	Excessive angle reached during manual operation.	Stop manual operation and reset jacks to a more level state. The code will self clear, there is no need to hit "ENTER."
Feature Disabled	Hitch recognition requested but no hitch height set.	Perform "AUTO LEVEL" sequence to establish hitch height.
	Zero point not set.	Set zero point.
Low Voltage	Battery voltage dropped below 9.5V.	Check wiring - repair or replace.
		Test battery voltage under load - charge or replace.
Out Of Stroke	Jack has reached maximum stroke length and is unable to lift.	Check disposition of jacks. Relocate the travel trailer.
	Unexpected high amp current stall.	Check jacks in manual mode or perform manual override procedure. Repair or replace as needed.
		Check for bent or damaged jacks. Repair or replace as needed.
External Sensor	Bad connection or wiring from the controller to the leveling sensor.	Replace or repair connection to leveling sensor.
Jack Timeout	Time limit exceeded for the requested auto operation.	Check disposition of jacks.
Auto Level Fail	Unable to auto level due to uneven ground.	Check disposition of jacks. Relocate the travel trailer.
	Unable to auto level due to zero point being set incorrectly.	Reset zero point.
Comm Error	Communication between controller and touch pad has been lost.	Check harness for proper connections or damage. Replace if necessary.
Bad Calibration	Sensor calibration values are out of range.	Replace controller.
Function Aborted	The user pressed a button on the touch pad during an automatic operation.	Restart automatic operation and then refrain from pressing any buttons on the touch pad.
Hall Power Short	Short circuit detected in one of the hall effect power wires.	Test for short and repair or replace.

Special Jack Error Codes

To clear one of the error codes listed below:

1. Correct or otherwise repair the issue (see the table below).

NOTE: In order to clear the special jack error code the jacks need to be "homed." In order to "home" jacks, each jack **MUST** be able to retract a minimum of 6 inches.

2. Extend all jacks to reach the 6 inches of minimum retract needed.
 - A. Press "FRONT" (Fig. 1G) to extend the front jacks (if required).
 - B. Press "REAR" (Fig. 1J) to extend the rear jacks (if required).
3. Press and hold the retract button until all of the jacks begin to retract. The jacks will retract until they reach the hard current limit.
4. The jacks are now "homed" and the special jack error code will be cleared.

NOTE: If the jacks do not retract, an error should display on the touch pad screen. This is typically caused by wiring interruption.

Special Leveling Jack Error Codes		
LCD Error Codes	What's Happening?	What Should Be Done?
LF Jack RF Jack LR Jack RR Jack Tongue Jack	Error at a specific jack (left front, right front, left rear, right rear, tongue jack). • Hall signal issue (open, short, malfunction or loss of communication) • Open or short circuit between controller and motor.	Check harness connections at controller and at jack. Check harness for damage. Check fuses at controller. Repair or replace as necessary.

System Settings

Zero Point Calibration

The "Zero Point" is the programmed point that the travel trailer will return to each time the Auto Level feature is used. The "Zero Point" must be programmed prior to using the Auto Level feature to ensure the proper operation of the system.

NOTE: Prior to starting this procedure, double check all connections on the controller, jacks, and touch pad.

1. In manual mode run the jacks to level the travel trailer. This is best achieved by placing a level in the center of the travel trailer and leveling it both front to back and then side to side. (See "Basic Jack Operation" for instructions on how to manually operate the system).
2. Once the travel trailer is level, turn off the touch pad.
3. With the touch pad off, press and release the "FRONT" button (Fig. 1H) five (5) times and then press and release the "REAR" button (Fig. 1K) five (5) times.
4. The touch pad will flash and beep and the display will read "ZERO POINT CALIBRATION ENTER to set, Power to Exit" (Fig. 15).
5. To set the current position as the zero point, press the "ENTER" button (Fig. 1C).
6. LCD display will read "Zero point stability check" (Fig. 16).
7. LCD display will read "Zero point set successfully" once process is complete (Fig. 17).
8. The system will set this point as its level state and the touch pad will turn off.

Fig. 15

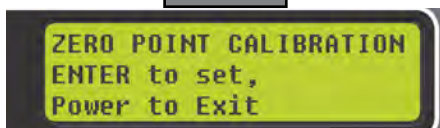


Fig. 16

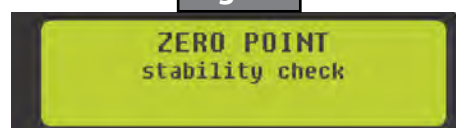


Fig. 17



Preventive Maintenance

1. For optimum performance, the system requires full battery current and voltage. The battery must be maintained at full capacity.
2. Check the terminals and other connections at the battery, the controller, and the jacks for corrosion, and loose or damaged connections.
3. Remove dirt and road debris from jacks as needed.
4. If jacks are down for extended periods, it is recommended to spray exposed leveling jack rods with a silicone lubricant every three months for protection. If the coach is located in a salty environment, it is recommended to spray the rods every four to six weeks.



The contents of this manual are proprietary and copyright protected by Lippert. Lippert prohibits the copying or dissemination of portions of this manual unless prior written consent from an authorized Lippert representative has been provided. Any unauthorized use shall void any applicable warranty. The information contained in this manual is subject to change without notice and at the sole discretion of Lippert. Revised editions are available for free download from lippert.com.

Please recycle all obsolete materials.

For all concerns or questions, please contact Lippert
Ph: 432-LIPPERT (432-547-7378) | Web: lippert.com | Email: customerservice@lci1.com



GROUND CONTROL®
TT LITE MS
OWNER'S MANUAL



Scan for product support

TABLE OF CONTENTS

Introduction	2
Safety	3
General Operation	4
Prior to First System Operation	4
Downloading the OneControl® Mobile App	5
Overall Best Practices for System Operation	5
Basic Tongue Jack Operation	6
Operating a System Equipped with the Auto Leveling Control Touch Pad	6
Touch Pad Function Diagram - Auto Leveling Control Touch Pad	6
Basic Functions Overview - Auto Leveling Control Touch Pad	7
Basic Functions Overview - OneControl® Mobile App	8
Advanced Functions Overview - OneControl® Mobile App	10
Operating a System Equipped with the LCD Electronic Leveling Touch Pad	15
Touch Pad Function Diagram - LCD Electronic Leveling Touch Pad	15
Basic Functions Overview - LCD Electronic Leveling Touch Pad	16
Advanced Functions Overview - LCD Electronic Leveling Touch Pad	17
Troubleshooting	20
Touch Pad Error Codes	20
Special Jack Error Codes	21
Manual Operation - Tongue Jack	22
Manual Operation - Rear Jacks	23
Preventive Maintenance	24
Wiring Diagram - Auto Leveling Control Touch Pad	25
Wiring Diagram - LCD Electronic Leveling Touch Pad	26
Notes	27

Introduction

Ground Control TT Lite MS is a leveling system designed to expand the Ground Control line by incorporating OEM supplied manual stabilizer jacks. The system features two control interface options: the Auto Leveling Control Touch Pad and the LCD Electronic Leveling Touch Pad.

Systems equipped with the Auto Leveling Control Touch Pad require the use of the OneControl® Mobile App to access advanced functions. This keeps buttons and switches on panels in the trailer to a minimum, while system control remains uncompromised through the use of a smart device.

Alternatively, systems equipped with the LCD Electronic Leveling Touch Pad offer the full ground control experience with complete system control integrated into the touch pad itself in one convenient location.

NOTE: The Ground Control TT Lite MS system has a GVWR weight limit of 10,500 lbs.

Additional information about this product can be obtained from www.lippert.com/support or by downloading the free LippertNOW app. The app is available on Apple App Store® for iPhone and iPad and also on Google Play™ for Android™ users.

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

For additional support on this product, please visit:

<https://support.lci1.com/ground-control-tt-lite>

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

Read and understand all instructions before installing or operating this product. Adhere to all safety labels.

This manual provides general instructions. Many variables can change the circumstances of the instructions, i.e., 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 Lippert limited warranty.

NOTE: It is recommended that the following installation procedures should only be performed by qualified and trained personnel. Please read all Safety Information and instructions prior to starting this procedure. Use all appropriate Personal Protective Equipment (PPE) while performing any portion of this installation.

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 property damage, including voiding of the component warranty.

WARNING

Failure to fully retract the stabilizers prior to operating the leveling system could result in damage to the system and to the RV. Always make sure the stabilizer are fully retracted prior to operating the leveling system. If needed, manually extend the tongue jack to remove the trailer's weight from the stabilizers making them easier to retract.

WARNING

NEVER -

1. Lift the trailer using the installed stabilizer jacks.
2. Retract the leveling jacks and/or the tongue jack while the installed stabilizers are extended.
3. Auto Level or operate the leveling system while the stabilizers are extended.

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.

General Operation

Prior to First System Operation

1. If not already, fully retract the manual stabilizer jacks. If needed, extend the tongue jack manually to remove weight from the stabilizers to assist in their retraction.
2. Visually inspect the touch pad installed on the system.
 - A. If the system is installed with the Auto Leveling Control Touch Pad (Fig. 1), use of the OneControl Mobile App is required for use of advanced system functions and to establish the zero point. Prior to first system operation, navigate to the "Downloading the One Control Mobile App" section in this manual, download the app, and set the zero point.
If the Auto Leveling Control Touch Pad red light comes on after setting a zero point, the controller does not know the jack positions and a Home Jacks operation must be performed. Proceed to the next step in this section.

NOTE: The Auto Leveling Control Touch Pad will not function until the zero point has been set in the app.

- B. If the LCD Electronic Leveling Touch Pad is installed (Fig. 2), prior to first system operation navigate to the "Zero Point Calibration" subsection of the "Advanced Functions Overview - LCD Electronic Leveling Touch Pad" section of this manual to set the zero point and enable the use of the auto-level feature.
If the LCD Electronic Leveling Touch Pad shows a "Jack Position Lost" fault after setting a zero point, the controller does not know the jack positions and a Home Jacks operation must be performed. Proceed to the next step in this section.
3. Home the jacks:
 - A. If the system is installed with the Auto Leveling Control Touch Pad (Fig. 1), use of the OneControl Mobile App is required for use of advanced system functions and to home the jacks. See the "Home Jacks" section of the "Basic Functions Overview – OneControl® Mobile App" section in this manual.
 - B. If the LCD Electronic Leveling Touch Pad is installed (Fig. 2), prior to first system operation navigate to the "Home Jacks" subsection of the "Advanced Functions Overview – LCD Electronic Leveling Touch Pad" section of this manual to home the jacks.

Fig. 1



Fig. 2



Downloading the OneControl® Mobile App

If the touch pad installed on the unit is the Auto Leveling Control Touch Pad, The Ground Control TT Lite MS system can be controlled through the Lippert OneControl mobile app to utilized advanced system functions. The app is available on Apple App Store® for iPhone® and iPad® and also on Google Play™ for Android™ users.

4. Download the Lippert OneControl Mobile App from the App store on the preferred device.
5. Make sure Bluetooth is enabled on the device.
6. Accept the end use license agreement, and create account.
7. Login to the newly created account.
8. Follow the steps in the app to connect to the RV. Select the Scan option to scan for a QR code on a device.
9. Locate the Ground Control TT Lite MS controller in a compartment in the RV
10. Scan the QR code on controller with the device.
11. Follow instructions in app to finalize pairing.
12. Prior to using the auto level feature, the zero point must be set. Navigate to the "Zero Point Calibration" subsection of the "Advanced Functions Overview - OneControl Mobile App" section in this manual.

Overall Best Practices for System Operation

WARNING

Failure to act in accordance with the following may result in death, serious personal injury or severe product or property damage. Always make sure that the system operating area is clear of people, pets and objects before and during operation of the system.

1. Park the trailer on solid, level ground.
2. Clear all tongue jack, stabilizer leg, and jack leg landing locations of debris and obstructions. Locations should also be free of depressions.
3. When parking the trailer on extremely soft surfaces, utilize load distribution pads under each footpad.
4. People and pets should be clear of trailer while operating the system.

NOTE: The Ground Control TT MS system is intended for the purpose of leveling the trailer, not lifting it. Some lift may occur during the leveling process while the system communicates with the various internal mechanisms. This is intended. However, intentional use of any part of the system to lift the frame/trailer for any reason is prohibited and voids all product warranty.

WARNING

Never lift the trailer completely off the ground. Lifting the trailer completely off the ground creates an unstable condition that could result in property damage and personal injury.

WARNING

Failure to fully retract the stabilizers prior to operating the leveling system could result in damage to the system and to the RV. Always make sure the stabilizer are fully retracted prior to operating the leveling system. If needed, manually extend the tongue jack to remove the trailer's weight from the stabilizers making them easier to retract.

WARNING

NEVER -

1. Lift the trailer using the installed stabilizer jacks.
2. Retract the leveling jacks and/or the tongue jack while the installed stabilizers are extended.
3. Auto Level or operate the leveling system while the stabilizers are extended.

Basic Tongue Jack Operation

Fig. 3

NOTE: The "On" and "Off" switch (Fig. 3A) controls the Power Tongue Jack's light only. If left on for an extended period of time, the light will drain the trailer's battery.

NOTE: The Power Tongue Jack is designed for vertical movement of the trailer only.

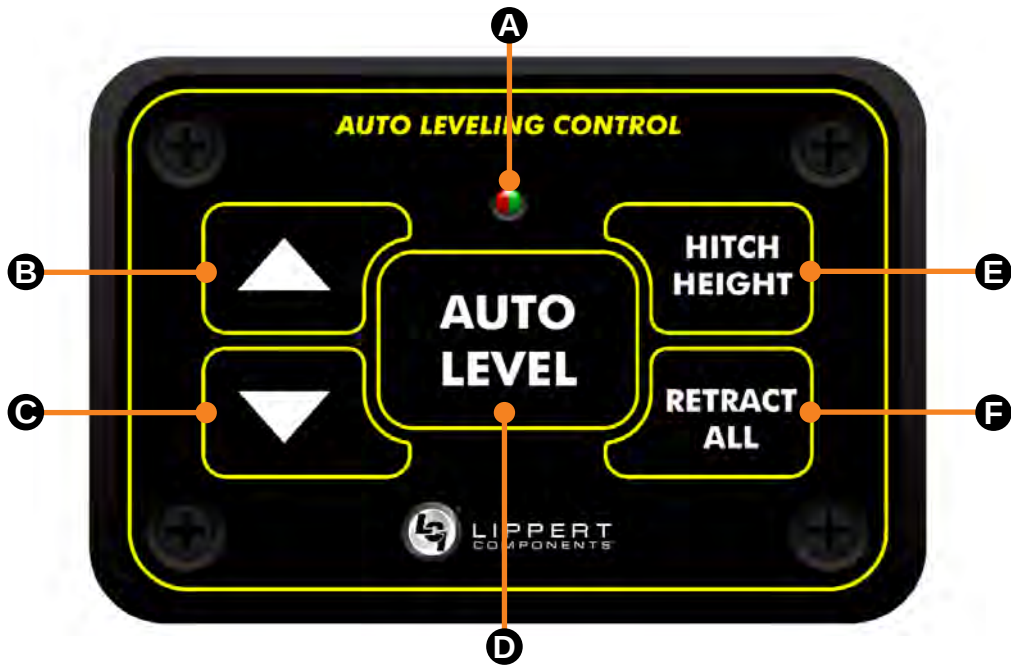
- 1. The tongue jack can be operated at any time (including hitching and unhitching the trailer from the tow vehicle by using the EXTEND (Fig. 3B) / RETRACT (Fig. 3C) switch on the tongue jack



Operating a System Equipped with the Auto Leveling Control Touch Pad

Touch Pad Function Diagram - Auto Leveling Control Touch Pad

Fig. 4



Callout	Description	
A	Red/Green LED - Indicates the status of the system.	
B	Up Arrow - Extends the tongue jack.	To turn on the touch panel, press the Up and Down arrow buttons at the same time.
C	Down Arrow - Retracts tongue jack.	
D	Auto Level Button - Places leveling system into auto level mode.	
E	Hitch Height Button - Initiates the Hitch Recognition feature.	
F	Retract All Button - Places leveling system into full retract mode, except for the tongue jack.	

Basic Functions Overview - Auto Leveling Control Touch Pad

NOTE: Make sure the trailer is parked on solid, level ground.

NOTE: If not already, fully retract the manual stabilizer jacks. If needed, extend the tongue jack manually to remove weight from the stabilizers to assist in their retraction.

Activating the System

1. To activate the system, press the UP ARROW (Fig. 4B) and DOWN ARROW (Fig. 4C) buttons at the same time. This turns on the touch pad and deactivates the lockout.

Unhitching

1. Raise the trailer off the hitch using the EXTEND switch (Fig. 3B) on the tongue jack, or by pressing the UP ARROW (Fig. 4B) on the touch pad.
2. Move the tow vehicle away from the hitch.
3. Lower the tongue jack to approximately level using the RETRACT switch (Fig. 3C) on the tongue jack or by pressing the DOWN ARROW (Fig. 4C) on the touch pad.

Auto Leveling

1. To auto level, press the AUTO LEVEL button (Fig. 4D) (Zero Point must be calibrated first).
2. The trailer will automatically adjust the tongue jack and rear jacks to level the trailer.
3. Make sure the leveling system has completed the Auto Level sequence, then manually extend the stabilizers.

NOTE: Once the automatic leveling cycle has been started, it is important that there is no movement in the trailer until the trailer has completed the leveling process. Failure to remain still during the leveling cycle could have an effect on the performance of the leveling system.

NOTE: Pressing any button during an Auto Level sequence will abort the auto leveling cycle.

NOTE: Auto Leveling sequence may vary slightly based on the height of the trailer coupler prior to leveling.

Returning to Hitch Height

The hitch height feature returns the trailer to the position it was in when the AUTO LEVEL button (Fig. 4D) was pressed if the auto leveling sequence was completed successfully.

NOTE: If not already, fully retract the manual stabilizer jacks. If needed, extend the tongue jack manually to remove weight from the stabilizers to assist in their retraction.

1. Press the HITCH HEIGHT button (Fig. 4E).
2. The jacks will begin to retract.
3. The tongue jack will adjust to the saved hitch height.

Rehitching

1. If needed, raise the trailer using the EXTEND switch (Fig. 3B) on the tongue jack, or by pressing the UP ARROW (Fig. 4B) on the touch pad.
2. Move the tow vehicle ball mount under the hitch.
3. Lower the trailer onto the hitch with the tongue jack using the RETRACT switch (Fig. 3C) or by pressing the DOWN ARROW (Fig. 4C) on the touch pad.

NOTE: Finish completely retracting the tongue jack before moving the trailer.

Retract All

1. Press the RETRACT ALL button (Fig. 4B).
2. The system will first ensure the tongue jack is on the ground. Then it will fully retract the rear jacks.

NOTE: Pressing RETRACT ALL will not retract the tongue jack or return the trailer to hitch height.

Basic Functions Overview - OneControl® Mobile App

NOTE: On systems installed with the Auto Leveling Control Touch Pad, the OneControl mobile app may be used as an alternative to the touch pad when performing basic functions.

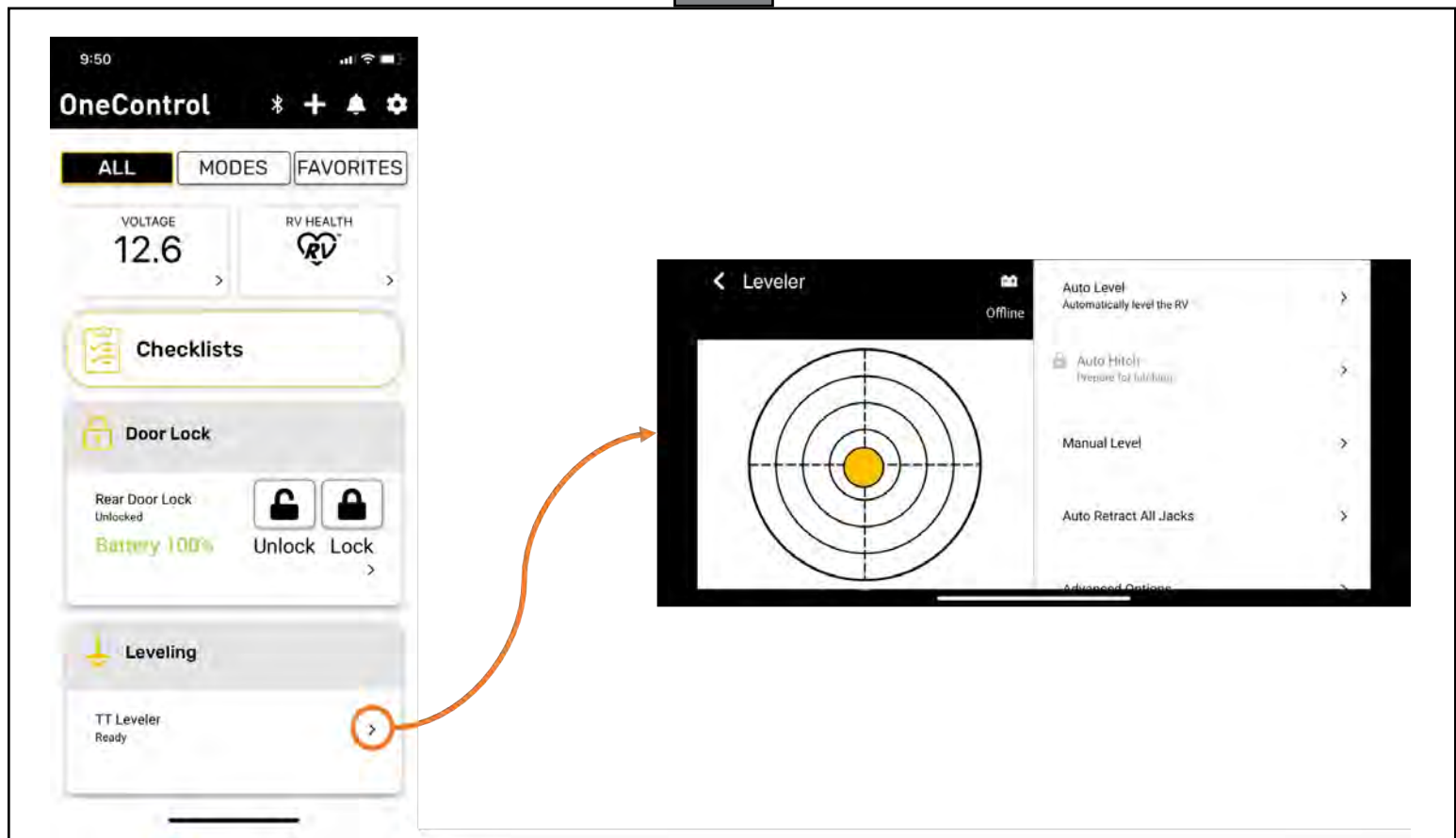
NOTE: If not already, fully retract the manual stabilizer jacks. If needed, extend the tongue jack manually to remove weight from the stabilizers to assist in their retraction.

Activating and Accessing the Leveling Controls in OneControl.

NOTE: To use the leveling controls in the OneControl Mobile App the touch pad/system must first be unlocked to disengage the lockout.

1. With the leveling system connected to power, press any button on the Auto Leveling Control Touch Pad, the LCD Electronic Leveling Touch Pad, or the extend or retract button on the tongue jack to disengage the bluetooth lockout.
2. Navigate to the Leveling sub menu in the app to access features (Fig. 5).

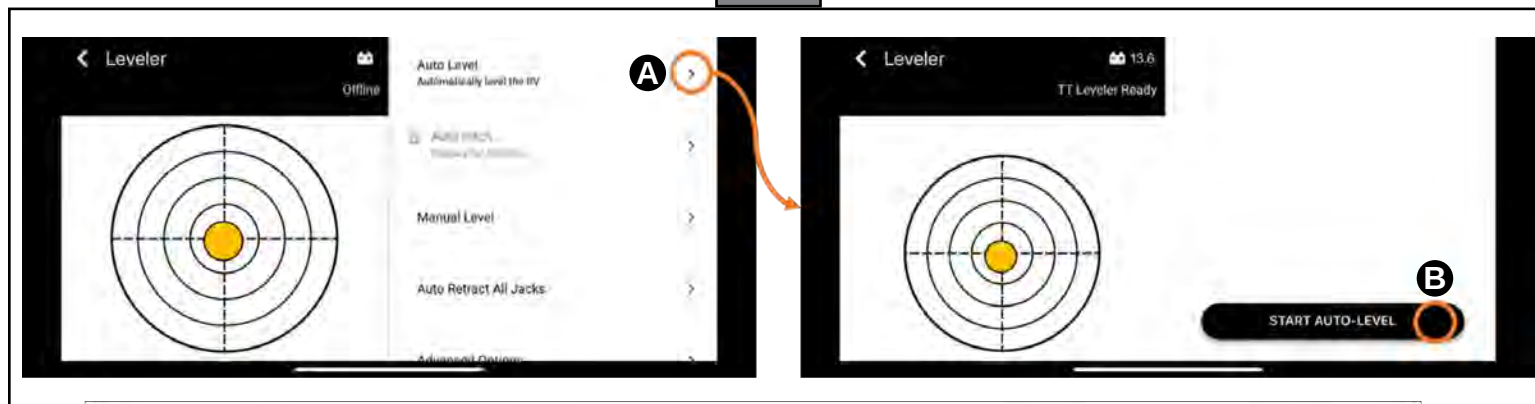
Fig. 5



Auto Leveling

1. Select AUTO LEVEL on the screen (Fig. 6A).
2. Select START AUTO-LEVEL on the pop up screen (Fig. 6B).
3. The trailer will automatically adjust the tongue jack and rear jacks to level the trailer.
4. After the auto leveling sequence is completed, manually extend the stabilizers.

Fig. 6



NOTE: Once the automatic leveling cycle has been started, it is important that there is no movement in the trailer until the trailer has completed the leveling process. Failure to remain still during the leveling cycle could have an effect on the performance of the leveling system.

NOTE: Pressing any button during an Auto Level sequence will abort the auto leveling cycle.

NOTE: Auto Leveling sequence may vary slightly based on the height of the trailer coupler prior to leveling.

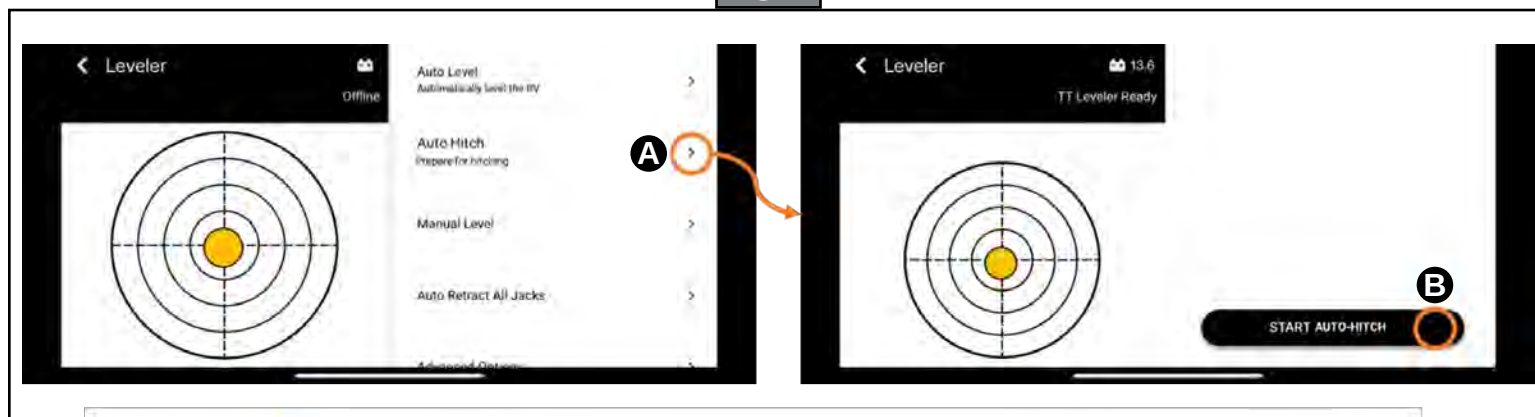
Auto Hitch

The Auto Hitch (or hitch height) feature returns the trailer to the position it was in when the AUTO LEVEL button (Fig. 4D) (Fig. 6B) was pressed if the auto leveling sequence was completed successfully.

NOTE: If not already, fully retract the manual stabilizer jacks. If needed, extend the tongue jack manually to remove weight from the stabilizers to assist in their retraction.

1. Select AUTO HITCH on the screen (Fig. 7A).
2. Select START AUTO HITCH on the pop up screen (Fig. 7B).
3. The jacks will begin to retract.
4. The tongue jack will adjust to the saved hitch height.

Fig. 7



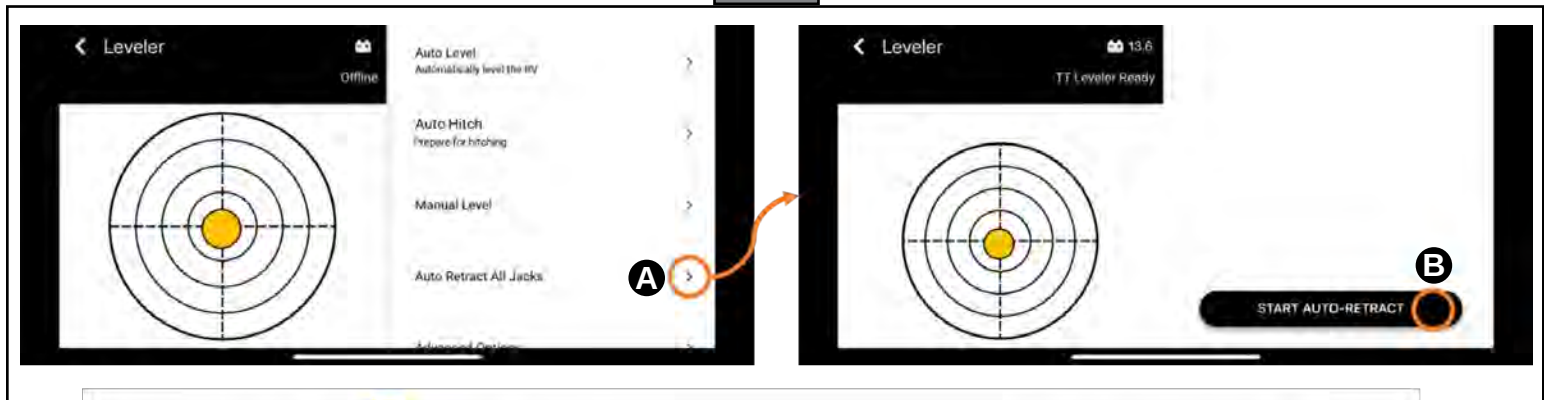
Auto Retract All

1. Select AUTO RETRACT ALL JACKS on the screen (Fig. 8A).
2. Select START AUTO-RETRACT on the pop up screen (Fig. 8B).
3. The system will first ensure the tongue jack is on the ground. Then it will fully retract the rear jacks.

NOTE: Auto retracting the jacks will not retract the tongue jack or return the trailer to hitch height.

NOTE: If the leveling jacks will not operate individually using the method described above, but they operate properly when Auto Level is performed, the Twist Prevention Protection System has locked out the operation to prevent damage to the frame of the trailer.

Fig. 8



Advanced Functions Overview - OneControl® Mobile App

NOTE: On systems installed with the Auto Leveling Control Touch Pad, use of advanced functions requires the OneControl mobile app on a connected and paired smart device.

NOTE: Advanced Functions are accessed from the same menu as Basic Functions within the OneControl Mobile App.

Manual Level (Manual Mode)

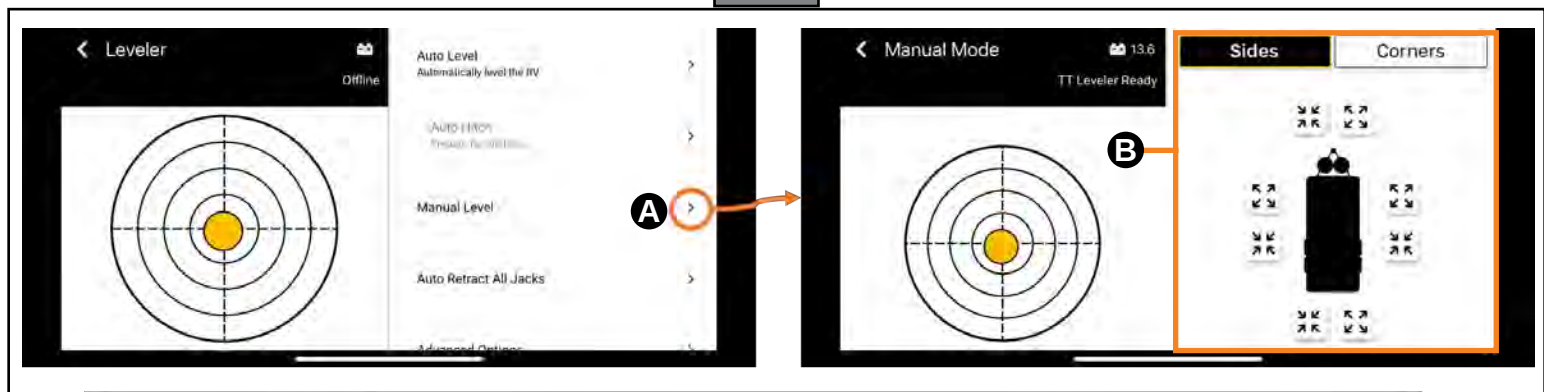
⚠ WARNING

Never perform any leveling changes with the stabilizers extended.

NOTE: The rear leveling jacks can only be manually extended or retracted when the system is in manual mode.

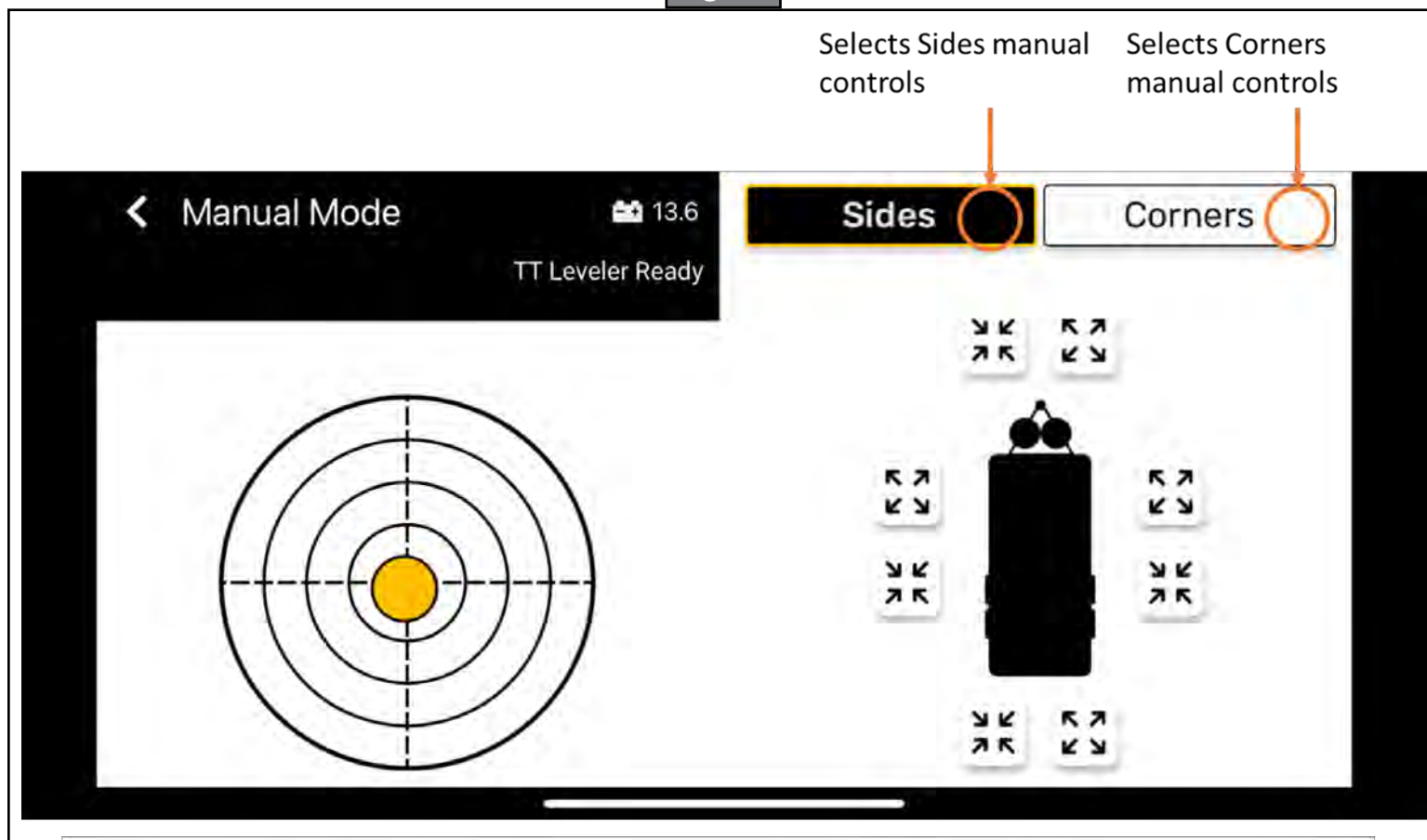
1. Select MANUAL LEVEL on the screen (Fig. 9A). The manual control interface will pop up (Fig. 9B).

Fig. 9



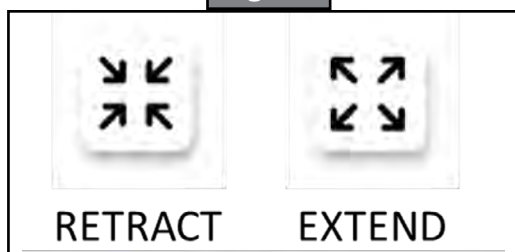
2. There are two control options within the manual control interface; Sides and Corners.
 - A. Sides allows manual leveling from front-to-back and side-to-side (Fig. 10).
 - B. Corners allows manual leveling of each of the rear jacks (Fig. 10).

Fig. 10



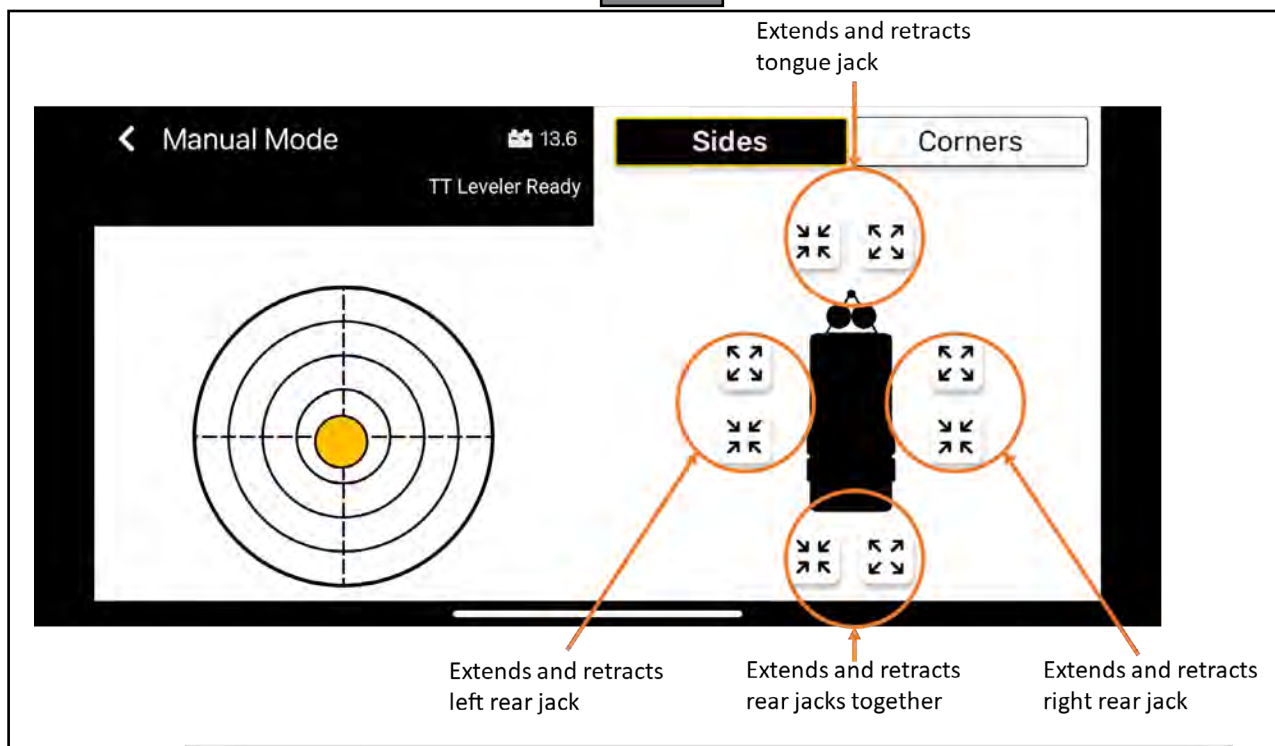
3. Within the manual control interface, there are square buttons positioned near jacks or applicable pair of jacks on the system based on which option (sides or corners) is selected.
 - A. RETRACT - Pressing buttons with arrows pointing toward the center will retract the associated jack(s) (Fig. 11).
 - A. EXTEND - Pressing buttons with arrows pointing away from the center will extend the associated jack(s) (Fig. 11).

Fig. 11



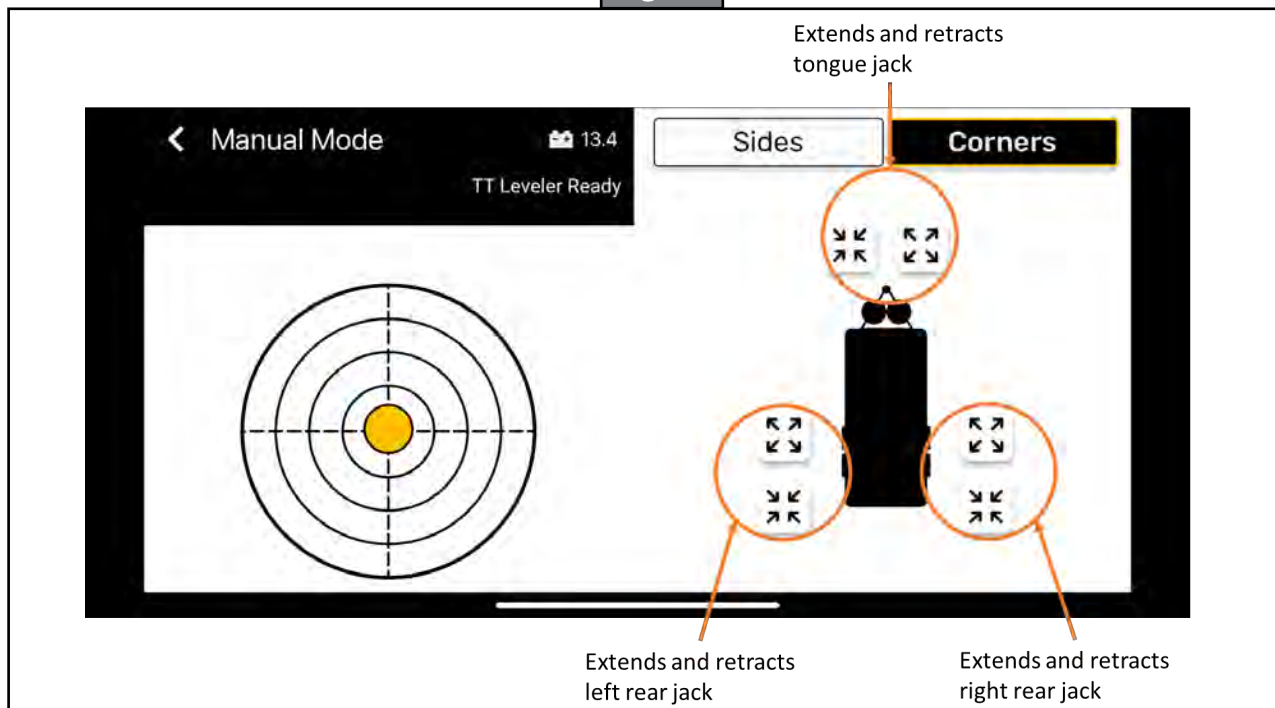
4. With the SIDES option selected, follow the diagram in Figure 12 to operate the jack(s).

Fig. 12



5. With the CORNERS option selected, follow the diagram in Figure 13 to operate the jack(s).

Fig. 13



Zero Point Calibration

The "Zero Point" is the programmed point that the trailer will return to each time the Auto Level feature is used. The "Zero Point" must be programmed prior to using the Auto Level feature to ensure the proper operation of the system.

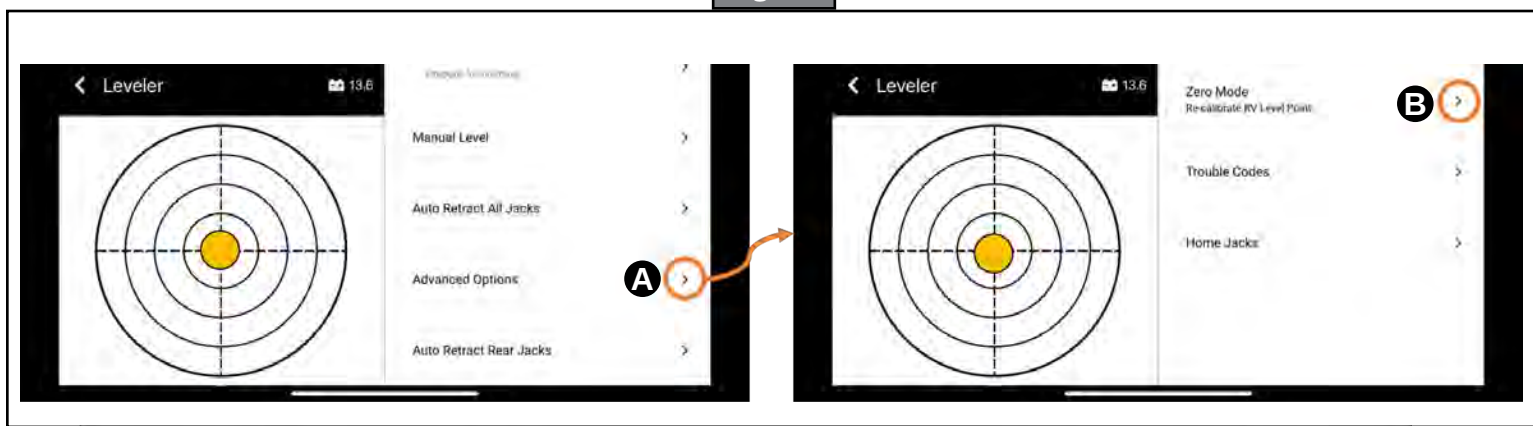
⚠ WARNING

Never operate the leveling system or make any leveling changes while the stabilizers are extended.

NOTE: Prior to starting this procedure, double check all connections on the controller, jacks, and touch pad.

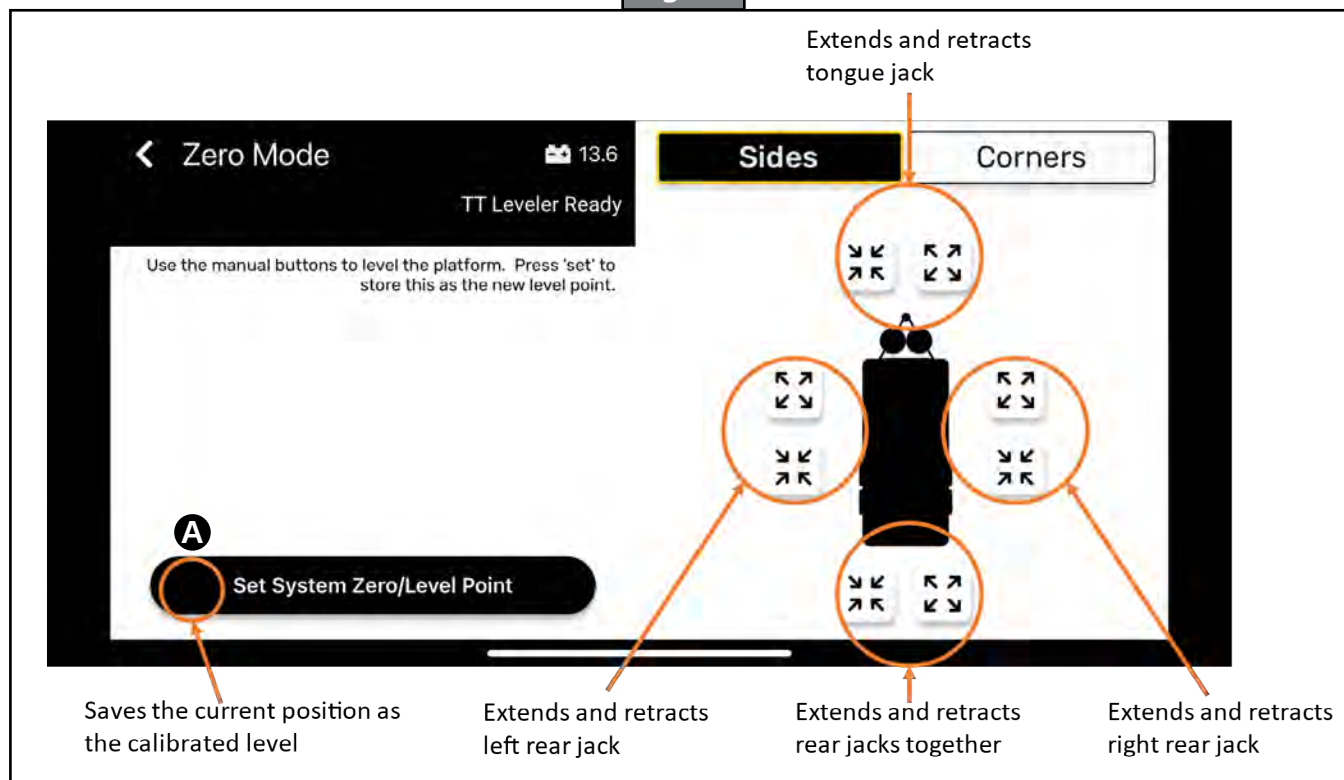
1. Fully retract the stabilizers, if they aren't already.
2. Place a bubble level in the center of the trailer. Reference this level throughout the calibration procedure while manually leveling the trailer front-to-back and side-to-side.
3. Select Advanced Options on the screen (Fig. 14A).
4. Select Zero Mode from the sub menu (Fig. 14B).

Fig. 14



5. Zero Mode controls function similarly to Manual Mode controls. See the "Manual Level (Manual Mode)" subsection of the "Advanced Functions Overview - OneControl® Mobile App" in this manual for details. Figure 15 also describes the function of each button on the Zero Mode screen.

Fig. 15



6. Use the extend/retract buttons on the screen in the appropriate control mode (sides/corners) to position each jack until the bubble level in the trailer is level.
7. Save the Zero Point by pressing the "Set System Zero/Level Point" button (Fig. 15A).

Home Jacks

NOTE: Homing the jacks will fully retract the rear jacks.

The rear jacks are equipped with position sensors that report to the controller how far extended they are from fully retracted. During normal use, these re-calibrate when the jacks are fully retracted. Some errors require the jacks to be re-homed to their fully retracted position.

NOTE: In order to "home" jacks, each jack must be able to retract a minimum of 6".

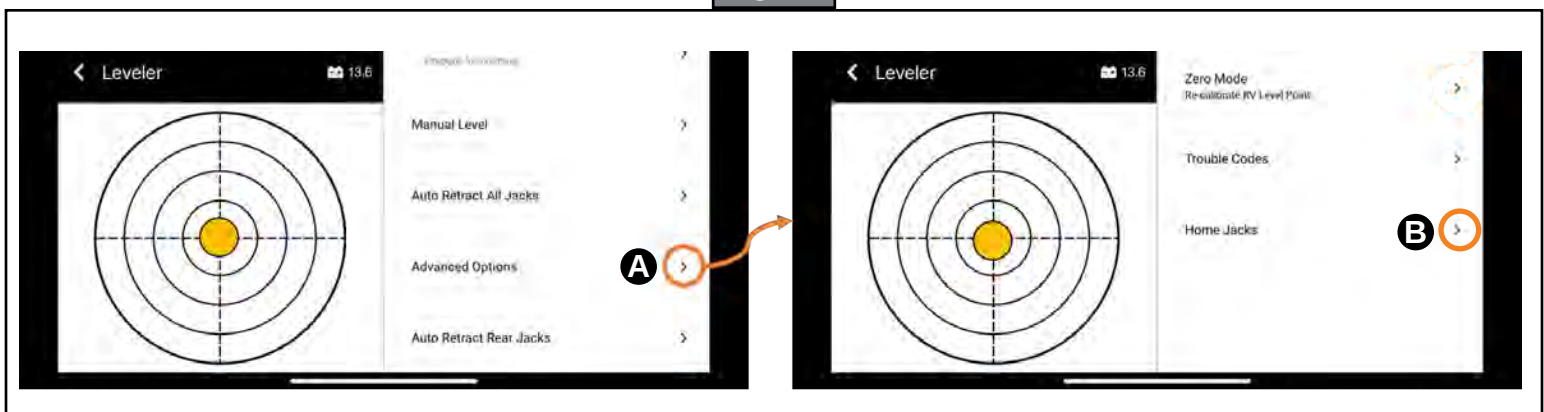
NOTE: The tongue jack must be grounded during homing. If it is not already on the ground, the tongue jack will automatically extend.

⚠ WARNING

Never operate the leveling system or make any leveling changes while the stabilizers are extended.

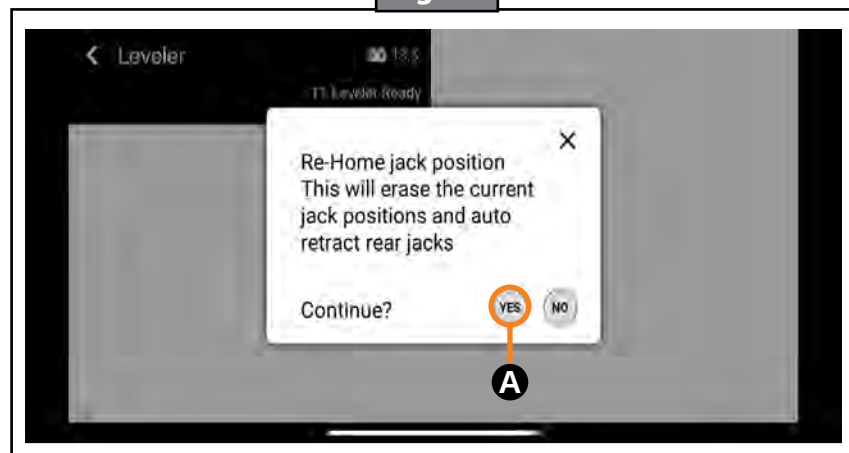
1. Retract the stabilizers, if they aren't already.
2. Select Advanced Options on the screen (Fig. 16A).
3. Select Home Jacks from the sub menu (Fig. 16B).

Fig. 16



4. Select YES on the confirmation screen (Fig. 17A).

Fig. 17



5. The jacks will retract until they reach the hard current limit.
6. The jacks are now "homed."

Operating a System Equipped with the LCD Electronic Leveling Touch Pad

Touch Pad Function Diagram - LCD Electronic Leveling Touch Pad

Fig. 18



Callout	Description
A	Up Arrow - Scrolls up through the menu on LCD.
B	Down Arrow - Scrolls down through the menu on LCD.
C	Enter - Activates modes and procedures indicated on LCD.
D	LCD Display - Displays procedures and results.
E	Retract - Places leveling system into retract mode.
F	Auto Level - Places leveling system into auto level mode.
G	Power Button - Turns leveling system on and off.
H	Front Jack Button - Activates tongue jack in manual mode. Front Jack Button - Activates tongue jack in standard mode.
I	Left Jack Button - Activates left rear jack in manual mode.
J	Right Jack Button - Activates right rear jack in manual mode.
K	Rear Jack Button - Activates rear jacks in manual mode.

NOTE: If not already, fully retract the manual stabilizer jacks. If needed, extend the tongue jack manually to remove weight from the stabilizers to assist in their retraction.



Never operate the leveling system or make any leveling changes while the stabilizers are extended.

Activating the System

1. Press the Power Button (Fig. 18G) once to turn the touch pad on.

Unhitching

1. Raise the trailer off the hitch using the EXTEND switch (Fig. 3B) on the tongue jack, or by pressing the FRONT button (Fig. 18H) on the touch pad.
2. Move the tow vehicle away from the hitch.
3. Lower the tongue jack to approximately level by pressing the RETRACT switch (Fig. 3C) on the tongue jack or by pressing the RETRACT button (Fig. 18E) once to illuminate the RETRACT LED, then pressing the FRONT button (Fig. 18H) on the touch pad.

Auto Leveling

1. To auto level, press the AUTO LEVEL button (Fig. 18F).
2. Ensure manual stabilizers are retracted and press ENTER (Fig. 18C) to acknowledge the reminder and begin auto leveling.
3. The trailer will then automatically adjust the tongue jack and rear jacks to level the trailer.
4. After the auto leveling sequence is completed, manually extend the stabilizers.

NOTE: Once the automatic leveling cycle has been started, it is important that there is no movement in the trailer until the trailer has completed the leveling process. Failure to remain still during the leveling cycle could have an effect on the performance of the leveling system.

NOTE: Pressing any button during an Auto Level sequence will abort the auto leveling cycle.

NOTE: Auto Leveling sequence may vary slightly based on the height of the trailer coupler prior to leveling.

Returning to Hitch Height

The hitch height feature returns the trailer to the position it was in when the AUTO LEVEL button (Fig. 18F) was pressed if the auto leveling sequence was completed successfully.

NOTE: If not already, fully retract the manual stabilizer jacks. If needed, extend the tongue jack manually to remove weight from the stabilizers to assist in their retraction.

1. Press the UP ARROW button (Fig. 18G) on the touch pad until "AUTO HITCH, ENTER TO BEGIN" is displayed on the LCD.
2. Press the ENTER button (Fig. 18C).
3. Ensure manual stabilizers are retracted and press ENTER (Fig. 18C) to acknowledge the reminder and begin returning to hitch height.
4. The jacks will begin to retract.
5. The tongue jack will adjust to the saved hitch height.

Rehitching

NOTE: If not already, fully retract the manual stabilizer jacks. If needed, extend the tongue jack manually to remove weight from the stabilizers to assist in their retraction.

6. Move the tow vehicle ball mount under the hitch.
7. Lower the tongue jack to approximately level using the RETRACT switch (Fig. 3C) on the tongue jack or by pressing the RETRACT button (Fig. 18E) once to illuminate the RETRACT LED, then pressing the FRONT button (Fig. 18H) on the touch pad.

NOTE: Finish completely retracting the tongue jack before moving the trailer.

Retract All

1. Fully retract the stabilizers, if they aren't already.
2. Press the UP ARROW button (Fig. 18G) on the touch pad until "AUTO RETRACT ALL, ENTER TO BEGIN" is displayed on the LCD.
3. Press the ENTER button (Fig. 18C).
4. Press the ENTER button (Fig. 18C) to acknowledge the displayed reminder to retract the stabilizers first.
5. The system will first make sure the tongue jack is on the ground. Then it will fully retract the rear jacks.

NOTE: Pressing RETRACT ALL will not retract the tongue jack or return the trailer to hitch height.

Advanced Functions Overview - LCD Electronic Leveling Touch Pad

Manual Mode



Never operate the leveling system or make any leveling changes while the stabilizers are extended.

1. Fully retract the stabilizers, if they aren't already.
2. Press the UP ARROW button (Fig. 18A) on the touch pad until "MANUAL LEVEL, ENTER TO BEGIN" is displayed on the LCD.
3. Press the ENTER button (Fig. 18C).
4. Ensure manual stabilizers are retracted and press ENTER (Fig. 18C) to acknowledge the reminder and begin auto retracting.
5. The system is now in manual mode.
 - A. Manually Controlling the Tongue Jack While in Manual Mode
 - I. Press the FRONT button to extend the tongue jack (Fig. 18H).
 - II. Press the RETRACT button (Fig. 18E) so that the red RETRACT LED is lit. Then press the FRONT button (Fig. 18H) to retract the tongue jack.
 - B. Manually Controlling the Rear Jacks
 - I. Press the REAR button (Fig. 18K) to extend both rear jacks together.
 - II. Press the RETRACT button (Fig. 18E) so that the red RETRACT LED is lit. Then press the REAR button (Fig. 18K) to retract both rear jacks together.
 - III. Press the REAR button (Fig. 18K) and the LEFT button (Fig. 18I) together to extend the rear left jack individually.
 - IV. Press the REAR button (Fig. 18K) and the RIGHT button (Fig. 18J) together to extend the rear right jack individually.
 - V. Press the RETRACT button (Fig. 18E) so that the red RETRACT LED is lit. Then press the REAR button (Fig. 18K) together with either the LEFT button (Fig. 18I) or RIGHT (Fig. 18J) button to retract either the rear left or the rear right jack individually.
6. To exit manual mode at any time, press the UP ARROW (Fig. 18A) on the touch pad.

Zero Point Calibration

The "Zero Point" is the programmed point that the trailer will return to each time the Auto Level feature is used. The "Zero Point" must be programmed prior to using the Auto Level feature to ensure the proper operation of the system.

NOTE: Prior to starting this procedure, double check all connections on the controller, jacks, and touch pad.

1. Fully retract the stabilizers, if they aren't already.
2. Place a bubble level in the center of the trailer. Reference this level throughout the calibration procedure to while manually leveling the trailer front-to-back and side-to-side.
3. Place the system into Manual Mode. See the "Manual Mode" subsection of the "Advanced Functions Overview - LCD Electronic Leveling Touch Pad" for details.
4. Use the Manual Mode controls to adjust the position of the jack(s) until the bubble level in the trailer is level.

⚠ WARNING

Never operate the leveling system or make any leveling changes while the stabilizers are extended.

5. Once the trailer is level, turn off the touch pad by pressing the power button (Fig. 18G).
6. Press the FRONT button (Fig. 18H) 5 times in succession, then press the REAR button (Fig. 18K) 5 times in succession.
7. The touch pad will flash and beep and the display will read "ZERO POINT CALIBRATION" (Fig. 19) and "Press ENTER to set." (Fig. 20).
8. Set the current position of the trailer as the zero point by pressing the ENTER button (Fig. 18C).
9. The LCD display will read "ZERO POINT Please Wait..." (Fig. 21)
10. The LCD display will read "ZERO POINT Stability Check" (Fig. 22).
11. The LCD display will read "ZERO POINT Successfully Set" (Fig. 23) once the process is complete.
12. The system will set this point as its level state and the touch pad will turn off.

Fig. 19



Fig. 20



Fig. 21



Fig. 22

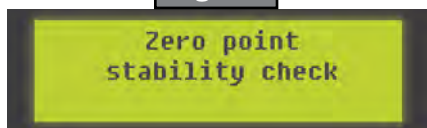


Fig. 23



Home Jacks

NOTE: Homing the jacks will fully retract the rear jacks.

NOTE: The rear jacks are equipped with position sensors that report to the controller how far extended they are from fully retracted. During normal use, these re-calibrate when the jacks are fully retracted.

NOTE: Some errors require the jacks to be re-homed to their fully retracted position.

⚠ WARNING

Never operate the leveling system or make any leveling changes while the stabilizers are extended.

1. Fully retract the stabilizers, if they aren't already.
2. Extend all jacks to reach the 6" of minimum retract needed.
 - A. Press FRONT (Fig. 18H) to extend the stabilizers (if required).
 - B. Press REAR (Fig. 18K) to extend the rear jacks (if required).
3. Turn off the touch pad by pressing the power button (Fig. 18G).
4. Press the FRONT button (Fig. 18H) five times in succession, then press the REAR button (Fig. 18K) five times in succession.
5. The touch pad will flash and beep and the display will read "ZERO POINT CALIBRATION" (Fig. 19) and "Press ENTER to set" (Fig. 20).
6. Press the down arrow once. The touch pad will now say "REHOME JACKS CALIBRATION" (Fig. 24) and "Press Enter to Reset Jack Posn." (Fig. 25).
7. Press "Enter" (Fig. 18C) to enter the submenu (Fig. 26)(Fig. 27). Press "Enter" (Fig. 18C) again to begin homing the jacks.
8. When complete, the screen will read "Auto Retract Success!" (Fig. 28). The jacks are now "homed" and the special jack error code will be cleared.

NOTE: If the jacks do not retract, an error should display on the touch pad screen. This is typically caused by wiring interruption.

Fig. 24

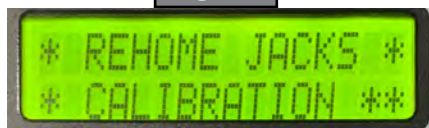


Fig. 25



Fig. 26



Fig. 27

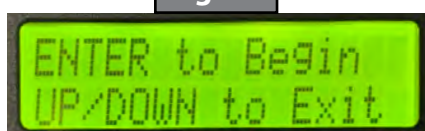
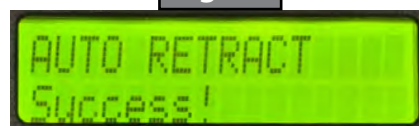


Fig. 28



Troubleshooting

Touch Pad Error Codes

NOTE: To clear an error from the Auto Leveling Control Touch Pad, press the "RETRACT ALL" button once. The jacks will not retract. The light will change from red to green when the error clears.

NOTE: To clear an error from the LCD Electronic Leveling Touch Pad, repair or otherwise correct the issue, then press "ENTER." If the error is still present, the message will be displayed again.

Touch Pad Error Codes		
LCD Error Codes	What's Happening?	What Should Be Done?
Excess Angle	Excessive angle reached during auto operation.	Relocate the trailer.
Excessive Angle	Excessive angle reached during manual operation.	Stop manual operation and reset jacks to a more level state. The code will self clear, there is no need to hit "ENTER."
Feature Disabled	Hitch recognition requested but no hitch height set.	Perform "AUTO LEVEL" sequence to establish hitch height.
	Zero point not set.	Set zero point.
Low Voltage	Battery voltage dropped below 9.5V.	Check wiring - repair or replace.
		Test battery voltage under load - charge or replace.
Out Of Stroke	Jack has reached maximum stroke length and is unable to lift.	Check disposition of jacks. Relocate the trailer.
	Unexpected high amp current stall.	Check jacks in manual mode or perform manual override procedure. Repair or replace as needed.
		Check for bent or damaged jacks. Repair or replace as needed.
External Sensor	Bad connection or wiring from the controller to the leveling sensor.	Replace or repair connection to leveling sensor.
Jack Timeout	Time limit exceeded for the requested auto operation.	Check disposition of jacks.
Auto Level Fail	Unable to auto level due to uneven ground.	Check disposition of jacks. Relocate the trailer.
	Unable to auto level due to zero point being set incorrectly.	Reset zero point.
Comm Error	Communication between controller and touch pad has been lost.	Check harness for proper connections or damage. Replace if necessary.
Bad Calibration	Sensor calibration values are out of range.	Replace controller.
Function Aborted	The user pressed a button on the touch pad during an automatic operation.	Restart automatic operation and then refrain from pressing any buttons on the touch pad.
Hall Power Short	Short circuit detected in one of the hall effect power wires.	Test for short and repair or replace.

Special Jack Error Codes

To clear one of the error codes listed below:

- 1. Correct or otherwise repair the issue (see the table below).

NOTE: In order to clear the special jack error code the jacks need to be "homed." In order to "home" jacks, each jack MUST be able to retract a minimum of 6".

- 2. Extend all jacks to reach the 6" of minimum retract needed.
 - A. Press FRONT (Fig. 18H) to extend the stabilizers (if required).
 - B. Press REAR (Fig. 18K) to extend the rear jacks (if required).
- 3. Press and hold the RETRACT button (Fig. 18E) until all of the stabilizers and jacks begin to retract. The stabilizers/jacks will retract until they reach the hard current limit.
- 4. The jacks are now "homed" and the special jack error code will be cleared.

NOTE: If the jacks do not retract, an error should display on the touch pad screen. This is typically caused by wiring interruption.

Special Leveling Jack Error Codes		
LCD Error Codes	What's Happening?	What Should Be Done?
LR Jack RR Jack Tongue Jack	Error at a specific jack (left rear, right rear, tongue jack). • Hall signal issue (open, short, malfunction or loss of communication) • Open or short circuit between controller and motor.	Check harness connections at controller and at each jack. Check harness/wires for damage. Check fuses at controller. Repair or replace as necessary.

⚠ WARNING

Never operate the leveling system or make any leveling changes while the stabilizers are extended.

NOTE: In the event of loss of power, the power tongue jack can be operated manually.

1. Fully retract the stabilizers, if they aren't already.
2. Manually unhitching from tow vehicle:
 - A. Chock the tires of the trailer.
 - B. Be sure the footpad of the tongue jack (Fig. 29A) is pinned securely in place with the clevis pin and hairpin cotter pin (Fig. 29B).
 - C. Make sure the ground surface under the power tongue jack is firm and level.
 - D. Open the rubber plug (Fig. 30A) on top of the power tongue jack's gearbox to expose the manual drive shaft.
 - E. Insert the manual crank handle (Fig. 31).
 - F. Turn the handle clockwise until the trailer is supported and the coupler clears the hitch ball.
 - G. Move the tow vehicle away from the trailer.
 - H. Lower the trailer until it is level by turning the crank handle counterclockwise.
 - I. Remove the crank handle.
 - J. Replace the rubber plug.

Fig. 29

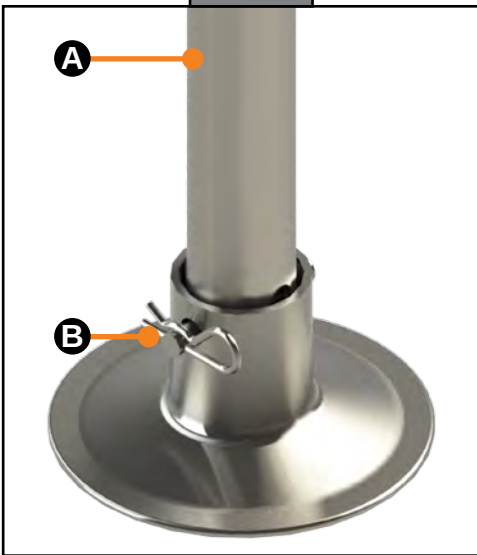
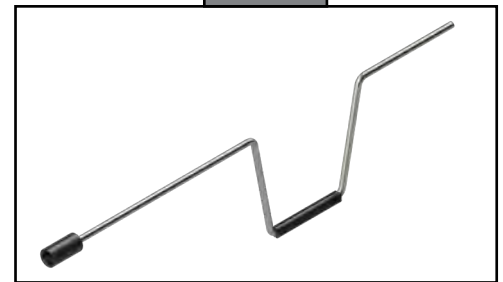


Fig. 30



Fig. 31



3. Manually reconnecting to tow vehicle:
 - A. Chock the tires of the trailer.
 - B. Be sure the footpad of the power tongue jack (Fig. 29A) is pinned securely in place with the clevis pin and hairpin cotter pin (Fig. 29B).
 - C. Open the rubber plug (Fig. 30A) on top of the power tongue jack's gearbox to expose the manual drive shaft.
 - D. Insert the manual crank handle (Fig. 31).
 - E. Turn the crank handle counterclockwise until the coupler properly mounts the hitch ball and the leg of the power tongue jack is fully retracted.
 - F. Remove the crank handle.
 - G. Replace the rubber plug.

NOTE: Be sure the leg (Fig. 29A) of the power tongue jack is fully retracted prior to moving the tow vehicle.

⚠ WARNING

Never operate the leveling system or make any leveling changes while the stabilizers are extended.

NOTE: For ease of manual override it is recommended to unplug the power harness to the motor prior to performing the manual override procedure.

NOTE: If not already, fully retract the manual stabilizer jacks. If needed, extend the tongue jack manually to remove weight from the stabilizers to assist in their retraction.

Use of a 12-18 volt cordless screw gun or pneumatic screw gun is acceptable to manually override the jacks. Do not use an impact screw gun to perform any of the override procedures, as this may damage the motor. If manual override is necessary there are two options for the rear jacks.

Top of Jack Motor Override

Tools needed: 3/8" drive ratchet and extension (no socket)

1. Find the port on the top of the jack motor (Fig. 32A).
2. Remove the rubber plug (Fig. 33A).
3. Insert the 3/8" drive ratchet into the port (Fig. 34).
4. Turn the override until the jack extends or retracts to desired position.

Bottom of Jack Motor Override

Tools needed: 3/8" drive ratchet and extension, 5/16" socket

1. Find the port on the bottom of the jack motor (Fig. 32B).
2. Remove the rubber plug (Fig. 35A).
3. Insert the 5/16" socket into the port and onto the nut (Fig. 36A).
4. Turn the override until the jack extends or retracts to desired position.

Fig. 32

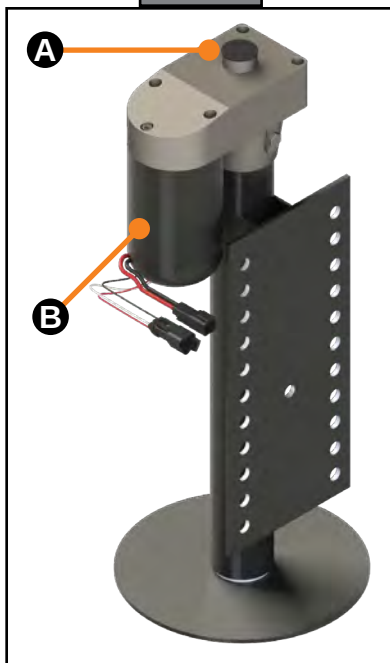


Fig. 33

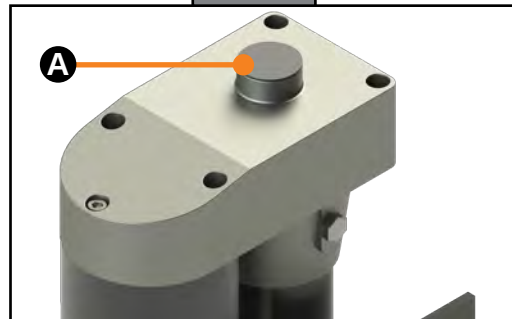


Fig. 34



Fig. 35

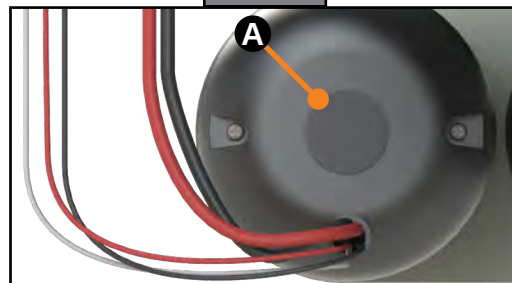
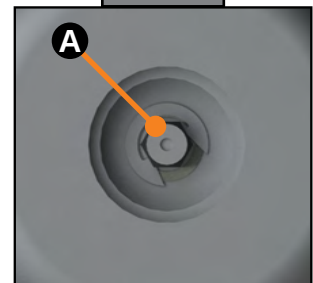


Fig. 36



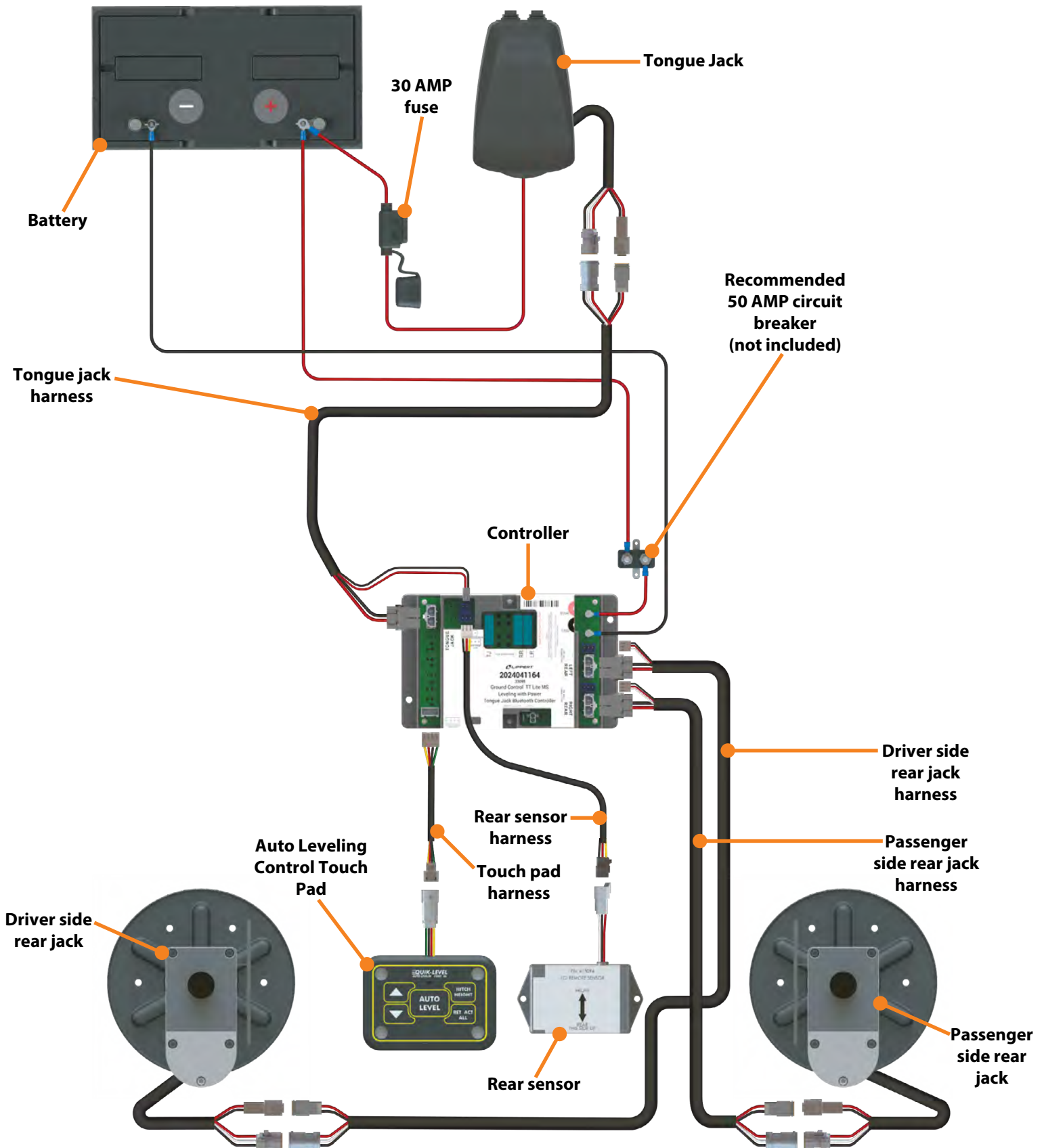
Preventive Maintenance

1. For optimum performance, the system requires full battery current and voltage. The battery must be maintained at full capacity.
2. Check the terminals and other connections at the battery, the controller, and the jacks for corrosion, and loose or damaged connections.
3. Remove dirt and road debris from jacks as needed.
4. If jacks are down for extended periods, it is recommended to spray exposed leveling jack rods with a silicone lubricant every three months for protection. If the coach is located in a salty environment, it is recommended to spray the rods every 4 to 6 weeks.

Wiring Diagram - Auto Leveling Control Touch Pad

⚠ NOTICE

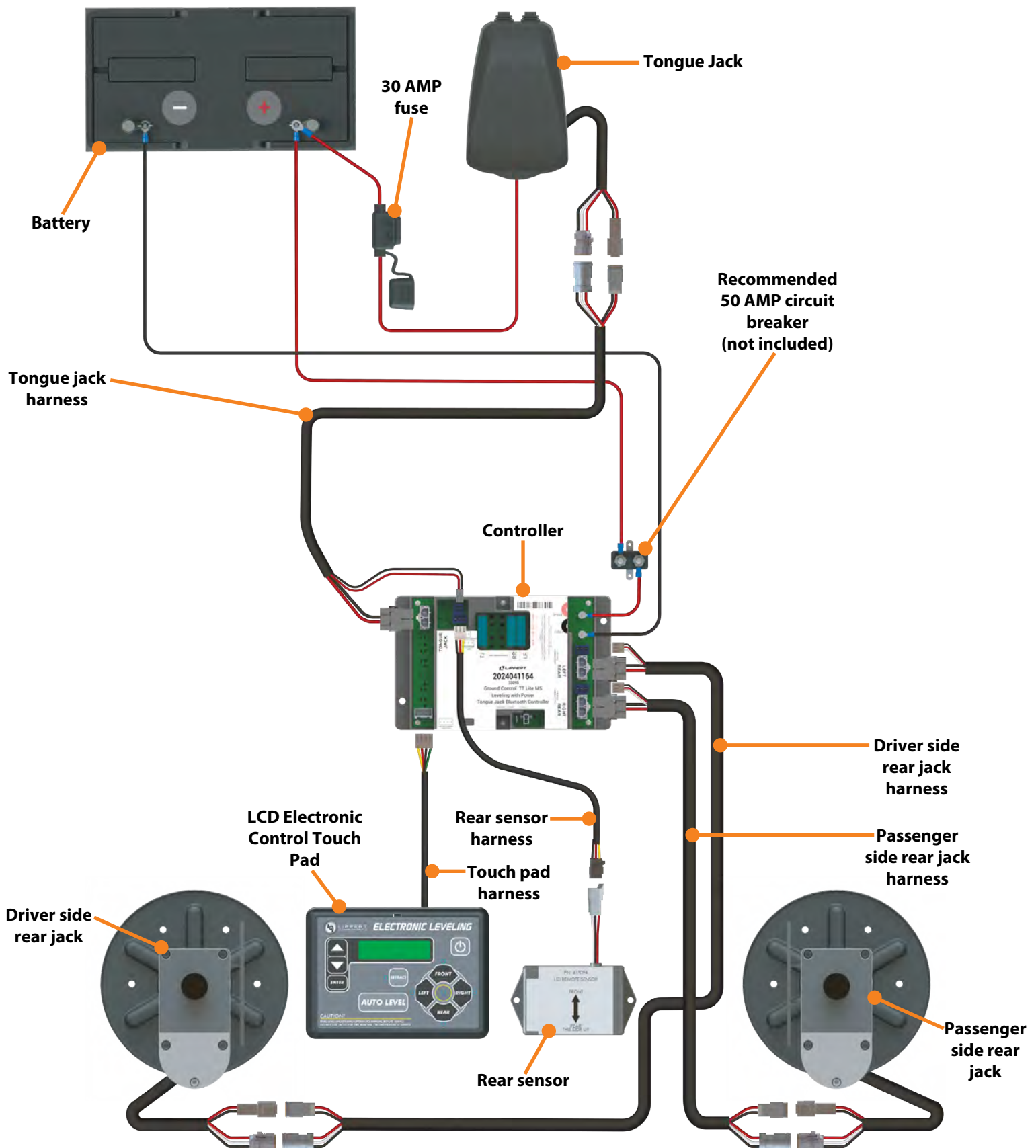
All electrical wiring harnesses shall be loomed and secured to prevent possible damage and installed in accordance with RVIA electrical standards.



Wiring Diagram - LCD Electronic Leveling Touch Pad

NOTICE

All electrical wiring harnesses shall be loomed and secured to prevent possible damage and installed in accordance with RVIA electrical standards.



Notes

[illegible]



The contents of this manual are proprietary and copyright protected by Lippert. Lippert prohibits the copying or dissemination of portions of this manual unless prior written consent from an authorized Lippert representative has been provided. Any unauthorized use shall void any applicable warranty. The information contained in this manual is subject to change without notice and at the sole discretion of Lippert. Revised editions are available for free download from lippert.com.

Please recycle all obsolete materials.

For all concerns or questions, please contact Lippert
Ph: 432-LIPPERT (432-547-7378) | Web: lippert.com | Email: customerservice@lci1.com