

## Electro-Mechanical Folding Leveling System Installation Instructions

*Thank you for purchasing a Bullseye Folding Leveling System. This manual will guide you through the easy installation process.*

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The configuration of coach chassis and vehicular components varies between manufacturers. This installation manual is a generalized approach to installing our product.

Please note your installation application may vary. If you need to speak with someone in person about your installation procedure, please contact the nearest authorized installation dealer or our customer service line at 877-753-0102.

### What Your Kit Contains

When opening your kit, make sure it contains the following components:

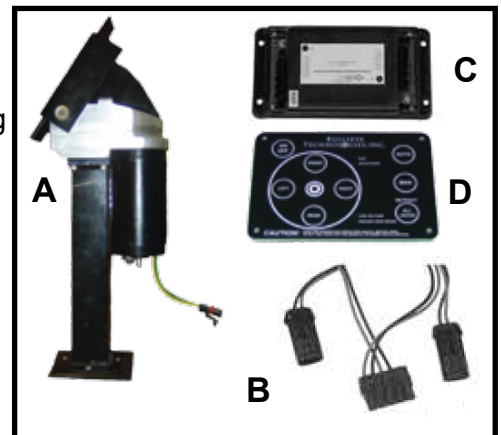
A: (4) Four Folding Leveling Legs with brackets attached.

B: (1) Wire Harness Package: Front Harness, Rear Harness, (2) Stow Motor Harnesses, Touch Pad Connecting Wire, Ignition and Parking Brake Wires. Ground wire and 6-gauge battery wire not included.

C: (1) One Controller Module

D: (1) One Touch Pad Panel

If any of these components are not included in your system, please call the Bullseye customer service line at 877-753-0102.



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### CAUTION

Please review all procedures, read and understand the precautions listed in this manual

Please read the entire installation procedure before beginning the installation. It is best to visually run through the process in its entirety before you begin.

**NOTE**

ON A GAS POWERED CHASSIS, DO NOT MOUNT THE REAR LEGS MORE THAN 12" BEHIND THE REAR SPRING HANGER.

**NOTE**

LEVELING LEGS COME WITH THE BRACKETS ATTACHED AND IN THE STOWED POSITION

**CAUTION**

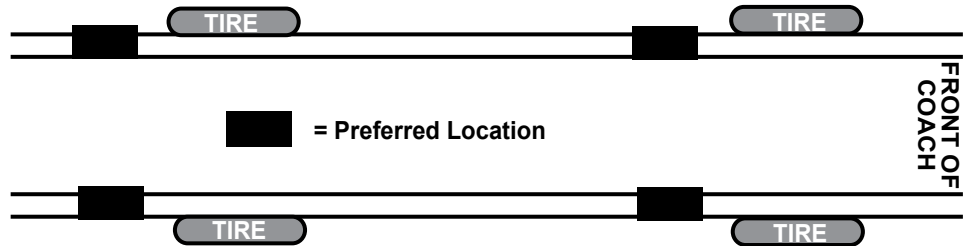
WHEN ROUTING, SECURING AND WIRING, BE SURE THESE ITEMS ARE NOT EXPOSED TO ENGINE EXHAUST OR ANY OTHER HIGH TEMPERATURE COMPONENT OF THE VEHICLE. ANY HOSE OR WIRING SHOULD BE SITUATED A MINIMUM OF 12" FROM ANY HEAT SOURCE. IF 12" OF DISTANCE IS NOT POSSIBLE, IT WILL BE NECESSARY TO MAKE A HEAT SHIELD/BAFFLE TO PROTECT HOSES AND WIRING. THE HEAT SHIELD SHOULD BE COMPOSED OF AN APPROPRIATE, NON-FLAMMABLE, HEAT RESISTANT MATERIAL.

**Finding The Proper Location**

**FOLDING LEG LOCATION:**

Under the coach you will see the construction of the chassis super structure includes two parallel frame rails. The recommended rear mounting location is on the underside of the frame rail behind the rear axle, as close as possible and no more than 12" behind the rear spring. The ideal front location for the leveling legs is on the underside of the frame rail, behind the front axle.

For 5th wheel installation, the front leveling legs should be installed immediately behind the landing legs and the rear leveling legs should be installed behind the axle.



**TOUCH PAD PANEL LOCATION:**

The touch pad can be located anywhere that provides easy access during operation. The best locations are usually in the dash board if space is available or, as an alternative, below the dash or in a side panel.

For 5th wheels, the touch pad can be located in an exterior compartment.

**CONTROLLER MODULE LOCATION:**

The controller module should be located close to the middle and center of the coach for the greatest accuracy. The control module **MUST NOT BE EXPOSED** to weather. Placement in a cargo compartment is recommended.

**Leveling Leg Installation**

The leveling legs are shipped in the stowed position and may be installed from that position or from the vertical position.

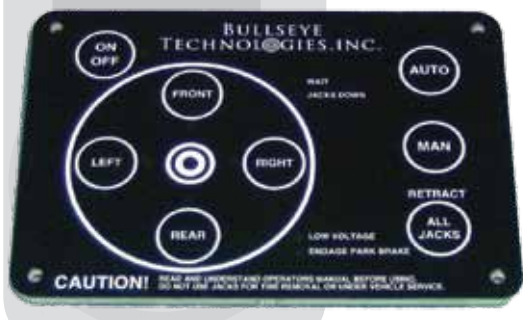
1. Mark for frame for bracket placement
2. Bolt or weld on bracket to bottom of frame
3. Attach leg with grade 8 bolts of the proper length
4. Be sure to tighten bolts to secure leg

*Note: We Recommend that welding be done by a professional*

**Touch Pad Installation**

Inspect the location for the touch pad and ensure that there is adequate space for the touch pad and the multi-wire cable connections. The touch pad should fit snugly into this opening. Determine where the wires are to be routed and look for any pre-existing holes that can be used. If no hole is found, drill a 1/2" hole through the fire wall near the selected installation site. Route the wire through the hole to the touch pad location.

Make sure to seal any holes that were drilled from the interior to the exterior of the vehicle with a waterproof sealant, following the completion of the installation.





**DO NOT CONNECT BATTERY/POWER TO AUTO-CONTROL MODULE UNTIL ALL OTHER CONNECTIONS AND LEGS ARE SECURE.**



**MOST NEW CLASS "A" MOTORHOME CHASSIS ARE EQUIPPED WITH AN AUTOMATICALLY APPLIED PARK BRAKE SYSTEM. THESE SYSTEMS AUTOMATICALLY APPLY THE PARKING BRAKE WHEN THE TRANSMISSION IS SHIFTED INTO "PARK".**

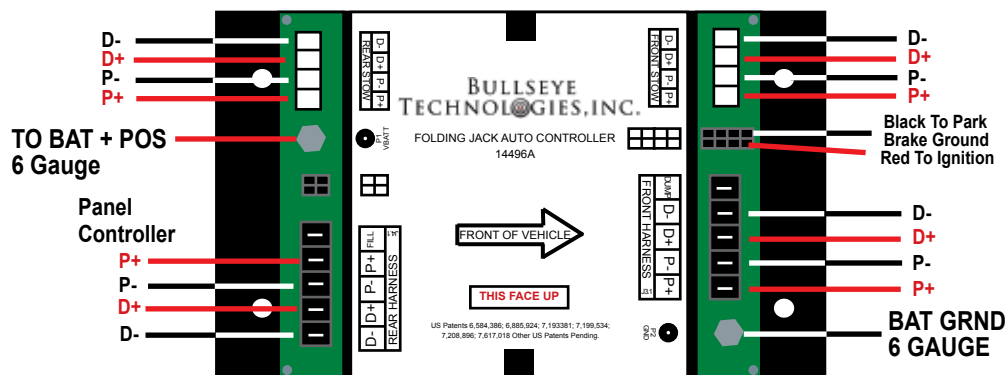


**DO NOT EXTEND LEGS INDIVIDUALLY FOR ANY PURPOSE OTHER THAN DESCRIBED IN THE TESTING PROCESS. DO NOT PUT LEGS UNDER LOAD INDIVIDUALLY. USE OF THE LEGS INDIVIDUALLY TO LIFT THE RV COULD CAUSE TWISTING OF THE FRAME.**

## Controller Module Installation

The controller should be mounted **as close to the middle and center** of the coach for greater accuracy. Keep in mind the controller module **Must Not Be Exposed** to weather. Storing in a cargo compartment is recommended. Installer must supply the screws to secure the controller.

### Controller Module



*If a fuse is to be inserted between the Controller Module and the Positive Battery connection, a 60-amp fuses recommended*

### BATTERY POWER SHOULD COME FROM THE CLOSEST BATTERY.

Bullseye systems are equipped with a park brake interlock. The interlock is designed to allow operation of the system only when the vehicle parking brake is set.

In the chassis wiring harness, identify the park brake signal wire. The park brake switch and signal wire will usually be found on, or near, the park brake pedal assembly. This wire will show ground or 12-volts positive when the park brake is applied. The type of signal will vary from type of chassis to another. Once you have located the appropriate wire, determine the type of signal by using a volt-ohm meter while engaging the park brake. If a positive signal is present the use of a relay is required.

## Wiring Verification

Before calibrating the system it is necessary to verify that the wiring is correctly hooked up. To begin turn the system on using the ON/OFF button on the touch pad.

At this time the Auto and Manual lights should be blinking. If the Auto and Manual lights are blinking alternatively, the system is addressing the stow motor. If the lights are blinking together, the system is addressing the lift motor. The Jacks Down light will be on even though the jacks are retracted. Other lights may be on or blinking as well.

### Stow Motor Test

Verify that the Auto and Manual lights are blinking alternatively. If not, turn the system off and back on to change the motor address. Verify that the jacks are in the stowed position. If they are not, pull the stow motor away from the folding gear and rotate jacks to stowed position. To test each stow motor individually, each jack must be rotated to the vertical position by simultaneously pressing a combination of buttons as follows:

- Right front jack = Auto + Front + Right
- Right rear jack = Auto + Rear + Right
- Left front jack = Auto + Front + Left
- Left rear jack = Auto + Rear + Left

### Lift Motor Test

The jacks should now be in the vertical retracted position. Turn the system off and back on. The Auto and Manual lights should now be blinking together. In order to confirm that the system has been wired correctly and to prepare the system for calibration, each jack must be extended individually by pressing the same combination of buttons as in the stow motor test.

**WARNING**

DO NOT USE THE LEVELING SYSTEM AS A LIFT FOR CHANGING TIRES OR WORKING UNDER THE VEHICLE.

**WARNING**

WHEN EXTENDING THE LEGS, NEVER LIFT THE WHEELS BEYOND GROUND CONTACT. THIS OVERRIDES THE PARKING BRAKE AND THE VEHICLE COULD POSSIBLY ROLL FORWARD UNEXPECTEDLY, COMING OFF THE LEGS. THIS COULD CAUSE SERIOUS INJURY OR EVEN DEATH.

**CAUTION**

DO NOT USE THE LEVELERS AS AN EMERGENCY BRAKE.

DO NOT USE LEVELERS ON ICY OR SLICK SURFACES.

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Extend each jack until the foot plate initially contacts the ground. Do not extend the legs past the point of initial ground contact as putting legs under load individually could cause twisting of the frame. After all four jacks are extended, push "Retract All" button. All jacks should then return to the fully retracted position. The system is now ready for calibration.

## Calibrating Your System

The park brake must be set and the ignition on for the Bullseye Leveling System to operate.

1. Make sure the park brake is on
2. Make sure the coach is running, supplying proper current
3. Turn on the power on/off switch. Disregard the solid lights that illuminate inside the indicator circle at this time.
4. Visually confirm that all leveling legs are retracted. If they are extended, push the "Retract All" button on the touch pad. If they are retracted but not stowed, pull the stow motor away from the bracket gear and push the leg back to the stowed position.
5. Push the "Manual" button, all legs should start to lower.
6. Once all jacks are touching the ground, use the "Front", "Left", "Right", and "Rear" buttons to adjust the coach to the desired level position for regular use (it is recommended to level the coach at the center of the coach or on a counter top using a 2' to 4' bubble level).
7. Once you find the preferred level position, turn off the power and within 20 seconds push "Front" button 5 times, then press "Rear" button 5 times (there should be a flash of all lights at this point), then push the "Retract All" button 3 times to lock the setting.
8. Turn touch pad back on and push "Retract All" button.
9. Push the "Auto" button and the system will operate normally.

For a more in-depth guide on calibrating, please visit [www.bullseyeleveleveling.com](http://www.bullseyeleveleveling.com) and go to downloads to see the owners manual or calibration guide.

## Warranty

Bullseye Technologies, Inc. (BTI) warrants to the original purchaser that your purchased system is free from defects in material and workmanship for 3 (three) years from the date of purchase. BTI's obligation under this warranty is limited to repair or replacement of defective parts returned to BTI.

This warranty gives you specific legal rights including other rights that may vary from state to state. Some states do not allow limitations on implied warranties and exclusion or limitation of incidental or consequential damages, therefore the limitations and exclusions contained herein may not apply to you.

This warranty does not apply to products or parts that have been subject to abuse, accident, alteration, improper installation/repair, inadequate maintenance or deterioration due to normal wear. These discrepancies are at the opinion of BTI. This warranty is in lieu of all other express or implied warranties. BTI neither assumes nor authorizes any other person to assume liability for warranty claims not provided herein.

Any questions regarding warranty claims should be directed to your dealer or contact BTI. Address all correspondence to: PO Box 388, Logansport, IN 46947 or by contacting our customer service line at 877-753-0102.

**PLEASE NOTE:** It is important to read and understand this manual thoroughly before initiating any installation of the leveling system. BTI assumes no liability for damages or injuries resulting from the improper installation or operation of this system.