



TITAN LEVELING SYSTEMS™ MOTORIZED LEVELING CONTROLLER REPLACEMENT

TSB Number:	85-001-2023		
Product:	Titan Leveling Systems™		
Date:	September 19, 2023	Labor Rate:	Inspect: 0.3 Hours Inspect & Replace: 0.5 hours

Purpose

NOTE: This document supersedes the previous version 85-001-2023 dated June 19, 2023, which should be removed from your files. This revision provides clarification to the controller date code.

This document outlines the procedure for replacing a Titan Leveling Systems™ motorized leveling controller that is unresponsive after the coach's ignition has been cycled.

When constant voltage to controller drops to 5.2 volts, the controller will turn off. When power is slowly restored (not immediate) to 12 volt range (10.6 volts-14 volts) the screen may or may not turn on depending on how fast the voltage was increased, but the functions/buttons are unresponsive.

The controllers affected are identified by the date code on the back of the controller; Date code 1823 and under.

If a controller does need replaced, no pre-authorization is needed from Lippert to install the new controller. Old controllers must be returned to Lippert at:

Lippert Warranty

Attn: Warranty Lab
2020 Blakesley Parkway
Bristol IN 46507



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Safety

This document provides general instructions. Many variables can change the circumstances of any procedure, i.e. the degree of difficulty involved in the service operation and the ability level of the individual performing the operation. This document cannot begin to plot out procedures for every possibility, but will provide the general instructions for effectively installing, removing or servicing the system. In the event the skill level required is too advanced or the procedure too difficult, a certified technician should be consulted before performing the necessary operation. Failure to correctly install, remove or service the system may result in voiding the warranty, inflicting injury or even death.

WARNING

The "WARNING" symbol above is a sign that a procedure has a safety risk involved and may cause death, serious personal injury, severe product and/or property damage if not performed safely and within the parameters set forth in this document.

CAUTION

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

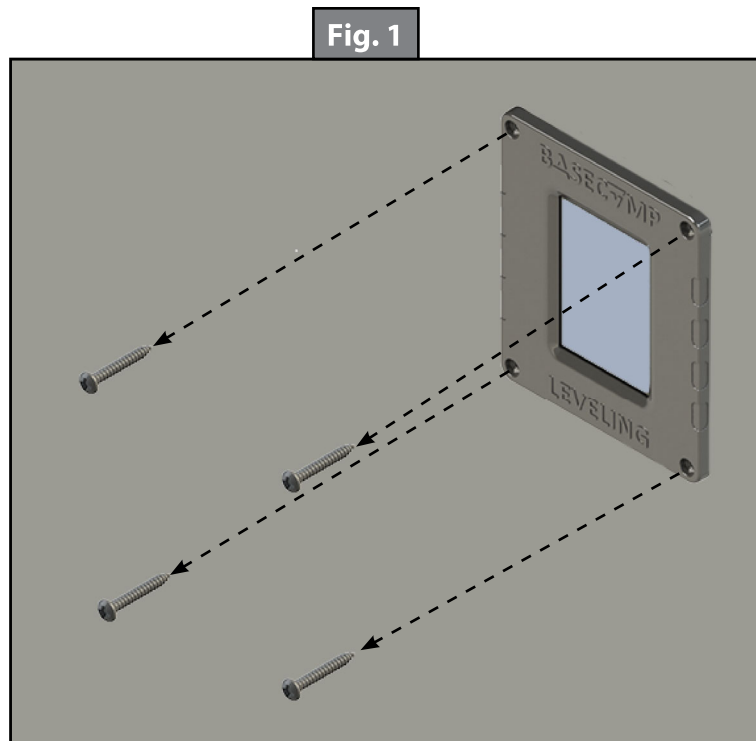
Resources Required

- Screwdriver
- Titan Leveling System motorized controller, PN 2021163037 Rev E, Date Code 1923 and greater

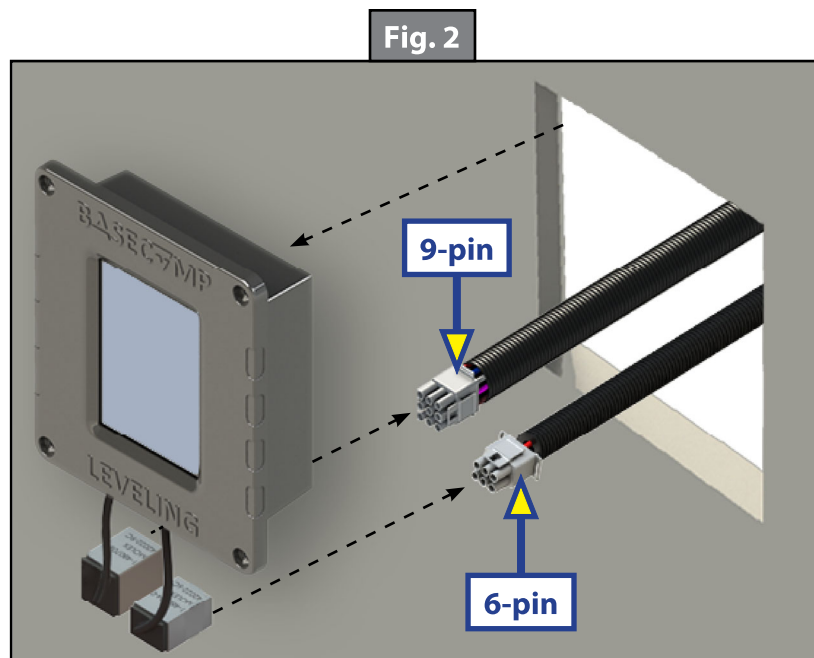
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Instructions

1. Remove the four mounting screws securing the controller to the wall (Fig. 1).



2. Remove the controller from the wall and unplug the 9-pin and 6-pin connectors (Fig. 2).



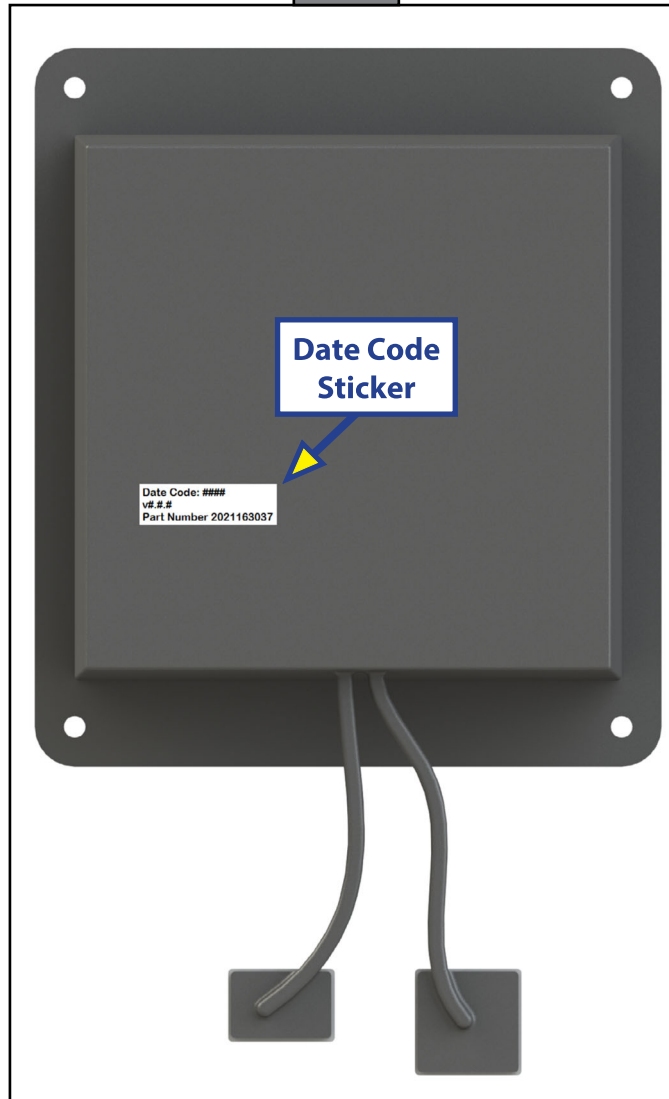


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3. Verify controller replacement is necessary.
 - A. Check the date code sticker on the back of the controller (Fig. 3).
 - I. Rev D, Date Code 1823 and under: replace with new controller.
 - a. Return old control to:
Lippert Warranty
Attn: Warranty Lab
2020 Blakesley Parkway
Bristol IN 46507
 - II. Rev E, Date Code 1923 and greater: controller replacement not necessary.

Fig. 3



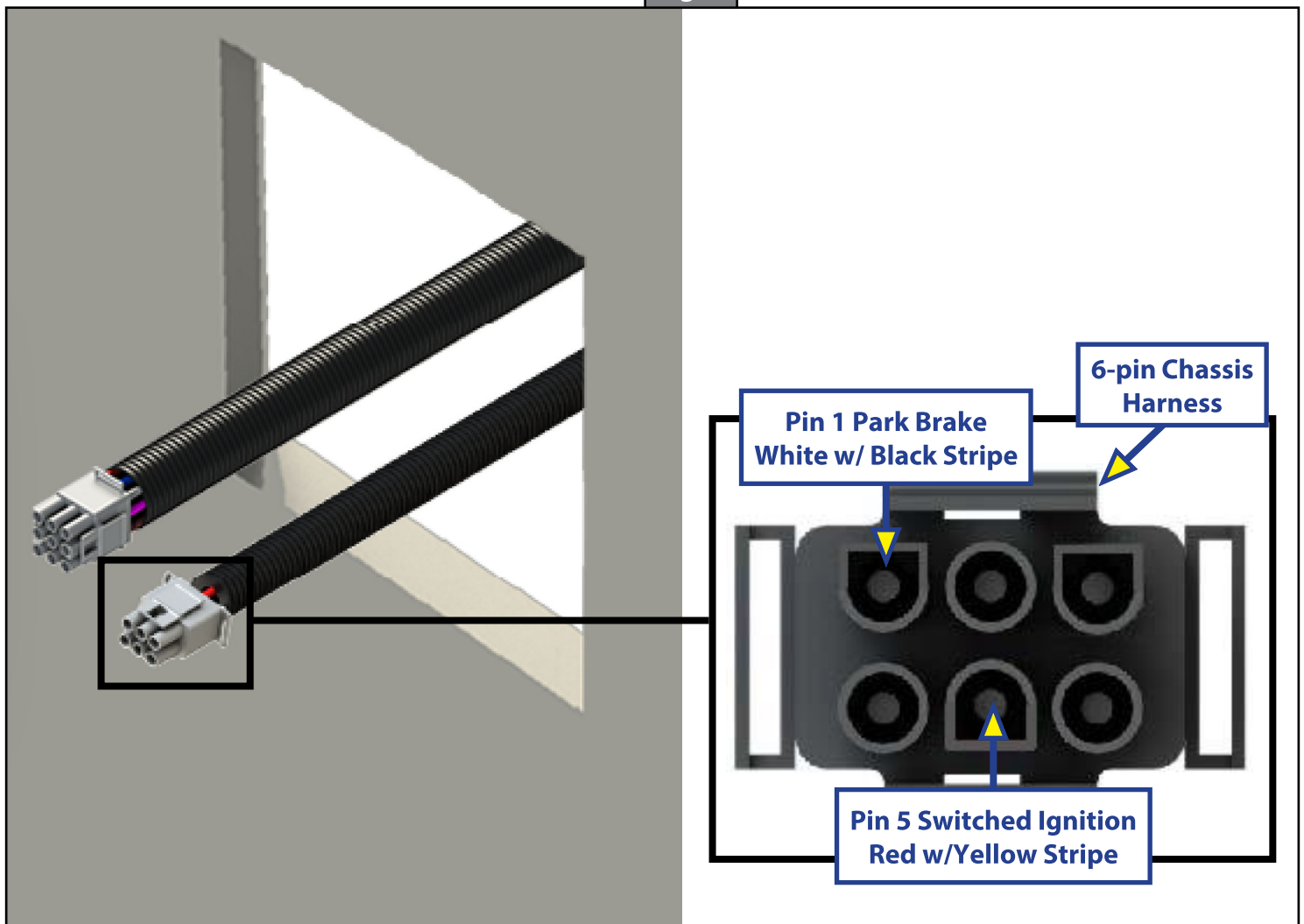
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4. Verify 6-pin chassis wire harness is wired correctly (Fig. 4):
 - A. Pin 1 (Fig. 4) of the 6-pin chassis harness must be wired to the parking brake to ensure a ground connection is made when the parking brake is applied.

NOTE: If pin 1 (Fig. 4) is wired to +12V the controller will be permanently damaged and non-responsive.

 - B. Pin 5 (Fig. 4) of the 6-pin chassis harness must be wired to a switched +12V ignition source.

Fig. 4



5. Plug in the 9-pin and 6-pin harnesses into the appropriate receptacles on the new controller and place it into the wall.
6. Secure the controller with the previously removed four screws.



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⚠ WARNING

Lifting all wheels off the ground may result in serious personal injury or death.

Calibration

After the controller is installed, the Zero Point needs to be calibrated with the new controller prior to operating the jacks. Zero Point is the programmed point that the coach 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. This mode is enabled by performing the following sequence:

NOTE: Parking brake **MUST** be **ON** in order to operate the leveling system.

NOTE: The LED touchpad controller is only ON while the coach ignition is ON, no operation of leveling is allowed without the ignition source. Once power is on, the LED touchpad controller will illuminate.

1. Go to the Menu button (Fig. 5A) and select the Calibration button (Fig. 5B).
2. The controller must know which direction the touchscreen is facing (Front of Vehicle, Rear of Vehicle, Driver side, or Passenger side). Select the arrow on the touchpad that represents the direction that the display of the touchscreen is facing related to the coach (Fig. 6).
3. Follow the directions on the next screen (Fig. 7) to calibrate the LED touchpad controller. Place a level on the floor of the coach to ensure a level reference point in the coach. Press "LEVEL VEHICLE" (Fig. 7A).

Fig. 5

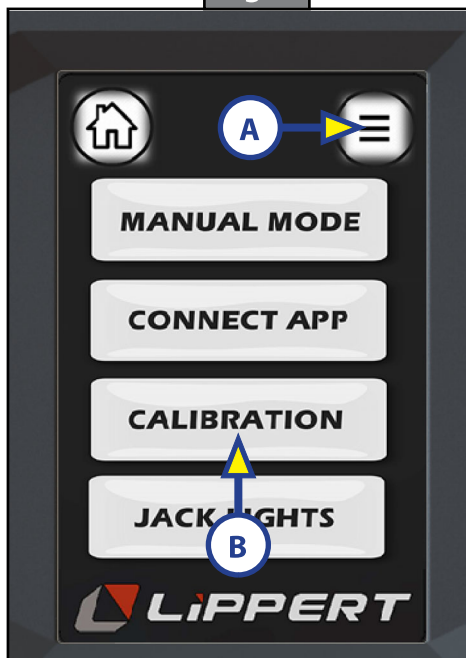


Fig. 6

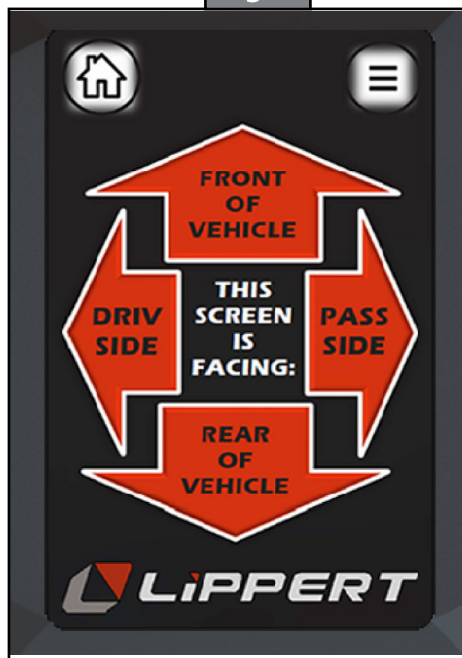
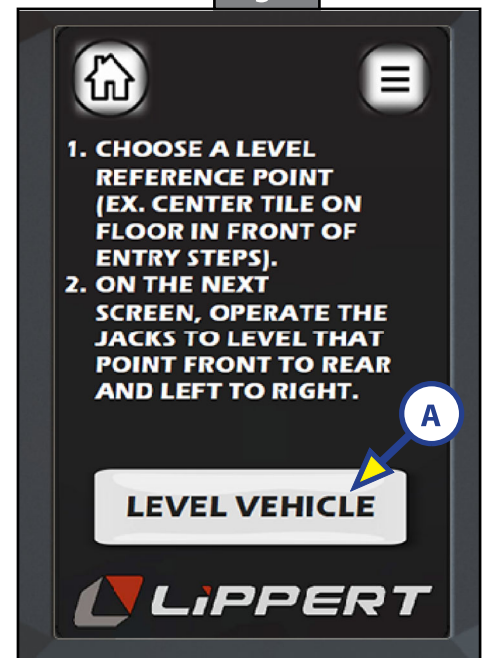


Fig. 7



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4. The next screen that follows (Fig. 6) shows four extend buttons that activates each pair of valves, directional control valve and solenoid. The "CONFIRM LEVEL" button is a latching button that zeros out the controller accelerometer and stores that exact position as level. After the initial calibration, when the user presses "AUTO LEVEL", the controller recognizes that position as level and will bring the coach to that position.
5. Level the coach in the manual "CALIBRATION" mode by using a carpenter's level on the floor. Level front to rear and then left to right.
 - A. Push the "EXTEND FRONT" (Fig. 6A) button until jacks contact the ground and lift the front of the coach 1-2 inches.
 - B. Push "EXTEND REAR" (Fig. 6D) button until jacks contact the ground and lift rear of coach. Continue to use EXTEND REAR and EXTEND FRONT buttons until the carpenter's level bubble is centered.
 - C. Push "EXTEND DRIV SIDE" (Fig. 18B) and "EXTEND PASS SIDE" (Fig. 6C) buttons until level bubble is centered.

NOTE: Wait 10 seconds after operating jacks to ensure vehicle is completely still before pressing CONFIRM LEVEL.

6. With the coach leveled, press "CONFIRM LEVEL" (Fig. 6E).
7. The touch pad is now in zero mode. If the coach has come out of it's level condition, it can be reset into level condition by following the procedure outlined in step 3.

