

# ReVo Leveler Instruction Sheet

## Important information regarding leveling left to right.

1. ReVo Leveler allows you to level your trailer left to right one of four ways.

The digital display will show you the amount of height adjustment needed and the indicating arrows will show which side needs raised.

The first way to level is the easiest and the method preferred by the trailer manufacturers. Use the displayed value as a board thickness to be placed under all the wheels on the side of the trailer that needs raised. Regardless of whether it is a single, double or triple axel, place board(s) of the displayed value under all of them.

The second way to level is to use just one of the wheels to make the height adjustment with.

If you choose to make the height adjustment with just one wheel in a multi axel trailer, the displayed value is not a board thickness. It is a measured value that if met will place your trailer level left to right. To determine a board thickness, you must premeasure the actual amount of height change when a known board thickness is placed under one wheel of a multi axle trailer. See the chart below.

Board Thickness	Height Adjustment	Board Thickness	Height Adjustment
1/4"	_____	2 1/2"	_____
1/2"	_____	3"	_____
3/4"	_____	3 1/2"	_____
1"	_____	4"	_____
1 1/2"	_____	4 1/2"	_____
2"	_____	5"	_____

This chart is on the label on the sun shield of ReVo Leveler. You will need to fill in the actual height adjustment for your trailer. Every trailer is different for a variety of reasons so if you complete this step once, write it on the label, you will have it handy for future reference. To determine the height adjustment value to write on the chart using ReVO Leveler, see the step by step instructions – programming for the first time step 2.

To determine the height adjustment value to write on the chart using a tape measure, measure from the ground to the top of one of the wheel wells or wheel skirt without any boards under the wheel(s). Place a board of a known thickness in front of that wheel and pull the trailer up onto the board. Measure the same distance again and subtract your first measurement from the second. That difference is your actual height adjustment for that board thickness. You can measure a value for each of the board thicknesses above but you don't have to. The more you complete the more accurate your chart will be. You will be surprised to see how much a 1" board/block actually increases the trailer height when using just one wheel. Once you have the chart completed you will be able to read the value on ReVo Leveler, find a height adjustment value close to the displayed value, then look to the board thickness on the left column to see what board thickness is necessary to achieve that height adjustment. This seems like quite a bit of instruction in written form but it is pretty straight forward and you'll only have to do this once.

The third way to use ReVo Leveler to level left to right is to build a ramp and watch the indicating arrows to tell you when to stop climbing the ramp. The arrows are visible from the tow vehicle through the side mirror. The digital display will give you a height adjustment value. It is easy to make the ramp greater than that value. Make your ramp and use the lights.

The fourth way is to use the digital display height adjustment value as a board thickness but you intend to use only one wheel. Place the board in front the wheel, pull the trailer up onto the board, record a new left to right position, read the new value and add that board thickness to what you already used. Seems silly to do it this way because that's how it's done currently, trial and error, but if you want to you can. It may take several attempts to hit the right board thickness.

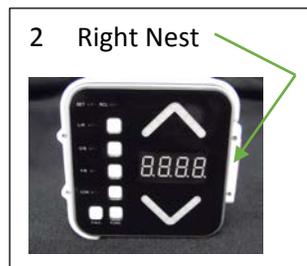
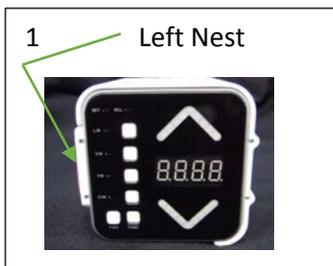
2. I need to define a term I use below, “traveling position”. Traveling position is what your trailer and tow vehicle looks like when rolling down the highway. All the weight of the trailer is on the tow vehicle and the jacks are not extended.

### Step by step instructions: - Selecting the desired units to be displayed. Inch or Centimeters.

1. ReVo Leveler is shipped programmed to display inch values. If you are ok with inch values skip to the next step – Installing the nest onto the side of the trailer. If you desire a metric value, press the Power (PWR) button to turn it on, then press and hold for 5 seconds the left to right (L/R), Disconnect (DIS), and Front to back (F/B) button at the same time. The display will show a confirmation code of “cnn” for values in centimeters. To switch back to inch repeat the process again.

### Step by step instructions: - Installing the nest onto the side of the trailer:

1. There are 2 nests shipped with each ReVo Leveler. One left hand nest and one right hand nest. See photo 1 and 2 below for the differences. You **do not** need to install **both** nests on your trailer. The left hand nest is to be mounted on the side of the trailer that is the driver’s side of the tow vehicle. The right hand nest is to be mounted on the side of the trailer that is the passenger side of the tow vehicle. For a travel trailer with a tongue jack, use the left hand nest. For a 5<sup>th</sup> wheel travel trailer, the location of the landing jack rocker switch will determine which nest to use. If the rocker switch is on the driver’s side of the tow vehicle, use the left nest. If the rocker switch is on the passenger side of the tow vehicle, use the right nest. The majority of trailers will use the left nest and thus the nest is on the left side of ReVo Leveler when you purchase it. Due to the symmetry of the design, the nest and sun shield are interchangeable. If you need to use the right nest, switch the locations of the nest and sun shield before proceeding any further. The face of ReVo Leveler is intended to be visible from the tow vehicle mirror regardless of which side of the trailer it’s mounted on. The back of ReVo Leveler enters into the nest first. The logo and lettering on the nest should be right side up, not upside down, when installed properly. Locate a position on the side of the trailer where you can see the face of ReVo Leveler through the side mirror and while operating the tongue jack on a travel trailer or the landing jack rocker switch on a 5<sup>th</sup> wheel trailer. Be sure to select a location where a slide out or storage bin door will not hit the nest or ReVo Leveler while on the nest. Make sure the surface of the selected nest location is clean. Remove the nest from ReVo Leveler. Remove the red colored protective cover from the double back tape. Use trim or graphics on the trailer to help you place the nest “straight” on the side of the trailer. Straight to the “eye” is all you need. ReVo Leveler will account for misalignment of the nest during the programming phase. Press the nest firmly to the trailer surface and the nest is installed.



## Programming ReVo Leveler for a right hand nest:

1. Since most trailers will use the left hand nest, the default programming is for the left hand nest. If you are using the right hand nest, you must change the default setting by following this procedure: Failure to do so will result in the up/down arrows being wrong.

- Press the Power (PWR) button to turn ReVo Leveler on.
- Press and hold the Function (FUNC) button for 5 seconds, until “SET” light is lit.  
Press and hold Left to Right (L/R) and Disconnect (DIS) buttons simultaneously for 5 seconds, until the display shows “R”.
- Press the Power (PWR) button to turn ReVo Leveler off.
- Follow the Step by step instructions – Programming the first time below.
- To change back to the left nest programming, perform the same sequence. Display will show “L”.

## Step by step instructions – Programming the first time:

First of all, unlike other trailer Levels, you do not have to park your trailer and tow vehicle at a level location, left to right or front to back. Good luck finding that. The software inside ReVo Leveler allows the initial setup to take place anywhere you are able to level the trailer using boards under the wheel(s) to level left to right.

1. Connect the trailer to the tow vehicle and have it in the traveling position. The “traveling position” is how it would look traveling down the road. The full weight of the trailer on the tow vehicle hitch, jack(s) retracted and all safety devices connected.

2. If you are going to use ReVo Leveler to complete the Height Adjustment/Board Thickness chart follow these steps. If not, skip to step 3.

- Place ReVo Leveler on the nest and press the power (PWR) button to turn it on.
- The digital display will show the percent of battery charge
- Press and hold the Function (FUNC) button until the Set light is lit.
- Press and hold the Left to right (L/R) button until the digital display shows “- - - -”.
- Release the Left to right (L/R) button, display will show “Good”.
- Press and hold the Disconnect (DIS) button until the digital display shows “- - - -”.
- Release the Disconnect (DIS) button, display will show “Good”.
- Press and hold the Front to back (F/B) button until the digital display shows “- - - -”.
- Release the Front to Back (F/B) button, display will show “Good”.
- Press and hold the Connect (CON) button until the digital display shows “- - - -”.
- Release the Connect (CON) button, display will show “Good”.
- Press the Power (PWR) button to turn ReVo Leveler off
- Press the Power (PWR) button to turn ReVo Leveler on again, you are now in the Recall mode.  
Recall (RCL) light will be lit.
- \* Place a board of a known thickness under one wheel and pull the trailer up onto that board.
- Press the Left to right (L/R) button once. The digital display will show 4 question marks. “????”
- Press the Left to right (L/R) button a second time. The digital display will show a value.
- Write the value displayed next to the known board thickness on the chart on the sun shield.
- Repeat the steps from the \* down for as many board thicknesses as you like.
- Press the Power (PWR) button to turn off ReVo Leveler.

3. Level the trailer left to right (side to side). Use a torpedo level, bubble level, or carpenters level along with boards or ramps under the trailer wheel(s). This is the last time you will have to guess how high to raise the low side of the trailer to get level left to right.

4. With the trailer level left to right and still in the traveling position, Place ReVo Leveler into the nest, display facing the tow vehicle. Be sure it bottoms out on the nest.
5. Press the Power (PWR) button on ReVo Leveler. The “recall” (RCL) function light will be lit and the digital display will show the percentage of battery charge.
6. Press and hold the Function (FUNC) button for 5 seconds to put ReVo Leveler into the “SET” function. Set function light will be lit and the light next to the Left to right (L/R) button will flash on and off.
7. Press and hold the Left to right (L/R) button until display shows “- - - -“. Release the Left to right button, the display will show a confirmation code “Good”. The light next to the (L/R) button will stay lit. This stores the level left to right position and the traveling height position. The light next to the Disconnect (DIS) button will now flash on and off.
8. Prepare the trailer to be unhitched from the tow vehicle. Follow manufacturers suggested procedure for chocking wheels and other safety concerns. Raise the trailer to a height necessary for unhitching from the tow vehicle. You have established a position I call disconnect height. This will again be the last time you need to eyeball the correct height.
9. Press and hold the Disconnect (DIS) button until the display shows “- - - -“. Release the Disconnect (DIS) button, the display will show a confirmation code “Good”. The light next to the Disconnect (DIS) button will light and stay lit. This stores the disconnect height. The light next to the Front to back (F/B) button will flash on and off. Drive the tow vehicle clear of the trailer.
10. Level the trailer front to back (end to end) by adjusting the landing or tongue jack(s). Use the same level as in step 3 and adjust the trailer height to level.
11. Press and hold the Front to back (F/B) button until the display shows “- - - -“. Release the Front to back (F/B) button, the display will show a confirmation code “Good”. The light next to the Front to back (F/B) button will light and stay lit. This stores the front to back level position. The light next to the Connect (CON) button will flash on and off
12. Raise the trailer to the proper height to hitch it to the tow vehicle. You have established what I call the connect position.
13. Press and hold the Connect (CON) button until the display shows “- - - -“. Release the Connect (CON) button, the display will show a confirmation code “Good”. The light next to the Connect (CON) button will light and stay lit. This stores the connect position.
14. If all 4 lights next to the buttons you just programmed are lit, your ReVo Leveler is programmed. Press the Power (PWR) button to turn it off and store inside the trailer in a dry place away from the weather.

## Step by Step Instructions – Usage

1. Locate your trailer on the campsite and in the traveling position, as define previously.
2. Remove ReVo Leveler from storage, place it in the nest bottomed out, and press the Power (PWR) button.
- 3 The “recall” (RCL) function light will be lit and the digital display will show the percent of battery charge. When ReVo Leveler is turned off and then on again, it defaults to the recall function.
4. Press the Left to right (L/R) button once. The display will show 4 question marks “????”. This is ReVO Levelers way of asking the question, “Are you in a new location from the last time you used it”? This is a crucial aspect of the programming. Each new location has a different traveling position. You may have set the

stored values in a location where the trailer was up hill and the current campsite is downhill. You have 5 seconds to press the Left to right (L/R) button a second time. Think of it this way, press Left to right (L/R) once, you get “????”, ask yourself if you are at a new location and is the trailer in the traveling position. If the answer to both those questions is yes, press Left to right (L/R) a second time. When you press the Left to right (L/R) button the second time, ReVo Leveler reads the current position for a period of 3 seconds and then calculates the height adjustment, the side that adjustment is needed, and the other positions for Disconnect, Front to back, and Connect. The digital display will then show a numerical value for 2 seconds and then a unit code for 1 second then repeat that cycle. This value is the height adjustment you need to make to reach level left to right. You can use that value as a board thickness if you are putting boards under all the wheels on the low side, or you will need to use the Height Adjustment/Board thickness chart you created and filled out on the sunshield label to determine what board thickness or ramp height is needed under a single wheel of a multi axle trailer to obtain level left to right. The unit codes are “inch” for inch and “cnn” for centimeters. The up or down arrow will also flash red. If ReVo Leveler’s indicating arrow is flashing up, you need to place the board(s) on the same side as ReVo Leveler. If the flashing arrow is down, place the board(s) on the opposite side.

Note: If you do press the Left to right (L/R) button inadvertently, do not press it the second time. If you leave it alone, after 5 seconds it will default back to as though you never pressed it the first time.

5. Enter the tow vehicle and pull the trailer up onto the board(s). Through the side mirror of the tow vehicle you’ll be able to see that the flash rate of the red arrow, up or down, will get faster as you get closer to the level position. The red flashing arrow will turn to a green flashing arrow when you are very close to the desired position. Both arrows will turn solid green when you are at the correct position, level left and right.

6. . Prepare the trailer to be unhitched from the tow vehicle. Follow manufacturers suggested procedure for chocking wheels and other safety concerns.

7. Before you extend the front jack(s) to the ground, press and hold the Disconnect (DIS) button. Release the Disconnect (DIS) button when the display shows “- - -”.

8. Once you have released the Disconnect (DIS) button, the digital display will show a numerical value. This is the amount of electrical jack you need to extend, or the amount of travel needed to reach level front to back. If the tow vehicle is uphill from the trailer, the level front to back position is going to be lower than the disconnect position. Knowing how much electric jack to extend will ensure that you do not place a block too tall under the tongue jack of a travel trailer or you extend too much mechanical jack on a 5<sup>th</sup> wheel trailer to reach level front to back. You have to retract enough jack travel to lower down to the level position. If the tow vehicle is downhill from the trailer, the level front to back position will be higher than the disconnect position. Knowing how much distance is needed to reach level front to back is helpful in this scenario too. If the displayed value exceeds your trailers jack travel, you may want to reposition the trailer to a position that is less downhill. ReVo Leveler will also show the up arrow flashing red. Extend the electric jack(s). The flash rate of the red up arrow will get faster as you get closer to the disconnect height. The red flashing arrow will turn to a green flashing arrow when you are very close to the desired position. Both arrows turn solid green when you are in the correct disconnect position.

9. Disconnect and drive the tow vehicle clear of the trailer.

10. Press and hold the Front to back (F/B) button. Release the Front to back (F/B) button when the display shows “- - -”. The up or down arrow will flash red. Raise or lower the height of the trailer, do what the flashing arrow indicates. The flash rate will get faster as you get closer to the front to back level position. The red flashing arrow will turn to a green flashing arrow when you are very close to the desired position. Both arrows will turn solid green when you are at the correct front to back level position.

11. Press the Power (PWR) button on ReVo Leveler, remove it from the nest and place into the storage bin.

12. Set up the rest of your trailer and enjoy your stay.

13. When it is time to leave that campsite and connect the tow vehicle, remove ReVo Leveler from the storage bin, install it on the nest, press the Power (PWR) button. Then press and hold the Connect (CON) button. Release the Connect (CON) button when the display shows “- - -”. Follow the flashing red arrow’s instruction, Raise or lower the trailer. The flash rate of the red arrow will get faster as you get closer to the connect height. The red arrow will turn to a flashing green arrow when you are very close to the desired position. When both arrows are solid green you are at the correct position. Connect the tow vehicle.

14. Press the Power (PWR) button to turn off ReVo Leveler and place it back into storage until needed again.

15. If you do press the Left to right (L/R) button twice and you are not in the traveling position, you will have lost your ability to accurately use ReVo Leveler for that camp site only. The initial positions stored in the set mode are not affected and will not change. They are not changed unless you change them by following the “Programming the first time” steps. If you have pressed the Left to right (L/R) button twice and did not intended to, reconnect the RV to the tow vehicle, put it in the traveling position, and start over.

## Diagnostics:

- When ReVo Leveler is turned on and detects a hardware failure, the Recall (RCL) light will be lit but nothing else will operate. The percent of battery charge will not be displayed nor will any of the other buttons work.
- If ReVo Leveler detects a hardware failure during operation, the up and down arrows both will turn on solid red.
- Should you experience either of these scenarios, Stop using ReVo Leveler for positioning your trailer as the positioning accuracy has been compromised and thus damage to the trailer, tow vehicle or both is possible. Hardware failure can result in trailer positioning error which could lead to damage to the tow vehicle, the trailer or both. The trailer/tow vehicle operator is responsible for safety and preventing damage.
- If this happens to the ReVo Leveler you purchased, please contact LK3.0 LLC for additional instructions and or return authorization.

## Battery Charging:

- Use the 12v dc adapter and cable provided inside the back compartment of ReVo Leveler to plug into the tow vehicle
- ReVo Leveler’s battery can be recharged with the power on or off. With the power on, you will see the indicating lights for L/R, DIS, F/B, and CON cycle through a sequence, top to bottom, and the percent of battery charge on the display. With the power off, there will not be any indication from ReVo Leveler that it is recharging.

**Warning: Do not use the 12v dc adapter and cable provided with ReVo Leveler to charge a cell phone or any other device. The current allowed by the adapter to charge ReVo Leveler is not suitable for any other device. The result could be overheating and damage to the adapter or cable.**

## Sleep Mode:

After 17 minutes of inactivity ReVo Leveler goes into a sleep mode to conserve battery life. If this occurs, press one of the following buttons to wake it up. Left to Right (L/R), Disconnect (DIS). Front to Back (F/B), or Connect (CON).