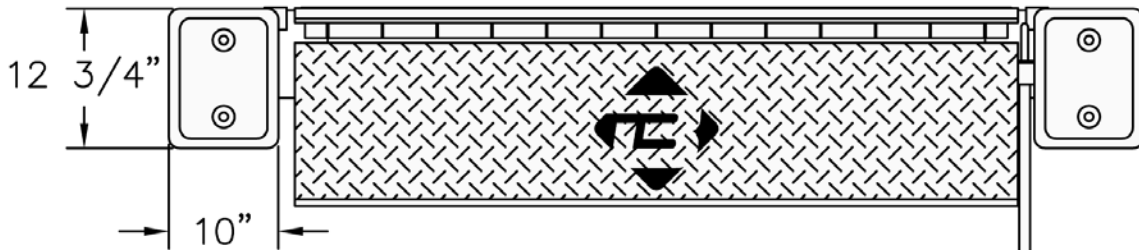
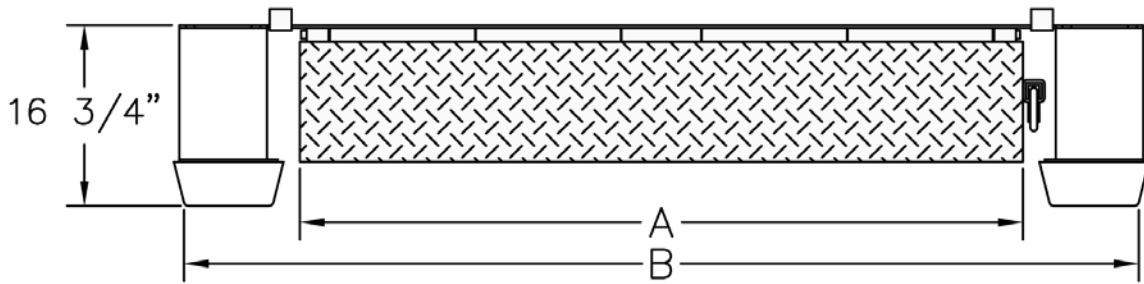
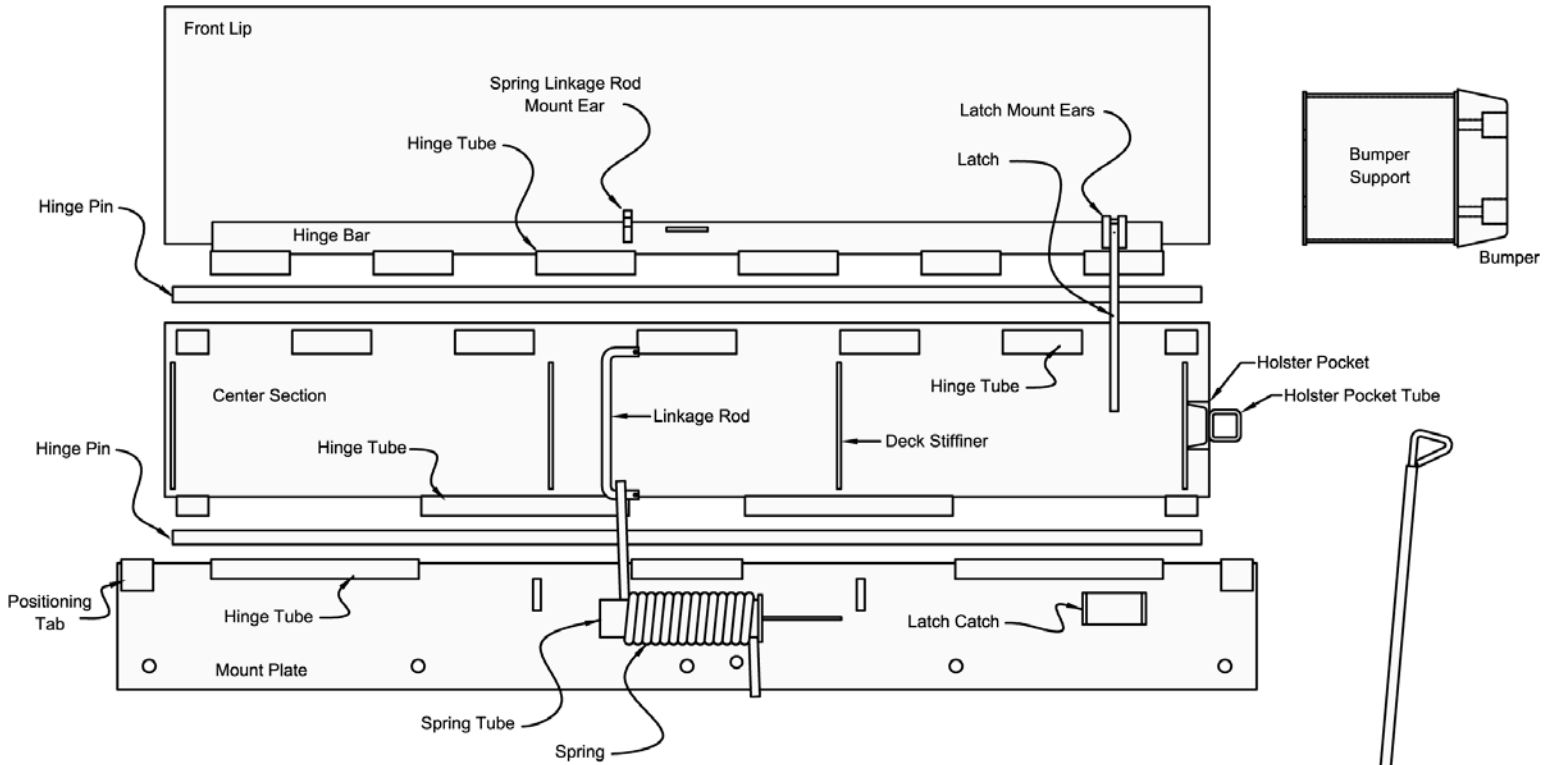


# EZ-PULL EDGE OF DOCK LEVELERS MODEL EP



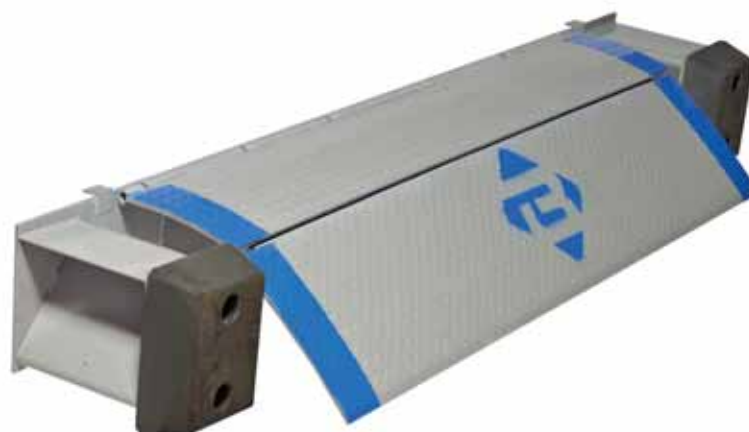
| <p>20EP66</p> <p>— WIDTH</p> <p>— MODEL</p> <p>— CAPACITY</p> | <table border="0"> <thead> <tr> <th>WIDTH</th> <th>B DIMENSION</th> </tr> </thead> <tbody> <tr> <td>66</td> <td>88</td> </tr> <tr> <td>72</td> <td>94</td> </tr> <tr> <td>78</td> <td>100</td> </tr> </tbody> </table> | WIDTH | B DIMENSION | 66 | 88 | 72 | 94 | 78 | 100 |
|---|--|-------|-------------|----|----|----|----|----|-----|
| WIDTH   | B DIMENSION  |       |             |    |    |    |    |    |     |
| 66  | 88   |       |             |    |    |    |    |    |     |
| 72  | 94   |       |             |    |    |    |    |    |     |
| 78  | 100  |       |             |    |    |    |    |    |     |



For information on other models, contact Loading Dock Supply Customer Service



## **EZ-PULL EDGE-OF-DOCK LEVELER (EP)**



**OWNER'S MANUAL AND INSTALLATION GUIDE**

| WARNING   |   |
|---|---|
|  | READ AND FOLLOW ALL SAFETY INSTRUCTIONS. FAILURE TO DO SO MAY RESULT IN INJURY OR EVEN DEATH. |

| ⚠ CAUTION   |  |
|---|--|
|  | USE CAUTION WHEN OPERATING UNIT. FAILURE TO DO SO COULD RESULT IN INJURY OR DAMAGE TO PRODUCT. |

**DO NOT INSTALL, OPERATE OR SERVICE PRODUCT WITHOUT READING AND FULLY UNDERSTANDING ALL SAFETY PROCEDURES, WARNINGS, INSTALLATION AND OPERATING INSTRUCTIONS ENCLOSED IN THIS MANUAL.**

# **EZ-PULL EDGE OF DOCK LEVELER**

## **OWNERS MANUAL\***

\*Read entire manual prior to unit installation.

### ***Engineering Design***

The Bluff EZ-Pull dock leveler design offers a tremendous ergonomic solution when compared to other available dock leveler designs. The simple, smooth performance and easy to position design eliminates the lifting and difficult positioning factors associated with hook type designs.

The Bluff latch assembly allows the operator to easily position the unit. A Pull and Push action on the EZ-Pull handle activates the unit, moving the lip forward onto the trailer floor. Retraction and storage of the unit after use is also accomplished by a pull and push action on the EZ-Pull handle. Simply pull the handle back until the leveler lip is removed from the trailer floor and then push the handle forward to allow the unit to store.

### ***Dock Parameters***

The EZ-Pull dock leveler will accommodate a maximum of five (5) inches above dock and five (5) inches below dock, providing 18.5% grade down and 20% grade up. This is acceptable for most gas or propane forklifts but is not suitable for most pallet trucks or many electric forklifts.

- Freight trailers range in height from 46 to 56 inches; therefore the EZ-Pull leveler should be mounted at 51 inches above the driveway.
- Refrigerated trailers range in height from 50 to 60 inches; therefore the EZ-Pull leveler should be mounted at 55 inches above the driveway. In addition, this application requires a Reefer Lip (17' lip length) to accommodate the offset floor of the trailer.
- Flatbed trailers have a wide range of trailer heights. Dock boards or other equipment may be needed for extreme height variations.
- Containers have variations in both floor heights and door configurations.
- Captive fleets require mounting midway between lowest and highest trailer, provided  $\pm 5"$  range is maintained.

Pallet trucks and electric forklifts can be used with trailers three (3) inches above and three (3) inches below dock level. Dock boards or other equipment may be needed to accommodate a greater service range for pallet jacks and electric forklifts. This is due to limited clearance and gradeability of that equipment.

**EZ-Pull Dock Levelers WILL NOT accommodate refrigerated and freight trailers at a single dock location due to limitations specified above.**

### ***Solutions:***

1. Mount separate EZ-Pull levelers at different heights to handle both types correctly.
2. Mount an EZ-Pull leveler with Reefer Lip at 55 inches and use Bluff Wheel Risers to raise low trailers to proper height.

***Declining and inclining drives require special dock specification. Call for more information.***

## Product Specification & Features

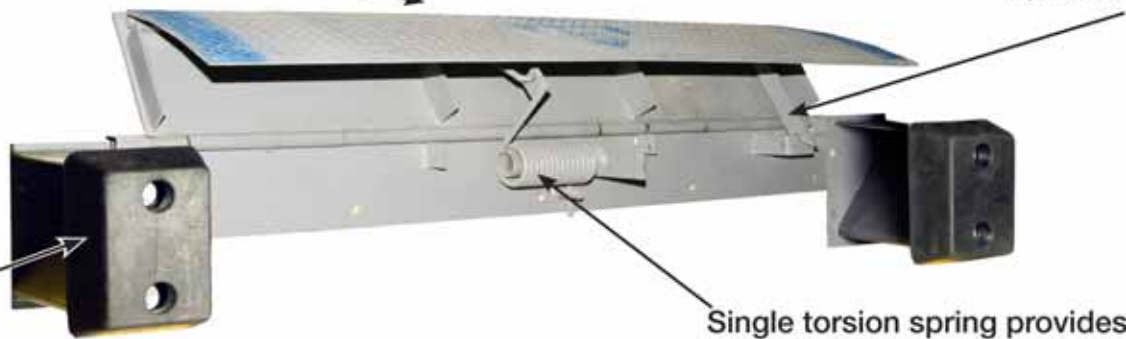
The Bluff EZ-Pull dock leveler is designed with a fully hinged lip and utilizes a torsion spring counterbalance assembly for ease of positioning. Unit conforms to OSHA and US Department of Commerce standard CS-202-55.

Three piece steel construction. Lip and ramp are constructed of 50,000 psi yield strength steel tread plate.

Mechanical latch produces lip extension.

Z shaped bumper beams with replaceable rubber bumpers.

Single torsion spring provides counterbalance on lip section for ease of positioning.



- Bluff's EZ-Pull leveler has 5 inches above and below dock surface operating range for propane and gas trucks and 3 inches above and below dock surface operating range for pallet jacks and electric forklifts..



- Lip section tilts up to 1 inch for out of level compensation.
- Unit is also designed to float allowing for vertical corner deflection when the lip is in contact with truck bed.
- Positioning tabs ensure correct height placement on dock surface during installation, effectively making the Bluff leveler the **EASIEST TO INSTALL IN THE INDUSTRY.**
- One year structural warranty as defined on page 13.

## ***Safety Precautions***

**READ AND UNDERSTAND ALL SAFETY PRACTICES AND OPERATING INSTRUCTIONS before installing, servicing or operating the dock leveler. Failure to do so could result in damage to unit, to property, and personal injury to operator.**

1. Do not stand between leveler and trucks backing up to dock.
2. Do not operate the leveler with equipment, material or people on the deck section of the leveler.
3. Never attempt to work under the dock leveler without properly securing the front and center sections.
4. Keep clear of dock leveler while in operation.
5. Do not exceed capacity rating.
6. If dock leveler is not operating normally, discontinue use. Request maintenance personnel to inspect and contact your local Bluff dealer if necessary.
7. Keep clear of all pinch points that could cause injury.
8. Do not use leveler if it appears to be damaged or broken.
9. Damage to leveler could occur if product is misused or used in an abusive manner.
10. For additional information or concerns, contact your local Bluff representative.

## EASIEST TO INSTALL IN THE INDUSTRY

### Type I Installation Instructions

#### Mechanical Edge-of-Dock (EP)



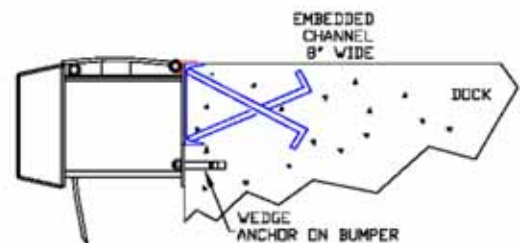
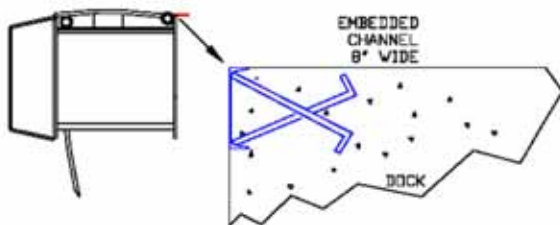
**TYPE I:** Dock edge with imbedded steel channel.

**CAUTION:** STAND CLEAR OF UNIT WHEN CUTTING STEEL BANDING.

**NOTE:** REMOVE HANDLE AND BUMPERS BEFORE BEGINNING THE INSTALLATION.

Handle is attached to mount plate for shipping purposes only.

1. Check straightness of embedded channel with a plumb line. If out of alignment shimming may be required. Any out of alignment condition will result in a binding problem.
2. Clean and prepare dock surfaces for installation.
3. Center the EZ-Pull leveler against the dock with the positioning tabs (see page 4) resting on top of embedded channel.



4. Tack weld mount plate alternating from right and left of center tack point and the vertical sides of the mount plate to the embedded channel.
5. Shim where necessary to keep leveler straight and plumb.
6. Tack weld mount plate alternating from right and left of center tack point and the vertical sides of the mount plate to the embedded channel.
7. Weld out the top of the mount plate from center out to the edges and down the vertical sides.

8. Position the bumpers flush with top of mount plate and butted up to the sides of the mount plate.



9. Mark the bottom hole location of bumper beam, drill an anchor hole and install a  $\frac{3}{4}$ " x 4" wedge anchor bolt.
10. Re-position the bumper on the dock and weld to embedded channel and secure the bottom of the bumper anchor bolt and nut.



11. Re-grease the unit as welding may burn out some grease in hinge tubes.
12. Re-paint any burned areas. Rustoleum smoke grey (7786) or blue (7727) aerosol.
13. The latch is factory installed with notch against mount plate. Latch should swing freely when leveler is in its rest position.

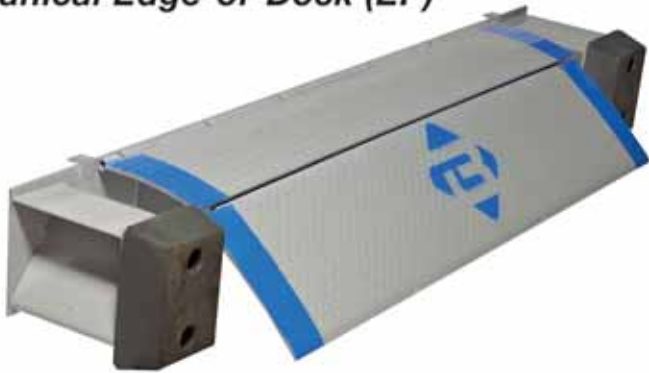


Latch Position  
(Indicated in red  
for clarity)

14. Remove bolt from bottom of handle and position handle into sleeve with bend facing away from dock face. Re-install bolt and nut into bottom of handle.
15. Test unit for correct operation. (See operating instructions for mechanical levelers.)

## Type II Installation Instructions

### Mechanical Edge-of-Dock (EP)



**TYPE II:** Dock edge without imbedded steel channel.

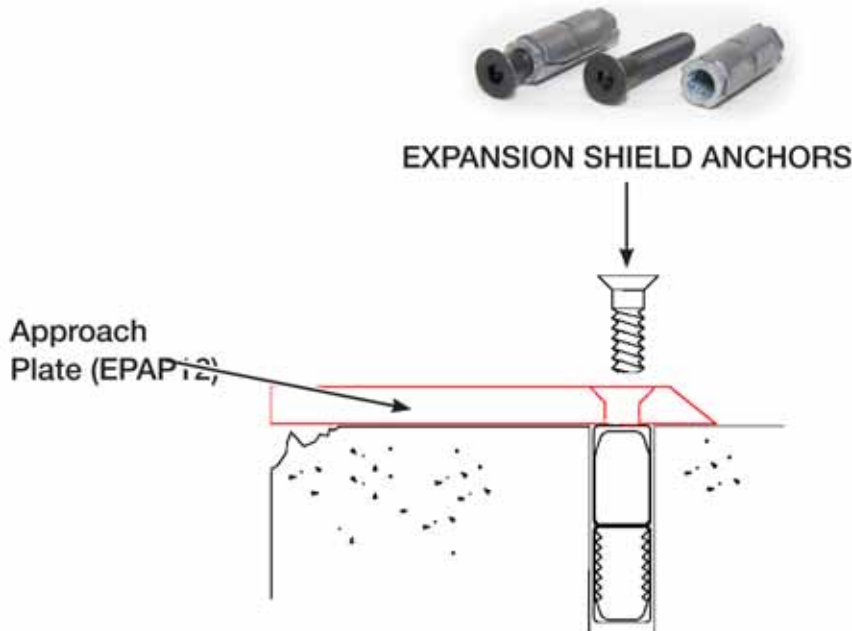
**CAUTION:** STAND CLEAR OF UNIT WHEN CUTTING STEEL BANDING.

**NOTE:** REMOVE HANDLE AND BUMPERS BEFORE BEGINNING THE INSTALLATION.

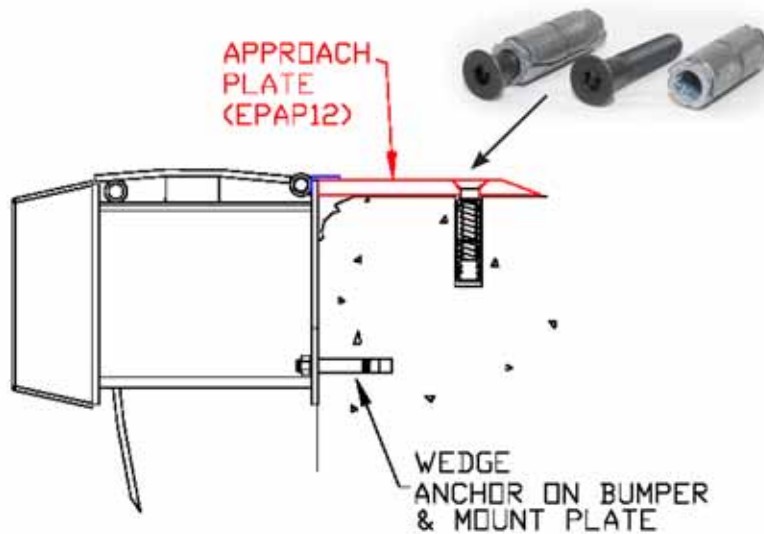
Handle is attached to mount plate for shipping purposes only.

1. Docks without imbedded steel channel require the installation of an approach plate, such as the Bluff EPAP12 model, in conjunction with a leveler unit.
2. Center the beveled approach plate in the desired location flush with the dock face. Cut if required to fit door opening.

An approach plate requires 5 heavy duty expansion shield anchor bolts with  $\frac{1}{2}$ " flat head socket cap screws such as can be found in Bluff EP Kit 2. Locate the approach plate and drill pilot anchor holes with a  $\frac{9}{16}$ " concrete drill bit. Remove approach plate and drill over pilot holes with a  $\frac{7}{8}$ " concrete bit. Install expansion shield into holes (insert with threads on bottom). Re-position approach plate and anchor.



3. Center the EZ-Pull leveler against the dock with the positioning tabs (see page 4) resting on top of the approach plate.
4. Tack the top of the mount plate at the center to the approach plate.
5. Make certain that the leveler is straight and plumb (shim as necessary).
6. Drill 3/4" anchor holes along the mount plate and install 5 each 3/4"x 4" wedge anchors.



7. Weld top of mount plate to approach plate with a continuous weld from center out.
8. Remove weld slag and re-grease as needed as welding may burn out grease from hinges.
9. Re-paint any burned areas. Rustoleum smoke grey (7786) or blue (7727) aerosol.
10. The latch is factory installed with notch against mount plate. Latch should swing freely when leveler is in its rest position.



Catch Position  
(Indicated in red  
for clarity)

11. Remove the bolt from the handle and position it into sleeve tube with bend facing away from dock face. Re-install bolt and nut into bottom of handle.
12. Test unit for proper operation. (See operating instructions for mechanical levelers.)

## Mechanical EDGE-OF-DOCK or LO-DOCK Operating Instructions



**Step 1:** Pull the EP handle up until the dead bolt hits the bottom of the 2-inch-square tube sleeve.

**Step 2:** Pull the handle back until the latch mechanism falls into catch position.

Step 1



Step 2a



Step 2b



Latch Position  
(Illustrated in red for clarity)

**Step 3:** Push the handle forward to extend the unit outward toward the truck bed.

Step 3



**Step 4:** Continue to push forward until the front lip rests fully on the truck bed.

**Step 5:** Return the handle to its rest position while in use.

**Step 6:** When returning the unit to its stored position, repeat **Step 1**.

**Step 7:** Pull back the handle until the front lip clears the truck floor then allow the weight of the leveler to drop the unit into its rest position.

**Step 8:** Return the handle to its rest position.

## Maintenance

The Bluff EZ-Pull Leveler will provide years of efficient operation if properly maintained. Preventive maintenance should be performed every six months or as needed.

1. **Cleaning:** Check hinge tube areas for any debris. Clean hinges with wire brush to remove any foreign objects.
2. **Grease:** The unit should be greased twice a year or as needed – grease zerts are located underneath the deck of the leveler.
3. **Structural Check:** Check unit over for any obvious structural wear. Check hinge tubes for any signs of cracking or wearing.
4. **Spring Assembly:** Check spring assembly to assure a proper float in the leveler deck. Check spring linkage rod for any signs of bending.
5. **Handle Check:** Check EZ-Pull handle for any signs of bending or cracking. Improper handle bend may result in unit not latching properly.
6. **Latch:** Check the latch and latch catch for signs of wear on surfaces. Too much wear can decrease height up allowance and may keep latch from disengaging.

Any damaged parts should be replaced immediately and can be purchased from your local Bluff distributor. Bluff levelers feature a modular design, allowing for easy replacement.

## Troubleshooting

The Bluff EZ-Pull Edge of Dock Leveler is a mechanical device requiring leverage and gravity to operate efficiently.

1. ***When I raise the dock leveler, the front lip does not extend outward.***
  - Check to ensure latch is attached to unit.
  - Check to ensure latch notch is facing the dock.
  - Check latch assembly for damage or excessive wear.
2. ***When I raise the dock leveler, the handle hits the dock surface.***
  - Check to ensure handle is located correctly in holster. Handle and bend facing away from dock face (toward trailer) when stored in position.
  - Check handle for damage.
3. ***The leveler will not raise enough to allow latch to catch.***
  - Check for proper tube clearance. Tubes should be 1/8+" higher than dock surface. Deck needs to rotate to approximately the one o'clock position.
  - Check handle for any damage.
  - Check hinge tubes for any debris. Wood, nails, etc. can prevent proper rotation.
4. ***The leveler is difficult to raise and lower in position.***
  - Check hinge tubes. Clean any debris or foreign objects from hinges. Use wire brush if necessary.
  - Check hinge tube lubrication. Grease unit thoroughly.

*\*Important: Specify Model # and serial # when ordering parts*