

Assembly And Installation Manual For Affordable Lift Model KCSPM3648 Specifically For Serial Number E9997C

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If you see errors in this manual please notify Shae.Murphy@AffordableLifts.com

Lift E9997C Specifications:

Station Height: 120.0"
Weight Capacity: 500 lbs
Column Length: 195.0"
Color: Gloss Black

Motor: 1 Ton w/ Wireless Controller

Base: Base Bracket Safety System: Safety Lock

Column Bracing: Column Mount Brace

Rain Guard: Yes

Battery Backup: Not Purchased
Shipped As: Disassembled
Shipped On: On A Regular Pallet

All images in this manual are representational only.

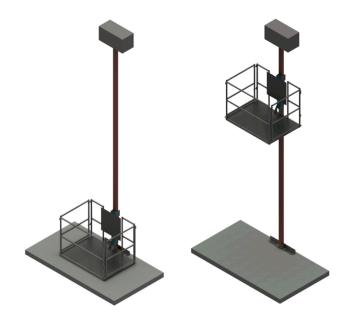


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1. Introduction

Congratulations on your purchase of a new platform lift! We sincerely hope that this lift will help you accomplish the things that are important to you and those you love.

Note: If you are like me, then you hate reading instructions almost as much as you hate having to do things over because you did it wrong. Unfortunately, this product can be assembled backwards, and doing so cannot be remedied without taking it all apart and starting over. These instructions are specifically written to prevent those mistakes. So, please refer to these instructions with each step, and have a pleasant assembly.

Note: We have many of the assembly steps recorded on video for your reference. These videos are not a substitute for this manual. They should be used alongside this manual. To find the videos use the video links throughout this manual or <u>Click Here</u>.

Note: The photos in this guide display lifts in various stages of installation. It is often the case that some recommended safety feature is not yet in place in a specific photo. In particular, an anti-pinch point wall and a basic stair handrail are missing in some of the scenarios we photographed.

Note: There are some minor design changes between different lifts pictured here. These photos might not exactly match your particular lift.

Note: Even if your lift was shipped disassembled, some portions of it may have been pre assembled for you.

Note: If your lift was shipped with some bolts and fasteners already in place and you find it necessary to temporarily remove them, they must be re-inserted in the same direction. Inserting the bolt in the opposite direction may cause problems.

Note: Throughout this document this is used as a caution symbol: Please abide by all safety precautions so that you can safely enjoy your lift and all that it has to offer.



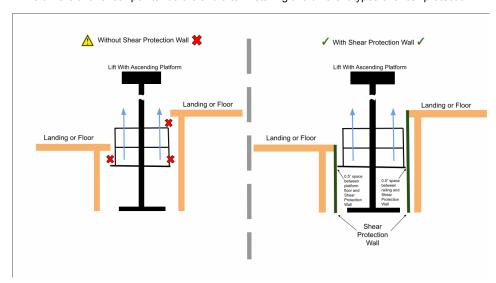


2.1. Safety is paramount! If you have a question or concern about the safe installation or operation of your lift please call Customer Support at (USA) 434-515-2321 (Provide your Serial Number 'E9997C' and contact information when you call).

2.2. 100 NOT USE YOUR LIFT OR ALLOW OTHERS TO USE YOUR LIFT IF YOU SUSPECT IT MAY BE IN AN UNSAFE CONDITION

- 2.3. Warning: No one should ride the lift until the Safety Backup System is installed and all lift testing is complete.
- 2.4. Use common sense when installing or operating this equipment. Please read all the instructions before beginning assembly and installation.
- 2.5. The installer and operator are responsible for the safe operation of this equipment. It is your responsibility to ensure and verify that this equipment is safely installed. It is your responsibility to ensure and verify that inspections and maintenance is done. It is your responsibility to know and comply with all applicable legal codes and regulations regarding your platform lift.
- **2.6.** Be sure to lift heavy objects using your legs, not your back.
- **2.7.** Do not allow children or people who are not able to understand the safe operation of the lift to use or play with the controllers. Letting unqualified people operate the lift without supervision puts them and anyone around the lift at severe risk. Allow only capable persons to operate the lift.
- 2.8. "Pinch Point" risk is inherent in any mechanical device of this nature. This is the risk of something (such as a toe) getting caught underneath something as the Platform ascends. Inadequate vigilance and safety in pinch point risk areas can cause injury or death or can harm your lift. A common and prominent pinch point risk area is any gap underneath a landing, such as a porch or deck. We recommend that you identify any such areas in and around your lift and take safety precautions. Eliminate pinch point risk by covering openings below the landing with a vertical or angled plywood wall to prevent body parts and items from being trapped between a landing or floor and the Platform as the lift ascends upwards from the ground.

Below are two "shear points" before and after installing two different types of shear protection:



Misuse of this equipment can cause serious injury or even death 🗸

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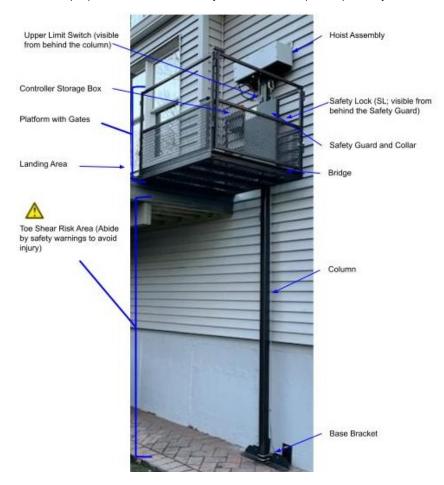
Caution! Carefully read the owners manual and the following warnings prior to use. Failure to comply with the following may result in serious bodily injury, death, or damage to the lift. If you have questions, contact Customer Support at (USA) 434-515-2321 (Provide your Serial Number 'E9997C' and contact information when you call).

- Prior to use, ensure that the safety mechanism is in place properly. Never use a lift without a safety mechanism properly installed and functional!
- Prior to each use, inspect the cable and components for signs of fraying or damage.
- Always lock gates prior to use. Never operate the lift with any gates unsecured.
- Always lock/secure wheelchair or cargo from shifting while in use.
- This lift is to be used exclusively for the transport of cargo or a wheelchair and occupant and an additional adult where assistance is required.
- Improper use of lift may result in personal injury or damage to the lift. All users must read and follow operating
 instructions prior to use of lift.
- Ensure that the lift is properly installed and is stable prior to use of the lift. Failure to ensure proper installation may result in an increased risk that the lift will tip over or otherwise malfunction, resulting in damage to the lift and/or personal injury.
- · Do not exceed the maximum load capacity.
- Remain in the correct, upright position while the lift is in use. Keep entire body within the lift at all times. Failure to remain in position may result in pinch or crush hazards at the deck/flooring platform and property damage or personal injury from a malfunction of the lift or falling from the lift.
- If the lift is installed to go through an opening to another level, it is particularly important to never rest arms, feet or limbs
 on handrails or extending from the lift. Narrow openings pose a substantial risk of injury to the lift or serious personal
 injury.
- Prior to use, ensure that electrical power is installed on a grounded electrical circuit.
- Prior to use, inspect for proper function, required maintenance, or damage. If a problem exists, cease use of the lift immediately. Do not attempt to make repairs or alterations to the lift. Contact a licensed professional or customer support for any necessary repairs.
- Do not conduct any maintenance, repairs, or otherwise work on this lift while it is operational or plugged in unless instructed to do so by customer support.
- Do not alter or modify this lift or any of its safety devices in any way.
- Do not expose any electronic part of this lift to liquid or harsh weather conditions.
- . Do not use if snow, ice, or other debris have accumulated on the lift.
- Do not operate this lift in the presence of combustible or explosive gas or fumes.
- Completely disconnect the lift from its power source prior to cleaning the lift.
- Do not operate this lift if you are under the age of eighteen (18) years old. All users of this lift who are under the age of
 eighteen (18) years old must be accompanied by an adult who is authorized to use this lift and has read its operating
 instructions.
- Keep children away from this lift at all times unless using this lift while accompanied by an authorized adult who has read its operating instructions.
- Do not stand or place any body part under the lift platform at any time.
- When using the lift, ensure that no persons, pets or objects are in the upward or downward path of the lift platform or collar.
- Keep all loose articles, hair, and other objects away from the moving portions of the lift at all times.
- Keep hands and feet away from moving parts while the lift is operational
- Do not store any items or objects on or under the lift platform.
- Store lift in a temperature controlled, dry environment when not installed for use.
- Ensure that the lift platform is fully in the down position and all electrical components are disconnected from power prior to moving the lift.
- Use appropriate lifting/transport precautions when moving the lift. The lift is very heavy.
- Keep lift controllers in a secure location out of reach of children.
- Remain aware of your surroundings and ensure you are able to hear well at all times while the lift is in use

FAILURE TO COMPLY WITH ANY OF THE ABOVE WARNINGS MAY RESULT IN SERIOUS BODILY INJURY, DEATH, CRUSH, ELECTRICAL, TRIPPING HAZARDS OR DAMAGE TO THE LIFT.

4. Terminology

- **4.1. Front, Back, Right and Left Sides:** The Column is located on the back side of the lift. The side of the lift opposite the back side is the front side. Right and left are determined when you face the lift's Platform from the front.
- 4.2. Please look over the sample photo below to familiarize yourself with the important parts of your Affordable Lift.

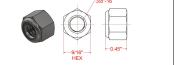


Below are the names and images of lift parts and components that were shipped to you:

Row	Part Number	Item	Description	Qty	Sample Image
1		Welcome Letter	Welcome Letter and Instructions	1	None
2		Packing List	List of all parts and components shipped	1	None
3		Assembly and Installation Manual for the KCSPM3648	Also available via email on request - call (USA) 434-515-2321 (Provide your Serial Number 'E9997C' and contact information when you call)	1	None
4		Affordable Lift - Disassembled	42.0"x49.0"x35.2", Gloss Black	1	

5		Hoist Assembly - 1 Ton w/ Wireless Controller	12.50"x24.0"x11.5", Gloss Black	1	
6	RTS3x3x.25X195	Standard Steel Lift Column	3"x3"x195.0"x1/4" (.25") - 144 lbs	1	
7	6000049	Base Bracket	3.16"x25.51"x3.79" Gloss Black - 16 lbs	1	86.7 648.0 96.3 [3.79]
8	HBU0.375-16x3	Base Bracket - U-bolts	Square 3/8"-16, 3"x4" Zinc	3	2.00° MIN THERAD LENGTH 00.375* 3.00° 3.8-16 UNC
9	HNN0.375-16 nylock	Base Bracket - Nuts	3/8\"-16 Nylock Nuts	6	3/8*-16 -9/16*- HEX
10		SL Cable	Special Cable, 3/8" 215" w/4 clamps and 1 Shackle	1	
11	42238	SL Eye Bolt	3/8"x2.5"	1	Ø0.75°- Ø1.50°- 3/8°-16
12	1137341	SL Eye Bolt - Nut	3/8"-16 Flange Nuts	2	36*-16 00.75* -0.04* HEX
13	1133082	SL Eye Bolt - Washer	.5" SAE	2	Ø0.406" Ø0.812" 0.062"
14	6000144GA	ULS Rain Guard	5"x3"x3" Galvanized Sheet Metal	1	
15	6000107	Actuator Spring	3"x3"x1" Steel	1	
16	6000106	Collar - Backing Plate	3.5"x4.7"x1" Plate	1	102 0 [4.02]
17	6000014	Collar - Regular Slip Pads	.25"x3"x4.1"	5	106.0 [4.17] -76.2 -(3.00) - 6.35 -(0.25]

18	6000013	Collar - Backing Plate Slip Pad	.25"x3.5"x3.9"	1	100.0 [3.94] 88.9 [3.50]
19	HBH0.375-16x5	Collar - Bolt	3/8"-16x5"	4	15/64" 15/64" 5.00" Min Thread Length 3/6"-16 Thread
20	HNW0.375-16x	Collar - Bolt - Nylock Nuts	3/8"-16 Nylock Nuts	4	3/8*-16 -9/16*
21	3500010	Controller Storage Box	7.1"x11.6"x5.1"	1	
22	BHM40.25-x	Controller Storage Box - Bolts	.25"-20x1.5"	2	5/32' 1.50' 0.75' Min Thread Length 1/4'-20 Thread
23	HWA0.25-1.25	Controller Storage Box - Washers	.25"x1.25"	2	Ø0.261 Ø1.250
24	HNA0.25-20x	Controller Storage Box - Nuts	.25"-20 Acorn Nuts	2	1/4"-20 DEPTH 1/4" -7/16" 0.47"
25		Spray Paint Can	Rustoleum Protective Enamel, Gloss Black, 12 oz	1	WEST ON THE PROPERTY OF THE PR
26	6000112 A16B33C2.25	Left Side Ramp	A16"xB33"xC2.25", Gloss Black	1	INCICK SPACE
27		Handheld Remote Controller	Wireless Transmitter	3	
28	6000093	Column Mount Brace - Flat	3.49"x25.51" - Flat - Gloss Black	1	10.0 [0.39]
29	6000089	Column Mount Brace - Clamp Plate	4.61"x3.49" Gloss Black	1	117.0 [4.61] 88.6 [3.49]
30	HBC0.375-16x4.5	Column Mount Brace - Carriage Bolt	3/8"-16x4.5"	6	0.208" 4.50" 0.39" 0.39" 0.39"



5. Prepare to Install Your Lift

- **5.1. We Are Here To Help:** We would much rather have you call us for help than have you assemble or install your lift incorrectly. Your lift's serial number is **E9997C**. If you have questions or problems during assembly please call Customer Support at (USA) 434-515-2321 (Provide your Serial Number 'E9997C' and contact information when you call).
- 5.2. Receiving Your Lift: If damage has occurred during shipping immediately document it with photographs and notify our Shipping Department at (USA) 434-207-8444 (Provide your Serial Number 'E9997C' and contact information when you call). Check your lift for damage before signing the papers with the delivery man, when applicable. If there is damage, note it on the delivery paperwork appropriately and notify Affordable Lifts. If damage is found after the delivery papers are signed, we will not be able to file a claim for the damage with the shipping company on your behalf.
- 5.3. We recommend that at least two adults work together to assemble this lift. Some parts of your lift are quite heavy and having two or more people assemble your lift reduces the risk of injury. Affordable Lifts is not responsible for injuries that occur while assembling or utilizing your lift.
- **5.4.** Most customers prefer their lift be oriented for straight-through travel. This means entering one side of the lift (right or left) going up and then continuing out the other side (right or left). Sometimes this is not practical. If you are using a wheelchair or walker, remember to allow adequate space to navigate onto and off of your lift's Platform.
- **5.5.** We recommend that if possible, the Column side of the lift be installed closest to a nearby wall. This positioning will make bracing easier.

5.6. Before you begin:

- The installation site should be flat and level, or you should be prepared to use steel or plastic shims to level
 your lift.
- The installation site should be clear of debris and as accessible as possible.
- Your lift weighs approximately 450 lbs and it has a Platform weight capacity of 500 lbs. Be sure that the floor of your installation location can support this combined weight.
- The lift should sit on a solid surface (concrete, solid flooring, etc). Installation on asphalt requires first installing a concrete footing for your Base Bracket.
- · Pinch point protection should already be installed.
- If you remove a section of a landing railing then, if the landing is high enough you should install a safety gate in its place.
- · Children and pets should be excluded from the area during assembly and installation.

6. Unpack Your Lift

- **6.1. Keep in Mind:** As you unpack, watch out for any shipping damage. If you sign for a damaged lift without noting shipping damage you will not be able to make a claim later.
- 6.2. Small Parts: Look inside the grey Controller Storage Box to see what small parts and paperwork it contains.
- 6.3. Unbolt the Platform: Use a wrench to unbolt the Platform from the pallet and slide it forward off the pallet to one side.
- **6.4. Unpackage the Column:** Your lift's Column is packaged separately. Remove any column packaging and check to make sure that your Column **tube** is 3" x 3" x 195.0".
- **6.5. Weather:** Electrical components should be protected from weather until properly installed. For example, do not leave your Hoist Assembly upside down where water can accumulate in it and damage the motor.

7. Remove Safety Guard

7.1. Remove the Safety Guard from in front of the Collar. You will reattach it after finishing the next several steps. Be sure to not lose the four acorn nuts.



8. Prepare Column Bracing

8.1. Your particular lift's Column must be firmly anchored to a strong structure above its Upper Limit Switch Bracket.

Now is the time to review your upper Column bracing approach, to locate your bracing point and to make sure that your planned bracing point is adequately strong and that you have everything you will need to brace your Column. Decide on what diameter and length anchors to use based on your floor material. We recommend anchors at least 3" long.

8.2. Positioning the Base:

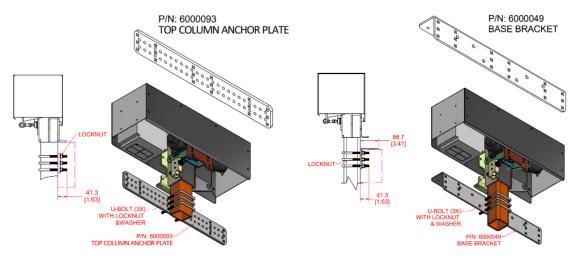
- 1. For the measurements below please remember that many walls are not truly vertical. If you are placing your Column near a wall use a plumb bob to determine the vertical plane of the wall and any obstructions.
- 2. Use a plumb bob to determine the vertical plane of a landing's edge. Remember that many landings are not square and many landings are not level.
- Be sure to also consider water spigots, electrical outlets and other items that might obstruct the path of the Collar or the Platform itself.
- 4. If you will use your Platform's left opening at an upper landing, then the left side of your Column should be 23.5" from the edge of that landing. This number includes a 0.5" (1/2") gap between the edge of your Platform and your landing.
- 5. If you will use your Platform's right opening at an upper landing, then the right side of your Column should be 23.5" from the edge of that landing. This number includes a 0.5" (1/2") gap between the edge of your Platform and your landing.
- 6. If your Platform's front side passes by an obstruction, then the front side of your Column should be at least 37.75" from that obstruction. This number includes a 1" gap between the edge of your Platform and that obstruction.
- 7. For the Collar to ascend and descend without hitting any obstruction the back side of the Column must be at least 1.75" from a vertical plane that includes any obstruction in the Collar's path.
- 8.3. Column Mount Brace: Your Hoist has a Column Mount Brace. This is the preferred method of bracing. Our records indicate that your lift has a station height of 120.0". Therefore the bottom of your Column Mount Brace must be attached AT LEAST 156.0" from the ground to allow space to install the Upper Limit Switch and the top of your Column Mount Brace must be attached NOT MORE THAN 183.1" from the ground to allow space to install the Hoist Assembly. We suggest that if possible you install your Column Mount Brace an inch or so above the bottom of this range. It will be below the Hoist Assembly (when it is seated on the Column), and it will be above the upper limit switch (which is clamped onto the Column). The Column Mount Brace cannot touch either the Hoist Assembly or the Upper Limit Switch.

Your Column Mount Brace may use a flat back plate or an angled back plate. The square holes in this plate are intended for your Column. The circular holes are intended for bracing to a structure. Your Column Mount Brace may attach using either u-bolts or carriage bolts. Carriage bolts require the Column Clamp Plate.

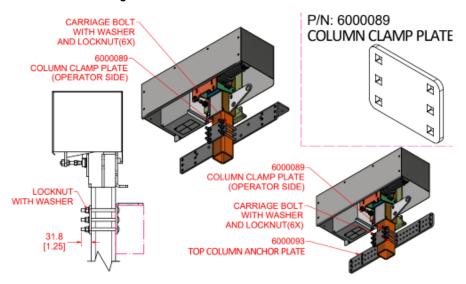
Connect your brace to a strong structure using steel angle iron or equivalent.

It is safety critical that this connection be strong and durable. If you are unsure about the strength of your connection, consult a qualified engineer.

8.4. Column Mount Brace with U-Bolts:



8.5. Column Mount Brace with Carriage Bolts:



8.6. Prepare your brace location by connecting to the structure whatever will need to be at that location for your brace. We recommend that you use steel angle iron, not wood that will deteriorate. If you are attaching into studs be sure that you firmly attach to at least four of them.

It is safety critical that this connection be strong and durable. If you are unsure about the strength of your connection, consult a qualified engineer.

9. Connect the Base Bracket, Column and Hoist Assembly

- **9.1.** The Column of your lift must be securely attached at the floor and also above the upper limit switch.
- **9.2. Preparations:** There are several options available to you as to how you are going to erect the column into position. Consider all of your options and select the one that suits your resources and the installation conditions the best. Above all do things safely.

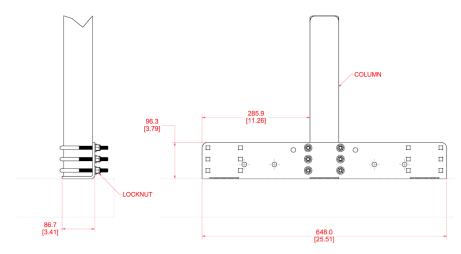
State and local building codes supersede anything within this manual.

Before beginning these steps be sure to carefully think through each step to be done and how to safely do it. Check all measurements and prepare all the tools and materials that you will need. If you will need ladders, scaffolding or more manpower, procure them now.

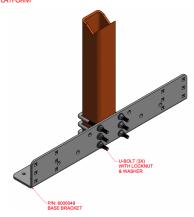
Install as much of the upper Column bracing onto the structure as you can now so that you will not have to do so later.

You do not want to be part way through these steps and discover that you overlooked something.

9.3. Attach The Column to the Base Bracket: The column will need the Base Bracket bolted to its lower end. This will utilize 3 u-bolts and nuts as shown below. In most cases, it is best to attach the Base Bracket before erecting the Column. One side of your Column has a weld seam running its entire length. Position the the welded seam side so that it will be the right or left side of the Column once installed.



NOTE: U BOLT ORIENTATION SHOULD BE EXACTLY SAME AS PER THIS DRAWING OTHERWISE U BOLT WILL FOUL WITH PLATFORM



9.4. Set the Column Upright: Prepare a way to secure the Column once it is upright. It is often preferred to upright the Column and temporarily lean it against a landing and NOT the wall that it will ultimately be attached to. You may choose to temporarily rotate the Column and the attached Base Bracket 90 degrees to lean it against a landing.

The uprighting options listed below utilize a rope to assist the lifting process. Because it is very difficult to secure a rope to a smooth Column, we suggest that you temporarily clamp your upper Column Mount Brace to the Column and use that to secure your lifting rope. Typically, the closer the rope is to the top of the Column, the easier it will be to pull on the rope. However, other factors apply. Give the location and security of the rope's attachment plenty of thought.

Option A: You can choose to "walk" the Column up just as you would in up righting an extension ladder. The person(s) on the ground can be assisted by person(s) on the upper landing with a rope. This is best done by positioning the base bracket a few feet away (horizontally) from the edge of the surface that you are going to lean the Column against.

Option B: You can choose to lift the top of the Column straight up. This technique is often used when there is not enough floor space to use option A. In this instance, the Column should be laid on the ground with the top of the Column positioned almost directly beneath the edge of the upper landing surface.

Once the Column is upright secure it from falling.

9.5. When to Place the Hoist Assembly: Now the Column is upright and loosely secured from falling. Next you can either firmly secure the Column and then place the Hoist Assembly on its top, or you can place the Hoist Assembly on the Column's top and then firmly secure the Column.

Each approach has its advantages. Securing the Column first may make putting the Hoist Assembly on much more difficult. Putting the Hoist Assembly on first may make securing the Column more difficult. Below we will describe each of these two steps. You can do them in the order that you feel is best for your situation.

Because of the difficulty of placing the Hoist Assembly after securing the column, most people prefer to place the Hoist Assembly before securing the column.

9.6. Cautions Regarding Placing the Hoist Assembly:



Use Caution When Handling the Hoist Assembly.

- · The Hoist Assembly is a heavy object. Use care when lifting.
- · The electrical cables are easily damaged.
- The (black) electrical enclosure on the motor is plastic. It cannot be used as a handle.
- The wire rope will be permanently damaged if it gets kinked.

9.7. Place the Hoist Assembly:

- 1. With the Column upright, use a scaffold, deck or other structure to safely access the top of the Column. You may wish to temporarily lean the Column slightly or rotate the base to position the Column's top nearer to your landing.
- 2. Carefully lower the Hoist Assembly onto the Column, oriented so that the hoist cable will run down the front of the Column. Make sure the Hoist Assembly cap slides down all the way onto the Column.
- **9.8. Prepare to Secure the Column:** The entire column needs to be moved to its final location and anchored to both to the floor and above the Upper Limit Switch.

Determine the correct left-to-right location for anchoring: If you will **NOT** be using a left or a right gate at any landing then the your left-to-right distance for anchoring your Column is simply whatever you wish - which is usually the the center of the left-to-right space available to you.

OTHERWISE for your lift the proper calculated distance from the edge of your intended landing to the side of the Column facing it is 23.5".

Put this number to use: Suspend a plumb bob from the edge of the landing. Orient the Base Bracket properly. At near ground level, position the side of the Column the distance calculated above from the plumb bob. You may want to use a framing square to mark the wall at this point where the side of the Column is to be.

9.9. At this point, you should have:

- 1. The Base Bracket firmly attached to the Column with 3 u-bolts.
- 2. The Base Bracket should be parallel to where the back of the Platform will be.
- 3. The Column's closest side(s) should be the calculated distance(s) away from the plumb bob.
- 4. If possible, the Base Bracket should be located so that the Column can be safely leaned against a front or a back structure wall.
- 5. If additional security is required, the rope can remain attached near the top of the Column and to the structure.
- **9.10.** With the bottom of the column the correct distance from the plumb bob, we must make the Column plumb, so that we can determine where (horizontally) the Column brace needs to be located. Conversely, if the ideal column location is marked near ground level, the plumb bob could be used to determine where (along the structure) the column brace needs to hold the top of the column.
- **9.11.** Often a spacer is installed between the Column brace and any wall. This is because the Column must be at least 2.0" (50mm) from any wall. The moving platform must also clear any protrusions in or on the wall's surface. Keep in mind that walls are sometimes not flat or plumb.
- **9.12.** The bottom of your Column Mount Brace must be attached AT LEAST 156.0" from the ground to allow space to install the Upper Limit Switch. The top of your Column Mount Brace must be attached NOT MORE THAN 183.1" from the ground to allow space for the Hoist Assembly. The Column Mount Brace cannot touch either of these components.
- **9.13.** Mount any spacer required, mount the Column Mount Brace to that, loosely mount the Column to the Column Mount Brace using either the u-bolts or the carriage bolts and clamp plate supplied
- **9.14.** At the ground level, move the Base Bracket until the column is plumb. Make any right to left adjustments to keep the Column plumb and at the proper distance from the Landing edge's vertical plane.
- **9.15.** Tighten the Column brace bolts, check the Column's plumb.

 There are numerous anchor holes in the Base Bracket. Each hole is 0.375" (3/8") in diameter. Anchor the Base Bracket.



9.16. Measure the horizontal distance from the Column to the landing's edge to confirm that it is the same as the calculated distance above.

10. Attach the Platform to the Column

Here is a video of this step: Click here

10.1. If there is a wall or barrier immediately behind the Column, you can still do the following steps from inside the Platform. Just be careful that hands and fingers don't get wedged between the Platform and Collar, the Column, and the wall or barrier

10.2. Line up the Platform and Collar. Move the Collar to about a foot away from the Column.



10.3. Clean all plastic Slip Pads of dirt and debris. Ensure that they remain clean throughout the assembly process. You have five Slip Pads that are have a common size (Part Number 6000014) and one Slip Pad that is a unique size (Part Number 6000013). The unique Slip Pad will be installed last. Take one of the common-sized Slip Pads and put a little grease or petroleum jelly on one side of the pad. Use the grease to stick the Slip Pad to the inside front of the Collar between the pad retainer rails near the bottom of the Collar.



10.4. Slide the Platform back so that the Collar surrounds the Column.



10.5. Ensure that the Slip Pad you just installed has not fallen out of position. Now insert a common-sized Slip Pad into each of the two pockets found along either side of the lower Collar. If the fit is a bit tight you may need to tap the Slip Pad with a hammer and screwdriver, jiggle the Platform or use a screwdriver to widen the opening.
Note: There is no back side Slip Pad for the lower Collar.





! If you over tighten then the Platform will not descend properly under its own weight.



10.7. Insert a common-sized Slip Pad into each of the two pockets found along either side of the upper Collar. If the fit is a bit tight you may need to tap the Slip Pad with a hammer and screwdriver, jiggle the Platform or use a screwdriver to widen the opening. After this step you should have only one Slip Pad left to install. Note: The front side of the Collar does not get a Slip Pad.



10.8. Position the remaining Slip Pad on the Backer Plate and insert the Backer Plate into the Column as shown below. You may need to lift the front of the Platform slightly to bring the top of the Collar closer to the Column to make this step easier.









10.9. Install the Upper Limit Switch Actuator Spring (a silver L shaped piece of sheet metal with holes on one side) and secure the Backer Plate as shown in the photos below. The Slip Pad must be against the Column. The Upper Limit Switch Actuator Spring is critical and prevents your Upper Limit Switch from being crushed. There is no top or bottom end for the Backer Plate. Tighten the three bolts used here.









It is critical that the lower Collar adjustment bolt is adjusted properly. All Collar bolts have nylock nuts. The lowest Collar bolt does not need to be tight to work properly. If the lowest Collar bolt is too tight, the Platform may bind on the Column and may not descend as the hoist unspools the wire rope. If this happens, the hoist may produce several inches (or feet) of slack, and the Platform may then fall until the slack is used up, or the Platform will fall until the anti-fall device locks up and stops the platform. Either condition is undesirable.

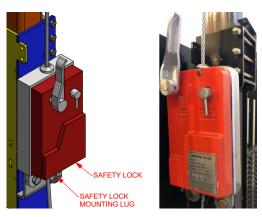
Later in the installation process we will adjust the single bolt on the back, near the bottom of the Collar so that side to side wobble is minimized and the unit descends smoothly with no weight on the Platform.

11. Safety Backup System



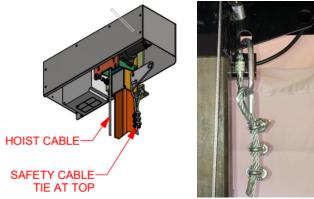
LEVERY LIFT MUST HAVE A SAFETY BACK UP SYSTEM. NEVER OPERATE THE LIFT WITHOUT AN OPERATIONAL SAFETY BACK UP SYSTEM.

Your lift is equipped with a Safety Lock. See below:

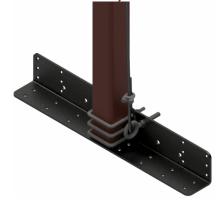


11.1. Installing your Safety Lock:

1. Use the carabiner to attach the top of the Safety Lock cable to the inner hole of the hanger on the side of the Hoist Head.



- 2. Remove any tape from the end of the Safety Lock cable.
- 3. The Safety Lock comes pre-mounted to the right side of the Collar behind the Safety Guard. Using gloves to protect your hands, slowly run the Safety Lock cable down through the top hole in the Safety Lock until no more cable is available to go through. You may have to jiggle the cable a bit to get it through. If you run it through too fast the Safety Lock will engage, just like it would if the Platform was falling.
- 4. If Safety Lock engages remove the tension from the cable, and push the left lever clockwise. Doing this will disengage it.
- 5. Test the Safety Lock by using a **gloved hand** to sharply pull the cable up from the Safety Lock body. It should engage and lock.
- 6. If the Safety Lock does not engage, do not allow anyone to use the lift and call Customer Support at (USA) 434-515-2321 (Provide your Serial Number 'E9997C' and contact information when you call).
- 7. Disengage the Safety Lock by removing any tension from the cable and pushing the large left lever clockwise. Doing this will disengage it.
- 8. Secure the eye bolt to the Base Bracket by using the remaining Base Bracket hole to the right of the Column. Use a nut and washer on each side of the Base Bracket. After the Safety Lock cable is attached it will look like this:



- Now secure the bottom of the Safety Lock cable. Take the free end of the cable and thread it through the supplied eye bolt.
- 10. Close the loop of cable with the cable clamp. The Safety Lock cable need be only moderately taunt. The two cable clamp nuts only need to be slightly more than hand tight.

12. Electrical Power

12.1. Warning: When the hoist is connected to electrical power, anyone with a Controller can cause it to activate. Someone in another room playing with one of your wireless controllers can activate the hoist motor. Before plugging in the lift or working on any part of the lift always be sure that no one is pushing any buttons on any hand held Controller.

12.2. Controller Access: Controllers should always be kept away from children or those who should not operate the lift without supervision. The Controller Storage Box has a hasp and can be locked using a customer supplied lock.

12.3. Power Source:

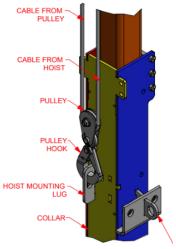
- You have an AC motor that requires 120 volt AC power.
- Your lift should never require more than 15 amps of electrical power.
- Avoid plugging your lift into any circuit that cannot support at least 20 amps or is shared with heavy machinery that might, together with the lift, trip the circuit breaker.
- · GFI protected electrical outlets must be used in all locations that might be exposed to water.
- You may use an extension cord to bring power to your lift, but it must be 12 gauge or thicker.
- Be sure that electrical power cords will not be crushed, punctured or have their insulation worn through.
- When installing your lift anywhere where the power cords may be exposed to water you must use weatherproof
 extension cords and weatherproof extension cord connectors.
- 12.4. Plug in the hoist motor power cord into a suitable outlet.
- 12.5. Power Cord: Consider using a zip tie to secure any excess power cord out of the way so that it will not rub or chaff.

13. Connect Your Wire Rope

- **13.1. Prepare Your Wireless Controller:** Your lift is configured to use a handheld wireless Controller (transmitter) which was "paired" at the factory to work with your specific motor. This Controller will be used in this step to spool and unspool the wire rope. If at any point the wireless Controller does not work, here are the steps to "re-pair" your Controller to your motor:
 - 1. Disconnect (unplug) the power supply to the lift.
 - 2. Remove the battery of the transmitter.
 - 3. Turn the green dial off.
 - 4. Press and hold both the "STOP" and "UP" buttons while inserting the batteries. Wait for the red LED light of the transmitter to begin to flash rapidly. Then release the buttons.
 - 5. Plug in your lift. The red LED light of the transmitter will change from fast flash to slow flash.
 - 6. Press the "DOWN" key to complete the pairing operation
 - 7. Turn the green knob on the transmitter to "ON" and press the START button. **NOTE:** Transmitters with a BD in the serial number on the back will need to have the START BUTTON pressed for 10 seconds.
 - 8. Test the "DOWN" and "UP" buttons.
 - 9. The lift should now be operational. Check that the Controller battery compartment is secured.

13.2. Attaching the Wire Rope:

- Connect your hoist motor to electrical power.
 Attach the end of the hoist cable to the cable mounting lug in left side of the Hoist Assembly.
- 2. While lightly pulling your wire rope, use your Controller to unspool enough wire rope for the pulley hook to reach slightly past the hoist mounting lug on the **front** of the Collar.



HOIST CABLE INSTALLATION

- 3. Attach the pulley hook to the hoist mounting lug on the **front** of the Collar.
- 4. Use your Controller to take up any slack in the wire rope.
- 5. Ensure that the wire rope does not contact any bolts, studs, brackets, etc.
- 6. Proceed to the next step to test your lift.

14. Test Your Lift

14.1. Take a Test Run: with no one on or under the lift's Platform.

Now that your lift is positioned and plugged into your power source, power up a hand held wireless Controller and push the "Up" button to tighten any loose wire rope. Then go up several inches and then most of the way back down again. Be sure to not go up more than several inches. After you successfully do this several times you may send the Platform higher, but remember that you have not yet installed your Upper Limit Switch or your Lower Limit Switch. Be careful to not unspool your wire rope by running the motor after the platform is all the way down. Do not allow your Collar or Actuator Spring to collide with your Hoist Assembly.

14.2. Troubleshooting: If you run into any issues during testing you may wish to consult the <u>Troubleshooting Section</u> at the end of this document.

15. Lower Limit Switch Installation

15.1. Lower Limit Switch and Cam Plate: The Lower Limit Switch has two components that must be mounted: a Lower Limit Switch and a Cam Plate. Once completed, your Lower Limit Switch installation will look like the image below:

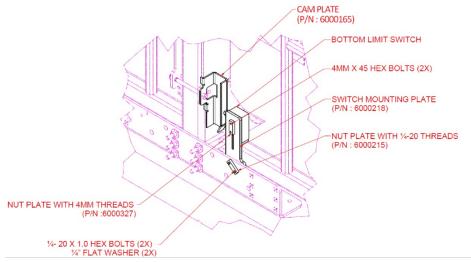


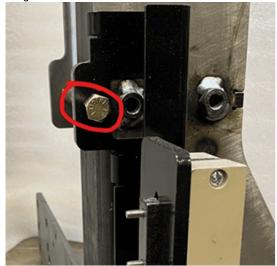
Image Number 15.1.a

The electrical part of the Lower Limit Switch should be temporarily moved to safety if it is in danger of becoming submerged. Do not operate the lift if the Lower Limit Switch is not installed and operating properly.

15.2. Installing the Cam Plate:

- 1. Position the Platform about 2" above the ground.
- 2. Disconnect the electrical power to the lift.
- 3. Remove the lower collar bolt (circled in red below). Insert the bolt through the Cam Plate (provided) and then through the collar side plates (as shown below). At this time, tighten the bolt only enough to eliminate endplay. It should be possible to rotate the bolt with finger pressure.

The image below shows the Cam Plate installed. The yet-to-be-installed Lower Limit Switch is also displayed in the image.



4. Reconnect the electrical power and raise the Platform up to provide access to the Base Bracket.



CAUTION: Do not place hands or feet underneath the Platform.

15.3. Collar Adjustment:

NOTE: Before the Lower Limit Switch can be installed and accurately adjusted, the sliding clearance between the Collar and the Column must be adjusted. This is done as follows:

- 1. Reconnect the electrical power and position the Platform about 3" above the ground.
- 2. Adjust the sliding clearance of the Collar on the Column using the lower collar bolt (the bolt that goes through the Cam Plate).
 - Note: Move the lift Platform up and down a few inches to test the clearance as you make the adjustments below.
- 3. Tighten the bolt only 1/4 turn at a time until the (empty) lift begins to bind when going down. Then, loosen the bolt 1/4 turn.

CAUTION: Please understand that loosening the bolt while there is slack in the hoist cable will cause the lift to free fall until the cable becomes tight or it hits an obstruction. Do not place hands or feet underneath the Platform.

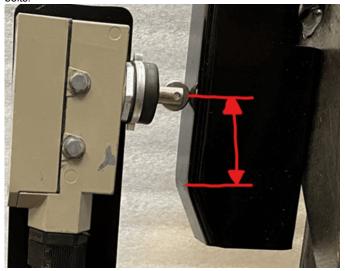
15.4. Switch Installation:

- 1. With the Platform all the way down, install the Switch Mounting Plate (PN 6000218) using the Nut Plate (PN 6000215), two 1/4-20 x 1.0 Hex Bolts, and two 1/4" Flat Washers. Please refer to Image Number **15.1.a**
- Install the Lower Limit Switch onto the Switch Mounting Plate (PN 6000218) using the 4mm Nut Plate (PN 6000327) and two 4mm x 45 Hex Bolts. Please refer to Image Number 15.1.a



15.5. Mechanical Adjustment:

1. If necessary, loosen the 4mm bolts in the photo below that secure the Lower Limit Switch to the Switch Mounting Plate. Adjust the vertical position of the switch so that the roller is about 1/2" above the bend as shown below. Tighten the 4mm bolts.



2. Position a shim (indicated in green) about the thickness of a credit card between the Lower Limit Switch's plunger roller and the Cam Plate. Move the Switch Mounting Plate horizontally toward the Cam Plate. With the switch plunger fully depressed and holding the shim in place, tighten the two 1/4" bolts.

Remove the shim and verify that the switch plunger is NOT bottomed out. The switch plunger must NOT be bottomed out. Failure to verify this will result in switch damage that is not covered by the warranty.



15.6. Secure The Switch Cable:

1. Connect the switch cable to the Base Bracket to the left of the Lower Limit Switch with a cord clamp (provided) as shown below.



2. Route the switch cable directly up to the back cover panel of the hoist assembly and connect to the lower corner panel bolt with a cord clamp (provided) as shown below. The wire is cut short in the image for demonstration purposes.



3. Secure the switch cable so that the movement of the Platform and Collar cannot interfere or snag the switch cable even during windy conditions.

15.7. Lower Limit Switch Rain Guard:

1. Your lift comes with a Rain Guard for the Lower Limit Switch, as shown below:



Install the Rain Guard on the Lower Limit Switch so that it will remain dry:



15.8. Final Adjustments:

The Lower Limit Switch should be mechanically adjusted to turn off the motor before the Platform reaches the ground. The Platform will continue to descend as the motor coasts to a stop. Ideally, the motor will coast to a stop when there is still some tension on the hoist cable, but not before the Platform touches the ground. If everything has been installed appropriately, this final adjustment will ONLY entail the vertical adjustment of the switch using the 4mm bolts.

16. Adjust Your Lift's Maximum Height

16.1. Upper Limit Switch: Your lift has an Upper Limit Switch that automatically stops the Platform at a preset station height. **This is an important safety feature.** You can set this height easily using the 1/8" allen wrench supplied with the lift, taped on to the Upper Limit Switch bracket.

The switch is clamped onto the column as shown below. Please note that the Upper Limit Switch must be actuated by the Actuator Spring shown in the photo. You will damage the Upper Limit Switch if the Actuator Spring is not properly installed.



16.2. Attach And Adjust the Upper Limit Switch: To see a video of this step click here

- 1. Do NOT stand on the Platform while doing this.
- 2. Place the Upper Limit Switch bracket onto the Column as you see below. The switch goes on the back of the Column. The plunger faces downward. Slide the Upper Limit Switch up or down on the Column until the bottom of its mounting bracket is 33" above your landing height.





- 3. Slide the Upper Limit Switch downward until the switch touches the Actuator Spring and also makes a click sound.
- 4. Using a 1/8" allen wrench, tighten the set screw in the bracket holding the Upper Limit Switch.
- 5. Raise or lower the Upper Limit Switch to make the Platform stop higher or lower.
- 6. Note that landings are not always level, nor are their edges always square.
- 7. **Tip:** If your Upper Limit Switch is at a good height and you find you need to temporarily move it, first mark its current position on the Column for later reference.

16.3. Attach The Upper Limit Switch Rain Guard:

1. If the lift is exposed to severe weather, a Rain Guard (PN 6000144) should be used to prevent water from entering the switch.

2. The photos below show a Rain Guard installed over the switch.



3. To install the Rain Guard, loosen the Upper Limit Switch set screw, slide the Rain Guard tab down between the Column and the Upper Limit Switch mounting bracket, as in the photo below. Then tighten the Upper Limit Switch set screw.



17. Level Your Lift

- 17.1. For this step you will need a carpenter's level and perhaps some steel or plastic shims (not supplied).
- **17.2.** Use a carpenter's level and shims to adjust the lift so that the Column is plumb. The edge of the Platform, when at the correct height, should come up to approximately 0.5" (1/2") of the edge of the landing. Note that many landing edges are not actually square or level.



18. Finalize Column Anchoring

18.1. Once the Column is plumb and you have run the Platform up and down several times, tighten down all of the Column and Base Bracket bolts.

19. Reinstall Safety Guard

19.1. Now that all of your wires and hoist rope have been installed, re-attach your Platform's Safety Guard to the Collar using the four acorn nuts you removed earlier. Be sure to reinstall it so that the nameplate sticker is visible and right side up.

20. Platform Gates

- **20.1. Platform Gates:** Each gate comes pre-attached to the Platform, hinged on the side specified in your Order. Gate and latch styles may vary. **For most lift configurations you can easily detach a gate and reverse its swing direction.**
- 20.2. Safety: It is important that all gates shut easily and securely, and that all gates be shut and latched before using the lift. Unsecured gates can catch on items as the Platform moves and severely damage the lift, or people could fall off of the Platform and be injured or killed.
- **20.3. Convenience:** If you have a gate that is facing a very close, solid, smooth wall for the Platform's entire travel, the gate may not be necessary. It may be more convenient for you to remove and store the gate. This is easy to do using a 3/8" allen wrench.





20.4. Reversing A Gate:

- 1. You will need a 3/8" allen wrench. Do not use power tools on this step.
- 2. Unbolt the gate, reverse it and bolt it back on.
- 3. Do not tighten the gate's hinge bolts. Doing so will prevent the gate from swinging freely.
- 4. Adjust the gate as needed (see next step).

20.5. Adjusting A Gate:

- 1. If adjustment is required then use a 9/16" wrench to adjust the horizontal gate adjustment bolts as needed.
- 2. The latch end of the gate should line up vertically with the adjacent vertical post.

21. Minimize Platform "Twist"

- **21.1. Platform "Twist":** Platform "twist" is the side to side movement of the Platform around the Column's vertical axis. It can occur as you step onto or off of the Platform when it is elevated. While not dangerous, excessive Platform twist can make the rider feel uncomfortable.
- **21.2. Minimizing Platform "Twist":** Twist can be minimized by carefully tightening the single Collar bolt on the lower back Collar. You can reduce the side to side movement of the Platform around the Column's vertical axis by doing the following:
 - 1. During the adjustment process, if slack develops in the hoist wire rope, the Platform may fall violently. Stay clear of the Platform, and do not allow slack to accumulate in the wire rope.

2. Tighten the nylock nut on the 3/8-16 x 4.5 bolt at the bottom back of the Collar. Do this in 1/4 turn increments.



- 3. Check the adjustment by confirming that the lift will still descend under its own weight.
- 4. If the Platform will not "slide" down the Column under its own weight, then the adjustment is too tight and should be loosened. Reapply tension to the hoist wire rope by pushing the "Up" button and then loosen the adjustment bolt. Do this in 1/4 turn increments.
- 5. Repeat the above steps until the Platform twist is minimized.

22. Controller Storage Box

22.1. Your lift has a grey Controller Storage Box. This box has a hasp onto which you can place a lock. Now is a good time to bolt it to the Platform railing using the pre-drilled holes. Most people prefer to position it on the outside of the railing in order to maximize cabin space.

23. The Transition Ramp

23.1. Transition Ramp: Place your ground transition ramp on the ground next to a gate. It is free standing.

24. Battery Backup

24.1. An optional Battery Backup System is available for your lift, but from a different vendor. This would supply electrical power to your lift in case of a power failure. If you want to purchase this option, please contact Customer Support at (USA) 434-515-2321 (Provide your Serial Number 'E9997C' and contact information when you call).

25. Canopy Frame

25.1. An optional Canopy Frame is available for your lift. You would need to supply any roofing or side coverings. If you are interested, contact Customer Support at (USA) 434-515-2321 (Provide your Serial Number 'E9997C' and contact information when you call) and ask about the optional Canopy Frame.

26. Maintenance

Safety is critically important. If you have any concerns about the safety of your lift please contact Customer Support at (USA) 434-515-2321 (Provide your Serial Number 'E9997C' and contact information when you call).

26.1. Maintenance Items:

1. The wire rope is a critical piece of your platform lift. Visually inspect it monthly to make sure it is not kinked, frayed or showing signs of wear. Some fuzz is acceptable. If it is, take the lift out of service and contact Customer Support at (USA) 434-515-2321 (Provide your Serial Number 'E9997C' and contact information when you call).

2. The Safety Lock is critically important to the safety of your lift. It is the responsibility of the lift's owner/operator to ensure that the Safety Lock remains in proper operating condition at all times. Absolute confidence is required in the fall protection system of the lift. Therefore, periodic inspection of its functionality is required. No procedure can detect every possible condition which could compromise the operational functionality of the fall protector. Therefore, periodic comprehensive inspection is well advised. Visually inspect the Safety Lock wire rope monthly to make sure it is not kinked, frayed or showing signs of wear.

NOTE: The Safety Lock cannot be reset if there is tension on the Safety Lock wire rope. If the Safety Lock was triggered due to a malfunctioning hoist, and the Safety Lock wire rope is supporting the Platform, the Platform will need to be lifted enough to eliminate tension in the Safety Lock wire rope. The Safety Lock can then be reset.

Here is how to inspect the Safety Lock:

- 1. While wearing work gloves, inspect the entire length of Safety Lock wire rope to ensure that there are no broken strands in the wire rope. Broken strands are cause for failing your inspection.
- 2. Disconnect the Safety Lock wire rope at the bottom of the lift. There are several ways that the wire rope may have been connected. It IS NOT necessary to remove or loosen the wire rope clamps.
- 3. After disconnecting the wire rope at the bottom, use a gloved hand to pull about 1 foot of wire rope up through the safety lock housing swiftly. When the wire rope is lifted (pulled through) at any speed over 3 feet per second, the Safety Lock should instantly trip and lock the Safety Lock onto the wire rope.
- 4. When the Safety Lock is tripped, it must be reset. To reset the Safety Lock move the large lever clockwise against the internal spring. This will reset the Safety Lock so that it can detect another "overspeed" condition.
- 5. Test the Safety Lock several times. Any failure to trip and lock is cause for failing your inspection.
- 6. The small lever is a means to manually trip the device. This is not part of the safety system, as it is not automatic. If the Safety Lock is manually tripped via the small lever, the system can be reset by moving the large lever clockwise against the internal spring.
- 7. After testing is complete, reattach the safety wire rope at the bottom. The wire rope does not need to be under tension. However, slack should be minimized.

If the Safety Lock fails inspection, take the lift out of service and contact Customer Support at (USA) 434-515-2321 (Provide your Serial Number 'E9997C' and contact information when you call).

- 3. Paint is important for the protection and long life of your lift. Your lift was primed and painted using industrial quality Gloss Black. You can apply more paint to repair scratches or cover rust at any time. Our colors are compatible with the Rustoleum brand. A spray can of this color was supplied for this purpose. Remove rust before painting over a rusted area.
- 4. Care of your Column: You should not paint the Column where the sliding anti-friction pads have regular contact.

Affordable Lifts has an optional special lubricating and anti-rust coating for the column that you can apply. If you would like to purchase this anti-rust coating please contact Customer Support at (USA) 434-515-2321 (Provide your Serial Number 'E9997C' and contact information when you call).

27. Troubleshooting

- 27.1. If you still need help after consulting the list below call Customer Support at (USA) 434-515-2321 (Provide your Serial Number 'E9997C' and contact information when you call).
 - No power Check the power source to the Hoist using a voltage meter or test light. Check circuit and GFCI breakers.
 - The lift moves up but not down Make sure that the Safety System is not preventing downward movement. Make sure
 the bolt located at the bottom rear of the Collar is loose enough to turn by hand. When loosening the Collar bolts,
 make sure that no people, limbs or valuable objects are underneath the Platform.
 Make sure your Lower Limit Switch is installed and working. See the "Lower Limit Switch Installation" section.
 - Motor does not turn off when you reach the ground Make sure your Lower Limit Switch is installed and working. See the "Lower Limit Switch Installation" section. Use the Controller to raise and lower the Platform from the ground a few inches. The motor should turn off when the Platform reaches the ground. Do this a few times with no one on the lift's Platform. If the motor does not automatically turn off when the Platform reaches the ground call Customer Support at (USA) 434-515-2321 (Provide your Serial Number 'E9997C' and contact information when you call).