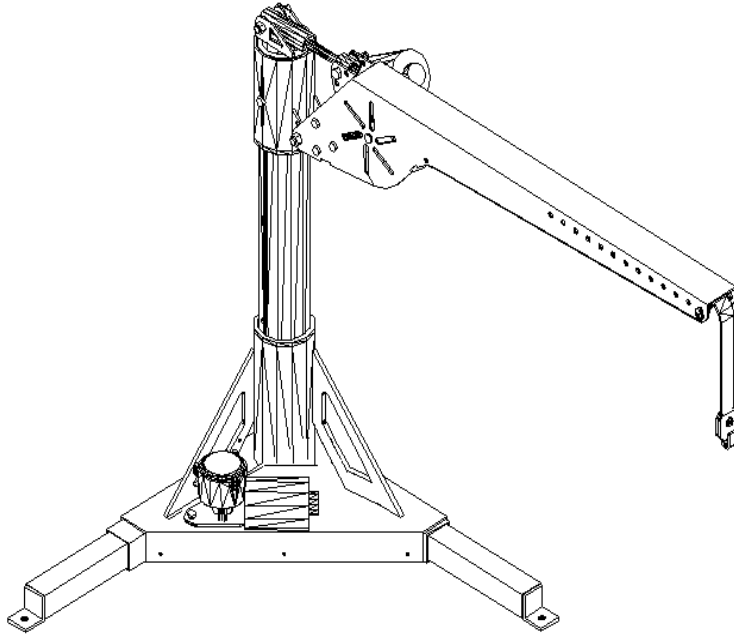


Fully Powered - Universal Lift Inside Style

Installation Guide & Owners Manual



Congratulations on your new lift purchase. The Universal Inside Lift is one of the easiest and most trouble free ways to transport your scooter. This manual is written to be used both as an installation guide as well as an operation guide for the end user. Please read the manual thoroughly BEFORE attempting any installation, adjustment or use of the lift.

Both installers and operators should familiarize themselves with this entire manual.

The manual will be divided into the following sections for easy reference;

- Section 1 - Unpacking the Lift
- Section 2 - Vehicle Preparation
- Section 3 - Wiring the Vehicle
- Section 4 - Installing the Lift
- Section 5 - Operating the Lift
- Section 6 - Safety & Maintenance

If you have any questions or comments concerning the installation or operation of your scooter lift, please contact

Section 1 - Unpacking the Lift

Your Fully Powered Inside Lift was factory pre-assembled to require little assembly before installation.

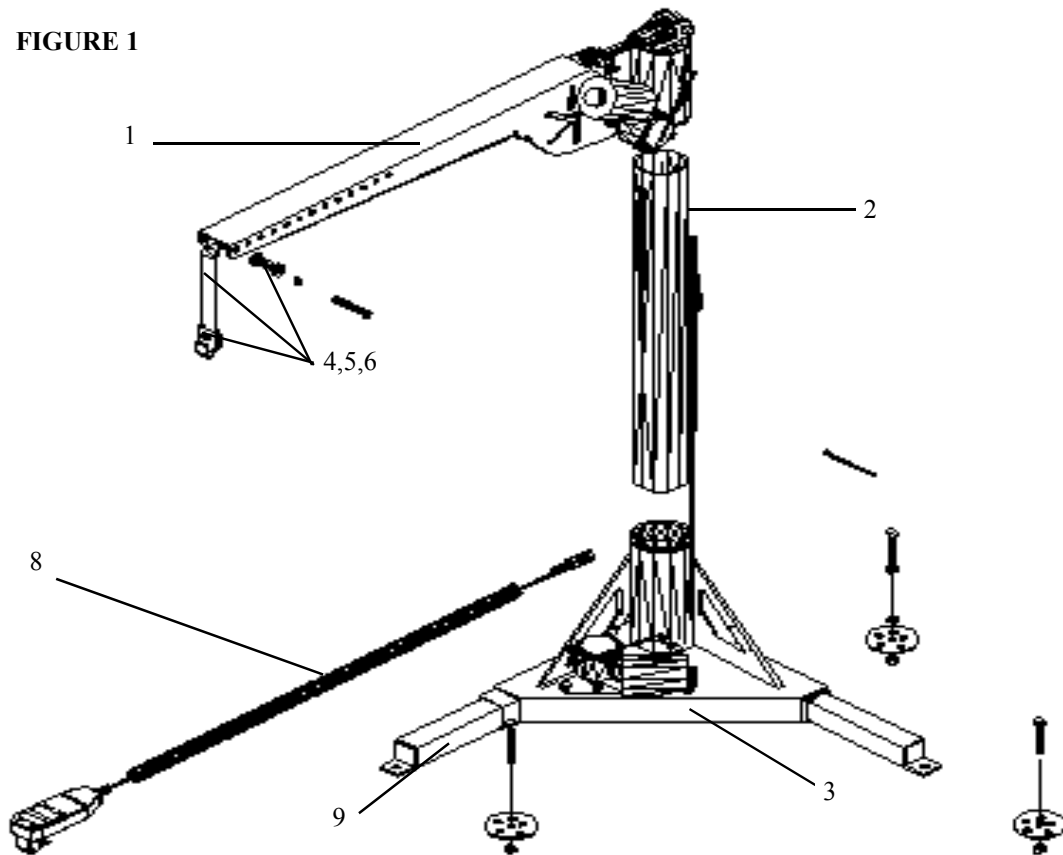
Box contents should include:

Package Check List

Lifting Arm (# 1)
Standard Post (# 2)
Base (# 3)
Strap & Hook Assembly (# 4,5,6)
Leg Extensions (#9)

Hardware Package

Contents include:
Vehicle Wiring Harness (# 7)
Hand Control (#8)
3 - Installation Washers
Required Fasteners
Black zip ties



Be sure and check the contents of the box against the package check list to be sure that all parts are included with the lift that are required for proper installation. If any parts are missing or if any damage is noted, immediately contact the distributor from which you purchased your lift. DO NOT attempt to install or use the lift with any missing or damaged parts.

Section 2 - Vehicle Preparation

The Universal Inside Lift has been designed with the shortest height and smallest footprint requirements to allow maximum room for the loading and unloading of your scooter or power chair. If there is 30" of headroom and room for the scooter or chair in the vehicle, then our lift should be able to be installed and operate properly.

- To obtain the ideal mounting location and avoid possible interference, the lift should be pre-assembled and "trial fit" in the desired installation location. This procedure may require two people, one person to hold the lift in the desired position and another to move the Lifting Arm through its full range of motion. Please refer to Figure #1 for the parts identification and exploded view of the lift. The Fully Powered Inside Lift has been engineered so that it can easily be configured as a solution for most applications. This "trial fit" will also help you determine where the Vehicle Wiring Harness will be run.

Hint: *It is always best to check with the customer when determining lift placement and ask permission before drilling through the vehicle's carpet.*

- **Typical Applications**
 - Rear Cargo Area—for most vans and SUV's.
 - Side Door—for use on either side door of a van.
 - TAILGATE APPLICATIONS for SUV's, Station Wagons and Trucks using the offset arm conversion option.

NOTE: The base should be mounted as far to the rear corner of the vehicle as possible in most rear mount applications. This allows for the maximum reach of the lifting arm.

There are some vehicles that, due to their setup, will not accommodate a standard lift installation. Please check for the following:

- Vehicle must have 30" **clear headroom** for operation. Be sure and check during "trial fit" that a full range of motion can be achieved without any roof or lift gate interference.
- Spare tire storage—Some vehicles store the spare tire under the floor of the vehicle. Make sure that the base can be bolted through to a steel floor or frame.
- Some vehicles have been manufactured with a "false floor" which is made of composite materials. The lift must be anchored to a steel floor or frame.
- Trunk applications must be secured to a flat trunk floor. Make sure that there are not deep wells in the trunk that will affect placement of the base. Most of these can be overcome.
- **Offset Arm Applications** - The offset arm allows the lifting arm to reach around to the side of the vehicle. This allows the loading and unloading of the scooter or power chair when there is a tailgate to contend with or when the base location does not allow a straight post to be used. Many times this application is referred to as a "curbside" installation. (See Figure #5)

Trial Fit Procedure:

- Place the assembled lift as it is configured in the shipping carton into the desired location.
 - When using the Offset Post Conversion, replace the standard Post with the Offset Post. Bolt the Lifting Arm to the Post using the supplied 3-3/4" Hex bolt and lock nut as shown in Figure #5. The offset arm can be configured to left side or right side applications by bolting the Lifting Arm to the Offset Post in either orientation.
- Raise the Lifting Arm to achieve to an 1/8" clearance to the lowest point of the vehicle's roof that the Lifting Arm will encounter during its travel (usually the door opening or rear A/C vents).
- Unscrew the Adjustable Link to provide the desired height of the Lifting Arm and bolt the two components together using the supplied 3/8" x 2" hex bolt, washers and 3/8" Stover lock nut—no nylon.
- Mark the desired position for installation including the power wire and proceed with the wiring of the vehicle in Section #3.

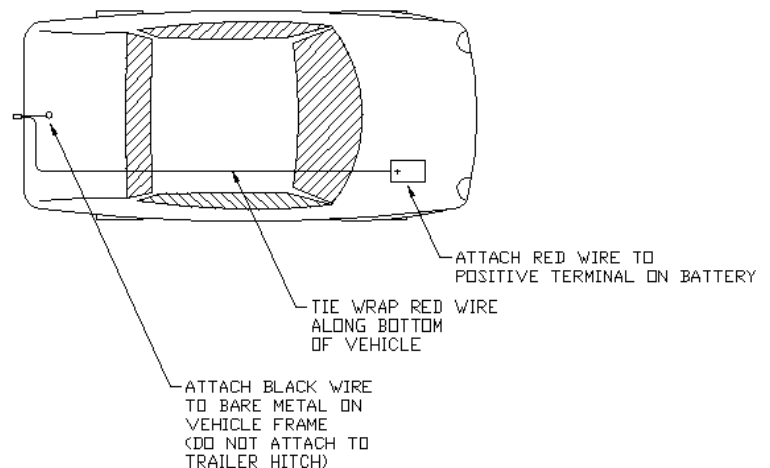
Section 3 - Wiring the Vehicle

IMPROPER WIRING IS THE #1 CAUSE OF PROBLEMS IN THE OPERATION OF A VEHICLE LIFT. PLEASE FOLLOW THE WIRING INSTRUCTIONS CAREFULLY

Located in the hardware package of your lift is the vehicle wiring harness for the lift to be installed. The harness is designed to run under the vehicle that the lift is being installed on. Unwind the harness and lay it flat. One end has a plug that both the red and black wires attach to. This is the lift end of the harness and goes to the back of the vehicle. The black wire will be a ground that attaches to the frame of the vehicle. The red wire will run under the vehicle and attach to the positive post on the vehicle battery.

- Disconnect the vehicle's ground (-) cable on the battery (for your safety).
- Choose a suitable location for the Vehicle Wiring Harness to protrude through the floor of the vehicle found during the trial fit. Placing the hole close to the Base of the lift allows running the shortest amount of wire and allows a "cleaner" installation. Drill a 3/8" hole in the chosen location. (Drill the holes for the Base at the same time as the hole for the wire. Otherwise, you could drill the wire installed). Pull the Vehicle Harness down through the floor leaving 3" to 6" protruding through the floor and protect it by inserting the Rubber Grommet that is provided into the hole.
- Starting at the rear of the vehicle, run the red wire under the vehicle and up to the engine compartment to the battery. The red wire is approximately 23 ft. long and should accommodate most vehicles. In fact, at times you will have excess wire when you reach the battery. In this case, determine the proper length to reach the battery and mark the wire. **(Remember to leave enough wire to allow the attachment on the underside of the vehicle).** Tie the red wiring to the vehicle before cutting the wire.
- If trimming of the red wire is needed, make sure that the plug in the back is in the proper place, go back to the red wire at the battery and remove the circuit breaker from the end of the red wire by unplugging the connector at the breaker. Cut and strip the red wire at the predetermined mark and attach a new insulated connector that is located in the hardware package. Reconnect the circuit breaker to the red wire and attach the short red wire with the terminal end to the positive post on the battery.

FIGURE 2



- **IT IS IMPORTANT THAT THE RED WIRE BE RUN DIRECTLY TO THE BATTERY OF THE VEHICLE.** Failure to wire the lift directly to the battery will cause the lift not to work properly and possibly cause damage to the lift!! Any attempt to run the power from a secondary wiring harness in the vehicle will not supply the proper power to the lift.

- Once wiring is attached to the vehicle, use the black plastic ties to secure the wire to the vehicle. **CAUTION! Route the harness away from the exhaust system, brake lines, fuel lines and sharp edges.** Once the red wire is in place, you will need to install the ground wire to the **frame of the vehicle.**

IMPORTANT!! The ground must be run to the VEHICLE FRAME ONLY!! If you ground the lift to any other source the motor will not ground properly and it will cause it to operate at less than the desired capacity. **DO NOT GROUND THE LIFT TO THE HITCH OR THE FRAME OF THE LIFT!!** The only proper place to ground the black wire is to the frame of the vehicle.

In many instances, there will be a bolt on the vehicle frame that you can use. If not, you may be required to drill a hole and bolt or screw the wire to the frame. **It is also important to remove any dirt, paint or undercoating from the area that you are grounding to. Prep the area using a small piece of sand paper or grinding stone. The ground needs to be touching BARE METAL on the frame.**

It can not be stressed enough that the wiring of the lift be done exactly as described above. Any warranty claim will not be covered if it is determined that the lift was not wired to the battery or grounded properly.

Section 4 - Installing the Lift

- You should have established a mounting position for the lift during the “trial fit” as described in Section #2 of this manual. If not, it is recommended that you go through that procedure.

Note: The power Base should be mounted as far to the rear corner of the vehicle as possible in most rear mount applications.

- Mount the lift in the location determined during the “trial fit” in the vehicle. The Leg Extensions in the Base telescope in and out to avoid potential obstacles. For heavy applications, pull the Leg Extensions out as far as is practical for increased base stability. Mark the 3 mounting hole locations or use the Base as a guide and drill holes using a 3/8” drill bit. Bolt the Base to the floor of the vehicle using the supplied 3/8” x 3” hex bolt in the corner, two 3/8” x 2” hex bolts for each Leg. Use the supplied multi-hole Installation Washers on the underside to help reinforce the vehicle’s floor, see Figure #3 and #4. Replace an Installation Washer with a 3/8” fender washer if necessary due to size constraints. Secure the Telescoping Legs by tightening the 2 set screws on the inside of the base.

Hint: Variations in the flatness of the vehicle’s floor can be compensated for by adding 3/8” washers to the mounting hardware under the base. **VERY IMPORTANT!!! Always mount the base so it is level.**

Caution! If the set screws on the base do not contact the Leg Extensions, they are telescoped out too far and must be moved into the Base further.

Caution! Avoid the vehicle wiring, fuel lines, fuel tanks, spare tires, etc. when drilling holes for mounting hardware!

FIGURE 3

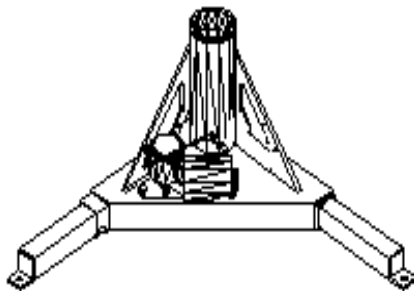
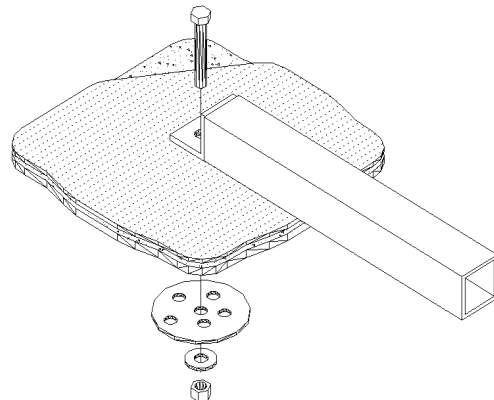


FIGURE 4



- Place the assembled lift as it is configured in the shipping carton into the desired location.
- Bolt the Lifting Arm to the Post using the supplied 5/16” x 3-3/4” hex bolt and lock nut.
- Raise the Lifting Arm to achieve an 1/8” clearance to the lowest point of the vehicle’s roof that the lifting arm will encounter during its travel (usually the door opening or rear A/C vents).
- Unscrew the Adjustable Link to provide the desired height of the lifting Arm and bolt the two components together using the supplied 3/8” x 2” hex bolt, two 3/8” washers and one 3/8” Stover lock nut (no nylon).
- The lift has been wired with a Hand Control Harness. The short red lead from the Hand Control Harness plugs into the Vehicle Wiring Harness to power the lift.
- Plug the 6 prong connector on the Hand Control into the 6 prong plug on the Hand Control harness located near the base of the lift. This quick connect plug will allow you to remove the Hand Control while not in use if desired.

Section 4 - Continued

IMPORTANT! Make sure that the Post is seated completely down into the white Power Base bushing. If there is any wobble to the post, rotate it in the base bushing until it drops completely onto the pin located in the bottom of the base unit. **DO NOT ATTEMPT TO OPERATE THE LIFT IF THE POST IS NOT SECURELY SEATED IN THE BASE!** THIS MAY CAUSE DAMAGE TO THE ROTATING MOTOR AND WILL NOT BE COVERED UNDER WARRANTY!

NOTE: The lift is factory set to rotate 190 degrees for passenger (right) side applications. However, the lift can be configured for right or left side applications by changing the orientation of the Post. This can be accomplished using the following steps:

1. Pull out the Shear Pin from the Post by removing one of the red caps and pulling the pin through.
2. Press the OUT button until the motor hits the rotation limit and stops rotation (the lift stops itself). Because the Shear Pin is removed, the Lifting Arm is not coupled to the Power Base and may not turn on its own. Position the Lifting Arm manually so it is pointing straight out the back of the vehicle.

NOTE: When using the Offset Arm Conversion, the Lifting Arm should be pointing perpendicular to the side of the vehicle.

FIGURE 5

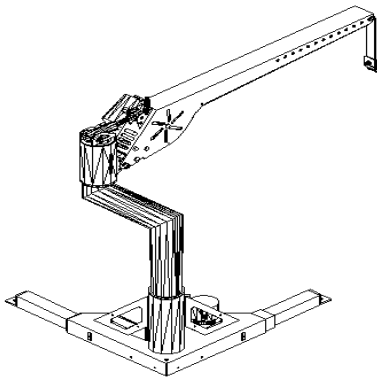
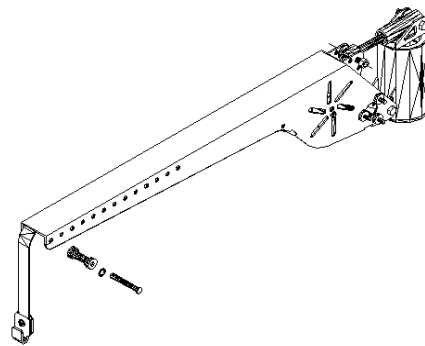


FIGURE 6



3. The hole for the Shear Pin in the Post should be lined up to allow the Shear Pin to be inserted. Insert the Shear Pin and put the red cap on the end. You may need to rotate the Lifting Arm slightly to get the holes to line up.
4. Using the Hand Control, swing the Lifting Arm through its entire range of motion to check for interference. Also, close any doors to check that the lift does not interfere. Adjust the Power Base location and Lifting Arm height as necessary. The Lifting Arm should rotate until it is pointing straight out the back of the vehicle and then stop itself.

NOTE: When using the Offset Arm Conversion, the Lifting Arm should rotate until it is pointing perpendicular to the side of the vehicle and stop itself. Also, pay particular attention that the Lifting Arm rotates in far enough to load the scooter.

Section 4 - Installing the Lift - Continued

- Follow the Operator Instructions in Section #5 to Load and Unload the scooter or chair from the vehicle to test operation and clearances.
- Determine if the scooter or chair will need to be moved closer to the lift or further from the side of the vehicle. This will be done by adjusting the location of the Strap Roller on the Lifting Arm. The Lifting Arm is factory pre-assembled with the strap out at the furthest extent and may need to be adjusted to fit a particular application.
- Measure the distance the scooter should be moved to clear any obstacles.
- To move the Strap Roller, remove the Split Ring (like on a key chain) from the Clevis Pin. Pull out the Clevis Pin and Strap Roller and replace it in the desired hole location. Holes on the Lifting Arm are on one inch centers. (See Figure #6)
- Recheck all fasteners.
- Refer to the instructions included with your docking device for information on preparing the scooter or power chair for use with the Universal Inside Lift.

Section 5 - Operating the Lift

Operational Guidelines:

- Inspect the Lifting Strap prior to each use. Contact your distributor if it shows signs of wear or fraying.
- Do not operate this lift until you dealer has satisfactorily instructed you in the proper operation of this lift.
- Always make sure the vehicle's parking brake is firmly set before operation.
- Keep hands and feet from under the scooter or power chair as it is being lifted.
- Take care not to hold one of the buttons on the Hand Control until the Lifting Strap switches direction. The UP button should always pull the strap up and vice versa. If your buttons cause opposite movement, contact your distributor.

Loading your Scooter

Note: Due to the wide variety of scooters, power chairs and vehicles, your dealer may offer a different method for Loading and Unloading your scooter. Please follow the guidelines they have offered.

Note: The Hand Control may be removed between uses by unplugging the 6 prong plug from the hand control harness. Simply reverse this process to reattach the Hand Control to the lift. The lift can not be operated without the Hand Control plugged in.

- Unhook the Strap Hook or optional C-Arm from the gusset on the Base (recommended stowed position).
- Using the OUT button on the Hand Control, swing the Lifting Arm out of the vehicle toward the scooter.
- Maneuver the scooter parallel to the rear bumper and two inches behind the vehicle. Depending on the vehicle, it may be necessary to: remove the seat; fold down or remove the handle bar; remove accessories such as brackets, baskets, crutch holders, etc.

Note: When using the Offset Post Conversion, position the scooter on the side of the vehicle parallel to the vehicle with the front tires even with the vehicle's rear bumper.

Section 5 - Operating the Lift continued

- If preparations need to be made to secure the scooter or power chair for transport, such as parking brakes or wheel chocks, do these now. Dealers should instruct operators on how, if necessary to secure the scooter or chair for transport. Hook the Hand Control on the top of the Post and close the doors or tailgate and you are ready to go.
- With the docking device positioned directly under the Strap Hook, lower the Lifting Strap using the DOWN button on the Hand Control until the Strap Hook (or C-Arm) can be engaged into the docking device installed on the scooter or chair. Hook the docking device on the scooter or chair with the Strap Hook and remove any play in the strap by pushing the UP button on the Hand Control until tension is felt.

Caution: Insure that the Lifting Strap is secure and taught and that it points straight down. Failure to do so could result in the scooter or chair swinging toward the operator of the vehicle.

- Raise the scooter or chair using the UP button until the scooter or chair is just above the highest obstacle. This is usually the van floor, door sill or tailgate.

Caution: Stop lifting before the Strap Hook contacts the Strap Roller mounted on the Lifting Arm. Contact will result in damage to the lift. A properly adjusted and operated lift will avoid this.

- Using the IN button on the Hand Control, swing the scooter or chair into the vehicle, insuring that the scooter or chair does not contact the vehicle.
- With the scooter or chair positioned above its stowed position, lower the lift using the DOWN button on the Hand Controller. The scooter or chair should be lowered until it is sitting firmly on the floor but the strap should remain taut. This facilitates a quicker and easier unloading of the scooter later.

Caution: Insure that the scooter or chair is firmly sitting on the floor and not suspended by the lift.

Unloading Your Scooter

- Undo any preparations made to secure the scooter or power chair for transport.
- Raise the scooter or chair by pressing the UP button on the Hand Control until the tires are high enough to clear the highest obstacle, usually the door sill or tailgate.

Caution: Stop lifting before the Strap Hook contacts the Strap Roller mounted on the Lifting Arm. Contact will result in damage to the lift. A properly adjusted and operated lift will avoid this.

- Using the OUT button on the Hand Control, swing the scooter or chair out of the vehicle, carefully insuring that the scooter does not contact the vehicle.
- With the scooter or chair positioned away from the vehicle, lower the lift using the DOWN button. Continue lowering the lift slightly beyond the scooter or chair touching the ground to allow removal of the Strap Hook from the docking device on the scooter.

Caution: Do not allow the scooter or chair to come in contact with the vehicle. Damage may result to both the vehicle AND the operator.

- Replace anything removed from the scooter or chair for loading purposes. Raise the strap first using the IN button on the Hand Control and swing the Lifting Arm back into the vehicle. Close the doors or tailgate and you are ready to go.

Section 6 - Safety & Maintenance

SAFETY:

ALWAYS CHECK THE LIFTING STRAP BEFORE EACH USE FOR DAMAGE OR WEAR.

Caution: *Insure that the Lifting Strap is secure and taught and that it points straight down before lifting of the scooter or power chair. Failure to do so could result in the scooter or chair swinging toward the operator of the vehicle.*

Caution: *Stop lifting before the Strap Hook contacts the Strap Roller mounted on the Lifting Arm. Contact will result in damage to the lift. A properly adjusted and operated lift will avoid this.*

Caution: *Insure that the scooter or chair is firmly sitting on the floor and not suspended by the lift. If the lift is not firmly on the floor of the vehicle, it may move during transportation and cause damage to the lift, scooter or power chair, vehicle, or passengers*

MAINTENANCE:

The Fully Powered Inside Lift has been designed to be as trouble free as possible for the owner. The maintenance schedule is no exception.

- Check for paint chips and touch up any bare metal with a good gloss black enamel or lacquer to inhibit rust. This may be necessary more frequently when subjected to salt air or road salt.
- We recommend that dealers should do a preventative maintenance inspection at least once a year.

WARRANTY:

This lift is covered by a one year factory warranty on materials and workmanship. Contact your local dealer for more information.

TROUBLESHOOTING:

PROBLEM: The lift will not operate or operates slowly.

Bad Ground—Verify the ground end of the Vehicle Harness is touching the vehicle frame in an area that is free of paint and corrosion.

Battery—Check to see if the battery needs to be replaced or if the terminals are corroded. Clean the terminals if any corrosion is present

Circuit Breaker—Although breaker resets itself automatically, it may be malfunctioning and need to be replaced. Check for power at the lift with a test lamp.

PROBLEM: Lifting arm is slow to swing in / out.

Clean and apply new grease to the white plastic bushings that are in the Base.

Bad Ground—Verify the ground end of the Vehicle Harness is touching the vehicle frame in an area that is free of paint and corrosion.

PROBLEM: The lifting strap operates in reverse.

The lifting strap was overextended. The lifting strap was lowered too far, causing the strap to wind around the spool backwards. Lower the strap until it unravels from the spool. Then, raise the strap in the proper direction.