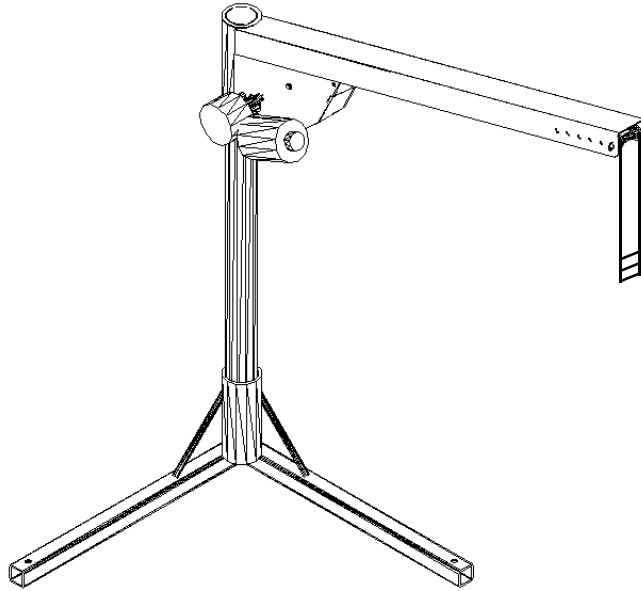


# Economy Lift - Inside Style

## *Installation Guide & Owners Manual*



Congratulations on your new lift purchase. The Economy 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 your local distributor for additional technical information. Only authorized dealers should install this lift.

## Section 1 - Unpacking the Lift

Your Universal Scooter Lift was factory pre-assembled to require little assembly before installation.

Box contents should include:

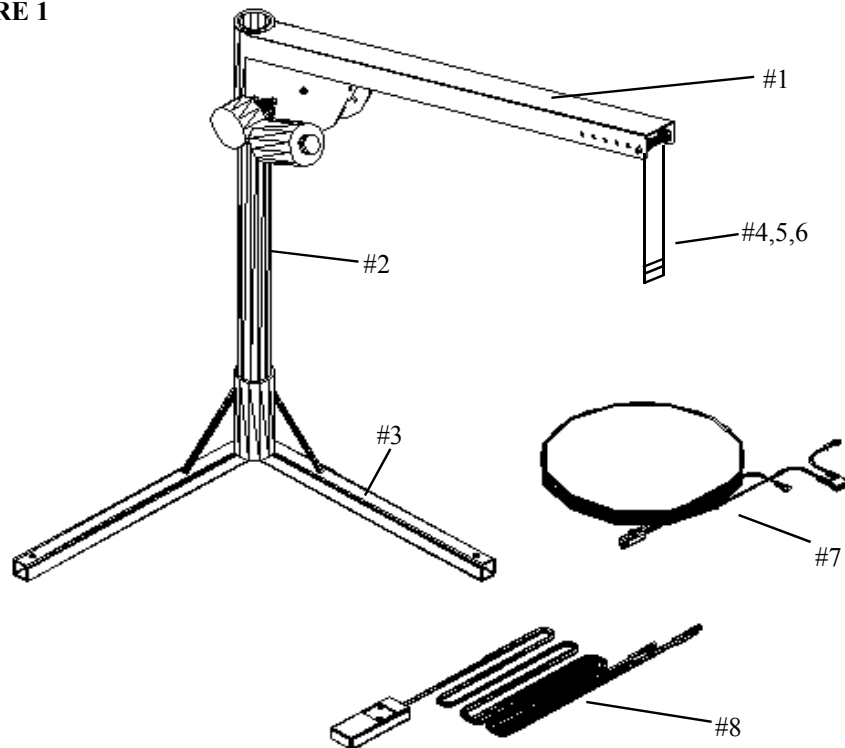
### Package Check List

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

### Hardware Package

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

FIGURE 1



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 Economy Inside Lift has been designed with the height and footprint requirements to allow maximum room for the loading and unloading of your scooter or power chair. If there is 37" 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 Economy 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**
  - Trunk Mounting—requires the lift to be disassembled between uses.
  - Rear Cargo Area—for most vans and SUV's.
  - Side Door—for use on either side door of a van.

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 37" **clear headroom** for operation. Be sure and check during "dry fit" that a full range of motion can be achieved without any roof or lift gate interference. (If required headroom is not available, the post height may be cut to accommodate a smaller opening).
- 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.

### **Trial Fit Procedure:**

- Place the assembled lift as it is configured in the shipping carton into the desired location
- 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).
- Adjust the lifting arm using the set screw collar to provide the desired height of the Lifting Arm.
- Mark the desired position for installation including the power wire and proceed with the wiring of the vehicle in Section #3.

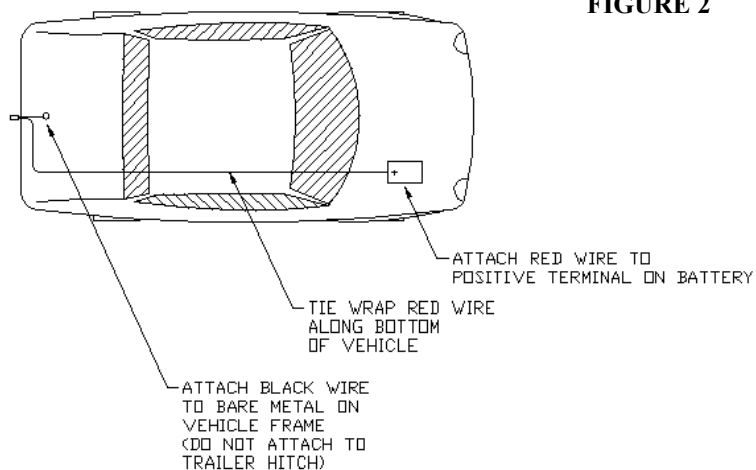
### Section 3 - Wiring the Vehicle

**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 dry fit. Placing the hole close to the Base of the lift allows running the wiring up the Post and is usually preferred. 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.

**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 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.
- Mount the lift in the location determined during the “trial fit” in the vehicle. 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 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. Always mount the base so it is level.

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

- The Hand Control has two plugs on it. One, the male plug, attaches to the Vehicle Wiring Harness that was installed earlier. The other, the female plug, attaches to the motor on the lifting arm. At this time, reconnect the vehicle’s ground (-) cable on the battery.
- Tie the long leads of the Hand Control Harness to the Post using the plastic ties where necessary. This step will be skipped when using the lift in a “Take Apart” configuration, as the Lifting Arm and the Post must be disassembled.
- 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 #5
- 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 4 - Continued

FIGURE 3

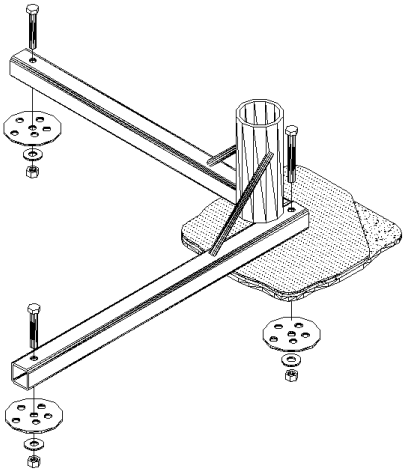


FIGURE 4

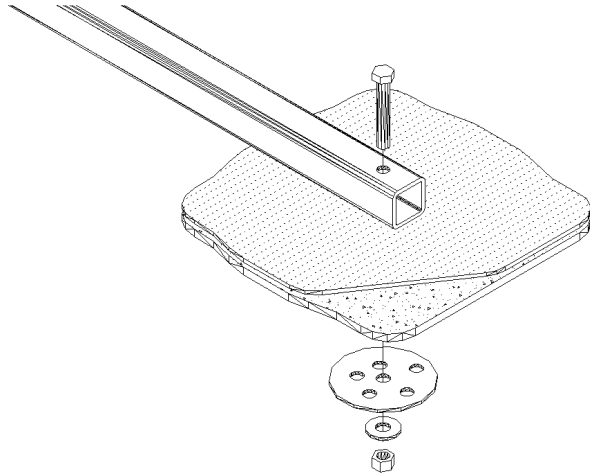
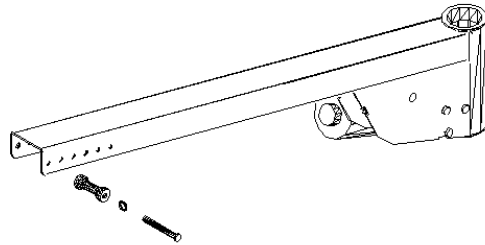


FIGURE 5



## Section 5 - Operating the Lift

### Trunk Applications:

#### 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 Controller 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—Trunk Applications

**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.

- To assemble your lift, begin by inserting the Post into the Base mounted on the floor. Next, slide the Lifting Arm onto the top of the Post.
- Plug the Hand Control into the lifting arm and into the Vehicle Harness.
- 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.
- 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 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:** Ensure 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 trunk lip.

**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.

- Swing the scooter or chair into the vehicle, ensuring 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. Continue lowering the Strap Hook slightly beyond the scooter touching the floor to allow removal of the Strap Hook from the Docking Device on the scooter or chair.
- To disassemble the lift, first raise the strap until the freed Strap Hook is about an inch away from the Lifting Arm. Unplug the Hand Control harness from both the Vehicle Harness and the Lifting Arm.
- Pull the Lifting Arm off the Post and lay it on the floor of the trunk. Then, pull the Post out of the Base and set it down with the Lifting Arm.

Continued on next page.

## Section 5 - Operating the Lift continued

### Trunk Applications

- If preparations needed to be made to secure the scooter or 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. Close the trunk and you are ready to go.

### Unloading Your Scooter—Trunk Applications

- Undo any preparations made to secure the scooter or power chair for transport.
- To assemble your lift, begin by inserting the Post into the Base mounted on the floor. Next, slide the Lifting Arm onto the Post.
- Plug in the Hand Control.
- By pressing the DOWN button on the Hand Control harness, run the Strap Hook down until it is slightly lower than the docking device on the scooter.
- Attach the Strap Hook to the docking device on the scooter or chair and remove any play in the strap by pressing the UP button on the Hand Control until tension is felt.

**Caution: Ensure 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 vehicle or operator.**

- Raise the scooter using the UP button until the scooter or chair is just above the trunk lip.

**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.**

- Swing the scooter or chair out of the vehicle, carefully ensuring 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.
- To disassemble the lift, first raise the Lifting Strap until the freed Strap Hook is about an inch away from the Lifting Arm. Unplug the Hand Control harness from both the Vehicle Harness and the Lifting Arm.
- Pull the Lifting Arm off of the Post and lay it on the floor of the trunk. Then pull the Post out of the Base and set it down with the Lifting Arm.
- Replace anything removed from the scooter or chair for loading purposes. Close the trunk and you are ready to go.

## Section 5 - Operating the Lift Enclosed Vehicle Applications:

### 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 Controller 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—Enclosed Vehicle Applications

**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.

- Unhook the Strap Hook or optional C-Arm from the gusset on the Base (recommended stowed position).
- 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.**

- 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: Ensure 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.**

- Swing the scooter or chair into the vehicle, ensuring 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: Ensure that the scooter or chair is firmly sitting on the floor and not suspended by the lift**

- 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. Place the Hand Control on the Velcro mounting pad and close the doors or tailgate and you are ready to go.

**Section 5 - Operating the Lift continued**  
**Trunk Applications**

**Unloading Your Scooter—Enclosed Vehicle Applications**

- 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.**

- Swing the scooter or chair out of the vehicle, carefully ensuring 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. Swing the Lifting Arm back into the vehicle and place the Hand Control on the Velcro mounting pad. 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:** *Ensure 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:** *On enclosed vehicle applications, ensure 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, or the vehicle.*

### MAINTENANCE:

The Universal 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 difficult to swing in / out.

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

**PROBLEM:** The lift 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.