

DRC-LIFT Universal Power Chair & Scooter Lift

Installation Guide & Owner's Manual



DRC-LIFT Universal Power Chair & Scooter Lift

Congratulations on your new lift purchase. The line of Universal Outside Lifts are one of the easiest and most trouble free ways to transport your power chair or scooter. This manual is written to be used both as an installation guide as well as an operation guide for the end user for the DRC-LIFT Power Chair Lift. **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 (No Swing Away)
- Section 5** - Installing the Lift (with Swing Away Option)
- Section 6** - Operating the AL105 Swing Away Option
- Section 7** - Preparing the DRC-LIFT for wheelchair or scooter
- Section 8** - Operating the DRC-LIFT
- Section 9** - Safety & Maintenance / Troubleshooting

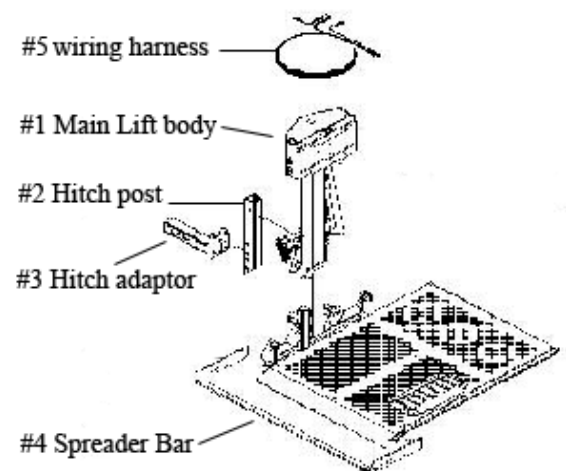
Caution: *Some scooters and power chairs may be unsuitable for transport in or on a motor vehicle. Please contact the manufacturer of your mobility device to determine its transportability.*

Section 1 - Unpacking the Lift

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

Box contents should include: (refer to diagram)

- | | |
|--|-----------------------------|
| (#1) Main lift body | Hardware pack |
| (#2) Hitch Post | (#5) Vehicle wiring Harness |
| (#3) Hitch Adapter | Required fasteners |
| (#4) Spreader Bar (used only for scooters) | Keys |
| | Black tie wraps |
| | Instruction Manual |



Section 1: Unpacking the lift

Each lift is packaged standard with a standard Class 3 hitch adapter. If a Class 2 hitch or Swing Away option is required, separate parts must be ordered. See Section 5 for installing a lift with the Swing Away option in this manual.

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

To install a Universal Lift on a vehicle, it must be capable of accepting a Class 3 or Class 2 hitch. If you are unsure about the hitch required, there are different places for you to check.

Hitch Shops - Check your local area for shops that specialize in trailer hitches. They will normally have in stock the hitch that would be required for use with the lift.

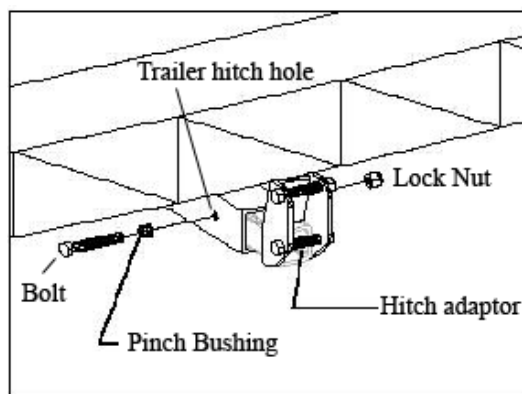
Internet - Some web sites list the compatibility of hitches with vehicles. These include the following; www.etrailer.com, www.reeseprod.com, or www.draw-tite.com.

These sites have areas where you can enter your vehicle information and it will list the types of hitches available to be installed. Remember, not every vehicle is capable of having a hitch installed. Each type of hitch is capable of bearing a different amount of tongue weight. Remember that you must add the weight of the lift to the weight of the power chair that you are purchasing and make sure that the total weight does not exceed the recommended tongue weight of the hitch. The Outside Lift weighs 95 lbs. Add 40 lbs. when using a swing away.

Your Universal Lift is equipped with a license plate holder and light. If possible, have the installer of your hitch run a standard 4 post trailer light harness to the hitch area. This will allow you to simply plug the license plate light wiring into the trailer plug with no additional wiring required at the time of lift installation.

IMPORTANT NOTE: A trailer light wiring plug is good only for the license plate light and not to power your lift. All lifts must be wired directly to the positive pole of the battery using the wiring harness supplied with the lift. Any attempt to wire the lift into ANY secondary harness will cause the lift to run poorly and possibly damage the motor. The trailer light wiring simply does not carry the proper current to power the lifting motor.

- **IMPORTANT NOTE:** The receiver tube on the hitch must be installed so that it is parallel to the ground. This is not a recommendation, but rather a requirement. If the hitch is not installed properly, it may affect the working of the lift.
- Some vehicles will require that the rear suspension be supplemented by the addition of air adjustable shocks, air bags in the springs or other devices to keep the vehicle level.
- Some Class 3 hitches are slightly larger than standard size. Lifts will fit very loosely into these hitches. The following steps describe how to use the pinch bolt assembly to insure the lift mounts tightly to the vehicle. Insert the Hitch Adapter into the vehicles trailer hitch. Bolt the Hitch Adapter to the hitch using the 1/2-13 x3-1/2 bolt, nut and pinch bolt tube. Be sure to tighten the bolts sufficiently.



Pinch Bolt Assembly

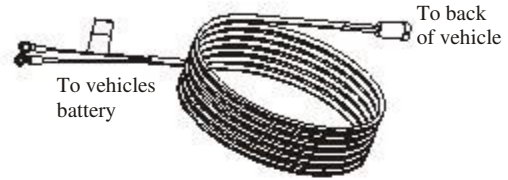
A vehicle with a Class 3 (Class 2 requires optional accessories) hitch and standard 4 post trailer wiring is ready for installation of the lift

Section 3—Wiring the Vehicle

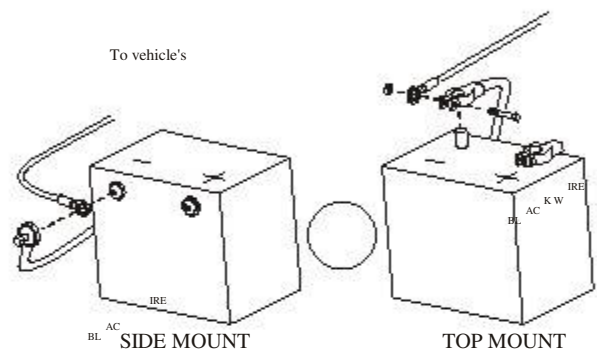
Important Note: IMPROPER WIRING IS THE #1 CAUSE OF PROBLEMS IN THE OPERATION OF A VEHICLE LIFT. FOLLOW THE WIRING INSTRUCTIONS CAREFULLY

Located in the hardware package is the vehicle wiring harness. The harness is manufactured to, and complies with the SAE J1128 requirements. The wire harness is approximately 23 ft. long and will accommodate most vehicles.

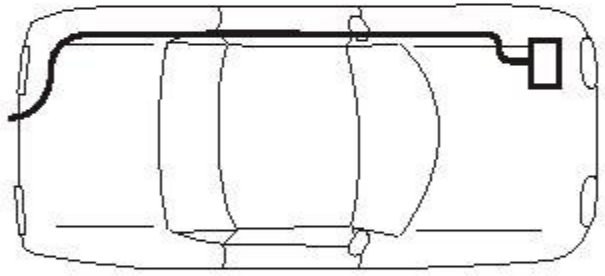
Unwind the harness and lay it flat. One end of the harness has a black plug . This is the lift end of the harness and goes to the back of the vehicle.



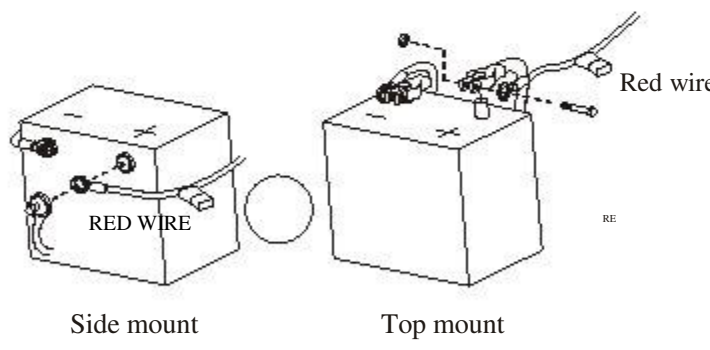
Begin routing the wiring harness at the vehicle battery. Attach the black wire to the negative terminal on the battery. **Do not attach the red wire yet.**



Run the wiring harness under or when possible through the vehicle, back to the trailer hitch. Always locate the wiring harness where it can not be snagged by road debris and away from the gas tank. If the harness is too long for the vehicle, coil the excess wire and secure it to the vehicle frame with the supplied tie wraps. **DO NOT CUT OR SHORTEN THE WIRING HARNESS.** Secure the wiring plug about even with the end of trailer hitch tube.



Attach the red wire to the positive terminal on the battery.



Important Reminder: Never attempt to attach the wire harness to a secondary power source, The lift requires direct connection to the battery.

Caution: When the installation requires the wiring harness be run on the underside of a vehicle, route the harness away from the exhaust system, brake lines, fuel lines, gas tank, pinch points, and sharp edges. Locate the wiring harness where it can not be snagged by road debris.

Manufactures Recommendation: Schedule a routine maintenance visit with the end user. We recommend the lift be greased in the applicable areas, and the wire harness connections be checked for corrosion, and/or decay, as such conditions are normal due to environmental changes.

Section 4 - Installing the Lift (no Swing Away option)

Your lift will come shipped to you factory pre-assembled.

- To prepare the lift for installation you must attach the lift to the Hitch Post and Hitch Adapter that are shipped with the lift (See parts list in section 1). The proper attachment place is determined by the height of the installed hitch on the vehicle.
- Measure from the bottom of the hitch to the ground. Use Figure 6 below to determine which set of holes to use when setting up the Hitch Post and Hitch Adapter. (See figure #5) Use the 1/2" x 3-1/2" bolts and nuts provided and tighten.

FIGURE 5

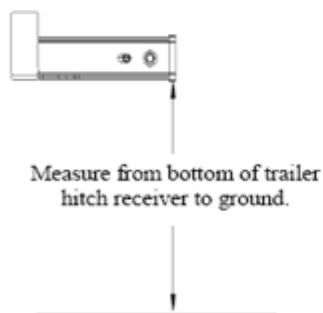
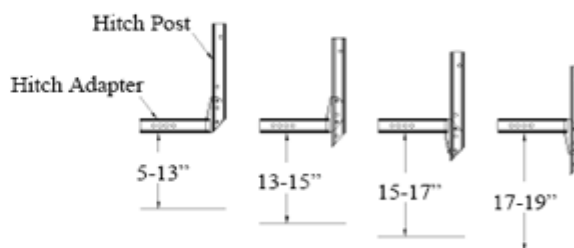


FIGURE 6



- Once you have determined the proper adjustment for the Hitch Post and have attached it to the Hitch Adapter, insert the adapter into the hitch receiver and attach it using the 1/2" x 3-1/2" bolt, (2) washers and lock nut.
NOTE: If a Class II hitch is used, the Hitch Adapter must be replaced with a Class 2 Hitch Adapter—Part # AL126.
- Move the folded lift to the rear of the vehicle with the motor box folded away from the vehicle. With assistance, carefully lift the unit up to the Hitch Post and attach it using the 1/2" bolt and lock nut provided. **DO NOT OVERTIGHTEN THIS BOLT! It is a pivot point!**

HINT!!!! Once the lift is placed behind the vehicle, plug the power cord into the harness that you have installed on the vehicle. Turn the key on and use the toggle **DOWN** switch to raise the motor box. Continue to power the lift until the mounting holes in the lift are even with the top hole in the Hitch Post. Attach the lift to the post using the supplied 1/2" bolt with lock nut and washers. Using this method will allow you to attach the lift without physically having to lift the unit and hold it while the bolt is inserted.

- Route the lift power cord down the lift away from its moving parts. The cord should follow along the post and be secured with zip ties provided to allow the lift to operate without disconnecting the power cord.



Section 5 - Installing the Lift (with Swing Away option)

Your lift will come shipped to you mostly pre-assembled.

- To prepare the lift for installation you must attach the lift to the Swing Away and Hitch Adapter. The proper attachment place is determined by the height of the installed hitch on the vehicle.
- Measure from the bottom of the hitch to the ground. Use Figure #7 below to determine which set of holes to use when setting up the Swing Away and Hitch Adapter. Use the 1/2" bolts and lock nuts provided and tighten.

FIGURE 5

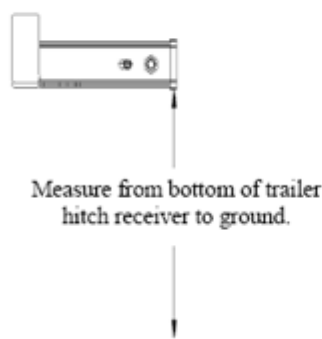
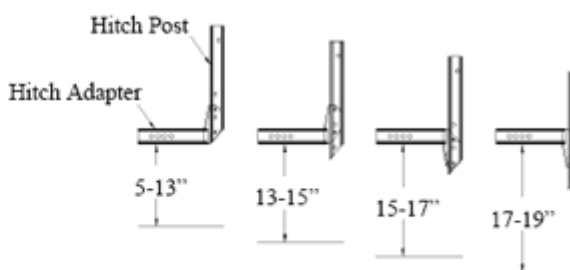


FIGURE 6



- Once you have attached the Swing Away to the Hitch Adapter, insert the Hitch Adapter into the hitch receiver. **NOTE:** If a Class 2 hitch is used, the Hitch Adapter must be replaced with a Class 2 Hitch Adapter.

CAUTION! *Never modify the Hitch Adapter in any way! This includes adding or removing material and drilling any extra holes.*

- At this point, attach the lift to the Swing Away. Move the folded lift to the rear of the vehicle with the motor box folded away from the vehicle. With assistance, carefully lift the unit up to the Swing Away and attach it using the 1/2" bolt and lock nut provided. **Do not over tighten as this is a pivot point.**

HINT!!!! *Once the lift is placed behind the vehicle, plug the power cord into the harness that you have installed on the vehicle. Turn the key on and use the toggle DOWN switch to raise the motor box. Continue to power the lift until the mounting holes in the lift are even with the hole in the Swing Away. Attach the lift using the supplied 1/2" bolt with lock nut and washers. Using this method will allow you to attach the lift without physically having to lift the unit and hold it while the bolt is inserted.*

- Route the lift power cord down the lift away from its moving parts. The cord should follow along the Swing Away arms secured with zip ties provided to allow the arms to open without disconnecting the power cord.

IMPORTANT!! NEVER OPERATE THE SWING AWAY WITH THE SCOOTER ON THE LIFT!! This will cause damage to the lift and potentially cause damage to the vehicle and the scooter!!

CAUTION!! *If the bracket that locks the swing away closed is not tight when the lever is in the closed position DO NOT use the lift until it has been properly adjusted using the nut on the bottom of the clamp. See page 7 for adjustment bolt location*

Section 6 - Operating the Swing Away Option

Many scooter and chair owners require access to the rear of a vehicle. To accomplish this, a Swing Away option is added to the lift installation. This allows the complete lift to be conveniently and easily swung away from the back of the vehicle and allow easy access to the trunk or lift gate. The Swing Away option can be purchased from any authorized dealer and added at any time.

OPENING THE SWING AWAY:

Unlock the safety clamp by pulling the snap pin chained to the clamp.
Open the safety clamp by pulling the lever down and away from the lift. This will unlock the Swing Away and allow it to be pulled open.

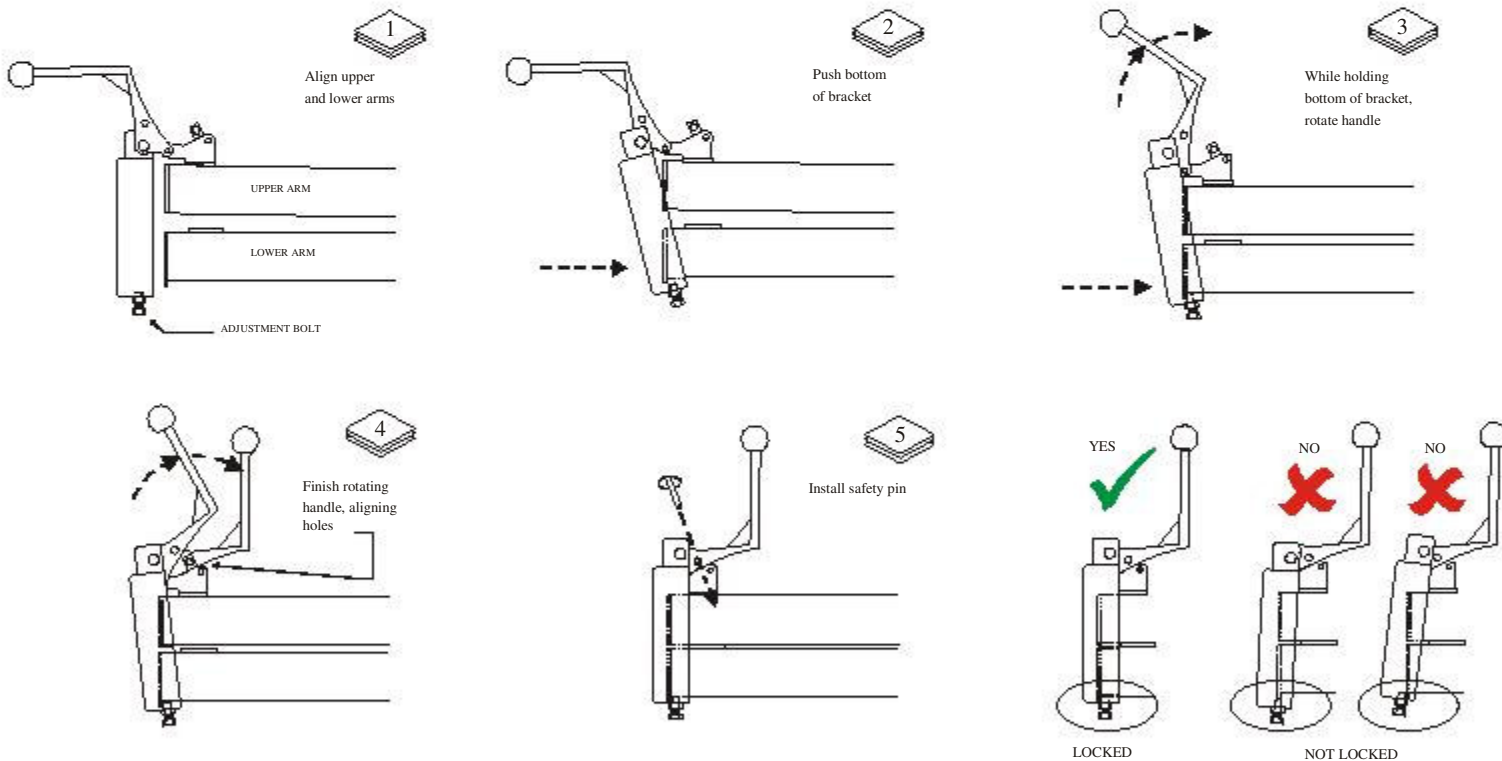
IMPORTANT !! NEVER OPERATE THE SWING AWAY WITH THE CHAIR or SCOOTER ON THE LIFT!!

This will cause damage to the Swing Away, lift and potentially cause damage to the vehicle and the chair!!

CAUTION!! Always insure that the vehicle is on level ground before attempting to open the Swing Away.
Failure to do so may result in the operator losing control of the lift causing damage to persons and property.

Grasp the lift firmly and swing it out away from the vehicle. The Swing Away can be opened up to 180 degrees from the closed position to allow full access to the rear of the vehicle.

CLOSING THE SWING AWAY:



CAUTION!! Always leave the safety pin in the clamp to lock it when the Swing Away is closed.

IMPORTANT NOTE!! If your safety clamp does not **SECURELY** latch the Swing Away arm in the closed position **DO NOT USE THE LIFT** until the clamp is adjusted by an authorized dealer. Failure to make the proper adjustment can cause the unit to open when traveling down the road.

Section 7 - Preparing your POWER WHEELCHAIR for use with the DRC-LIFT (see next page for scooters)

There are 2 options on how to attach the strap hooks to the chair that are included with the lift.

Anchor Plate: The Anchor Plate is a bar that is 20" long and 2 1/2" wide with 2 holes in each end. This plate will work with any chair that has a center seat post that attaches to the bottom of the seat. Attach the Anchor Plate by the following steps. (see figure 10)

1. Remove the seat from the chair and turn it over.
2. Loosen the screws that attach the plate to the bottom of the seat. Allow enough room to slide the Anchor Plate between the seat and the seat plate.
3. Attach the Anchor Plate in the center of the seat plate with the holes on each end extending evenly on each side of the seat.
4. Retighten the screws that hold the seat plate to the bottom of the seat.
5. Replace the seat on the chair.

The Anchor Plate should extend about 1-1/2" out from the side of the seat cushion. This will allow the user to attach the strap hooks to the Anchor Plate to secure the chair to the lift.

FIGURE 10

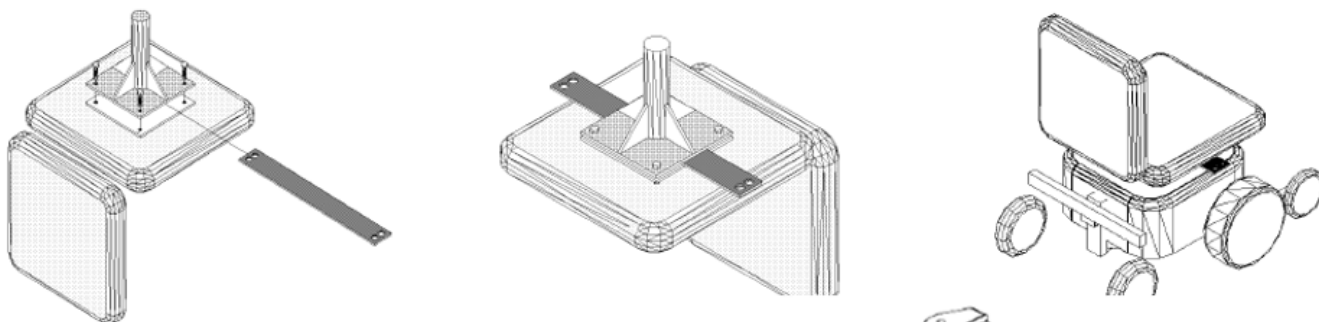


FIGURE 11

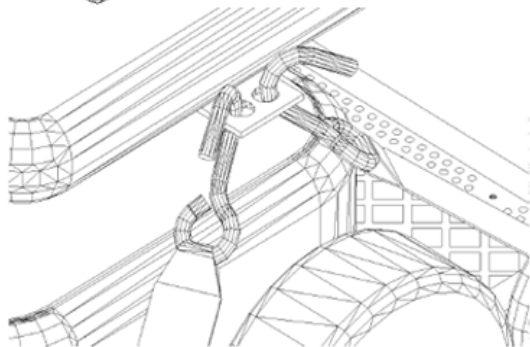
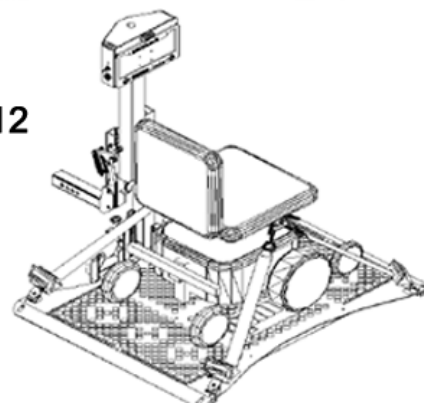


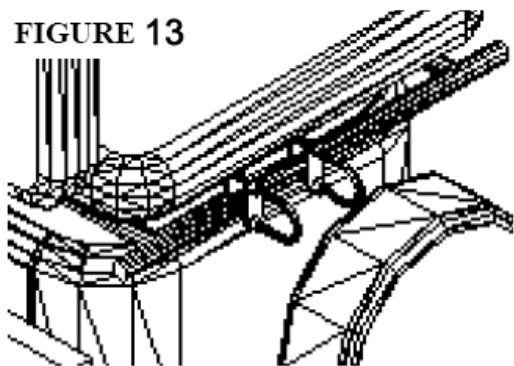
FIGURE 12



Anchor U-Bolts: The U-Bolts are to be used with Power Chairs that do not have a center seat post.

On this type of chair, the seat is normally attached to a tubular frame. Attach the U-Bolts, one on each side, to the frame as shown below. Make sure that the loop extends to the outside of the chair to allow the strap hooks to be attached by the end user.

FIGURE 13



Each type of chair will differ slightly and the placement of the U-bolts will differ between different models and manufacturers. Place the Anchor U-Bolts towards the center of the seat if possible. Because of the different types of seats, you may be forced to attach the Anchor U-Bolts more towards the front or rear of the seat, but we recommend attachment as close as possible to the center of the seat. (See Figure 13)

Load the power chair on to the platform and secure with tie down straps (sold separately). (see figure 11-14)

NOTE: THE SPREADER BAR (Part #4 PG 1) IS NOT USED WITH POWERCHAIRS, ONLY SCOOTERS. IT MAY BE REMOVED.

Raise the platform to the transporting position. Now lower the platform to the ground. Repeat this several times to make sure all parts are operating properly and the chair is properly secured.

Next, remove the power chair from the lift and using the toggle switch, cycle the lift completely up and down to make sure that all parts are in working order and the lift folds up when it is empty.

Section 7 - Preparing your SCOOTER for use with the DRC-LIFT

- The DRC-LIFT is shipped with the Spreader Bar Assembly already attached to the back of the platform on the lift. You must rotate it down until the hole in the side bracket lines up with the open hole on the attachment point on the platform. The Spreader bar should be flat on the ground at this point. Tighten the bolts where the Spreader Bar Assembly attaches to the platform.
- Load the scooter on the center of the platform. Adjust the spreader bar according to the size of the scooter that is being transported on the lift. Forward for smaller scooters and back for larger scooters. Make sure that all fasteners on the Spreader Bar Assembly are tightened before attempting to use the lift. (see picture below)



Section 8 - Operating the DRC-LIFT

LOADING YOUR POWER CHAIR ON THE LIFT

Turn ON the power switch with the key furnished with your lift. Lower the platform using the UP/DOWN toggle switch. Pushing the switch downward will cause the platform to lower. The platform will first unfold to the horizontal position, then continue lowering to the ground. Release the UP/DOWN switch just as the platform reaches the ground; do not attempt to raise the rear of the vehicle with the lift or damage could be done to your lift or vehicle.

CAUTION: Keep your feet out from under the platform as it lowers.

Once the lift platform is on the ground, drive your power chair onto the platform as close to the center of the platform as you can get. Make sure that all the chair's wheels are completely on the platform surface. Secure wheelchair or scooter to the lift with heavy duty tie down straps.

CAUTION: NEVER USE ROPE OR BUNGIE CORDS TO SECURE WHEELCHAIR/SCOOTER.

Your power chair is now ready for travel. You may wish to remove your key from the power switch to avoid any potential tampering with your lift and scooter.

CAUTION: Before driving off with your power chair on the lift, make sure that the chair is firmly strapped down the lifts base.

CAUTION: When driving with your chair on the lift, slow down for pot holes, speed bumps, railroad tracks, etc. Your lift could be damaged by abuse if subjected to excessive loads imposed by rough driving.

CAUTION: Do NOT enter steep driveways straight on. Enter and leave at an angle to the street so that you lift platform does not drag on the ground.

CAUTION: Do NOT attempt to move the vehicle with the lift platform in the down position or the lifting mechanism will be damaged.

UNLOADING YOUR POWERCHAIR:

To unload your power chair, just turn ON the power switch and push the UP/DOWN toggle switch to the down position. Hold the switch down until the platform just touches and is level to the ground. Remove all ties down straps. Drive your power chair off the lift platform. When the power chair is clear of the platform, raise the platform by pushing up on the UP/DOWN switch.

To park your lift in the stowed position, hold the UP switch. The platform will start up in the horizontal position. During its travel upward, the platform will fold up into the stowed or vertical position. Hold the switch until the platform travel stops automatically.

Do not attempt to move the vehicle without the lift in the stowed or travel position. Any attempt to move the vehicle without the lift fully up may cause damage to the lift, scooter or vehicle.

Special Note: The lift features a manual override. If the vehicle or lift loses power, simply UNPLUG THE LIFT. Remove the round plastic cap from the top of the motor box and using a 3/8" socket, turn the wrench clockwise to raise the lift and counter clockwise to lower the lift. (If the lift does not operate properly, immediately take it to the local dealer. DO NOT attempt to modify the lift in any way!)

Section 9 - Safety & Maintenance

SAFETY:

- Inspect the condition of your lift often. **If any parts are worn or damaged DO NOT USE THE LIFT.** Immediately contact the dealer you purchased the lift from for repairs.
- **Caution:** Keep feet and any other objects out from under the platform as it lowers.
- **Caution:** Some power chairs and scooters have pneumatic (air inflated) tires. If your power chair has this type tire, be sure the tires are properly inflated. Improper inflation of the tires will change how the unit fits on the platform and therefore change the amount of clamping force on the power chair.
- **Caution:** Before driving off with your power chair or scooter on the lift, make sure that the chair is firmly held down on the platform.
- **Caution:** When driving with your power chair or scooter on the lift, slow down for pot holes, speed bumps, railroad tracks, etc. **Your lift could be damaged by abuse if subjected to excessive loads imposed by rough driving.**
- **Caution:** Do not enter steep driveways straight on. Enter and leave at an angle to the street so that your lift platform does not drag on the ground.
- **Caution:** Do not attempt to move the vehicle with the lift platform in the down position. If moved this way, the lifting mechanism will be damaged.
- **WARNING! This lift is not meant for human transport. Power chair must be unoccupied before operating lift.**
- These lifts are for power chair transport only. **Do not** attempt to transport any other vehicles or materials on the lift other than what it is designed for.

MAINTENANCE:

- The Universal outside lift has been designed to be as trouble free as possible for the owner. The maintenance schedule is no exception.
- Every 30 days oil the pivot points on all moving parts.
- During winter and under dirty and dusty conditions, re-grease the inside square tube every 30 days. Lower the platform to the ground and clean the square shaft with mineral spirits, WD-40 or any good solvent. Once clean, grease the square shaft with a high grade water-resistant grease, such as boat trailer wheel bearing grease.

NOTE: Your lift was assembled at the factory with Slick 50 "ONE GREASE".

- 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.

Warranty:

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

Troubleshooting guide

The lift does not operate

- Check the power supply. The wiring harness red wire must be run directly from the battery and the ground MUST be run to the frame of the vehicle.
- Run the lift from a shop battery and not through the vehicle wiring harness. If this solves the problem, check the vehicle wiring harness for bad connections or broken wires.

NOTE: Each lift is equipped with a manual motor override located on the top of the motor box. Simply remove the cap and use a 3/8" socket to manually operate the lift. **CAUTION!!** Make sure the key is in the "off" position and no power is connected to the lift. **SERIOUS INJURY MAY OCCUR IF POWER RESUMES DURING MANUAL OPERATION OF THE LIFT!**

The motor does not lift the platform completely when in use.

- Check the ground wire and make sure it is grounded directly to the vehicle frame. A poor ground will cause the motor to run slow and have less lifting capacity.
- Run the lift from a shop battery and not through the vehicle wiring harness. If this solves the problem, check the ground location and make sure it is grounded to bare metal on the frame of the vehicle.

The motor works intermittently

- Check the ground wire and make sure that it is grounded to the FRAME of the vehicle. Grounding the lift to any other location may cause loss of ground and intermittent loss of power.
- Check the wires leading to the toggle switch in the motor housing box. All connections must be securely on the switch.

The platform does not fold properly when not in use.

- Check to make sure that there are no obstructions in the pivot area of the platform.
- Check the silver "J cam" located on the side of the main telescopic tube for wear or damage.
- Check the springs attached to the "J cam" for wear or damage.

There is a ratcheting sound when the lift is all the way up or down.

- This is a normal sound. It is the clutch activating when the lift reaches the end position. This sound should only occur when the toggle switch is being pressed and the platform is at its highest and lowest point.

The license plate light does not work.

- This light runs from the 4 prong trailer plug located on the vehicle wiring harness that powers the lift. Most hitch installers will install this type of wiring when the hitch is installed. If no such plug exists, it may be wired directly to a tail light or license plate light.

What do I do with the extra length of wire leading to the motor of the lift?

- This wire is there in case a Swing Away Option is used with the lift. If a Swing Away is not installed, coil the extra wire and zip tie it to the frame of the lift out of the way of any moving parts. We recommend leaving the wire in case a Swing Away is added to the lift at a later time.

The lift does not reach the ground when lowered completely.

- Check the attachment of the Hitch Adapter to the Hitch Post on the back of the lift (See Figure #6 in section 4). The normal range of operation for the lift is 5 to 19 inches to the bottom of the hitch. Any higher vehicles will require a custom bracket.

The lift bottoms out when going over bumps or in driveways.

- Check the attachment of the Hitch Adapter to the Hitch Post on the back of the lift (See Figure #6 in section 4). The normal range of operation for the lift is 5 to 19 inches to the bottom of the hitch. The lift should be installed at the highest position possible.

I have lost my keys.

- Enter driveways at an angle
- Contact the dealer where the lift was purchased. If they do not have extra keys in stock, they can get them from the manufacturer.