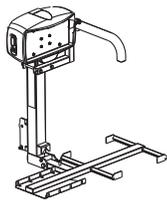
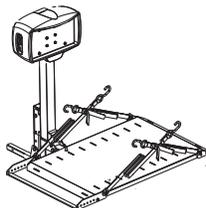




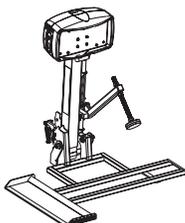
# INSTALLATION & OWNER'S MANUAL



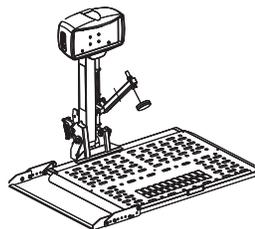
**AL030 Power Tote  
Folding Manual Wheelchair Lift**  
Capacity: 100 lbs



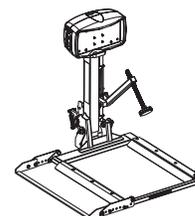
**AL010/050 Micro Power  
Chair / Scooter Lift**  
Capacity: 135 lbs



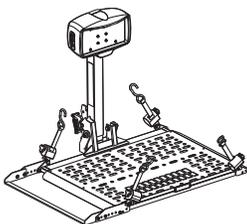
**AL015 Micro Scooter Lift**  
Capacity: 100 lbs



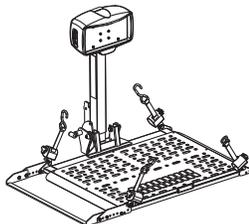
**AL100 Universal Scooter Lift**  
Capacity: 350 lbs



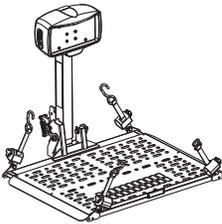
**AL160 Low Profile Universal Scooter Lift**  
Capacity: 350 lbs



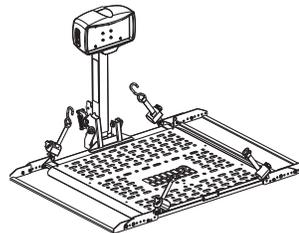
**AL300 Universal Scooter/Power Chair Lift**  
Capacity: 350 lbs



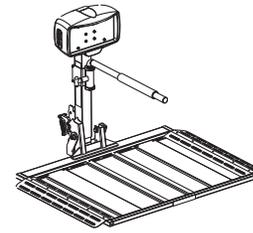
**AL300RV RV Lift  
Scooter/Power Chair Lift**  
Capacity: 350 lbs



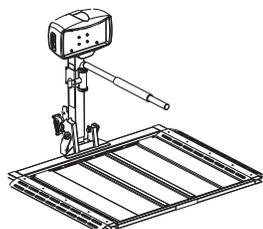
**AL500 Universal Power Chair Lift**  
Capacity: 350 lbs



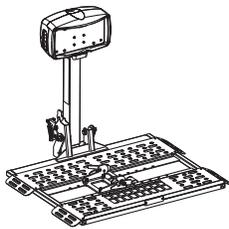
**AL301XL Extra Wide Universal Power Chair Lift**  
Capacity: 350 lbs



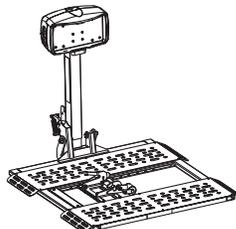
**AL560 Auto Hold Down  
Power Chair Lift**  
Capacity: 350 lbs



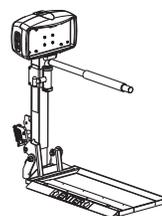
**AL560XL Extra Wide Auto Hold  
Down Power Chair Lift**  
Capacity: 350 lbs



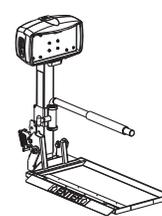
**AL570 Auto Hold Down  
Power Chair Lift**  
Capacity: 350 lbs



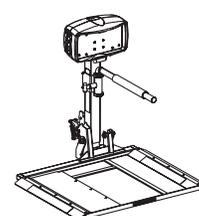
**AL570XL Extra Wide Auto Hold  
Down Power Chair Lift**  
Capacity: 350 lbs



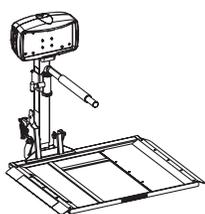
**AL580 Power Chair Lift**  
Capacity: 350 lbs



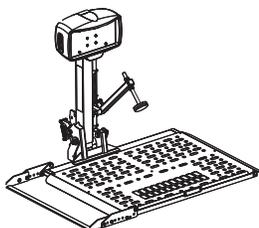
**AL580XL Power Chair Lift**  
Capacity: 350 lbs



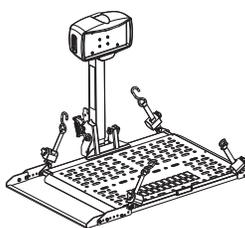
**AL585-SEL Power Chair Lift**  
Capacity: 250 lbs



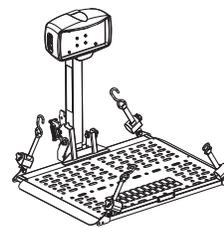
**AL585-SS Power Chair Lift**  
Capacity: 250 lbs



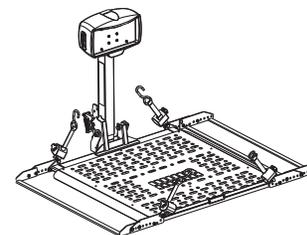
**AL100HD Heavy Duty Scooter Lift**  
Capacity: 400 lbs



**AL300HD Heavy Duty Scooter/  
Power Chair Lift**  
Capacity: 400 lbs



**AL500HD Heavy Duty  
Power Chair Lift**  
Capacity: 400 lbs



**AL301XLHD Extra Wide Heavy Duty  
Power Chair Lift**  
Capacity: 400 lbs

*Read manual thoroughly before attempting to install or operate lift.*

This manual has been provided to assist you with lift installation and operation. For further assistance please contact your authorized Harmar Mobility dealer or Harmar's Technical Service Department.

Tech: 800-833-0478

Fax: 866-234-5680

Email: [tech@harmar.com](mailto:tech@harmar.com)

Dealer /  
Installer :

Serial Number:



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## **INSTALLATION**

Wiring the Vehicle .....p 5  
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 Installation with a Swing Away.....p 10  
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## **PREPARATION**

Chair Preparation General .....p 12  
 Lift Preparation (AL015, AL100, and AL160).....p 13  
 Lift Preparation (AL010 and AL050).....p 14  
 Lift Preparation (AL560 Series).....p 15  
 Hold Down Arm Adjustment (AL560 & AL580 Series).....p 16  
 Chair Preparation (AL570 Series).....p 17  
 Lift Preparation (AL570 Series).....p 18

## **OPERATION**

Operation General .....p 19  
 Operation Specifics (Micro-Lifts) .....p 20  
 Operation Specifics (AL570 Series) .....p 21  
 Operation Swing Away Option ( AL105 & AL105L ) .....p 22

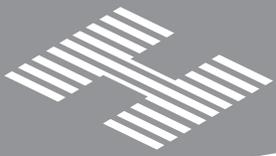
## **TECHNICAL**

Using the Manual Override .....p 23  
 Safety & Maintenance .....p 24  
 Troubleshooting .....p 25  
 Exploded Views / Parts List .....p 26-46  
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### SIGNAL WORDS

### DEFINITION

 <b>WARNING</b>	Indicates a hazardous situation that if not avoided, could result in moderate to serious injury.
 <b>CAUTION</b>	Indicates a hazardous situation that if not avoided, could result in moderate to serious property damage.



# REQUIRED TOOLS

The following is a suggested list of basic tools to have on hand during installation. Harmar lifts are designed to install with as little assembly by the installer as possible.



**SOCKET SET**  
Specifically

- 3/8"
- 7/16"
- 1/2"
- 9/16"
- 3/4"



**WRENCH SET**  
Specifically

- 7/16"
- 1/2"
- 9/16"
- 3/4"



**ALLEN WRENCH**  
Specifically

- 1/8"
- 3/16"
- 5/16"



**WIRE CUTTERS**



**NEEDLE NOSE  
PLIERS**

**#2 FLAT HEAD  
SCREWDRIVER**



**#2 PHILLIPS HEAD  
SCREWDRIVER**



**MARKING  
IMPLEMENT**

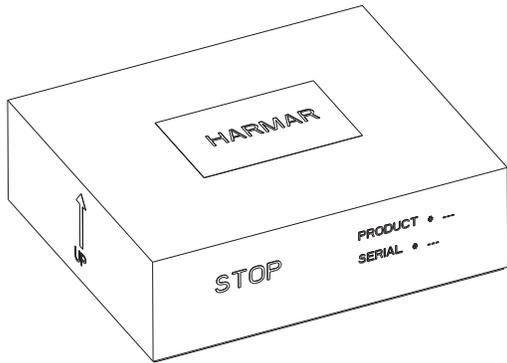


**TAPE MEASURE**

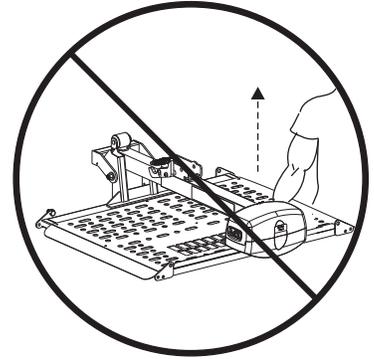


As always, if you have any questions, concerns or comments, please feel free to contact Harmar's Technical Service Department at 1-800-378-6648 or "tech@harmar.com" 

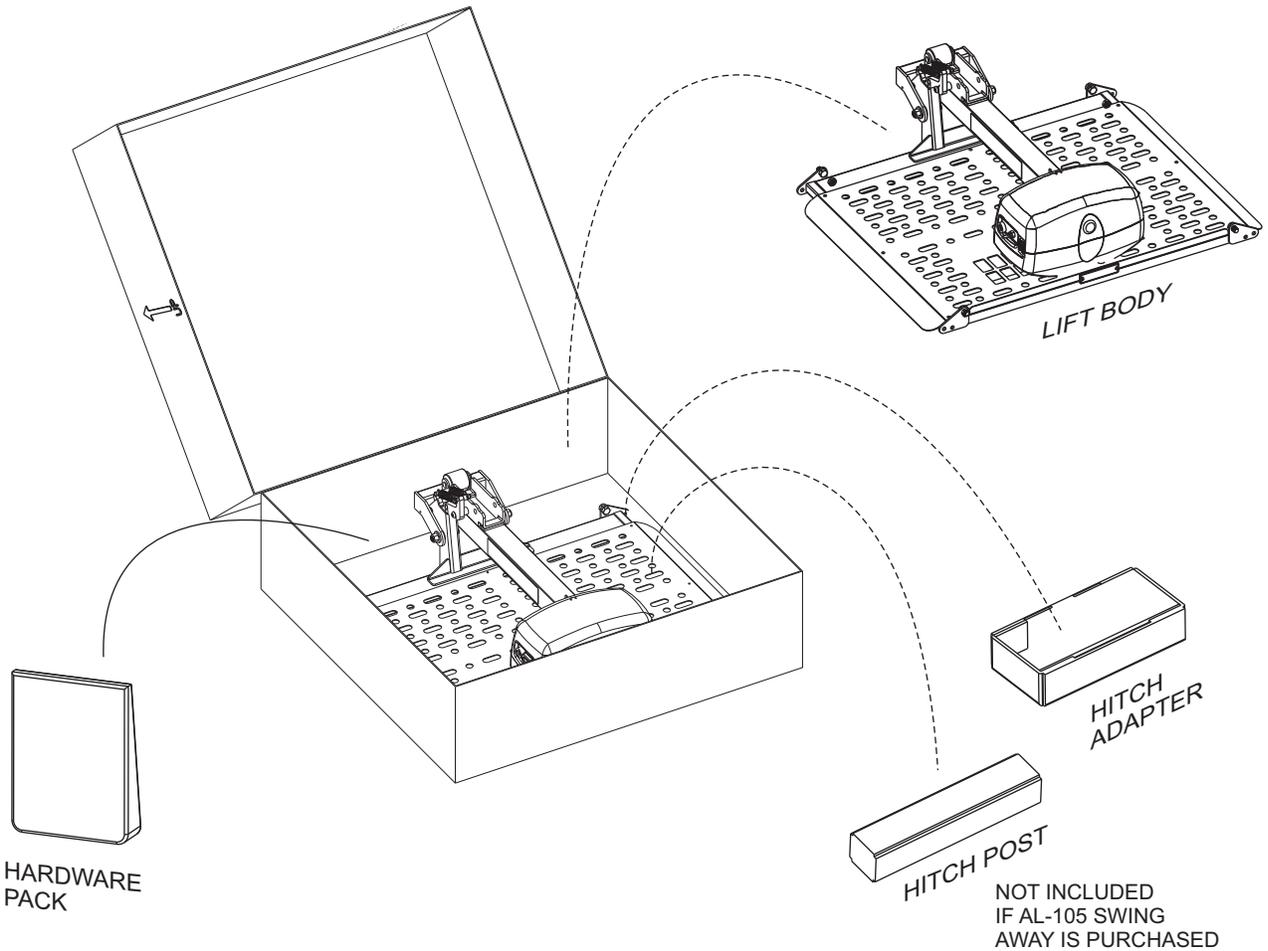
# UNPACKING THE LIFT



**DO NOT  
LIFT  
FROM  
MOTOR  
COVER**



Be sure to check the contents of the box against the package checklist verifying all parts are included with the lift for a proper installation. If any parts are missing or damaged, immediately contact the distributor from which you purchased the lift. **DO NOT** attempt to install or use the lift with any missing or damaged parts.





# INSTALLATION OVERVIEW

Never attempt to pickup the lift from the box, from the ground, or on/off a vehicle by yourself. If the proper installation procedure is followed, it will never require lifting, and practically installs itself.

Please read, follow, and fully understand the installation section of this manual before beginning. Knowledge of the lift's adjustments and valuable hints on technique will save time, and possible injury.



**WARNING**

## Quick Reference - Installation Procedure

As easy as 1-2-3!

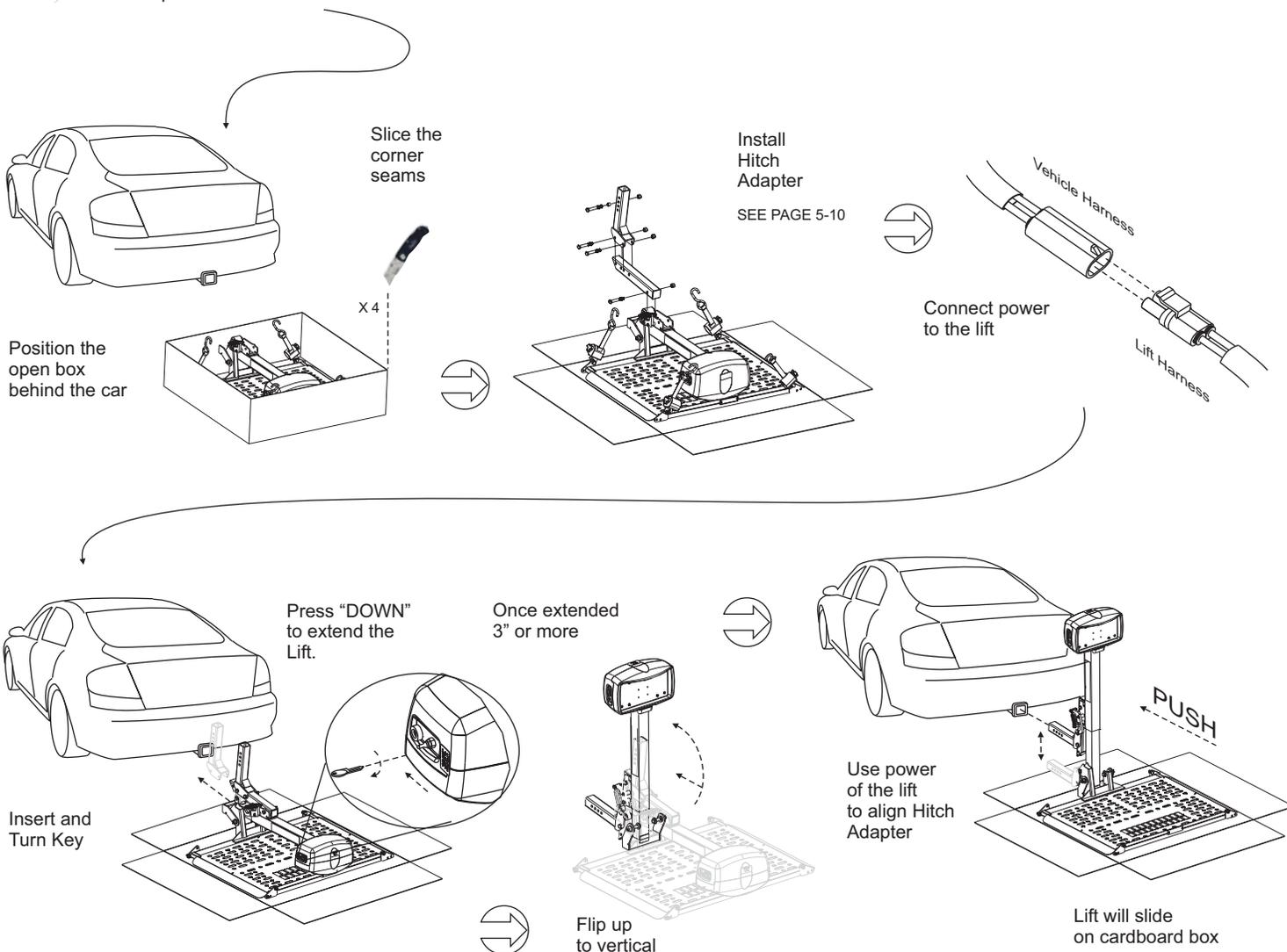
1 Install Vehicle Harness --- page 4 -----

Installing the vehicle harness first will assure you have power to the lift during installation. This allows the motor to do the lifting for you. (If this step is skipped, use a shop battery.)

2 Determine / Install Hitch Height / Adapter --- page 5-10 -----

Measuring the hitch to ground distance assures you select the proper orientation of the components the first time between the lift and the vehicle, so the platform reaches the ground while maintaining the best ground clearance.

3 Power up Installation



# WIRING THE VEHICLE



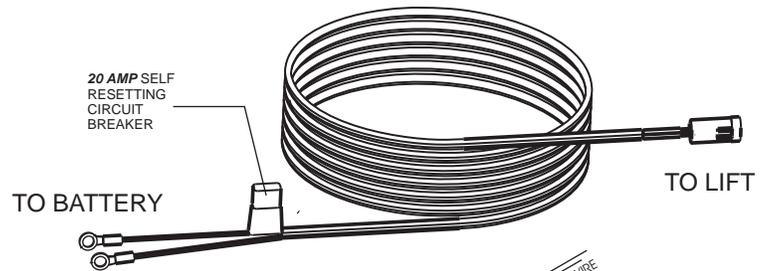
## **IMPROPER WIRING IS THE #1 CAUSE OF PROBLEMS IN THE OPERATION OF A VEHICLE LIFT.**

FOLLOW THE WIRING INSTRUCTIONS CAREFULLY

Located in the hardware pack is the vehicle wiring harness. The harness is manufactured to, and complies with the SAE J1128 requirements. The harness is approximately 23 feet long and will accommodate most vehicles. Follow these instructions to assure proper installation.

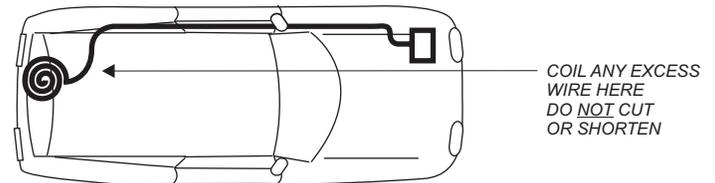
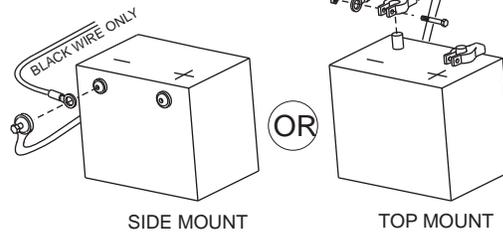
**⚠ WARNING** **DO NOT CONNECT RED WIRE UNTIL THE VERY END.**

1. Unwind the harness and lay it flat. One end of the harness has a black connector. This is the lift end of the harness and goes to the trailer hitch area where the lift will mount.
2. 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 UNTIL THE END.**
3. Run the wiring harness under, or when possible through the vehicle, back to the bumper / trailer hitch. Always locate the wiring where it cannot be snagged by road debris and away from the gas tank. Through the vehicle is best, gaining entry into the vehicle through the firewall. However if you wish to run the harness under the vehicle, use supplied wire ties to secure the wire against the frame, avoiding moving parts / hot parts such as exhaust. If the harness is too long, coil the excess wire and secure it to the frame / bumper with supplied wire ties.



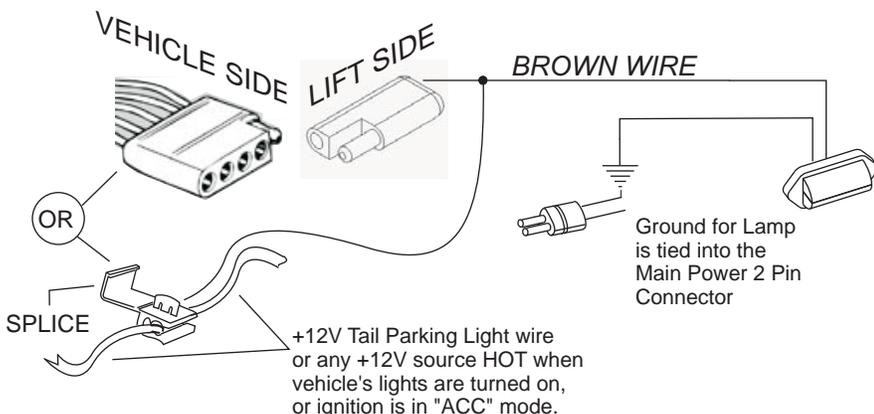
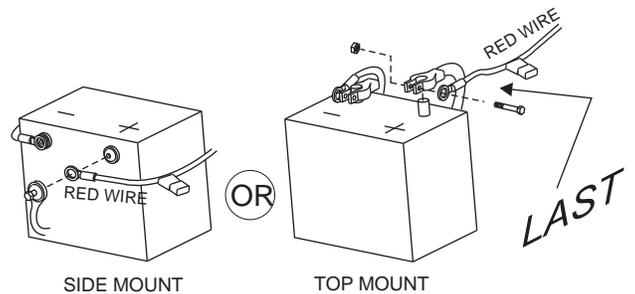
**⚠ CAUTION**

NEVER ATTEMPT TO CONNECT THE HARNESS TO A SECONDARY POWER SOURCE. ALWAYS CONNECT BOTH LEADS DIRECTLY TO THE BATTERY



**⚠ CAUTION** **DO NOT CUT OR SHORTEN THE HARNESS.**

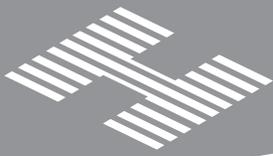
4. Plug connector into the lift.
5. Attach red wire to the positive terminal on the battery.
6. A standard 2 contact trailer connector is also included with the lift. This is for the illumination of the license plate lamp. If your vehicle is not equipped with the proper connector, a wire splice, using the BROWN WIRE can be made to achieve the same result.



### TECH NOTE: MOTOR TEST

PROBING FOR 12 VOLTS MAY INDICATE A CONNECTION, BUT NOT NECESSARILY A SUFFICIENT CONNECTION. THE LIFT'S MOTOR CAN DRAW UP TO 30 AMPS AT SOME POINTS, REQUIRING ALL OF THE AVAILABLE WIRE TO FLOW PROPER CURRENT. POOR CONNECTIONS ARE THE #1 PROBLEM ASSOCIATED WITH A SLOW, INTERMITTENT, WARM, POORLY PERFORMING MOTOR. NOT ONLY WILL THE MOTOR PERFORM POORLY, BUT WILL PREMATURELY DETERIORATE.

IF A SINGLE STRAND OF A MULTI-STRAND WIRE IS MAKING CONTACT, 12V WILL APPEAR ON THE METER, OR TEST LIGHT, BUT WILL NOT ALLOW THE MOTOR TO OPERATE. IT IS ALWAYS BEST TO TEST BOTH CURRENT AND VOLTAGE, OR RUN THE MOTOR WITH KNOWN GOOD SHOP BATTERY OR POWER SOURCE WHEN TROUBLESHOOTING.



To install an Outside Lift on a vehicle, the vehicle must be capable of accepting a Class 1, 2, or 3 Hitch. If you are unsure about the vehicle and hitch capability, contact a local hitch installer or the web sites below. The vehicle should also be wired with a standard 4 connector trailer wiring.

Listed below are three web sites of hitch companies that can be used as reference.



[www.hitch-web.com](http://www.hitch-web.com), [www.reeseprod.com](http://www.reeseprod.com), or [www.draw-tite.com](http://www.draw-tite.com)



Be sure to use a hitch installer that is reputable, insured, and capable as their work has a direct reflection on the customers perception of a properly installed mobility lift.

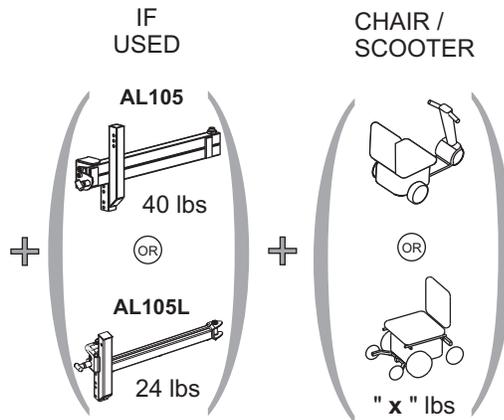
### NOT EVERY VEHICLE IS CAPABLE OF HAVING A HITCH INSTALLED

Calculate the weights of the lift, mobility device, and where applicable the swing away option, being certain that the total weight does not exceed the recommended tongue weight of the hitch. Different types of hitches are capable of bearing different amounts of weight.

The lift manufacturer suggests the installer observe the vehicles **Gross Vehicle Weight Rating** restrictions.

PRODUCT: HITCH CLASS: WEIGHT:

AL003.....ball,1,2, or 3.....	25 lbs
AL010/050.....1,2 or 3.....	71 / 67
AL015.....1,2, or 3.....	62 lbs
AL030.....ball,1,2, or 3.....	49 lbs
AL100.....2 or 3.....	83 lbs
AL160.....1,2, or 3.....	74 lbs
AL300.....2 or 3.....	80 lbs
AL301XL.....2 or 3.....	100 lbs
AL500.....2 or 3.....	75 lbs
AL560.....2 or 3.....	89 lbs
AL560XL.....2 or 3.....	101 lbs
AL570.....2 or 3.....	69 lbs
AL570XL.....2 or 3.....	79 lbs
AL580.....2 or 3.....	63 lbs
AL580XL.....2 or 3.....	63 lbs
AL300HD.....3 or 5.....	82 lbs
AL500HD.....3 or 5.....	77 lbs
AL301XL HD.....3 or 5.....	102 lbs



**WARNING**

**Must NOT Exceed Hitch Manufacturer's Max Tongue Weight**



**CAUTION**

Some states have very strict license plate obstruction laws, so be sure to familiarize yourself with the local and state laws.

Assure the receiver tube of the hitch is installed parallel to the ground. This is not a recommendation, but a requirement. If the hitch is not properly installed it will affect the function of the lift.

Some vehicles will require that the rear suspension be supplemented. The manufacturer recommends the installer contact a suspension specialist for additional technical support.

A vehicle with a Class 3 ( Class 2 requires optional accessories ) hitch and standard 4 connector wiring is ready for installation.

# HITCH ADAPTERS



A **Hitch Adapter** is the interface between the lift and vehicle. It is a part that plugs into a vehicle's trailer hitch. Several Hitch Adapters are available to fit the needs of different vehicles.



For proper lift operation:

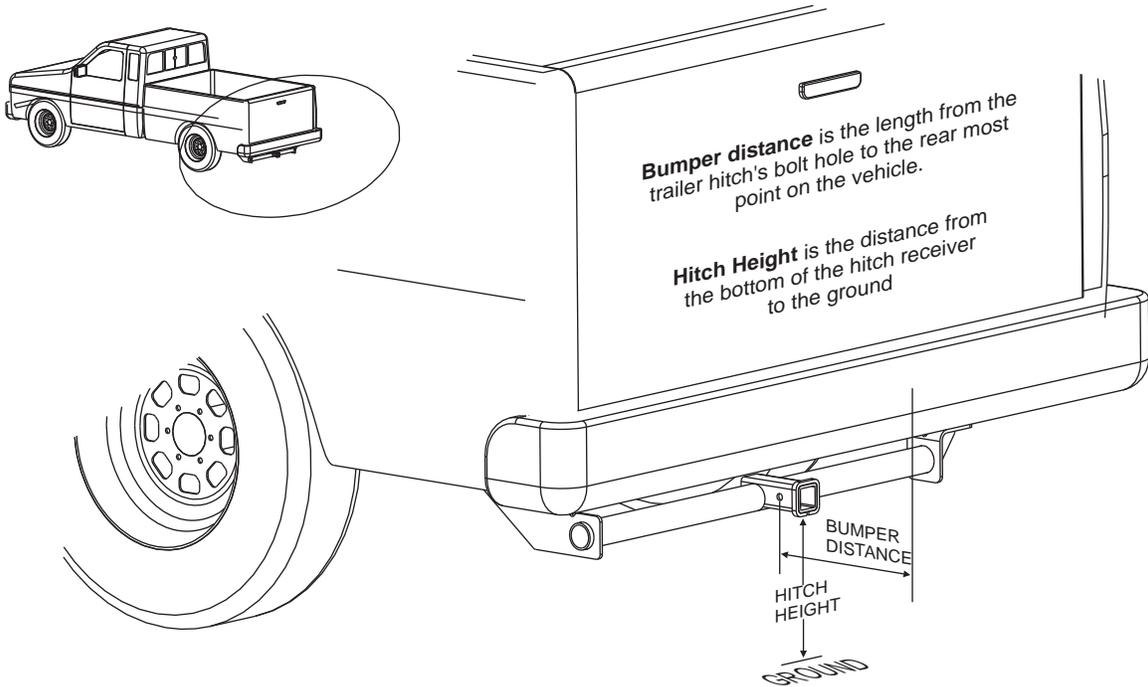
When selecting a Hitch Adapter you should determine the **Hitch Class**, measure **Bumper Distance**, and measure **Hitch Height**.

Usually printed on the trailer hitch, it can also be determined by measuring the inside of the receiver on the trailer hitch.

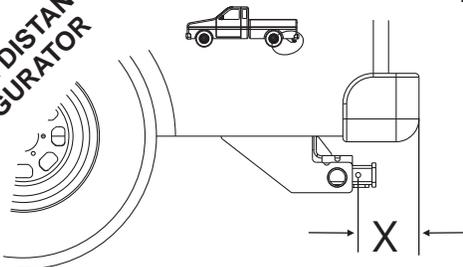
**WARNING**

**-HARMAR REQUIRES THE USE OF HARMAR APPROVED HITCH ADAPTERS ONLY.**  
**-THE USE OF HITCH EXPANDERS AND EXTENDERS IS STRICTLY PROHIBITED.**  
**-USE OF SUCH ITEMS OR ANY OTHER AFTERMARKET ACCESSORY MAY CAUSE DAMAGE TO VEHICLE, LIFT, AND/OR PERSON.**

**WARNING**

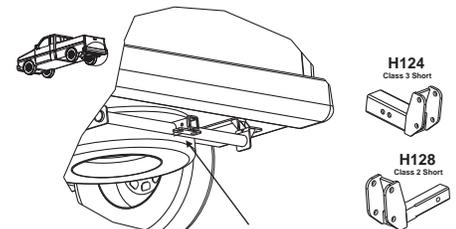


**BUMPER DISTANCE CONFIGURATOR**



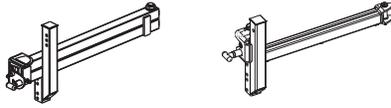
IF:	X=0-7.5"	X=7.5"-10"	X=10"-13.5"
CLASS 3	AL123 Standard Class 3	AL125 Class 3 Extra long	AL125 Class 3 Extra long
CLASS 2	AL126 Standard Class 2	AL127 Class 2 Extra long	Please contact Harmor's Technical Service Dept.

For SOME shallow hitches, ex. Spare Tire blocked hitches, a short Hitch Adapter may be required.



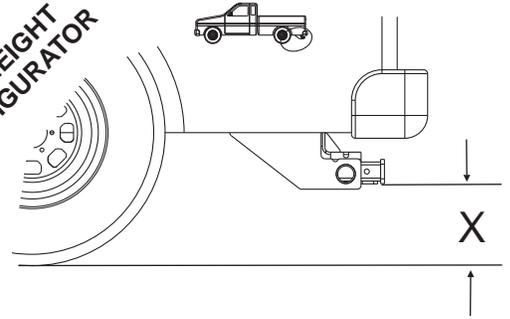
The effective range of the Hitch Adapter changes slightly if the Lift is equipped with the standard AL107 Hitch Post,

or if equipped with a Tail Gate / Back Hatch accessibility option, the AL105 OR AL105L Swing Away



**CLASS 3 HITCH**

**HITCH HEIGHT CONFIGURATOR**



**CLASS 2 HITCH**

if X =	STANDARD MOUNT AL107 HITCH POST (NO SWING AWAY)	SWING AWAY (OPTIONAL)	if X =
6"			6"
7"			7"
8"			8"
9"			9"
10"			10"
11"			11"
12"			12"
13"			13"
14"			14"
15"			15"
16"			16"
17"			17"
18"			18"
19"			19"
20"			20"
21"			21"
22"			22"
23"			23"
24"			24"
25"			25"
26"			26"

if X =	STANDARD MOUNT AL107 HITCH POST (NO SWING AWAY)	SWING AWAY (OPTIONAL)	if X =
6"			6"
7"			7"
8"			8"
9"			9"
10"			10"
11"			11"
12"			12"
13"			13"
14"			14"
15"			15"
16"			16"
17"			17"
18"			18"
19"			19"
20"			20"
21"			21"
22"			22"
23"			23"
24"			24"
25"			25"
26"			26"

Should the measurement fall in between, ex. 18-1/2", round up if greater than or equal to 1/2", round down if less than 1/2".

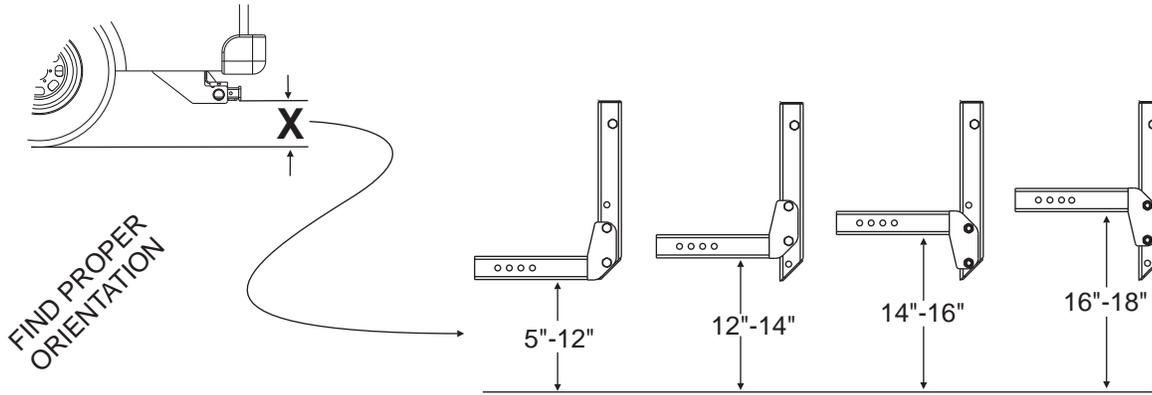
Combination Hitch Adapters are available ( ex. Short Class 3, 5in Drop or Long Class 2, 2in Drop )

*If you have any questions / concerns about selecting the appropriate Hitch Adapter for your application, please contact Harmar's Technical Service Department, and a highly trained representative will be happy to assist*

# INSTALLATION w/ HITCH POST



The Hitch Adapter's orientation and location can be utilized to achieve a range of different lift heights, optimizing the vehicle's ground clearance, while assuring the platform will reach the ground and lay flat at the end of travel. Please consult the diagram below to select the orientation needed for the vehicle, based off the Hitch Height. ( Vehicle's hitch receiver distance to the ground. )



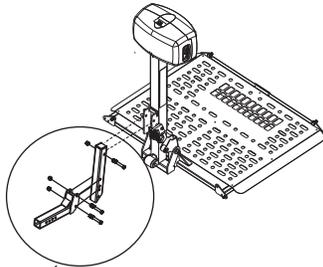
## WARNING

Please refer to page 4 for a helpful procedure on performing this installation

1

Attach Hitch Adapter to Hitch Post orientated properly according to the application's Hitch Height.

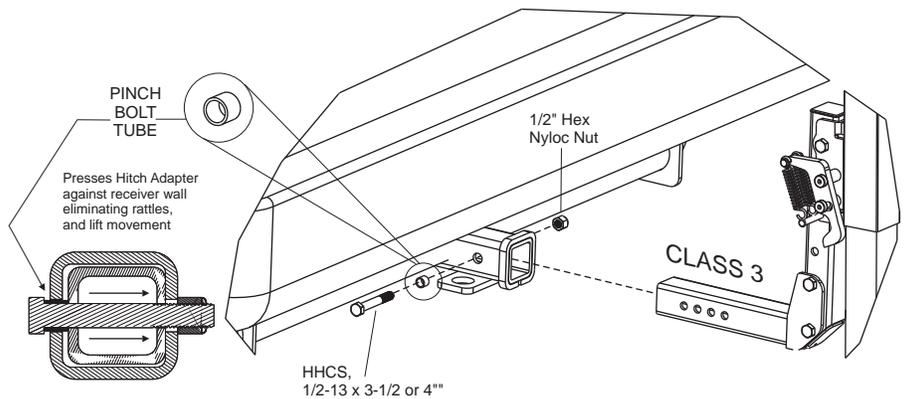
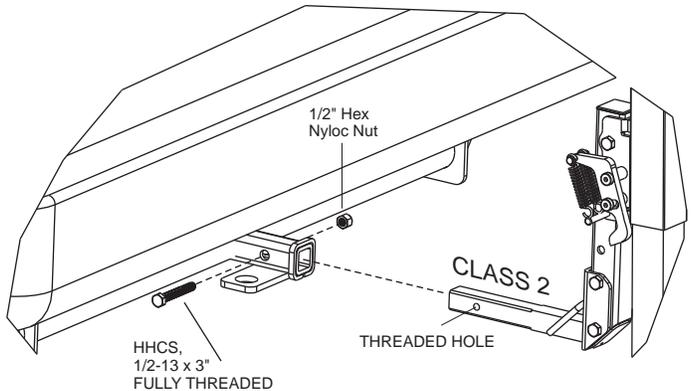
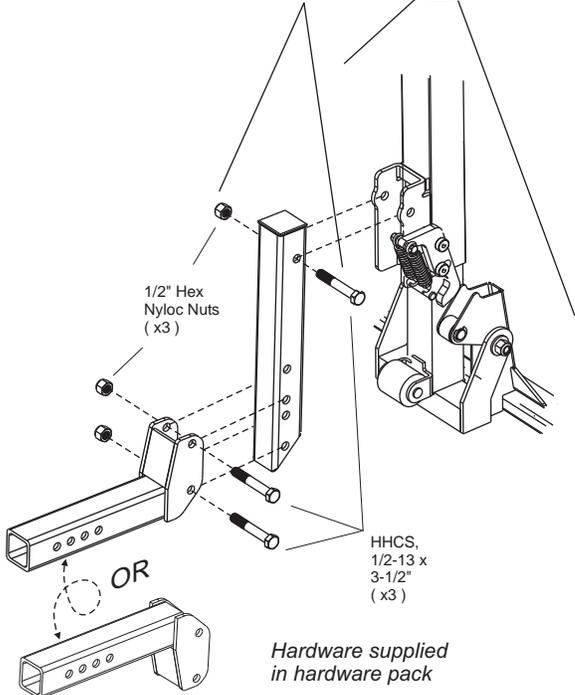
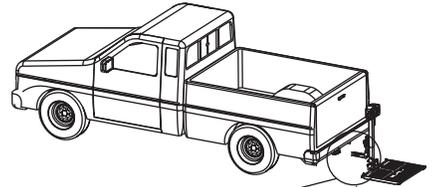
Attach Hitch Post to Lift  
Do NOT over tighten here



2

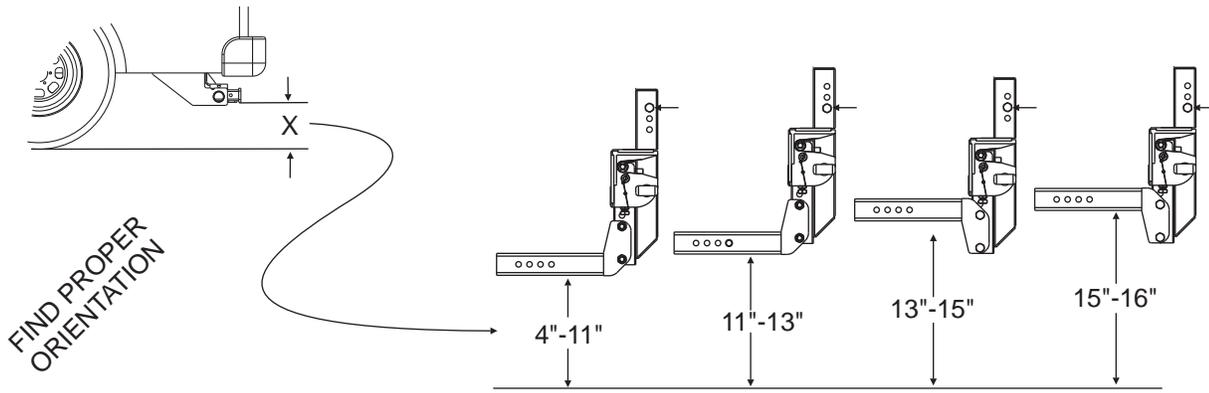
Slide Hitch Adapter into vehicle's hitch receiver.

Fasten Adapter according to class of hitch.



# INSTALLATION w/ SWING AWAY

The Hitch Adapter's orientation and location can be utilized to achieve a range of different lift heights, optimizing the vehicle's ground clearance, while assuring the platform will reach the ground and lay flat at the end of travel. Please consult the diagram below to select the orientation needed for the vehicle, based off the Hitch Height. ( Vehicle's hitch receiver distance to the ground. )



## WARNING

Please refer to page 4 for a helpful procedure on performing this installation

1

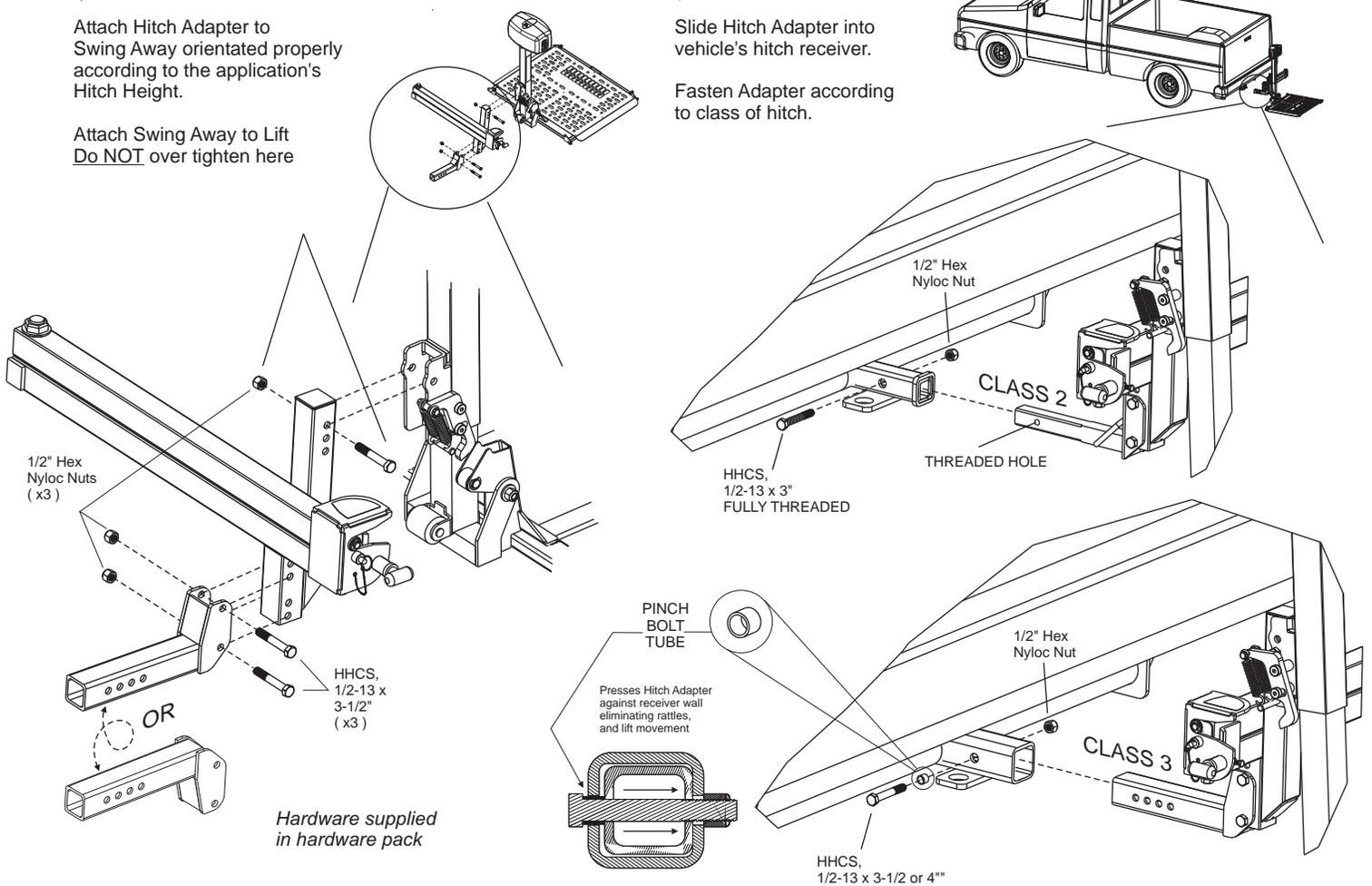
Attach Hitch Adapter to Swing Away orientated properly according to the application's Hitch Height.

Attach Swing Away to Lift  
Do NOT over tighten here

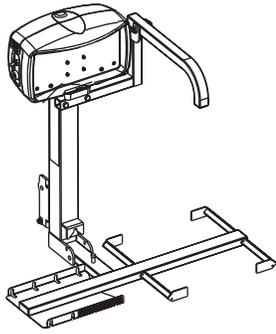
2

Slide Hitch Adapter into vehicle's hitch receiver.

Fasten Adapter according to class of hitch.



# AL030 POWER TOTE INSTALLATION



Ball Mount Hitch Adapter and stabilizer

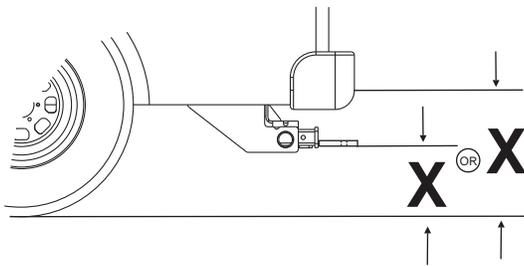
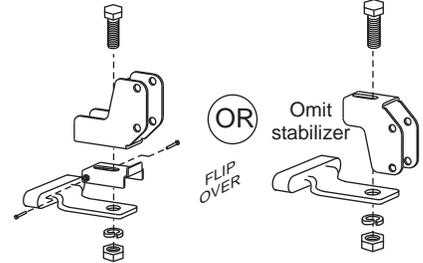
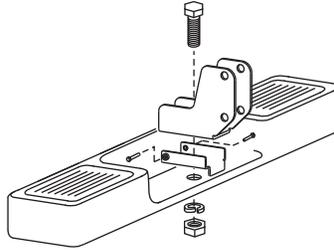
**FOR AL030 ONLY**  
( Ball Mount Hitch adapter )

**Bumper Mount**  
( Be sure to comply with vehicle's bumper rating )

**Flat Bar Style**  
( Be sure to comply with vehicle's bumper rating )

STANDARD EQUIPMENT SHIPPED w/ AL030 POWER TOTE

( AL030 can also be upgraded w/ Class 3 and Class 2 Hitch adapters )

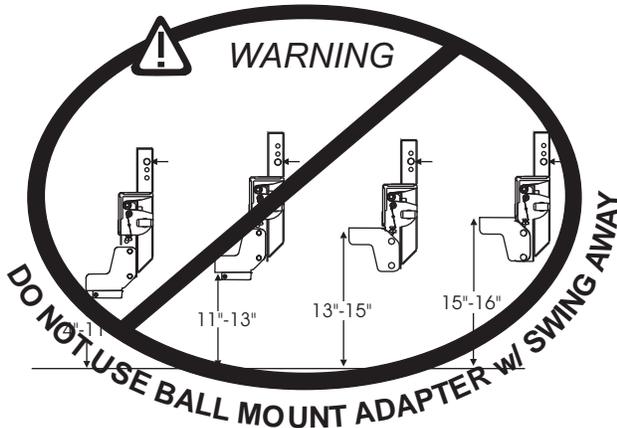
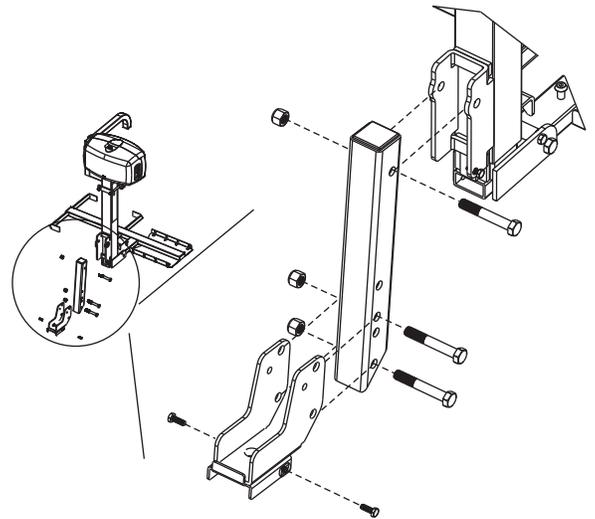
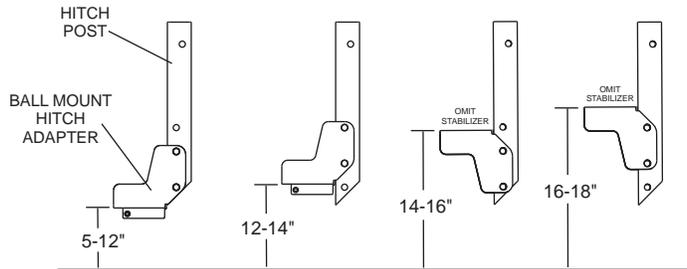


**WARNING**

Do not attempt to mount up from under Flat Bar

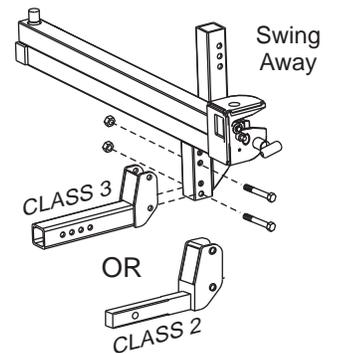


When using the Ball Mount Hitch adapter, Hitch Height is dependant on whether the Adapter will be located on the bumper, or on the flat bar of the vehicle.



Only Class 3 or 2 Hitch Adapters can be used with a Swing Away

Please refer to "Installation w/ Swing Away" for mounting orientation



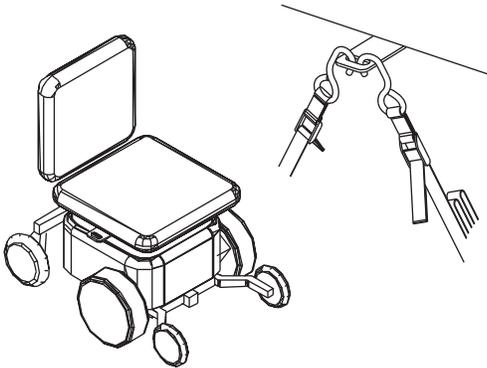
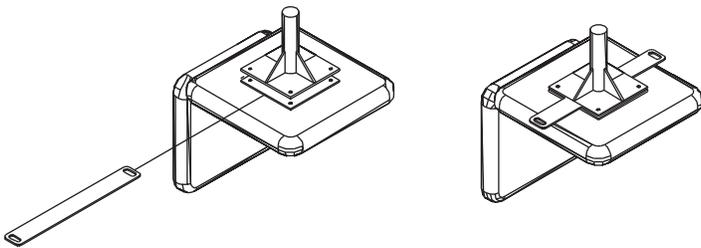
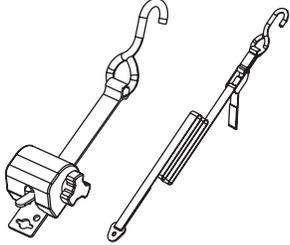
# CHAIR PREPARATION

IF USING A LIFT WITH 4 STRAPS FOR SECUREMENT, THERE ARE 2 OPTIONS ON HOW TO ATTACH THE STRAP HOOKS TO THE CHAIR. EACH OPTION IS INCLUDED WITH THE LIFT.

**ANCHOR PLATE:**

The Anchor Plate is a flat plate that is 20" long with a slot in each end. This plate will work with any chair or scooter that has a center seat post and attaches to the bottom of the seat. The Anchor Plate should extend about 1-1/2" out from the side of the cushion. This will allow the user to attach the strap hooks to the Anchor Plate to secure the chair to the lift. Attach the Anchor Plate by the following steps:

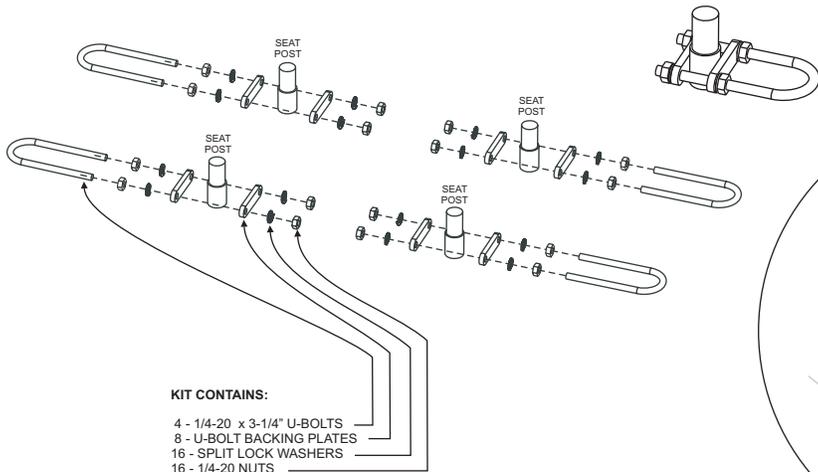
1. Remove the seat from the chair.
2. Loosen the screws that attach the plate to the bottom of the seat. Allow enough room to slide the Anchor Plate between the seat and the seat plate.
3. Attach the Anchor Plate in the center of the seat plate with the holes on each end extending evenly on each side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



**U-BOLT KIT:**

The U-bolts are to be used with power chairs or scooters 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, two 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.

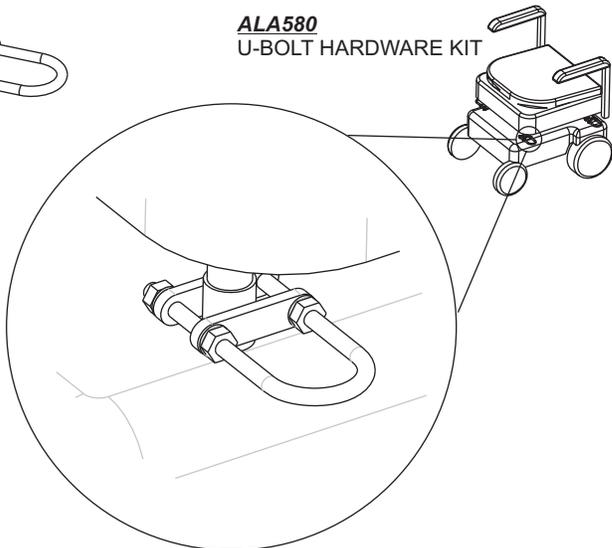
Each type of chair will differ slightly and the placement of the U-bolts will differ between different models and manufacturers. Place the U-bolts towards the center of the seat if possible. Because of the different types of seats, you may be forced to attach the U-bolts more towards the front or rear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



**KIT CONTAINS:**

- 4 - 1/4-20 x 3-1/4" U-BOLTS
- 8 - U-BOLT BACKING PLATES
- 16 - SPLIT LOCK WASHERS
- 16 - 1/4-20 NUTS

**ALA580  
U-BOLT HARDWARE KIT**



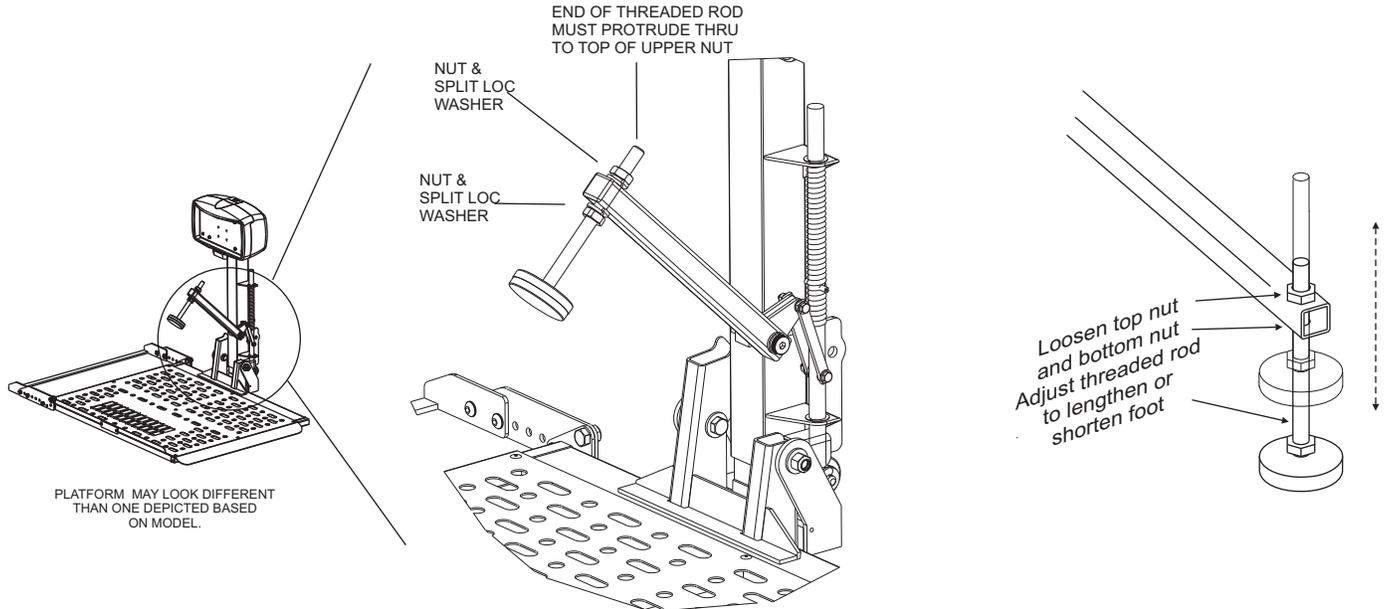


## SETTING HOLD DOWN FOOT HEIGHT

With platform on the ground, drive scooter onto platform, from the left (driver's side) to right, until the rear wheels are located in the rear wheel spreader bar assembly. Stop when the rear tires contact the ramp of the platform.

Raise the platform until the motor's clutch is heard (top of travel). Loosen both nuts on the hold down arm, and raise or lower the foot to contact the scooter's deck. Lower the platform about 1-2 inches. Lower the foot once again to the scooter's deck. Raise the platform. Verify the hold down foot places adequate pressure on the scooter. **DO NOT** adjust the leg down so far that the top of the threaded rod does not protrude through the top of the pivot tube. Once the foot is adjusted to the proper position, tighten the jam nut to lock it in place.

Once the lift is properly adjusted, lower the platform to the ground and raise it back to the transporting position. Repeat this several times to make sure all parts are operating properly and that the scooter is properly secured. Next, remove the scooter 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.



### WARNING

In some cases, the threaded stud of the hold down foot will need to be cut to avoid contact with the motor cover. Only cut enough of the stud to avoid contact with the motor cover, leaving enough of the stud protruding through the washer and nut. File rough edges and add rubber cap to avoid corrosion of stud.



### WARNING

On some scooters, it may be necessary to temporarily move the steering tiller forward to clear the hold down arm as it lowers into the lock down position.



### WARNING

Some scooters have pneumatic (air inflated) tires. If your scooter has this type tire, be sure the tires are properly inflated. Improper inflation of the tires will change the deck height of the scooter and therefore change the amount of clamping force the hold down arm places on the scooter. The scooter can fall off the lift if not properly secured.



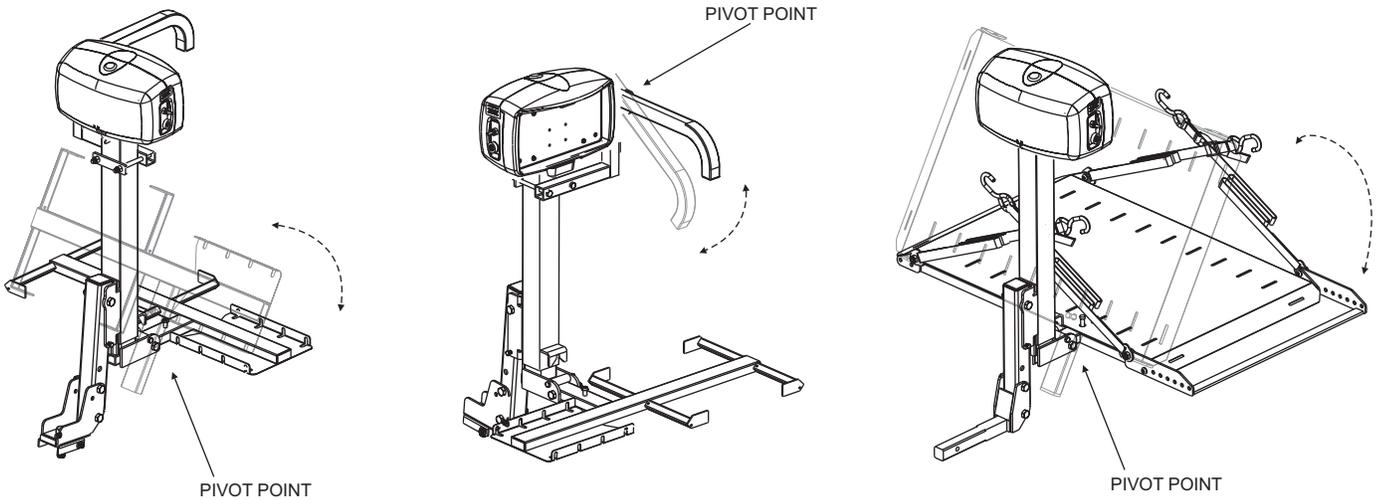
### WARNING

Be sure to instruct the end user not to enter steep driveways straight on. Enter and leave at an angle to the street so that the lift platform does not drag on the ground.



### CAUTION

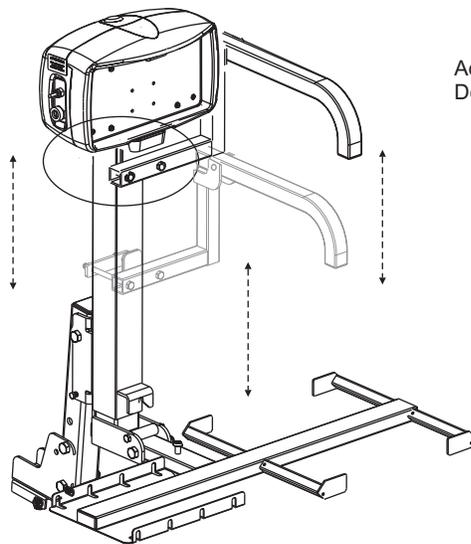
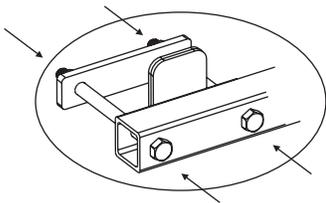
Drive the scooter off in REVERSE. When the scooter is clear off the platform, raise the platform by pushing up on the UP/DOWN switch.



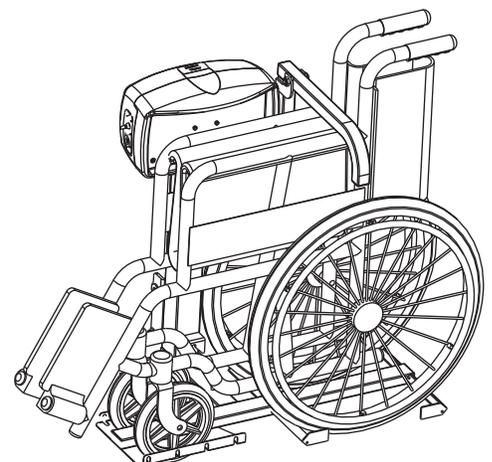
The manual folding hinge points of the AL010/050 and AL030 contain tensioning washers. The amount of force required to move these parts is determined by the tension of these washers. The tension also dampens the movement and allows a controlled operation of the folding of platform or hold down arm. To adjust, simply tighten or loosen the bolt and nut located at the pivot point. The tension is set at the factory and should not need adjustment. However if more or less resistance is desired, adjust accordingly.

**CAUTION**

The AL030's Hold Down Arm height requires adjustment to properly clamp your specific wheelchair on the platform. Position the folded wheelchair on the platform being certain the large rear wheels fall into the cradles of the platform. Loosen the two bolts and nuts located in the drawing below. Allow the arm to rest on the padded armrests. Remove chair, and allow the arm bracket to fall approx 1 inch. Tighten bolts and nuts. Replace chair on platform and test the Hold Down Arm. Chair should be secure, and not moveable in any direction. Adjust as needed.



Adjusting Hold Down Arm height

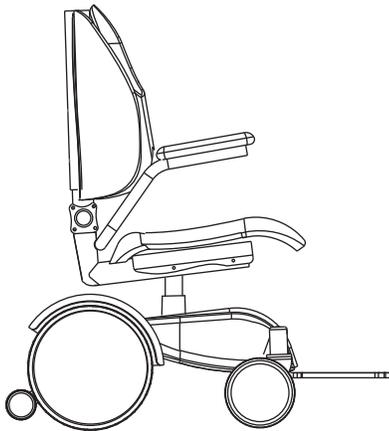
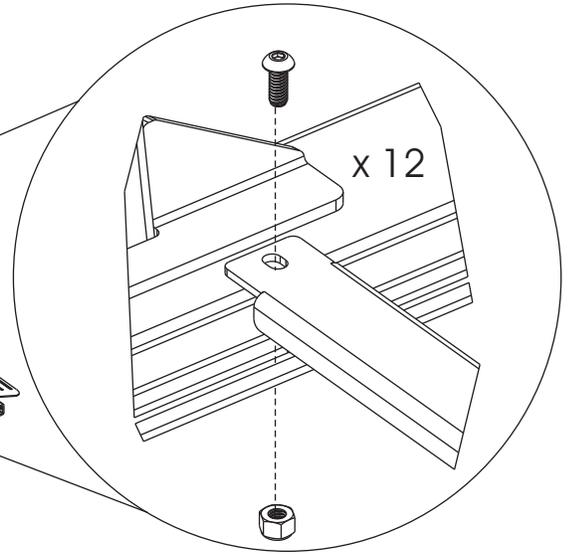
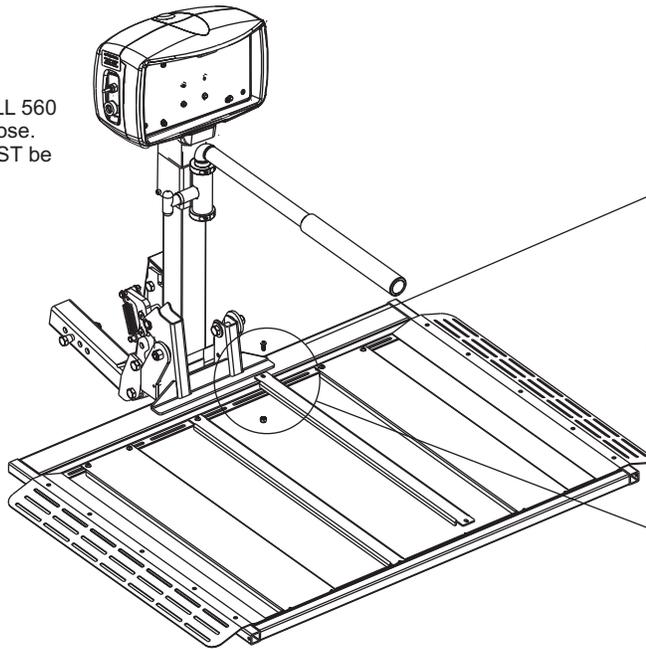
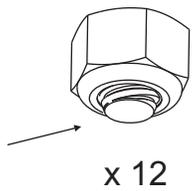


# LIFT PREPARATION - AL 560 SERIES

## CAUTION

For adjustment purposes ALL 560 platform components are loose. These screws and nuts **MUST** be tightened before use.

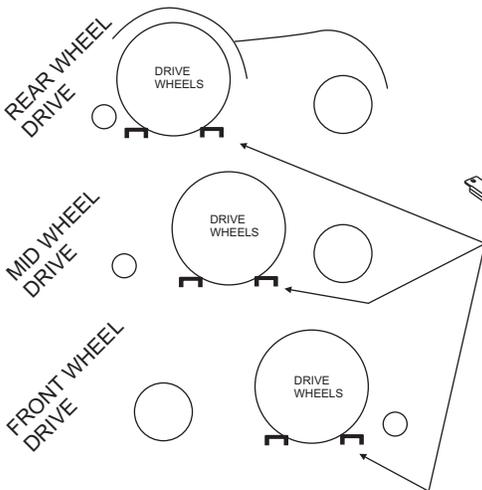
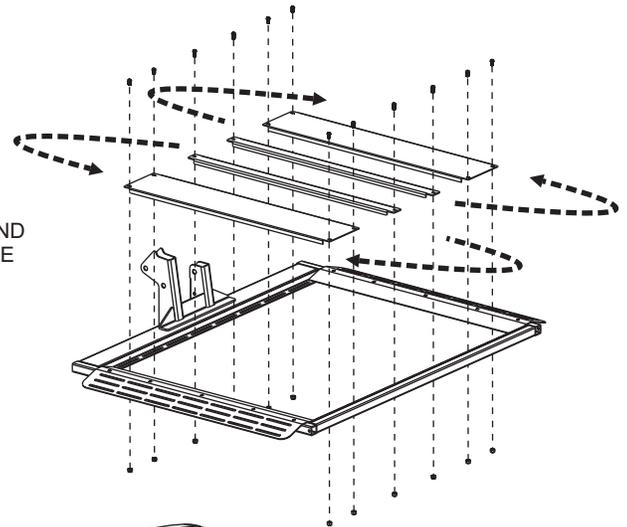
THREAD **MUST** PROTRUDE OUT THE TOP OF NYLON PORTION OF ALL THE NUTS



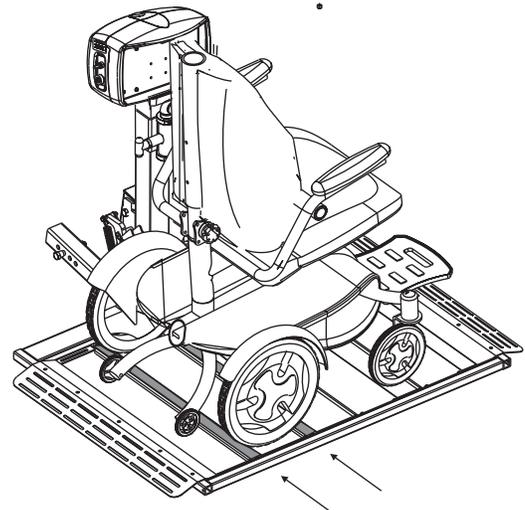
## CAUTION

RE-ARRANGE PLATFORM SKINS AND CRADLES AS NEEDED TO CAPTURE THE DRIVE WHEELS

Estimate the chair's center position depending on driver's side or passenger's side entry preference. Locate the drive wheel's position. Adjust the 2 main cradle positions to match. Capture smaller wheels on the 2 larger skins.



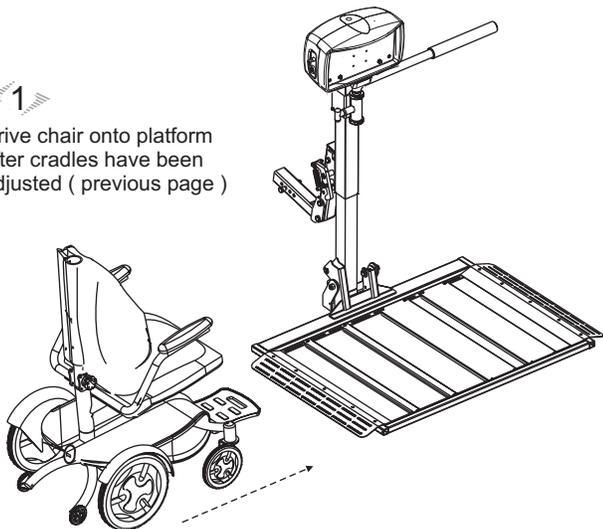
Drive chair onto platform. Verify chair is secure and does not move in any direction once positioned between the skins and cradles.



# AL560 & AL 580 SERIES - HOLD DOWN ARM ADJUSTMENT

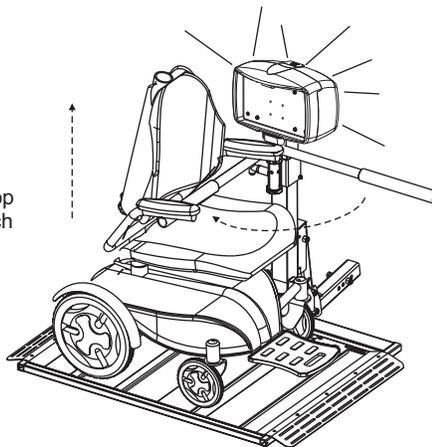
1

Drive chair onto platform after cradles have been adjusted ( previous page )



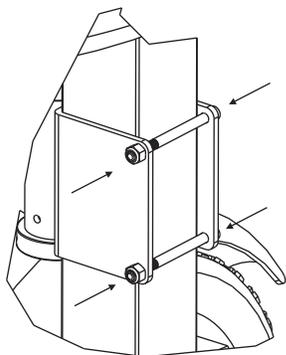
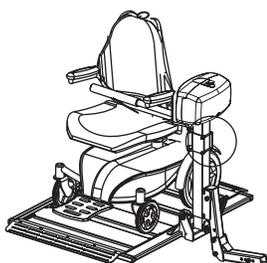
2

Raise platform to top of travel ( until clutch is heard )



3

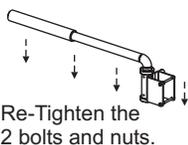
Loosen the 2 bolts and nuts in back of vertical tube.



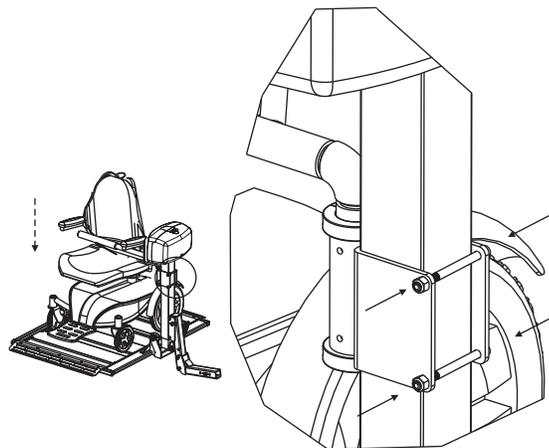
4

Lower the platform approx. 2" to 3"

Allow arm to drop with seat



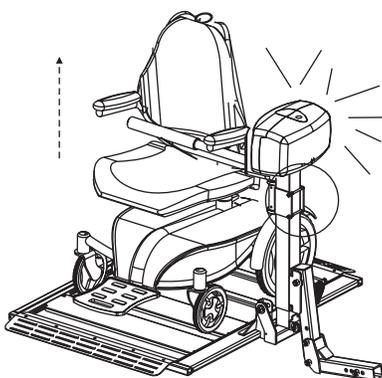
Re-Tighten the 2 bolts and nuts.



Allow arm assembly to lower until the arm contacts the seat

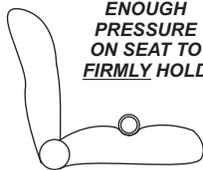
5

Run lift up until top of travel ( clutch is heard )



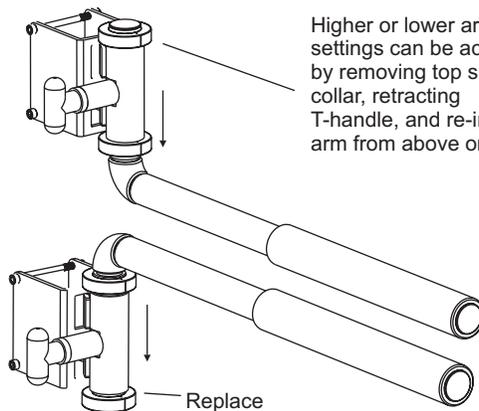
## CAUTION

**VERIFY ARM PRODUCES ENOUGH PRESSURE ON SEAT TO FIRMLY HOLD**



**POWER CHAIR TO PLATFORM. SEAT SHOULD BE SOMEWHAT DEFORMED**

Higher or lower arm settings can be achieved by removing top shaft collar, retracting T-handle, and re-inserting arm from above or below.



Replace Shaft Collar

This method allows the T-handle to remain on the same side as the key and toggle switches.  
OR  
Entire assembly can be flipped IF desired for opposite T-handle location.



## AL570 and AL570XL

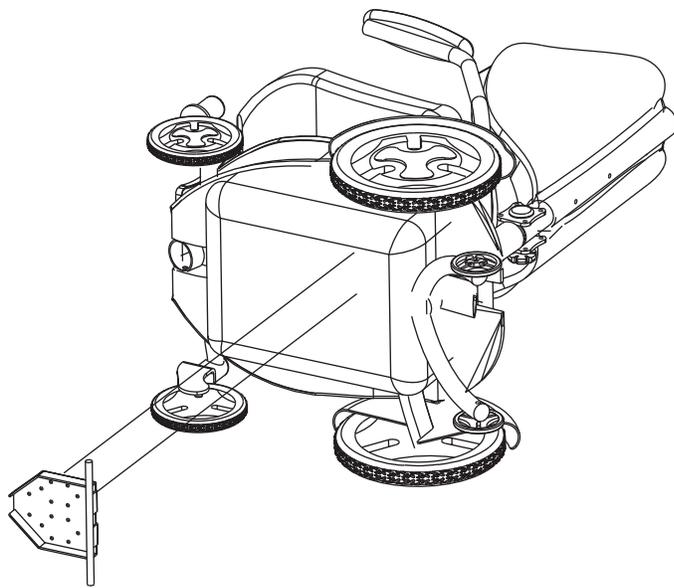
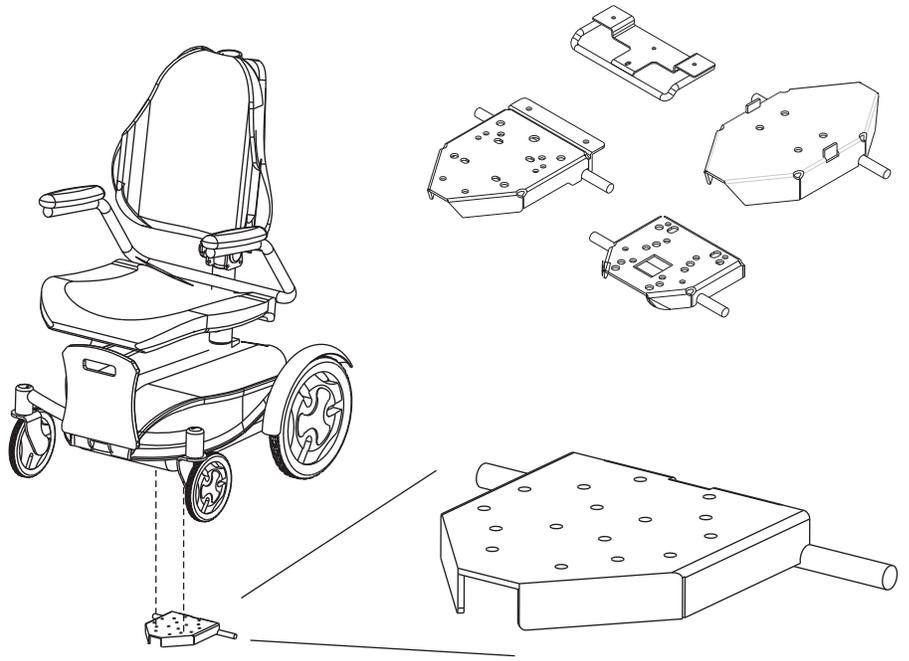
### PLOW INSTALLATION

A **PLOW** is the component that attaches to the underside of the power chair, enabling automatic locking and unlocking of the chair to the platform of the lift.

Due to the many different makes and models of power chairs today, a variety of plow arrangements exist to ensure the chair will be compatible with the Dock and lock system.

Please read, understand, and follow the instructions provided with your Plow.

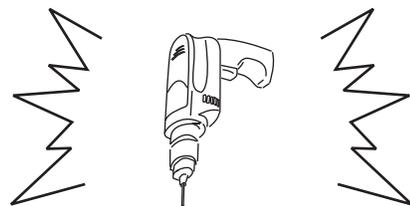
It is highly recommended to install the Plow under the chair prior to adjusting the height of the Dock and Lock on the platform. This will ensure the guidelines on the next page are accurate.



If additional holes are required to install the plow, be sure to remove the power chair's batteries and inspect the backside of the tray. Avoid drilling electronics / wires that may damage the chair.

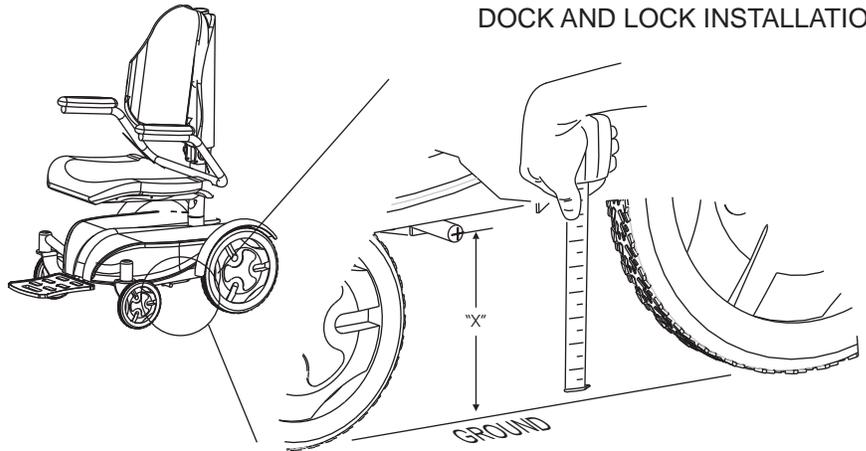


**USE EXTREME CAUTION**

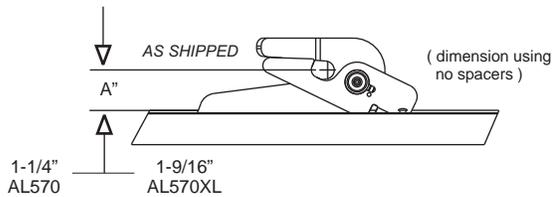


## AL570 and AL570XL DOCK AND LOCK INSTALLATION

- 1** Once the Plow is attached to the chair using the instructions provided with the Plow, measure the distance from the ground to the approximate center of the 1/2" pin of the Plow. Be sure the chair is on a hard, level surface when obtaining this measurement.

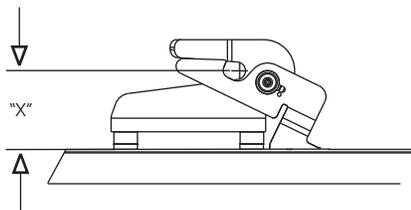


The AL570 and AL570XL are shipped from factory with the Dock and Lock system attached directly to the platform. Subtract 1-1/4" from the measurement taken to the right, and use the appropriate number and combinations of spacers to raise to Dock and Lock to match the chair.



**Example:** For AL570, if the chair's pin to ground measurement is 2.00", then subtract 1-1/4". To prepare the need for a total of 3/4" of spacers. Use a 1/4" spacer and a 1/2" with each bolt under the system.

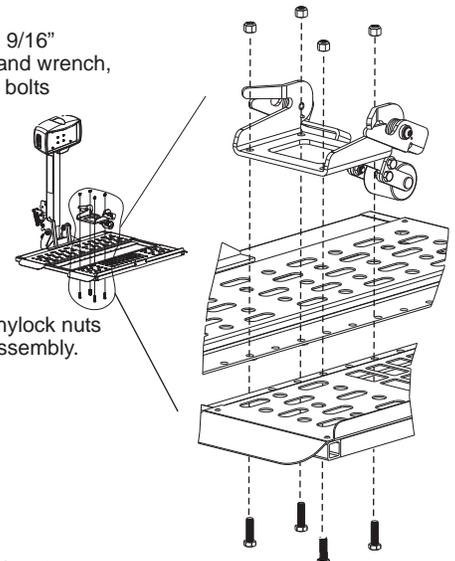
$$X'' - A'' = \text{sum of spacers to use}$$



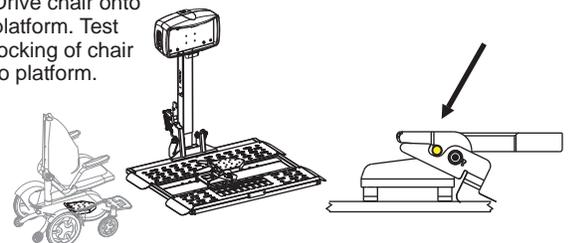
**Found in Hardware Kit**

SPACERS	AL570	AL570XL
1"	4	8
1/2"	4	4
1/4"	8	8
WHEEL BRACKET	N/A	2
HEX HEAD BOLTS		
5.00		
4.50		
4.00		
3.50		
3.00		
2.50		
2.00		
(1.25)		
ATTACHED TO PLATFORM		
ATTACHED TO PLATFORM		
AL570	4 OF EACH	
AL570XL		4 OF EACH

- 2** Using a 9/16" socket and wrench, remove bolts from Dock and Lock. Retain nylock nuts for re-assembly.

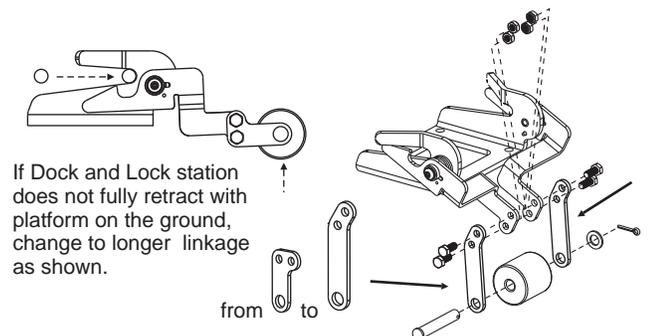


- 4** Drive chair onto platform. Test locking of chair to platform.

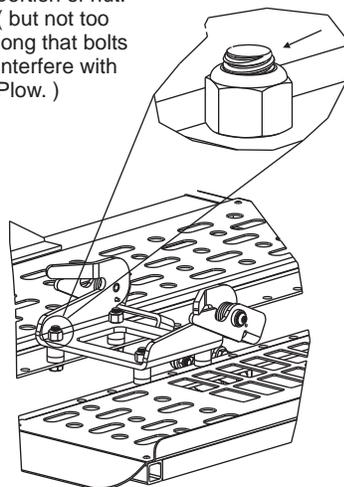


Observe that the Plow's pin engages the Dock and Lock system. Adjust as needed.

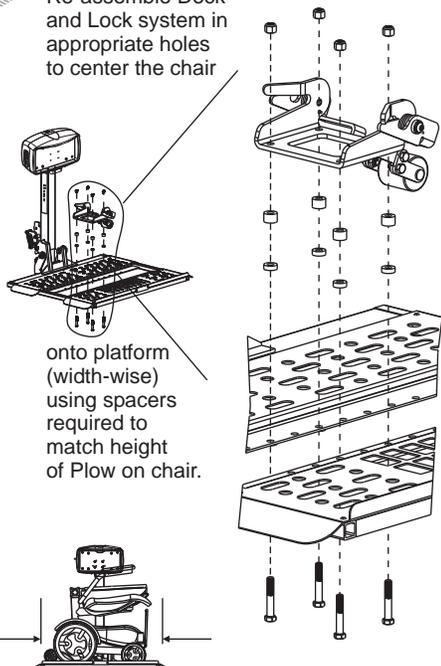
Raise platform to engage lock, and test movement of chair. Chair should be secure in all directions.



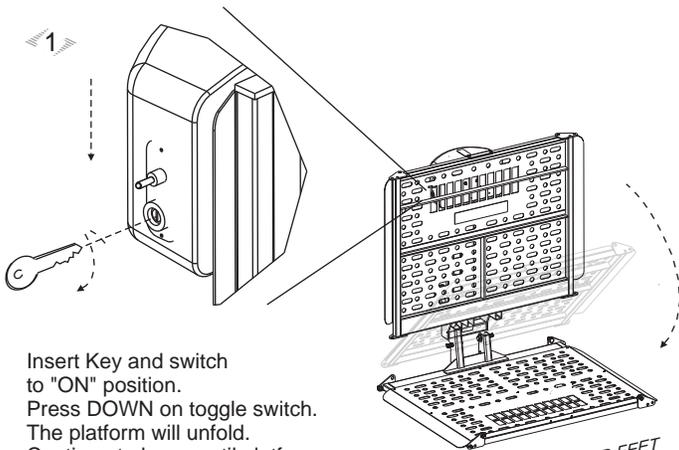
Be sure to use long enough bolts so that the very end of bolt protrudes through the upper nylon portion of nut. (but not too long that bolts interfere with Plow.)



- 3** Re-assemble Dock and Lock system in appropriate holes to center the chair

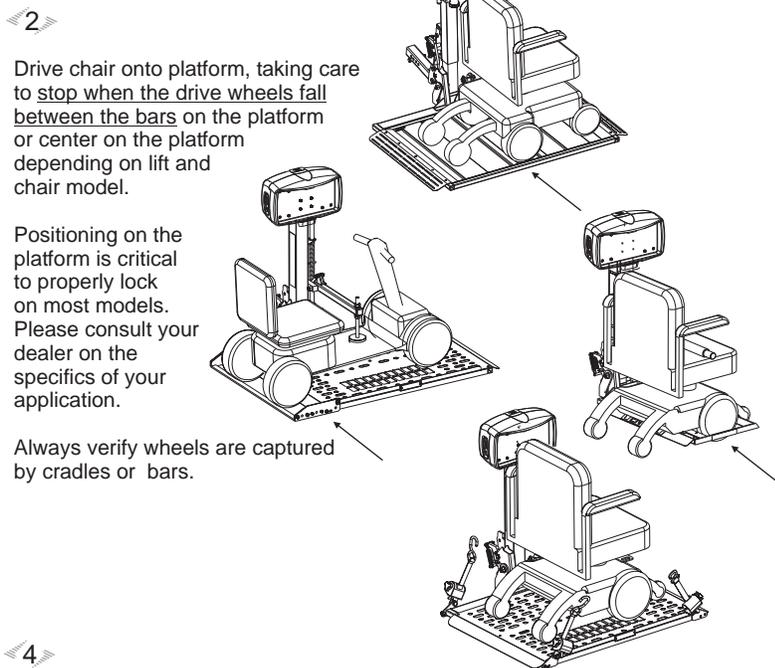


# OPERATION GENERAL



1  
Insert Key and switch to "ON" position. Press DOWN on toggle switch. The platform will unfold. Continue to lower until platform reaches the ground and becomes level. DO NOT continue to travel downward so much so, that the vehicle starts to raise. This will damage the lift.

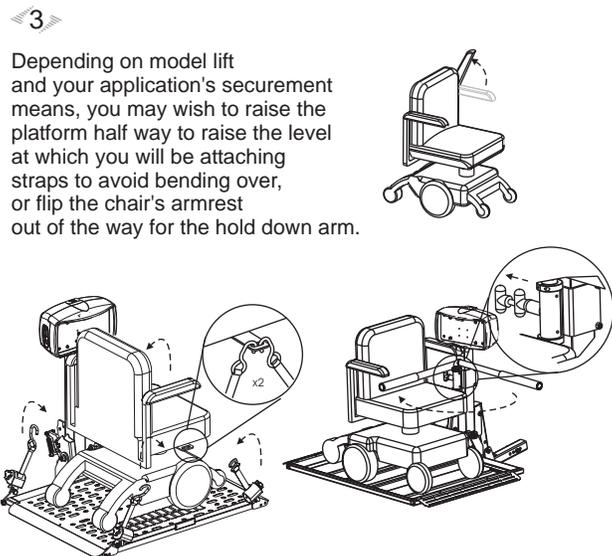
KEEP HANDS AND FEET AWAY FROM PLATFORM AS IT LOWERS TO THE GROUND



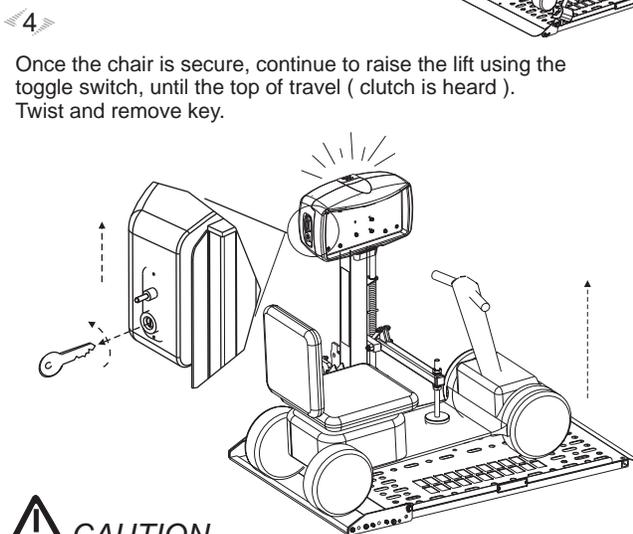
2  
Drive chair onto platform, taking care to stop when the drive wheels fall between the bars on the platform or center on the platform depending on lift and chair model.

Positioning on the platform is critical to properly lock on most models. Please consult your dealer on the specifics of your application.

Always verify wheels are captured by cradles or bars.



3  
Depending on model lift and your application's securement means, you may wish to raise the platform half way to raise the level at which you will be attaching straps to avoid bending over, or flip the chair's armrest out of the way for the hold down arm.



4  
Once the chair is secure, continue to raise the lift using the toggle switch, until the top of travel (clutch is heard). Twist and remove key.

## CAUTION

### ALWAYS

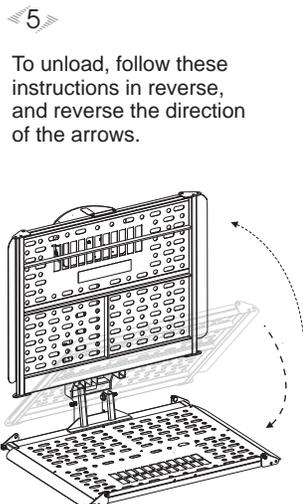
Verify the chair or scooter is held firmly in place prior to transport.

**Always** run the lift to the top of travel for transport. The lift will make a ratchet type sound at the top, which is the best indication that all mechanism are locked and ready for travel.

**Ne** attempt to move the vehicle without the lift being in the full "up" or "stowed" position. This may cause damage to the lift.

**Slow Down** for pot holes, rough roads, railroad tracks etc... Excessive loads imposed from rough driving will damage your lift, and will not be covered by the warranty.

If any damage is noticed, stop using the lift immediately. Do not attempt to transport a chair or scooter with a compromised lift. Damage to your chair, lift, vehicle may occur. Take the lift to your nearest dealer, and have it evaluated prior to further use.



5  
To unload, follow these instructions in reverse, and reverse the direction of the arrows.

When unloaded, the platform will automatically fold. (except AL010/050 and AL030)

## CAUTION

These are generic instructions

Please follow the instruction suggested by your dealer as each application varies slightly depending on chair make and model.

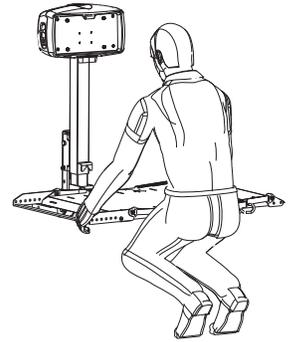
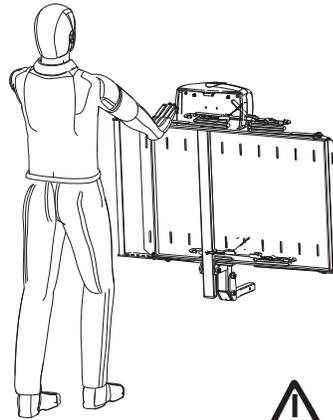


## Micro Lifts

The **AL010/050** and **AL030** both require the platform to be folded and unfolded manually.

The locking mechanism consists of a pin and keeper plate, which must be disengaged prior to unfolding.

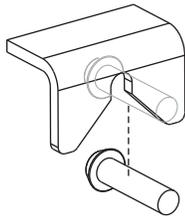
Simply hold the platform firmly and lower it approx. 2" to allow the platform to disengage and unfold.



**WARNING**

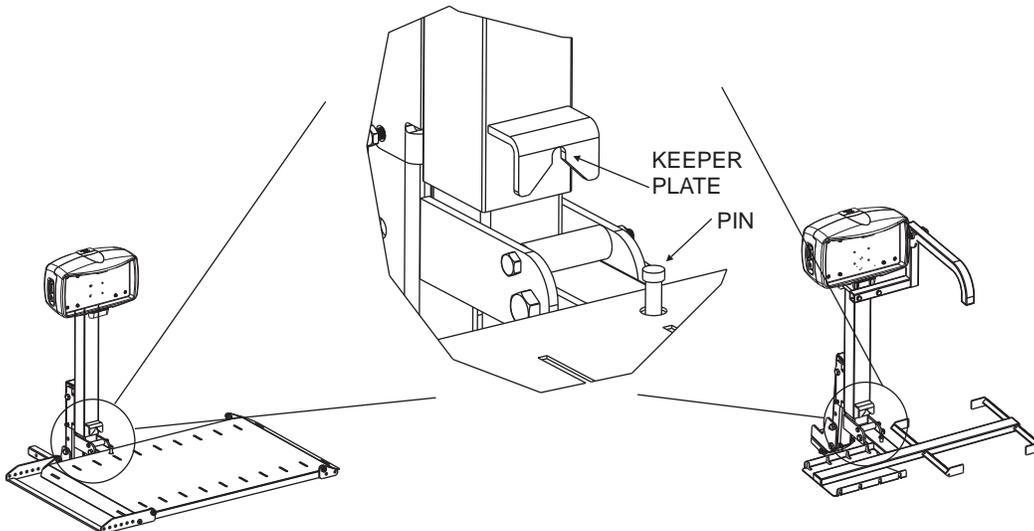
**HOLD PLATFORM FIRMLY  
WHILE LOWERING THE LIFT  
TO ITS DOWN POSITION**

To lock in the upright position, lift platform up prior to the pin engaging the keeper plate. Approximately 2" or more.



**WARNING**

**HOLD PLATFORM FIRMLY  
WHILE RAISING THE LIFT  
UNTIL THE PIN HAS ENGAGED  
THE KEEPER PLATE**

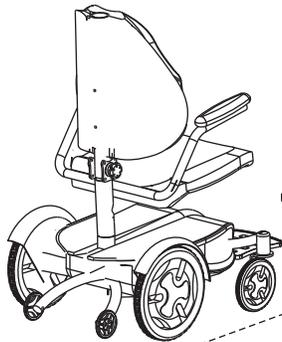




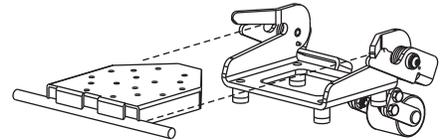
## AL570 and AL570XL

**CAUTION**

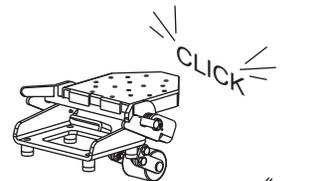
When using the AL570 or AL570XL lifts, use extra caution while driving on and off the platform.



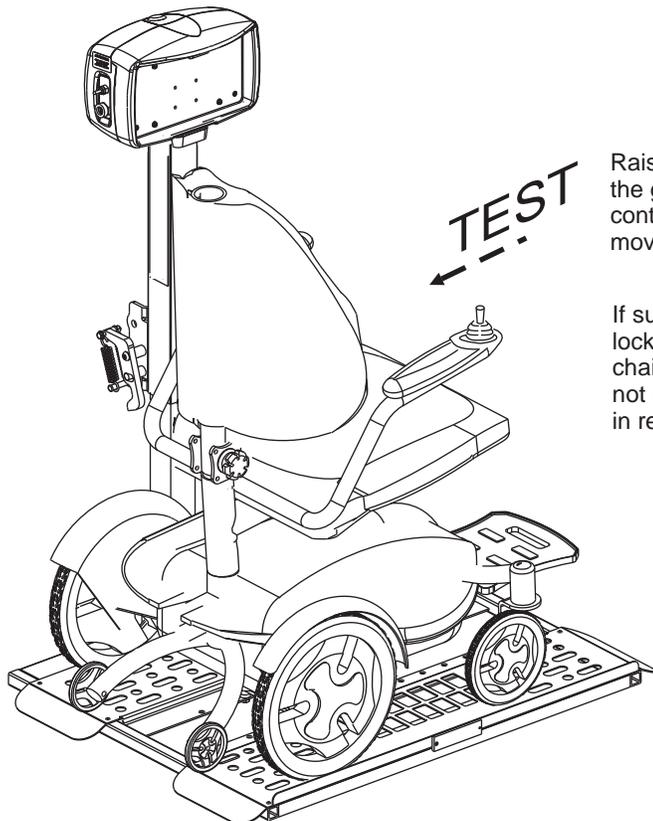
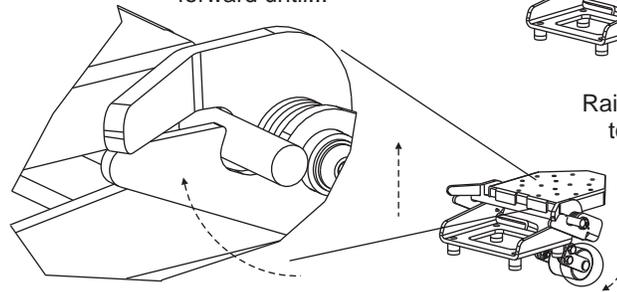
Set chair speed to SLOW.



Continue to drive chair forward until...



Raise lift 2-3" to close Dock and Lock



Raise the lift's platform 3"-6" off the ground. Set the chair's speed controller to slow, and attempt to move the chair in reverse.

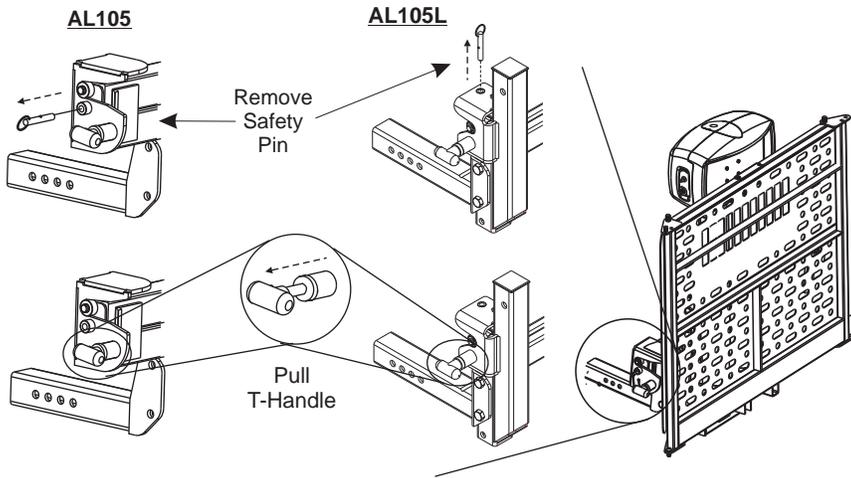
If successfully locked, the chair will not move in reverse.

**WARNING**

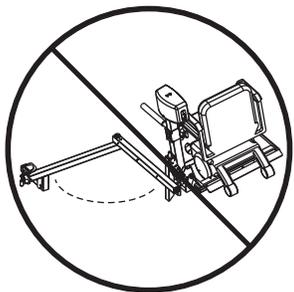
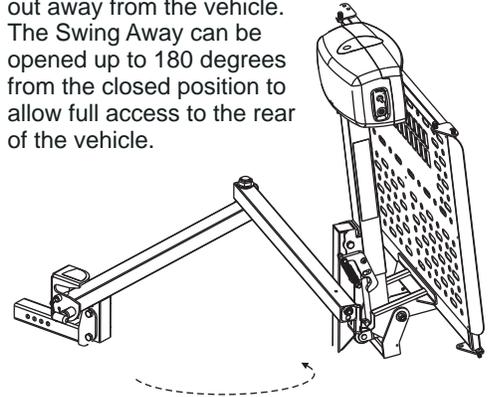
It is imperative the Dock and Lock be tested EVERY time the chair is loaded for transport. Do NOT attempt to travel with the chair until it has been verified the chair is fully engaged to the platform. Failure to do so could result in serious injury / property damage.

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



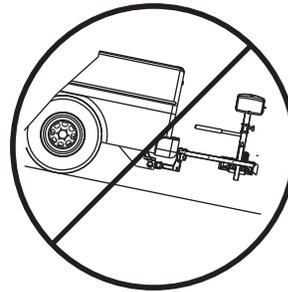
Grasp the lift firmly and swing it out away from the vehicle. The Swing Away can be opened up to 180 degrees from the closed position to allow full access to the rear of the vehicle.



### **WARNING**

**NEVER OPERATE THE SWING AWAY WITH THE CHAIR ON THE LIFT**

This will cause damage to the Swing Away, lift, and potentially cause damage to the vehicle and the chair. This will **VOID** your warranty.



### **WARNING**

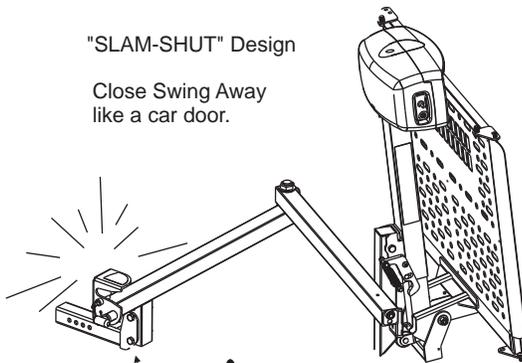
**OPEN ONLY ON LEVEL GROUND**

Failure to do so may result in the operator losing control of the lift causing damage to persons and property.

## CLOSING THE SWING AWAY

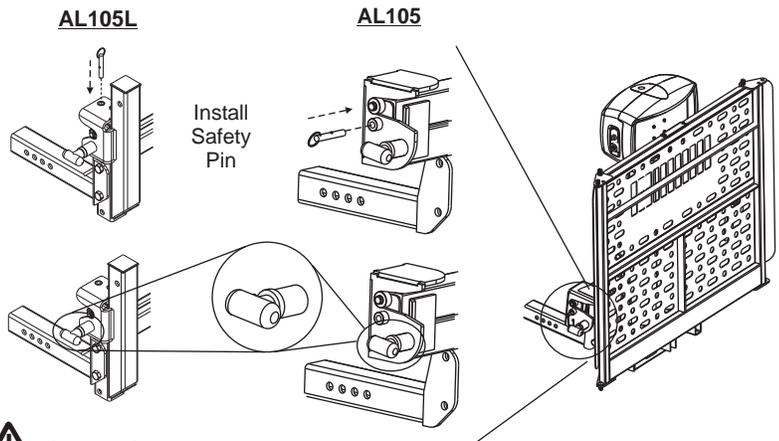
"SLAM-SHUT" Design

Close Swing Away like a car door.



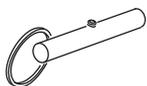
### **WARNING**

**KEEP CLEAR OF LATCHING MECHANISM**



### **CAUTION**

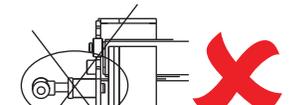
**VERIFY THAT THE T HANDLE HAS FULLY RETRACTED**



**Always install the safety pin.**



**SAFELY CLOSED**



**WRONG**



## **WARNING**

### **DISCONNECT POWER FROM LIFT BEFORE ATTEMPTING MANUAL OVERRRIDE**

Ideally, the Manual Override system should never be needed.

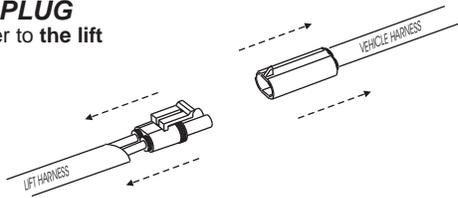
However, in the event of power failure ( ex. Dead Battery, ) your lift is equipped with the ability to operate the platform for emergency purposes. The very first, and most important step is to unplug the 2 connector plug **BEFORE** attempting to use the override. Failure to do so can result in serious injury.

Please remember to disconnect power prior to any effort to operate the Manual Override.

1

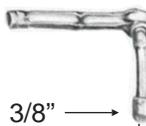


**UN PLUG**  
power to the lift

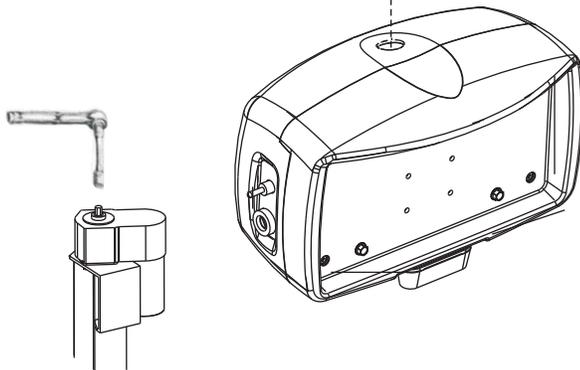


3

Use a 3/8" socket and socket wrench to rotate the Hex Shaft on top of the actuator.

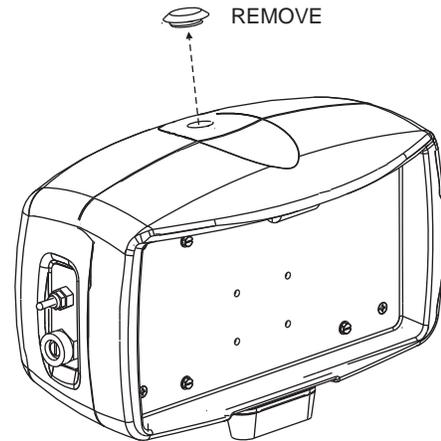


3/8"



2

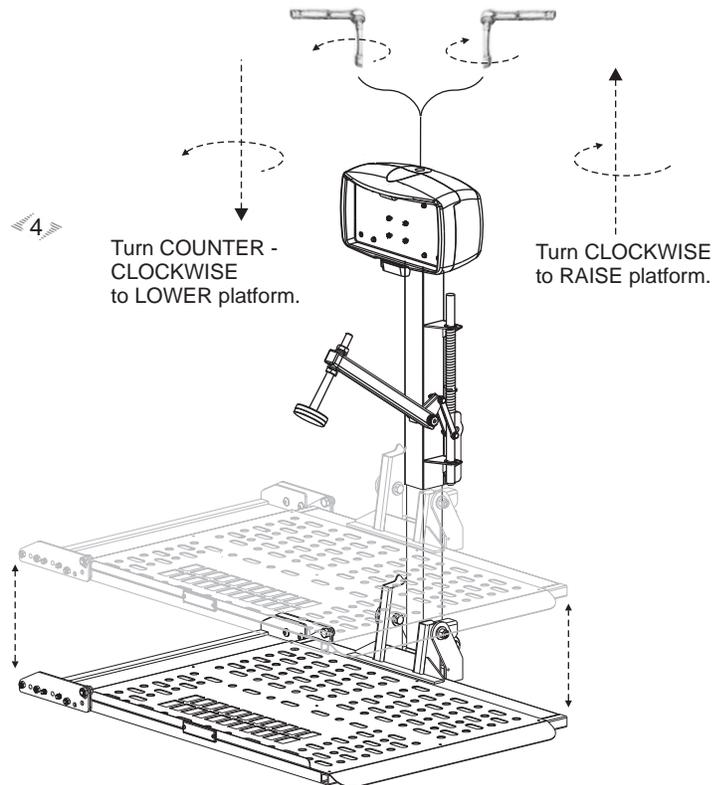
Using a coin or key, remove cap on top of motor cover.



4

Turn **COUNTER -  
CLOCKWISE**  
to **LOWER** platform.

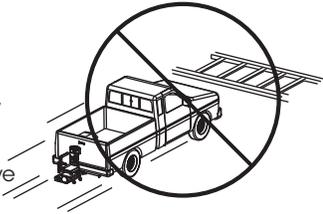
Turn **CLOCKWISE**  
to **RAISE** platform.



Replace plastic cap when finished using Manual Override. Last, plug power back to the lift.

## CAUTION

When driving with your chair on the lift, drive with **EXTREME CARE**. SLOW DOWN for pot holes, speed bumps, railroad tracks, etc. Your lift, vehicle, chair can be badly damaged by abuse if subject to excessive loads imposed by rough driving.



## CAUTION

Before folding an un-loaded platform, be sure to return the Hold Down Arm to one of the side positions. Failure to do so, will damage your lift.

## CAUTION

Keep hands and feet away from PINCH POINTS. As with most mechanical objects, the hinge point of a moving part creates a pinch point. Be sure not to stick fingers or extremities at or near these points.

## CAUTION

Keep hands, feet, and any other objects out from under the platform as it lowers.

## CAUTION

Keep your chair's tires properly inflated. Improper inflation will change how the chair fits and secures on the platform, therefore changing the amount of clamping pressure.

## CAUTION

Before driving off with your chair on the lift, make sure that the chair is firmly held to the platform.

## CAUTION

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

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

## CAUTION

Do not attempt to move the vehicle with the platform in the down position. If moved this way, the lift mechanism will be damaged.

## MAINTENANCE

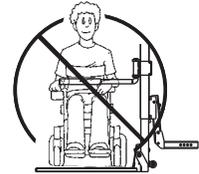
This outside lift has been designed to be as trouble free as possible for the owner. The maintenance schedule is no exception.

Every 30 days oil the pivot points on all moving parts. 

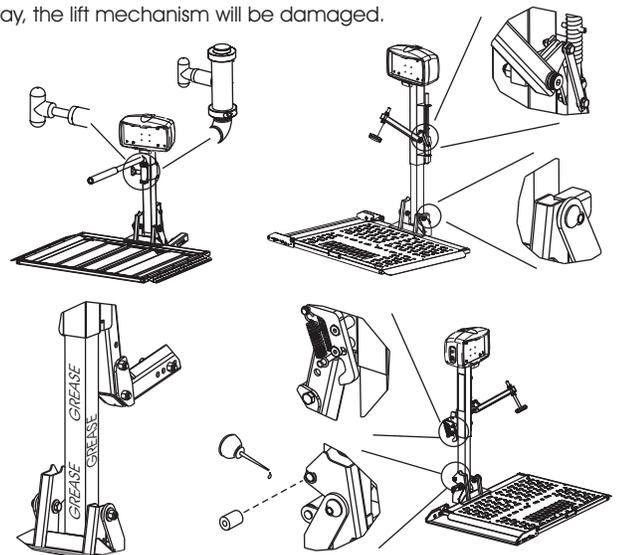
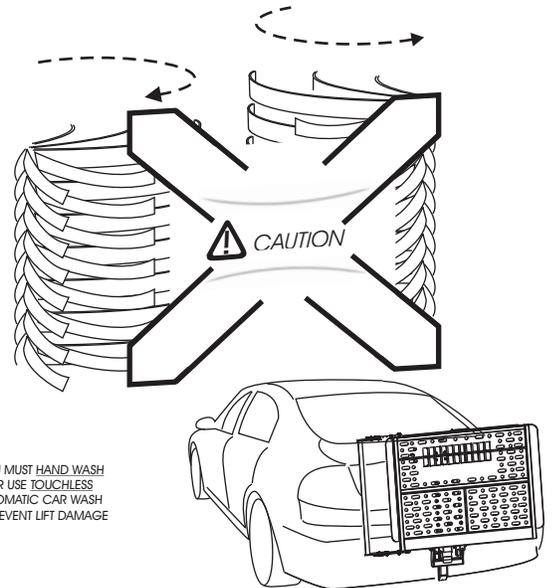
During winter, or under dirty and dusty conditions, re-grease the inside vertical square tube every 30 days. To accomplish this, lower the platform to the ground and clean with mineral spirits, WD-40, or a good solvent. Once clean, grease the square vertical tube shaft with high grade water resistant grease such as boat trailer wheel bearing grease.

Check for paint chips and touch up any bare metal with a good gloss black enamel or laquer to inhibit rust. This may be necessary more frequently when subject to salt air or road salt during winter months.

## WARNING



This lift is NOT meant for human transport. Chair MUST be unoccupied before operating the lift. These lifts are designed for a specific chair transport only, DO NOT attempt to move any other power chairs, vehicles, objects, people, or materials other than for what the lift was designed.



# TROUBLESHOOTING

**PROBLEM:** LIFT WILL NOT OPERATE, OPERATES SLOWLY, or OPERATES INTERMITTENTLY.

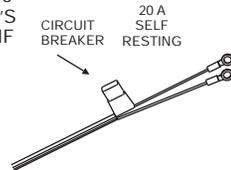
**REASON:** BAD ELECTRICAL CONNECTIONS / CIRCUIT BREAKER

**PROCEDURE:**

CHECK / CLEAN ALL CONNECTIONS THAT MIGHT BE LOOSE OR DIRTY THIS IS THE #1 CAUSE OF A POORLY PERFORMING LIFT. THE MOTOR ON THE LIFT REQUIRES QUALITY ELECTRICAL CONNECTIONS TO OPERATE AT FULL CAPACITY. ANY BREAK IN THE WIRING WILL SLOW DOWN THE MOTOR, OR CAUSE IT TO OPERATE INTERMITTENTLY. WHICH IN TURN WILL PREMATURELY DETERIORATE THE MOTOR.

THE LIFT'S VEHICLE POWER HARNESS RUNNING THROUGH OR UNDER THE VEHICLE IS SUBJECT TO ROAD DEBRIS, AND RUBBING AGAINST THE VEHICLE'S FRAME, CAUSING A SHORT. INSPECT THE FULL LENGTH OF THE HARNESS TO BE SURE THE JACKET OF INSULATION IS NOT TORN.

THE CIRCUIT BREAKER IS LOCATED ABOUT 6" FROM THE CONNECTIONS TO THE VEHICLE'S BATTERY. THE BREAKER WILL SELF RESET IF OVER-LOADED. HOWEVER, VERIFY (w/ OHM METER) THE BREAKER IS FUNCTIONING, OR REPLACE IT WITH A NEW / KNOWN GOOD CIRCUIT BREAKER.



**PROBLEM:** THERE IS A RATCHETING SOUND WHEN THE LIFT IS ALL THE WAY UP OR DOWN.

**REASON:** ACTUATOR CLUTCH

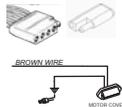
**PROCEDURE:** N/A --- THIS IS NORMAL OVERLOAD PROTECTION. THIS SOUND *MUST BE HEARD* IN THE UP DIRECTION TO INDICATE THE PLATFORM IS ALL THE WAY UP AND THAT THE CHAIR/PLATFORM IS SECURE. TAKE CARE NOT TO DO THIS ON THE WAY DOWN AS THIS WILL RAISE THE CAR AND IS BAD FOR THE LIFT. ONLY LOWER THE PLATFORM LEVEL TO THE GROUND. DO NOT START TO RAISE THE CAR WITH THIS LIFT.



**PROBLEM:** THE LICENSE PLATE LIGHT DOES NOT WORK.

**REASON:** 4 PRONG CONNECTOR NOT WIRED

**PROCEDURE:** THIS LIGHT RUNS FROM THE 4 PRONG TRAILER PLUG LOCATED ON THE VEHICLE 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 OF LICENSE PLATE LIGHT (BROWN WIRE ONLY (+))



**PROBLEM:** WHAT DO I DO WITH THE EXTRA LENGTH OF WIRE LEADING TO THE MOTOR OF THE LIFT ?

**REASON:** FOR OPTIONAL SWING AWAY.

**PROCEDURE:** 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, OUT OF THE WAY OF ANY MOVING PARTS. WE RECOMMEND LEAVING THE EXTRA WIRE IN CASE A SWING AWAY IS ADDED TO THE LIFT AT A LATER TIME.



**PROBLEM:** THE LIFT DOES NOT REACH THE GROUND.

**REASON:** HITCH ADAPTER INSTALLATION.

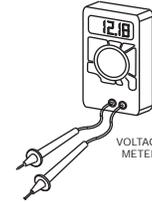
**PROCEDURE:** CHECK THE ATTACHMENT OF THE HITCH ADAPTER TO THE HITCH POST ON THE BACK OF THE LIFT ( SEE INSTALLATION PAGE OF THIS MANUAL. ) THE NORMAL RANGE OF OPERATION OF THE LIFT IS 5 TO 16 INCHES TO THE BOTTOM OF THE HITCH RECEIVER OF THE VEHICLE. ANY HIGHER VEHICLES WILL REQUIRE A DIFFERENT HITCH ADAPTER. (SEE HITCH ADAPTER SECTION OF THIS MANUAL)



## CAUTION

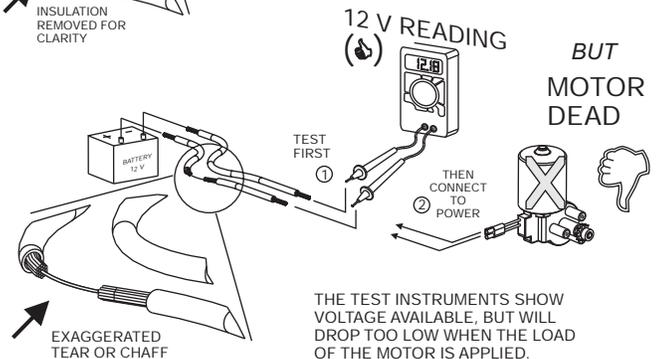
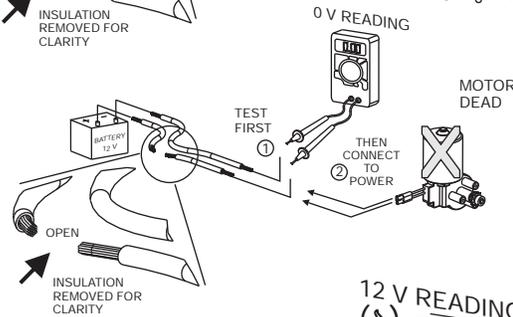
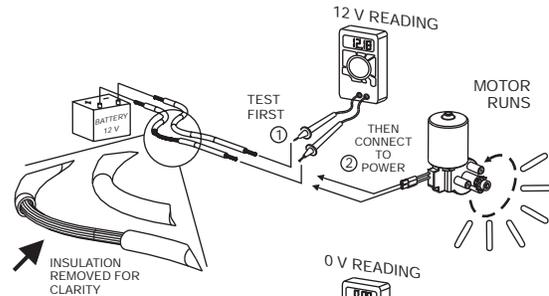
This section is reserved for the installer / dealer. Harmar does *not* recommend these procedures be attempted by anyone without proper knowledge of automotive electrical circuitry.

BE CAREFUL WHEN TROUBLESHOOTING WITH VOLTAGE METERS. THEY MAY GIVE FALSE INDICATIONS.



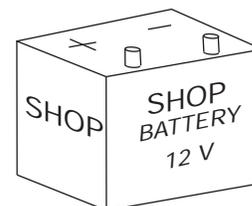
THESE INSTRUMENTS WILL DETECT VOLTAGE, BUT MAY NOT INDICATE A TEAR OR POOR CONNECTION IN THE WIRING.

**EXAMPLE:**

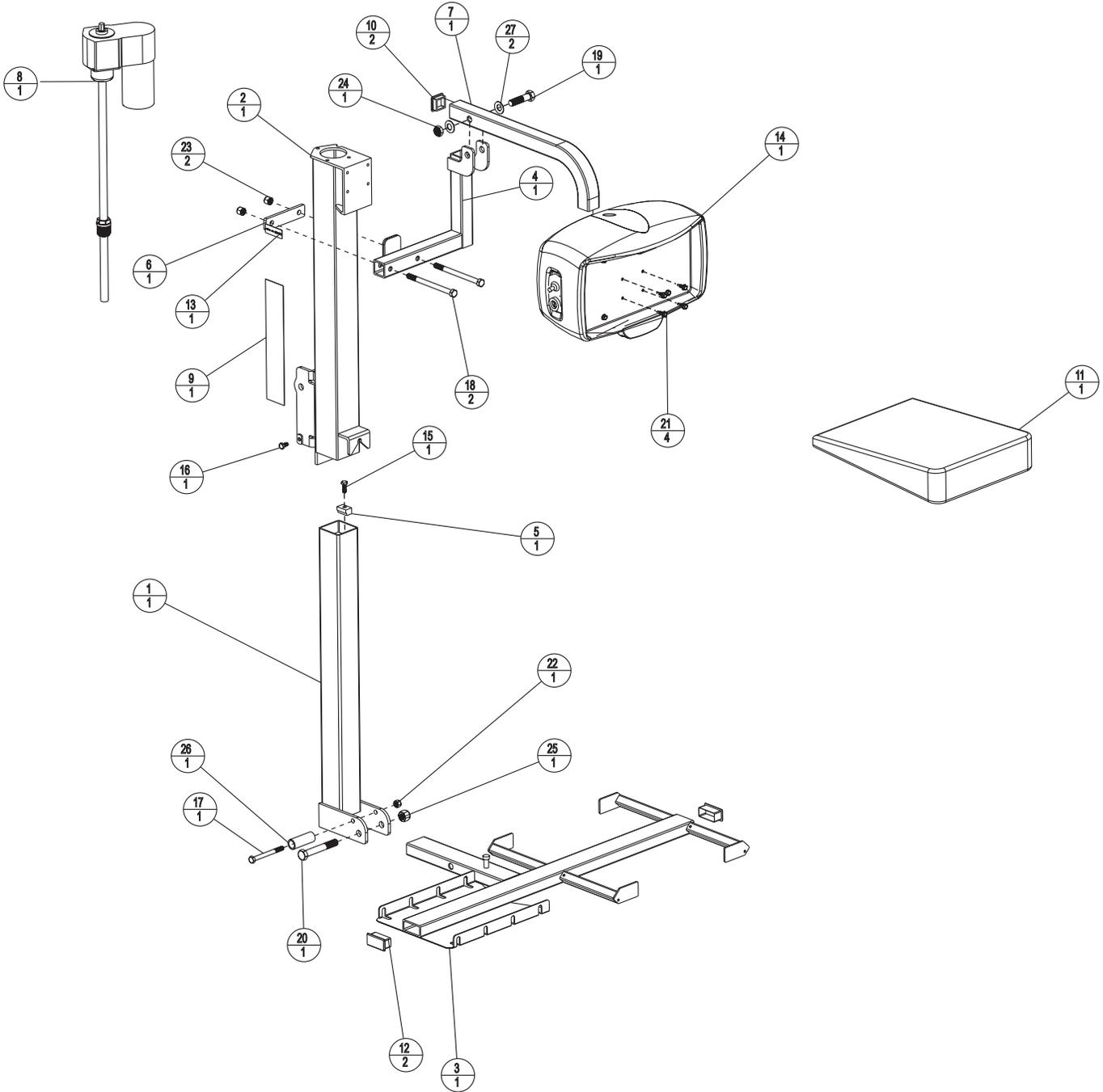


BE CAREFUL WHEN TROUBLESHOOTING WITH VOLTAGE METERS. THEY MAY GIVE FALSE INDICATION AS SHOWN ABOVE. THEY WILL ONLY INDICATE THERE IS *SOME* WIRE CONNECTION--NOT NECESSARILY--ENOUGH.

HARMAR STRONGLY RECOMMENDS TROUBLESHOOTING ELECTRICAL PROBLEMS WITH KNOW GOOD / FULLY CHARGED 12 V AUTOMOTIVE BATTERY or KNOW GOOD / FULLY CHARGED POWER CHAIR/SCOOTER BATTERY.

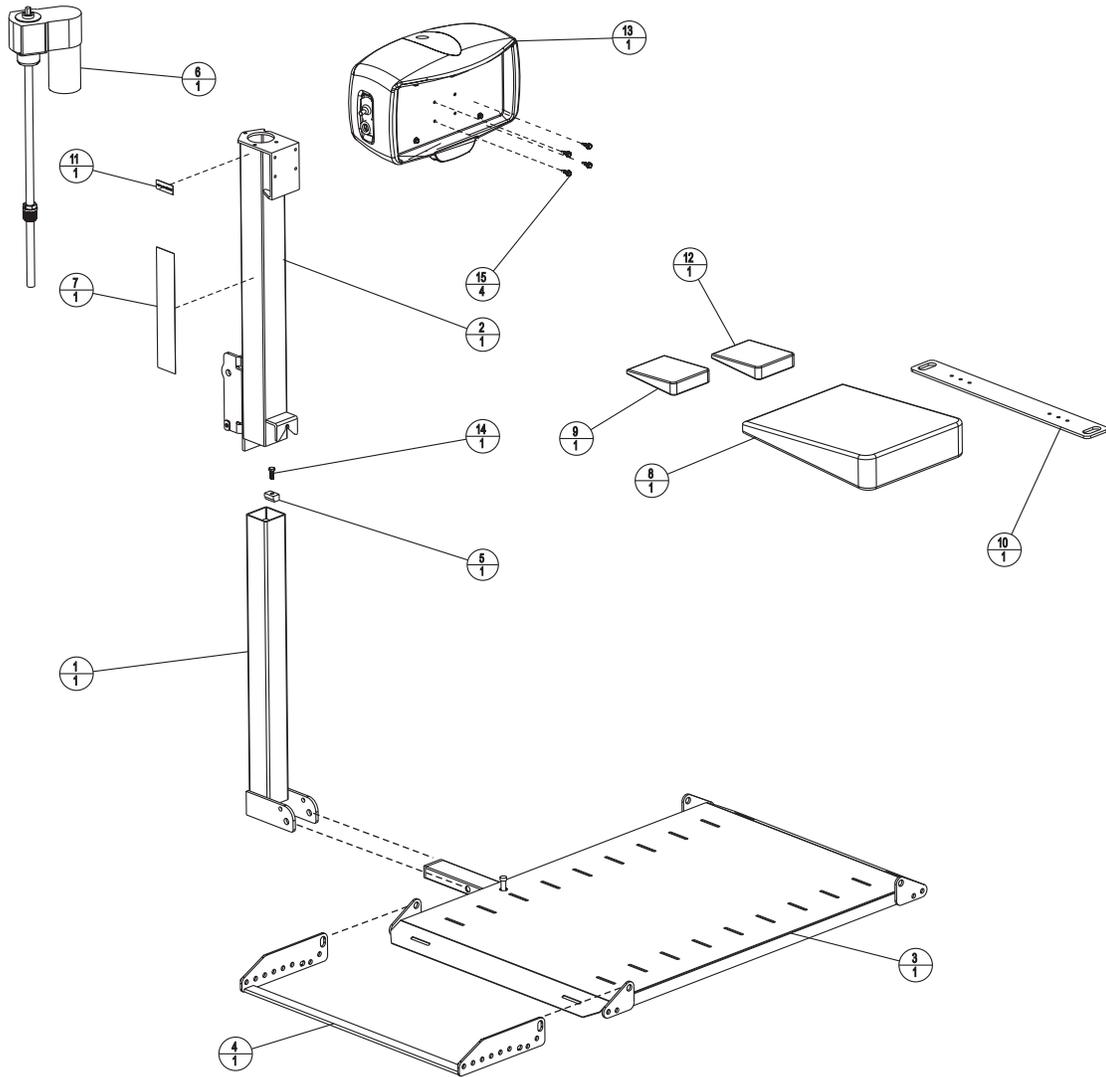


# EXPLODED VIEW - AL030

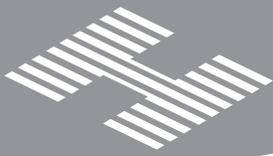


ASSEMBLY PARTS				ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION	ITEM	QTY	PART NO.	DESCRIPTION
1	1	201-2A03-C	INNER TUBE	15	1	HHCS-0_25-20-0_75-NP-Z	HEX HEAD, 1/4-20 x 0.75, ZP
2	1	202-2A03-C	OUTER TUBE	16	1	HHCS-0_25-28-0_50-Z	HEX HEAD, 1/4-28 x 0.50, ZP
3	1	203-2A04-C	PLATFORM	17	1	HHCS-0_31-18-3_25-Z	HEX HEAD, 5/16-18 x 3.25, ZP
4	1	206-2A04-C	HDA MOUNT	18	2	HHCS-0_37-16-5_00-Z	HEX HEAD, 3/8-16 x 5.00, ZP
5	1	500-2A03-A	LOCKING TAB - L.C. ACME ACTUATOR	19	1	HHCS-0_50-13-2_25-Z	HEX HEAD, 1/2-13 X 2.25 ZINC PLT
6	1	500-2A04-C	BACKING PLATE	20	1	HHCS-0_50-13-3_50-Z	HEX HEAD, 1/2-13 x 3.50, ZP
7	1	501-2A04-C	HOLD DOWN ARM	21	4	HWTS-14-0_75-Z	HEX WASHER, #14 SELF DRILL, 0.75, ZP
8	1	800-2A03-A	L.C. ACME ACTUATOR	22	1	NUT-0_31-18-NYLOCK-Z	NUT, NYLOCK, 5/16-18, ZP
9	1	ALA10095	STICKER, OUTSIDE LEFT	23	2	NUT-0_37-16-NYLOCK-Z	NUT, NYLOCK, 3/8-16, ZP
10	2	ALA125SPI	INSERTS, 1 1/4 BLACK PLASTIC	24	1	NUT-0_50-13-NYLOCK-NTE-Z	THIN NUT, NYLOCK, 1/2-13, ZP
11	1	ALA180	HARDWARE PACK	25	1	NUT-0_50-13-NYLOCK-Z	NUT, NYLOCK, 1/2-13, ZP
12	2	ALA60085	CAP FOR 1 X 2 TUBE	26	1	TU1-062-095-2_20C	TUBING, 5/8" OD x 0.095wall x 2.20"L
13	1	ALA99995	LABEL, SERIAL NUMBER	27	2	WASH-0_52-0_97-0_04-BS-SS	WASHER, BELLEVILLE, 1/2 ID, SS
14	1	200-2A01-A	MOTOR COVER ASSEMBLY				

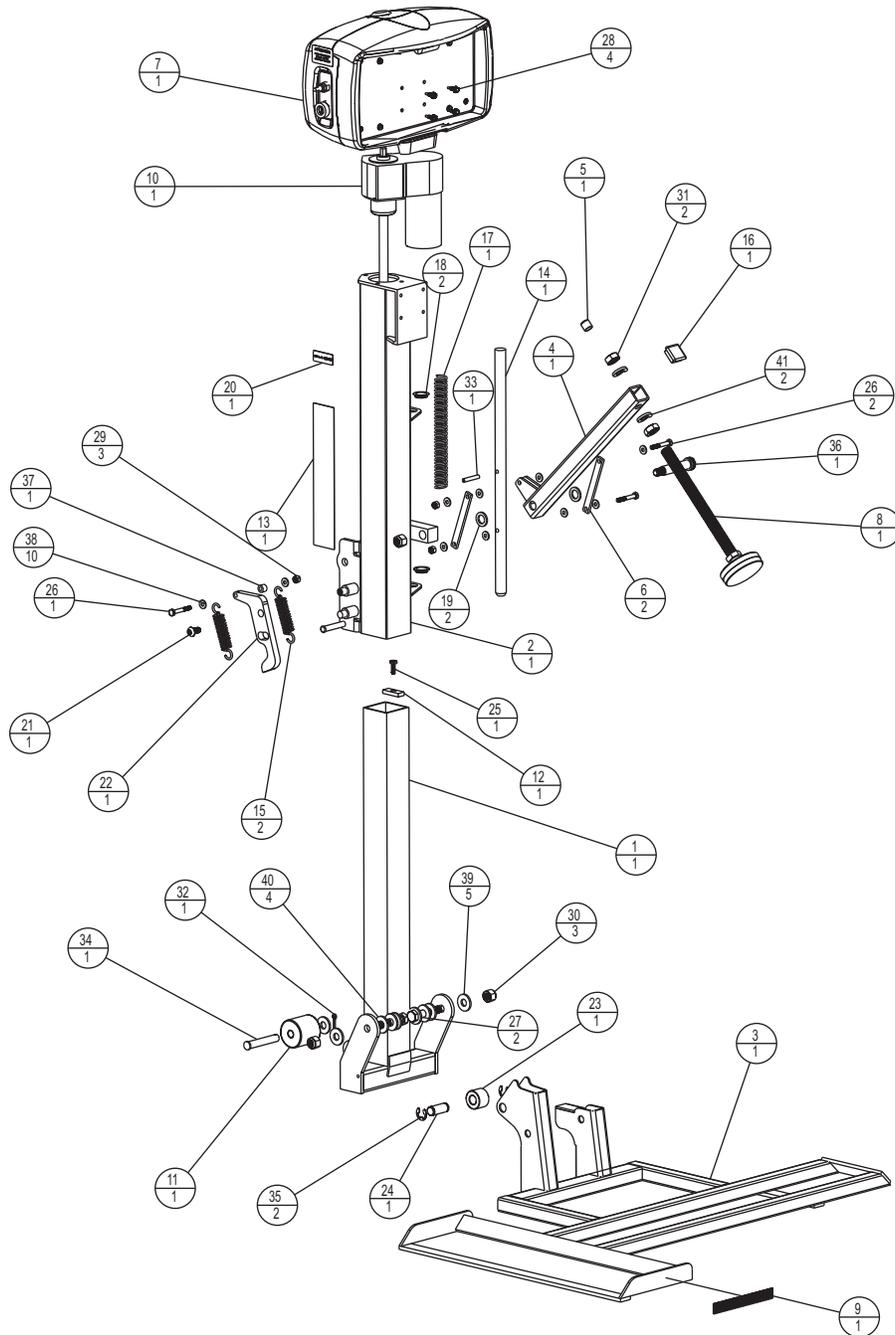
# EXPLODED VIEW - AL010/050



ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION
1	1	201-2A03-C	INNER TUBE
2	1	202-ZA03-C	OUTER TUBE
3	1	203-ZA03-C	PLATFORM
4	1	204-ZA03-C	SPREADER BAR
5	1	500-2A03-A	LOCKING TAB - L.C. ACME ACTUATOR
6	1	800-2A03-A	L.C. ACME ACUTATOR
7	1	ALA10095	STICKER, OUTSIDE LIFT
8	1	ALA180	HARDWARE PACK
9	1	ALA580	U-BOLT HARDWARE KIT
10	1	ALA58040C	ANCHOR PLATE
11	1	ALA99995	LABEL, SERIAL NUMBER
12	1	H00-1A03-A	HARDWARE PACK
13	1	200-2A01-A	MOTOR COVER ASSEMBLY
14	1	HHCS-0_25-20-0_75-NP-Z	HEX HEAD, 1/4-20 x 0.75, ZP
15	4	HWTS-14-0_75-Z	HEX WASHER, #14 SELF DRILL, 0.75, ZP



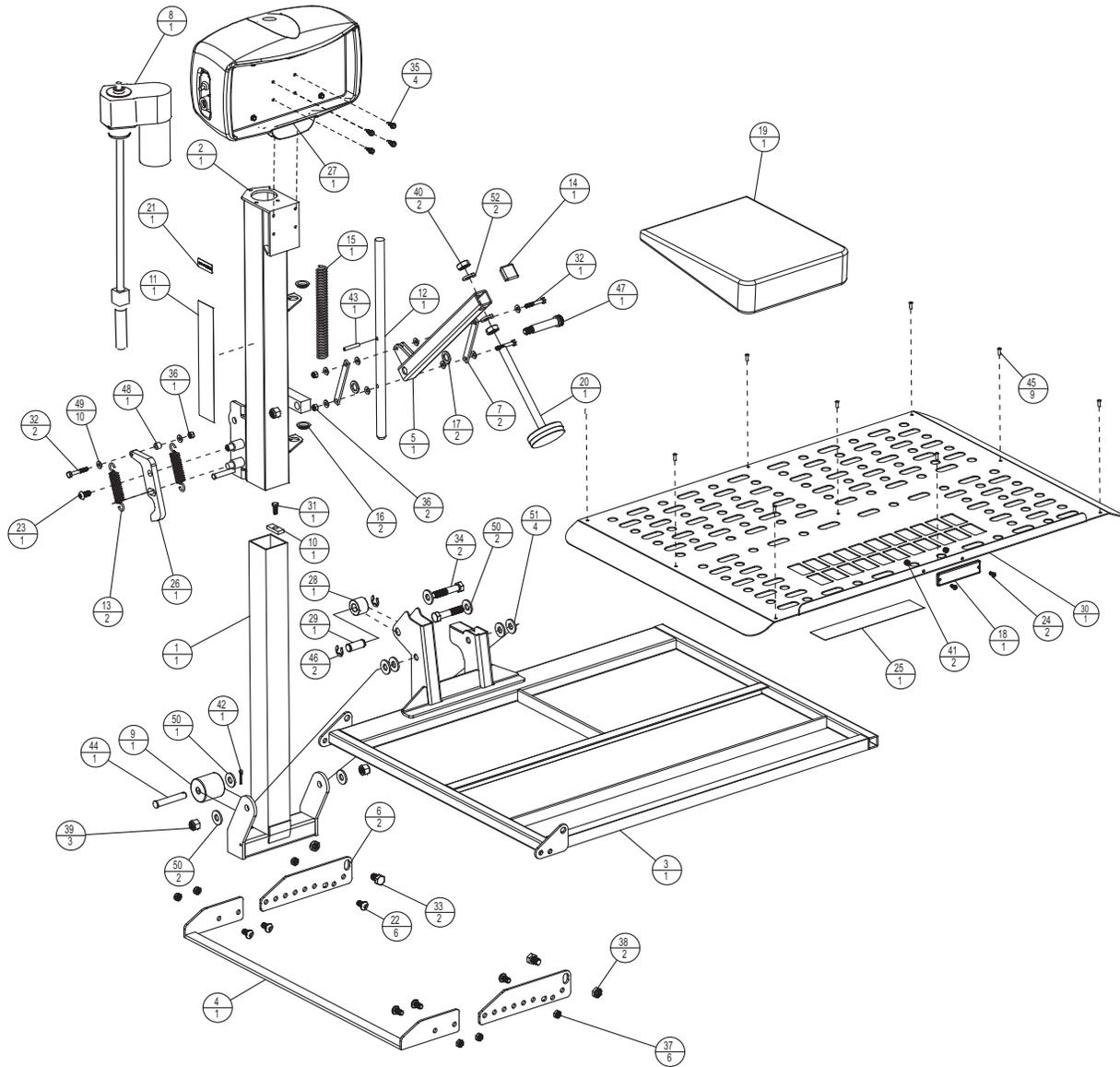
# EXPLODED VIEW - AL015



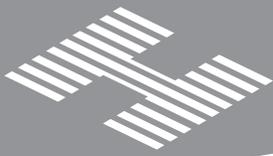
		ASSEMBLY PARTS	
ITEM	QTY	PART NO.	DESCRIPTION
1	1	201-ZA06-C	INNER TUBE
2	1	202-ZA06-C	OUTER TUBE
3	1	203-2A39-C	GO GO ES PLATFORM
4	1	205-3A06-C	HOLD DOWN ARM
5	1	400-2A06-A	VINYL CAP FOR 1/2 OD STUD
6	2	502-ZA06-C	BAR, LINK, 3/16"
7	1	200-2A01-A	MOTOR COVER, ASSEMBLY, OUTSIDE LIFTS
8	1	903-2A36-A	LONG HOLD DOWN FOOT
9	1	903-3A03-A	75" X 6.00" RED REFLECTIVE STICKER
10	1	ALA10010REV2	L.C. ACME ACTUATOR
11	1	ALA10032	ROLLER 2" DIA UHMW
12	1	ALA10050	TAB, ACTUATOR
13	1	ALA10095	STICKER, OUTSIDE LIFT
14	1	ALA108-PLT	HOLD DOWN ARM ROD
15	2	ALA11025	EXTENSION SPRING
16	1	ALA125SPI	INSERTS, 1/4 BLACK PLASTIC
17	1	ALA13025	COMPRESSION SPRING
18	2	ALA13030	NYLINEAR BEARINGS - 3/4"
19	2	ALA13050P	HOLD DOWN ARM WASHER
20	1	ALA9995	LABEL, SERIAL NUMBER

		ASSEMBLY PARTS	
ITEM	QTY	PART NO.	DESCRIPTION
21	1	BHCS-0 37-16-1 00-SS-NP	BUTTON HEAD 3/8-16 x 1.00 SS
22	1	H11010	J-CAM
23	1	H14044	ROLLER
24	1	H14045	CLEVIS PIN
25	1	HHCS-0 25-20-0 75-NP-Z	HEX HEAD, 1/4-20 x 0.75, ZP
26	3	HHCS-0 25-20-1 75-Z	HEX HEAD, 1/4-20 x 1.75, ZP
27	2	HHCS-0 50-13-2 50-Z	HEX HEAD, 1/2-13 x 2.50, ZP
28	4	HWTS-14-0 75-Z	HEX WASHER, #14 SELF DRILL, 0.75, ZP
29	3	NUT-0 25-20-NYLOCK-Z	NUT, NYLOCK, 1/4-20, ZP
30	3	NUT-0 50-13-NYLOCK-Z	NUT, NYLOCK, 1/2-13, ZP
31	2	NUT-0 62-11-JAM-Z	NUT, JAM, 5/8-11, ZP
32	1	PIN-0 12-1 50-CO-SS	COTTER PIN
33	1	PIN-0 25-1 50-RP-Z	ROLL PIN, 1/4 x 1.50, SPLIT, ZP
34	1	PIN-0 50-3 00-CL-Z	CLEVIS PIN, 1/2" x 3" L, ZP
35	2	RR-0 62-EC-Z	E-CLIP, 5/8" SHAFT
36	1	SHSB-0 62-2 50-Z	SHOULDER BOLT, 5/8 DIA x 2.50, ZP
37	1	SPCR-0 25-0 50-0 31-N	SPACER, 1/4", for CAM SPRINGS
38	10	WASH-0 25-0 62-0 04-RH-SS	WASHER, FLAT, 1/4", SS
39	5	WASH-0 50-1 06-0 08-RH-SS	WASHER, FLAT, 1/2", SS
40	4	WASH-0 50-1 50-0 12-N	WASHER, FLAT, 1/2", NYLON
41	2	WASH-0 62-1 08-0 15-SL-Z	WASHER, SPLIT-LOCK, 5/8, ZP

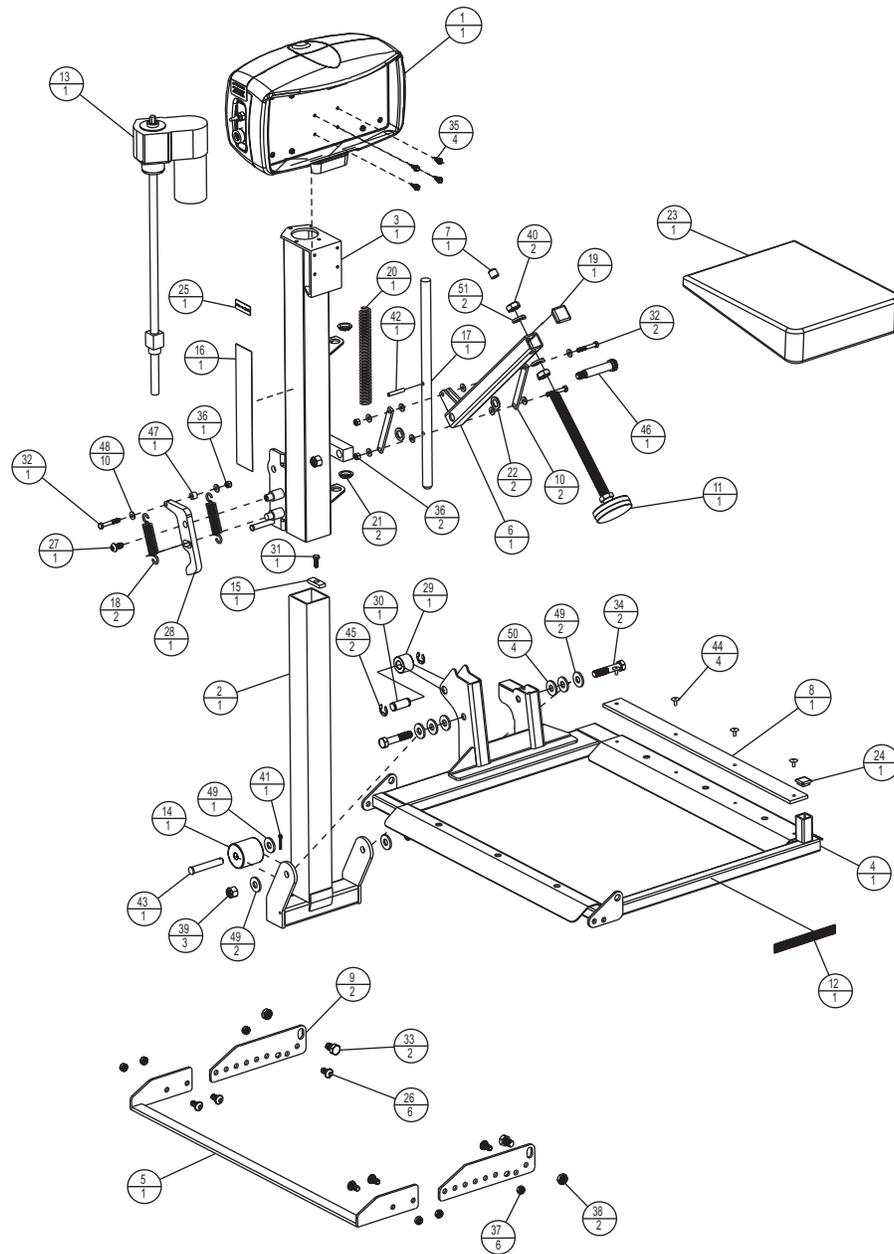
# EXPLODED VIEW - AL100



ASSEMBLY PARTS				ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION	ITEM	QTY	PART NO.	DESCRIPTION
1	1	201-ZA06-C	INNER TUBE	27	1	200-2A01-A	MOTOR COVER ASSEMBLY
2	1	202-ZA06-C	OUTER TUBE	28	1	H14044	ROLLER
3	1	203-ZA06-C	PLATFORM	29	1	H14045	CLEVIS PIN
4	1	204-ZA06-C	EXTENDED CRADLE BAR	30	1	H14407	ALUMINUM PLATE
5	1	205-ZA06-C	HOLD DOWN ARM	31	1	HHCS-0_25-20-0_75-NP-Z	HEX HEAD, 1/4-20 x 0.75, ZP
6	2	501-ZA06-C	SPREADER BAR BRACKET	32	3	HHCS-0_25-20-1_75-Z	HEX HEAD, 1/4-20 x 1.75, ZP
7	2	502-ZA06-C	BAR, LINK, 3/16"	33	2	HHCS-0_50-13-0_75-Z	HEX HEAD, 1/2-13 x 0.75, ZP
8	1	ALA10010REV2	ACUTATOR	34	2	HHCS-0_50-13-2_50-Z	HEX HEAD, 1/2-13 x 2.50, ZP
9	1	ALA10032	ROLLER 2" DIA UHMW	35	4	HWTS-14-0_75-Z	HEX WASHER, #14 SELF DRILL, 0.75, ZP
10	1	ALA10050	TAB, ACTUATOR	36	3	NUT-0_25-20-NYLOCK-Z	NUT, NYLOCK, 1/4-20, ZP
11	1	ALA10095	STICKER, OUTSIDE LIFT	37	6	NUT-0_37-16-NYLOCK-NTE-Z	THIN NUT, NYLOCK, 3/8-16, ZP
12	1	ALA108-PLT	HOLD DOWN ARM ROD	38	2	NUT-0_50-13-NYLOCK-NTE-Z	THIN NUT, NYLOCK, 1/2-13, ZP
13	2	ALA11025	EXTENSION SPRING	39	3	NUT-0_50-13-NYLOCK-Z	NUT, NYLOCK, 1/2-13, ZP
14	1	ALA125SPI	INSERTS, 1 1/4 BLACK PLASTIC	40	2	NUT-0_62-11-JAM-Z	NUT, JAM, 5/8-11, ZP
15	1	ALA13025	COMPRESSION SPRING	41	2	NUT-10-24-NYLOCK-Z	NUT, NYLOCK, #10-24, ZP
16	2	ALA13030	NYLINEAR BEARINGS - 3/4"	42	1	PIN-0_12-1_50-CO-SS	COTTER PIN
17	2	ALA13050P	HOLD DOWN ARM WASHER	43	1	PIN-0_18-1_50-RP-Z	ROLL PIN, 3/16, SPLIT, ZP
18	1	ALA14096	RED REFLECTOR	44	1	PIN-0_50-3_00-CL-Z	CLEVIS PIN, 1/2" x 3" L, ZP
19	1	ALA180	HARDWARE PACK	45	9	RIV-188-SS	RIVET
20	1	ALA18020	HOLD DOWN FOOT	46	2	RR-0_62-EC-Z	E-CLIP, 5/8" SHAFT
21	1	ALA99995	LABEL, SERIAL NUMBER	47	1	SHSB-0_62-2_50-Z	SHOULDER BOLT, 5/8 DIA x 2.50, ZP
22	6	BHCS-0_37-16-0_75-SS	BUTTON HEAD, 3/8-16 x 0.75, SS	48	1	SPCR-0_25-0_50-0_31-N	SPACER, 1/4", for CAM SPRINGS
23	1	BHCS-0_37-16-1_00-SS-NP	BUTTON HEAD 3/8-16 x 1.00 SS	49	10	WASH-0_25-0_62-0_04-RH-SS	WASHER, FLAT, 1/4", SS
24	2	BHCS-10-24-0_50-SS	BUTTON HEAD, #10-24 X 0.50, SS	50	5	WASH-0_50-1_06-0_08-RH-SS	WASHER, FLAT, 1/2", SS
25	1	H10096	STICKER, PLATFORM	51	4	WASH-0_50-1_50-0_12-N	WASHER, FLAT, 1/2", NYLON
26	1	H11010	J-CAM	52	2	WASH-0_62-1_08-0_15-SL-Z	WASHER, SPLIT-LOCK, 5/8, ZP



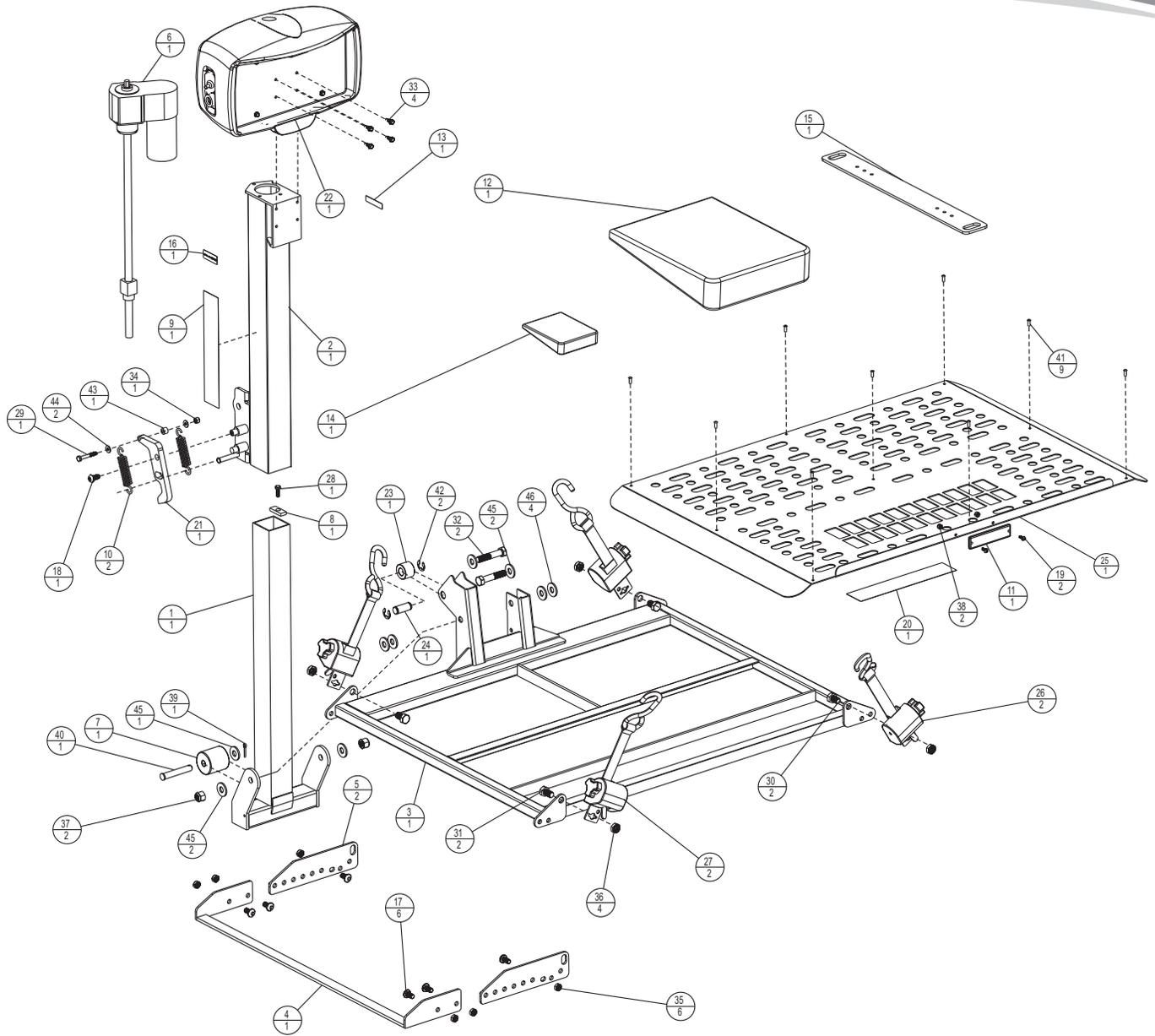
# EXPLODED VIEW - AL160



ITEM		ASSEMBLY PARTS	
ITEM	QTY	PART NO.	DESCRIPTION
1	1	200-2A01-A	MOTOR COVER, ASSEMBLY, OUTSIDE LIFTS
2	1	201-ZA06-C	INNER TUBE
3	1	202-ZA06-C	OUTER TUBE
4	1	203-2A36-C	AL160 PLATFORM
5	1	204-ZA06-C	EXTENDED CRADLE BAR
6	1	205-3A06-C	HOLD DOWN ARM
7	1	400-2A06-A	VINYL CAP FOR 1/2 OD STUD
8	1	400-2A36-A	RUBBER STRIP FOR AL160
9	2	501-ZA06-C	SPREADER BAR BRACKET
10	2	502-ZA06-C	BAR, LINK, 3/16"
11	1	903-2A36-A	LONG HOLD DOWN FOOT
12	1	903-3A03-A	.75" X 6.00" RED REFLECTIVE STICKER
13	1	ALA10010REV2	ACTUATOR
14	1	ALA10032	ROLLER 2" DIA UHMW
15	1	ALA10050	TAB, ACTUATOR
16	1	ALA10095	STICKER, OUTSIDE LIFT
17	1	ALA108-PLT	HOLD DOWN ARM ROD
18	2	ALA11025	EXTENSION SPRING
19	1	ALA125SPI	INSERTS, 1 1/4 BLACK PLASTIC
20	1	ALA13025	COMPRESSION SPRING
21	2	ALA13030	NYLINEAR BEARINGS - 3/4"
22	2	ALA13050P	HOLD DOWN ARM WASHER
23	1	ALA180	HARDWARE PACK
24	1	ALA25025FP	(CAP)UGSF FP1-161 39276AB)
25	1	ALA99995	LABEL, SERIAL NUMBER

ITEM		ASSEMBLY PARTS	
ITEM	QTY	PART NO.	DESCRIPTION
26	6	BHCS-0 37-16-0 75-SS	BUTTON HEAD, 3/8-16 x 0.75, SS
27	1	BHCS-0 37-16-1 00-SS-NP	BUTTON HEAD 3/8-16 x 1.00 SS
28	1	H11010	J-CAM
29	1	H14044	ROLLER
30	1	H14045	CLEVIS PIN
31	1	HHCS-0 25-20-0 75-NP-Z	HEX HEAD, 1/4-20 x 0.75, ZP
32	3	HHCS-0 25-20-1 75-Z	HEX HEAD, 1/4-20 x 1.75, ZP
33	2	HHCS-0 50-13-0 75-Z	HEX HEAD, 1/2-13 x 0.75, ZP
34	2	HHCS-0 50-13-2 50-Z	HEX HEAD, 1/2-13 x 2.50, ZP
35	4	HMTS-14-0 75-Z	HEX WASHER, #14 SELF DRILL, 0.75, ZP
36	3	NUT-0 25-20-NYLOCK-Z	NUT, NYLOCK, 1/4-20, ZP
37	6	NUT-0 37-18-NYLOCK-NTE-Z	NYLOCK NUT, THIN, 3/8-16, ZP
38	2	NUT-0 50-13-NYLOCK-NTE-Z	THIN NUT, NYLOCK, 1/2-13, ZP
39	3	NUT-0 50-13-NYLOCK-Z	NUT, NYLOCK, 1/2-13, ZP
40	2	NUT-0 62-11-JAM-Z	NUT, JAM, 5/8-11, ZP
41	1	PIN-0 12-1 50-CO-SS	COTTER PIN
42	1	PIN-0 25-1 50-RP-Z	ROLL PIN, 1/4 X 1.50, SPLIT, ZP
43	1	PIN-0 50-3 00-CL-Z	CLEVIS PIN, 1/2" x 3" L, ZP
44	4	RIV-0 18-0 57-0 65-SS	3/16" RIVET, .575" LONG WITH .65" HEAD SS
45	2	RR-0 62-EC-Z	E-CLIP, 5/8" SHAFT
46	1	SHSB-0 62-2 50-Z	SHOULDER BOLT, 5/8 DIA x 2.50, ZP
47	1	SPCR-0 25-0 50-0 31-N	SPACER, 1/4", for CAM SPRINGS
48	10	WASH-0 25-0 62-0 04-RH-SS	WASHER, FLAT, 1/4", SS
49	5	WASH-0 50-1 06-0 08-RH-SS	WASHER, FLAT, 1/2", SS
50	4	WASH-0 50-1 50-0 12-N	WASHER, FLAT, 1/2", NYLON
51	2	WASH-0 62-1 08-0 15-LS-Z	WASHER, SPLIT-LOCK, 5/8, ZP

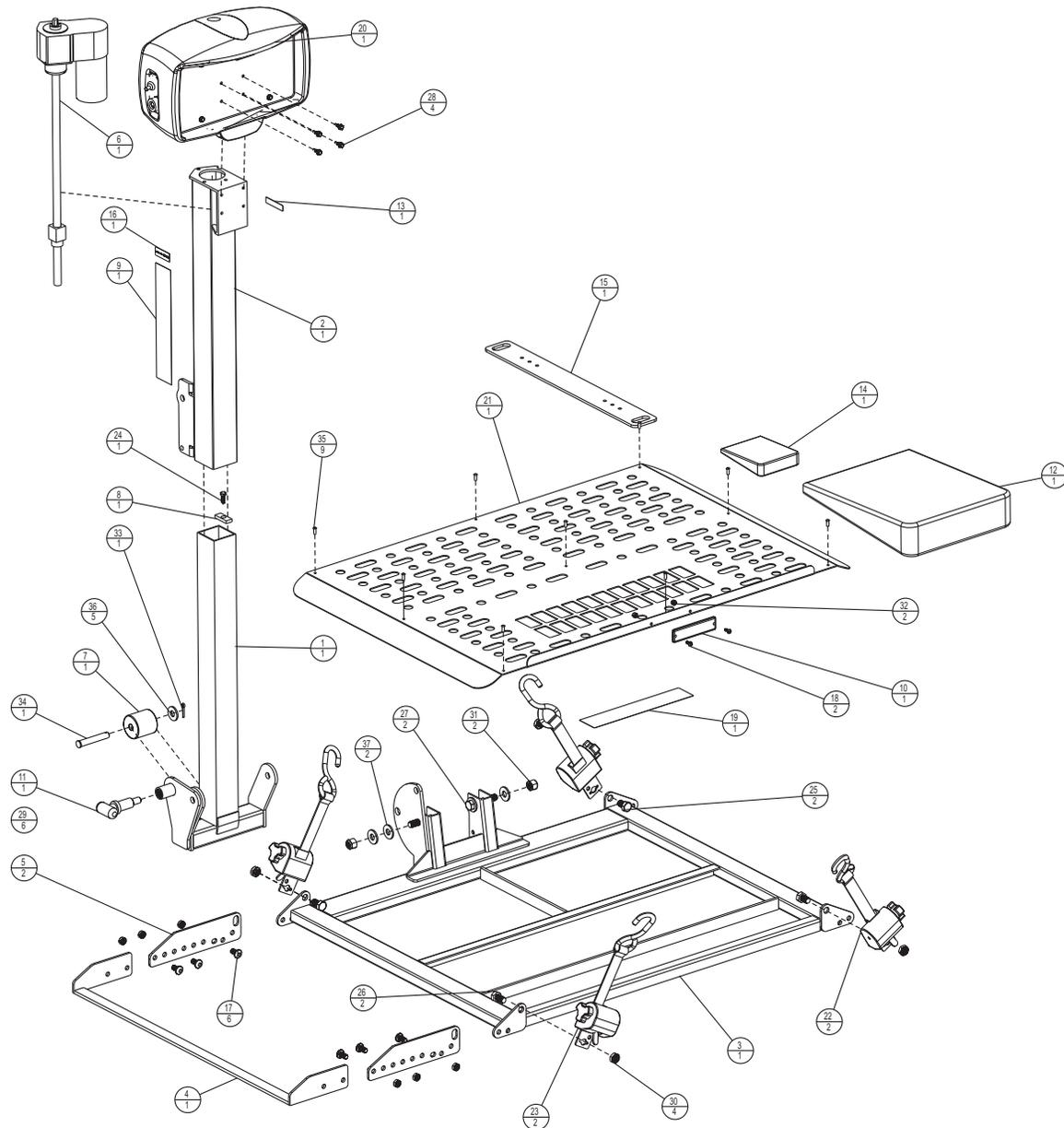
# EXPLODED VIEW - AL300



ASSEMBLY PARTS				ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION	ITEM	QTY	PART NO.	DESCRIPTION
1	1	201-ZA06-C	INNER TUBE	24	1	H14045	CLEVIS PIN
2	1	202-ZA10-C	OUTER TUBE	25	1	H14407	ALUMINUM PLATE
3	1	203-ZA10-C	PLATFORM	26	2	H50010B	LEFT HAND, Q-STRAINT - BLUE
4	1	204-ZA06-C	EXTENDED CRADLE BAR	27	2	H50011B	RIGHT HAND, Q-STRAINT - BLUE
5	2	501-ZA06-C	SPREADER BAR BRACKET	28	1	HHCS-0 25-20-0 75-NP-Z	HEX HEAD, 1/4-20 x 0.75, ZP
6	1	ALA10010REV2	ACUTATOR	29	1	HHCS-0 25-20-1 75-Z	HEX HEAD, 1/4-20 x 1.75, ZP
7	1	ALA10032	ROLLER 2" DIA UHMW	30	2	HHCS-0 50-13-0 75-Z	HEX HEAD, 1/2-13 x 0.75, ZP
8	1	ALA10050	TAB, ACTUATOR	31	2	HHCS-0 50-13-0 87-Z	HEX HEAD, 1/2-13 x 0.88, ZP
9	1	ALA10095	STICKER, OUTSIDE LIFT	32	2	HHCS-0 50-13-2 50-Z	HEX HEAD, 1/2-13 x 2.50, ZP
10	2	ALA11025	EXTENSION SPRING	33	4	HWTS-14-0 75-Z	HEX WASHER, #14 SELF DRILL, 0.75, ZP
11	1	ALA14096	RED REFLECTOR	34	1	NUT-0 25-20-NYLOCK-Z	NUT, NYLOCK, 1/4-20, ZP
12	1	ALA1180	HARDWARE PACK	35	6	NUT-0 37-16-NYLOCK-NTE-Z	THIN NUT, NYLOCK, 3/8-16, ZP
13	1	ALA50099	PATENT STICKER	36	4	NUT-0 50-13-NYLOCK-NTE-Z	THIN NUT, NYLOCK, 1/2-13, ZP
14	1	ALA580	U-BOLT HARDWARE KIT	37	2	NUT-0 50-13-NYLOCK-Z	NUT, NYLOCK, 1/2-13, ZP
15	1	ALA58040C	ANCHOR PLATE	38	2	NUT-10-24-NYLOCK-Z	NUT, NYLOCK, #10-24, ZP
16	1	ALA99995	LABEL, SERIAL NUMBER	39	1	PIN-0 12-1 50-CO-SS	COTTER PIN
17	6	BHCS-0 37-16-0 75-SS	BUTTON HEAD, 3/8-16 x 0.75 SS	40	1	PIN-0 50-3 00-CL-Z	CLEVIS PIN, 1/2" x 3" L, ZP
18	1	BHCS-0 37-16-1 00-SS-NP	BUTTON HEAD 3/8-16 x 1.00 SS	41	9	RIV-188-SS	RIVET
19	2	BHCS-10-24-0 50-SS	BUTTON HEAD, #10-24 X 0.50, SS	42	2	RR-0 62-EC-Z	E-CLIP, 5/8" SHAFT
20	1	H10096	STICKER, PLATFORM	43	1	SPCR-0 25-0 50-0 31-N	SPACER, 1/4", for CAM SPRINGS
21	1	H11010	J-CAM	44	2	WASH-0 25-0 62-0 04-RH-SS	WASHER, FLAT, 1/4", SS
22	1	200-2A01-A	MOTOR COVER ASSEMBLY	45	5	WASH-0 50-1 06-0 08-RH-SS	WASHER, FLAT, 1/2", SS
23	1	H14044	ROLLER	46	4	WASH-0 50-1 50-0 12-N	WASHER, FLAT, 1/2", NYLON

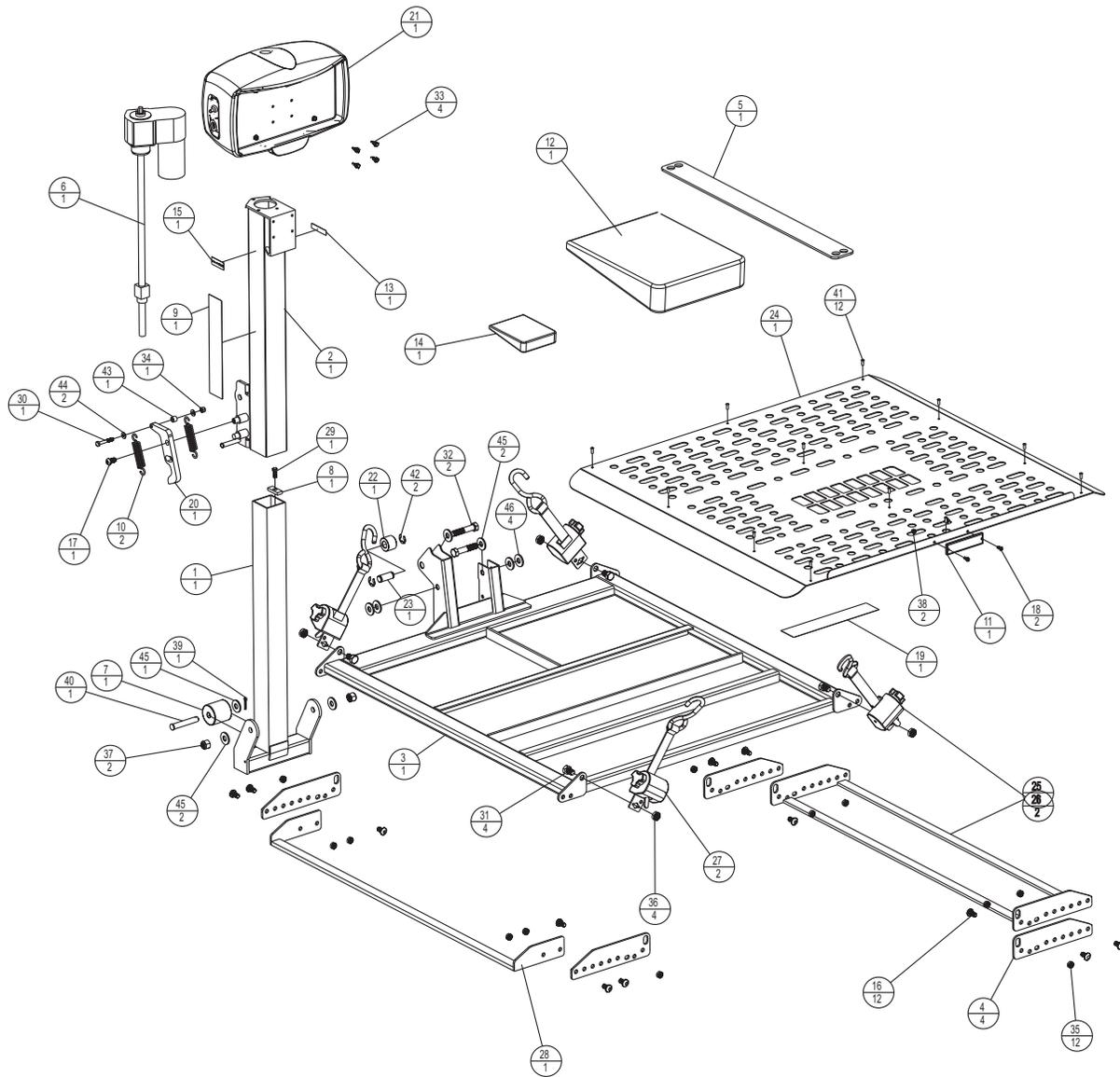


# EXPLODED VIEW - AL300RV



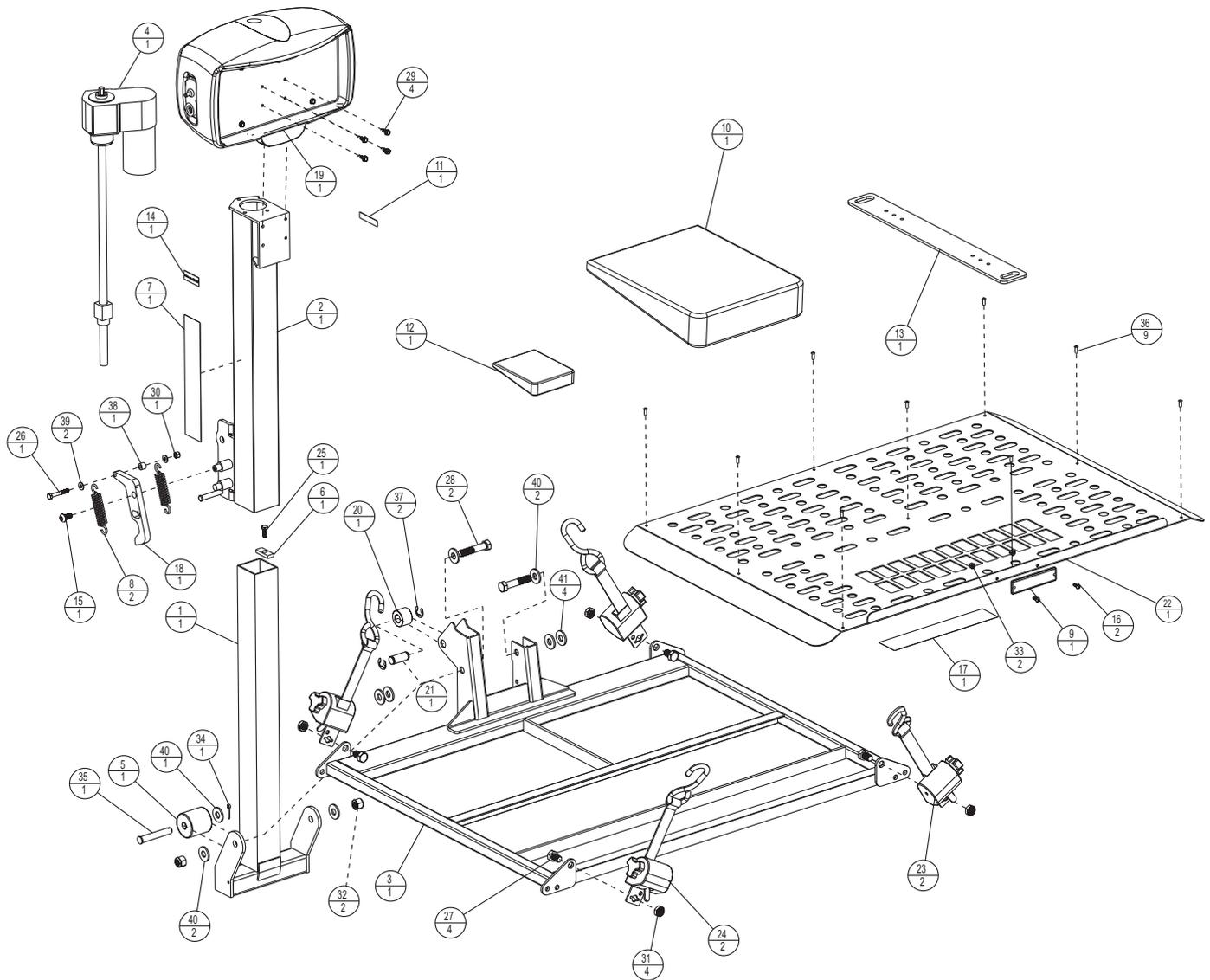
ASSEMBLY PARTS				ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION	ITEM	QTY	PART NO.	DESCRIPTION
1	1	201-ZA08-C	INNER TUBE	20	1	200-2A01-A	MOTOR COVER ASSEMBLY
2	1	202-ZA08-C	OUTER TUBE	21	1	H14407	ALUMINUM PLATE
3	1	203-ZA08-C	PLATFORM	22	2	H50010B	LEFT HAND, Q-STRAINT - BLUE
4	1	204-ZA06-C	EXTENDED CRADLE BAR	23	2	H50011B	RIGHT HAND, Q-STRAINT - BLUE
5	2	501-ZA06-C	SPREADER BAR BRACKET	24	1	HHCS-0_25-20-0_75-NP-Z	HEX HEAD, 1/4-20 x 0.75, ZP
6	1	ALA10010REV2	ACUTATOR	25	2	HHCS-0_50-13-0_75-Z	HEX HEAD, 1/2-13 x 0.75, ZP
7	1	ALA10032	ROLLER 2" DIA UHMW	26	2	HHCS-0_50-13-0_87-Z	HEX HEAD, 1/2-13 X 0.88, ZP
8	1	ALA10050	TAB, ACTUATOR	27	2	HHCS-0_50-13-2_50-Z	HEX HEAD, 1/2-13 x 2.50, ZP
9	1	ALA10095	STICKER, OUTSIDE LIFT	28	4	HHTS-12-14-0_75-Z	HEX WASHER, #12-14 SELF DRILL, 3/4" L, ZP
10	1	ALA14096	RED REFLECTOR	29	6	NUT-0_37-16-NYLOCK-NTE-Z	THIN NUT, NYLOCK, 3/8-16, ZP
11	1	ALA15152R1	T-HANDLE 1/2" SPRING PIN ASSY	30	4	NUT-0_50-13-NYLOCK-NTE-Z	THIN NUT, NYLOCK, 1/2-13, ZP
12	1	ALA180	HARDWARE PACK	31	2	NUT-0_50-13-NYLOCK-Z	NUT, NYLOCK, 1/2-13, ZP
13	1	ALAS90099	PATENT STICKER	32	2	NUT-10-24-NYLOCK-Z	NUT, NYLOCK, #10-24, ZP
14	1	ALAS80	U-BOLT HARDWARE KIT	33	1	PIN-0_12-1_50-CO-SS	COTTER PIN
15	1	ALAS8040C	ANCHOR PLATE	34	1	PIN-0_50-3_00-CL-Z	CLEVIS PIN, 1/2" x 3" L, ZP
16	1	ALA99995	LABEL, SERIAL NUMBER	35	9	RIV-188-SS	RIVET
17	6	BHCS-0_37-16-0_75-SS	BUTTON HEAD, 3/8-16 x 0.75, SS	36	5	WASH-0_50-1_06-0_08-RH-SS	WASHER, FLAT, 1/2", SS
18	2	BHCS-10-24-0_50-SS	BUTTON HEAD, #10-24 X 0.50, SS	37	2	WASH-0_50-1_50-0_12-N	WASHER, FLAT, 1/2", NYLON
19	1	H10096	STICKER, PLATFORM				

# EXPLODED VIEW - AL301XL



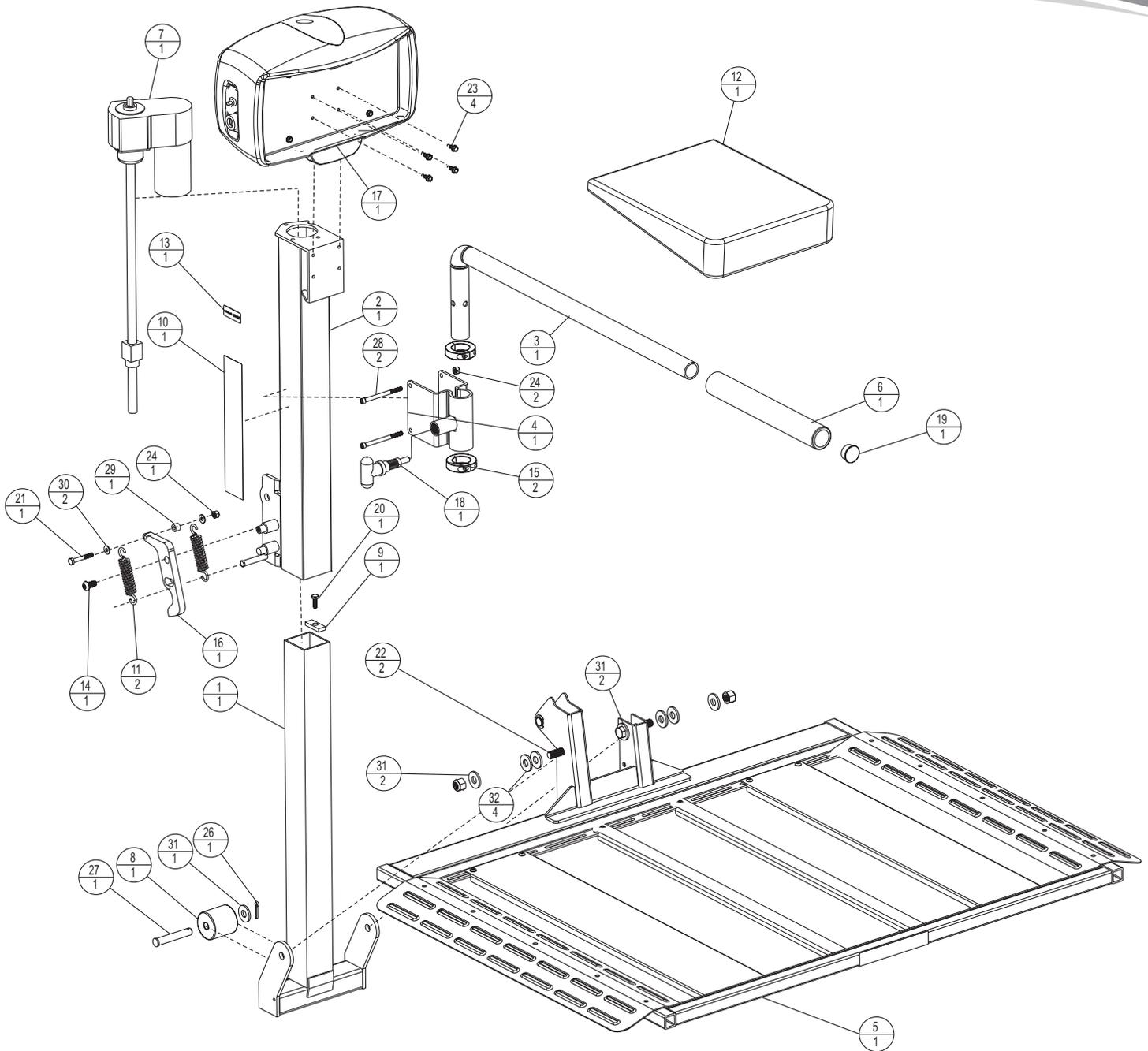
ASSEMBLY PARTS				ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION	ITEM	QTY	PART NO.	DESCRIPTION
1	1	201-ZA06-C	INNER TUBE	24	1	H30110	ALUMINUM SKIN 301XL
2	1	202-ZA10-C	OUTER TUBE	25	1	H30151	AL301XL FRONT WHEEL CRADLE
3	1	203-ZA09-C	PLATFORM	26	2	H50010B	LEFT HAND, Q-STRAINT - BLUE
4	4	501-ZA06-C	SPREADER BAR BRACKET	27	2	H50011B	RIGHT HAND, Q-STRAINT - BLUE
5	1	AL591	ANCHOR PLATE, 27.00	28	1	H52303XL	AL301XL EXTENDED CRADLE BAR
6	1	ALA10010REV2	ACUTATOR	29	1	HHCS-0_25-20-0_75-NP-Z	HEX HEAD, 1/4-20 x 0.75, ZP
7	1	ALA10032	ROLLER 2" DIA UHMW	30	1	HHCS-0_25-20-1_75-Z	HEX HEAD, 1/4-20 x 1.75, ZP
8	1	ALA10050	TAB, ACTUATOR	31	4	HHCS-0_50-13-0_75-Z	HEX HEAD, 1/2-13 x 0.75, ZP
9	1	ALA10095	STICKER, OUTSIDE LIFT	32	2	HHCS-0_50-13-2_50-Z	HEX HEAD, 1/2-13 x 2.50, ZP
10	2	ALA11025	EXTENSION SPRING	33	4	HWTS-14-0_75-Z	HEX WASHER, #14 SELF DRILL, 0.75, ZP
11	1	ALA14096	RED REFLECTOR	34	1	NUT-0_25-20-NYLOCK-Z	NUT, NYLOCK, 1/4-20, ZP
12	1	ALA180	HARDWARE PACK	35	12	NUT-0_37-16-NYLOCK-NTE-Z	THIN NUT, NYLOCK, 3/8-16, ZP
13	1	ALA50099	PATENT STICKER	36	4	NUT-0_50-13-NYLOCK-NTE-Z	THIN NUT, NYLOCK, 1/2-13, ZP
14	1	ALA580	U-BOLT HARDWARE KIT	37	2	NUT-0_50-13-NYLOCK-Z	NUT, NYLOCK, 1/2-13, ZP
15	1	ALA99995	LABEL, SERIAL NUMBER	38	2	NUT-10-24-NYLOCK-Z	NUT, NYLOCK, #10-24, ZP
16	12	BHCS-0_37-16-0_75-SS	BUTTON HEAD, 3/8-16 x 0.75, SS	39	1	PIN-0_12-1_50-CO-SS	COTTER PIN
17	1	BHCS-0_37-16-1_00-SS-NP	BUTTON HEAD 3/8-16 x 1.00 SS	40	1	PIN-0_50-3_00-CL-Z	CLEVIS PIN, 1/2" x 3" L, ZP
18	2	BHCS-10-24-0_50-SS	BUTTON HEAD, #10-24 X 0.50, SS	41	12	RIV-188-SS	RIVET
19	1	H10096	STICKER, PLATFORM	42	2	RR-0_62-EC-Z	E-CLIP, 5/8" SHAFT
20	1	H11010	J-CAM	43	1	SPCR-0_25-0_50-0_31-N	SPACER, 1/4", for CAM SPRINGS
21	1	200-2A01-A	MOTOR COVER ASSEMBLY	44	2	WASH-0_25-0_62-0_04-RH-SS	WASHER, FLAT, 1/4", SS
22	1	H14044	ROLLER	45	5	WASH-0_50-1_06-0_08-RH-SS	WASHER, FLAT, 1/2", SS
23	1	H14045	CLEVIS PIN	46	4	WASH-0_50-1_50-0_12-N	WASHER, FLAT, 1/2", NYLON

# EXPLODED VIEW - AL500



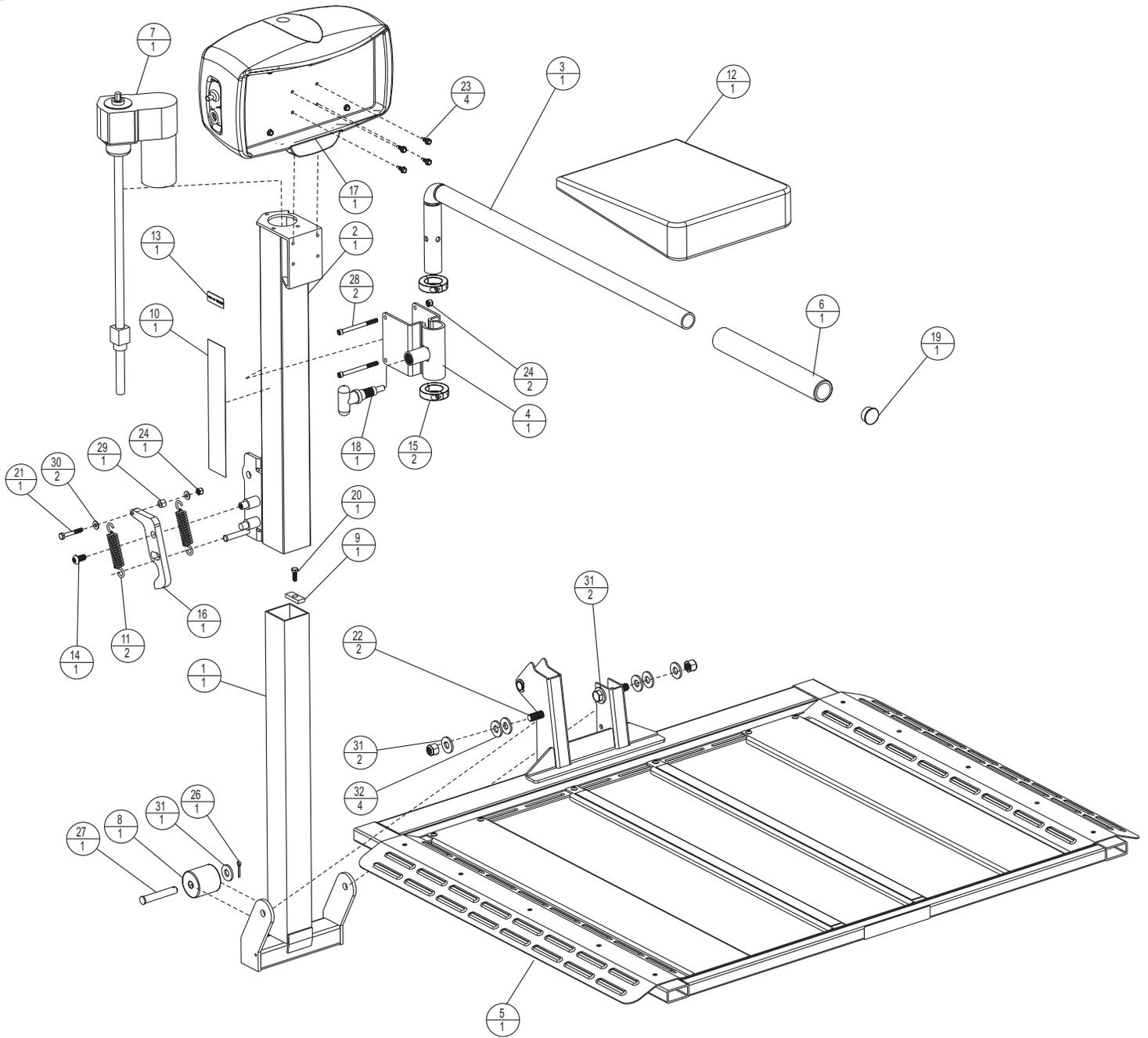
ASSEMBLY PARTS				ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION	ITEM	QTY	PART NO.	DESCRIPTION
1	1	201-ZA06-C	INNER TUBE	22	1	H14407	ALUMINUM PLATE
2	1	202-ZA10-C	OUTER TUBE	23	2	H50010B	LEFT HAND, Q-STRAINT - BLUE
3	1	203-ZA10-C	PLATFORM	24	2	H50011B	RIGHT HAND, Q-STRAINT - BLUE
4	1	ALA10010REV2	ACTUATOR	25	1	HHCS-0_25-20-0_75-NP-Z	HEX HEAD, 1/4-20 x 0.75, ZP
5	1	ALA10032	ROLLER 2" DIA UHMW	26	1	HHCS-0_25-20-1_75-Z	HEX HEAD, 1/4-20 x 1.75, ZP
6	1	ALA10050	TAB, ACTUATOR	27	4	HHCS-0_50-13-0_75-Z	HEX HEAD, 1/2-13 x 0.75, ZP
7	1	ALA10095	STICKER, OUTSIDE LIFT	28	2	HHCS-0_50-13-2_50-Z	HEX HEAD, 1/2-13 x 2.50, ZP
8	2	ALA11025	EXTENSION SPRING	29	4	HWTS-14-0_75-Z	HEX WASHER, #14 SELF DRILL, 0.75, ZP
9	1	ALA14096	RED REFLECTOR	30	1	NUT-0_25-20-NYLOCK-Z	NUT, NYLOCK, 1/4-20, ZP
10	1	ALA180	HARDWARE PACK	31	4	NUT-0_50-13-NYLOCK-NTE-Z	THIN NUT, NYLOCK, 1/2-13, ZP
11	1	ALA50099	PATENT STICKER	32	2	NUT-0_50-13-NYLOCK-Z	NUT, NYLOCK, 1/2-13, ZP
12	1	ALA580	U-BOLT HARDWARE KIT	33	2	NUT-10-24-NYLOCK-Z	NUT, NYLOCK, #10-24, ZP
13	1	ALA58040C	ANCHOR PLATE	34	1	PIN-0_12-1_50-CO-SS	COTTER PIN
14	1	ALA99995	LABEL, SERIAL NUMBER	35	1	PIN-0_50-3_00-CL-Z	CLEVIS PIN, 1/2" x 3", ZP
15	1	BHCS-0_37-16-1_00-SS-NP	BUTTON HEAD 3/8-16 x 1.00 SS	36	9	RIV-188-SS	RIVET
16	2	BHCS-10-24-0_50-SS	BUTTON HEAD, #10-24 X 0.50, SS	37	2	RR-0_62-EC-Z	E-CLIP, 5/8" SHAFT
17	1	H10096	STICKER, PLATFORM	38	1	SPCR-0_25-0_50-0_31-N	SPACER, 1/4", for CAM SPRINGS
18	1	H11010	J-CAM	39	2	WASH-0_25-0_62-0_04-RH-SS	WASHER, FLAT, 1/4", SS
19	1	200-2A01-A	MOTOR COVER ASSEMBLY	40	5	WASH-0_50-1_06-0_08-RH-SS	WASHER, FLAT, 1/2", SS
20	1	H14044	ROLLER	41	4	WASH-0_50-1_50-0_12-N	WASHER, FLAT, 1/2", NYLON
21	1	H14045	CLEVIS PIN				

# EXPLODED VIEW - AL560



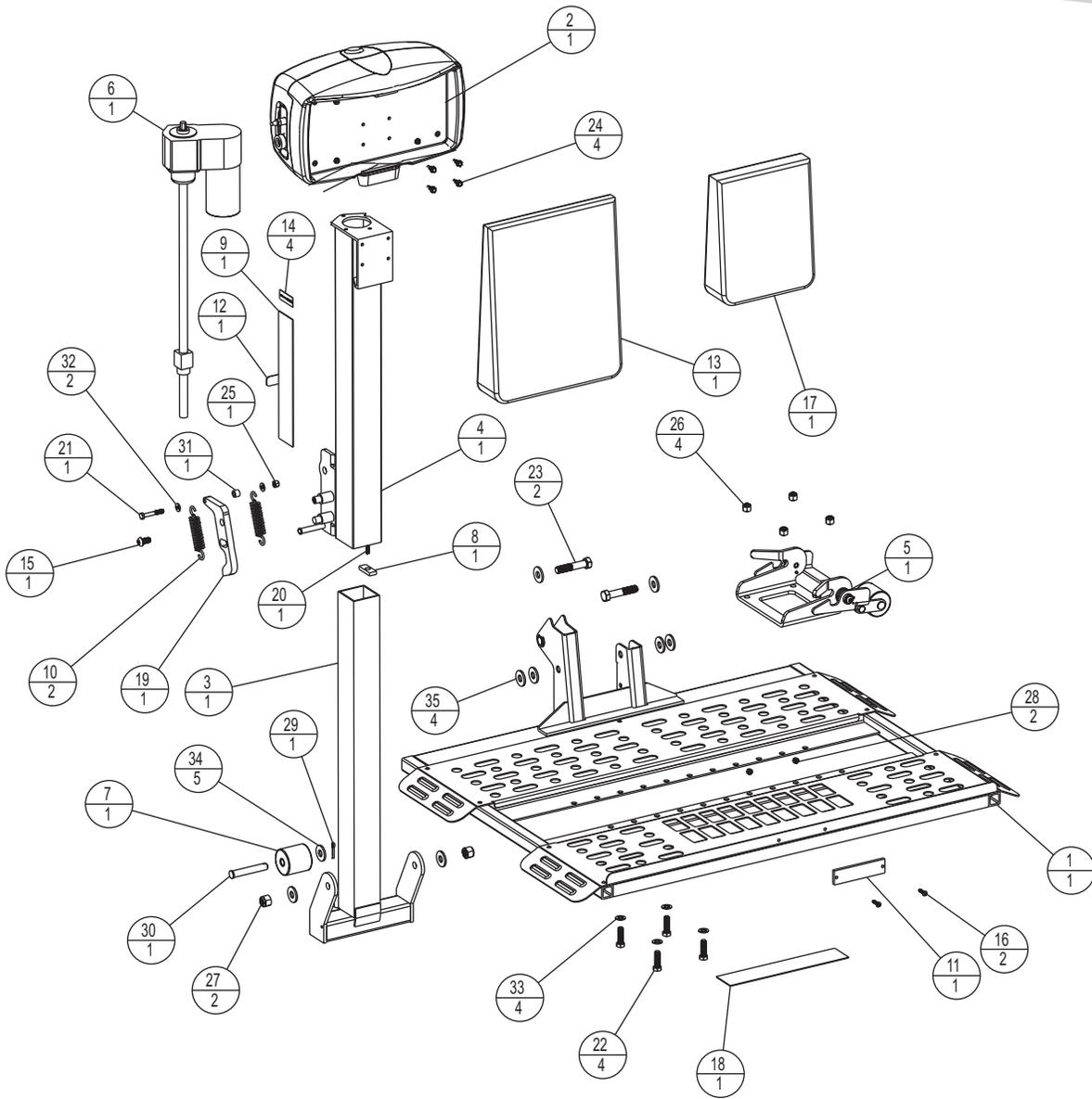
ASSEMBLY PARTS				ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION	ITEM	QTY	PART NO.	DESCRIPTION
1	1	201-ZA06-C	INNER TUBE	17	1	200-2A01-A	MOTOR COVER ASSEMBLY
2	1	202-ZA10-C	OUTER TUBE	18	1	H56069R1	T-HANDLE SPRING PIN ASSY 3/8" PIN, BLUE
3	1	205-ZA13-C	HOLD DOWN ARM	19	1	H752102	1.25 DIAMETER END CAP
4	1	206-ZA13-C	FORMED HOLD DOWN ARM BRACKET	20	1	HHCS-0_25-20-0_75-NP-Z	HEX HEAD, 1/4-20 x 0.75, ZP
5	1	210-ZA13-A	PLATFORM ASSEMBLY	21	1	HHCS-0_25-20-1_75-Z	HEX HEAD, 1/4-20 x 1.75, ZP
6	1	ALA03059	FOAM RUBBER GRIP 12in LONG	22	2	HHCS-0_50-13-2_50-Z	HEX HEAD, 1/2-13 x 2.50, ZP
7	1	ALA10010REV2	ACTUATOR	23	4	HWTS-14-0_75-Z	HEX WASHER, #14 SELF DRILL, 0.75, ZP
8	1	ALA10032	ROLLER 2" DIA UHMW	24	3	NUT-0_25-20-NYLOCK-Z	NUT, NYLOCK, 1/4-20, ZP
9	1	ALA10050	TAB, ACTUATOR	25	2	NUT-0_50-13-NYLOCK-Z	NUT, NYLOCK, 1/2-13, ZP
10	1	ALA10095	STICKER, OUTSIDE LIFT	26	1	PIN-0_12-1_50-CO-SS	COTTER PIN
11	2	ALA11025	EXTENSION SPRING	27	1	PIN-0_50-3_00-CL-Z	CLEVIS PIN, 1/2" x 3" L, ZP
12	1	ALA180	HARDWARE PACK	28	2	SHCS-0_25-20-3_25-Z	SHCS, 1/4-20 x 3-1/4", ZP
13	1	ALA99995	LABEL, SERIAL NUMBER	29	1	SPCR-0_25-0_50-0_31-N	SPACER, 1/4", for CAM SPRINGS
14	1	BHCS-0_37-16-1_00-SS-NP	BUTTON COLLAR 3/8-16 x 1.00 SS	30	2	WASH-0_25-0_62-0_04-RH-SS	WASHER, FLAT, 1/4", SS
15	2	COLLAR-1_25-SH-OP-Z	SHAFT COLLAR, 1-1/4" BORE	31	5	WASH-0_50-1_06-0_08-RH-SS	WASHER, FLAT, 1/2", SS
16	1	H11010	J-CAM	32	4	WASH-0_50-1_50-0_12-N	WASHER, FLAT, 1/2", NYLON

# EXPLODED VIEW - AL560XL



ASSEMBLY PARTS				ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION	ITEM	QTY	PART NO.	DESCRIPTION
1	1	201-ZA06-C	INNER TUBE	17	1	200-2A01-A	MOTOR COVER ASSEMBLY
2	1	202-ZA10-C	OUTER TUBE	18	1	H56069R1	T-HANDLE SPRING PIN ASSY 3/8" PIN, BLUE
3	1	205-ZA14-C	HOLD DOWN ARM	19	1	H752102	1.25 DIAMETER END CAP
4	1	206-ZA13-C	FORMED HOLD DOWN ARM BRACKET	20	1	HHCS-0_25-20-0_75-NP-Z	HEX HEAD, 1/4-20 x 0.75, ZP
5	1	210-ZA14-A	PLATFORM ASSEMBLY	21	1	HHCS-0_25-20-1_75-Z	HEX HEAD, 1/4-20 x 1.75, ZP
6	1	ALA03059	FOAM RUBBER GRIP 12in LONG	22	2	HHCS-0_50-13-2_50-Z	HEX HEAD, 1/2-13 x 2.50, ZP
7	1	ALA10010REV2	ACUTATOR	23	4	HMTS-14-0_75-Z	HEX WASHER, #14 SELF DRILL, 0.75, ZP
8	1	ALA10032	ROLLER 2" DIA UHMW	24	3	NUT-0_25-20-NYLOCK-Z	NUT, NYLOCK, 1/4-20, ZP
9	1	ALA10050	TAB, ACTUATOR	25	2	NUT-0_50-13-NYLOCK-Z	NUT, NYLOCK, 1/2-13, ZP
10	1	ALA10095	STICKER, OUTSIDE LIFT	26	1	PIN-0_12-1_50-CO-SS	COTTER PIN
11	2	ALA11025	EXTENSION SPRING	27	1	PIN-0_50-3_00-CL-Z	CLEVIS PIN, 1/2" x 3" L, ZP
12	1	ALA180	HARDWARE PACK	28	2	SHCS-0_25-20-3_25-Z	SHCS, 1/4-20 x 3-1/4", ZP
13	1	ALA99995	LABEL, SERIAL NUMBER	29	1	SPCR-0_25-0_50-0_31-N	SPACER, 1/4", for CAM SPRINGS
14	1	BHCS-0_37-16-1_00-SS-NP	BUTTON HEAD 3/8-16 x 1.00 SS	30	2	WASH-0_25-0_62-0_04-RH-SS	WASHER, FLAT, 1/4", SS
15	2	COLLAR-1_25-SH-OP-Z	SHAFT COLLAR, 1-1/4" BORE	31	5	WASH-0_50-1_06-0_08-RH-SS	WASHER, FLAT, 1/2", SS
16	1	H11010	J-CAM	32	4	WASH-0_50-1_50-0_12-N	WASHER, FLAT, 1/2", NYLON

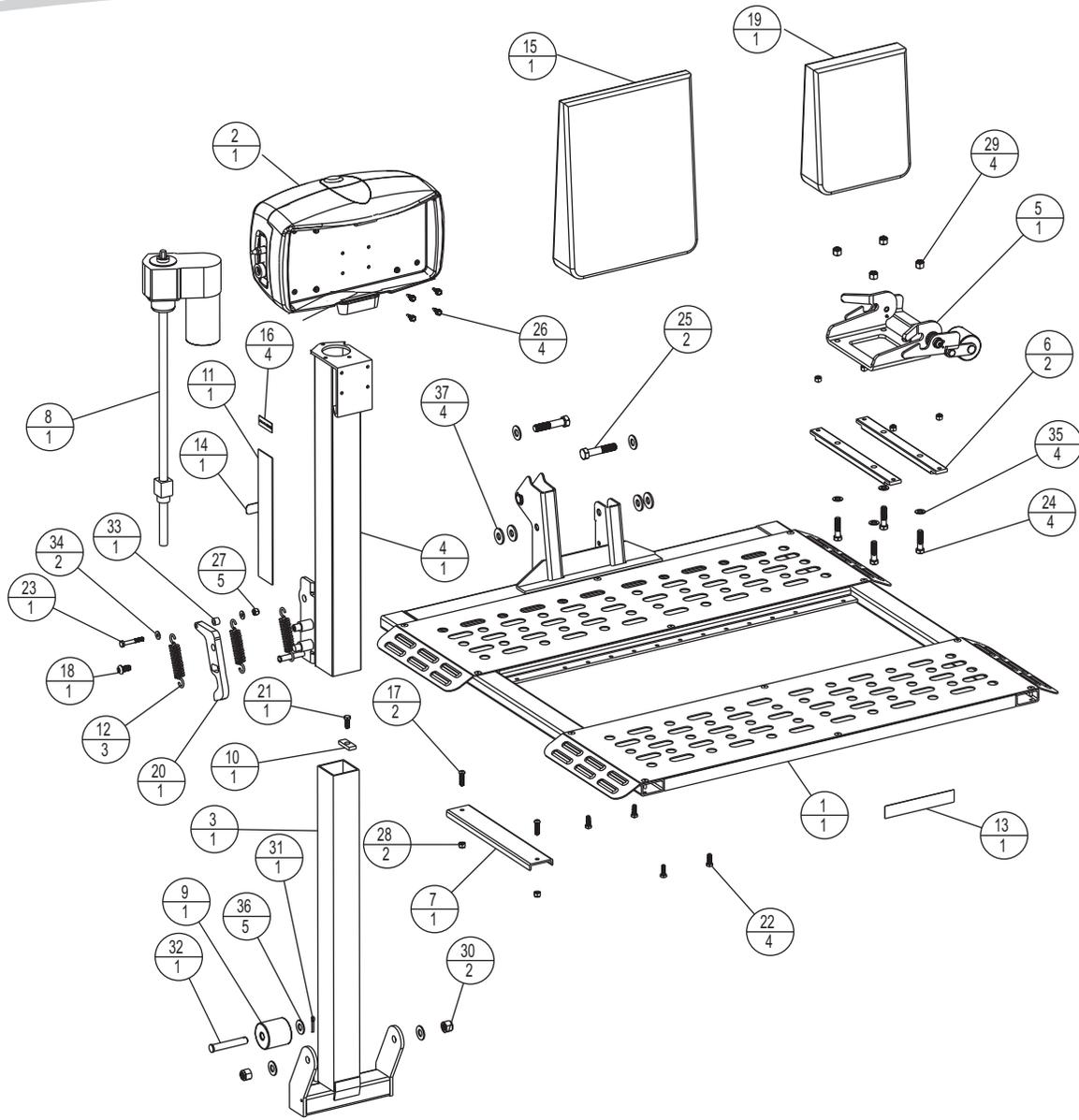
# EXPLODED VIEW - AL570



ITEM	QTY	PART NO.	DESCRIPTION
1	1	200-1A15-A	PLATFORM ASSEMBLY
2	1	200-2A01-A	MOTOR COVER, ASSEMBLY, OUTSIDE LIFTS
3	1	201-ZA06-C	NARROW INNER TUBE
4	1	202-ZA10-C	OUTER TUBE
5	1	240-1A15-A	DOCK AND LOCK ASSEMBLY
6	1	ALA10010REV2	ACUTATOR
7	1	ALA10032	ROLLER 2" DIA UHMW
8	1	ALA10050	TAB, ACTUATOR
9	1	ALA10095	OUTSIDER STICKER
10	2	ALA11025	EXTENSION SPRING
11	1	ALA14096	RED REFLECTOR
12	1	ALA17095	LABEL, PATENT PENDING
13	1	ALA180	HARDWARE PACK
14	4	ALA99995	LABEL, SERIAL NUMBER
15	1	BHCS-0_37-16-1_00-SS-NP	BUTTON HEAD 3/8-16 X 0.75 SS
16	2	BHCS-10-24-0_75-SS	BUTTON HEAD, 10-24 X 0.75, SS
17	1	H00-1A15-A	DNL HARDWARE PACK

ITEM	QTY	PART NO.	DESCRIPTION
18	1	H10096	STICKER, "HARMAR"
19	1	H11010	J CAM
20	1	HHCS-0_25-20-0_75-NP-Z	HEX HEAD, 1/4-20 X 0.75, ZP
21	1	HHCS-0_25-20-1_75-Z	HEX HEAD, 1/4-20 X 1.75, ZP
22	4	HHCS-0_37-16-1_25-Z	HEX HEAD, 3/8-16 X 1.25, ZP
23	2	HHCS-0_50-13-2_50-Z	HEX HEAD, 1/2-13 X 2.50, ZP
24	4	HWTS-14-0_75-Z	HEX WASHER, #14 SELF DRILL, 3/4" L, ZP
25	1	NUT-0_25-20-NYLOCK-Z	NUT - NYLOCK, 1/4-20, ZP
26	4	NUT-0_37-16-NYLOCK-Z	NUT - NYLOCK, 3/8-16 ZP
27	2	NUT-0_50-13-NYLOCK-Z	NUT - NYLOCK, 1/2-13, ZP
28	2	NUT-10-24-NYLOCK-Z	NUT, NYLOCK, 10-24, ZP
29	1	PIN-0_12-1_50-CO-SS	COTTER PIN, SS
30	1	PIN-0_50-3_00-CL-Z	CLEVIS PIN, 1/2" X 3.00, ZP
31	1	SPCR-0_25-0_50-0_31-N	SPACER, 1/4", FOR CAM SPRINGS
32	2	WASH-0_25-0_62-0_04-RH-SS	WASHER, FLAT, 1/4", SS
33	4	WASH-0_37-0_62-0_06-RH-SS	WASHER, FLAT, 3/8", SS
34	5	WASH-0_50-1_06-0_08-RH-Z	WASHER, FLAT, 1/2", Z
35	4	WASH-0_50-1_50-0_12-N	WASHER, FLAT, 1/2", NYLON

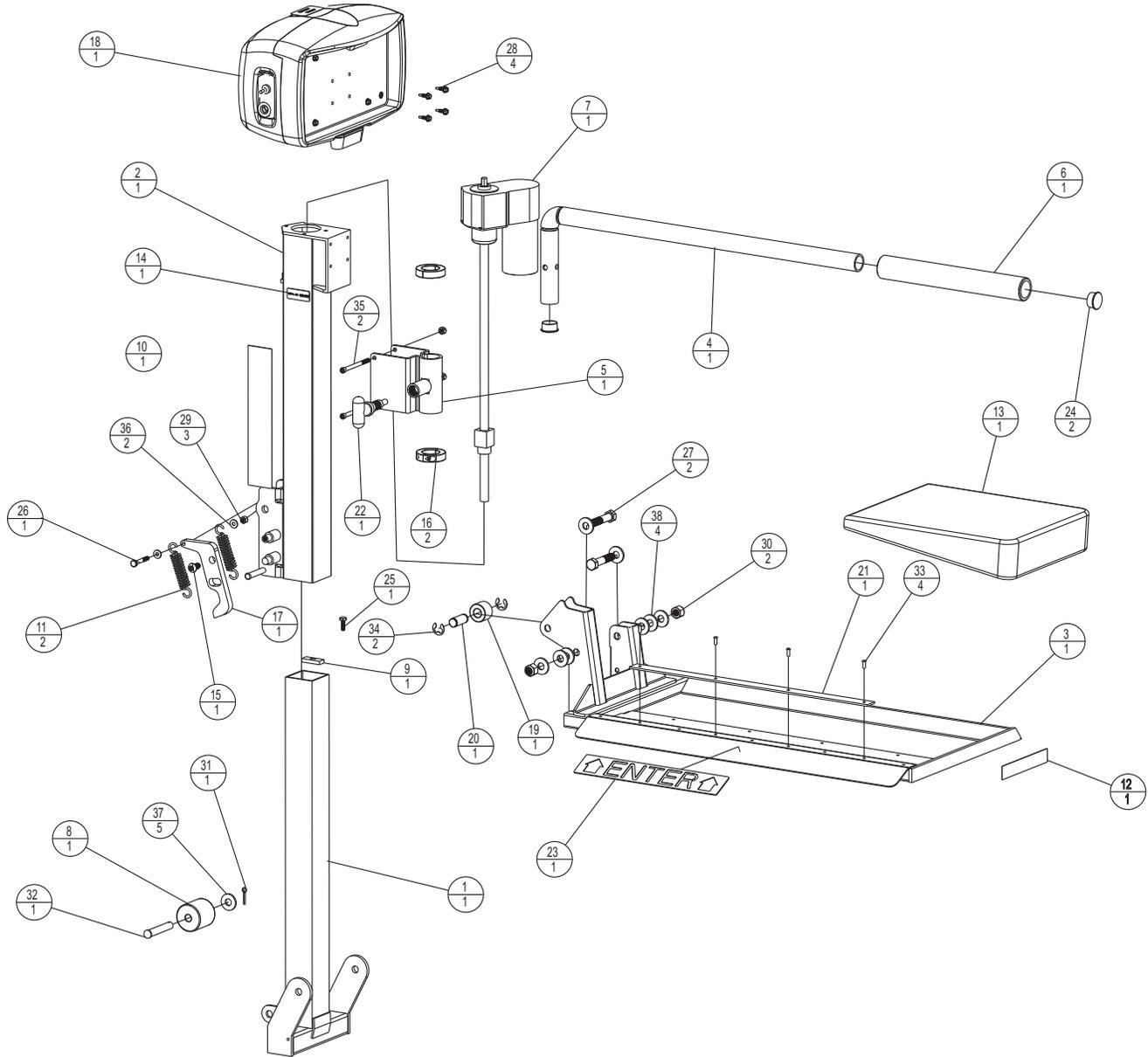
# EXPLODED VIEW - AL570XL



ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION
1	1	200-1A16-A	PLATFORM ASSEMBLY
2	1	200-2A01-A	MOTOR COVER, ASSEMBLY, OUTSIDE LIFTS
3	1	201-ZA06-C	NARROW INNER TUBE
4	1	202-ZA10-C	OUTER TUBE
5	1	240-1A15-A	DOCK AND LOCK ASSEMBLY
6	2	505-1A16-C	DNL BEAM
7	1	515-1A16-C	CASTER BRACKET
8	1	ALA10010REV2	ACUATOR
9	1	ALA10032	ROLLER 2" DIA UHMW
10	1	ALA10050	TAB, ACTUATOR
11	1	ALA10095	STICKER, OUTSIDER
12	3	ALA11025	EXTENSION SPRING
13	1	ALA14095	RED RELECTIVE STICKER
14	1	ALA17095	LABEL, PATENT PENDING
15	1	ALA180	HARDWARE PACK
16	4	ALA99995	LABEL, SERIAL NUMBER
17	2	BHCS-0_25-28-1_00-SS	BUTTON HEAD, 1/4-28 X 1.00, SS
18	1	BHCS-0_37-16-1_00-SS-NP	BUTTON HEAD 3/8-16 x 0.75 SS

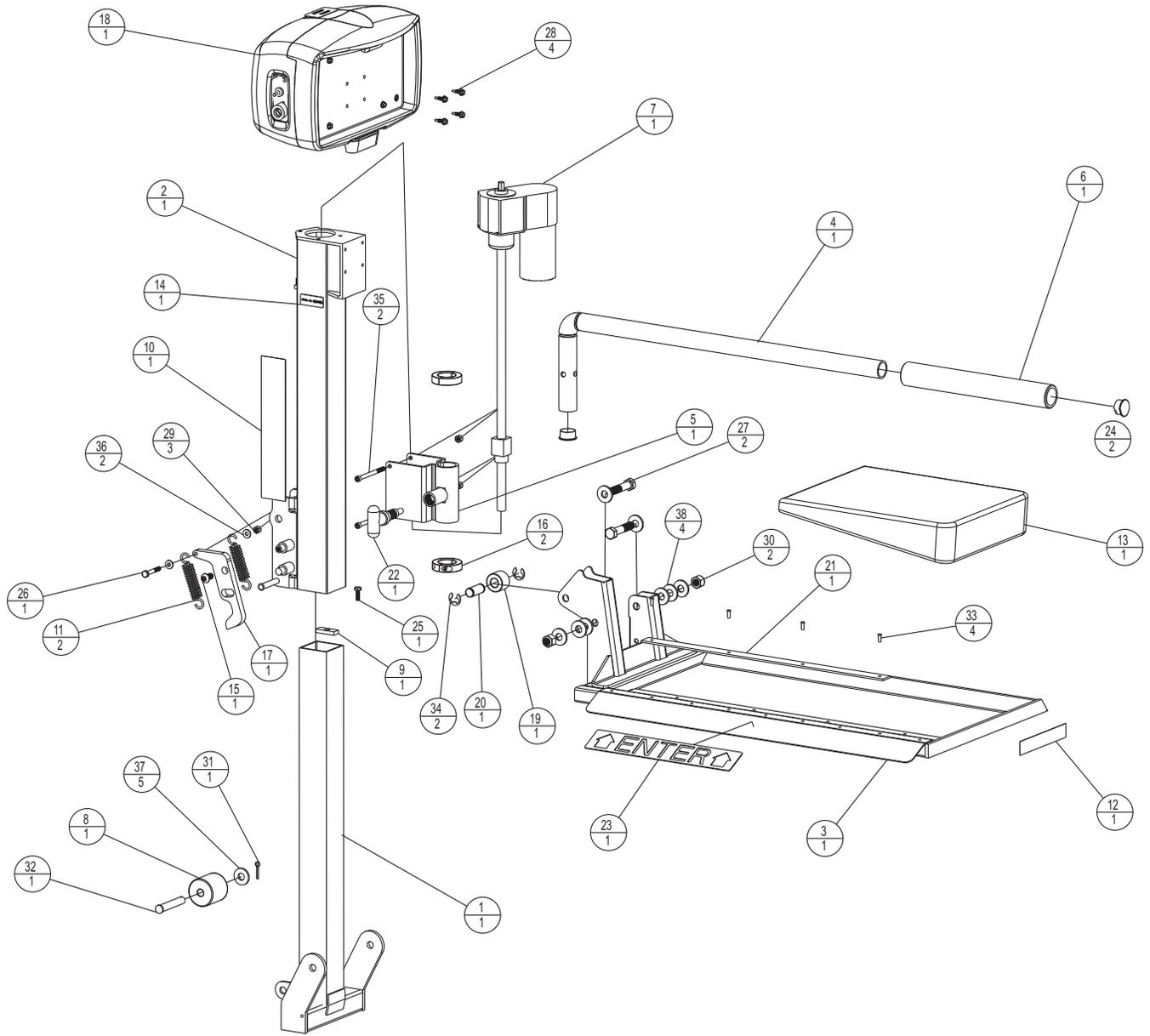
ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION
19	1	H00-1A16-A	DNL HARDWARE PACK
20	1	H11010	J CAM
21	1	HHCS-0_25-20-0_75-NP-Z	HEX HEAD, 1/4-20 x 3/4"L, ZP
22	4	HHCS-0_25-20-0_75-Z	HEX HEAD, 1/4-20 x 0.75, ZP
23	1	HHCS-0_25-20-1_75-Z	HEX HEAD, 1/4-20 x 1.75L, ZP
24	4	HHCS-0_37-16-1_50-Z	HEX HEAD, 3/8-16 x 1.50, ZP
25	2	HHCS-0_50-13-2_50-Z	HEX HEAD, 1/2-13 x 2.50L, ZP
26	4	HWTS-14-0_75-Z	HEX WASHER, #14 SELF DRILL, 3/4" L, ZP
27	5	NUT-0_25-20-NYLOCK-Z	NUT, NYLOCK, 1/4-20, ZP
28	2	NUT-0_25-28-NYLOCK-Z	NUT, NYLOCK, 1/4-28, ZP
29	4	NUT-0_37-16-NYLOCK-Z	NUT, NYLOCK, 3/8-16 ZP, GRADE 5
30	2	NUT-0_50-13-NYLOCK-Z	NUT, NYLOCK, 1/2-13, ZP STEEL
31	1	PIN-0_12-1_50-CO-SS	COTTER PIN, SS
32	1	PIN-0_50-3_00-CL-Z	CLEVIS PIN, 1/2" X 3.00, ZP
33	1	SPCR-0_25-0_50-0_31-N	SPACER, 1/4", for CAM SPRINGS
34	2	WASH-0_25-0_62-0_04-RH-SS	WASHER, FLAT, 1/4", SS
35	4	WASH-0_37-0_62-0_06-RH-SS	WASHER, FLAT, 3/8", SS
36	5	WASH-0_50-1_06-0_08-RH-Z	WASHER, FLAT, 1/2", Z
37	4	WASH-0_50-1_50-0_12-N	WASHER, FLAT, 1/2", PLASTIC

# EXPLODED VIEW - AL580



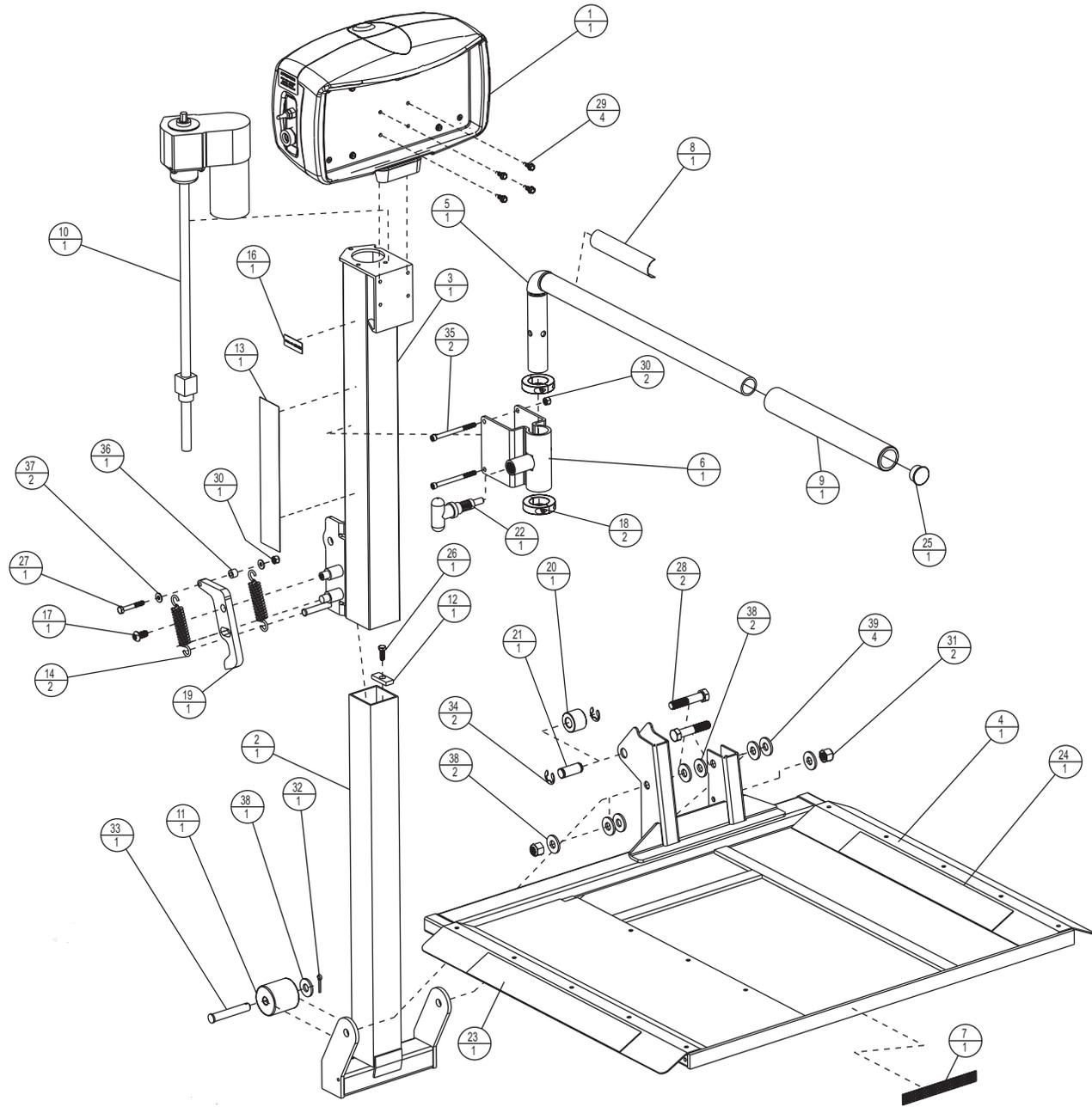
ASSEMBLY PARTS				ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION	ITEM	QTY	PART NO.	DESCRIPTION
1	1	201-ZA06-C	INNER TUBE	20	1	H14045	CLEVIS PIN
2	1	202-ZA10-C	OUTER TUBE	21	1	H530110	RAMP PAD
3	1	203-ZG06-C	PLATFORM	22	1	H56069R1	T-HANDLE SPRING PIN ASSY 3/8" PIN, BLUE
4	1	205-ZA13-C	HOLD DOWN ARM	23	1	H570101	"ENTER" STICKER
5	1	206-ZA13-C	FORMED HOLD DOWN ARM BRACKET	24	2	H752102	1.25 DIAMETER END CAP
6	1	ALA03059	FOAM RUBBER GRIP 12in LONG	25	1	HHCS-0_25-20-0_75-Z	HEX HEAD, 1/4-20 x 0.75, ZP
7	1	ALA10010REV2	ACUTATOR	26	1	HHCS-0_25-20-1_75-Z	HEX HEAD, 1/4-20 x 1.75, ZP
8	1	ALA10032	ROLLER 2" DIA UHMW	27	2	HHCS-0_50-13-2_50-Z	HEX HEAD, 1/2-13 x 2.50, ZP
9	1	ALA10050	TAB, ACTUATOR	28	4	HWTS-14-0_75-Z	HEX WASHER, #14 SELF DRILL, 0.75, ZP
10	1	ALA10095	STICKER, OUTSIDE LIFT	29	3	NUT-0_25-20-NYLOCK-Z	NUT, NYLOCK, 1/4-20, ZP
11	2	ALA11025	EXTENSION SPRING	30	2	NUT-0_50-13-NYLOCK-Z	NUT, NYLOCK, 1/2-13, ZP
12	1	ALA14095	RED REFLECTIVE STICKER	31	1	PIN-0_12-1_50-CO-SS	COTTER PIN
13	1	ALA180	HARDWARE PACK	32	1	PIN-0_50-3_00-CL-Z	CLEVIS PIN, 1/2" x 3" L, ZP
14	1	ALA99995	LABEL, SERIAL NUMBER	33	4	RIV-188-SS	RIVET
15	1	BHCS-0_37-16-1_00-SS-NP	BUTTON HEAD 3/8-16 x 1.00 SS	34	2	RR-0_62-EC-Z	E-CLIP, 5/8" SHAFT
16	2	COLLAR-1_25-SH-OP-Z	SHAFT COLLAR, 1-1/4" BORE	35	2	SHCS-0_25-20-3_25-Z	SHCS, 1/4-20 x 3-1/4", ZP
17	1	H11010	J-CAM	36	2	WASH-0_25-0_56-0_07-RH-SS	WASHER, FLAT, 1/4", SS
18	1	200-2A01-A	MOTOR COVER ASSEMBLY	37	5	WASH-0_50-1_37-0_12-RH-SS	WASHER, FLAT, 1/2", SS
19	1	H14044	ROLLER	38	4	WASH-0_50-1_50-0_12-RH-P	WASHER, FLAT, 1/2", PLASTIC

# EXPLODED VIEW - AL580XL



ASSEMBLY PARTS				ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION	ITEM	QTY	PART NO.	DESCRIPTION
1	1	201-ZA06-C	INNER TUBE	20	1	H14045	CLEVIS PIN
2	1	202-ZA10-C	OUTER TUBE	21	1	H530110	RAMP PAD
3	1	203-ZG07-C	PLATFORM	22	1	H56069R1	T-HANDLE SPRING PIN ASSY 3/8" PIN, BLUE
4	1	205-ZA13-C	HOLD DOWN ARM	23	1	H570101	"ENTER" STICKER
5	1	206-ZA13-C	FORMED HOLD DOWN ARM BRACKET	24	2	H752102	1.25 DIAMETER END CAP
6	1	ALA03059	FOAM RUBBER GRIP 12in LONG	25	1	HHCS-0_25-20-0_75-Z	HEX HEAD, 1/4-20 x 0.75, ZP
7	1	ALA10010REV2	ACUTATOR	26	1	HHCS-0_25-20-1_75-Z	HEX HEAD, 1/4-20 x 1.75, ZP
8	1	ALA10032	ROLLER 2" DIA UHMW	27	2	HHCS-0_50-13-2_50-Z	HEX HEAD, 1/2-13 x 2.50, ZP
9	1	ALA10050	TAB, ACTUATOR	28	4	HWTS-14-0_75-Z	HEX WASHER, #14 SELF DRILL, 0.75, ZP
10	1	ALA10095	STICKER, OUTSIDE LIFT	29	3	NUT-0_25-20-NYLOCK-Z	NUT, NYLOCK, 1/4-20, ZP
11	2	ALA11025	EXTENSION SPRING	30	2	NUT-0_50-13-NYLOCK-Z	NUT, NYLOCK, 1/2-13, ZP
12	1	ALA14095	RED REFLECTIVE STICKER	31	1	PIN-0_12-1_50-CO-SS	COTTER PIN
13	1	ALA180	HARDWARE PACK	32	1	PIN-0_50-3_00-CL-Z	CLEVIS PIN, 1/2" x 3" L, ZP
14	1	ALA99995	LABEL, SERIAL NUMBER	33	4	RIV-188-SS	RIVET
15	1	BHCS-0_37-16-1_00-SS-NP	BUTTON HEAD 3/8-16 x 1.00 SS	34	2	RR-0_62-EC-Z	E-CLIP, 5/8" SHAFT
16	2	COLLAR-1_25-SH-OP-Z	SHAFT COLLAR, 1-1/4" BORE	35	2	SHCS-0_25-20-3_25-Z	SHCS, 1/4-20 x 3-1/4", ZP
17	1	H11010	J-CAM	36	2	WASH-0_25-0_56-0_07-RH-SS	WASHER, FLAT, 1/4", SS
18	1	200-2A01-A	MOTOR COVER ASSEMBLY	37	5	WASH-0_50-1_37-0_12-RH-SS	WASHER, FLAT, 1/2", SS
19	1	H14044	ROLLER	38	4	WASH-0_50-1_50-0_12-RH-P	WASHER, FLAT, 1/2", PLASTIC

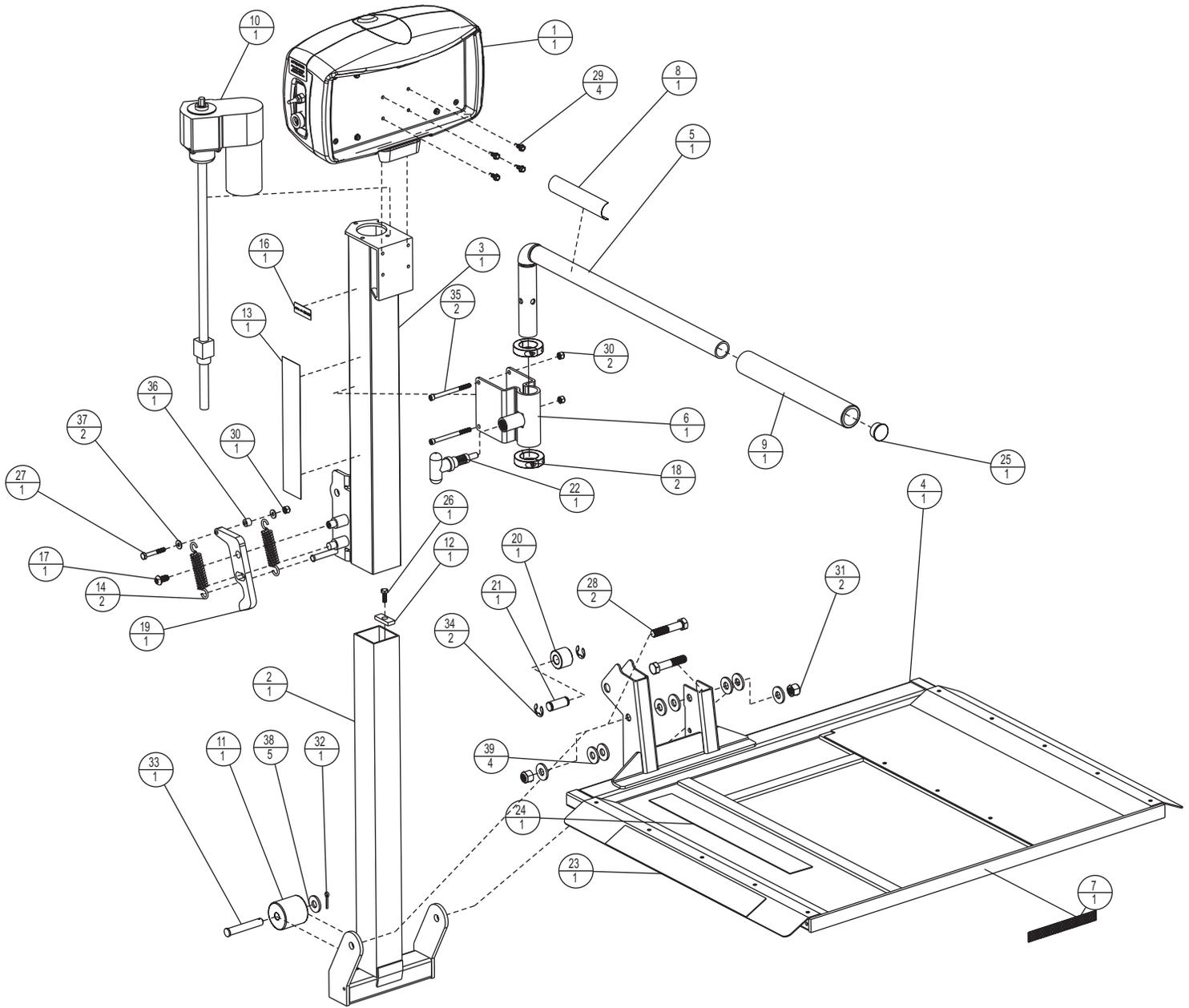
# EXPLODED VIEW - AL585-SEL



ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION
1	1	290-2A01-A	MOTOR COVER, ASSEMBLY, OUTSIDE LIFTS
2	1	201-2A06-C	INNER TUBE
3	1	202-2A10-C	OUTER TUBE
4	1	203-2G04-C	PLATFORM
5	1	205-2G04-C	HOLD DOWN ARM - TSS
6	1	206-2A13-C	FORMED HOLD DOWN ARM BRACKET
7	1	903-3A03-A	.75" X 6.00" RED REFLECTIVE STICKER
8	1	999-1A13-A	POWER CHAIR OFF STICKER
9	1	ALA03059	FOAM RUBBER GRIP 12in LONG
10	1	ALA10010REV2	ACTUATOR
11	1	ALA10032	ROLLER 2" DIA UHMW
12	1	ALA10050	TAB, ACTUATOR
13	1	ALA10095	STICKER, OUTSIDE LIFT
14	2	ALA11025	EXTENSION SPRING
15	1	ALA180	HARDWARE PACK
16	1	ALA99995	LABEL, SERIAL NUMBER
17	1	BHCS-0_37-16-1_00-SS-NP	BUTTON HEAD 3/8-16 x 1.00 SS
18	2	COLLAR-1_25-SHOP-Z	SHAFT COLLAR, 1-1/4" BORE
19	1	H11010	J CAM
20	1	H14044	ROLLER

ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION
21	1	H14045	CLEVIS PIN
22	1	H58069R1	T-HANDLE SPRING PIN ASSY 3/8" PIN, BLUE
23	1	H570101	"ENTER" STICKER
24	1	H570102	"PARK" STICKER
25	1	H752102	1.25 DIAMETER END CAP
26	1	HHCS-0_25-20-0_75-NP-Z	HEX HEAD, 1/4-20 x 0.75, ZP
27	1	HHCS-0_25-20-1_75-Z	HEX HEAD, 1/4-20 x 1.75, ZP
28	2	HHCS-0_50-13-2_50-Z	HEX HEAD, 1/2-13 x 2.50, ZP
29	4	HWTS-14-0_75-Z	HEX WASHER, #14 SELF DRILL, 0.75, ZP
30	3	NUT-0_25-20-NYLOCK-Z	NUT, NYLOC, 1/4-20, ZP
31	2	NUT-0_50-13-NYLOCK-Z	NUT, NYLOC, 1/2-13, ZP
32	1	PIN-0_12-1_50-CO-SS	COTTER PIN
33	1	PIN-0_50-3_00-CL-Z	CLEVIS PIN, 1/2" x 3" L, ZP
34	2	RR-0_62-EC-Z	E-CLIP, for 5/8" SHAFT
35	2	SHCS-0_25-20-3_25-Z	SHCS, 1/4-20 x 3-1/4", ZP
36	1	SPCR-0_25-0_50-0_31-N	SPACER, 1/4", for CAM SPRINGS
37	2	WASH-0_25-0_62-0_06-RH-SS	WASHER, FLAT, 1/4", SS
38	5	WASH-0_50-1_37-0_12-RH-SS	WASHER, FLAT, 1/2", SS
39	4	WASH-0_50-1_50-0_12-RH-P	WASHER, FLAT, 1/2", PLASTIC

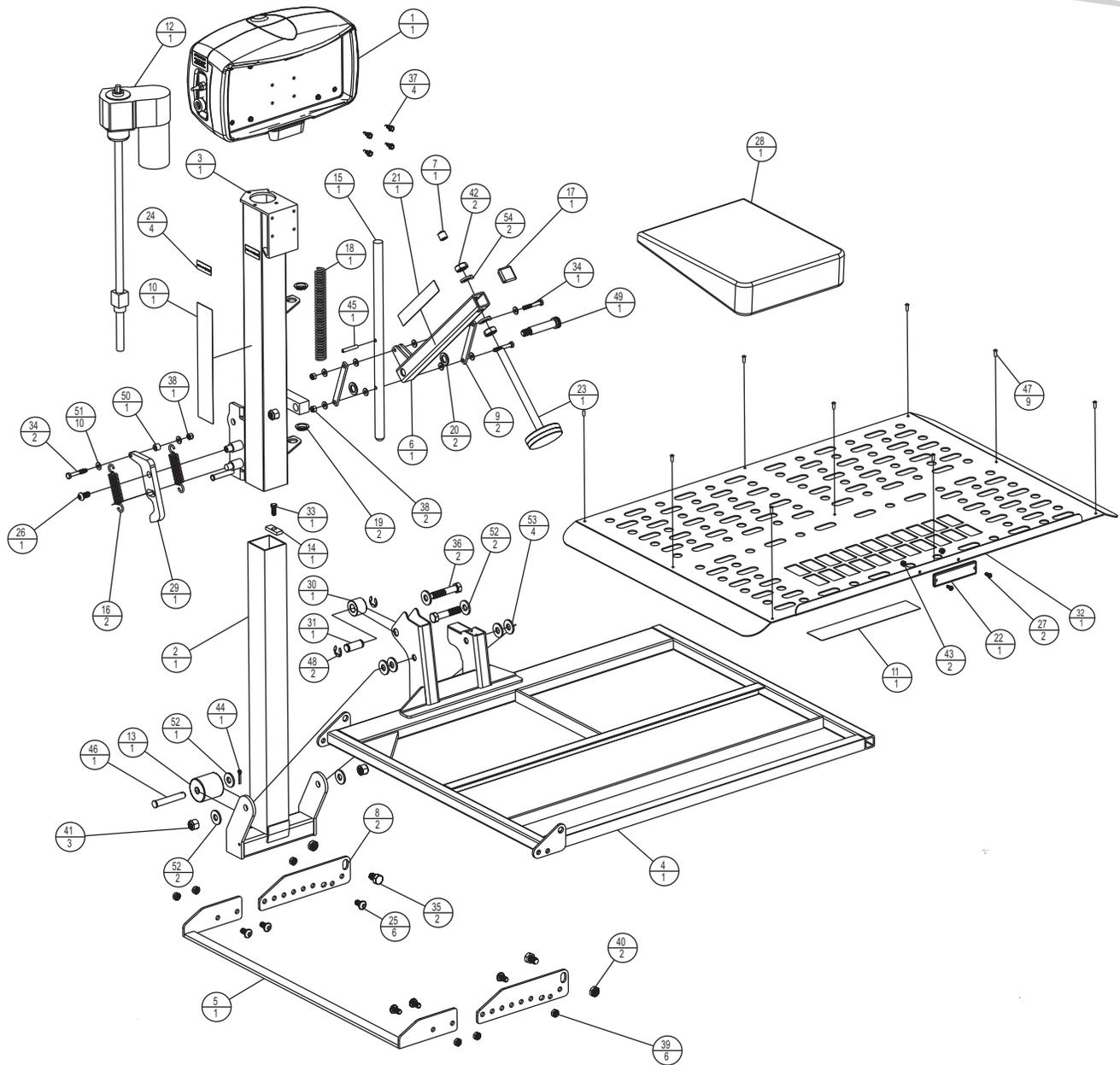
# EXPLODED VIEW - AL585-SS



ITEM		ASSEMBLY PARTS	
ITEM	QTY	PART NO.	DESCRIPTION
1	1	200-2A01-A	MOTOR COVER, ASSEMBLY, OUTSIDE LIFTS
2	1	201-2A06-C	INNER TUBE
3	1	202-2A10-C	OUTER TUBE
4	1	203-2G05-C	PLATFORM
5	1	205-2G04-C	HOLD DOWN ARM - TSS
6	1	206-2A13-C	FORMED HOLD DOWN ARM BRACKET
7	1	903-3A03-A	.75" X 6.00" RED REFLECTIVE STICKER
8	1	999-1A13-A	POWER CHAIR OFF STICKER
9	1	ALA03059	FOAM RUBBER GRIP 12in LONG
10	1	ALA10010REV2	ACTUATOR
11	1	ALA10032	ROLLER 2" DIA UHMW
12	1	ALA10050	TAB, ACTUATOR
13	1	ALA10095	STICKER, OUTSIDE LIFT
14	2	ALA11025	EXTENSION SPRING
15	1	ALA180	HARDWARE PACK
16	1	ALA99995	LABEL, SERIAL NUMBER
17	1	BHCS-0_37-16-1_00-SS-NP	BUTTON HEAD 3/8-16 x 1.00 SS
18	2	COLLAR-1_25-SH-OP-Z	SHAFT COLLAR, 1-1/4" BORE
19	1	H11010	J CAM

ITEM		ASSEMBLY PARTS	
ITEM	QTY	PART NO.	DESCRIPTION
20	1	H14044	ROLLER
21	1	H14045	CLEVIS PIN
22	1	H56069R1	T-HANDLE SPRING PIN ASSY 3/8" PIN, BLUE
23	1	H570101	"ENTER" STICKER
24	1	H570102	"PARK" STICKER
25	1	H752102	1.25 DIAMETER END CAP
26	1	HHCS-0_25-20-0_75-NP-Z	HEX HEAD, 1/4-20 x 0.75, ZP
27	1	HHCS-0_25-20-1_75-Z	HEX HEAD, 1/4-20 x 1.75, ZP
28	2	HHCS-0_50-13-2_50-Z	HEX HEAD, 1/2-13 x 2.50, ZP
29	4	HWTS-14-0_75-Z	HEX WASHER, #14 SELF DRILL, 0.75, ZP
30	3	NUT-0_25-20-NYLOCK-Z	NUT, NYLOC, 1/4-20, ZP
31	2	NUT-0_50-13-NYLOCK-Z	NUT, NYLOC, 1/2-13, ZP
32	1	PIN-0_12-1_50-CO-SS	COTTER PIN
33	1	PIN-0_50-3_00-CL-Z	CLEVIS PIN, 1/2" x 3" L, ZP
34	2	RR-0_62-EC-Z	E-CLIP, for 5/8" SHAFT
35	2	SHCS-0_25-20-3_25-Z	SHCS, 1/4-20 x 3-1/4, ZP
36	1	SPCR-0_25-0_50-0_31-N	SPACER, 1/4", for CAM SPRINGS
37	2	WASH-0_25-0_62-0_06-RH-SS	WASHER, FLAT, 1/4", SS
38	5	WASH-0_50-1_37-0_12-RH-SS	WASHER, FLAT, 1/2", SS
39	4	WASH-0_50-1_50-0_12-RH-P	WASHER, FLAT, 1/2", PLASTIC

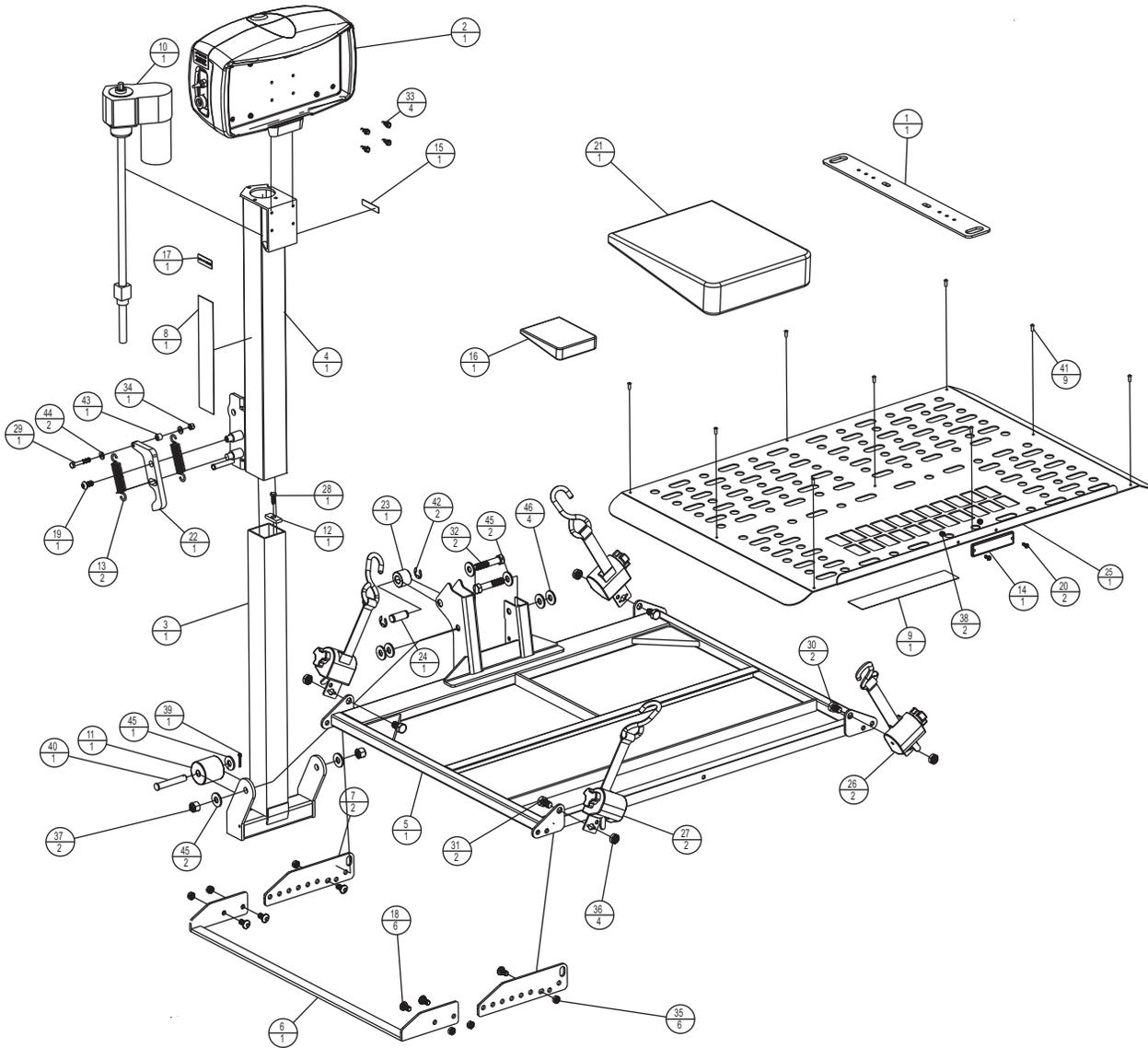
# EXPLODED VIEW - AL100 HD



ITEM		QTY	PART NO.	DESCRIPTION
1	1	200-2A01-A	MOTOR COVER, ASSEMBLY, OUTSIDE LIFTS	
2	1	201-ZA06-C	INNER TUBE	
3	1	202-ZA06-C	OUTER TUBE	
4	1	203-3A43-C	AL 100HD PLATFORM	
5	1	204-ZA06-C	EXTENDED CRADLE BAR	
6	1	205-3A06-C	HOLD DOWN ARM	
7	1	400-2A06-A	VINYL CAP FOR 1/2 OD STUD	
8	2	501-ZA06-C	SPREADER BAR BRACKET	
9	2	502-ZA06-C	BAR, LINK, 3/16"	
10	1	903-3A41-A	HD OUTSIDE LIFT STICKER	
11	1	950-2A06-A	STICKER, PLATFORM	
12	1	ALA10010REV2	ACTUATOR	
13	1	ALA10032	ROLLER 2" DIA UHMW	
14	1	ALA10050	TAB, ACTUATOR	
15	1	ALA108-PLT	HOLD DOWN ARM ROD	
16	2	ALA11025	EXTENSION SPRING	
17	1	ALA125SPI	INSERTS, 1 1/4 BLACK PLASTIC	
18	1	ALA13025	COMPRESSION SPRING	
19	2	ALA13030	NYLINEAR BEARINGS - 3/4"	
20	2	ALA13050P	HOLD DOWN ARM WASHER	
21	1	ALA13095	STICKER, CAUTION, HOLD DOWN ARM	
22	1	ALA14096	RED REFLECTOR	
23	1	ALA18020	HOLD DOWN FOOT	
24	4	ALA99995	LABEL, SERIAL NUMBER	
25	6	BHCS-0 37-16-0 75-SS	BUTTON HEAD, 3/8-16 x 0.75, SS	
26	1	BHCS-0 37-16-1 00-SS-NP	BUTTON HEAD 3/8-16 x 1.00 SS	
27	2	BHCS-10-24-0 50-SS	BUTTON HEAD, #10-24 X 0.50, SS	

ITEM		QTY	PART NO.	DESCRIPTION
28	1	H03-3A41-A	HD HARDWARE PACK	
29	1	H11010	J-CAM	
30	1	H14044	ROLLER	
31	1	H14045	CLEVIS PIN	
32	1	H14407	ALUMINUM PLATE	
33	1	HHCS-0 25-20-0 75-NP-Z	HEX HEAD, 1/4-20 x 0.75, ZP	
34	3	HHCS-0 25-20-1 75-Z	HEX HEAD, 1/4-20 x 1.75, ZP	
35	2	HHCS-0 50-13-0 75-Z	HEX HEAD, 1/2-13 x 0.75, ZP	
36	2	HHCS-0 50-13-2 50-Z	HEX HEAD, 1/2-13 x 2.50, ZP	
37	4	HWTS-14-0 75-Z	HEX WASHER, #14 SELF DRILL, 0.75, ZP	
38	3	NUT-0 25-20-NYLOCK-Z	NUT, NYLOCK, 1/4-20, ZP	
39	6	NUT-0 37-16-NYLOCK-NTE-Z	NYLOCK NUT, THIN, 3/8-16, ZP	
40	2	NUT-0 50-13-NYLOCK-NTE-Z	THIN NUT, NYLOCK, 1/2-13, ZP	
41	3	NUT-0 50-13-NYLOCK-Z	NUT, NYLOCK, 1/2-13, ZP	
42	2	NUT-0 62-11-JAM-Z	NUT, JAM, 5/8-11, ZP	
43	2	NUT-10-24-NYLOCK-Z	NUT, NYLOCK, #10-24, ZP	
44	1	PIN-0 12-1 50-CO-SS	COTTER PIN	
45	1	PIN-0 25-1 50-RP-Z	ROLL PIN, 1/4 X 1.50, SPLIT, ZP	
46	1	PIN-0 50-3 00-CL-Z	CLEVIS PIN, 1/2" x 3" L, ZP	
47	9	RIV-188-SS	RIVET	
48	2	RR-0 62-EC-Z	E-CLIP, 5/8" SHAFT	
49	1	SHSB-0 62-2 50-Z	SHOULDER BOLT, 5/8 DIA x 2.50, ZP	
50	1	SPCR-0 25-0 50-0 31-N	SPACER, 1/4", for CAM SPRINGS	
51	10	WASH-0 25-0 62-0 04-RH-SS	WASHER, FLAT, 1/4", SS	
52	5	WASH-0 50-1 06-0 08-RH-SS	WASHER, FLAT, 1/2", SS	
53	4	WASH-0 50-1 50-0 12-N	WASHER, FLAT, 1/2", NYLON	
54	2	WASH-0 62-1 08-0 15-SL-Z	WASHER, SPLIT-LOCK, 5/8", ZP	

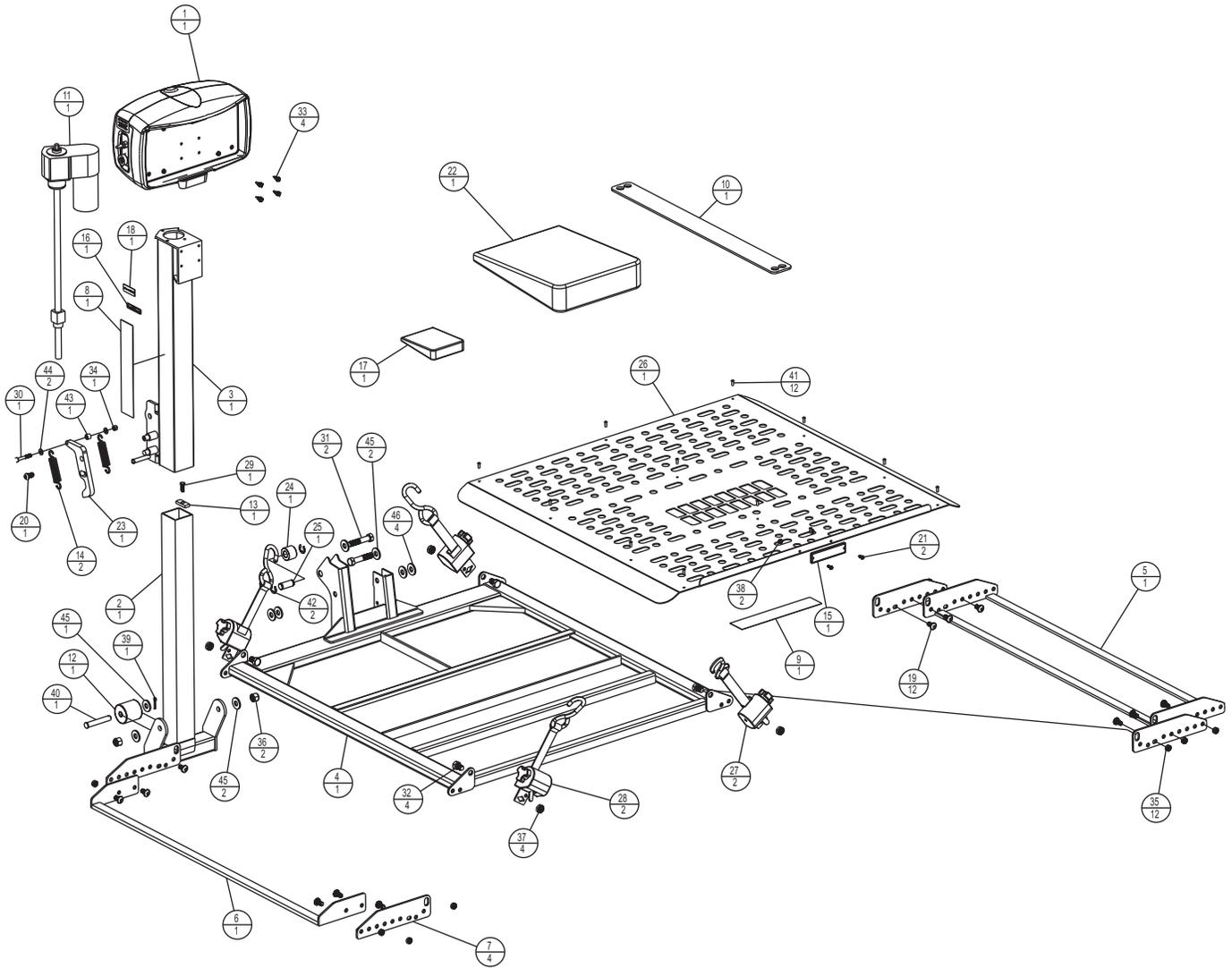
# EXPLODED VIEW - AL300HD



ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION
1	1	100-2P03-C	20" ANCHOR PLATE
2	1	200-2A01-A	MOTOR COVER, ASSEMBLY, OUTSIDE LIFTS
3	1	201-ZA06-C	INNER TUBE
4	1	202-ZA10-C	OUTER TUBE
5	1	203-3A41-C	HD PLATFORM
6	1	204-ZA06-C	EXTENDED CRADLE BAR
7	2	501-ZA06-C	SPREADER BAR BRACKET
8	1	903-3A41-A	HD OUTSIDE LIFT STICKER
9	1	950-2A06-A	STICKER, PLATFORM
10	1	ALA10010REV2	ACUTATOR
11	1	ALA10032	ROLLER 2" DIA UHMW
12	1	ALA10050	TAB, ACTUATOR
13	2	ALA11025	EXTENSION SPRING
14	1	ALA14096	RED REFLECTOR
15	1	ALA50099	PATENT STICKER
16	1	ALA580	U-BOLT HARDWARE KIT
17	1	ALA99995	LABEL, SERIAL NUMBER
18	6	BHCS-0 37-16-0 75-SS	BUTTON HEAD, 3/8-16 x 0.75, SS
19	1	BHCS-0 37-16-1 00-SS-NP	BUTTON HEAD 3/8-16 x 1.00 SS
20	2	BHCS-10-24-0 50-SS	BUTTON HEAD, #10-24 X 0.50, SS
21	1	H03-3A41-A	HD HARDWARE PACK
22	1	H11010	J-CAM
23	1	H14044	ROLLER

ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION
24	1	H14045	CLEVIS PIN
25	1	H14407	ALUMINUM PLATE
26	2	H50010B	LEFT HAND, Q-STRAINT - BLUE
27	2	H50011B	RIGHT HAND, Q-STRAINT - BLUE
28	1	HHCS-0 25-20-0 75-NP-Z	HEX HEAD, 1/4-20 x 0.75, ZP
29	1	HHCS-0 25-20-1 75-Z	HEX HEAD, 1/4-20 x 1.75, ZP
30	2	HHCS-0 50-13-0 75-Z	HEX HEAD, 1/2-13 x 0.75, ZP
31	2	HHCS-0 50-13-0 87-Z	HEX HEAD, 1/2-13 X 0.88, ZP
32	2	HHCS-0 50-13-2 50-Z	HEX HEAD, 1/2-13 x 2.50, ZP
33	4	HWTS-14-0 75-Z	HEX WASHER, #14 SELF DRILL, 0.75, ZP
34	1	NUT-0 25-20-NYLOCK-Z	NUT, NYLOCK, 1/4-20, ZP
35	6	NUT-0 37-16-NYLOCK-NTE-Z	NYLOCK NUT, THIN, 3/8-16, ZP
36	4	NUT-0 50-13-NYLOCK-NTE-Z	THIN NUT, NYLOCK, 1/2-13, ZP
37	2	NUT-0 50-13-NYLOCK-Z	NUT, NYLOCK, 1/2-13, ZP
38	2	NUT-10-24-NYLOCK-Z	NUT, NYLOCK, #10-24, ZP
39	1	PIN-0 12-1 50-CO-SS	COTTER PIN
40	1	PIN-0 50-3 00-CL-Z	CLEVIS PIN, 1/2" x 3" L, ZP
41	9	RIV-188-SS	RIVET
42	2	RR-0 62-EC-Z	E-CLIP, 5/8" SHAFT
43	1	SPCR-0 25-0 50-0 31-N	SPACER, 1/4", for CAM SPRINGS
44	2	WASH-0 25-0 62-0 04-RH-SS	WASHER, FLAT, 1/4", SS
45	5	WASH-0 50-1 06-0 08-RH-SS	WASHER, FLAT, 1/2", SS
46	4	WASH-0 50-1 50-0 12-N	WASHER, FLAT, 1/2", NYLON

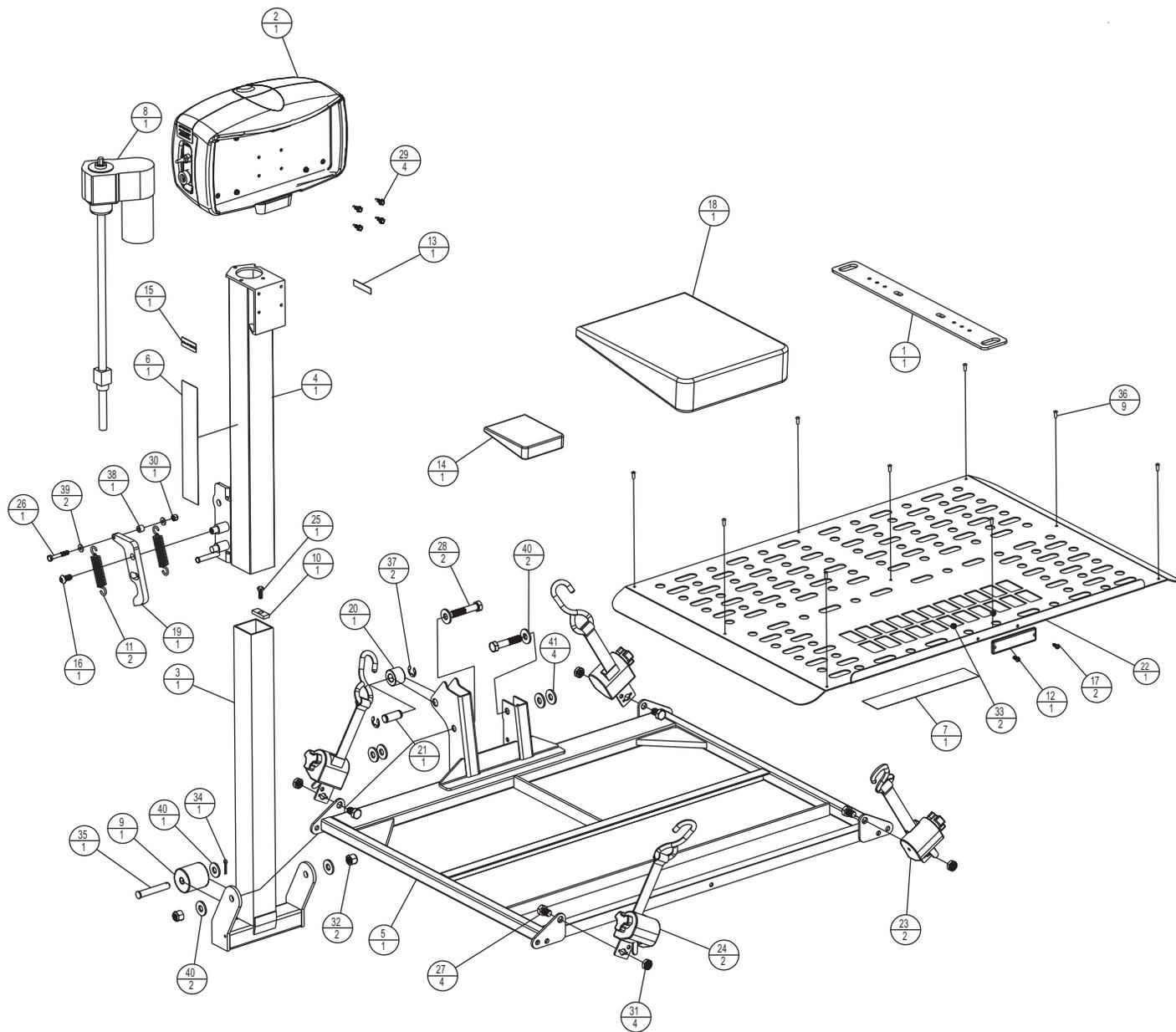
# EXPLODED VIEW - AI301XL HD



ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION
1	1	200-2A01-A	MOTOR COVER, ASSEMBLY, OUTSIDE LIFTS
2	1	201-ZA06-C	INNER TUBE
3	1	202-ZA10-C	OUTER TUBE
4	1	203-3A42-C	XL HD PLATFORM
5	1	204-ZA09-C	AL301XL FRONT WHEEL CRADLE
6	1	205-ZA09-C	AL301XL EXTENDED CRADLE BAR
7	4	501-ZA06-C	SPREADER BAR BRACKET
8	1	903-3A41-A	HD OUTSIDE LIFT STICKER
9	1	950-2A06-A	STICKER, PLATFORM
10	1	AL591	ANCHOR PLATE, 27.00
11	1	ALA10010REV2	ACUTATOR
12	1	ALA10032	ROLLER 2" DIA UHMW
13	1	ALA10050	TAB, ACTUATOR
14	2	ALA11025	EXTENSION SPRING
15	1	ALA14096	RED REFLECTOR
16	1	ALA50099	PATENT STICKER
17	1	ALA580	U-BOLT HARDWARE KIT
18	1	ALA99995	LABEL, SERIAL NUMBER
19	12	BHCS-0_37-16-0_75-SS	BUTTON HEAD, 3/8-16 x 0.75, SS
20	1	BHCS-0_37-16-1_00-SS-NP	BUTTON HEAD 3/8-16 x 1.00 SS
21	2	BHCS-10-24-0_50-SS	BHCS #10-24 X 0.5" LONG SS
22	1	H03-3A41-A	HD HARDWARE PACK
23	1	H11010	J-CAM

ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION
24	1	H14044	ROLLER
25	1	H14045	CLEVIS PIN
26	1	H30110	ALUMINUM SKIN 301XL
27	2	H50010B	LEFT HAND, Q-STRIANT - BLUE
28	2	H50011B	RIGHT HAND, Q-STRIANT - BLUE
29	1	HHCS-0_25-20-0_75-NP-Z	HEX HEAD, 1/4-20 x 0.75, ZP
30	1	HHCS-0_25-20-1_75-Z	HEX HEAD, 1/4-20 x 1.75, ZP
31	2	HHCS-0_50-13-2_50-Z	HEX HEAD, 1/2-13 x 2.50, ZP
32	4	HHCS-0_50-13-0_75-Z	HHCS, 1/2-13 x 3/4" L, GRADE 5 ZP STEEL
33	4	HHTS-12-14-0_75-Z	HEX WASHER, #12-14 SELF DRILL, 3/4" L, ZP
34	1	NUT-0_25-20-NYLOC-Z	NUT, NYLOC, 1/4-20, ZP STEEL
35	12	NUT-0_37-16-NYLOCK-NTE-Z	NYLOCK NUT, THIN, 3/8-16, ZP
36	2	NUT-0_50-13-NYLOC-Z	NUT, NYLOC, 1/2-13, ZP STEEL
37	4	NUT-0_50-13-NYLOCK-NTE-Z	THIN NUT, NYLOCK, 1/2-13, ZP
38	2	NUT-10-24-NYLOCK-SS	NYLOCK #10-24 SS
39	1	PIN-0_12-1_50-CO-SS	COTTER PIN
40	1	PIN-0_50-3_00-CL-Z	CLEVIS PIN, 1/2" x 3" L, ZP
41	12	RIV-188-SS	RIVET
42	2	RR-0_62-EC-Z	E-CLIP, 5/8" SHAFT
43	1	SPCR-0_25-0_50-0_31-N	SPACER, 1/4", for CAM SPRINGS
44	2	WASH-0_25-0_62-0_06-RH-SS	WASHER, FLAT, 1/4", SS
45	5	WASH-0_50-1_37-0_12-RH-SS	WASHER, FLAT, 1/2", SS
46	4	WASH-0_50-1_50-0_12-RH-P	WASHER, FLAT, 1/2", PLASTIC

# EXPLODED VIEW - AL500HD

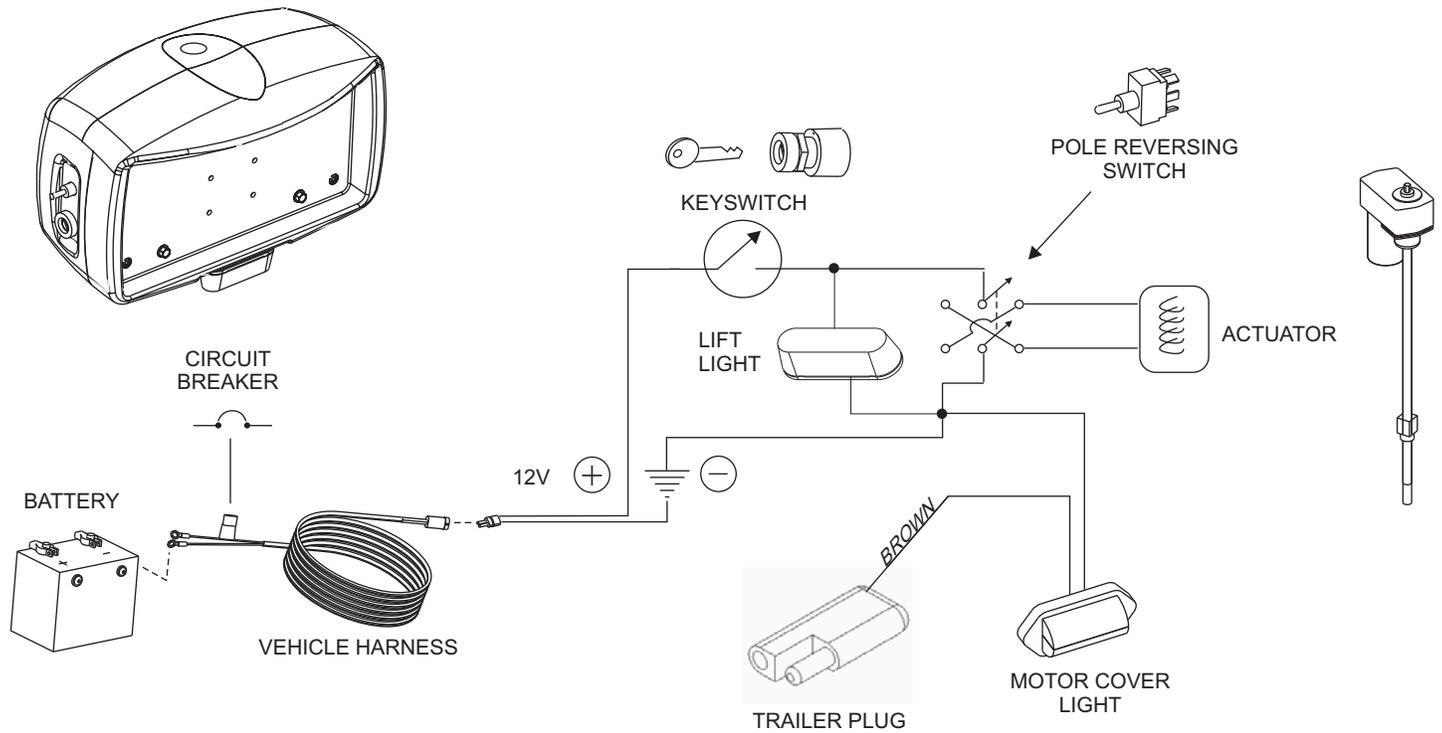


ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION
1	1	100-2P03-C	20" ANCHOR PLATE
2	1	200-2A01-A	MOTOR COVER, ASSEMBLY, OUTSIDE LIFTS
3	1	201-2A06-C	INNER TUBE
4	1	202-2A10-C	OUTER TUBE
5	1	203-3A41-C	HD PLATFORM
6	1	903-3A41-A	HD OUTSIDE LIFT STICKER
7	1	950-2A06-A	STICKER, PLATFORM
8	1	ALA10010REV2	ACUTATOR
9	1	ALA10032	ROLLER 2" DIA UHMW
10	1	ALA10050	TAB, ACTUATOR
11	2	ALA11025	EXTENSION SPRING
12	1	ALA14096	RED REFLECTOR
13	1	ALA50099	PATENT STICKER
14	1	ALA580	U-BOLT HARDWARE KIT
15	1	ALA99995	LABEL, SERIAL NUMBER
16	1	BHCS-0_37-16-1_00-SS-NP	BUTTON HEAD 3/8-16 x 1.00 SS
17	2	BHCS-10-24-0_50-SS	BUTTON HEAD, #10-24 X 0.50, SS
18	1	H03-3A41-A	HD HARDWARE PACK
19	1	H11010	J-CAM
20	1	H14044	ROLLER

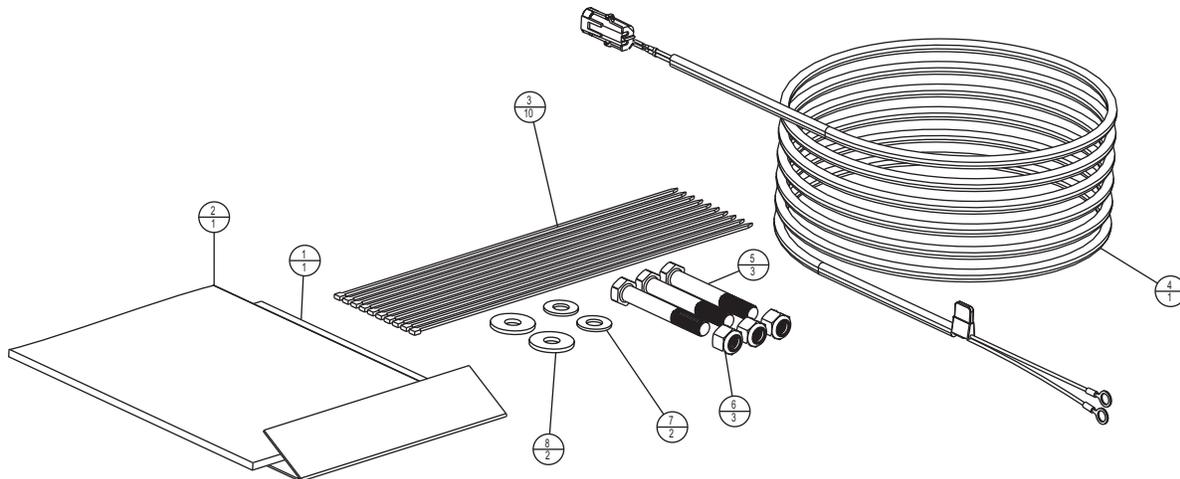
ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION
21	1	H14045	CLEVIS PIN
22	1	H14407	ALUMINUM PLATE
23	2	H50010B	LEFT HAND, Q-STRAINT - BLUE
24	2	H50011B	RIGHT HAND, Q-STRAINT - BLUE
25	1	HHCS-0_25-20-0_75-NP-Z	HEX HEAD, 1/4-20 x 0.75, ZP
26	1	HHCS-0_25-20-1_75-Z	HEX HEAD, 1/4-20 x 1.75, ZP
27	4	HHCS-0_50-13-0_75-Z	HEX HEAD, 1/2-13 x 0.75, ZP
28	2	HHCS-0_50-13-2_50-Z	HEX HEAD, 1/2-13 x 2.50, ZP
29	4	HWTS-14-0_75-Z	HEX WASHER, #14 SELF DRILL, 0.75, ZP
30	1	NUT-0_25-20-NYLOCK-Z	NUT, NYLOCK, 1/4-20, ZP
31	4	NUT-0_50-13-NYLOCK-NTE-Z	THIN NUT, NYLOCK, 1/2-13, ZP
32	2	NUT-0_50-13-NYLOCK-Z	NUT, NYLOCK, 1/2-13, ZP
33	2	NUT-10-24-NYLOCK-Z	NUT, NYLOCK, #10-24, ZP
34	1	PIN-0_12-1_50-CO-SS	COTTER PIN
35	1	PIN-0_50-3_00-CL-Z	CLEVIS PIN, 1/2" x 3" L, ZP
36	9	RIV-188-SS	RIVET
37	2	RR-0_62-EC-Z	E-CLIP, 5/8" SHAFT
38	1	SPCR-0_25-0_50-0_31-N	SPACER, 1/4", for CAM SPRINGS
39	2	WASH-0_25-0_62-0_04-RH-SS	WASHER, FLAT, 1/4", SS
40	5	WASH-0_50-1_06-0_08-RH-SS	WASHER, FLAT, 1/2", SS
41	4	WASH-0_50-1_50-0_12-N	WASHER, FLAT, 1/2", NYLON



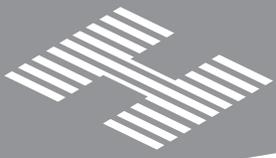
## MOTOR COVER WIRING SCHEMATIC



## TYPICAL HARDWARE PACK CONTENTS



ASSEMBLY PARTS				
ITEM	QTY	PART NO.	DESCRIPTION	
1	1	N/A	WARRANTY FORM	
2	1	N/A	OWNER'S MANUAL	
3	10	CT-14-BLK	CABLE TIE, 14" BLACK	
4	1	H28010	12 GAUGE VEHICLE WIRE HARNESS	
5	3	HHCS-0_50-13-3_50-Z	HEX HEAD CAP SCREW, 1/2-13 x 3.50" L, ZP	
6	3	NUT-0_50-13-NYLOCK-Z	NUT, NYLOCK, 1/2-13, ZP	
7	2	WASH-0_50-1_06-0_08-RH-Z	WASHER, FLAT, 1/2" ID x 1.06 OD x .08" TH, ZP	
8	2	WASH-0_50-1_37-0_12-RH-Z	WASHER, FLAT, 1/2" ID x 1.37" OD x 0.12" TH, ZP	



Service Description:

Service Date:

Service Performed By:

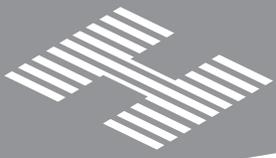
# SERVICE NOTES



Service Description:

Service Date:

Service Performed By:



Service Description:

Service Date:

Service Performed By:



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