RICON Ò

Innovation in Mobility

UNI-lite Ò

Personal Use Wheelchair Lift

PRINT

Service Manual

09/23/02

32DULP02.B

U.S. Patent Nos: 5,234,311;

This Ricon service manual is for use by qualified service technicians, and is not intended for use by non-professionals (do-it-yourselfers). The manual provides essential instructions and reference information, which supports qualified technicians in the correct installation and maintenance of Ricon products.

Qualified service technicians have the training and knowledge to perform maintenance work properly and safely. For the location of a Ricon authorized service technician in your area, call Ricon Product Support at 1-800-322-2884.

Customer Name:_____
Installing Dealer:_____
Date Installed:_____
Serial Number:_____

REVISION RECORD

REV	PAGES	DESCRIPTION OF CHANGE	ECR / ECO
32DULP02.A	All	New release, in two-book format	3796/4809
32DULP02.B	Inside Cover	Updated disclaimer on inside cover.	3990/4918
END OF LIST			

TABLE OF CONTENTS

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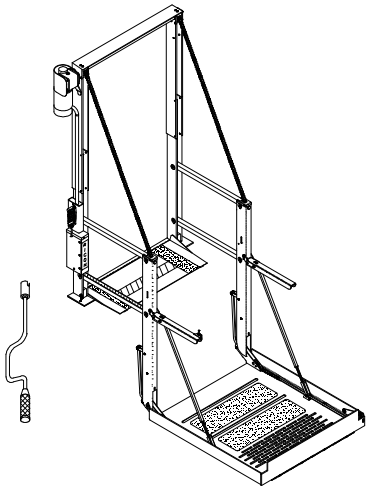
I. INTRODUCTION

The RICON UNI-lite Personal Use Wheelchair Lift provides wheelchair access to personal vans. With its aluminum alloy construction, UNI-lite lifts up to 600 pounds (273 kilograms), yet its lightweight has little, if any effect on vehicle handling. The lift is designed to be operated by a person in a wheelchair, or by an attendant. Unique, adjustable post design means that UNI-lite fits standard and raised doors of most full-size vans and some minivans. The large non-skid platform accommodates most wheelchairs, while the compact size maximizes vehicle interior space.



Standard features of the UNI-lite are convenient twin handrails with a control switch, a powerful electric motor and direct gear drive, and a powered roll stop with mechanical latch. The UNI-lite also contains a built-in manual backup system with a manual wrench, and a simple modular electrical system.

This manual contains installation, maintenance instructions, and spare parts for the UNI-lite. The installation instructions must be followed exactly, no steps should be eliminated nor should the product be modified. It is important to user safety that the installation is correct. It is equally important that lift operator(s) be completely familiar with the operating instruction. For operating instructions please refer to the operator manual. Once the UNI-lite is installed, it is very important that the lift be properly maintained by following the Ricon recommended cleaning, lubrication, and inspection instructions.

If there are questions about this manual or additional copies are needed, please contact Ricon Product Support at one of the following locations:

Ricon Corporation
7900 Nelson Road
Panorama City, CA 91402..... (818) 267-3000
Outside (818) Area Code ..... (800) 322-2884
World Wide Website.....www.riconcorp.com

Ricon U.K. Ltd.
Littlemoss Business Park, Littlemoss Road
Droylsden, Manchester
United Kingdom, M43 7EF..... (+44) 161 301 6000

A. RICON FIVE-YEAR LIMITED WARRANTY **(refer to following page)**

RICON CORPORATION
FIVE-YEAR LIMITED WARRANTY

Ricon Corporation (Ricon) warrants to the original purchaser of this product that Ricon will repair or replace, at its option, any part that fails due to defective material or workmanship as follows:

- Repair or replace lift power train parts for a period of five years from the date of purchase. A complete list of parts covered can be obtained from your authorized Ricon dealer.
- Repair or replace parts for a period of one year from the date of purchase.
- Labor costs for specified parts replaced under this warranty for a period of one year from the date of purchase. A Ricon rate schedule determines the parts covered and labor allowed.

If You Need to Return a Product: Return this Ricon product to your installing dealer. Please give as much advance notice as possible, and allow a reasonable amount of time for repairs.

If You are Traveling: All authorized Ricon dealers will honor this warranty. Consult the telephone directory or call our Product Support department for the name of the nearest authorized Ricon dealer.

This Warranty does not Cover:

- Malfunction or damage to product parts caused by accident, misuse, lack of proper maintenance, neglect, improper adjustment, modification, alteration, the mechanical condition of the vehicle, road hazards, overloading, failure to follow operating instructions, or acts of Nature (i.e., weather, lightning, flood).

Note: Ricon recommends that this product be inspected by an authorized Ricon service technician at least once every six months, or sooner if necessary. Any required maintenance or repair should be performed at that time.

⚠ WARNING!

THIS PRODUCT HAS BEEN DESIGNED AND MANUFACTURED TO EXACT SPECIFICATIONS. MODIFICATION OF THIS PRODUCT IN ANY RESPECT CAN BE DANGEROUS

This Warranty is Void if:

- The product has been installed or maintained by someone other than an authorized Ricon service technician.
- The product has been modified or altered in any respect from its original design without written authorization by Ricon.

Ricon disclaims liability for any personal injury or property damage that results from operation of a Ricon product that has been modified from the original Ricon design. No person or company is authorized to change the design of this Ricon product without written authorization by Ricon.

Ricon's obligation under this warranty is exclusively limited to the repair or exchange of parts that fail within the applicable warranty period.

Ricon assumes no responsibility for expenses or damages, including incidental or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply.

Important: The warranty registration card must be completed and returned to Ricon within 20 days after installation of this Ricon product for the warranty to be valid. The warranty is not transferable.

The warranty gives specific legal rights, and there may be other rights that vary from state to state.

B. SHIPMENT INFORMATION

Ricon does not sell directly to the user because of the specialized nature of the product. Instead, the product is distributed through the worldwide network of authorized Ricon service technicians, who perform the actual installation.

- When the product is received, unpack the product and check for freight damage. Claims for any damage should be made to the fright carrier immediately.
- Be sure the installation kit contains all items listed on the kit packing list. **Please report any missing items immediately to the Ricon Product Support Department**. The warranty and owner's registration cards must be completed and returned to Ricon within 20 days for the warranty to be valid.

NOTE: The Sales/Service Personnel must review the Warranty and this Service Manual with the user to be certain that they understand the safe operation of the product. Instruct the user to follow the operating instructions without exception.

C. GENERAL SAFETY PRECAUTIONS

The following general safety precautions must be followed during installation, operation, service and maintenance:

- Under no circumstances should installation, maintenance, repair, and adjustments be attempted without the immediate presence of a person capable of rendering aid.
- An injury, no matter how slight, should always be attended. Always administer first aid or seek medical attention immediately.
- Protective eye shields and appropriate clothing should be worn at all times.
- To avoid injury, always exercise caution when operating and be certain that hands, feet, legs, and clothing are not in the path of product movement.
- Batteries contain acid that can burn. If acid comes in contact with skin, flush affected area with water and wash with soap immediately.
- Always work in a properly ventilated area. Do not smoke or use an open flame near a battery.
- Do not lay anything on top of a battery.
- Check under vehicle before drilling so as not to drill into frame, subframe members, wiring, hydraulic lines, fuel lines, fuel tank, etc.
- Read and thoroughly understand the operating instructions before attempting to operate.
- Inspect the product before each use. If an unsafe condition, unusual noises or movements exist, do not use it until the problem is corrected.
- Never load or stand on the platform until installation is complete. Upon completion of installation, always test load the lift to 125% of its rated load capacity.
- Stand clear of doors and platform and keep others clear during operation.
- The product requires regular periodic maintenance. A thorough inspection is recommended at least once every six months. The product must always be maintained at the highest level of performance.

D. MAJOR LIFT COMPONENTS

The references used throughout this manual are illustrated in **Figure 1-1** and defined in **Table 1-1**. Refer to **Chapter IV "Parts Diagrams and Lists"** for more details.

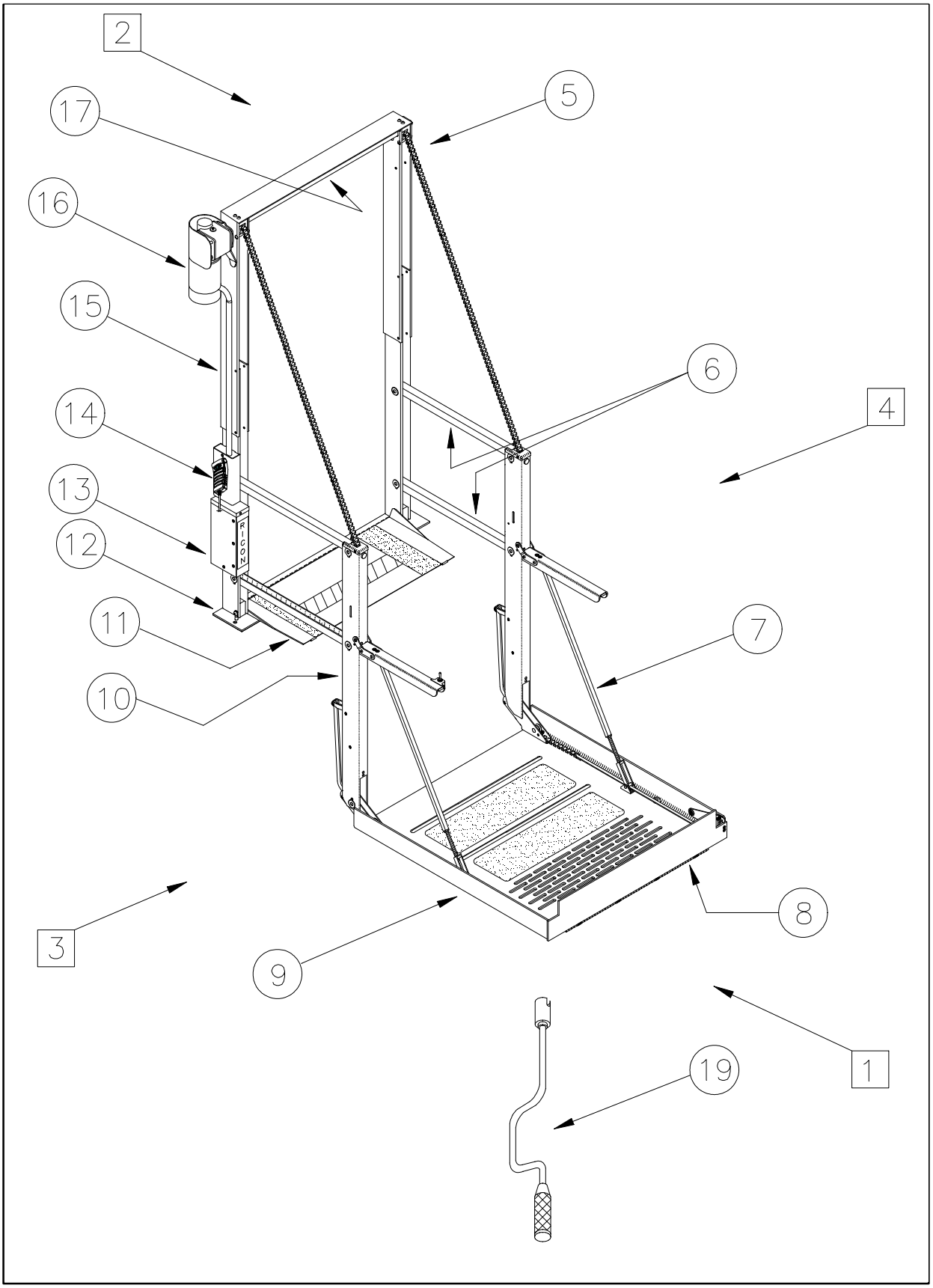


FIGURE 1-1: UNI-LITE PERSONAL USE WHEELCHAIR LIFT

TABLE 1-1: UNI-LITE PERSONAL USE LIFT TERMINOLOGY

REF	NAME	DESCRIPTION
1	Front	Reference point from outside the vehicle looking inward.
2	Back	
3	Left	
4	Right	
5	Serial number location	Location of serial number decal.
6	Parallel Arms	Left and right arms that connect the Main Posts to the Platform Posts. (These arms pivot as platform lowers to ground.)
7	Platform Support Chains	Covered left and right chains that provide additional support for the platform.
8	Platform Roll Stop	Barrier to prevent the wheelchair from slow, inadvertent rolling off the platform during lift operation.
9	Platform	Platform where the wheelchair is positioned during lift operations.
10	Platform Posts	Left and right posts connected to platform. (These posts enter and exit vehicle as the platform is raised and lowered).
11	Bridgeplate	Plate that extends across the vehicle threshold and the platform.
12	Base Plate	Lift support plate bolted to vehicle floor.
13	Electrical Box Assembly	Assembly that contains the lift controller and electrical circuit breakers.
14	Control Pendant	Hand-held or lift-mounted pendant that contains switches used to control the lift operating functions.
15	Main Posts	Left and right posts that stay inside the vehicle. (These posts are not directly connected to the platform.)
16	Motor and Gear Box	12 volt direct current (DC) motor and gear box that power the lift functions.
17	Drive Shaft	Chain drive shaft for lift operations.
18	Handrail Switch	The switch that operates the UP/DOWN function of the lift.
19	Speed Wrench	Wrench that is used to manually operate the lift.

END OF TABLE

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II. INSTALLATION

This chapter provides instructions for installing the RICON UNI-lite Personal Use Wheelchair Lift into most vans; custom installations are also possible into other types of vehicles. Procedures for the specific vans listed in **Table 2-1** below are also included. If a question arises that is not covered in this chapter, contact Ricon Product Support for assistance.

TABLE 2-1: UNI-LITE APPLICATIONS

VAN TYPE	MAKE/MODEL	DOOR INSTALLATION
Minivan	Chevrolet - Astro	Side w/Sliding Door
	Ford - Aerostar	Side w/Sliding Door
	GMC - Safari	Side w/Sliding Door
Full Size	Dodge (see note below)	Side w/Sliding Door
		Side w/Swing Door
	Ford	Rear Door
		Side w/Sliding Door
		Side w/Swing Door
	GMC	Rear Door
		Side w/Sliding Door
		Side w/Swing Door

NOTE: When installing the lift into rear of 1994 or newer full size Dodge van, the bumper and bumper brackets must be replaced with bumper and bumper brackets from a 1993 or earlier Dodge van.

END OF TABLE

A. REQUIRED TOOLS

- Allen Wrenches (5/32” & 3/16")
- C-Clamps or Locking Pliers
- Drill Bits #7 (.201", 1/4", 9/32", & 1/2")
- Electric Drill
- Hole saws (1" & 1-1/4" or 1-3/16")
- Large Wire Crimping Tool
- Open-end Wrenches (7/16" & 1/2”)
- Screwdrivers (Phillips and flat)
- Side-Cutter Pliers
- Utility Knife

B. MECHANICAL INSTALLATION

To install the UNI-lite, refer to the following sections and perform the procedures carefully and in the order that they are presented. Be certain that the installation instructions are followed exactly and do not eliminate any steps or modify the product.

1. VEHICLE PREPARATION

To prepare the vehicle for installation of the UNI-lite, perform this procedure:

a. Safely park vehicle on a flat, level surface and turn engine off.

b. The lift will be mounted directly to the vehicle floor and wall. Remove door trim, carpet, plywood, molding, wall paneling or any other material that may interfere with the installation.

c. At the engine compartment, disconnect the positive (+) cable from the battery terminal.

2. INSTALLATION KIT DESCRIPTION

For descriptions of the Installation Kit components, refer to **Figure 2-1** and **Table 2-2**.

a. Installation Kit Component Descriptions

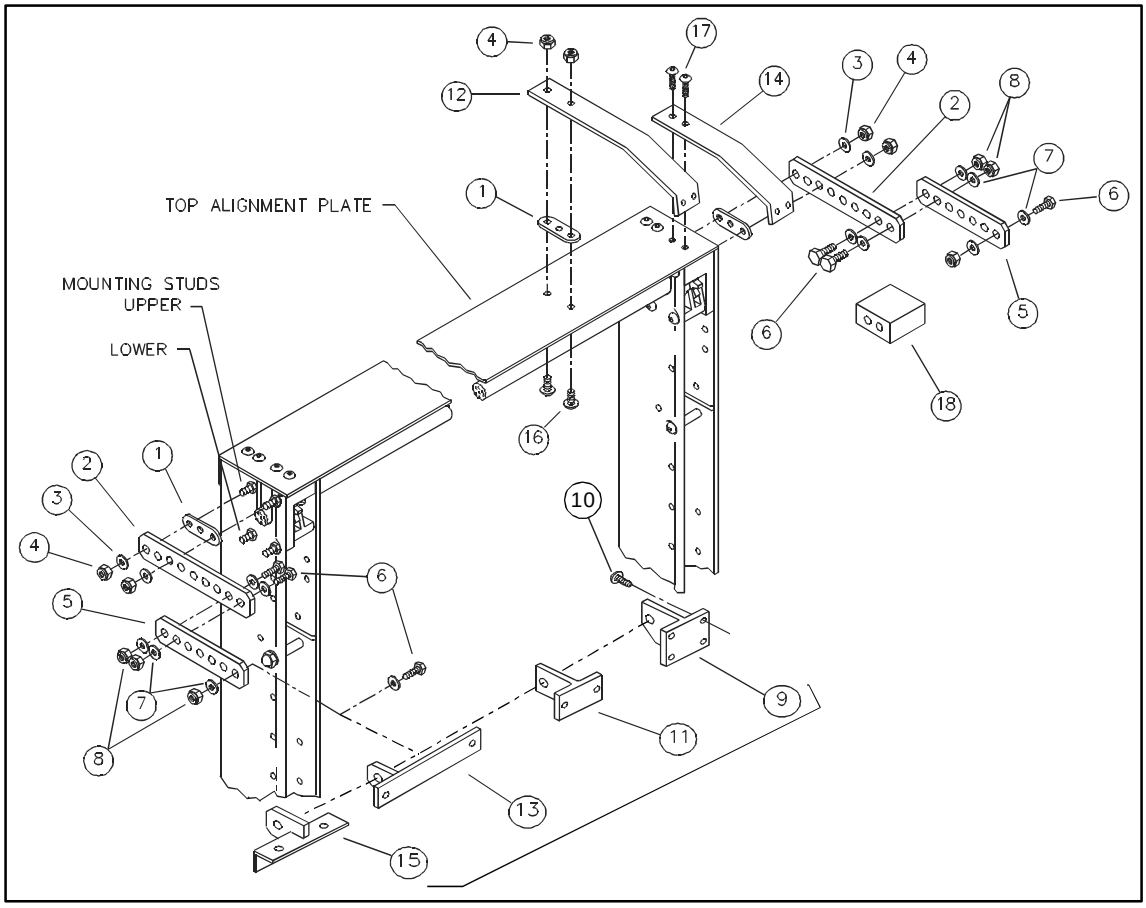


FIGURE 2-1: INSTALLATION KIT COMPONENTS

TABLE 2-2: INSTALLATION KIT COMPONENTS			
REF	**DESCRIPTION**	**REF.**	**DESCRIPTION**
1	Shim Plates (3)	10	#14 Sheet Metal Screws (4)
2	Extension Post Brackets (2) *	11	2-Hole "T" Mounting Brackets (2) *
3	1/4 Flat Washers (4)	12	Top Right Bracket **
4	1/4-20 Self-locking Nuts (6)	13	Top Left Brackets (2) **
5	Intermediate Brackets (2) *	14	Astro/Safari Top Right Bracket
6	5/16-18 Hex Bolts (6)	15	Astro/Safari Top Left Brackets (2)
7	5/16 Flat Washers (12)	16	1/4-20 x ½ Button Head Bolts (2)
8	5/16-18 Self-locking Nuts (6)	17	1/4-2 0 x 3/4 Button Head Bolts (2)
9	4-Hole "T" Mounting Brackets (2)*	18	Right-Side Bracket Offset Block (Chevrolet & GMC Full Size Vans)
NOTES: Brackets listed with (*) are components of the Main Post Bracket Set. Brackets listed with (**) are special order components.			
END OF TABLE			

b. Main Post Bracket Descriptions

For descriptions of the Main Post Bracket components, refer to the following paragraphs:

- Extension Post Brackets

  The Extension Post Brackets (ref. #2) are designed with a wide range of adjustments to cover as many applications as possible. The brackets are designed to provide maximum upward and downward adjustment angles.

- Intermediate Brackets

  The Intermediate Brackets (ref. #5) are provided for making the bracket set adjustable in length allowing different tilt angles. The brackets are attached to the Extension Post Bracket by two 5/16-18 hex bolts (ref. #6).

- Standard "T" Mounting Brackets

  The Standard "T" Mounting Brackets (ref. #9 & #11) are the 2- and 4-hole mounting brackets that are attached to the Intermediate Brackets by one 5/16-18 hex bolt (ref. #6). The brackets are attached to the vehicle structure by sheet metal screws (ref. #10).

3. LIFT PREPARATION

To prepare the lift for installation, follow this procedure:

a. Remove and collapse cardboard cover and lay cardboard flat on ground.
b. Unbolt lift base from crate.
c. Remove shipping straps.
d. Lay lift platform first onto cardboard.
e. Using speed wrench, rotate motor shaft to remove tension from drive chain.

4. MAIN POST EXTENSION ADJUSTMENTS

For the vans listed in **Table 2-3** and **Figure 2-2**, perform the appropriate main post extension adjustment procedure:

TABLE 2-3: VANS REQUIRING MAIN POST EXTENSION ADJUSTMENT

MAKE/MODEL	DOOR INSTALLATION	ADJUSTMENT
Chevrolet - Astro	Side w/Sliding Door	None
Ford - Aerostar	Side w/Sliding Door	None
GMC - Safari	Side w/Sliding Door	None
Dodge	Side w/Sliding Door	SHORTEN, one (1) position
	Side w/Swing Door	SHORTEN, one (1) position
Ford	Rear Door	None
	Side w/Sliding Door	None
	Side w/Swing Door	None
GMC	Rear Door	None
	Side w/Sliding Door	None
	Side w/Swing Door	None

END OF TABLE

⚠ CAUTION

EXCESS POWER WIRE MUST *NOT* BE COILED WITHIN THE MOTOR COVER. BUNDLE THE EXCESS WIRE WITHIN THE CONTROLLER ENCLOSURE.

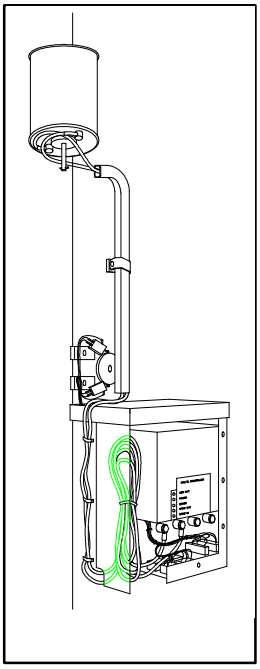


FIGURE 2-2: CONTROLLER WIRE ROUTING DIAGRAM

a. Lengthen Main Posts

To lengthen the Main Posts, refer to **Figures 2-3** through **2-5** and follow this procedure:

1) Note locations of left and right fold stops (ref. #3) and spacer bushings (ref. #5).
2) Using speed wrench, rotate motor shaft to LOOSEN drive chain.
3) Remove left and right extension post retaining bolts (ref. #1 & #2).
4) At controller enclosure, remove the front cover to expose wire harness and motor controller. Pull loops of excess motor wire out.

⚠ CAUTION

TO PREVENT DAMAGE TO THE DRIVE CHAIN AND MOTOR WIRE DURING THE POST LENGTHENING, LOOSEN CHAIN WITH SPEED WRENCH AND FEED MOTOR WIRE THROUGH ELECTRICAL TUBE AS NEEDED.

5) While assistant holds base plate, grasp top-alignment plate and PULL-OUT until desired holes are aligned.
6) Loosely install supplied fold stop retaining bolts (ref. #4) through fold stops
7) Loosely install spacer bushings and upper extension post retaining bolts.
8) Tighten all extension post retaining bolts.
9) Re-fold motor wires neatly and tuck into original position in controller enclosure.
10) Using supplied tie-wrap, bundle and position wire so that wire is NOT touching edge of enclosure. Reinstall enclosure cover.
11) Using speed wrench, rotate motor shaft to TIGHTEN drive chain.

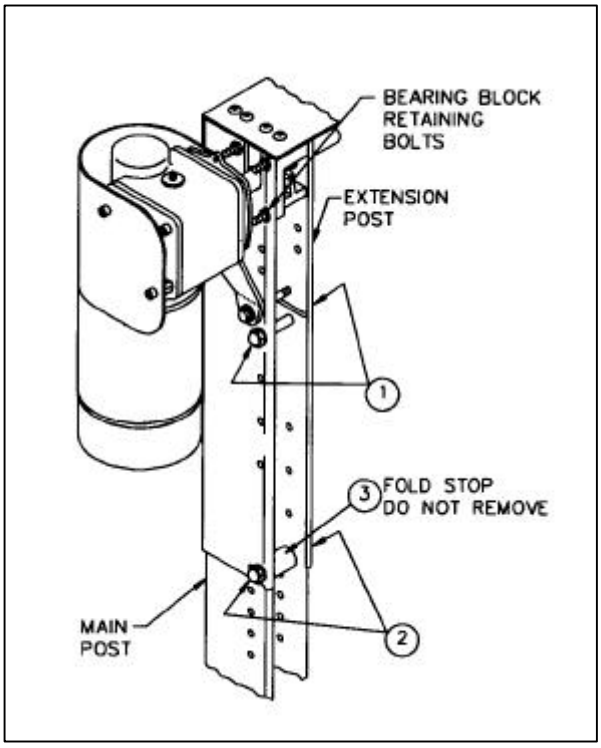


FIGURE 2-3: STANDARD CONFIGURATION - EXTEND

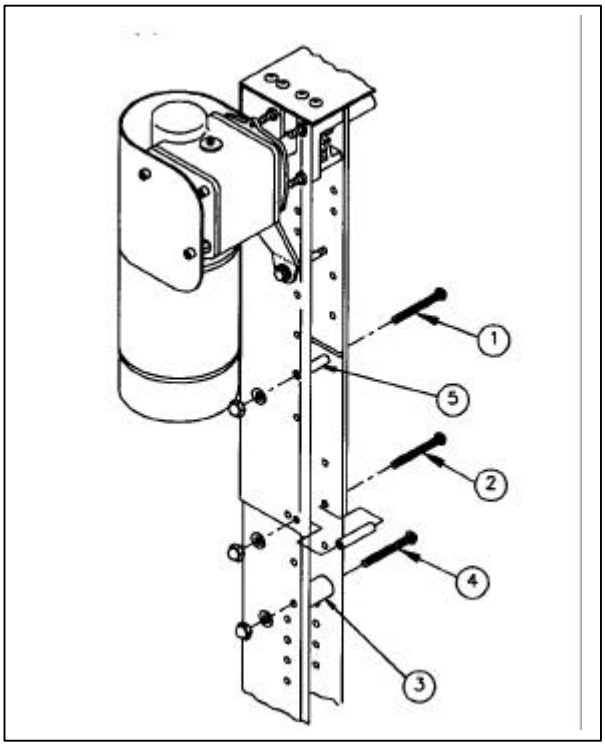


FIGURE 2-4: EXTENDED CONFIGURATION

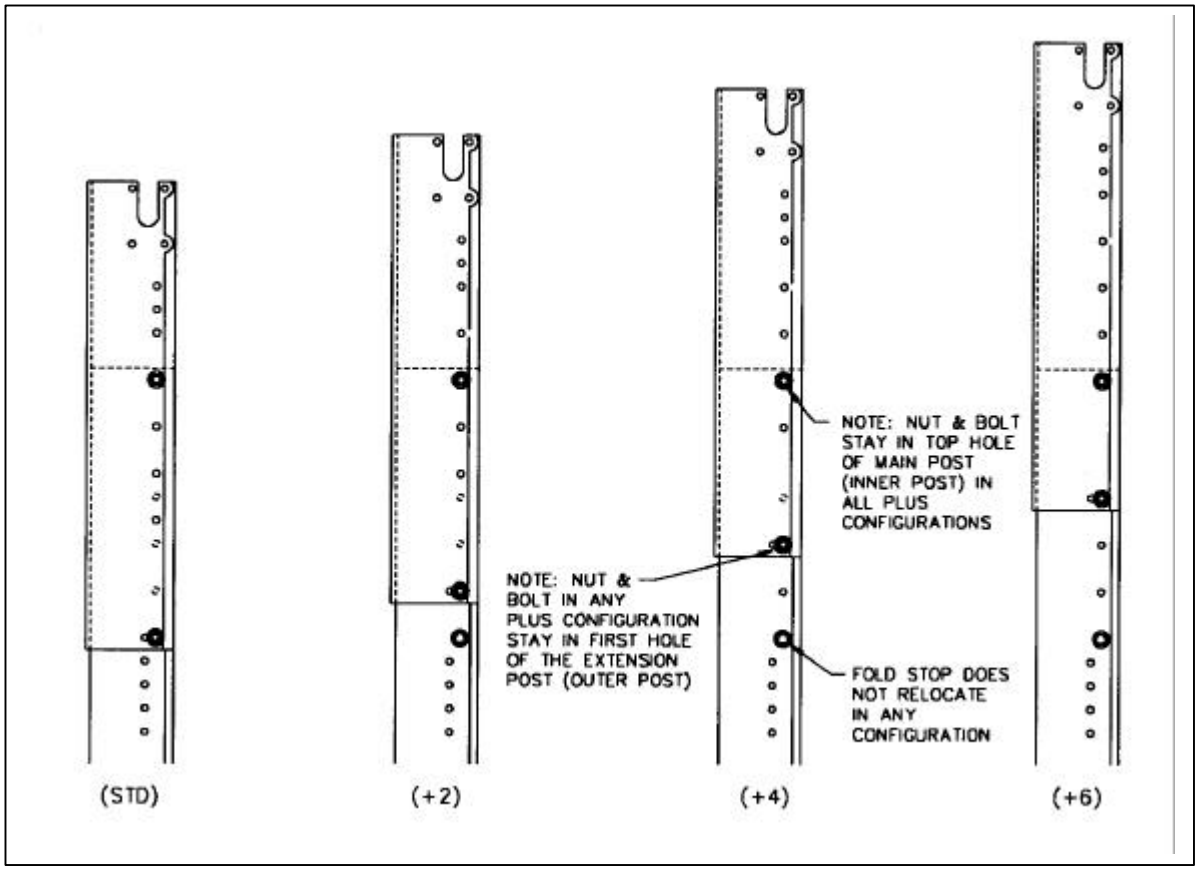


FIGURE 2-5: EXTENDED CONFIGURATION - SIDE VIEWS

b. Shorten Main Posts

To shorten the Main Posts, refer to **Figures 2-6** through **2-9**, and follow this procedure:

1) Note locations of left and right fold stops (ref. #3) and spacer bushings (ref. #5).
2) Remove torque arm bolt (ref. #4), and rotate gear motor assembly as shown.
3) Remove left and right extension post retaining bolts (ref. #1 & #2).
4) While assistant holds base plate, grasp top-alignment plate and PUSH-IN until desired holes are aligned.
5) Loosely install supplied fold stop retaining bolts (ref. #2) through fold stops.
6) Loosely install spacer bushings and upper extension post retaining bolts.
7) Loosely install torque arm bolt (ref. #4), rotate gear motor assembly to original position, and tighten torque arm bolt.
8) Tighten all extension post retaining bolts.
9) Re-fold motor wires neatly and tuck into original position in controller enclosure.
10) Using supplied tie-wrap, bundle and position wire so that wire is NOT touching edge of enclosure. Reinstall enclosure cover.
11) Bundle excess wire with supplied tie-wrap, position wire into bottom of motor, and reinstall motor cover.
12) Using speed wrench, rotate motor shaft to TIGHTEN drive chain.

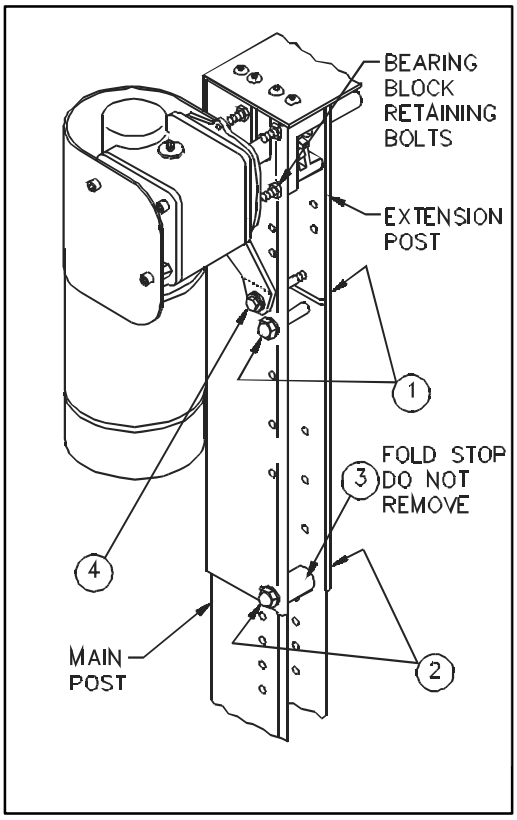


FIGURE 2-6: STANDARD CONFIGURATION - SHORTEN

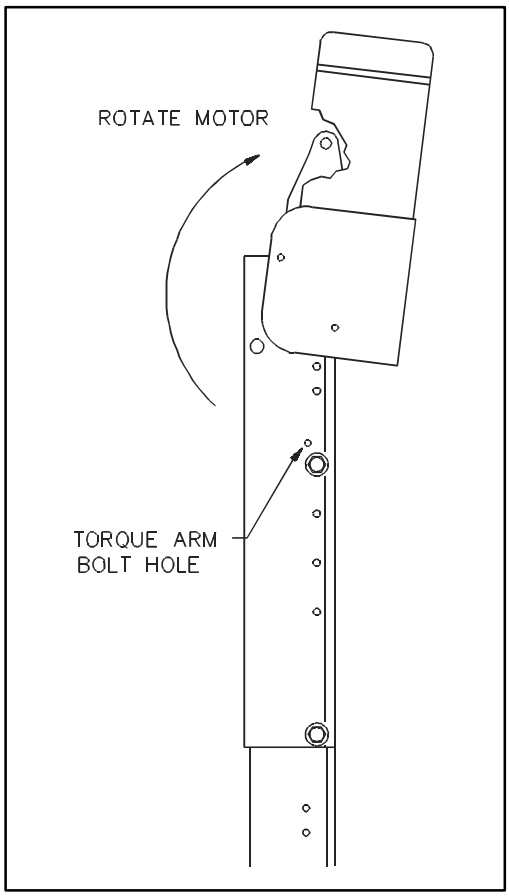


FIGURE 2-7: ROTATE GEAR MOTOR ASSEMBLY

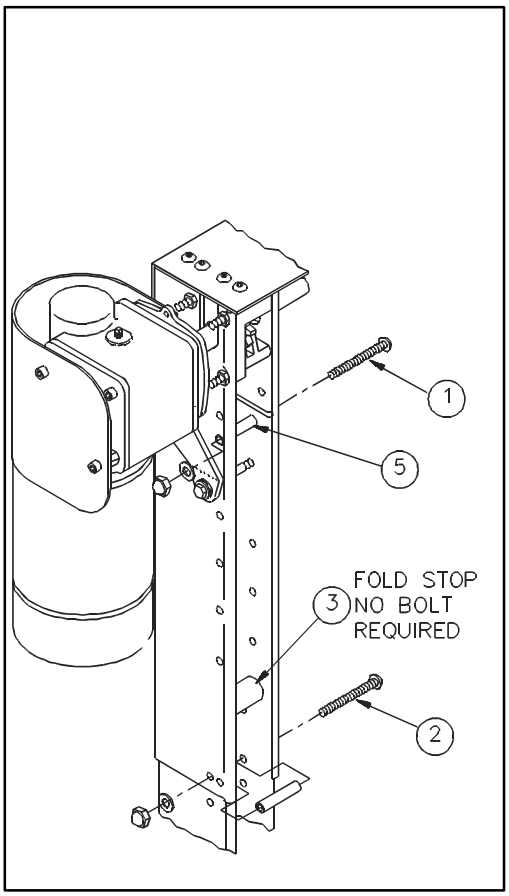


FIGURE 2-8: SHORTENED CONFIGURATION

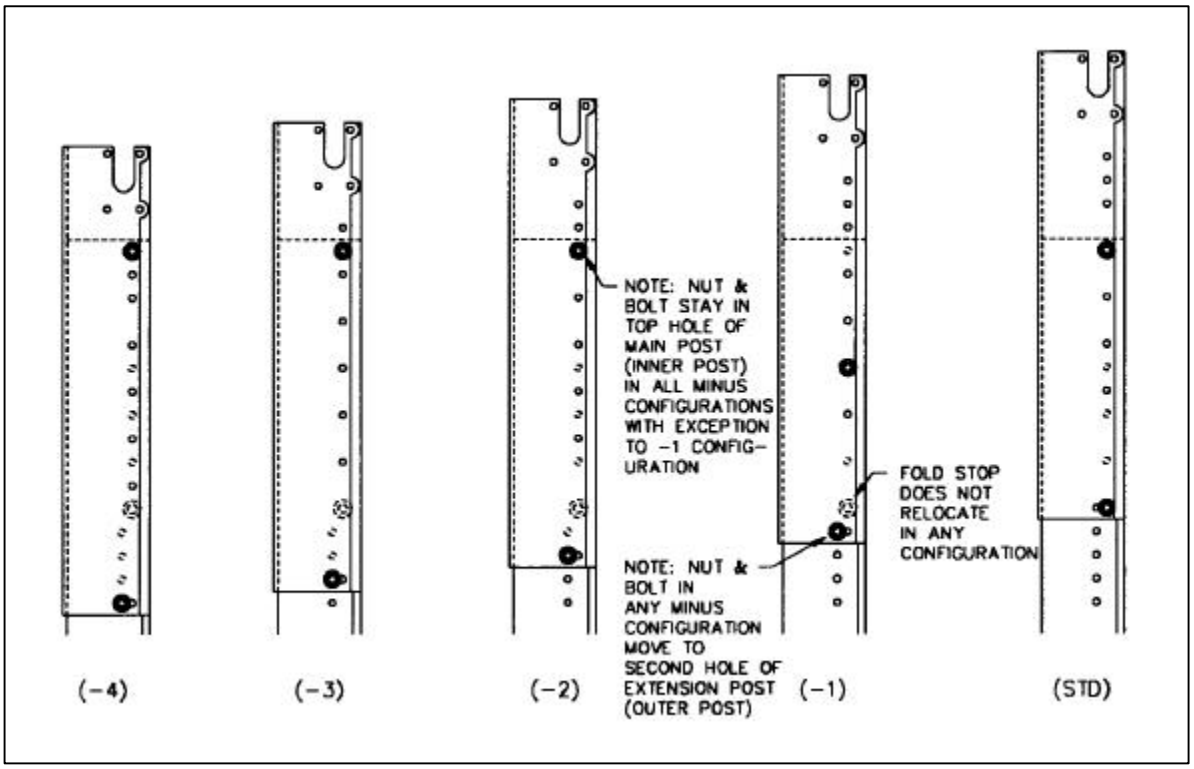


FIGURE 2-9: SHORTENED CONFIGURATION – SIDE VIEWS

5. BASE PLATE ADJUSTMENT

For the vans listed in **Table 2-4** below, perform the base plate adjustment procedure if needed:

TABLE 2-4: BASE PLATE ADJUSTMENT

MAKE/MODEL	DOOR INSTALLATION	BASE PLATE MOUNT POSITION
Chevrolet - Astro	Side w/Sliding Door	Third / Top
Ford - Aerostar	Side w/Sliding Door	Second / Middle
GMC - Safari	Side w/Sliding Door	Third / Top
Dodge	Side w/Sliding Door	Standard (First / Bottom)
	Side w/Swing Door	Standard (First / Bottom)
Ford	Rear Door	Second / Middle
	Side w/Sliding Door	Third / Top
	Side w/Swing Door	Third / Top
GMC	Rear Door	Second / Middle
	Side w/Sliding Door	Third / Top
	Side w/Swing Door	Third / Top

END OF TABLE

a. Remove bolts that attach base plate to left and right Main Posts.

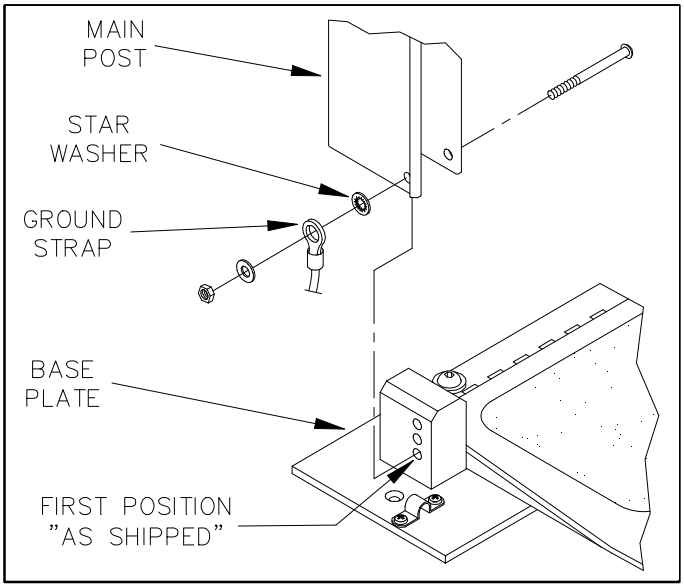


FIGURE 2-10: BASE PLATE MOUNTING

b. Refer to **Figure 2-10**. Move base plate to appropriate position.

c. Be sure to replace ground strap under washer, with star washer between ground strap and main post.

d. Loosely install base plate bolts.

6. POSITION LIFT INTO VEHICLE

To position the lift into the vehicle, follow this procedure:

⚠ WARNING

ALTHOUGH THE UNI-LITE IS CONSTRUCTED OF LIGHTWEIGHT MATERIALS, DO NOT ATTEMPT TO POSITION LIFT USING ONLY ONE PERSON.

a. Position lift into van according to **Figures 2-11**, **2-12**, and **Table 2-5**:

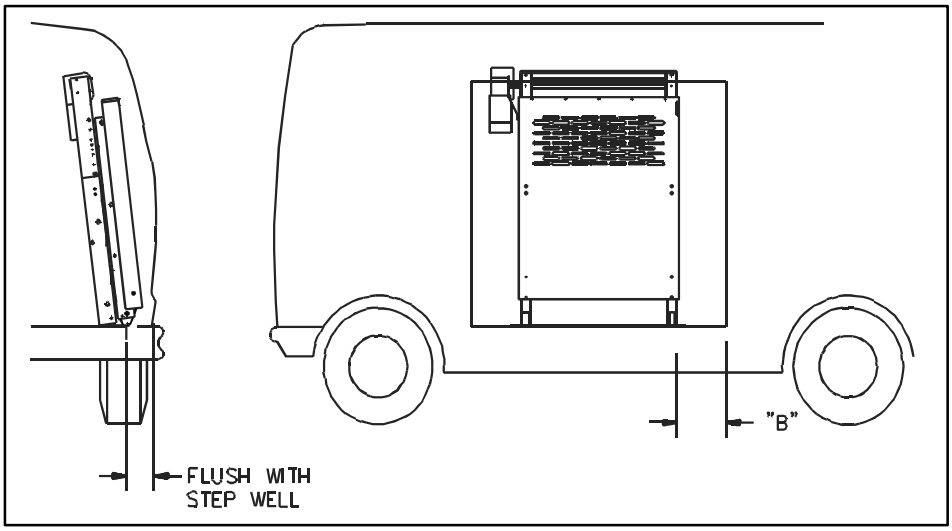


FIGURE 2-11: SIDE DOOR INSTALLATION CLEARANCES

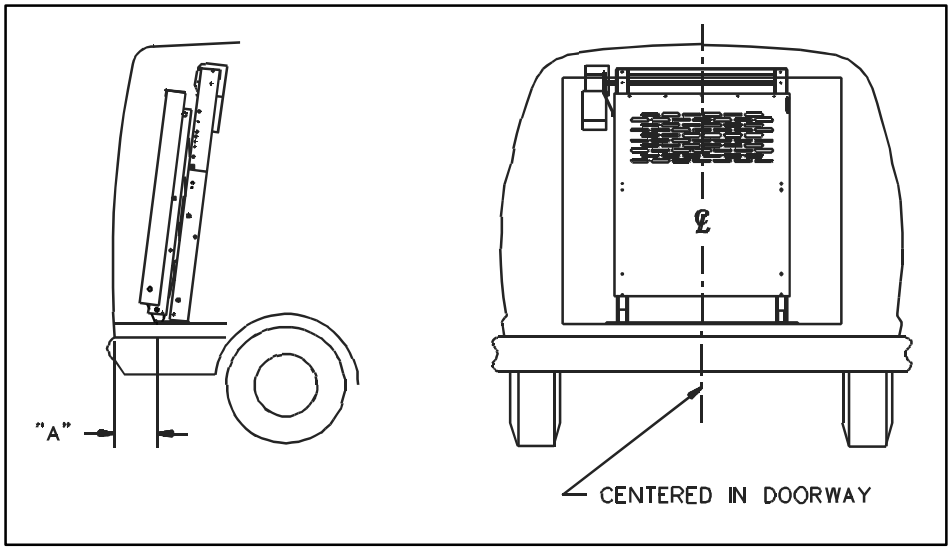


FIGURE 2-12: REAR DOOR INSTALLATION CLEARANCES

TABLE 2-5: VAN LIFT POSITION			
MAKE/MODEL	**DOOR INSTALLATION**	**DISTANCE FROM STEPWELL**	**POSITION IN DOORWAY**
Chevrolet - Astro	Side w/Sliding Door	Flush	Center
Ford - Aerostar	Side w/Sliding Door	Flush	Center
GMC - Safari	Side w/Sliding Door	Flush	Center
Dodge	Side w/Sliding Door	Flush	B = 9"
	Side w/Swing Door	Flush	Center
Ford	Rear Door	A = 10"	Center
	Side w/Sliding Door	Flush	B = 5"
	Side w/Swing Door	Flush	Center
GMC	Rear Door	A = 10"	Center
	Side w/Sliding Door	Flush	B = 5"
	Side w/Swing Door	Flush	Center
END OF TABLE			

b. With sheet metal screws, temporarily attach base plate to floor.

c. For Chevrolet Astro or GMC Safari side with sliding door installation, loosely install Top Right Bracket and Shim Plate to RIGHT-SIDE of top alignment plate using existing bolts. (Spacer washers may be needed to clear door track.)

For all other vans, refer to **Figure 2-13**. At top of lift, position extension brackets onto upper mounting studs and loosely install 1/4 flat washers and 1/4-20 self-locking nuts.

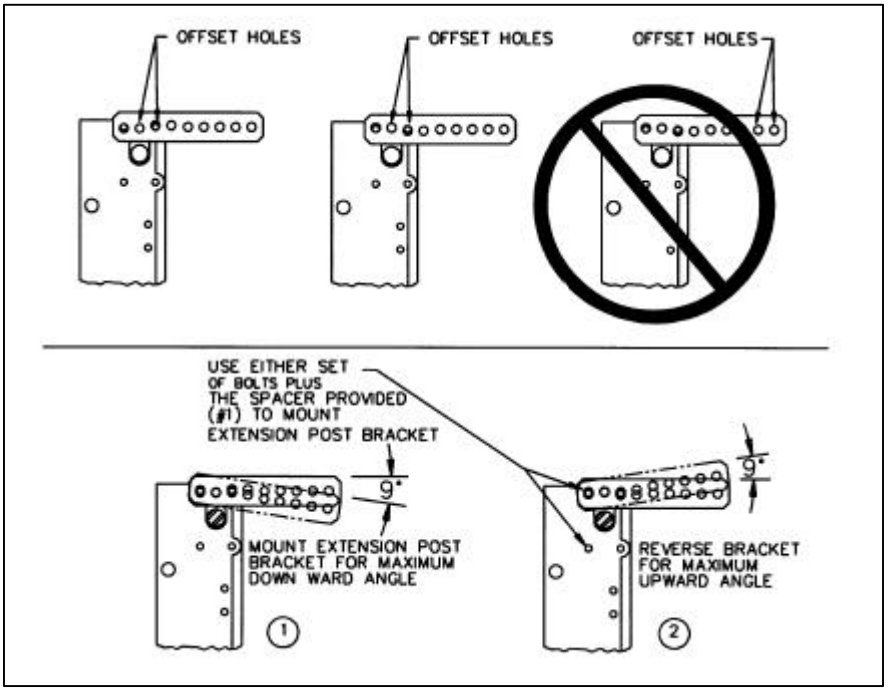


FIGURE 2-13: EXTENSION BRACKET MOUNTING

d. For all vans EXCEPT RIGHT-SIDE of Chevrolet Astro or GMC Safari side with sliding door installation, refer to **Figure 2-14**. With 5/16-18 hex bolts, 5/16 flat washers, and 5/16-18 self-locking nuts, loosely install intermediate brackets to end of extension brackets.

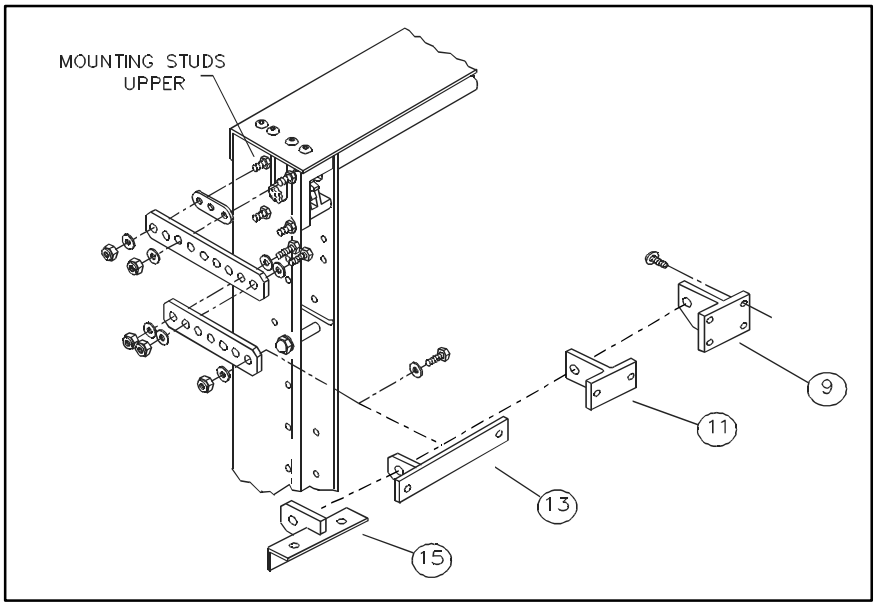


FIGURE 2-14: INTERMEDIATE AND MOUNTING BRACKET INSTALLATION

e. Refer to **Table 2-6** for mounting bracket applications. With 5/16-18 hex bolts, 5/16 flat washers, and 5/16-18 self-locking nuts, loosely install mounting brackets to end of intermediate brackets.

TABLE 2-6: MOUNTING BRACKET APPLICATIONS

MAKE/MODEL	DOOR INSTALLATION	LEFT-SIDE MOUNTING BRACKET	RIGHT-SIDE MOUNTING BRACKET
Chevrolet - Astro	Side w/Sliding Door	Astro Top Left	Astro Top Right
Ford - Aerostar	Side w/Sliding Door	2-Hole “T” (ref. #11)	4-Hole “T” (ref.# 9)
GMC - Safari	Side w/Sliding Door	Astro Top Left	Astro Top Right
Dodge	Side w/Sliding Door	4-Hole “T” (ref. #9)	4-Hole “T” (ref. #9)
	Side w/Swing Door	4-Hole “T” (ref. #9)	4-Hole “T” (ref. #9)
Ford	Rear Door	4-Hole “T” (ref. #9)	4-Hole “T” (ref. #9)
	Side w/Sliding Door	4-Hole “T” (ref. #9)	2-Hole “T” (ref. #11)
	Side w/Swing Door	4-Hole “T” (ref. #9)	4-Hole “T” (ref. #9)
GMC	Rear Door	4-Hole “T” (ref. #9)	4-Hole “T” (ref. #9)
	Side w/Sliding Door	4-Hole “T” (ref. #9)	4-Hole “T” (ref. #9) plus Right Side Offset Block
	Side w/Swing Door	4-Hole “T” (ref. #9)	4-Hole “T” (ref. #9) plus Right Side Offset Block

END OF TABLE

f. Tilt lift toward door opening to the amount specified in **Table 2-7**. (To achieve the amount of tilt specified, extension bracket and/or intermediate bracket may have to be repositioned or readjusted.)

TABLE 2-7: LIFT TILT SPECIFICATIONS

MAKE/MODEL	DOOR INSTALLATION	AMOUNT OF TILT
Chevrolet - Astro	Side w/Sliding Door	Top of lift - 7" from door weatherstripping
Ford - Aerostar	Side w/Sliding Door	Top of lift - 6" from door header
GMC - Safari	Side w/Sliding Door	Top of lift - 7" from door weatherstripping
Dodge	Side w/Sliding Door	five degrees (5E)
	Side w/Swing Door	five degrees (5E)
Ford	Rear Door	seven degrees (7E)
	Side w/Sliding Door	ten degrees (10E)
	Side w/Swing Door	ten degrees (10E)
GMC	Rear Door	seven degrees (7E)
	Side w/Sliding Door	seven degrees (7E)
	Side w/Swing Door	seven degrees (7E)
NOTE: All tilt specifications are approximate.		

END OF TABLE

g. Using sheet metal screws or clamps, temporarily attach “T” mounting brackets to door header or post.

⚠ WARNING

- WEAR PROTECTIVE CLOTHING AND EYE PROTECTION AT ALL TIMES. BATTERIES CONTAIN ACID THAT CAN BURN. IF ACID COMES INTO CONTACT WITH SKIN, IMMEDIATELY FLUSH AFFECTED AREA WITH WATER AND WASH WITH SOAP.
- DO NOT SMOKE OR USE OPEN FLAME IN THE VICINITY OF BATTERY. ALWAYS WORK IN PROPERLY VENTILATED AREA.
- DO NOT LAY ANYTHING ON TOP OF A BATTERY.

h. Temporarily connect 12VDC power source to the lift, battery positive (+) terminal to power cable and battery negative (-) terminal to a suitable ground on the lift frame.

i. Refer to **Figure 2-15**. Using Control Pendant, CAREFULLY DEPLOY lift while observing for any contact with vehicle doorsill, bumper, or external accessories. (If lift does not clear vehicle, reposition or readjust extension bracket, intermediate bracket and/or base plate position.)

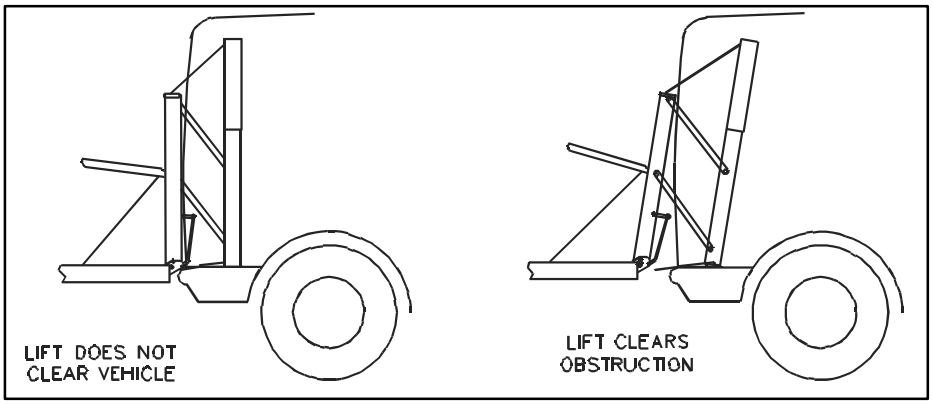


FIGURE 2-15: LIFT OPERATING CLEARANCE

7. BRIDGEPLATE ADJUSTMENT

To adjust the bridgeplate, follow this procedure:

a. Make sure lift is in DEPLOY position.

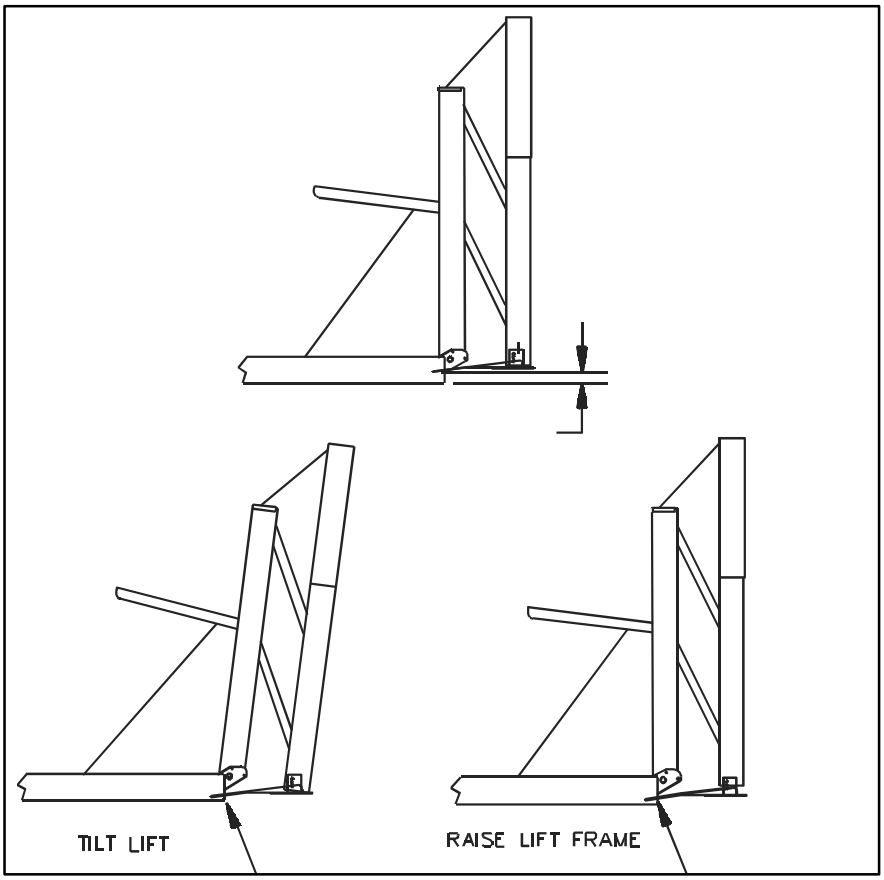


FIGURE 2-16: BRIDGEPLATE/PLATFORM GAP

b. Refer to **Figure 2-16**. Observe point where Bridgeplate contacts platform top surface.

⚠ CAUTION
IF LIFT REQUIRES ADDITIONAL TILT ADJUSTMENT, DO NOT EXCEED 10E OF TILT. TILT IN EXCESS CAN INTERFERE WITH PROPER DEPLOYMENT OF THE PLATFORM.

c. Reposition or readjust extension bracket, intermediate bracket and/or the base plate mounting position so there is NO GAP between bridgeplate and platform top surface.

8. PLATFORM TILT ADJUSTMENT

To adjust the platform tilt, follow this procedure:

a. Make sure lift is in DEPLOY position.

b. Refer to **Figure 2-17**. Using control pendant, position lift DOWN to slightly above ground level.

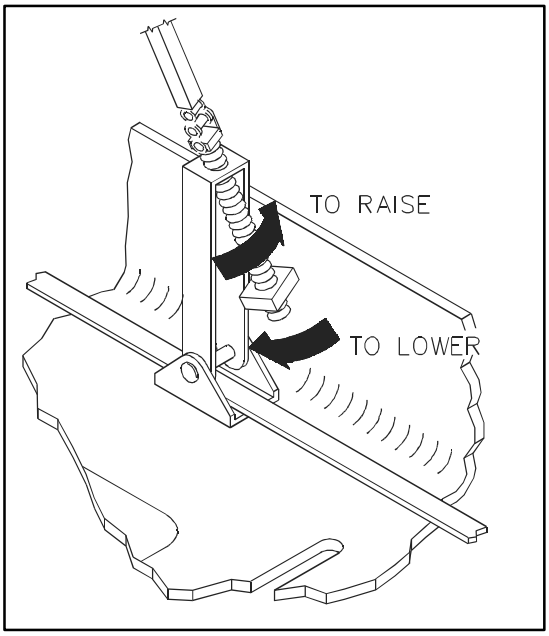


FIGURE 2-17: PLATFORM SUPPORT CHAIN ADJUSTMENT

c. Adjust platform support chains so platform is parallel with ground.

9. INSTALL LIFT IN VEHICLE

To install the lift into the vehicle, follow this procedure:

a. Using Control Pendant, cycle test (DEPLOY, DOWN, UP, and STOW) lift to make sure clearances are adequate. Readjust tilt and/or position if necessary.

b. At each base plate mounting holes, remove temporary sheet metal screws.

c. Verify size of provided base plate mounting bolts and drill appropriate size holes through van floor at base plate mounting holes.

d. Insert six mounting bolts through base plate mounting holes.

e. From beneath van, install fenderwashers and locknuts onto each mounting bolt.

f. Using sheet metal screws, permanently attach “T” mounting brackets to door header or post.

g. For Chevrolet Astro or GMC Safari installation, install modified door guide arm, drill through Top Left Bracket holes through track, and install bolts and self-locking nuts.

h. Securely tighten all upper brackets and their installation bolts and/or self-locking nuts.

i. Securely tighten main post-to-baseplate bolts and self-locking nuts.

⚠ CAUTION

- WEAR PROTECTIVE CLOTHING AND EYE PROTECTION AT ALL TIMES. BATTERIES CONTAIN ACID THAT CAN BURN. IF ACID COMES INTO CONTACT WITH SKIN, IMMEDIATELY FLUSH AFFECTED AREA WITH WATER AND WASH WITH SOAP.
- DO NOT SMOKE OR USE OPEN FLAME IN THE VICINITY OF BATTERY. ALWAYS WORK IN PROPERLY VENTILATED AREA.
- DO NOT LAY ANYTHING ON TOP OF A BATTERY.

j. Disconnect temporary 12VDC power source from lift and vehicle battery.

C. ELECTRICAL INSTALLATION

NOTE: A good ground is imperative to the proper operation of the lift, especially with heavy loads. If a poor ground is suspected through the lift frame or the lift is not mounted to a grounded surface, a supplementary ground strap is recommended. Using 4 AWG or greater cable with ring terminals on both ends, mount one end of the ground strap under the frame bolt located under the controller and the other end to a steel chassis member. Remove all paint and corrosion from chassis member where the ring terminal will be in contact. It is recommended to do the same from the battery "negative" terminal to the vehicle chassis, because vehicle manufacturer's ground systems are often not designed for high current accessories such as wheelchair lifts.

To install electrical power to the lift, follow this procedure:

⚠ CAUTION

CHECK VEHICLE BEFORE DRILLING. DO NOT DRILL INTO FACTORY WIRING, HYDRAULIC LINES, FUEL LINES, FUEL TANK, ETC.

1. At vehicle engine compartment, mount supplied Main Circuit Breaker within 10" - 12" (25 - 30 cm) of battery.
2. Adjacent to lift electrical cover, drill one 3/4" (19.5-mm) hole through vehicle floor, deburr hole, and install grommet.
3. Insert lift power cable through drilled hole.

⚠ CAUTION

WHEN ROUTING POWER CABLE, **AVOID HAZARDS** SUCH AS VEHICLE DRIVE SHAFTS, MOVING SUSPENSION PARTS, EXHAUST SYSTEMS, ETC.

4. From beneath vehicle, run cable along vehicle frame to circuit breaker. Make sure cable does not interfere with moving or hot parts and secure with cable ties every 18" (45 cm).
5. At engine compartment, cut and retain 12" (30 cm) section from end of cable.
6. Cut and remove any excess wire from cable.
7. Using wire crimpers, crimp terminal to cable and connect to circuit breaker AUX terminal.

   OPTIONAL:
   Soldering terminal to end of cable is recommended. Use a soldering iron rated 100w or above. Use only **ROSIN CORE** solder (acid core will damage wire).
8. Crimp supplied terminals to both ends of previously cut 12" (30 cm) section of cable. (Soldering is recommended)
9. Connect end of 12" (30 cm) section of RED wire to circuit breaker BAT terminal.

⚠ WARNING

- WEAR PROTECTIVE CLOTHING AND EYE PROTECTION AT ALL TIMES. BATTERIES CONTAIN ACID THAT CAN BURN. IF ACID COMES INTO CONTACT WITH SKIN, IMMEDIATELY FLUSH AFFECTED AREA WITH WATER AND WASH WITH SOAP.
- DO NOT SMOKE OR USE OPEN FLAME IN THE VICINITY OF BATTERY. ALWAYS WORK IN PROPERLY VENTILATED AREA.
- DO NOT LAY ANYTHING ON TOP OF A BATTERY.

10. Connect other end of 12" (30 cm) section of RED wire to POSITIVE (+) terminal of vehicle battery.

D. ELECTRICAL LIMIT SWITCH ADJUSTMENTS

⚠ CAUTION

- THE LIFT WILL OPERATE PROPERLY ONLY WHEN THE LIMIT SWITCHES ARE CORRECTLY ADJUSTED.
- TO AVOID OPERATIONAL DEAD-SPOTS, ALWAYS ADJUST THE OUT CUTOFF SWITCH *BEFORE* THE UP CUTOFF SWITCH.

The UNI-lite electrical limit switches are adjusted at the factory, but may require readjustment after installation. If the switches require adjustment(s), refer to **Figure 2-18** and **Table 2-8** and for the necessary adjustment(s). Contact the Ricon Product Support Department for assistance, if needed.

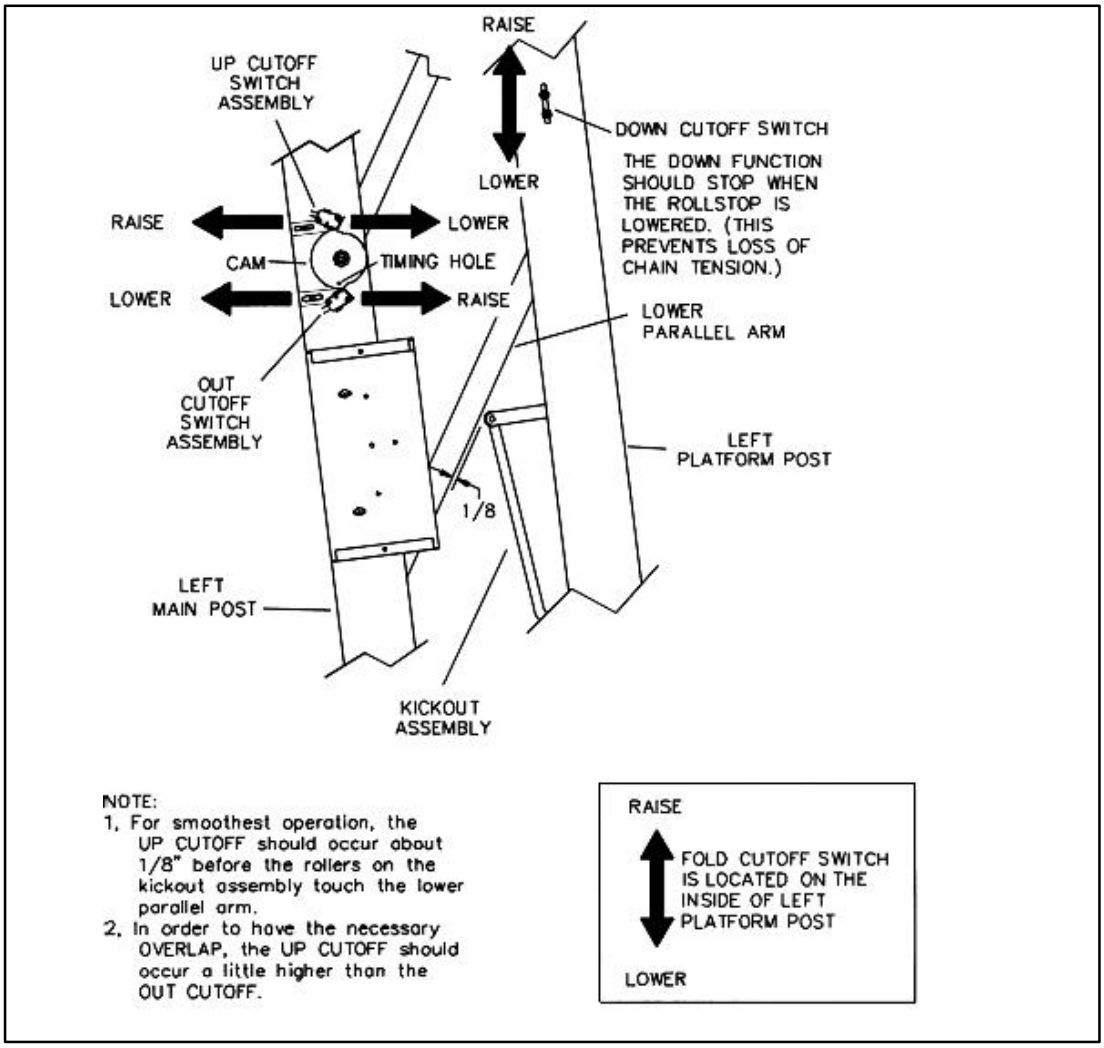


FIGURE 2-18: LIMIT SWITCH ADJUSTMENTS

a. Fully DEPLOY platform.

b. At UP CUTOFF switch assembly and OUT CUTOFF switch assembly, loosen set screws and lightly tap assemblies approximately 1/4" **outward** (toward outside of vehicle).

c. Cycle platform to STOW then DEPLOY.

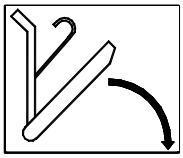
d. When in DEPLOY position, platform should stop at an angle and NOT even with vehicle floor. If not, lightly tap OUT CUTOFF switch assembly an additional 1/8" **outward**, STOW then DEPLOY platform, then repeat this step.

e. Cycle platform to UP position.

f. When in UP position, platform should stop short of vehicle floor level. If not, lightly tap UP CUTOFF switch assembly an additional 1/8" **outward**, cycle platform DOWN then UP, then repeat this step.

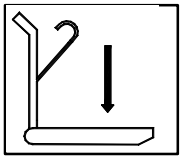
g. Cycle platform to STOW then DEPLOY.

h. Push and hold control pendant DEPLOY/STOW switch in the (DEPLOY) position. Slowly tap OUT CUTOFF switch assembly **inward** until platform "jogs" *down* to vehicle floor level. Make sure that clearance between knuckle actuator saddle and parallel arm is 1/8" minimum (distance may be 1/2" maximum and unequal from left or right arm), stop turning screw and release DEPLOY switch.



i. Position platform DOWN to ground level then UP until it stops.

j. Push and hold control pendant UP/DOWN switch in the (UP) position. Slowly tap UP CUTOFF switch assembly **inward** until platform "jogs" *up* to vehicle floor level. Make sure that clearance between knuckle actuator saddle and parallel arm is 1/8" minimum (distance may be 1/2" maximum and unequal from left or right arm), stop turning screw and release UP switch.



NOTE: If lift does not operate after slight adjustments, cycle the platform UP and DOWN (The UP CUTOFF SWITCH is less sensitive than the OUT CUTOFF SWITCH.)

k. At UP CUTOFF switch assembly and OUT CUTOFF switch assembly, tighten set screws.

l. Cycle platform through all functions (DEPLOY, DOWN, UP, and STOW) to verify correct adjustment. Refer to **Table 2-8** if necessary.

TABLE 2-8: LIMIT SWITCH ADJUSTMENTS

ADJUSTMENT SYMPTOM	COMPONENT TO ADJUST	ADJUSTMENT
Difficult or impossible to adjust floor level cutoffs	CAM	Loosen the bolt in the center of the cam. With lift at vehicle floor level, rotate cam so the timing hole on the cam lines up with the timing hole drilled in the lift post (visible through the timing hole on the lift cam). Tighten center bolt to secure adjustment.
UP position needs adjustment	UP CUTOFF SWITCH	Adjust so the lift stops just before the rollers on the Kickout Assembly touch the underside of the lower Parallel Arm. Roller should be about 1/8" from the lower parallel arm. TO RAISE UP POSITION: adjust switch INWARD. TO LOWER UP POSITION: adjust switch OUTWARD.
DEPLOY position needs adjustment	OUT CUTOFF SWITCH	Perform UP position adjustment first. This will provide the necessary overlap. TO RAISE DEPLOY POSITION: adjust switch OUTWARD. TO LOWER DEPLOY POSITION: adjust switch INWARD.
DOWN position needs adjustment: Excessive chain runout (adjustment too low) OR Rollstop does not open all the way (adjustment too high)	DOWN CUTOFF SWITCH	TO RAISE: adjust switch UPWARD. TO LOWER (INCREASE ROLLSTOP OPENING): adjust switch DOWNWARD.
STOW position needs adjustment: Excessive looseness or lift rattle (adjustment too low) OR Motor stalls or power doors will not close (adjustment too high)	FOLD CUTOFF SWITCH	The Fold Cutoff Switch, not shown, is located inside the Left Platform Post. TO DECREASE FOLD LOOSENESS: raise switch. TO INCREASE FOLD LOOSENESS: lower switch.

END OF TABLE

E. INSTALLATION VERIFICATION

- Clear the vehicle floor of all loose material, high-plush carpet strands, etc. which may interfere with operation.
- Be certain there is no interference with operation of the lift by interior components (e.g., passenger seat, seat belts, carpeting, tables, etc.) or exterior components (e.g., bumpers, running boards, etc.).

⚠ CAUTION
SIDE DOOR INSTALLATIONS MAY REQUIRE THAT THE BACKWARD POSITIONING OF THE FRONT PASSENGER'S SEAT BE RESTRICTED TO PREVENT INTERFERENCE WITH LIFT OPERATION. A BOLT INSTALLED IN THE SEAT TRACK OR INSTALLATION OF A GUARD MAY BE NECESSARY. IF SEAT BELT RELOCATION IS ALSO NECESSARY, CONSULT WITH THE VEHICLE MANUFACTURER FOR PROPER INSTRUCTION.

- Make sure that all fasteners are tightened properly.
- Run the UNI-lite through several cycles of all functions (DEPLOY, DOWN, UP, and STOW).
- Test the UNI-lite at 125% of its rated load capacity (750 pounds).

NOTE: C Voltage at controller power terminals should be greater than 11.5 volts when lift is in operation. Be sure to check while lift is lifting.

NOTE: C If the lift is unable to lift its rated load, it is almost always due to a poor connection in the power loop, or a weak vehicle electrical system. Solder all terminals using a soldering iron rated at 100w or greater and **ROSIN CORE** electrical solder (acid core plumber's solder will damage cable). Use star washers between all power terminals and metal surfaces. Use a fully charged vehicle battery. DO THE TEST WITH THE ENGINE RUNNING. If necessary, connect a 250 amp (or greater) booster/charger to battery and set to "boost" during test (refer to booster/charger operating manual for proper operation).

NOTE: C Ricon recommends the installation of a battery rated at 900 cranking amps or greater, or where the vehicle manufacturer has made provision, a dual battery system.

F. CUSTOMER ORIENTATION

*** IMPORTANT ***

The Sales/Service Personnel must review the Warranty, Operating Instructions of this manual, and all lift decals with the user to be certain that they understand the safe operation of the product. Instruct the user to follow the operating instructions without exception.

- Refer to **Figure 2-19** on following page and ensure that all decals are properly located and affixed to the UNI-lite.

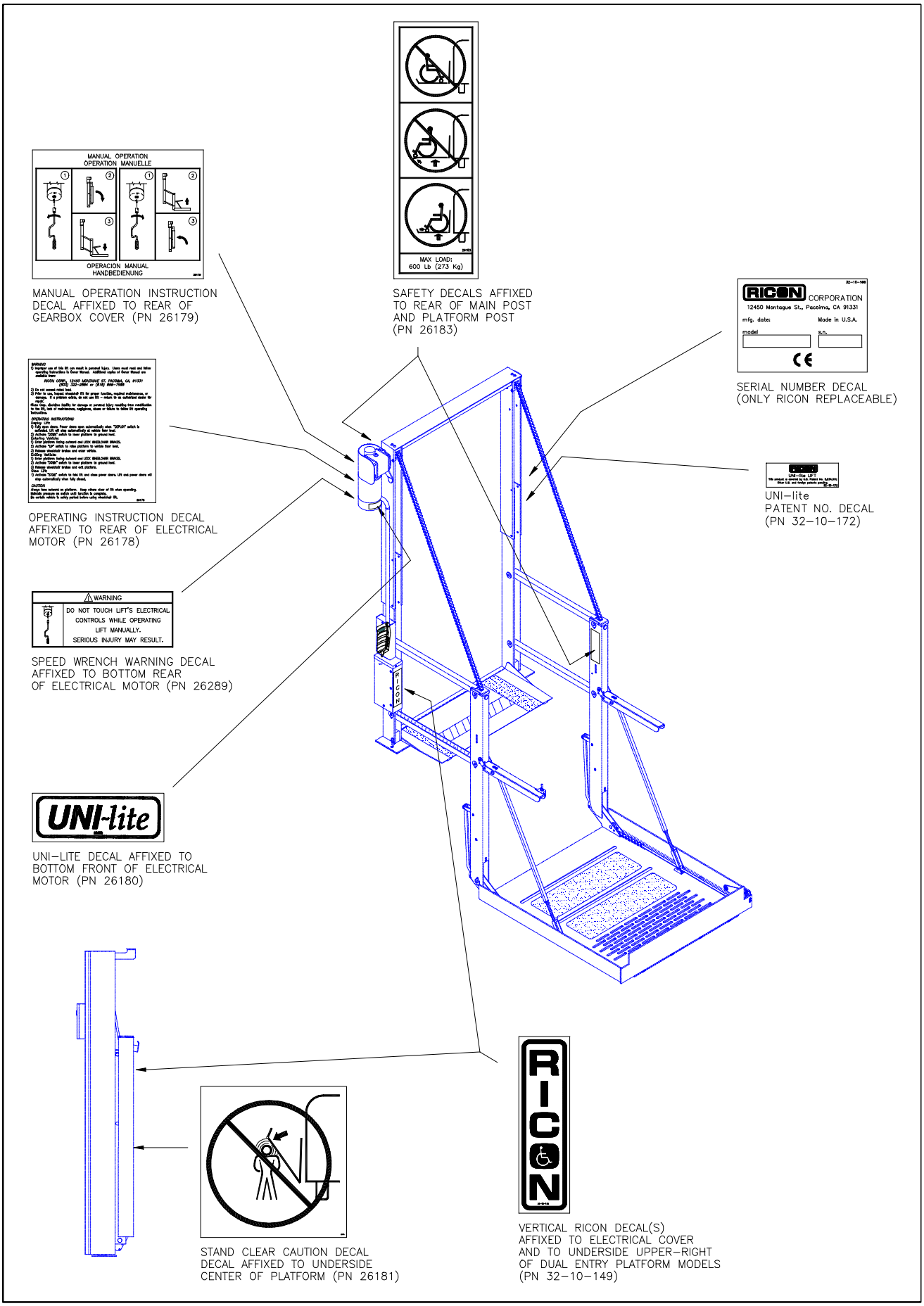


FIGURE 2-19: DECAL LOCATION

III. MAINTENANCE

Routine maintenance of the RICON UNI-lite Personal Wheelchair Lift is required to ensure its optimum performance in addition to reducing the need for repairs. Ricon products are highly specialized and maintenance and/or repairs must be performed by an authorized Ricon service technician using only Ricon replacement parts. During the Ricon warranty period maintenance inspections are required every six months or sooner depending on usage.

A. CLEANING AND LUBRICATION

- Cleaning the lift regularly is an important part of its maintenance. Regular cleaning and drying will protect its surfaces. All moving parts should be kept clean and lubricated.

⚠ WARNING

SPRAYABLE SOLVENTS ARE EXTREMELY FLAMMABLE, AND CONTAIN HARMFUL VAPORS. TO PREVENT INJURY, FOLLOW THE SAFETY WARNING PRINTED ON THE CONTAINER.

- Chains should be kept clean but not lubricated. Chains should be cleaned with a sprayable penetrating solvent (such as WD-40®, etc.). Do not saturate chains or leave wet as this attracts dirt and dust. Chains should always be wiped dry after cleaning.
- The lift has been designed and manufactured for low maintenance. Cleaning and lubrication of all moving parts should be performed at least every six months, or sooner depending on usage.
- **DO NOT LUBRICATE MOTOR OR ELECTRICAL COMPONENTS.**

B. ELECTRICAL SYSTEM

- No general maintenance is required on the electrical system. This system should, however, be inspected at least every six months for short circuits, frayed wires, loose connectors, etc.

C. MAINTENANCE SCHEDULE

TABLE 3-1: ROUTINE INSPECTION

INSPECTION	ACTION
Pivot bearings	Inspect for wear every six months
Inspect the platform barrier for damage or malfunction	Repair/replace as needed
Check all fasteners on lift for tightness	Tighten as required
Check hinge pins	Replace as needed
Check all mounting hardware	Tighten/replace as needed
Check electrical limit switch settings	Adjust as needed
Inspect chains and connection points	Repair/replace as needed

END OF TABLE

D. TROUBLESHOOTING GUIDE

Electrical repairs should be performed by qualified service personnel only. Locate the source of the problem by reference to the UNI-lite Electrical Wiring Diagram in this manual. Contact the Ricon Product our Service Department for assistance, if needed.

⚠ WARNING

ELECTRICITY CAN BE DANGEROUS. THE VOLTAGE IN THE VEHICLE IS HIGH ENOUGH TO CAUSE SPARKS, BURNS AND ARCING OF METALLIC PARTS. SPARKS NEAR A BATTERY OR COMBUSTIBLE FLUID CAN CAUSE FIRE OR EXPLOSION.

- Always handle electricity with care. Always call our Product Support Department with any installation or troubleshooting questions.
- Avoid causing electrical components to spark, especially near combustible or explosive substances.

- Most multimeters or other test equipment have probes with exposed metallic leads. Shorting two connectors with one of these leads can activate a lift function and this movement, if unexpected, could cause an injury. Exercise care when inserting a test probe into the lift's electrical system. Know what connector and terminal you need to test, and never contact more than one terminal at a time.
- An improperly serviced electrical system can be a fire hazard. Electrical service should only be performed by qualified Ricon service technician personnel. Replace wire and components with Ricon replacement parts only.

E. TROUBLESHOOTING PROCEDURE

1. CHECK FOR MECHANICAL BINDING:

   Sometimes, a perceived electrical problem turns out to be mechanical.

   Determine if the lift will move by disconnecting electrical power and using the manual operation speed wrench. The motor should turn freely. Do not force the speed wrench. If the motor does not turn freely, determine the reason for the bind.

2. INSPECT FOR DAMAGED WIRES OR CONNECTORS:

   A visual inspection of all wires and connectors can sometimes reveal a bad connection and save you from having to perform a more involved electrical diagnosis of the problem.

3. CHECK THE BATTERY:

   Before assuming there is an electrical problem with the lift, always check that there is sufficient battery power to the lift. There should be at least 12.5 volts measured between the terminal posts inside the controller marked " bat + " and " bat - ". When operating under load, the voltage between these points should never drop below 11.5 volts.

   If insufficient voltage is measured, check all battery cables and terminals. Thoroughly clean and/or tighten battery cables as required. Make sure that the battery is fully charged.

4. OBSERVE CONTROLLER INDICATORS:

   The controller indicator lights are located on the solid state controller behind the electrical box assembly cover. For the description of the indicators, refer to **Table 3-2** below:

TABLE 3-2: CONTROLLER INDICATORS

INDICATOR	COLOR	DESCRIPTION
LOW BAT	RED	Indicates when the vehicle battery has low voltage. It will light continuously for a low battery condition (less than 9.5 volts) or flicker during controller operation when there is a low voltage problem.
POWER	GREEN	Lit continuously when the correct power/voltage is applied to the lift.
ERROR	RED	Lights when an overvoltaged (greater than 15 volts) occurs.
STOW OUT	YELLOW	Lights when the DEPLOY or DOWN function is selected if the position of the lift is correct for that function. For example: If the lift is stowed, the down function will not do anything and will not light the indicator but the deploy function will. The operation of this light is independent of power being applied to the controller, making it useful for troubleshooting.
STOW IN	YELLOW	Acts the same as the stow out, except during the STOW and UP functions.

END OF TABLE

F. CIRCUIT TRACE PROCEDURE

If a problem persists after completing the ELECTRICAL LIMIT SWITCH ADJUSTMENT procedure outlined in section II.D., perform the circuit trace procedure as follows:

1. Proper tracing techniques will help solve a problem quickly. The tracing procedure should be performed by a Ricon service technician, trained in the use of electrical test equipment and diagram reading.
2. A circuit trace consists of choosing a STARTING POINT and checking every connection point along a predetermined TEST PATH. The path corresponds to the electrical path for the function (or functions) you are testing. The circuit diagram is essential in determining this path.

3. A terminal on the SWITCH CONNECTOR is usually a good place for a starting point, because all circuits go though this connector and it is very accessible.
4. If none of the lift functions work, check the 12V-5a terminal and work back to the battery.
5. If only one function does not work, check the terminal that performs the function and work your way toward the motor.
6. If more than one function does not work, you will have to test all circuits common to the non-operating functions.
7. In either case, test every connection point along the test path.
8. Our service personnel at Ricon Corporation will be happy to assist you with any troubleshooting problems, including the circuit trace procedure.

G. ELECTRICAL WIRING DIAGRAMS

1. DIAGRAM LEGEND

a. Wire Color Codes

TABLE 3-3: WIRE COLOR CODE DEFINITIONS

LETTER	COLOR	LETTER	COLOR
BK	Black	R	Red
BL	Blue	VI	Violet
BR	Brown	VI/BK	Violet w/ Black
GN	Green	W	White
GN/BK	Green w/ Black	W/O	White w/ Orange
O	Orange	Y	Yellow
O/BK	Orange w/ Black	Y/BK	Yellow w/ Black

END OF TABLE

b. Connectors

Refer to **Figure 3-1**. The standard electrical connectors used by Ricon are Molex® .062" Series. These connectors have terminal numbers molded onto the rear; use these numbers and colors to identify all wires.

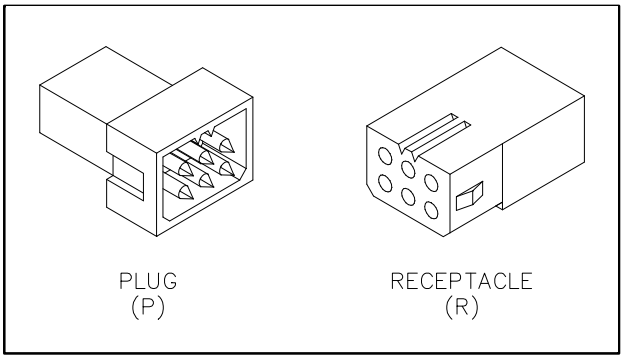


FIGURE 3-1: MOLEX CONNECTORS

c. Wiring Diagram Labels

12V	12 Volts – Circuit current rating is also given
DC	Door Close – Direct command
DDIODE	Down Diode – Full power when energized
DO	Door Open – Direct command
DOE	Door Open Enable – From Door Open cutoff switch
DWNA	Down Attempt – Must be enabled (2 cutoff switches)
GND	GROUND
INA	In Attempt – In must be enabled
MDWN	Motor Down – Used by OUT and DWN
MUP	Motor Up – Used by UP and IN
OUTA	Out Attempt – Out must be enabled
SDA	System Deploy Attempt – DO followed by OUT
SSA	System Stow Attempt – IN followed by DC
UPA	Up Attempt – Up must be enabled

d. Symbols

Figure 3-2 shows standard symbols used in the electrical wiring diagrams.

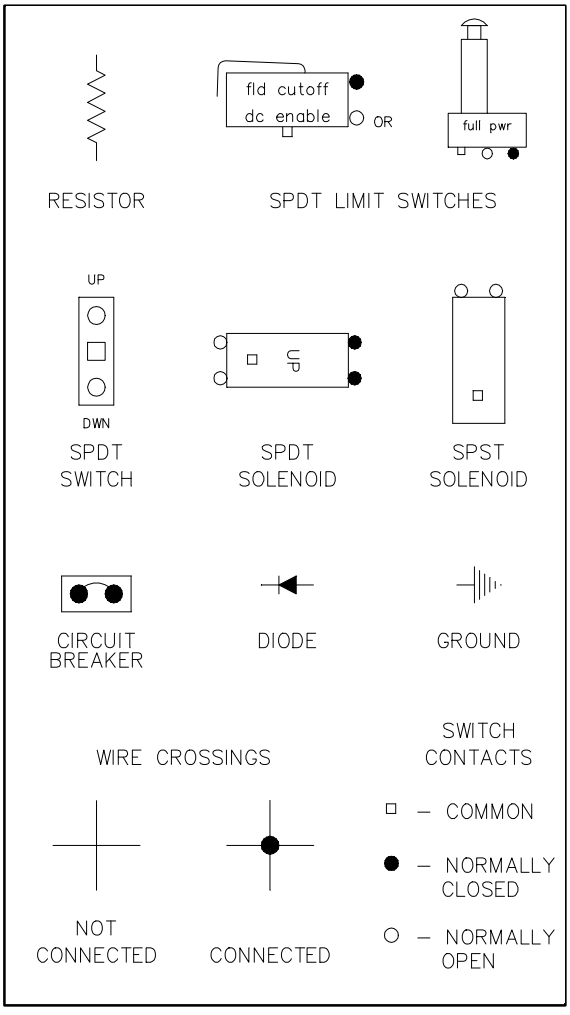


FIGURE 3-2: DIAGRAM SYMBOLS

2. UNI-LITE LIMIT SWITCH STATE DESCRIPTION

Refer to **Figure 3-3**. The limit switch actuation diagram shows the state of all limit switches as the platform travels from fully closed, to vehicle floor level, and to the ground level. The solid (") line indicates the normally CLOSED portion of the switch is operational, while the two thin lines (=) indicates the normally OPEN portion of the switch is operational. The dotted lines (" " ") are used to show the switch states beyond the normal travel boundaries of the platform. This is useful in showing the operation of switches which change states at folded or ground level positions. For proper operation of the lift, the switch actuations must overlap as shown.

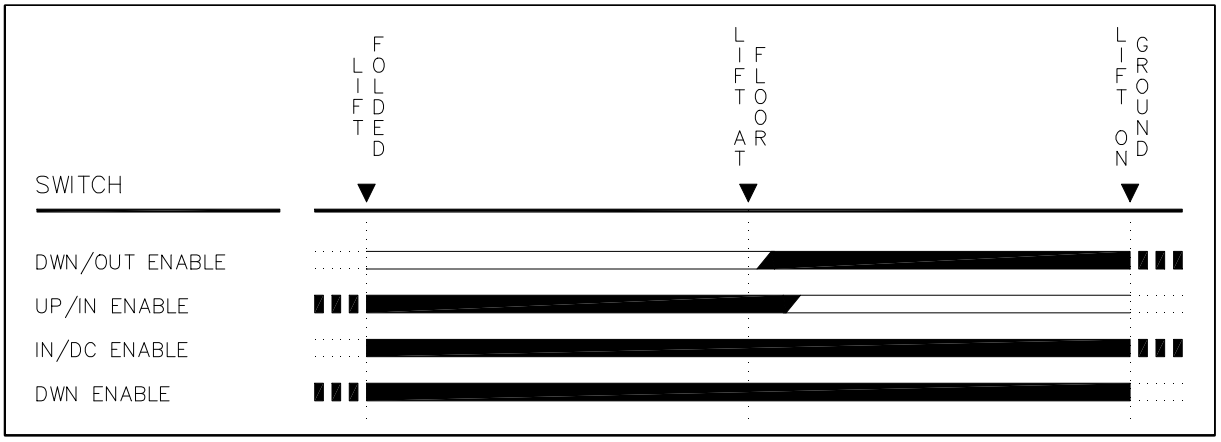


FIGURE 3-3: LIMIT SWITCH ACTUATION DIAGRAM

3. WIRING DIAGRAM

For the lift electrical system wiring diagram, refer to **Figures 3-4** thru **3-6** on the following pages:

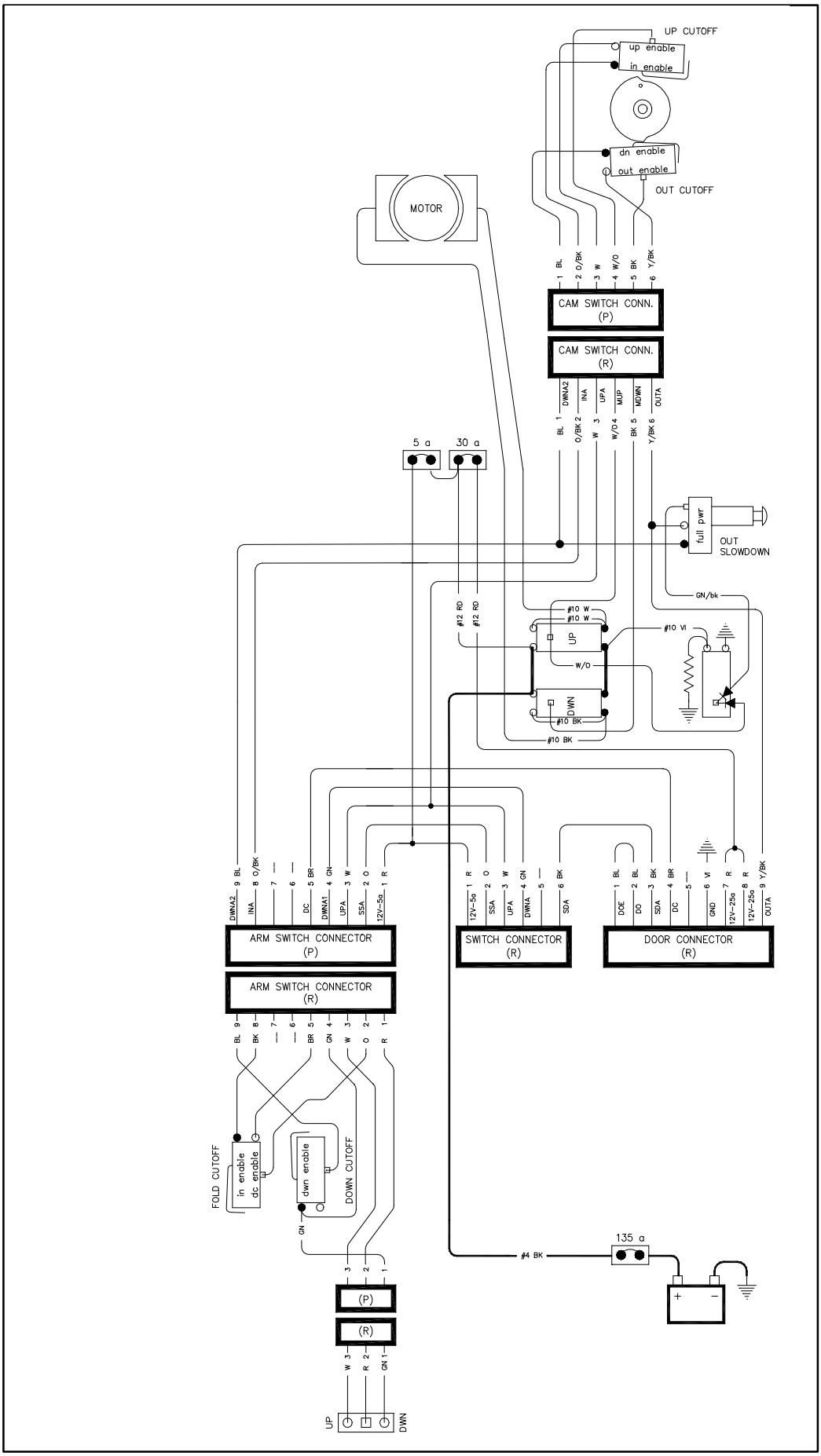


FIGURE 3-4: ELECTRICAL WIRING DIAGRAM FOR SERIAL NUMBERS 101 TO 6295

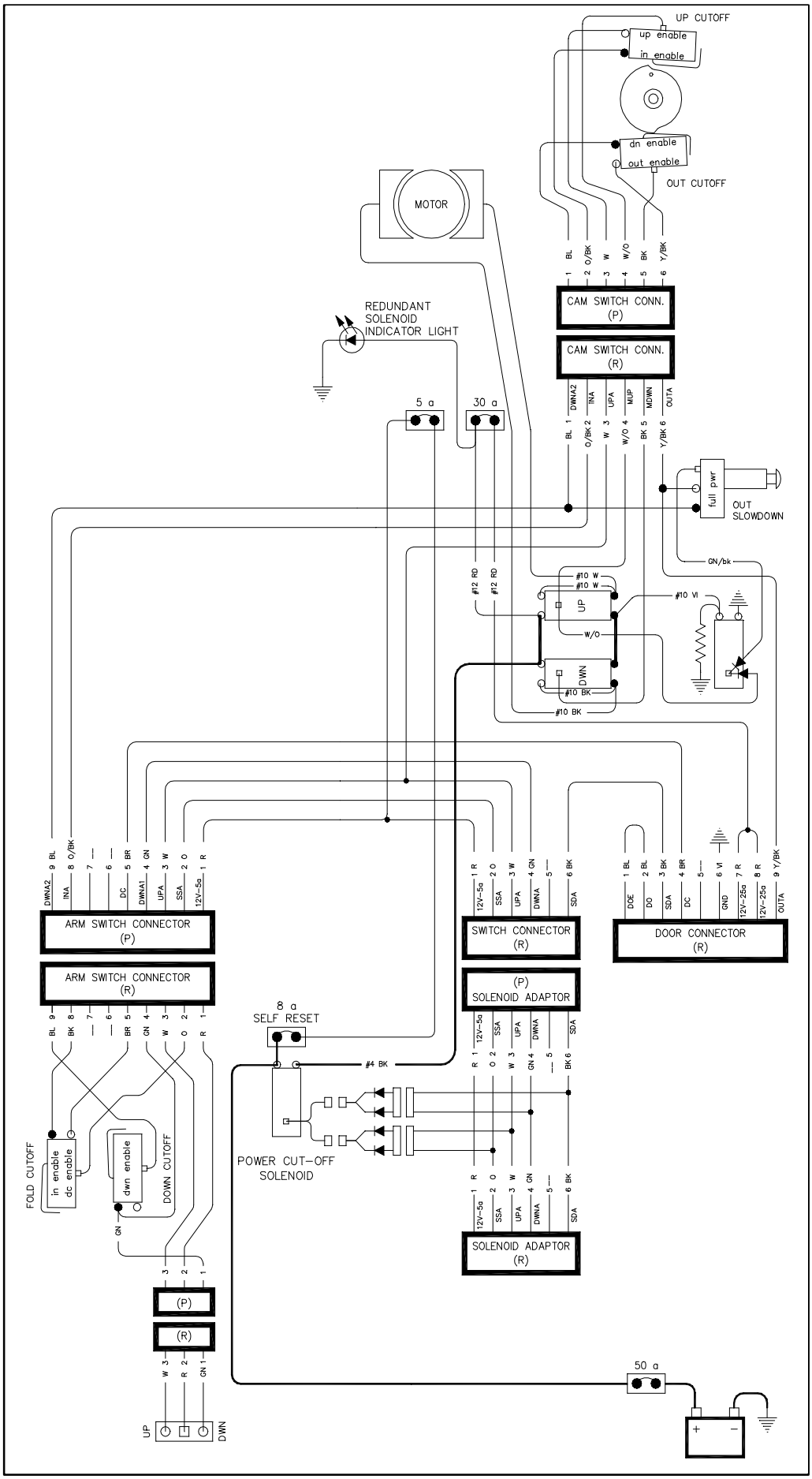


FIGURE 3-5: ELECTRICAL WIRING DIAGRAM FOR SERIAL NUMBERS 6296 TO 7724

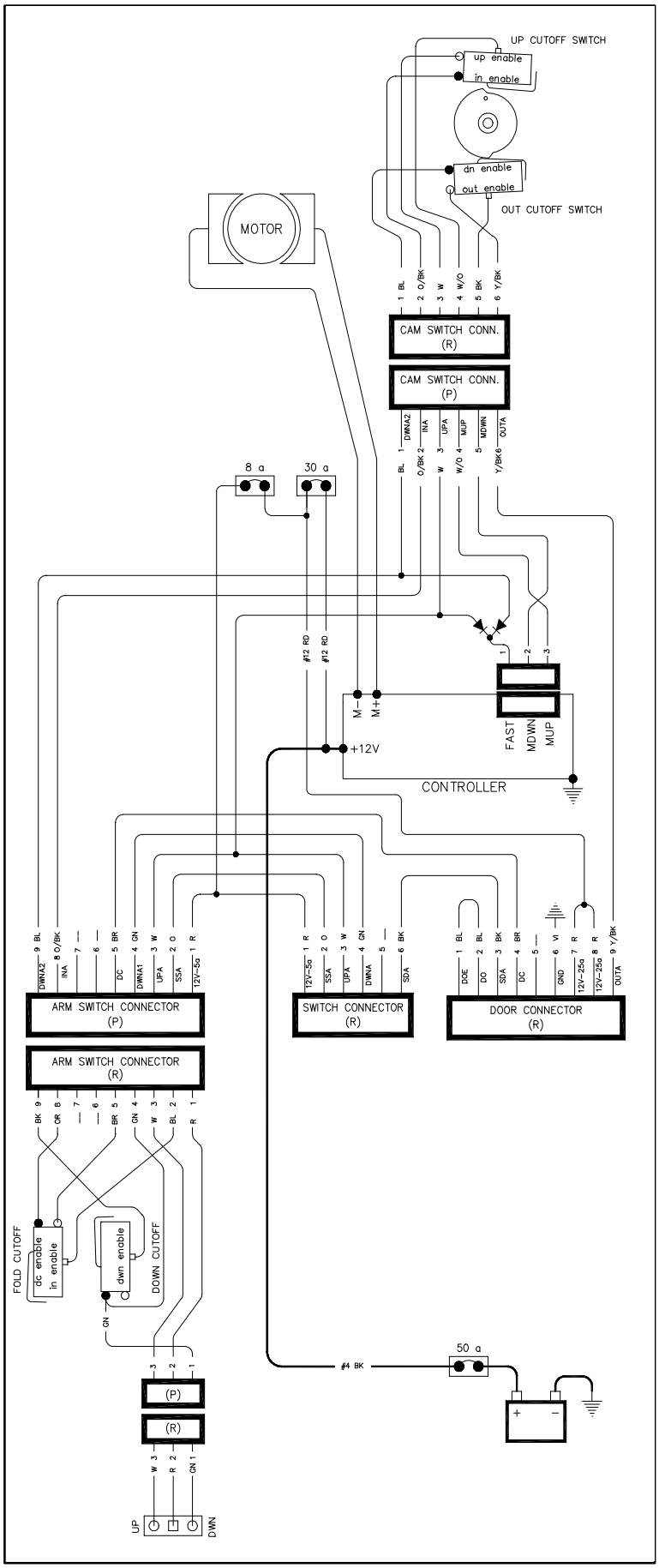
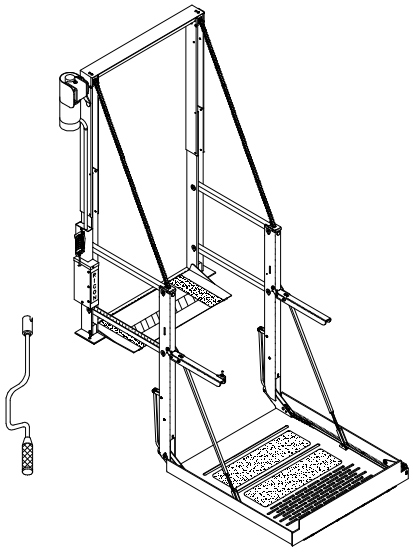


FIGURE 3-6: ELECTRICAL WIRING DIAGRAM FOR SERIAL NUMBERS 7725 AND HIGHER

IV. PARTS DIAGRAMS AND LISTS

This chapter contains parts diagrams and lists for the RICON UNI-lite Personal Wheelchair Lift. The exploded view of each major lift assembly shows individual components referenced by numbers. On each associated list is the reference number, a part description, the quantity used and the Ricon part number. For part numbers of lift decals, refer to the “Decal Locations and Part Numbers” figure in Chapter II of this manual.



LIFT MODEL AND KIT NUMBERS	
PRODUCT NUMBER	UL2400-1P01000 (First listed model number)
DOCUMENTATION KIT NUMBER	01043
PRODUCTION DECAL SET NUMBER	ULXXXXLPXXXXXXX
SPARE DECAL KIT NUMBER	26020

PARTS DIAGRAM PAGE

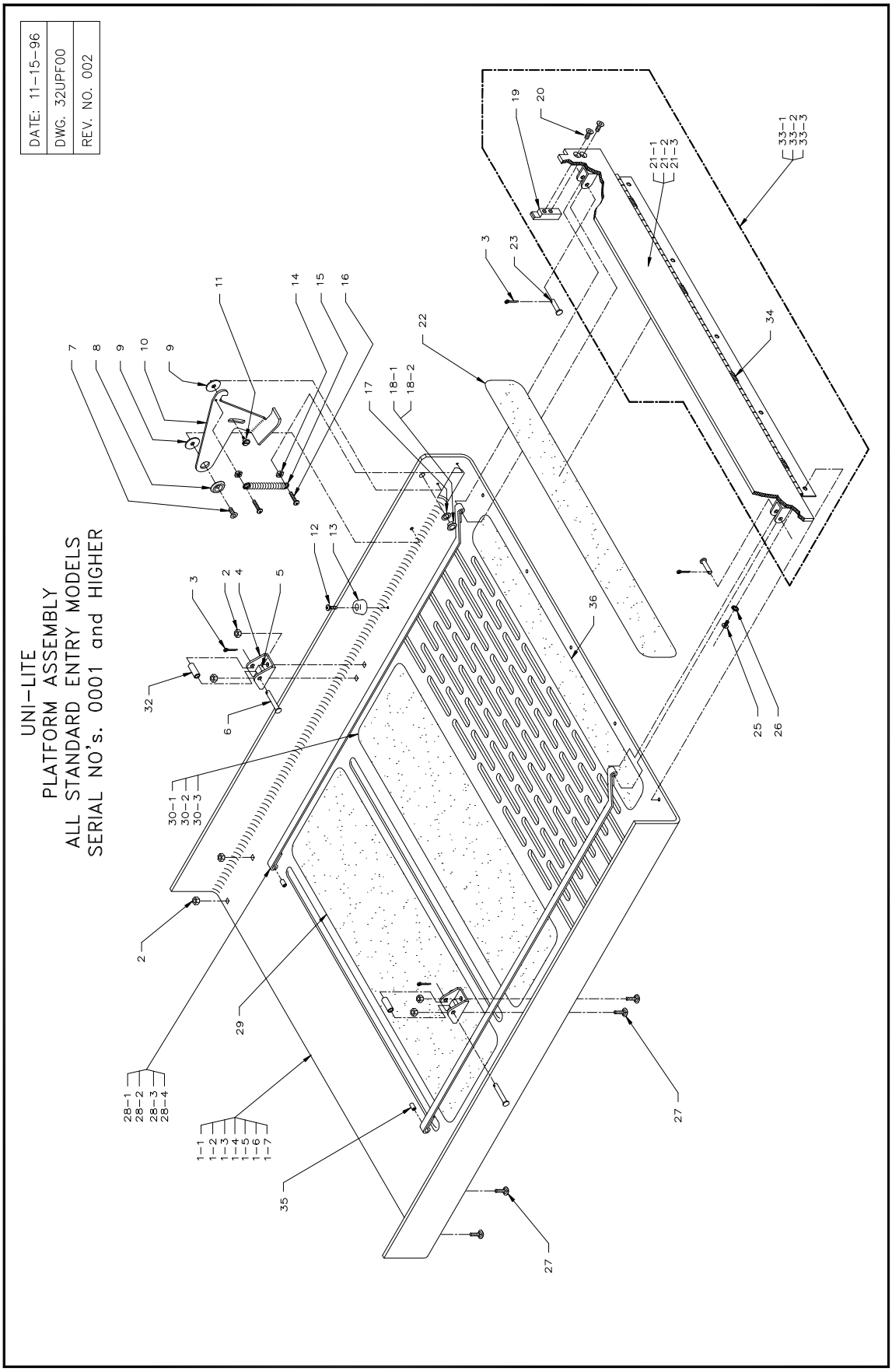


FIGURE 4-1: UNI-LITE PLATFORM ASSEMBLY

FIGURE 4-1: UNI-LITE PLATFORM ASSEMBLY
ALL STANDARD ENTRY MODELS
SERIAL NO's. 0001 and HIGHER

REF.	DESCRIPTION	QTY.	PART NO.
1-1 *	ASSY, PLATFORM, 29" X 40"	1	UL-PF-001
1-2 *	ASSY, PLATFORM, 29" X 44"	1	UL-PF-200
1-3 *	ASSY, PLATFORM, 26" X 39"	1	UL-PF-100
1-4 *	ASSY, PLATFORM, 26" X 36"	1	UL-PF-400
1-5 *	ASSY, PLATFORM, 32" X 40"	1	UL-PF-300
1-6 *	ASSY, PLATFORM, 32" X 44"	1	UL-PF-500
1-7 *	ASSY, PLATFORM, 26" X 44"	1	UL-PF-600
2	NUT, HEX, 1/4-20, SS (BAG OF TEN)	8	15943
3	COTTER PIN, 5/32 X 1.0 (BAG OF TEN)	4	15930
4	CHAIN, SUPPORT, CLEVIS	2	UL-PF-003
5	PAD, PLATFORM, CLEVIS	2	UL-PF-022
6	CLEVIS PIN, 1/4 X 1 23/64, ZINC PLATED	2	28636
7	MS, 1/4-20 X 5/8, SOCKET, FLAT	1	28648
8	BUSHING, PIVOT ROLLSTOP LATCH	1	UL-PF-010
9	WASHER, NYLON, .315ID X 1.156OD X .062	2	28632
10	ROLLSTOP LATCH	1	UL-PF-009
11	SHOULDER SCREW, ROLLSTOP LATCH	1	UL-PF-034
12	MS, 10-24 X 3/8, PHIL PAN (BAG OF TEN)	2	15944
13	BUMPER, RUBBER	2	28408
14	NUT, HEX, 6-32	2	28301
15	SPRING, EXTENSION, UNI-LITE	1	25447
16	MS, 6-32 X 3/8, PHIL PAN	2	28043
17	WASHER, NYLON, .375ID X .63OD X 0.032 (FOR LIFTS PRIOR TO SERIAL #829)	1	28562
18-1	SPACER, ROLLSTOP LATCH (FOR LIFTS PRIOR TO SERIAL #829)	1	UL-PF-027
18-2	GUIDE, DRIVE SHAFT PIVOT (FOR LIFTS BEGINNING WITH SERIAL #830, CONSULT FACTORY)	1	UV-DS-014
19	CATCH, ROLLSTOP LATCH	1	UL-PF-026
20	SOCKET, FLAT, 1/4-20 X 3/4	2	28184
21-1	ROLLSTOP, WELD ASSY, 29"	1	UL-PF-007
21-2	ROLLSTOP, WELD ASSY, 26"	1	UL-PF-014
21-3	ROLLSTOP, WELD ASSY, 32"	1	UL-PF-024
22	SAFETY TREAD, 25 1/2 X 3, SAFETY YELLOW	1	25664
23	CLEVIS PIN, 1/4 X 55/64 (BAG OF TEN)	2	15940
25 **	SOCKET, BUTTON HD, 1/4-20 X 3/8, SST	5	28181
26 **	WASHER, 1/4 STAR, INTERNAL	5	28259
27	BOLT, CARRIAGE, SST, 1/4-20 X 5/8	8	14-07-104
28-1	STRAP, ROLLSTOP ACTUATOR, 36" PLATFORM	2	UL-DS-040
28-2	STRAP, ROLLSTOP ACTUATOR, 39" PLATFORM	2	UL-DS-039
28-3	STRAP, ROLLSTOP ACTUATOR, 40" PLATFORM	2	UL-DS-006
28-4	STRAP, ROLLSTOP ACTUATOR, 44" PLATFORM	2	UL-DS-044
29	SAFETY TREAD, 25 1/2 X 8, OCEAN GRAY	2	25646
30-1	SAFETY TREAD, 25 1/2 X 4, OCEAN GRAY	1	25662
30-2	SAFETY TREAD, 25 1/2 X 7, OCEAN GRAY	1	25647
30-3	SAFETY TREAD, 25 1/2 X 12, OCEAN GRAY	1	25661
32	ROLLER, SUPPORT CHAIN, CLEVIS	1	UL-AC-009
33-1	ROLLSTOP ASSEMBLY, 26"	1	UL-PF-114
33-2	ROLLSTOP ASSEMBLY, 29"	1	UL-PF-117
33-3	ROLLSTOP ASSEMBLY, 32"	1	UL-PF-124
34	SPRING-BARRIER HINGE LARGE	4	25434
35	BUSHING, ROLLSTOP ACTUATOR, SST.	2	UL-PF-032
36	SAFETY TREAD 25 1/2 X 2.5, OCEAN GRAY	1	25650

* All items included in this assembly are illustrated.
** For platform assemblies 32" X 40" and 32" X 44", quantity is 7.

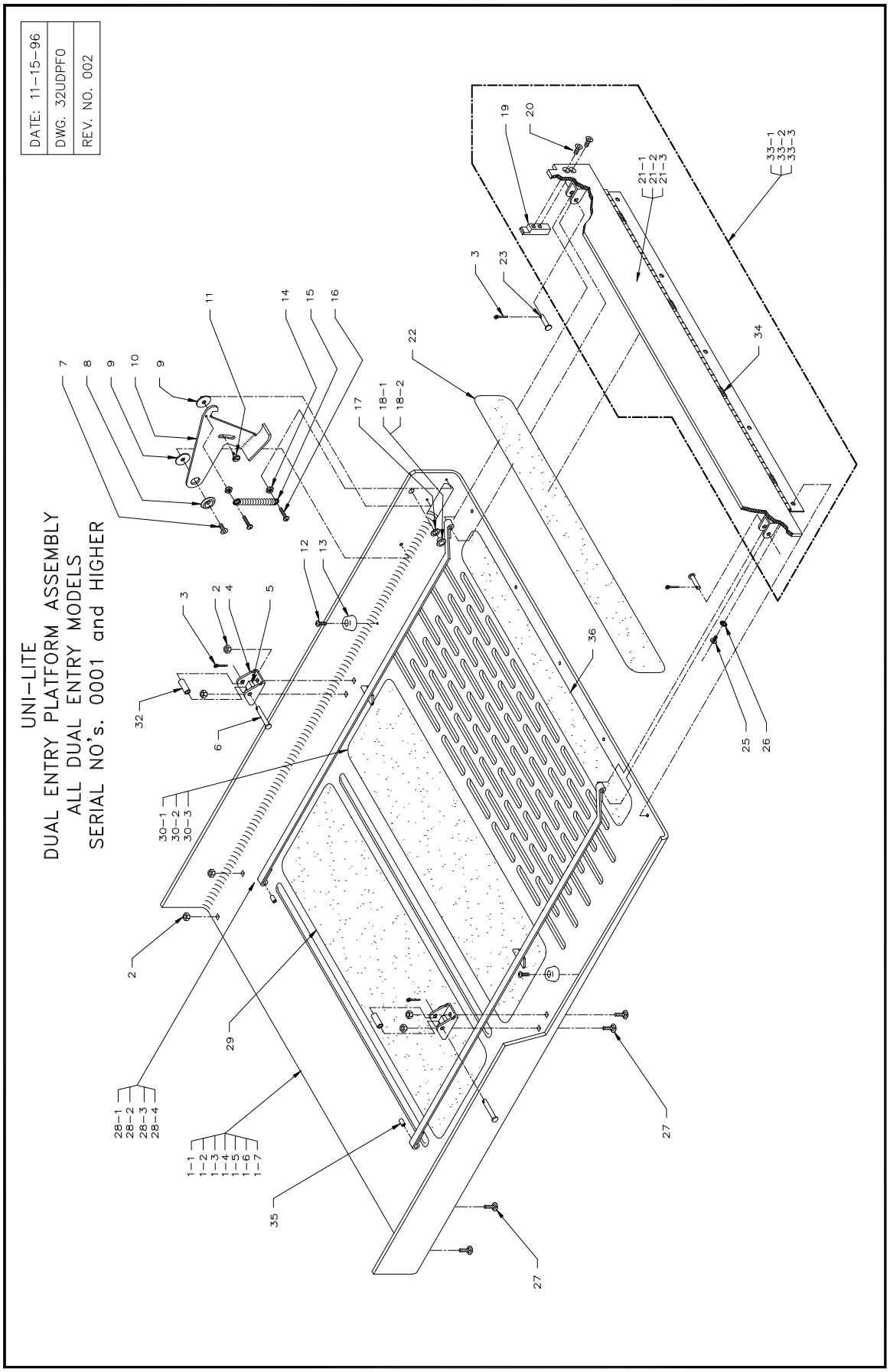


FIGURE 4-2: UNI-LITE DUAL ENTRY PLATFORM ASSEMBLY

FIGURE 4-2: UNI-LITE DUAL ENTRY PLATFORM ASSEMBLY
ALL DUAL ENTRY MODELS
SERIAL NO's. 0001 and HIGHER

REF.	DESCRIPTION	QTY.	PART NO.
1-1 *	ASSY, PLATFORM, 29" X 40" DEP	1	UL-PF-120
1-2 *	ASSY, PLATFORM, 29" X 44" DEP	1*	UL-PF-210
1-3 *	ASSY, PLATFORM, 26" X 39" DEP	1*	UL-PF-110
1-4 *	ASSY, PLATFORM, 26" X 36" DEP	1*	UL-PF-410
1-5 *	ASSY, PLATFORM, 32" X 40" DEP	1*	UL-PF-310
1-6 *	ASSY, PLATFORM, 32" X 44" DEP	1*	UL-PF-510
1-7 *	ASSY, PLATFORM, 26" X 44" DEP	1*	UL-PF-610
2	NUT, HEX, 1/4-20	8	28308
3	PIN, COTTER, 5/32 X 1.0	4	28646
4	CHAIN, SUPPORT, CLEVIS, DEP	2	UL-PF-030
5	PAD, PLATFORM, CLEVIS	2	UL-PF-022
6	PIN, CLEVIS, 1/4 X 1 23/64, ZINC PLATED	2	28636
7	MS, 1/4-20 X 5/8, SOCKET, FLAT	1	28648
8	BUSHING, PIVOT ROLLSTOP KICKOUT	1	UL-PF-010
9	WASHER, NYLON, .315ID X 1.156OD X .062	2	28632
10	LATCH, ROLLSTOP	1	UL-PF-009
11	SCREW, SHOULDER, LATCH, ROLLSTOP	1	UL-PF-034
12	MS, 10-24 X 3/8, PHIL PAN (BAG OF TEN)	2	15944
13	BUMPER, RUBBER	2	28408
14	NUT, HEX, 6-32	2	28301
15	SPRING, EXTENSION, UNI-LITE	1	25447
16	MS, 6-32 X 3/8 PHIL PAN	2	28043
17	WASHER, NYLON, .375ID X .63OD X 0.032	1	28562
18-1	SPACER, ROLLSTOP LATCH (FOR LIFTS PRIOR TO S/N 829)	1	UL-PF-027
18-2	GUIDE, DRIVE SHAFT PIVOT (FOR LIFTS BEGINNING WITH S/N 830, CONSULT FACTORY)	1	UV-DS-014
19	CATCH, ROLLSTOP LATCH	1	UL-PF-026
20	SOCKET, FLAT, 1/4-20 X 3/4	2	28184
21-1	ASSY, WELD, ROLLSTOP, 29"	1	UL-PF-007
21-2	ASSY, WELD, ROLLSTOP, 26"	1	UL-PF-014
21-3	ASSY, WELD, ROLLSTOP, 32"	1	UL-PF-024
22	TREAD, SAFETY, 25 1/2 X 3, SAFETY YELLOW	1	25664
23	PIN, CLEVIS, 1/4 X 55/64 (BAG OF TEN)	2	15940
25 **	SOCKET, BUTTON HD, 1/4-20 X 3/8, SST	5	28181
26 **	WASHER, 1/4 STAR, INTERNAL	5	2825
27	BOLT, CARRIAGE, SST, 1/4-20 X 5/8	8	14-07-104
28-1	ASSY, STRAP, S/S, DEP 40" PLATFORM	2	UL-DS-019
28-2	ASSY, STRAP, S/S, DEP 44" PLATFORM	2	UL-DS-020
28-3	ASSY, STRAP, S/S, DEP 39" PLATFORM	2	UL-DS-014
28-4	ASSY, STRAP, S/S, DEP 36" PLATFORM	2	UL-DS-022
29	SAFETY TREAD, 25 1/2 X 8, OCEAN GRAY	2	25646
30-1	SAFETY TREAD, 25 1/2 X 4, OCEAN GRAY	1	25662
30-2	SAFETY TREAD, 25 1/2 X 7, OCEAN GRAY	1	25647
30-3	SAFETY TREAD, 25 1/2 X 12, OCEAN GRAY	1	25661
32	ROLLER, SUPPORT CHAIN, CLEVIS	1	UL-AC-009
33-1	ASSY, ROLLSTOP 26"	1	UL-PF-114
33-2	ASSY, ROLLSTOP, 29"	1	UL-PF-117
33-3	ASSY, ROLLSTOP, 32"	1	UL-PF-124
34	SPRING-BARRIER HINGE LARGE	4	25434
35	BUSHING, ROLLSTOP ACTUATOR, SST	2	UL-PF-032
36	SAFETY TREAD, 25 1/2 X 2.5, OCEAN GRAY	1	25650

* All items included in this assembly are illustrated.
** For platform assemblies 32" X 40" and 32" X 44", quantity is 7.

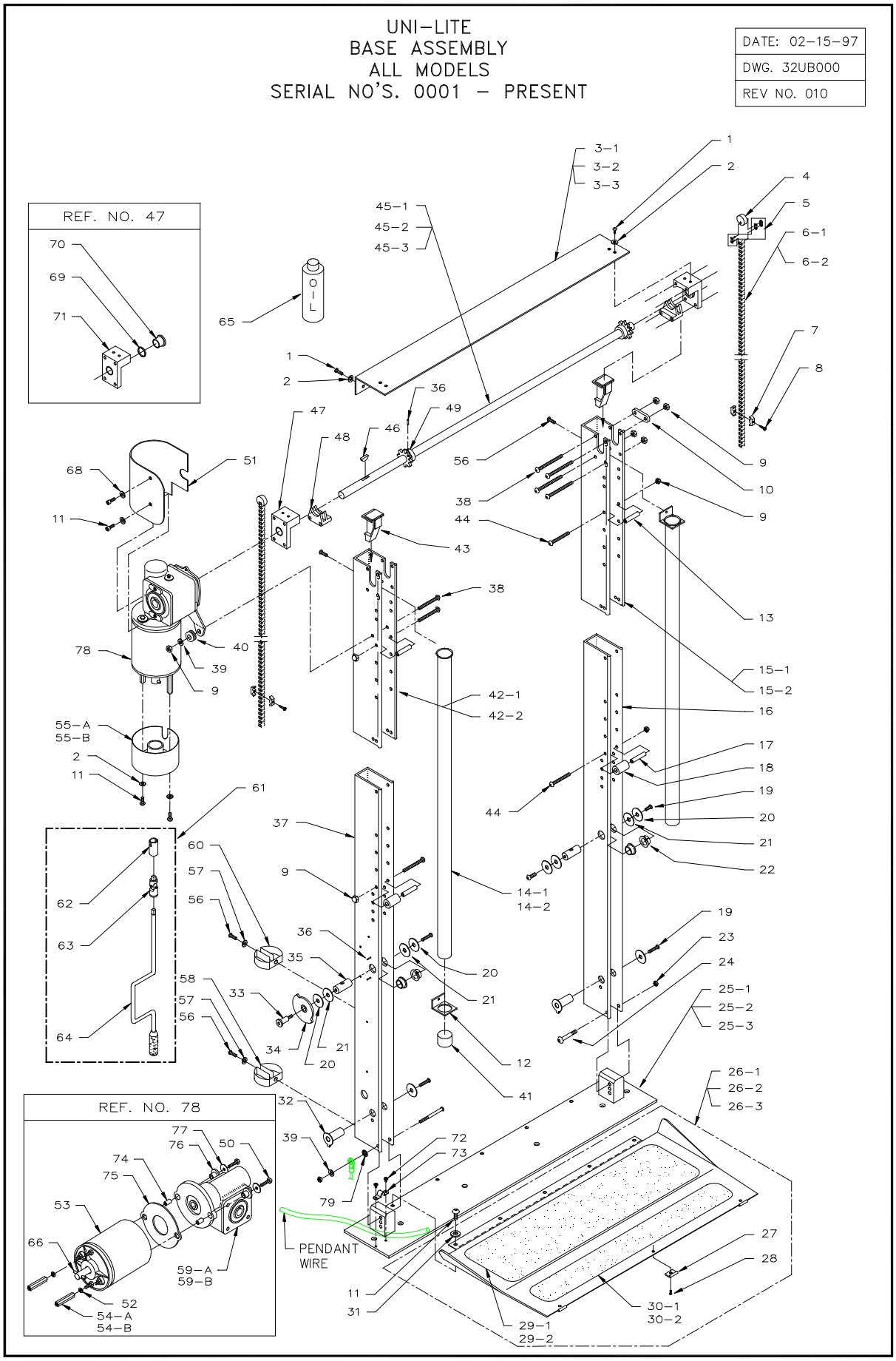


FIGURE 4-3: UNI-LITE BASE ASSEMBLY

FIGURE 4-3: UNI-LITEBASE ASSEMBLY
ALL MODELS
SERIAL NO's. 0001 and HIGHER

REF.	DESCRIPTION	QTY.	PART NO.
1	SOCKET, BUTTON HD, 1/4-20 X 1/2"	6	28182
2	WASHER, 1/4", FLAT, SAE	12	28273
3-1	PLATE, ALIGNMENT, TOP, 29"	1	UL-BA-007
3-2	PLATE, ALIGNMENT, TOP, 26"	1	UL-BA-024
3-3	PLATE, ALIGNMENT, TOP, 32"	1	UL-BA-025
4	TAB, CHAIN	2	UL-DS-024
5	CHAIN, LINK, MASTER #40	4	25049
6-1	CHAIN, #40, (STD)	2	UL-DS-002
6-2	CHAIN, #40, (TALL)	2	UL-DS-018
7	CHAIN, STOP, SAFETY	4	UL-DS-008
8	SMS #12 X 1 HEX WASHER HEAD "A"	2	28396
9	NUT-HEX, 1/4-20", NYLON INSERT (BAG OF TEN)	14	15919
10	SPACER, MOUNTING BKT, TOP	2	UL-BA-026
11	SOCKET, BUTTON HEAD, 1/4-20 X 3/8"	9	28150
12	BRACKET, CHAIN TUBE	2	UL-BA-004
13	SPACER, MAIN POST (USE 4 FOR SHORT LIFTS)	2	UL-BA-006
14-1	TUBE-CHAIN, WITH RING	2	25524
14-2	TUBE-CHAIN 36" LONG	2	UL-BA-040
15-1	POST, EXTENSION, MAIN, STD	1	UL-BA-011
15-2	POST, EXTENSION, MAIN, TALL, STD	1	UL-BA-034
16	POST, MAIN, STD	1	UL-BA-012
17	TUBE, FOLD STOP	2	UL-AC-044
18	FOLD STOP	2	UL-BA-010
19	SOCKET, BUTTON HEAD, 5/16-18 X 3/4" BLK. OXD. SST	5	28820
20	WASHER, FENDER, 0.313 ID X 1.25 OD BLK. OXD. SST (BAG OF TEN)	6	15921
21	WASHER, NYLON	4	28563
22	BEARING-DU FLG, 3/4 ID X 1/4 L	4	25386
23	NUT-HEX, 5/16-18" NYLON INSERT	2	28314
24	SOCKET, BUTTON HEAD, 5/16-18 X 2-1/4, BLK. OXD. SST	2	282294
25-1	ASSY, WELD, BASEPLATE, WIDE, 29"	1	UL-BA-014
25-2	ASSY, WELD, BASEPLATE, WIDE, 32"	1	UL-BA-022
25-3	ASSY, WELD, BASEPLATE, WIDE 26"	1	UL-BA-023
26-1	ASSY, MECH, BRIDGEPLATE, 29", (INCLUDES REF NOS 29 & 30)	1	UL-BA-127
26-2	ASSY, MECH, BRIDGEPLATE, 26", (INCLUDES REF NOS 29 & 30)	1	UL-BA-116
26-3	ASSY, MECH, BRIDGEPLATE, 32", (INCLUDES REF NOS 29 & 30)	1	UL-BA-130
27	SKID, BRIDGEPLATE	3	UL-BA-021
28	MS, 10-24 X 1/4", PHIL FLAT, UNDERCUT	3	28106
29-1	SAFETY TREAD, 23 X 3, SAFETY YELLOW	1	25648
29-2	SAFETY TREAD, 23 X 7, SAFETY YELLOW	1	25649
30-1	SAFETY TREAD, 25 1/2 X 3, SAFETY YELLOW	1	25664
30-2	SAFETY TREAD, 25 1/2 X 7, SAFETY YELLOW	1	25665
31	WASHER, 1/4", STAR INTERNAL	5	28259
32	ASSY, WELD, PIN, LINK ARM,	2	UL-AC-047
33	SCREW, SHOULDER, 3/8 X 1/2"	1	28159
34	CAM, LIFT CONTROL w/SCREW	1	UL-ES-018
35	PIN, LINK ARM, CAM	2	UL-AC-008
36	PIN, ROLL, 3/32 X 1/2" (BAG OF TEN)	2	14496
37	POST, MAIN, LH	1	UL-BA-013
38	SOCKET, BUTTON HEAD, 1/4-20 X 3"	9	28149
39	WASHER, 5/16" FLAT, SAE	2	28277
40	GROMMET	1	26656
41	RED CAP	2	25537
42-1	POST, EXTENSION, MAIN, LEFT	1	UL-BA-017
42-2	POST, EXTENSION, MAIN-TALL, LEFT	1	UL-BA-035
43	BLOCK, CHAIN GUIDE	2	UL-DS-047
44	SOCKET, BUTTON HD, 1/4-20 X 2 1/2"	4	28148
45-1	SHAFT, POWER, STD, 29"	1	UL-DS-004
45-2	SHAFT, POWER, WIDE, 26"	1	UL-DS-011
45-3	SHAFT, POWER, WIDE, 32"	1	UL-DS-016
46	KEY, WOODRUFF	1	28430
47	ASSY, BLOCK, BEARING	2	UL-BA-038

REF.	DESCRIPTION	QTY.	PART NO.
48	STRIPPER, CHAIN	2	UL-BA-003
49	SPROCKET	2	UL-DS-003
50	BOLT HEX 1/4-20 X 1" (BAG OF TEN)	2	14493
51	GEAR BOX, COVER	1	UL-AC-026
52	WASHER, 1/4 SPLIT LOCK	2	28274
53	MOTOR, 12VDC	1	25470
54-A	STANDOFF, MOTOR COVER (S.N's. 0001-5719)	2	28368
54-B	STANDOFF, MOTOR UNI-LITE (S.N's. 5720-)	2	283682
55-A	COVER, MOTOR (S.N's. 0001-5719)	1	UL-AC-022
55-B	COVER, BOTTOM MOTOR UNI-LITE (S.N's. 5720-)	1	UL-AC-122
56	MS, 10-24 X 3/8", PHIL PAN (BAG OF TEN)	4	15944
57	WASHER, #10 SPLIT LOCK (BAG OF TEN)	2	15941
58	CLIP, EMERGENCY TOOLS	1	25543
59-A	GEAR BOX, 70:1 INCLUDING TORQUE ARM (S.N's.0001-6999)	1	25485
59-B	GEAR BOX, 70:1 INCLUDING TORQUE ARM (S.N's. 7000-)	1	25489
60	CLIP-EMERGENCY TOOLS-SMALL	1	255435
61	EMERGENCY WRENCH	1	06001
62	SOCKET-EMERGENCY 3/8 DRIVE-11/16 DEEP	1	26724
63	UNIVERSAL JOINT, 3/8 DRIVE	1	26727
64	SPEED WRENCH-3/8 DRIVE	1	26725
65	GEAR LUBE, MORSE SYNTHETIC, 8 oz.	1	20-16-616
66	ROLL PIN 3/16 X 1 SST	1	28360
67	SOCKET BUTTON HEAD 1/4-20 X 3/4 SST	5	28181
68	WASHER #10 FLAT	2	28271
69	SPACER, B-BLOCK BUSHING	1	UL-BA-015
70	BUSHING-BRONZE SPURR	1	25307
71	BEARING BLOCK, ALUM.	1	UL-BA-002
72	MS, 10-24 X 1/4 PHIL PAN	2	28105
73	CLAMP, RETAINING	1	28407
74	SLEEVE-MOTOR/GEARBOX CONNECTION (S.N's. 7000-)	2	UL-AC-081
75	GASKET-RUBBER MOTOR GEARBOX (S.N's. 7000-)	2	UL-AC-082
76	BUSHING-STEM, SHOCK MOUNT (S.N's. 7000-)	2	25370
77	WASHER-1/4" FENDER 1" OD (S.N's. 7000-)	2	28275
78	MOTOR, 1 HP, 12 VDC (S.N's. 7000-)	1	UL-DS-100
79	WASHER-5/16 X 0.61 OD X 0.03 INTL. STAR BRZ	1	28965

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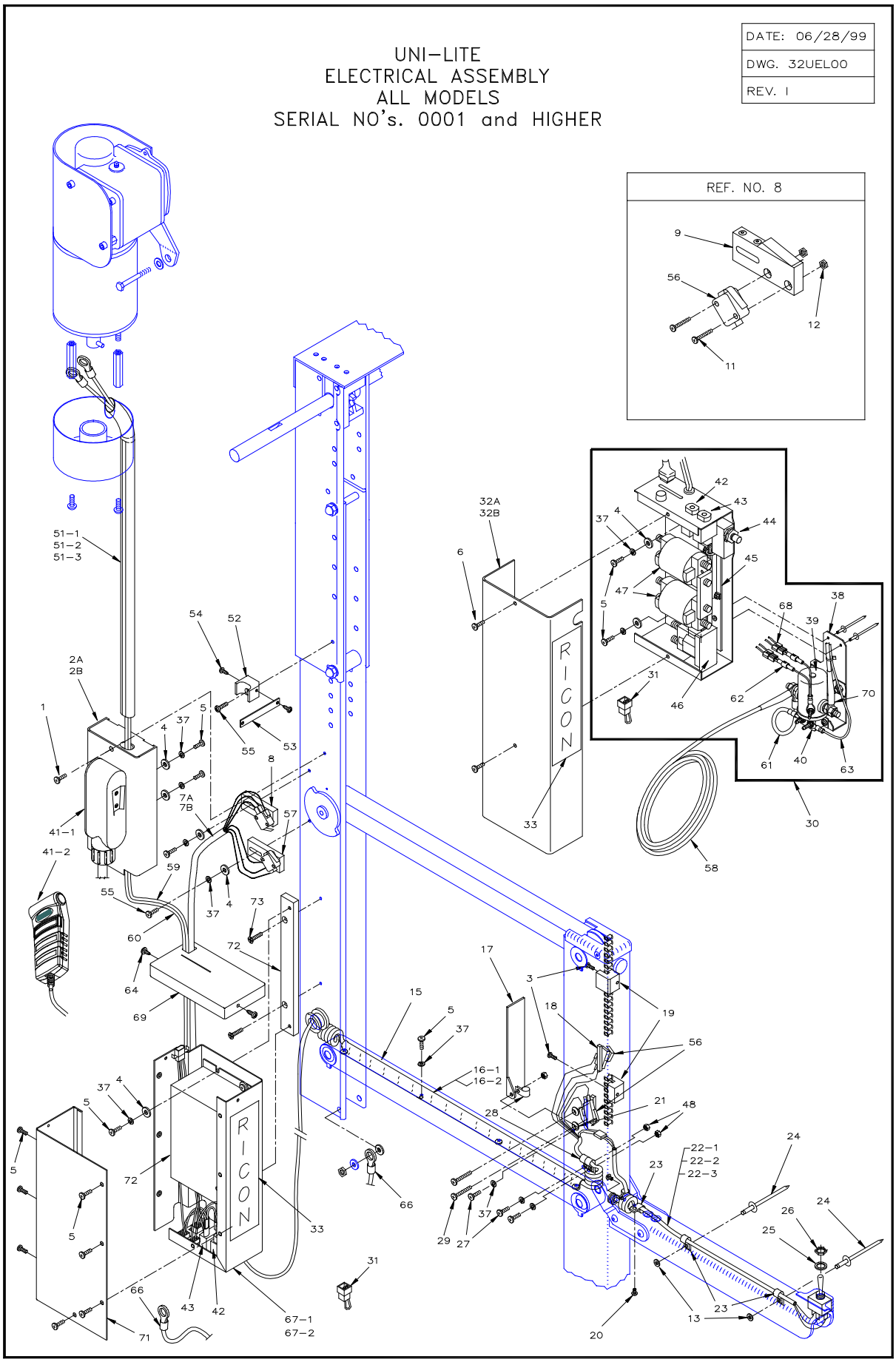

FIGURE 4-4: UNI-LITE ELECTRICAL ASSEMBLY

FIGURE 4-4: UNI-LITE ELECTRICAL ASSEMBLY
ALL MODELS
SERIAL NO's. 0001 and HIGHER

REF.	DESCRIPTION	QTY.	PART NO.
1	MS, 10-24 X 1/4 PHIL PAN	1	28105
2A	COVER, CAM (S.N's. 0001-5719)	1	UL-AC-020
2B	COVER CAM, UNILITE (S.N's. 5720-)	1	UL-AC-120
3	MS, 8-32 X 3/4 PHIL PAN	2	28072
4	WASHER, #10, FLAT, SAE	6	28271
5	MS, 10-24 X 3/8 PHIL PAN (BAG OF TEN)	6	15944
6	MS 8-32 X 3/8 PHIL PAN	2	28069
7A	HARNESS, SWITCH, CAM (S.N"s 0001- 7724)	1	UL-ES-010
7B	HARNESS ASSY., CAM SWITCH, UNI-LITE (S.N"s. 7725-)	1	UL-ES-115
8	SWITCH, ASSY., (UP/IN ENABLE) UNILITE	1	UL-ES-004
9	ASSY, SWITCH BLOCK	2	V2-ES-82
11	SCREW, SLOTTED HD, RND 4-40 X 1-1/2 (BAG OF TEN)	4	15909
12	NUT, HEX, 4-40, PLATED (BAG OF TEN)	4	15903
13	WASHER # 4 FLAT	2	28265
14	SPACER, ELECTRICAL BOX	2	UL-ES-014
15	HARNESS, PLATFORM POST	1	UL-ES-009
16-1	CLAMP, P-POST HARNESS, STD	1	UL-AC-060
16-2	CLAMP, P-POST HARNESS, SHORT (U6-2636)	1	UL-AC-061
17	COVER, LIMIT SWITCH	1	UL-AC-023
18	BLOCK, PLASTIC	1	UL-AC-011
19	BRACKET, CHAIN	2	UL-DS-007
20	MS, 8-32 X 1/4 PHIL PAN	2	28067
21	BUSHING, NYLON	2	UL-PF-011
22-1	HARNESS, SWITCH, HANDRAIL, STD	1	UL-ES-011
22-2	HARNESS, SWITCH, HANDRAIL, LONG	1	UL-ES-411
22-3	HARNESS, ARM SWITCH, SHORT	1	UL-ES-021
23	CLAMP, 3/16, CABLE	4	25514
24	RIVET, 1/8 X 1/2	2	14-30-303
25	WASHER, SWITCH, TOGGLE	1	28346
26	NUT, SWITCH, TOGGLE	1	28347
27	MS, 10-24 X 1/2 PHIL PAN	3	28111
28	CLAMP, 3-WIRE CORD	3	25516
29	MS, 4-40 X 1, PHIL PAN	2	28032
30	ASSY, ELECTRICAL BOX (S.N's. 0001-7724)	1	UL-ES-012
31	PLUG, SHORTING	1	UL-ES-007
32A	COVER, ELECTRICAL (S.N's. 0001-6295)	1	UL-AC-025
32B	COVER, ELECTRICAL (S.N's. 6296-7724)	1	UL-ES-125
33	DECAL, VERTICAL "RICON"	1	32-10-149
34	CONDUIT, PLASTIC	1	27201
35	TIE, CABLE, SMALL	2	25519
36	CABLE TIE-5.5"	3	25520
37	WASHER # 10 SPLIT LOCK (BAG OF TEN)	16	15941
38	BRACKET-SAFETY SOLENOID-UNILITE (S.N's. 6296-7724)	1	UL-ES-037
39	SOLENOID, SINGLE POLE SINGLE THROW, 12V S.N.'s. 6296-7724)	1	26444
40	CIRCUIT BREAKER-BR8 (1908) 12V 8A (S.N's. 6296-7724)	1	26401
41-1	PENDANT, HAND CONTROL	1	UL-ES-100
41-2	PENDANT, UNIVERSAL CONTROL	1	14727
42	BREAKER, CIRCUIT, 8 AMP	1	265108
43	BREAKER, CIRCUIT, 30 AMP	1	26510
44	SWITCH, LIMIT, SPDT, ASSY.	1	UL-ES-022
45	ASSY, RESISTOR, RETRO-FIT, UNILITE (S.N's. 0001-7724)	1	UL-ES-017
46	SOLENOID, SP MODIFIED R30B & R60 (S.N's. 00001-7724)	1	03011
47	SOLENOID, 12V DP LARGE (S.N's. 0001-7724)	1	26447
48	NUT-HEX 10-24 NYLON INSERT	3	28305
50	WASHER, NYLON, .641ID X .904OD X .015TK	2	28577
51-1	TUBE, ELECTRICAL 16.75 (S.N's. 5720-)	1	UL-ES-025
51-2	TUBE, ELECTRICAL 20.75 (S.N's. 5720-)	1	UL-ES-026
51-3	TUBE, ELECTRICAL 28.75 (S.N's. 5720-)	1	UL-ES-027
52	SPACER, ELECTRICAL SYSTEM UNILITE (S.N's. 5720-)	1	UL-ES-028
53	STRAP, ELECTRICAL TUBE (S.N's. 5720-)	1	UL-ES-029
54	MS, 8-32 X 1/2, PAN HEAD PHIL THRD. CUTTG. (S.N's. 5720-)	2	28079
55	MS, 10-24 X 3/4 PHIL PAN (S.N.'s. 5720-) (BAG OF TEN)	1	15957
56	SWITCH, LIMIT, (UP/DOWN CUTOFF) UNILITE	4	UL-ES-110
57	SWITCH, ASSY., (DOWN/OUT ENABLE) UNILITE	1	UL-ES-024
58	CABLE ASSY-POWER (S.N's. 6296-7724)	1	03006
59	JUMPER-60" MOTOR LEAD BLACK (S.N's. 7725-)	1	UL-ES-117
60	JUMPER-60" MOTOR LEAD WHITE (S.N's. 7725-)	1	UL-ES-118
61	ELW02045/26388/26389R30B (S.N's. 6296-7724)	1	ELJ02096
62	HARNESS-SAFETY SOLENOID ACTUATION (S.N's. 6296-7724)	1	UL-ES-031
63	JUMPER-SAFETY SOLENOID TO 5A BREAKER (S.N's. 6296-7724)	1	UL-ES-033

REF.	DESCRIPTION	QTY.	PART NO.
64	MS, 10-24 X ½, PHIL, PAN, SELF THRD (S.N's. 6296-)	2	28111T
65	CONTROLLER-12V UNI-LITE (S.N's. 7725-)	1	UL-ES-112
66	JUMPER-GROUND STRAP UNI-LITE (S.N's. 7725-)	1	UL-ES-119
67-1	ELECTRICAL-BOX ASSEMBLY UNI-LITE (S.N's. 7725- 7886)	1	UL-ES-130
67-2	ELECTRICAL-BOX ASSEMBLY UNI-LITE (S.N's 7887-)	1	10244
68	HARNESS-PENDANT DIODE BLOCK (S.N's. 6296-7724)	1	UL-ES-032
69	COVER TOP, ELECTRICAL BOX (S.N's. 7725-)	1	UL-AC-121
70	JUMPER-POWER FROM SAFETY SOLENOID (S.N's. 6296-7724)	1	UL-ES-036
71	COVER, UNI-LITE ELECTRICAL FRONT (S.N's. 7725-)	1	UL-ES-150
72	CONTROLLER, 12V, 9V CUT-OFF; UNILITE	1	UL-ES-122

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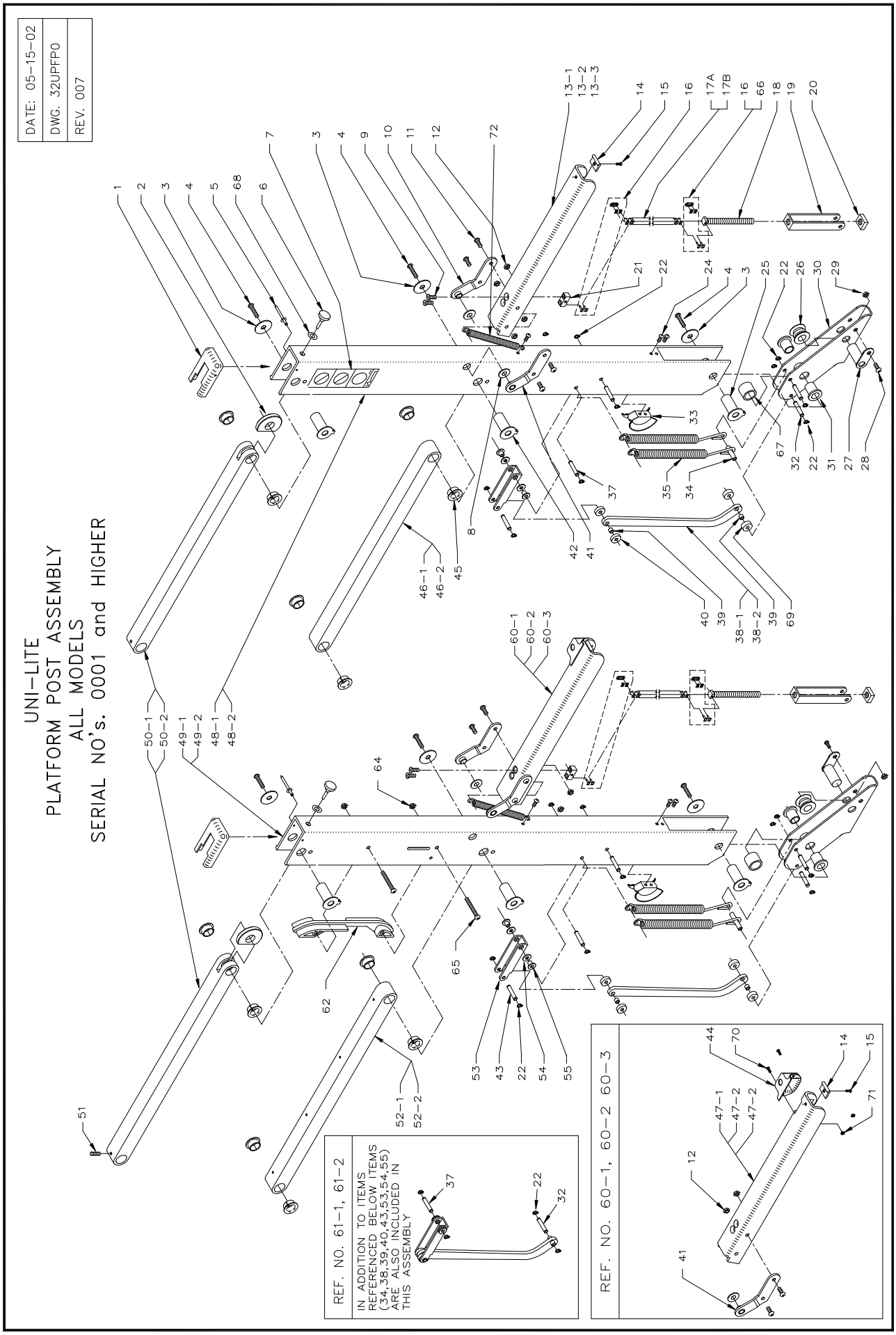


FIGURE 4-5: UNI-LITE PLATFORM POST ASSEMBLY

FIGURE 4-5: UNI-LITE PLATFORM POST ASSEMBLY
ALL MODELS
SERIAL NO's. 0001 and HIGHER

REF.	DESCRIPTION	QTY.	PART NO.
1	CAP, PLATFORM POST	2	UL-AC-021
2	CHAIN GUIDE, LINK ARM	2	UL-AC-003
3	WASHER, FENDER, 5/16 ID X 1-1/4 OD BLK. OXD. SST (BAG OF TEN)	6	15921
4	SOCKET, BUTTON HD, 5/16-18 X 3/4 BLK. OXD. SST	6	28820
5	RIVET, 1/8 X 1/2, BLIND ALUM	4	14-30-303
6	BUMPER, RUBBER	2	V2-AC-86
7	DECAL, PROPER LOADING	2	26183
8	WASHER, NYLON, 0.64 ID X 0.90 OD X 0.015 THK	4	28577
9	SOCKET, FLAT, 1/4-20 X ¾	4	28184
10	BKT, HANDRAIL SUPPORT, WELD ASSY, R.H.	2	UL-AC-033
11	SOCKET, BUTTON HD, 1/4-20 X 5/8 BLK. OXD. SST (BAG OF TEN)	8	15938
12	NUT, HEX, 1/4-20	8	28308
13-1	HANDRAIL, SUPPORT, STD	1	UL-AC-012
13-2	HANDRAIL, SUPPORT, SHORT	1	UL-AC-042
13-3	HANDRAIL, SUPPORT, LONG	1	UL-AC-412
14	SKID, BRIDGEPLATE	2	UL-BA-021
15	MS, 10-24 X 1/4, PHIL FLAT, UNDERCUT	2	28106
16	MASTER LINK CHAIN	2	25049
17A	TUBING, GREY VINYL, 5/8" ID X 2FT	2	UL-AC-075
17B	CHAIN #40, NICKEL PLATED	2	UL-AC-002
18	ANCHOR, SUPPORT CHAIN	2	UL-AC-046
19	CLEVIS, SUPPORT CHAIN, ANCHOR	2	UL-AC-045
20	NUT, 7/16-14 SQUARE	2	28362
21	CHAIN, ANCHOR	2	UL-AC-010
22	RING, RETAINING, 1/4	20	14-31-025
23	SOCKET, BUTTON HD, 1/4-20 X 1/2	4	28182
24	MS, 10-24 X 1/2, PHIL PAN	4	28111
25	ASSY, WELD, PIN, BKT PIVOT	2	UL-AC-049
26	ROLLER, CHAIN	2	UL-PF-015
27	ASSY, WELD, PIN, ROLLER, CHAIN	2	UL-AC-048
28	MS, 10-24 X 3/8, PHIL PAN (BAG OF TEN)	2	15944
29	NUT, HEX, 10-24 (BAG OF TEN)	2	14489
30	PIVOT BRACKET	2	UL-PF-002
31	BEARING, FLANGE 1012-10FL 16OZ	4	25379
32	PIN, 0.250 DIA, SNAP RING X 1.13	4	UL-AC-036
33	CHAIN GUIDE, POST	2	UL-AC-005
34	BUSHING, BRONZE	2	25319
35	SPRING, UNFOLD, KICKOUT	4	25436
36	PAD, CHAIN GUIDE	4	UL-AC-034
37	PIN, O.250 DIA, SNAP RING X 1.78	4	UL-AC-038
38-1	LINK, KICKOUT	2	UL-PF-019
38-2	LINK, KICKOUT, SHORT	2	UL-PF-029
39	BUSHING, BRONZE, 0405-04	4	25318
40	ROLLER, KICKOUT	4	UL-PF-017
41	BKT, HANDRAIL SUPPORT, WELD ASSY, L.H.	2	UL-AC-032
42	ASSY, WELD, PIN, LINK ARM	4	UL-AC-047
43	PIN, 0.250 DIA	2	UL-AC-035
44	SWITCH, COVER	1	UL-AC-018
45	BUSHING-DU FLG, 3/4 ID X 1/4 L	12	25386
46-1	ARM, PARALLEL, BOTTOM, STD	1	UL-AC-007
46-2	ARM, PARALLEL, BOTTOM, SHORT	1	UL-AC-051
47-1	HANDRAIL, SWITCH, L.H., STD	1	UL-AC-017
47-2	HANDRAIL, SWITCH, L.H., SHORT	1	UL-AC-043
47-3	HANDRAIL, SWITCH, LH, LONG	1	UL-AC-417
48-1	POST, PLATFORM, STD	1	UL-AC-015
48-2	POST, PLATFORM, STD, SHORT	1	UL-AC-054
49-1	POST, PLATFORM, L.H.	1	UL-AC-019
49-2	POST, PLATFORM, L.H., SHORT	1	UL-AC-053
50-1	ARM, PARALLEL, UPPER	2	UL-AC-006
50-2	ARM, PARALLEL, UPPER, SHORT	2	UL-AC-050
51	SOCKET SET, SCREW, 1/4-20 X 3/8	2	28652
52-1	ARM, PARALLEL, BOTTOM, L.H.	1	UL-AC-041
52-2	ARM, PARALLEL, BOTTOM, L.H., SHORT	1	UL-AC-052
53	KICKOUT, CHANNEL	2	UL-PF-018
54	WASHER	4	28277
55	BEARING, FLANGE, 0406-06	4	25378
60-1	ASSY, HANDRAIL, SWITCH, STD	1	UL-AC-058
60-2	ASSY, HANDRAIL, SWITCH, SHORT	1	UL-AC-059
60-3	ASSY, HANDRAIL, SWITCH LONG	1	UL-AC-458
61-1	ASSY, KICKOUT STD	1	UL-PF-033

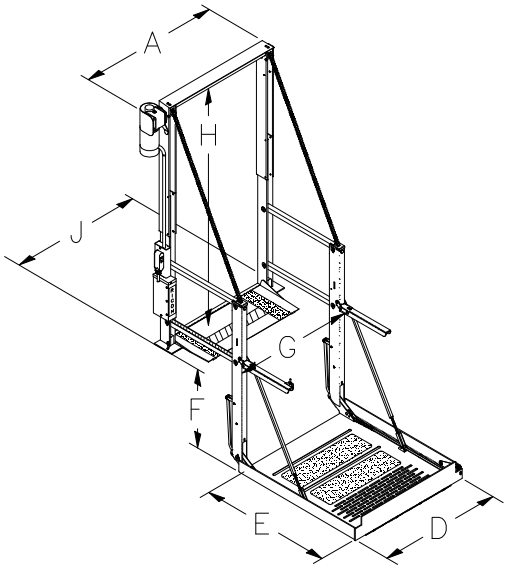
REF.	DESCRIPTION	QTY.	PART NO.
61-2	ASSY, KICKOUT SHORT	1	UL-PF-133
62	GUIDE, CHAIN	1	UL-AC-072
64	NUT-HEX 1/4-20 PLATED THIN	2	14-08-304
65	SOC. BUTTON, 1/4-20 X 2	2	28161
66	TUBING, GREY VINYL, 5/8 ID X 2 FT.	2	UL-AC-075
67	SPACER, PVC, 0.81 ID X 0.87 L	2	UL-AC-062
68	WASHER 3/8 FLAT, SAE	2	28283S
69	KICK-OUT, ROLLER 0.310/0.304 THK.	4	UL-PF-016
70	MS-6-32 X 0.375 PAN PHIL	2	28043
71	NUT-6-32	2	28301
72	SPRING, EXTENSION, .25 OD X 3.0 LG	2	254618

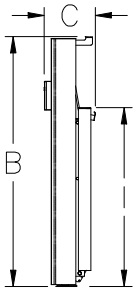
APPENDIX 1
LIFT SPECIFICATIONS

UNI-lite WHEELCHAIR LIFT

Power ..... **electro-mechanical**
Motor rating .....**12 Volt DC, 63 amp avg./cycle**
Lift weight .....**160 lbs.**

Rated load capacity..... **600 lbs.**
Manual backup ..... **speed-wrench operated**





DIMENSIONS (inches)

MODEL	A Width, Stationary Frame	B Height, Lift	C Installation Depth (Folded)	D Usable Platform Width	E Usable Platform Length	F_1 Floor- to-Ground Travel (Stepwell)	F_2 Floor- to-Ground Travel (Flat Floor)	G Width, Traveling Frame	H Clear Entry Height	I Floor to End of Platform, folded	J Width, Base Plate
U6-2636	37	47-57	11.5	26	36	NA	24	31	44-54	41	33.5
U6-2639	37	47-57	11.5	26	39	30	28	31	44-54	44	33.5
U6-2644	37	47-57	11.5	26	44	30	28	31	44-54	49	33.5
U6-2940	40	50-57	11.5	29	40	30	28	34	47-54	45	36.5
U6-2944	40	50-57	11.5	29	44	30	28	34	47-54	50	36.5
U6-3240	43	50-57	11.5	32	40	30	28	37	47-54	45	39.5
U6-3244	43	50-57	11.5	32	44	30	28	37	47-54	50	39.5
U6-2940T	40	59-65	11.5	29	40	30	28	34	56-62	45	36.5
U6-2944T	40	59-65	11.5	29	44	30	28	34	56-62	50	36.5
U6-3240T	43	59-65	11.5	32	40	30	28	37	56-62	45	39.5
U6-3244T	43	59-65	11.5	32	44	30	28	37	56-62	50	39.5

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