

II. S-SERIES® TRANSIT INSTALLATION

This chapter contains instructions for installing the RICON S-Series® ADA Transit Use wheelchair lift into most vans, and buses although custom installations are also possible in other types of vehicles. Due to the wide range of applications for lift, specific information for every possible application is not available. The following general procedures will apply to most installations. Contact the Ricon Product Support department for instruction about installations not covered. To install lift, refer to following sections and perform procedures carefully and in the order that they are presented. Be certain that installation instructions are followed exactly and do not eliminate any steps or modify product.

A. GENERAL MECHANICAL INSTALLATION

1. LIFT LOCATION

The installation surface must be flat and level. It is recommended that lift be installed on a 1/2", minimum, high-grade plywood sub-floor. However, this additional installation height may not be acceptable in cases where overhead clearance is limited.

NOTE: Check for proper travel clearance through doorway.

- a. With doors fully open, place/position lift in vehicle doorway as close as possible to door, with lift's baseplate assembly parallel to side of vehicle.
- b. Allow a distance of 3/4", if possible, between door and the part of lift closest to it. Adjust lift left and right-side locations to accommodate subframe members.
- c. Verify proper clearance of door frame, passenger seats, and outer edge of vehicle floor and possible interference with wires, fluid lines, subframe members, etc.

2. LIFT INSTALLATION GUIDELINES

The lift mounting is a very important step. Improper mounting or fastening of baseplate can adversely affect lift performance. Although fastening details may vary from one vehicle to the next, these general principles apply:

- ◆ Be certain that all mounting bolts are properly installed and tightened. Bolts used to fasten baseplate assembly to vehicle floor must have a minimum strength rating of SAE Grade 5 and be torqued to 28 ft lbs, dry. Recognize that the most important bolts are those along the rear of lift, since these bolts retain the majority of the load.
- ◆ Refer to **Figures 2-1** and **2-5**. Improper torquing sequence of baseplate bolts may result in a warped or bowed baseplate, which can cause platform to move erratically.

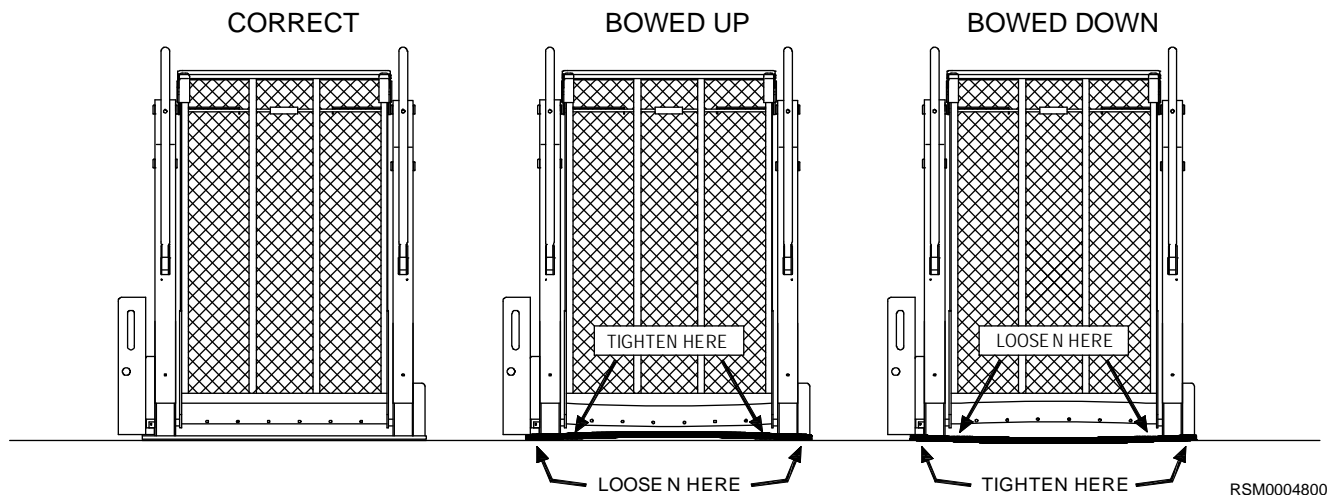
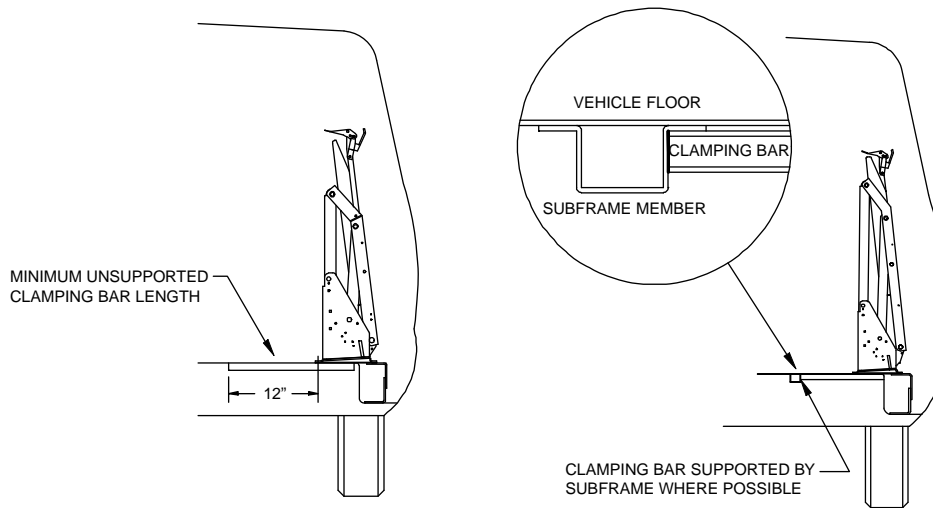


FIGURE 2-1: VAN CLAMPING BAR ARRANGEMENT

- ◆ Refer to **Figure 2-2**. On Ford van installations, clamping bars are used to help evenly distribute floor loading and should only be cut if needed to clear a subframe member. A subframe member must be used to support clamping bar.



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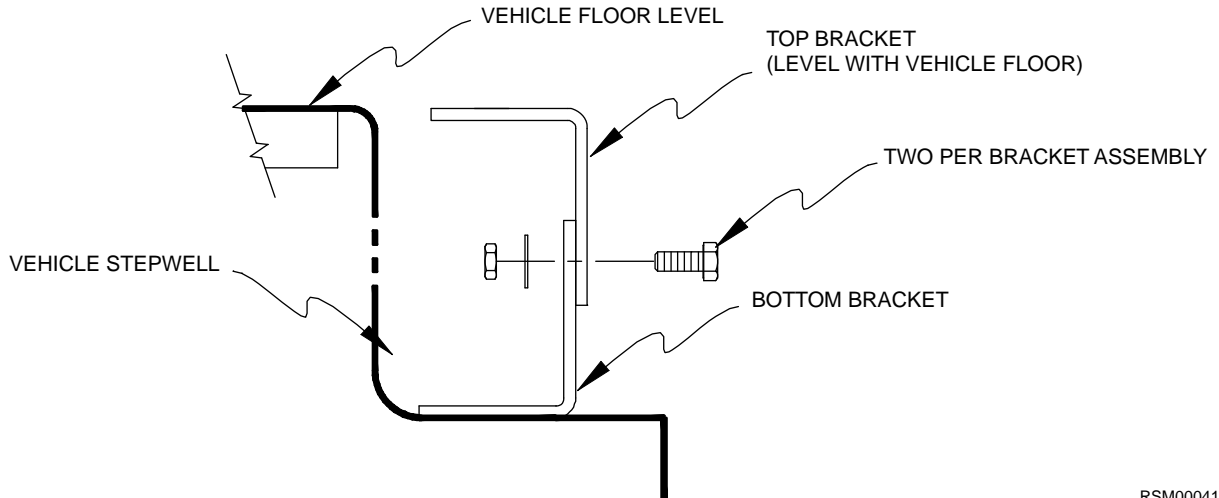
FIGURE 2-2: VAN CLAMPING BAR ARRANGEMENT

3. LIFT INSTALLATION INTO VANS

This is a general procedure for installing Ricon lifts into Ford, Dodge, and Chevrolet full size vans.

- Refer to **Figure 2-3**. Use four 1" x 3/8" bolts, 3/8" washers, 3/8" lock washers, and 3/8" hex nuts to assemble two bracket assembly kits.

NOTE: The top bracket must overlap bottom bracket, and both slots must face outward.



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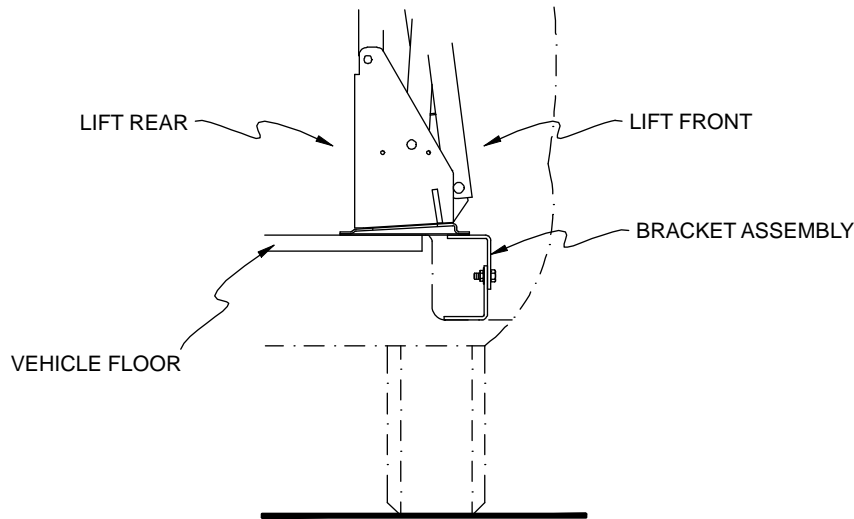
FIGURE 2-3: STEPWELL BRACKET

- Position brackets on stepwell and adjust height of both bracket assemblies so that top bracket is level with vehicle floor. Tighten bracket assembly bolts.
- Verify that lift is fully folded (stowed) with handrails folded tight against vertical arms. If necessary, use manual pump.

WARNING

LIFT WEIGHT IS APPROXIMATELY 350 - 375 LBS. USE EXTREME CARE WHEN POSITIONING BECAUSE STEPWELL BRACKETS MAY TIP. THIS PROCEDURE MUST NOT BE ATTEMPTED BY ONE PERSON.

- d. Refer to **Figure 2-4**. With doors fully open, position lift in vehicle doorway so that back of lift is supported by vehicle floor, and front of lift is supported by both bracket assemblies.



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FIGURE 2-4: BRACKET ASSEMBLY

- e. Adjust Base Assembly:

NOTE: If Ricon power door operators are used, install them first. They may influence location of lift.

- Be certain baseplate is flush against vehicle floor. The baseplate may be slightly offset in door opening to provide proper clearance for passenger seats.
- Before drilling, verify that lift position does not interfere with closing of vehicle doors or operation of passenger seats.

- f. Mark and Drill Holes:

 CAUTION
Before drilling holes, verify that underlying wires and tubing will not be damaged.

- 1) Refer to **Figure 2-5**. Mark and drill five 25/64" baseplate mounting holes (1, 2, 3 and 4) through vehicle floor. (On Dodge and GM vans, you must drill through vehicle floor and subframe).
- 2) Place four 8" x 3/8" carriage bolts (use 4" x 3/8" bolts on Ford vans) into holes to secure position.

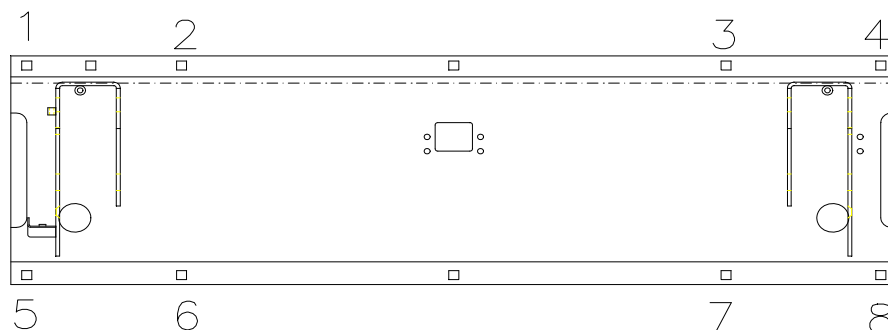
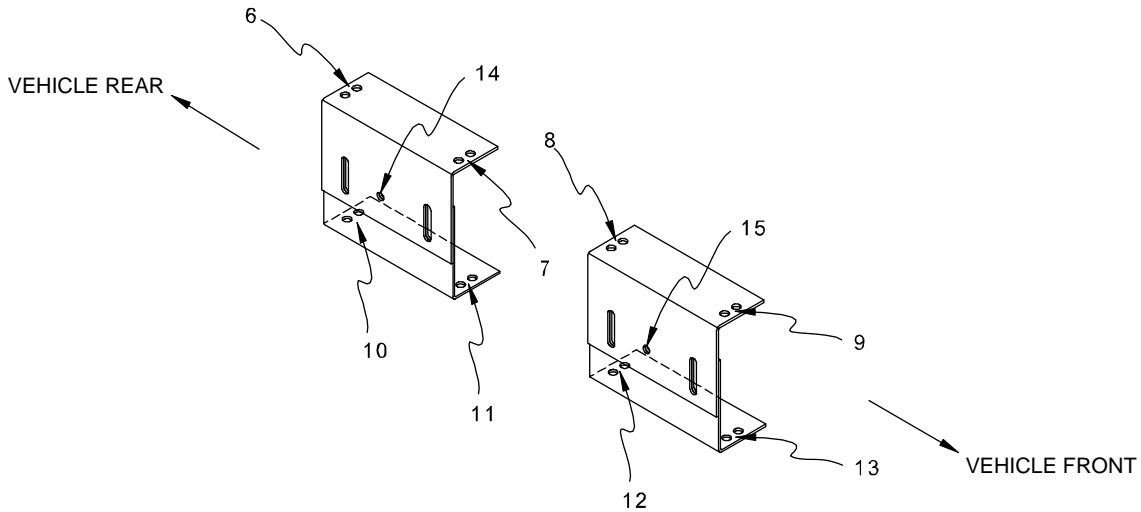


FIGURE 2-5: VAN BASEPLATE HOLES

- 3) Refer to **Figure 2-6** on the following page. Match and align top holes of stepwell brackets 5, 6, 7 and 8 with baseplate holes 5, 6, 7 and 8. Mark lower bracket assembly mounting holes 9, 10, 11 and 12 onto vehicle step.
- 4) Remove carriage bolts installed in step 2). Carefully push lift into vehicle interior.
- 5) Drill 1/4" dia holes through marked locations 9, 10, 11, and 12.



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FIGURE 2-6: TOP BRACKET HOLE LOCATIONS

g. Fasten Bracket Assemblies and Lift:

- 1) Use 1-1/2" x 5/16" sheet metal screws with 5/16" lock washers to secure lower brackets to vehicle step holes 9 through 12.

NOTE: If the screw in position 12 interferes with proper door operation, do not install.

- 2) Reposition lift and verify that surface beneath lift is free of obstacles.
- 3) Insert five 8" x 3/8" carriage bolts through mounting holes at rear of baseplate assembly, and insert four 1-1/2" x 3/8" carriage bolts through baseplate and bracket assemblies. Place 3/8" washers, lock washers, and nuts under bracket assemblies, and finger tighten nuts.

NOTE: On Dodge and GM vans, place five 4" x 4" plates, 3/8" washers, lock washers and hex nuts on 8" x 3/8" carriage bolts under van and finger tighten. On Ford models, reinforce vehicle floor with clamping bars. They are installed in positions 1, 2, 3 and 4 and run across width of baseplate towards center of van.

- 4) Before tightening carriage bolts, verify that lift is level with vehicle floor. Adjust bracket assembly bolts if necessary.
- 5) Tilting lift towards inside of van may hinder its initial unfolding. Install lift with its baseplate assembly as level as possible. Tightening carriage bolts requires special care to keep baseplate assembly from warping when secured to vehicle floor. If baseplate assembly warps, the vertical arms will not be parallel. Corrections can be made by shimming at appropriate locations. To help prevent warping, tighten the eight carriage bolts (six on Dodge van with sliding door) to 28 ft. lbs. in the following sequence:

DODGE WITH SWING DOORS, ALL FORD AND GM VANS 2, 3, 6, 7, 1, 4, 5, 8

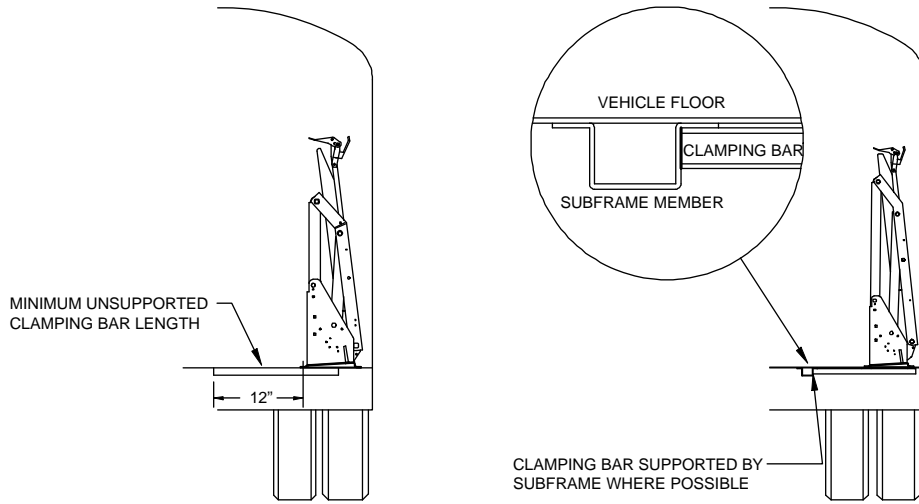
DODGE WITH SLIDING DOORS 2, 3, 5, 8, 1, 4

NOTE: Vertical arms must be parallel for proper operation. Adjust bolts as required. Best results are obtained when lift is mounted on plywood. Shims, although best avoided, may be used if required.

- 6) Make certain that holes 13 and 14 on the front of each bracket assembly are drilled through, and 5/16" bolts are inserted to lock position of bracket assemblies.

4. LIFT INSTALLATION INTO BUSES

Refer to **Figure 2-7**. Since clamping bars are used on most bus installations, they help distribute floor loading and should only be cut if needed to clear a subframe member. A subframe member should be used to support clamping bar.



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FIGURE 2-7: BUS CLAMPING BAR ARRANGEMENT

WARNING
<p>LIFT WEIGHT IS APPROXIMATELY 350-375 LBS. TAKE EXTREME CARE WHEN POSITIONING BECAUSE STEPWELL BRACKETS MAY TIP. THIS PROCEDURE SHOULD NOT BE ATTEMPTED BY ONE PERSON.</p>

- h. With doors fully open, position lift in vehicle doorway as close as possible to door with lift baseplate parallel to side of bus.
- i. Refer to **Figure 2-8**. Mark and drill eight 25/64" baseplate assembly mounting holes (1 thru 8) through vehicle floor.

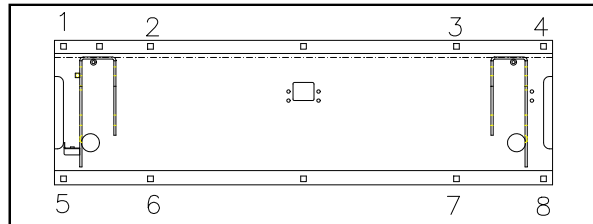


FIGURE 2-8: BUS BASEPLATE HOLES

NOTE: Before drilling any holes, be sure that no underlying wires or tubes are in the way.

- j. Fasten Lift:
 - 7) Insert eight 4" x 3/8" carriage bolts through baseplate and vehicle floor.
 - 8) Install support tubes (4 ea.) to bolts underneath vehicle floor across baseplate, i.e., from 1 to 5, 2 to 6, etc., and secure lift to vehicle floor with 3/8" washers, lock washers and hex-nuts.
 - 9) Tightening carriage bolts requires special care to keep baseplate assembly from warping when secured to vehicle floor. If baseplate assembly warps, vertical arms will not be parallel. Corrections can be made by shimming at appropriate locations. To help prevent warping, tighten the eight carriage bolts to 28 ft. lbs. in following sequence:

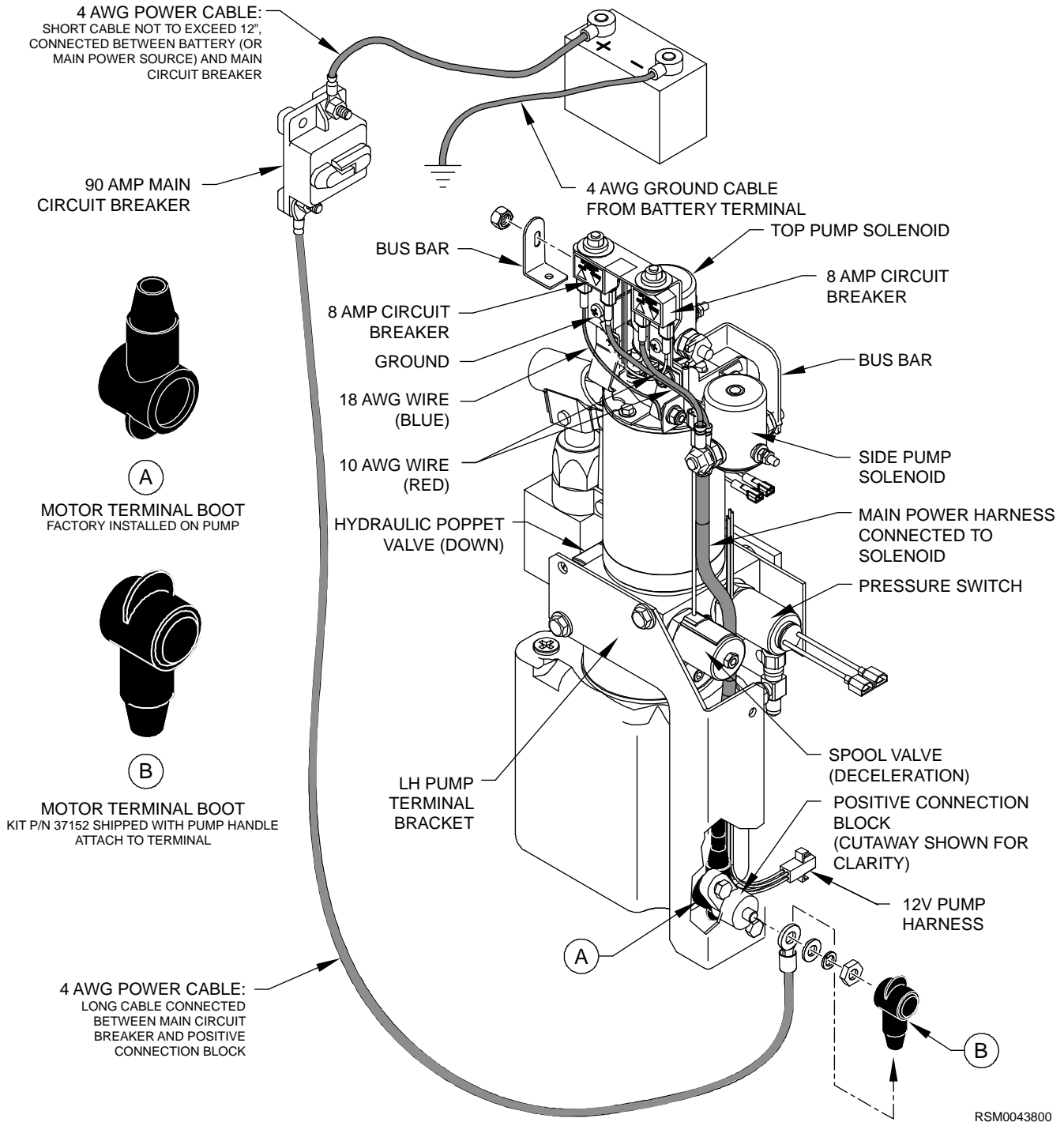
2, 3, 6, 7, 1, 4, 5, 8

NOTE: Vertical arms must be parallel for proper operation. Adjust bolts as required. Best results are obtained when lift is mounted on plywood. Shims, although best avoided, may be used if required.

B. ELECTRICAL INSTALLATION

CAUTION

- Do not route any wire while it is connected to the battery.
- Route wires clear of moving parts, brake lines, and the exhaust system. Secure to the vehicle.
- When routing an electrical wire through vehicle floor or walls, use a grommet to protect wires from chafing.
- Check underside of vehicle before drilling to avoid damage to fuel lines, vent lines, brake lines, or wiring.



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FIGURE 2-9: ELECTRICAL INSTALLATION DIAGRAM

CAUTION

1. INSTALL MAIN CIRCUIT BREAKER

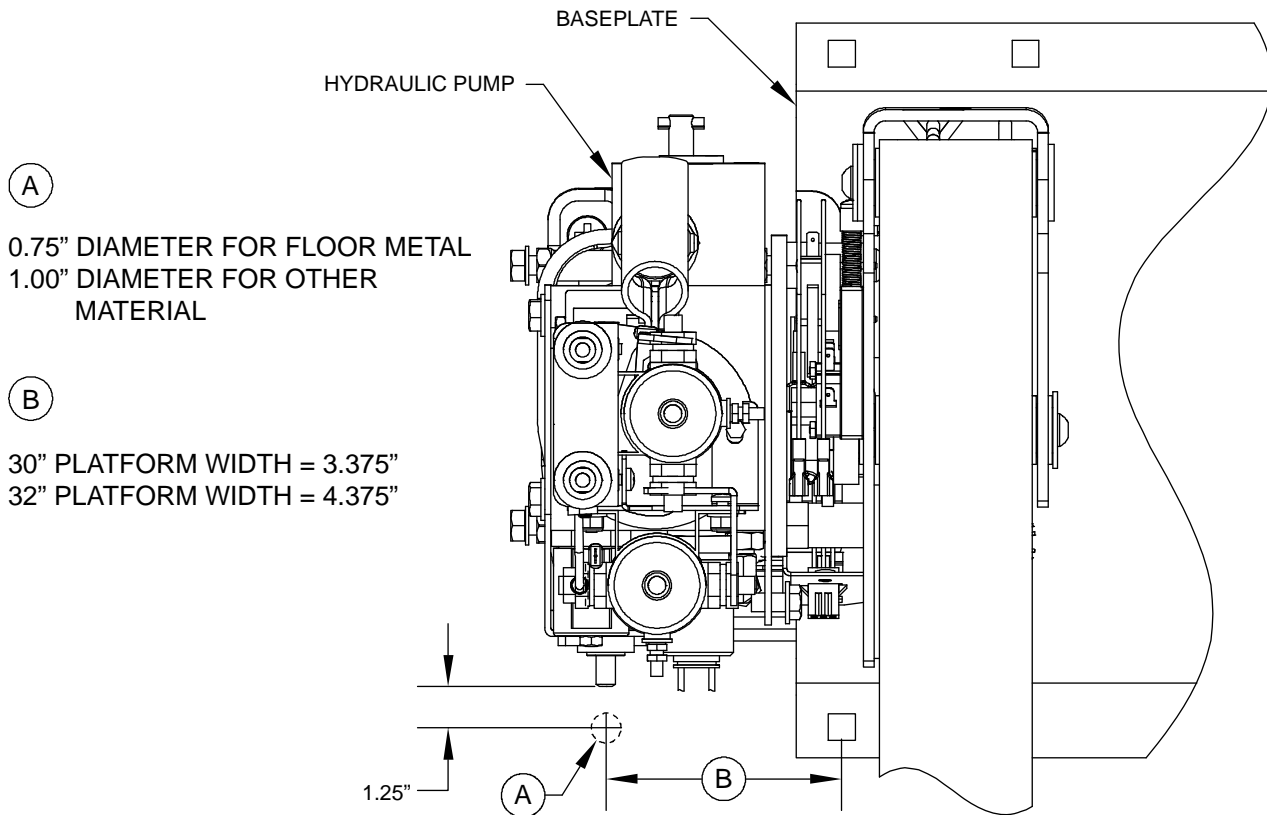
- a. Disconnect battery.
- b. Mount main circuit breaker inside engine compartment within 12 inches of battery (to minimize length of unprotected cable). Avoid installing near a heat source.

2. ROUTE AND CONNECT MAIN POWER CABLE

⚠ CAUTION
Check under-side of vehicle before drilling to avoid damage to fuel lines, vent lines, brake lines, or wiring.

NOTE: For applications where power cable is to pass through sheet metal, drill a 3/4" hole and use wire clamp provided. For applications where cable is to pass through plywood, drill a 1" hole and use black plastic grommet provided.

- a. Refer to **Figures 2-9** and **2-10**. Drill a hole through vehicle floor near positive connection block so power cable can reach stud of positive connection block. Drill hole where the installed pump cover will cover it.



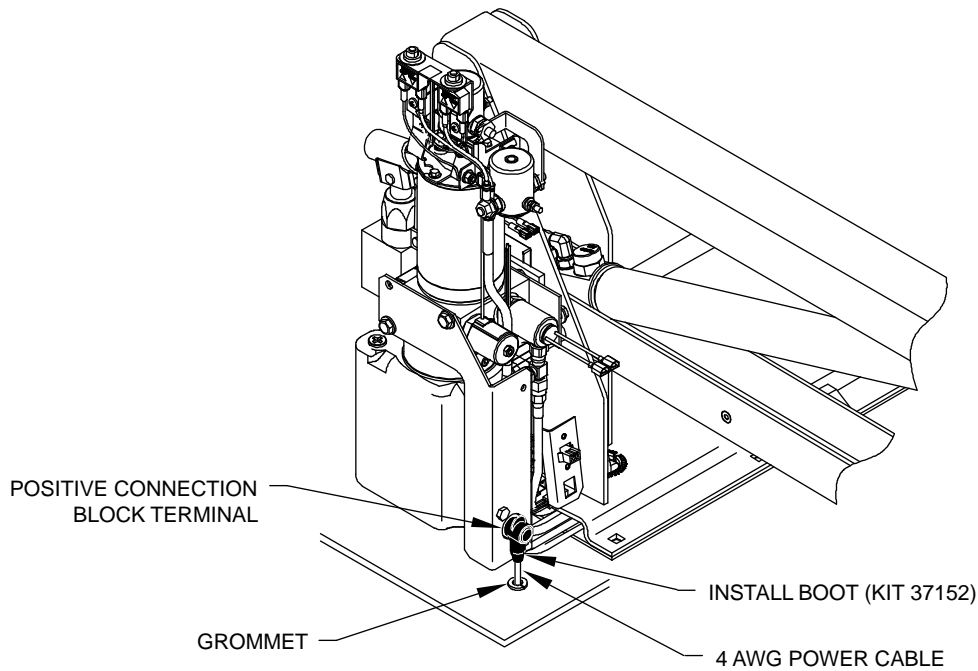
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FIGURE 2-10: POWER CABLE ACCESS HOLE

- b. Refer to **Figure 2-9**. Install supplied heavy ring terminals to each end of the short (12" long) 4 AWG power cable. Install one ring terminal, only, to one end of long power cable. Use an appropriate crimp tool (such as Ricon hammer tool, part of kit P/N 01243).
- c. Connect ring terminal end of long 4 AWG power cable to 90A main circuit breaker, then route power cable underneath vehicle floor and up through hole in floor.
- d. Refer to **Figure 2-9**. Detach Kit P/N 37152 (Shipped with pump handle) then install onto ring terminal connector before installing ring terminal onto positive connection block.
- e. Tie power cable to vehicle chassis, and to pump assembly harness using cable ties. Avoid pinch points, exhaust system, moving parts, and brake lines. Verify that power cable is secure.

⚠ CAUTION
Be sure that there is no interference with any parts that could damage power cable or other wires in any way.

- f. Refer to **Figure 2-9**. Cut excess wire from long cable, install heavy ring terminal, and then connect to positive connection block. Verify that red wire from main circuit breaker (if applicable) is securely connected to positive connection block.



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FIGURE 2-11: CABLE ROUTING

- g. Refer to **Figure 2-11**. Connect appropriate RICON lift control interface to lift and secure control cable to lift with supplied cable clamp.

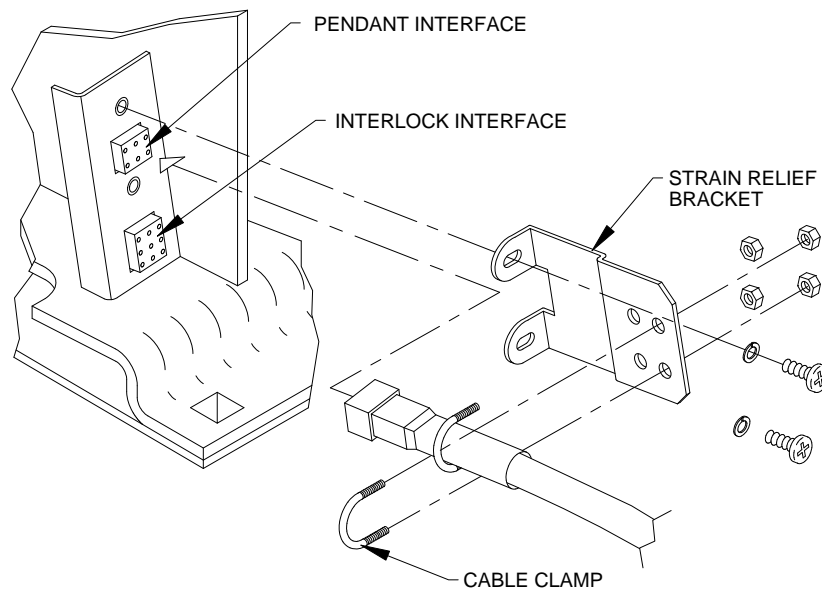


FIGURE 2-11: STRAIN RELIEF KIT

- h. For applications where a hand-held control pendant is used, it is essential that strain relief be installed. Connect a 12" cable from battery positive terminal to main breaker terminal closest to battery.
- i. Install wall portion of pendant dovetail clip in an appropriate safe location.

⚠ CAUTION

Be sure that harness does not interfere with any moving parts, or binds against any parts, or is pinched in any way.

3. GROUND CONNECTIONS

a. 12VDC Systems

12VDC powered lifts are chassis grounded and do not require a separate ground cable connection to battery. However, if lift electrical system is connected to chassis with a cable, the cable must be attached in a manner that provides a reliable electrical connection. If ground cable is attached to an existing ground circuit, the circuit must be capable of conducting an additional 90 amps to the negative battery terminal.

b. 24VDC Systems

- 1) Ricon recommends that a dedicated ground cable be used in 24VDC installations. A 4GA cable, or heavier, must be used.
- 2) Refer to **Figure 2-13**. The ground cable is connected from the negative stud (-) on pump motor to the negative battery terminal.

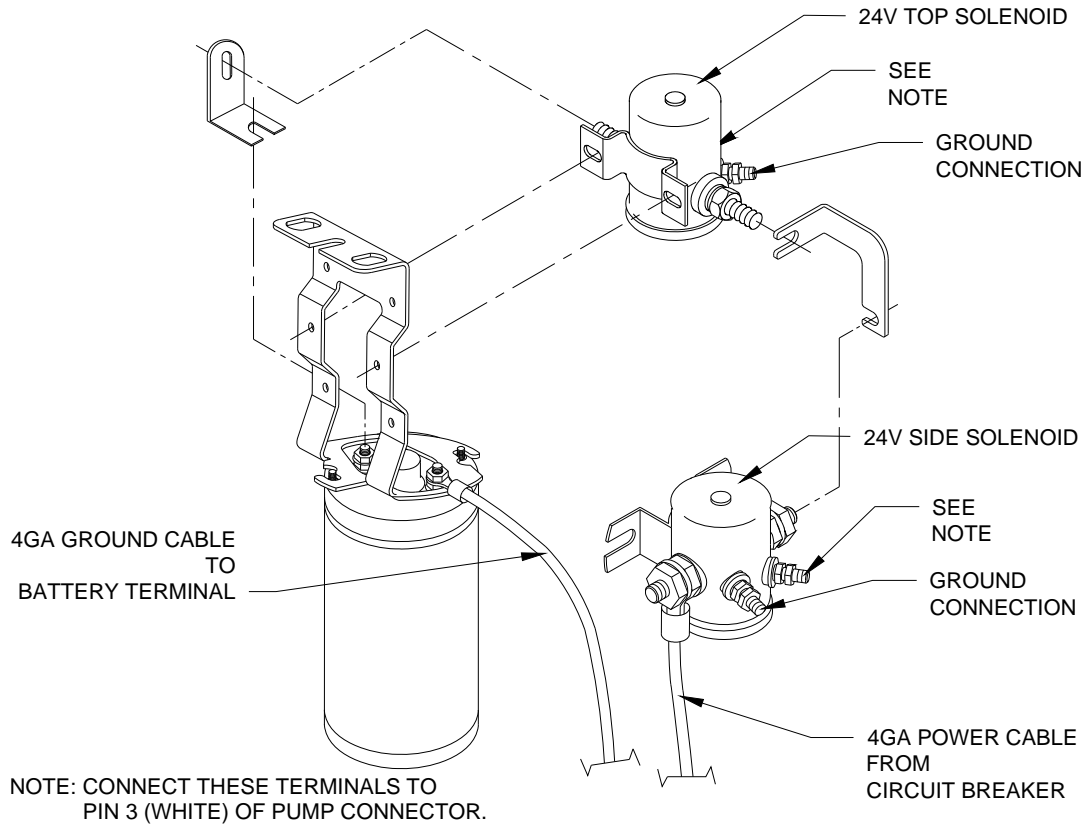


FIGURE 2-13: 24VDC DUAL SOLENOID WIRING

4. INSTALLATION OF INTERLOCK DEVICES NOT SUPPORTED BY RICON

An interlock device can be installed to prevent operation of the lift or vehicle when it is not safe to do so. **The interlock supplied by the installing Ricon dealer is not a Ricon product.**

Some interlock devices lock vehicle transmission in PARK (or neutral) when lift is deployed, or do not allow lift to be deployed unless vehicle transmission is in PARK (or neutral) and emergency brake is set. Other devices will stall vehicle engine if lift is deployed and emergency brake is released or transmission is shifted from PARK (or neutral). There may be other types of interlock devices that disable lift or vehicle to prevent unsafe lift operation.

Ricon is not aware of all available interlock products. For this reason it is very important that interlock products be properly installed so that they do not interfere with safe operation or create any other hazards.

The installer must verify that none of the original equipment circuit breakers, fuses, or solenoids are bypassed, removed, or altered. Be sure that no wires are left frayed or hanging loose after installation of an interlock device. If you have any questions about proper installation of interlock devices, please contact our Product Support Department.



WARNING

DO NOT OPERATE LIFT UNLESS YOU ARE CERTAIN THAT THE INTEGRITY OF LIFT ELECTRICAL CIRCUITS HAS BEEN MAINTAINED.



CAUTION

Wiring attached directly to the positive battery terminal is not protected against short circuits and must be kept to a length of 12" or less. The wiring must be routed in a manner that prevents pinching or abrasion by vehicle parts. The power source wire for the interlock circuit must be connected to a protected supply such as a dedicated accessory on an existing fuse panel.

Ricon recommends one of the following interlock methods:

a. INTERLOCK METHOD #1

Refer to **Figure 2-14**. This method interrupts power to the lift hand control pendant. It does not require additional circuit protection, but does require a modification to lift harness.

- 3) Disconnect battery.
- 4) Remove piggyback spade connector wire from OUTPUT side of 8 amp circuit breaker (refer to decal on circuit breaker).

NOTE: The OUTPUT side of breaker must be used to avoid possibility of an electrical short.

- 5) Connect female spade connector of interlock circuit provided by installer to OUTPUT side of 8 amp breaker using 16 AWG or larger wire.

NOTE: All connectors provided on interlock circuit must be a fully insulated type.

- 6) Cut piggyback connector from light assembly and female spade connector from signal power wire. Strip both wires about 1/2" being careful not to nick conductor. Crimp both wires in a single 1/4" fully insulated female spade connector designed for use on 14-16 AWG wire.
- 7) Connect male spade connector of interlock circuit to female spade connector added to harness in above step.
- 8) Dress wires in such a way as to not allow rubbing or chafing of insulation, and so there is no strain at any terminals or body of light.

b. INTERLOCK METHOD #2

Refer to **Figure 2-15**. This method interrupts power between lift 8 amp breaker and vehicle battery. It requires circuit protection to be provided by installer.

- 1) Disconnect battery.
- 2) The cable leading to applicable circuit protection from battery must be at least 16 AWG or larger, and must not exceed 12" in length.
- 3) Connect INPUT side of interlock circuit to OUTPUT side of circuit protector using 16 AWG or larger wire.

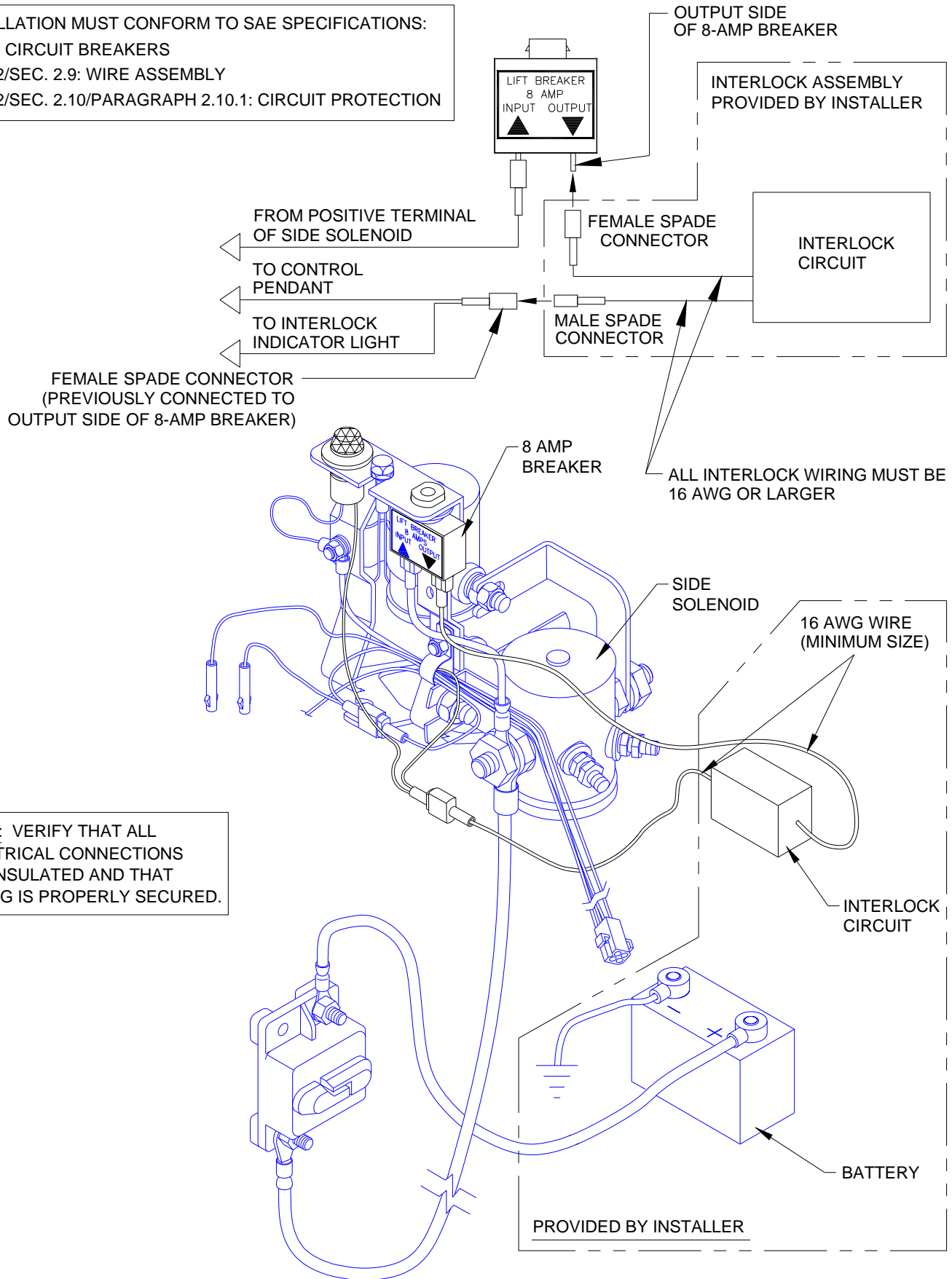
- 4) If an optional 30 amp circuit breaker has been installed next to 8 amp breaker, completely remove the 18 AWG wire connecting INPUT sides of 30 amp and 8 amp circuit breakers. To do this, the spade connector must be removed from 8 amp INPUT and 18 AWG wire must be cut as close as possible to 30 amp INPUT connector, since it is crimped to that connector along with a 10 AWG wire.
- 5) Connect OUTPUT side of interlock circuit to INPUT side of lift's 8 amp circuit breaker using 16 AWG or larger wire.
- 6) Re-connect battery.

c. **INTERLOCK METHOD #3**

Refer to **Figure 2-16**. This method interrupts power between pump solenoid and battery. This cuts all power to lift. It requires circuit protection to be supplied by installer.

- 1) Disconnect battery.
- 2) Disconnect 4 AWG power cable from main breaker at pump solenoid.
- 3) Connect cable to one of terminal posts of interlock solenoid.
- 4) Connect other terminal post of interlock solenoid to empty terminal post of pump solenoid using 4 AWG wire.
- 5) Connect circuit protector provided by installer (should be 8 amp, maximum) to main power cable coming from battery (which should be disconnected at this time) using wire at least 16 AWG or larger, not to exceed 12" in length. Be sure that wiring cannot pinch or chafe.
- 6) Connect OUTPUT side of circuit protector to INPUT side of interlock circuit provided by installer using 16 AWG or larger wire.
- 7) Connect OUTPUT side of interlock circuit to coil terminal of solenoid using 16 AWG or larger wire.
- 8) Be sure that interlock solenoid is properly grounded. If a separate grounding post is provided, connect a 16 AWG wire from ground post to a suitable chassis ground. If coil is grounded through body of solenoid, be sure that solenoid is mounted to a suitable chassis ground.
- 9) Reconnect battery.

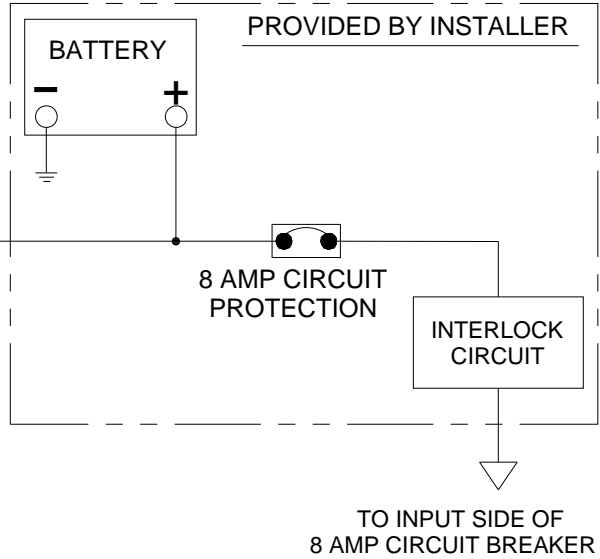
INSTALLATION MUST CONFORM TO SAE SPECIFICATIONS:
 J553: CIRCUIT BREAKERS
 J1292/SEC. 2.9: WIRE ASSEMBLY
 J1292/SEC. 2.10/PARAGRAPH 2.10.1: CIRCUIT PROTECTION



NOTE: VERIFY THAT ALL ELECTRICAL CONNECTIONS ARE INSULATED AND THAT WIRING IS PROPERLY SECURED.

FIGURE 2-14: INTERLOCK METHOD #1 - INTERRUPT POWER TO CONTROL PENDANT

INSTALLATION MUST CONFORM TO SAE SPECIFICATIONS:
 J553: CIRCUIT BREAKERS
 J1292/SEC. 2.9: WIRE ASSEMBLY
 J1292/SEC. 2.10/PARAGRAPH 2.10.1: CIRCUIT PROTECTION



NOTE: VERIFY THAT ALL ELECTRICAL CONNECTIONS ARE INSULATED AND THAT WIRING IS PROPERLY SECURED.

* NOTE: REMOVE EXISTING 18 AWG JUMPER CONNECTED BETWEEN 8 AMP AND 30 AMP CIRCUIT BREAKERS.

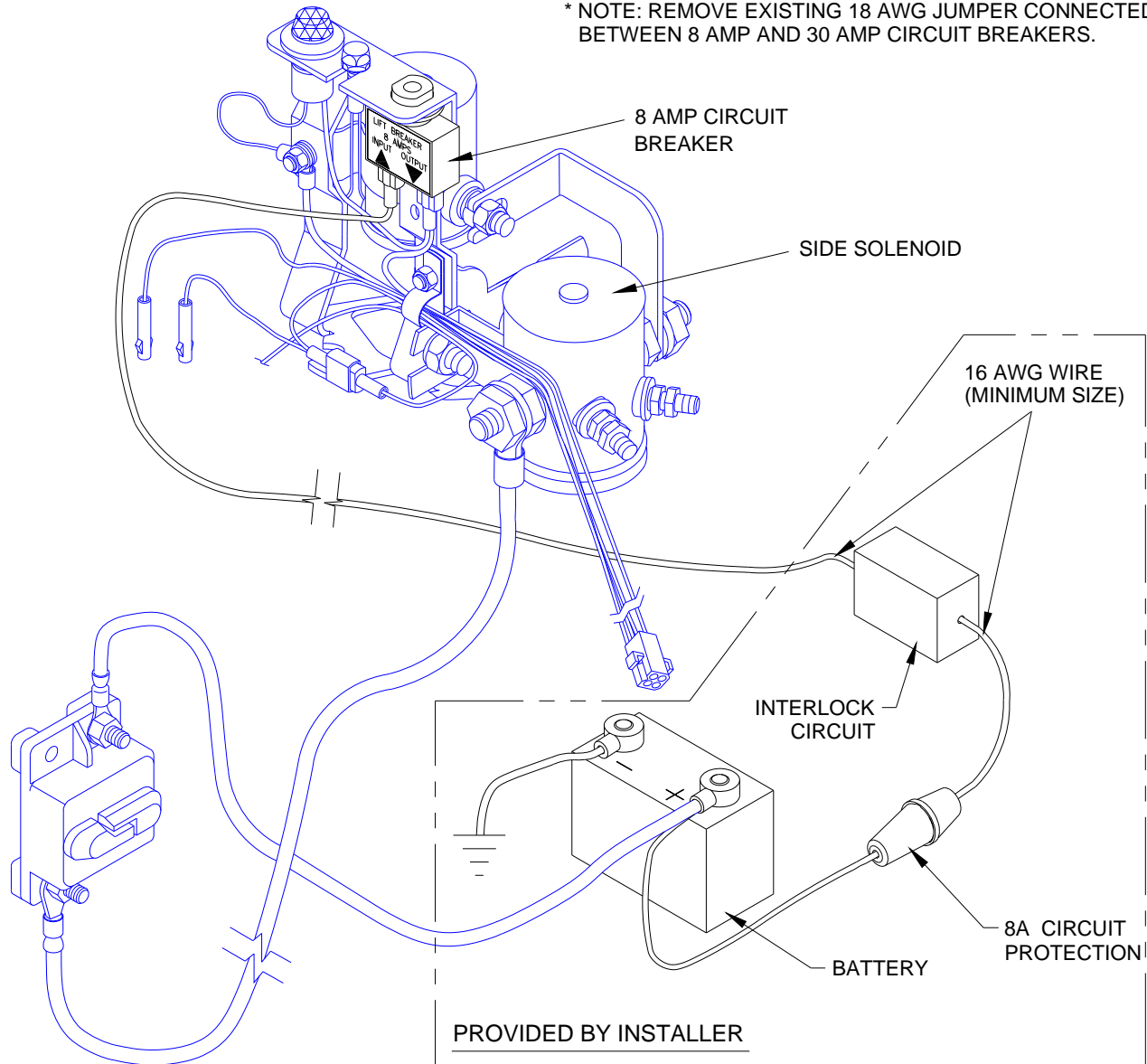
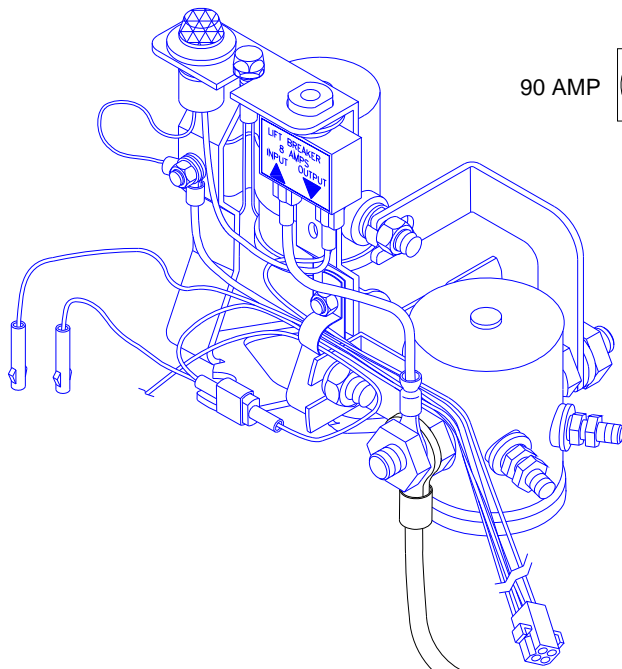
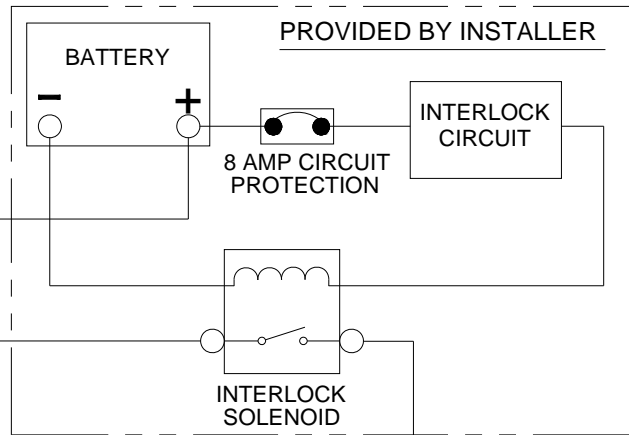


FIGURE 2-15: INTERLOCK METHOD #2 - INTERRUPT POWER TO 8 AMP CIRCUIT BREAKER

INSTALLATION MUST CONFORM TO SAE SPECIFICATIONS:
 J553: CIRCUIT BREAKERS
 J1292/SEC. 2.9: WIRE ASSEMBLY
 J1292/SEC. 2.10/PARAGRAPH 2.10.1: CIRCUIT PROTECTION



90 AMP



PROVIDED BY INSTALLER

BATTERY

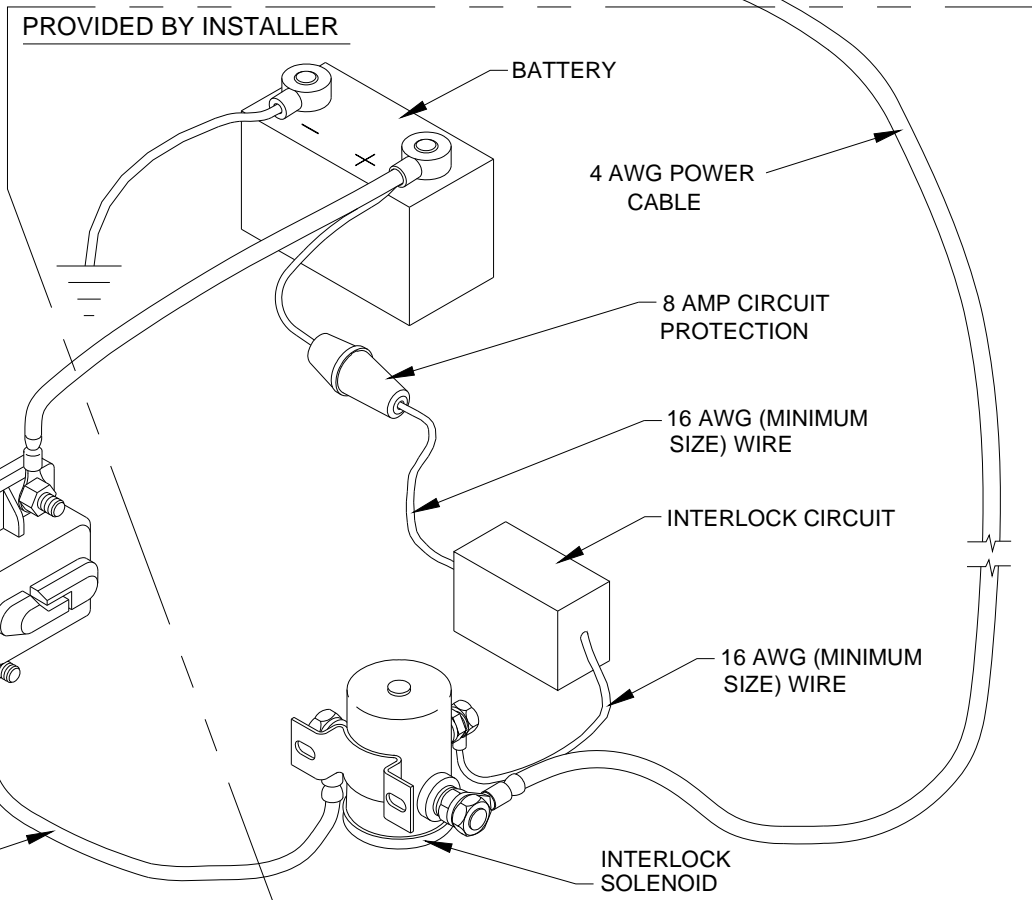
8 AMP CIRCUIT PROTECTION

INTERLOCK CIRCUIT

INTERLOCK SOLENOID

4 AWG POWER WIRE TO PUMP SOLENOID

NOTE: VERIFY THAT ALL ELECTRICAL CONNECTIONS ARE INSULATED AND THAT WIRING IS PROPERLY SECURED.



PROVIDED BY INSTALLER

BATTERY

4 AWG POWER CABLE

8 AMP CIRCUIT PROTECTION

16 AWG (MINIMUM SIZE) WIRE

INTERLOCK CIRCUIT

16 AWG (MINIMUM SIZE) WIRE

INTERLOCK SOLENOID

90 AMP MAIN BREAKER

4 AWG POWER CABLE (CONNECTED BETWEEN MAIN CIRCUIT BREAKER AND POSITIVE TERMINAL OF SOLENOID)

FIGURE 2-16: INTERLOCK METHOD #3 - POWER INTERRUPT

C. FINAL ADJUSTMENTS

1. LIMIT SWITCH ADJUSTMENT

For lift limit switch adjustment, refer to **Figures 2-17, 2-18**, and the following procedure. Contact Ricon Product Support for assistance.

NOTE: To avoid operational “dead-spots”, always adjust OUT CUTOFF SWITCH **before** UP CUTOFF SWITCH.

NOTE: When loosening adjustment screws, apply enough pressure to screw to move block instead of screw. (The block might stick if insufficient pressure is applied to screw.)

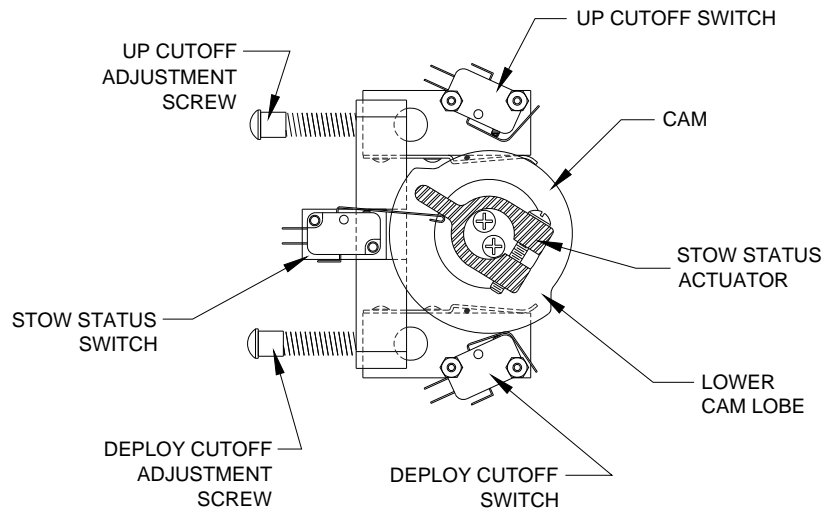
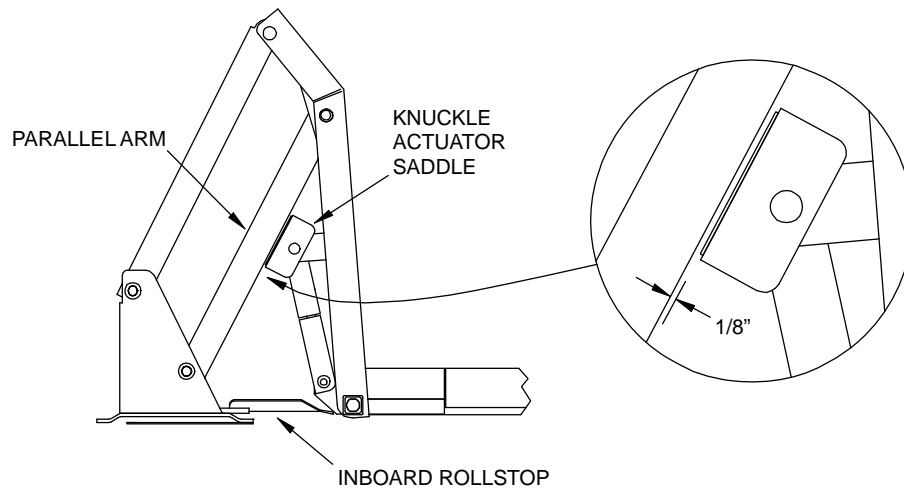


FIGURE 2-17: LIMIT SWITCH ADJUST DIAGRAM

- a. Fully DEPLOY platform.
- b. Adjust UP CUTOFF ADJUSTMENT SCREW and OUT CUTOFF ADJUSTMENT SCREW 6-8 turns **counter-clockwise** and then push screws FORWARD.
- 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, turn OUT CUTOFF ADJUSTMENT SCREW an additional 2-3 turns **counter-clockwise**, push screw forward, 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, turn UP CUTOFF ADJUSTMENT SCREW an additional 2-3 turns **counter-clockwise**, push screw forward, cycle platform DOWN then UP, then repeat this step.
- g. Cycle platform to STOW then DEPLOY.
- h. Push and hold control pendant DEPLOY switch. Slowly turn OUT CUTOFF ADJUSTMENT SCREW **clockwise** 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 switch. Slowly turn UP CUTOFF ADJUSTMENT SCREW **clockwise** 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 1-2 full turns of adjustment screw, cycle platform UP and DOWN (The UP CUTOFF SWITCH is less sensitive than OUT CUTOFF SWITCH).



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FIGURE 2-18: LIMIT SWITCH ADJUSTMENT CLEARANCE

- k. Cycle platform through all functions (DEPLOY, DOWN, UP, and STOW) to verify correct adjustment. Refer to **Table 2-1** if necessary.

TABLE 2-1: LIMIT SWITCH ADJUSTMENT CHART			
COMPONENT	SYMPTOM	CORRECTIVE ACTION	ADJUSTMENT PROCEDURE
Fold cutoff actuator	Lift does not fold tightly.	Rotate collar counter-clockwise.	With lift fully folded (handrails should be folded tight against vertical arms), rotate actuator so that fold cutoff leg barely trips fold cutoff switch.
	Pump runs continuously.	Rotate collar clockwise.	
Up cutoff adjustment screw	Lift stops low.	Adjust screw clockwise.	Adjust up cutoff switch so that lift stops just before first knuckle actuator saddle or roller touches underside of lower parallel arm. (Saddle or roller should be about 1/8" from lower parallel arm.)
	Lift stops high.	Adjust screw counter-clockwise.	
Out cutoff adjustment screw	Lift stops low.	Adjust screw counter-clockwise.	Adjust lower limit switch so that lift stops just below "Up" cutoff described in above step. This will give the necessary overlap to avoid "dead" spots.
	Lift stops high.	Adjust screw clockwise.	
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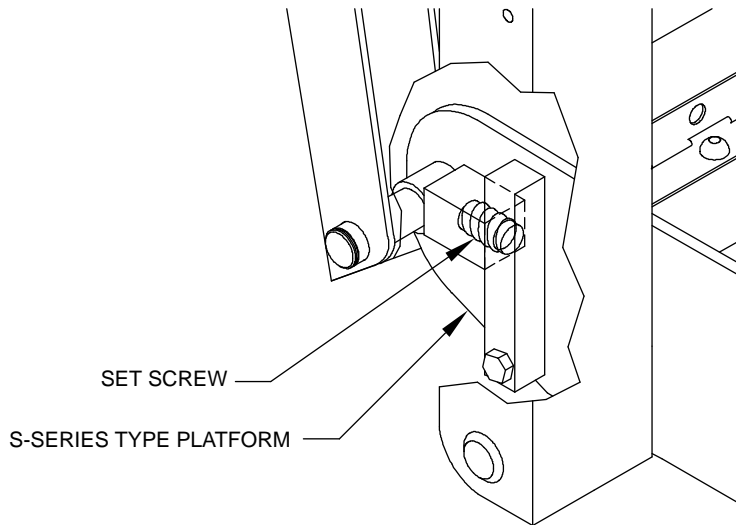
2. PLATFORM TILT ADJUSTMENT

Correct platform tilt adjustment is crucial for proper platform rollstop operation, but cannot be adjusted at factory. Factors such as vehicle floor height, lift tilt angle and stiffness of vehicle springs will vary installation geometry.

- a. Deploy and lower lift platform to a position halfway between vehicle floor level and ground level.
- b. Refer to **Figure 2-19**. Adjust left and right platform set screws until platform is level at zero (0) degrees. Turn set screws clockwise to angle front-end of platform upward, or counter-clockwise to angle downward.
- At ground level, the distance between heel of platform and ground should be 3/4" to 1". This distance should be measured at initial point of rollstop's full deployment.

NOTE: Adjust set screws on both sides of platform simultaneously and evenly to ensure proper leveling of platform.

- c. Repeat steps a and b as required to achieve proper rollstop operation.



RSM0003400

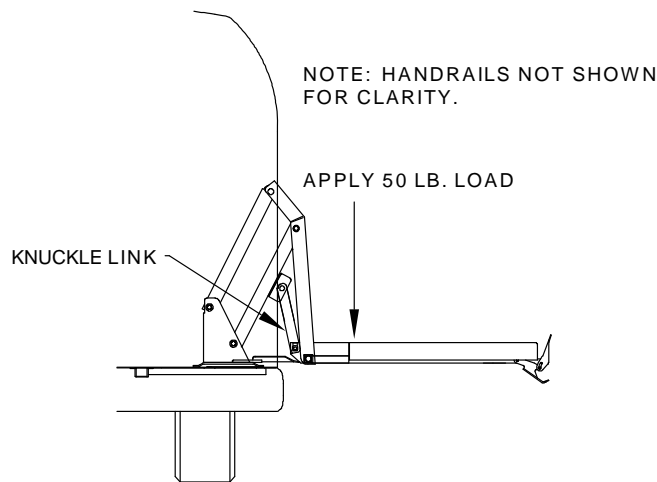
FIGURE 2-19: PLATFORM SET SCREWS

3. PLATFORM PRESSURE SWITCH CHECK AND ADJUSTMENT

(serial no.'s 104,000 to present)

Correct adjustment of this pressure switch is required to prevent platform from folding into vehicle when there is a load of 50 lbs, or more, on the platform.

- a. Refer to **Figure 2-20**. Deploy and lower platform to ground.



RSM0003600

FIGURE 2-20: PRESSURE SWITCH TEST AT FLOOR LEVEL

NOTE: Weight must be 50 lbs. and placed 6 inches from rear edge of platform mesh as shown in **Figure 2-21**.

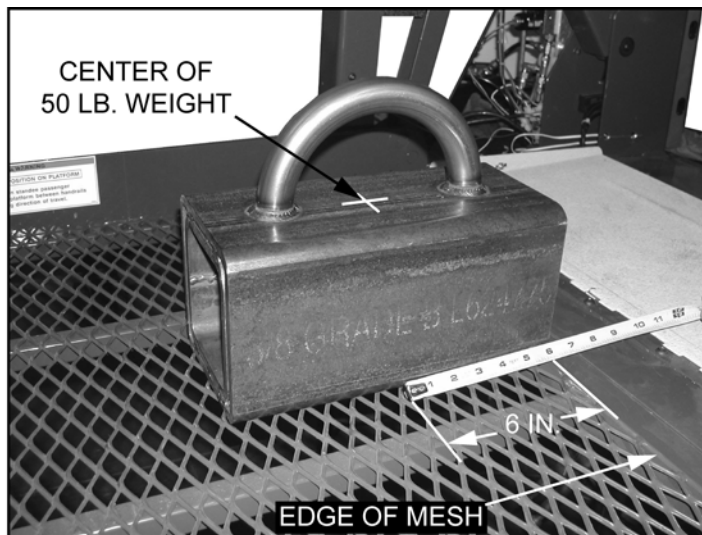


FIGURE 2-21: 50 LB. WEIGHT PLACEMENT ON PLATFORM

- b. Place a 6" x 6" x 12", 50 lb. load on the rear, center portion of platform then raise platform to floor level by pressing and holding the STOW switch.
- c. Refer to **Figure 2-22**. If an alternate weight is to be used, the center of the weight must be 6 inches from the rear edge of the platform mesh.

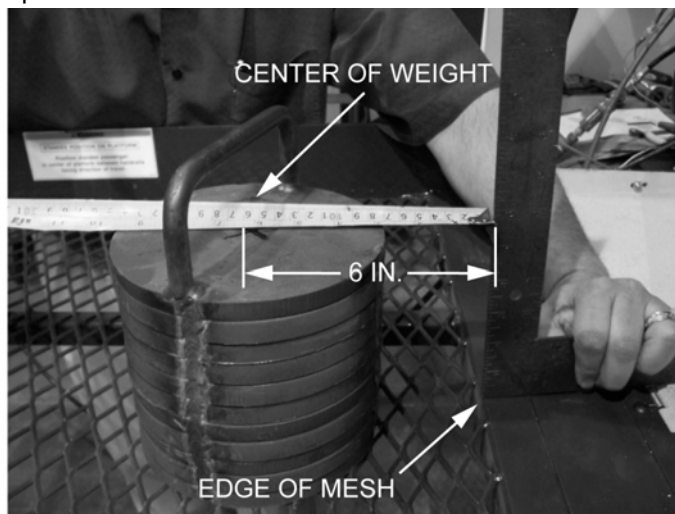
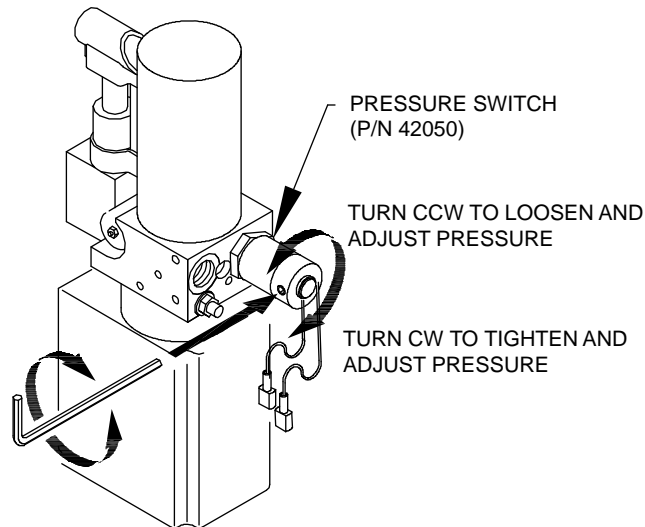


FIGURE 2-22: ALTERNATE 50 LB. WEIGHT

- d. The pressure switch is correctly set if pump motor shuts off when attempting to stow the lift, preventing inward movement of the platform.
- e. The pressure switch is not correctly set if pump motor does NOT shut off and there is inward movement of the platform. Adjustment of the pressure switch will be required.

NOTE: If adjustment is necessary then pressure switch must be adjusted as shown in **FIGURE 2-23**.

- f. Refer to **Figure 2-23**. Loosen the locking set screws from the hydraulic pressure switch, using a 5/64" hex wrench to allow adjustment of the hydraulic pressure switch.



RSM0005001

FIGURE 2-23: PRESSURE SWITCH ADJUSTMENT (P/N 42050)

- g. Turn the hydraulic pressure switch enclosure 1/8 of a turn **counterclockwise** (CCW), by hand to reduce the pressure.

NOTE: Turn the hydraulic pressure switch enclosure **clockwise** (CW) to increase pressure and **counterclockwise** (CCW) to decrease pressure, by hand.

- h. Stow platform and observe if the motor shuts off.
i. If the motor does not shut off, turn the hydraulic pressure switch enclosure 1/8 of a turn **counterclockwise** (CCW), by hand to reduce the pressure.

NOTE: The lift should NOT stow or have inward movement with the weight on the platform.

- j. Repeat pressure switch adjustment as necessary to achieve correct setting.
k. Tighten the locking set screw when the correct pressure setting is achieved.

4. PLATFORM LOAD SENSOR SWITCH ADJUSTMENT (serial no.'s 0 - 103,999)

This procedure provides for setting platform load sensor switch to prevent lift from folding past vehicle floor level when a load of 50 lbs is on center of platform.

- Refer to **Figure 2-24**. Place your left hand around knuckle vertical link assembly as shown; link is located on left side of lift.
- Loosen two hex-bolts shown.
- Exert a light downward pressure through your left-hand fingers onto load sensor bar, and retighten hex-bolts.
- Refer to **Figure 2-20**. To verify proper load sensor switch operation, deploy and lower platform to ground. Place a 50 lb. load in center of platform and then raise platform to floor level. Press and hold STOW switch.

NOTE: If pump motor does not stall or clicks off and on excessively, loosen two hex bolts, push down further on load sensor bar, and re-tighten bolts.

- e. Repeat above two steps as necessary until pump motor stalls (i.e., load sensor switch is activated, preventing lift platform from folding past vehicle floor level).

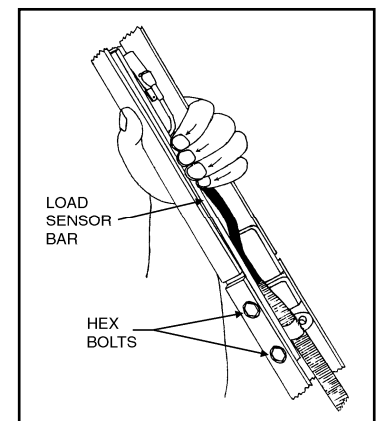


FIGURE 2-24: LOAD SENSOR ADJUSTMENT

D. VERIFY INSTALLATION

- ! Be certain that no vehicle components interfere with operation of lift.
- ! The lift is designed to carry the weight of a wheelchair and its passenger. The vehicle structure must be capable of supporting all loads produced during lift operation, as well as those forces caused by motion of vehicle when it is driven.



CAUTION

- Do not operate lift when test weight is on platform. This load test is designed to test the lift **mounting method**, not the lift capacity. Remove test weight immediately after test.
- Vehicle suspension will compress and vehicle will lean when test weight is placed on platform. If weighted platform contacts ground, remove weight, raise platform, and retest.

- ! The lift must be test loaded to 125% of its rated 800 pound load capacity to verify integrity installation. Position lift platform 2" - 6" above the ground, place 1000 pounds in center of platform, and inspect lift mounting points. REMOVE TEST WEIGHT.
- ! Run lift through several complete cycles while checking for proper operation.

E. CUSTOMER ORIENTATION

IMPORTANT

- Customer Orientation -

Ricon Sales or Service Personnel must review the warranty card and Operator manual with the customer to be certain they understand safe operation of the lift. The customer should be instructed to follow the operating instructions without exception.

- ! Refer to **Figure 2-25** on next page and verify that all decals are properly located and affixed as shown.

NOTE: The installing dealer affixes Operating Instructions decal to vehicle in a location clearly visible to lift operator.

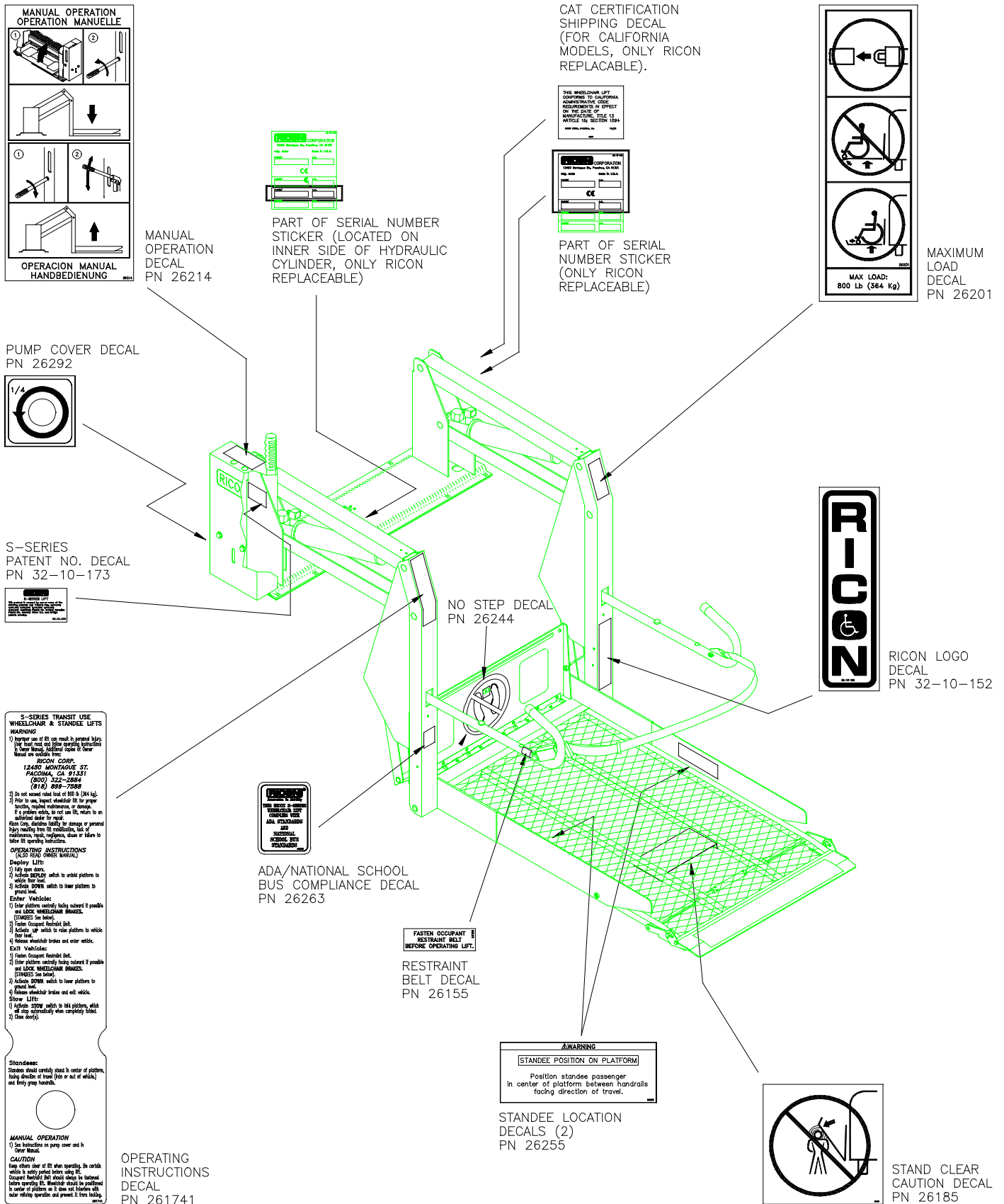


FIGURE 2-25: ADA TRANSIT LIFT DECAL LOCATIONS AND PART NUMBERS

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