

II. INSTALLATION

This chapter contains instructions for installing the RICON S-Series Personal 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. 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: Be certain to check for proper travel clearance through doorway.

- a. With door(s) 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. Be sure to allow a distance of 3/4", if possible, between door and the part of lift closest to it. Adjust lift's 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 mounting of lift is a very important step. Lift performance can be greatly affected by improper mounting and/or fastening of lift. Although fastening details may vary from one vehicle to the next, some general principles always apply:

- Be certain that all mounting bolts are properly installed and tightened. Bolts used to fasten baseplate assembly to vehicle floor should be equivalent to or greater than a strength rating of SAE Grade 5 and torqued to 28 ft. lbs., dry. Always remember that the most important bolts are those at rear of lift, since these bolts retain most of load.
- Refer to **Figure 2-1**. Improper fastening sequence or torquing of bolts may result in a warped or buckled baseplate and, therefore, cause lift to operate unevenly.

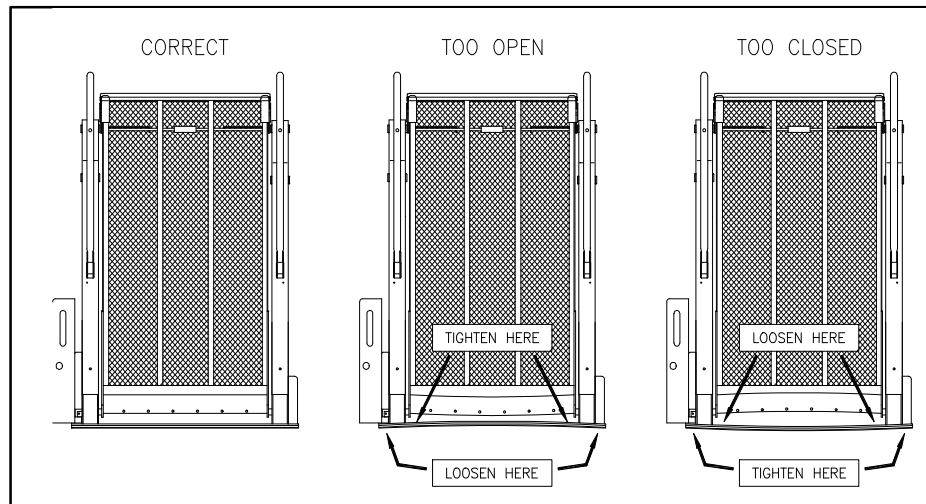


FIGURE 2-1: PLATFORM MOUNTING

- Refer to **Figure 2-2**. On Ford van installations, clamping bars should be used to 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.

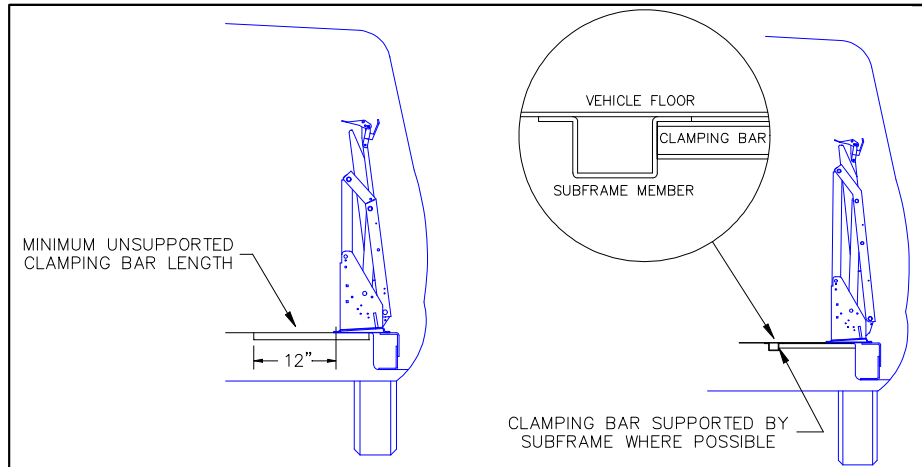


FIGURE 2-2: FORD VAN CLAMPING BAR ARRANGEMENT

3. LIFT INSTALLATION INTO VANS

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

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

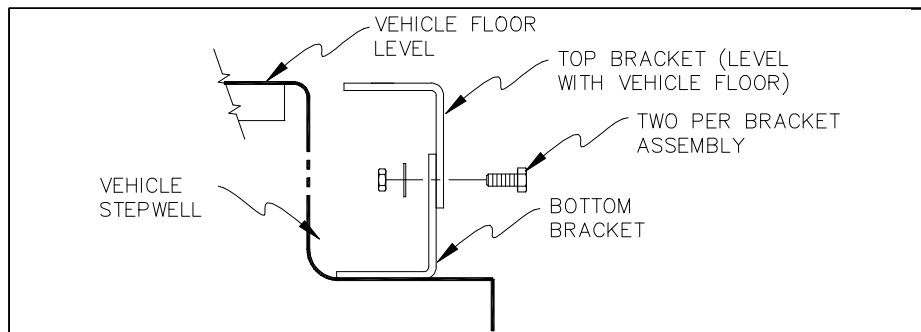


FIGURE 2-3: STEPWELL BRACKET

- Position and adjust height of both bracket assemblies so that top bracket is level with vehicle floor. Tighten bracket assembly bolts.
- Ensure that lift is fully closed with handrails folded tight against vertical arms. If necessary, use manual pump.



WARNING

LIFT WEIGHT IS APPROXIMATELY 350-375 LBS. TAKE EXTREME CARE WHEN POSITIONING, BRACKETS MAY TIP. DO NOT POSITION ALONE. THIS PROCEDURE SHOULD NOT BE ATTEMPTED BY ONE PERSON.

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

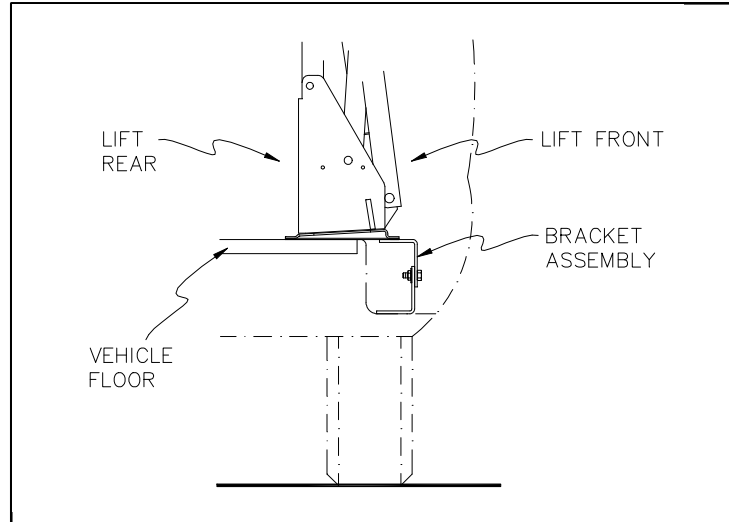


FIGURE 2-4: BRACKET ASSEMBLY

- e. Adjust Base Assembly:

NOTE: If Ricon Power Door Operators are used, install them first. They may have some influence on location of lift.

- 1) Be certain baseplate assembly is parallel with vehicle floor. The baseplate assembly may be slightly offset in door opening to provide proper clearance for passenger seats.
- 2) Before drilling, be certain that lift's position does not interfere with closing of vehicle door(s) as well as clear all passenger seats.

- f. Mark/Drill Holes:

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

- 1) Refer to **Figure 2-5**. Mark/drill four 25/64" baseplate assembly 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 (4" x 3/8" bolts on Ford vans) into holes to secure position.
- 3) Refer to **Figure 2-6**. Match and align both top bracket holes 5, 6, 7 and 8 with baseplate assembly holes 5, 6, 7, and 8. Mark 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" holes through marked locations 9, 10, 11 and 12.

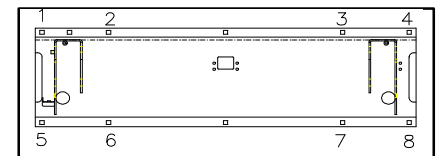


FIGURE 2-5: VAN BASEPLATE HOLES

- g. Fasten Bracket Assemblies/Lift:

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

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

- 2) Reposition lift ensuring that surface beneath lift is free of obstacles.
- 3) Insert four 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.

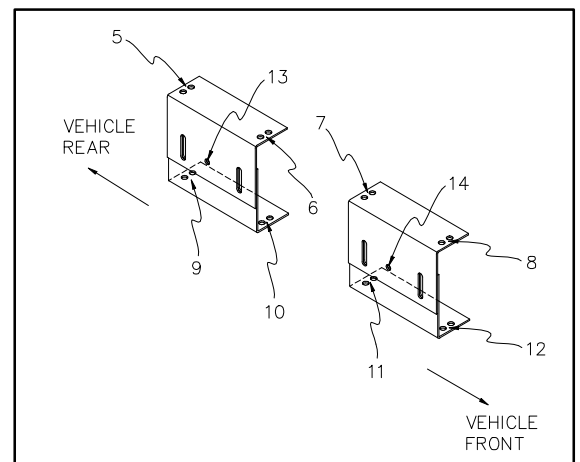


FIGURE 2-6: TOP BRACKET HOLE LOCATIONS

Place 3/8" washers, lock washers, and nuts under bracket assemblies, and finger tighten nuts.

NOTE: On Dodge and GM vans, place four 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 to be bolted 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 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

 WARNING
THE S-SERIES PERSONAL USE WHEELCHAIR LIFT MUST NOT BE INSTALLED INTO MASS TRANSIT VEHICLES. CONTACT RICON PRODUCT SUPPORT FOR PROPER S-SERIES LIFT.

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.

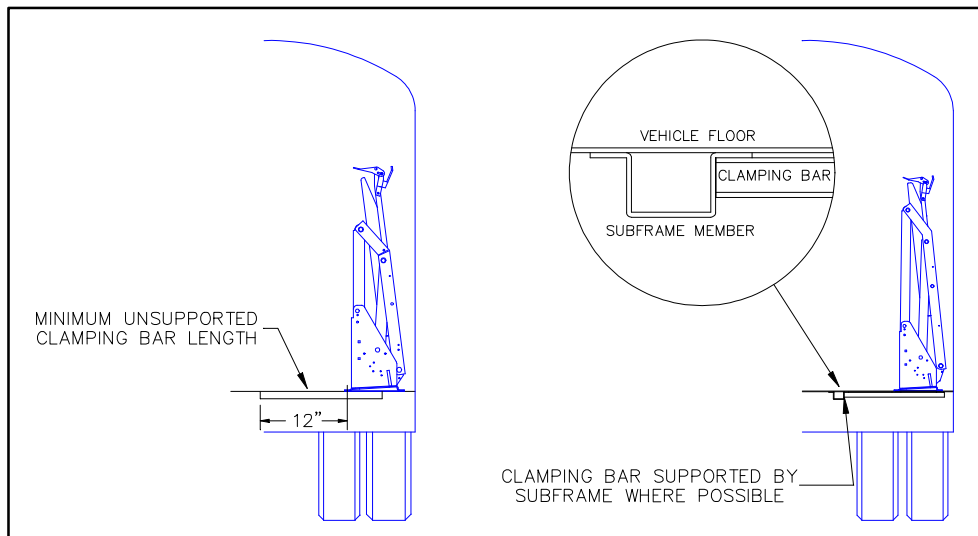



FIGURE 2-7: BUS CLAMPING BAR ARRANGEMENT

 WARNING
LIFT WEIGHT IS APPROXIMATELY 350-375 LBS. TAKE EXTREME CARE WHEN POSITIONING, BRACKETS MAY TIP. DO NOT POSITION ALONE. THIS PROCEDURE SHOULD NOT BE ATTEMPTED BY ONE PERSON.

- a. With doors fully open, position lift in vehicle doorway as close as possible to door with lift baseplate parallel to side of bus.

- b. Refer to **Figure 2-8**. Mark/drill eight 25/64" baseplate assembly mounting holes (1 thru 8) through vehicle floor.

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

- c. Fasten Lift:

- 1) Insert eight 4" x 3/8" carriage bolts through baseplate and vehicle floor.
- 2) 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.
- 3) 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.

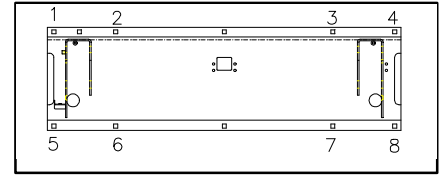


FIGURE 2-8: BUS BASEPLATE HOLES

B. ELECTRICAL INSTALLATION

CAUTION

- Do not route a 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 wires.

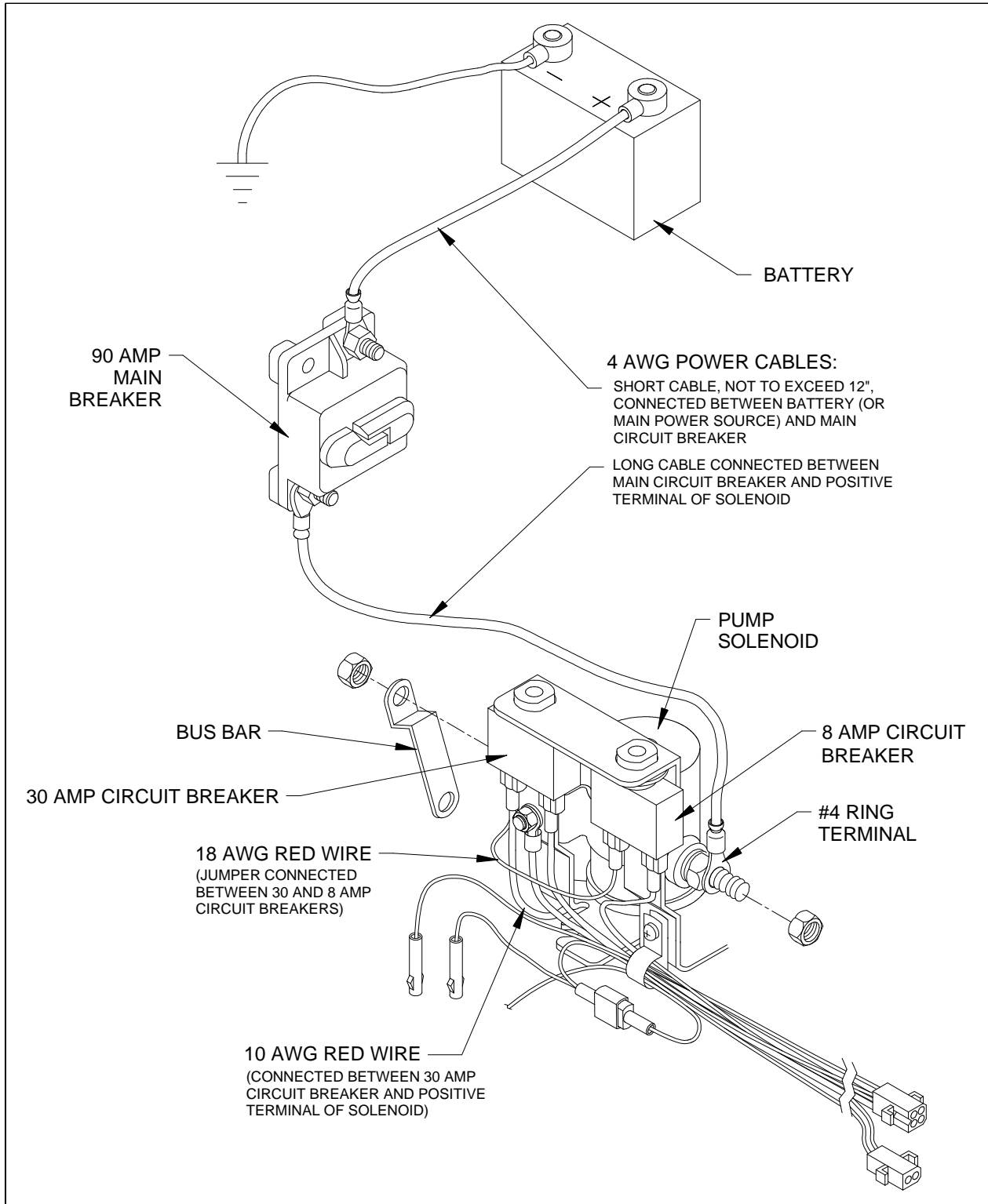
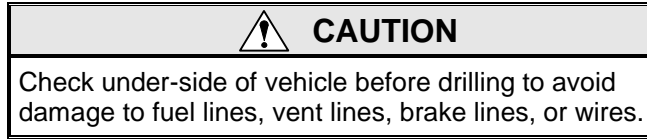


FIGURE 2-9: ELECTRICAL INSTALLATION DIAGRAM

1. INSTALL MAIN CIRCUIT BREAKER

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

2. ROUTE AND CONNECT MAIN POWER CABLE



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 **Figure 2-10**. Locate and drill a hole through vehicle floor near or under pump cover so power cable may reach positive pole of solenoid, the side opposite to where solenoid is connected to pump motor. The hole should be drilled so that it is hidden by the pump cover.

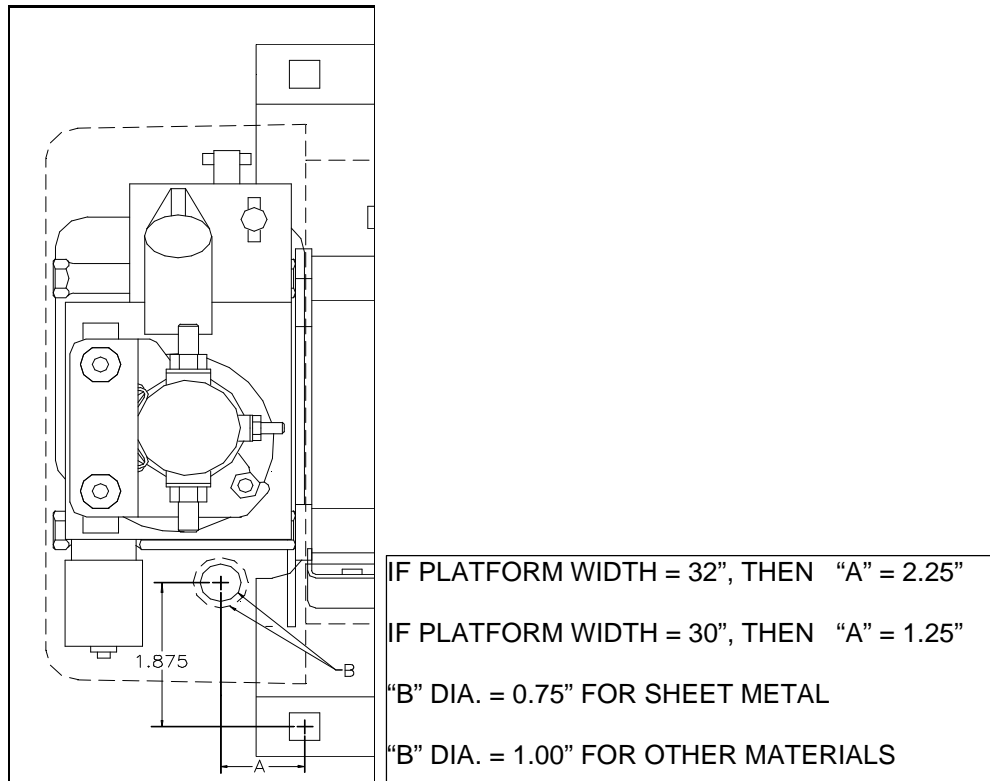


FIGURE 2-10: POWER CABLE ACCESS HOLE

NOTE: An 8 amp circuit breaker is provided for lift as a circuit protection device. Whatever circuit interface is supplied by the OEM, it should be capable of carrying 8 amps of continuous current.

- b. Install ring terminals (supplied) to each end of short power cable (12" long), and one ring terminal to one end, and one end only, of long power cable using an appropriate crimp tool (such as Ricon P/N 26553).
- c. Connect end of long 4 AWG power cable (with ring terminal) to main circuit breaker, then route power cable underneath vehicle floor and up through hole in floor.
- d. Ensure that power cable is secure. Bind power cable to pump assembly harness and to pump motor using cable ties. Avoid pinch points, exhaust system, any moving parts and brake lines.



- e. Refer to **Figure 2-11**. Cut any excess wire from long cable, install remaining heavy ring terminal to unterminated end of long cable, and connect it to live side of solenoid. Ensure that red wire from main circuit breaker (if applicable) is connected to positive solenoid pole.

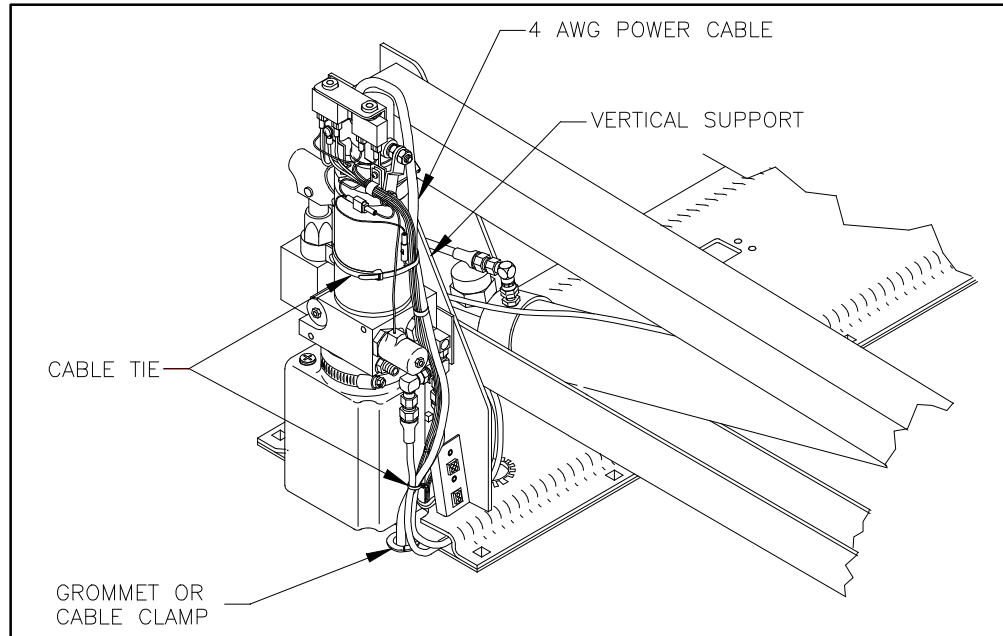


FIGURE 2-11: CABLE ROUTING

- f. Refer to **Figure 2-12**. Connect appropriate RICON lift control interface to lift and secure control cable to lift with supplied cable clamp.

NOTE: 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.

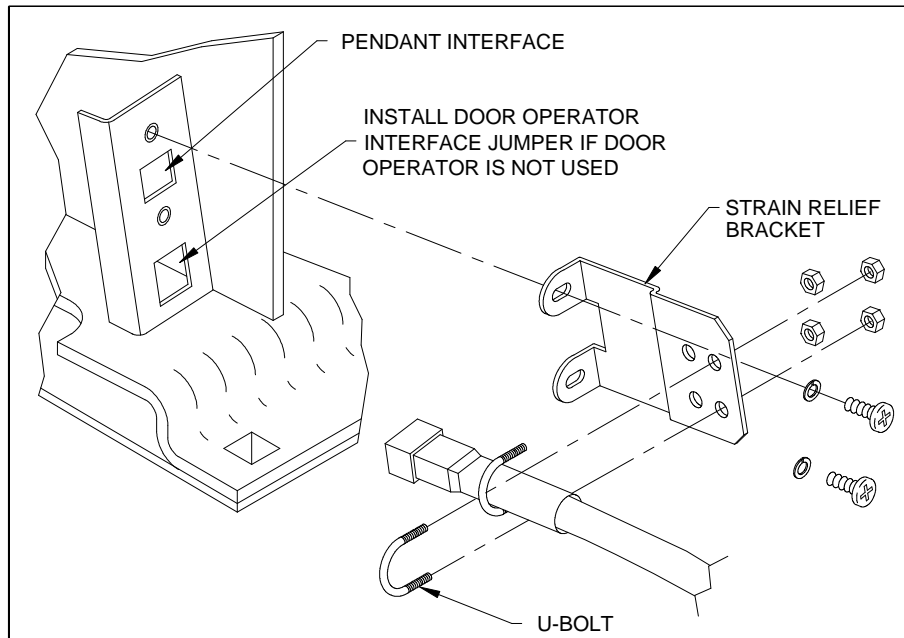


FIGURE 2-12: STRAIN RELIEF KIT

- g. Install wall portion of pendant dovetail clip in an appropriate safe location.

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

3. GROUND CONNECTIONS

a. 12VDC Systems

12VDC powered lifts can be chassis grounded and therefore do not require a separate ground cable connection to battery.

NOTE: If lift electrical system is grounded to chassis, the ground cable must be attached in a manner that provides a reliable electrical connection. If 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 routed from the negative stud (-) on pump motor to the negative battery terminal.

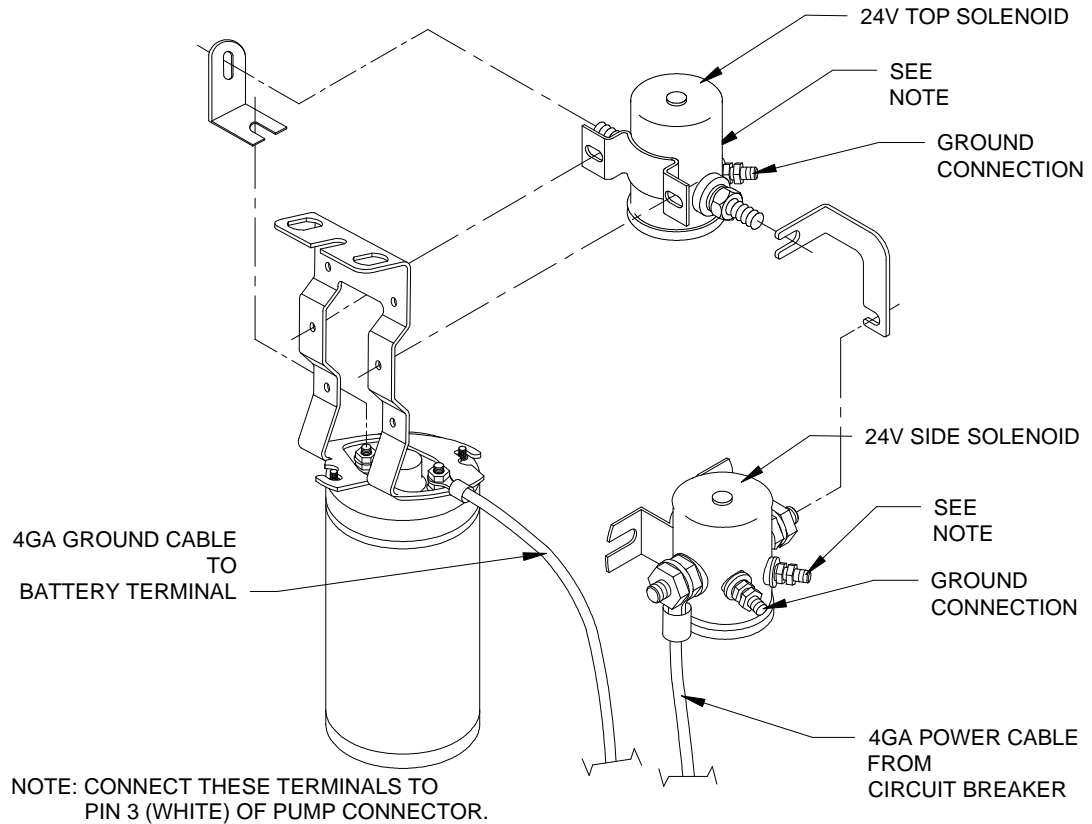


FIGURE 2-13: 24VDC DUAL SOLENOID WIRING

4. INSTALLATION OF UNSUPPORTED INTERLOCK DEVICES

An interlock device may be installed that is designed to prevent operation of 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 when lift is deployed, or do not allow lift to be deployed unless vehicle transmission is in PARK and emergency brake is set. Other devices will stall vehicle's engine if lift is deployed and emergency brake is released or transmission is shifted from PARK. There may be other types of interlock devices that disable lift or vehicle and prevent unsafe lift operating conditions.

Because these devices are non-Ricon products, Ricon is not aware of all that are available. For this reason it is very important that interlock device be properly installed, such that it does not interfere with safe operation of lift or create an electrical or fire hazard.

The installer should always be certain that none of the original equipment electrical circuit breakers, fuses or solenoids are bypassed, removed or altered. Be sure that no wires are left frayed or hanging loose after installation of interlock device. If you have any questions about proper installation of these interlock devices, please contact our Product Support Department immediately. **DO NOT OPERATE LIFT UNLESS YOU ARE CERTAIN THAT INTEGRITY OF LIFT'S ELECTRICAL CIRCUITS, AS DESIGNED, HAS BEEN MAINTAINED.**

CAUTION

Wiring attached directly to a battery's positive terminal is not protected against short circuits. Wiring attached directly to a battery must be kept as short as possible (12" or less) and must be routed so that there is no risk of pinching. Wires for interlock circuit should be routed from an appropriately protected power source such as a dedicated accessory on an existing fuse panel.

Ricon recommends use of one of the three following installation methods:

a. INTERLOCK METHOD #1 (Signal interrupt, feed from lift)

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.

- 1) Disconnect battery.
- 2) 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.

- 3) 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.

- 4) 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.
- 5) Connect male spade connector of interlock circuit to female spade connector added to harness in above step.
- 6) 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 (Signal interrupt, feed from vehicle)

Refer to **Figure 2-15**. This method interrupts power between lift's 8 amp breaker and vehicle's 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 (Power interrupt)

Refer to **Figure 2-16**. This method interrupts power between interlock's 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.

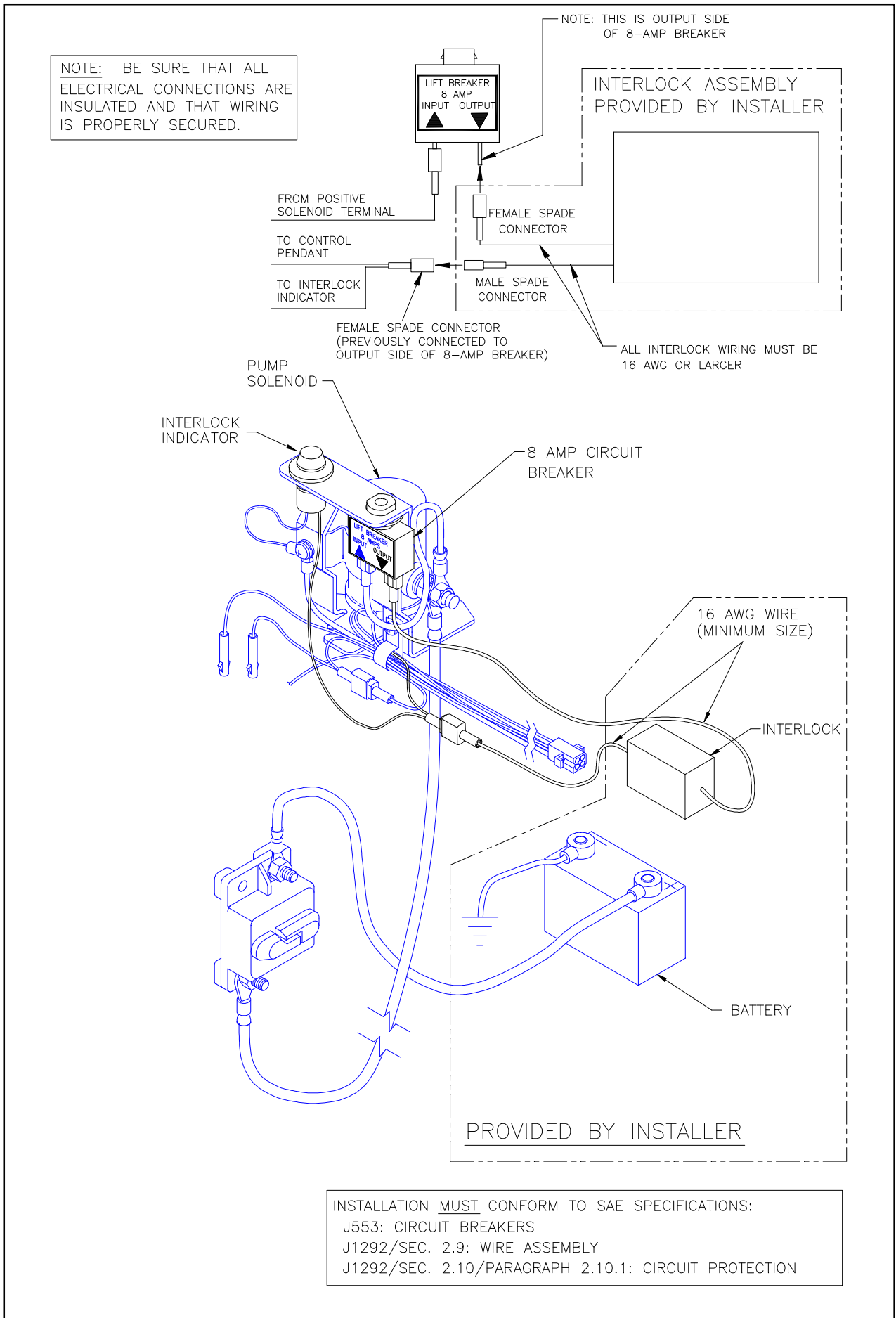


FIGURE 2-14: INTERLOCK METHOD #1

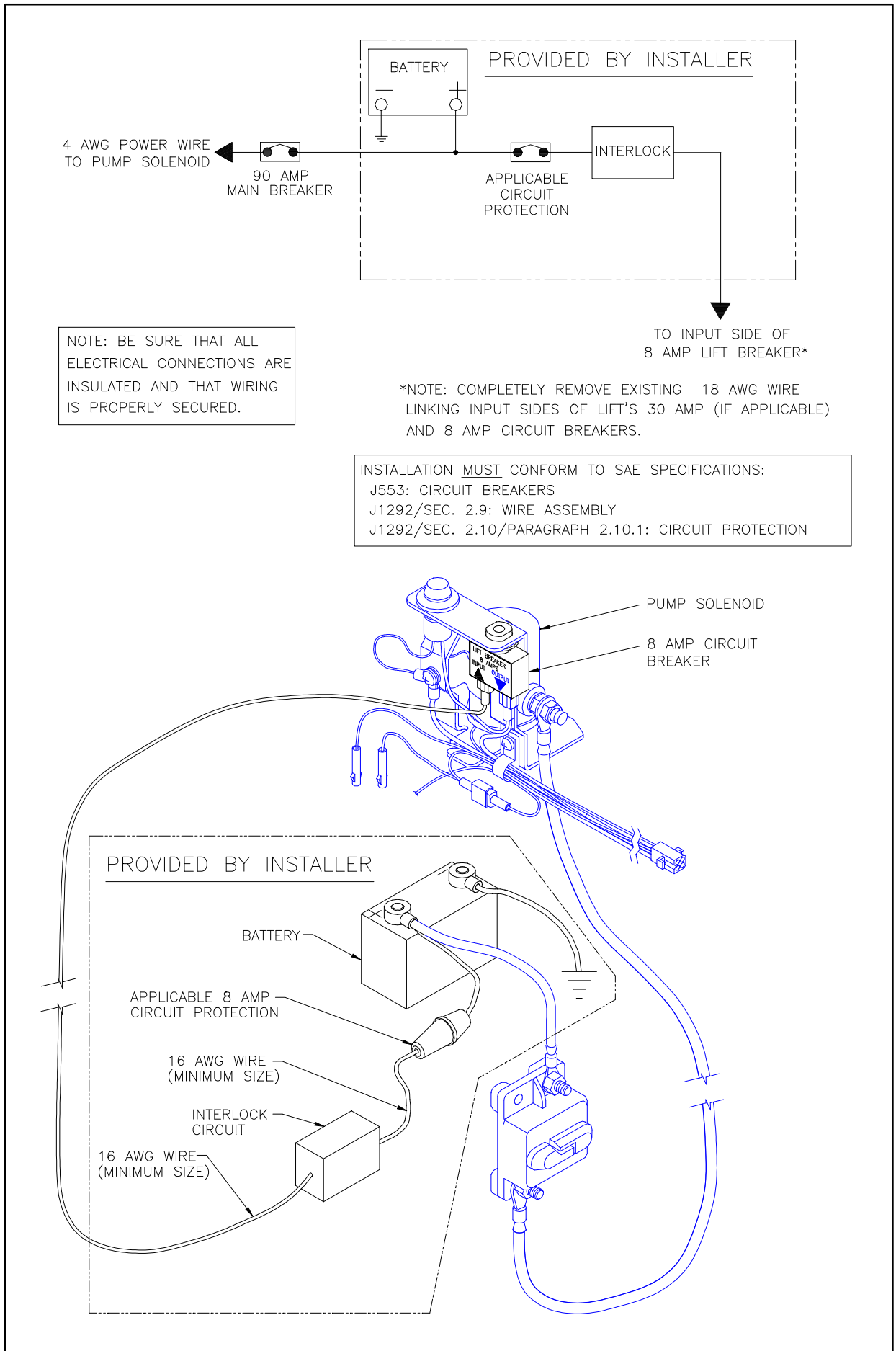


FIGURE 2-15: INTERLOCK METHOD #2

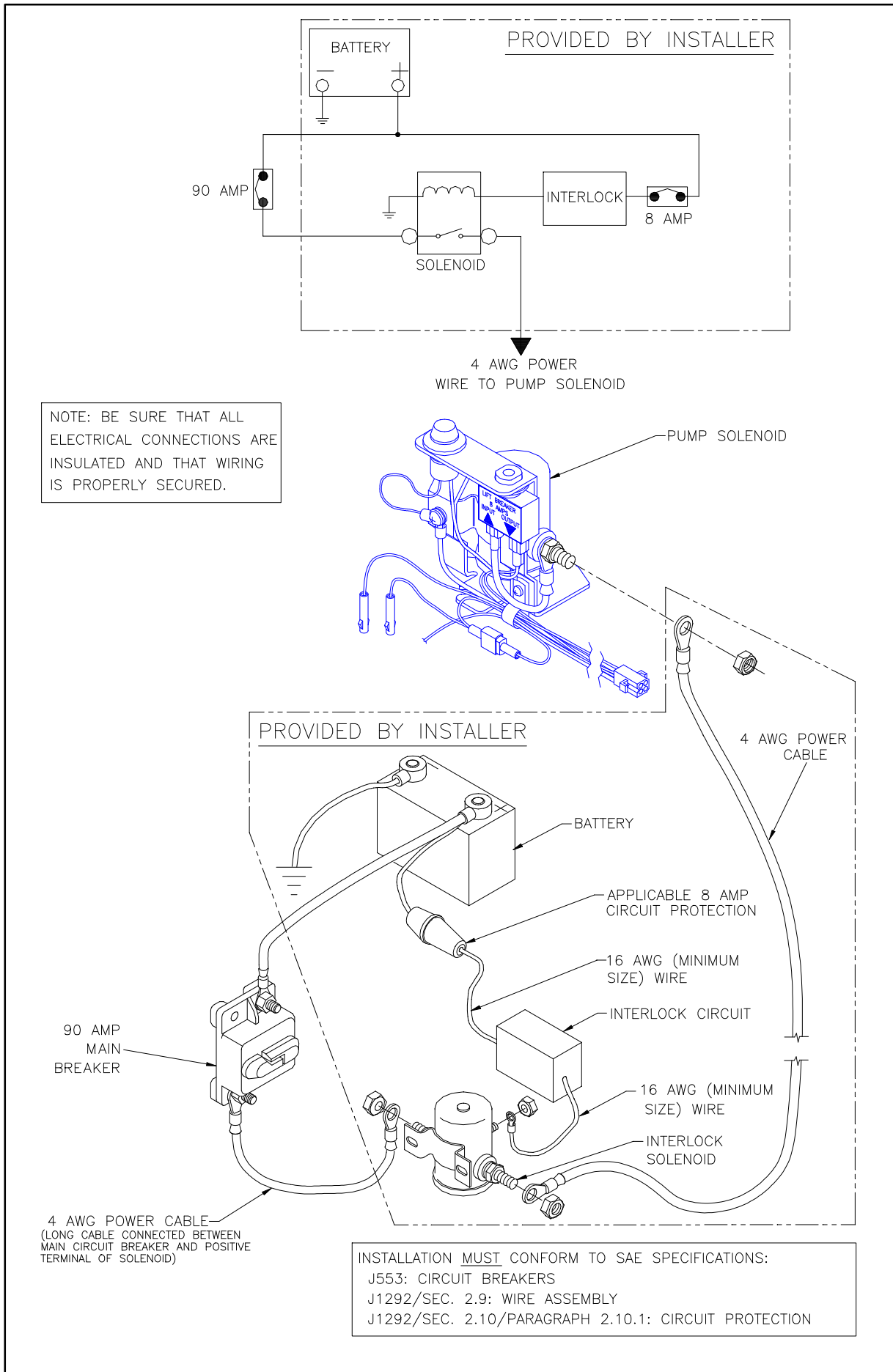


FIGURE 2-16: INTERLOCK METHOD #3

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, if needed.

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.)

- 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**.

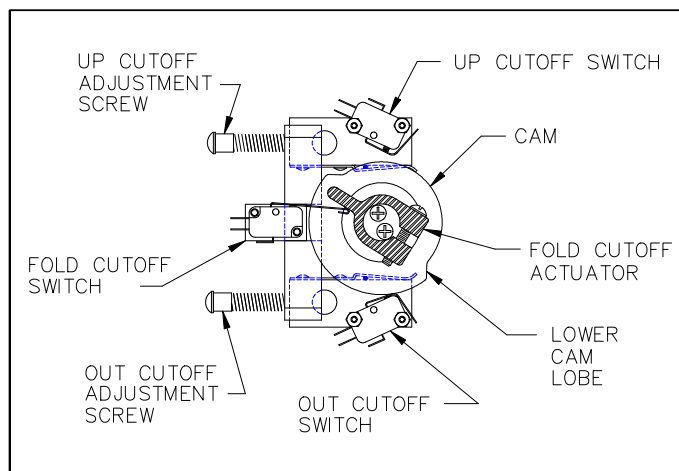


FIGURE 2-17: LIMIT SWITCH ADJUSTMENT DIAGRAM

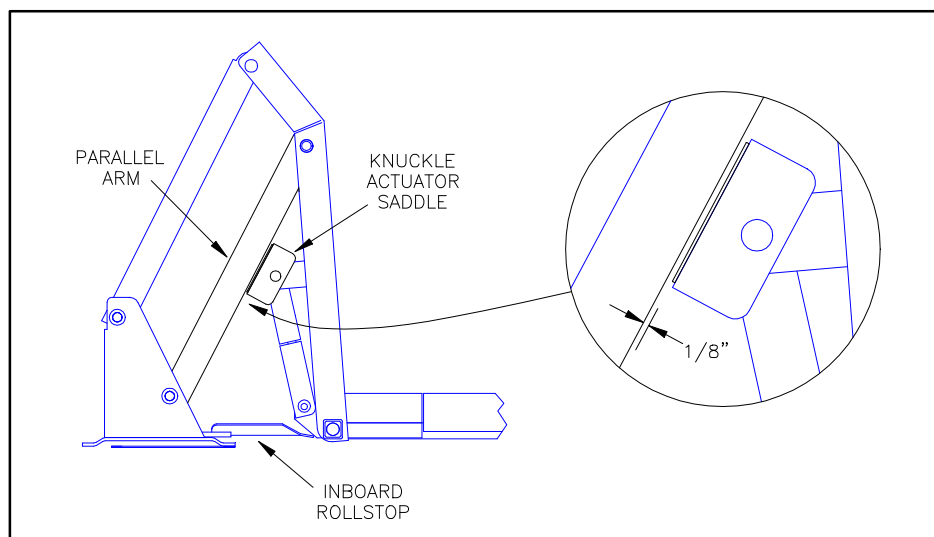


FIGURE 2-18: LIMIT SWITCH ADJUSTMENT CLEARANCE

- 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.)

- 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.	Test lift. Pump should cutoff when lift is folded tight.
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.	
END OF TABLE			

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.

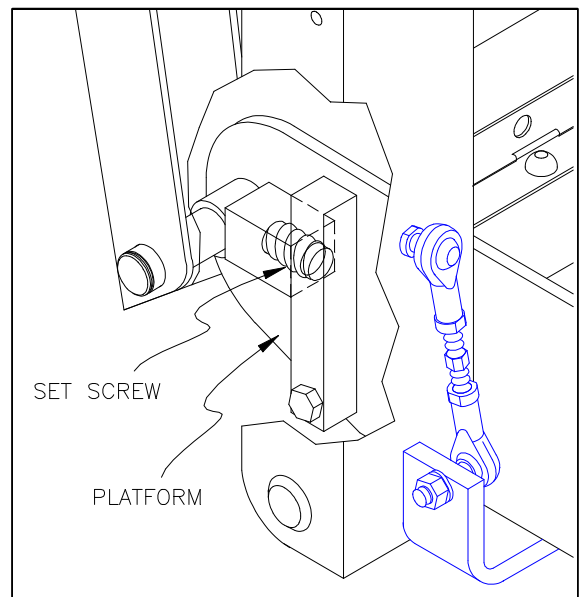


FIGURE 2-19: PLATFORM SET SCREWS

3. SPLIT PLATFORM TIE ROD ASSEMBLY INSTALLATION AND ADJUSTMENT

CAUTION

Stowing platform without tie rod assemblies installed will cause severe damage to platform. Do not attempt to stow platform before tie rod assemblies are installed and adjusted.

All S-Series split platform model lifts are equipped with tie rod assemblies, which open the platform panels as lift is stowed. Correct adjustment of these tie rods is needed to prevent tie rod breakage.

- a. Lower platform below vehicle floor level.
- b. Refer to **Figure 2-20**. Assemble rod end attachment brackets to left and right tie rod assemblies at right-hand ball joint.

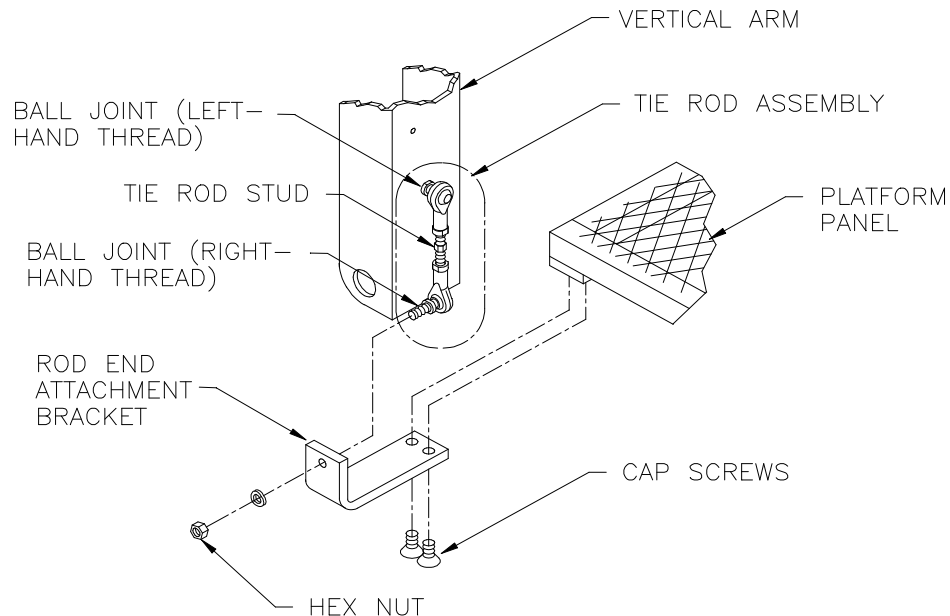


FIGURE 2-20: TIE ROD INSTALLATION

NOTE: Correct positioning of ball joint on inside of rod end attachment bracket.

- c. Assemble rod end attachment brackets to corresponding platform panels using screws and Loctite blue.

CAUTION

Do not lengthen tie rod stud to point where panel will lift off its tab support (at center of lift fork).

- d. Adjust left tie rod assembly. Adjust tie rod stud until nearly all of link free-play is out by lengthening rod.

NOTE: The left platform panel should be adjusted first so that it is slightly higher than right platform panel. This will ensure proper insertion of left panel joining pin through hole in right platform panel.

- e. Raise platform to point just before panel joining and adjust right tie rod assembly for proper joining.
- f. Lower platform below vehicle floor level.

NOTE: There must be no tension or compression on tie rod assemblies when platform is at, or below, the vehicle floor level.

- g. Stow and deploy lift several times to ensure both platform panels join correctly. Readjust, if necessary, and then tighten lock nuts against ball joints to secure adjustment.

4. 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 2-21**. 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.

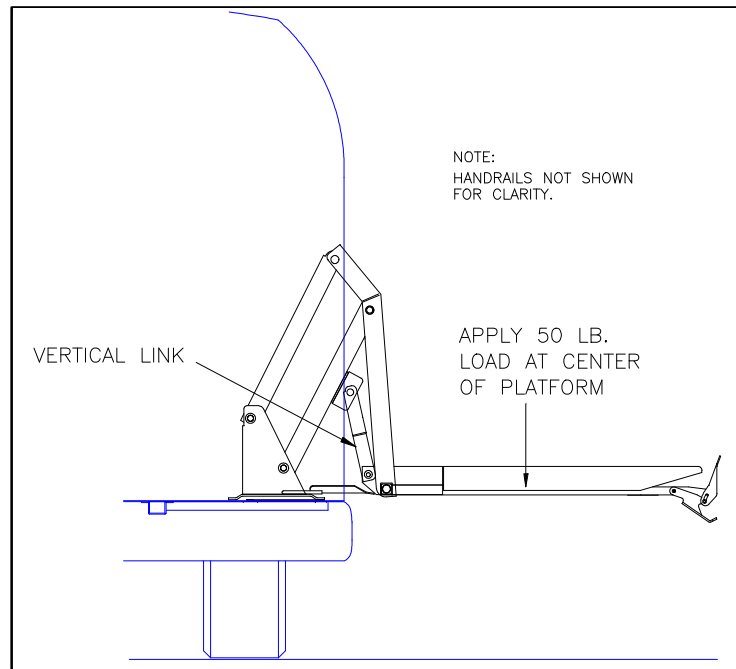


FIGURE 2-21: PRESSURE SWITCH TEST AT FLOOR LEVEL

- b. Pressure switch is correctly set if pump motor shuts off, preventing further movement of platform. There should not be excessive on/off clicking of pump motor that would indicate switch is marginally set. Proceed to next step if pump motor does not shut off.
- c. Refer to **Figure 2-22**. Remove the 1/4-20 x 1.00" set screw (with hex recess) from end of pressure switch to gain access to adjustment screw. Save screw for reinstallation.

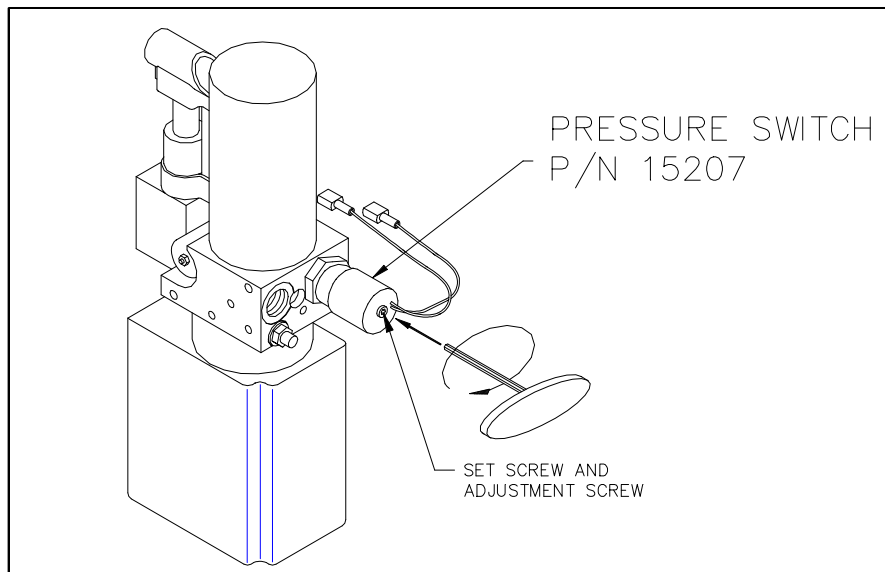


FIGURE 2-22: HYDRAULIC PUMP WITH PRESSURE SWITCH

- d. Insert a 1/8" hex wrench into pressure switch and engage adjustment screw inside. Turn screw 1/8 turn clockwise, and then repeat 50 lb. load check described above. Repeat adjustment, as necessary, to achieve correct setting.
- e. Reinstall set screw and tighten against adjustment screw.

5. **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.

- a. Refer to **Figure 2-23**. Place your left hand around knuckle vertical link assembly as shown; link is located on left side of lift.
- b. Loosen two hex-bolts shown.
- c. Exert a light downward pressure through your left-hand fingers onto load sensor bar, and retighten hex-bolts.
- d. Refer to **Figure 2-21**. 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.

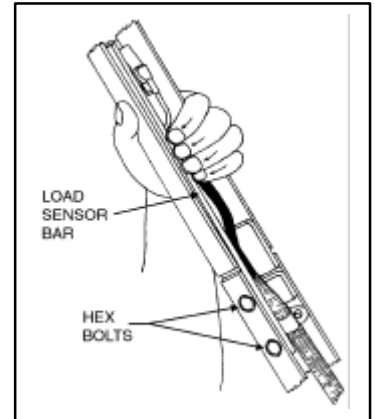



FIGURE 2-23: LOAD SENSOR ADJUSTMENT

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

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
<ul style="list-style-type: none">• 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/Service Personnel should 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 2-24** on next page and ensure that all decals are properly located and affixed as shown.

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

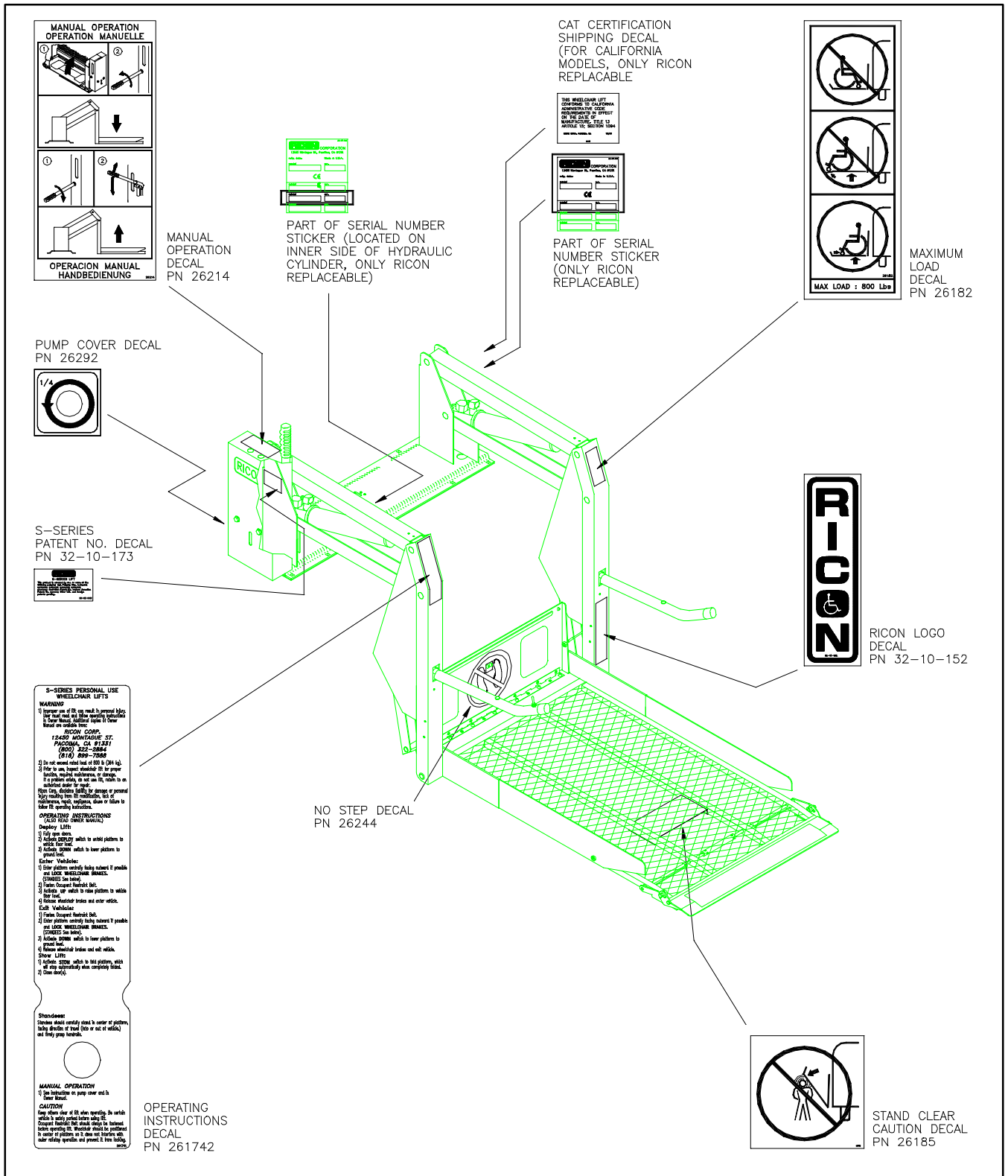


FIGURE 2-24: DECAL LOCATIONS AND PART NUMBERS