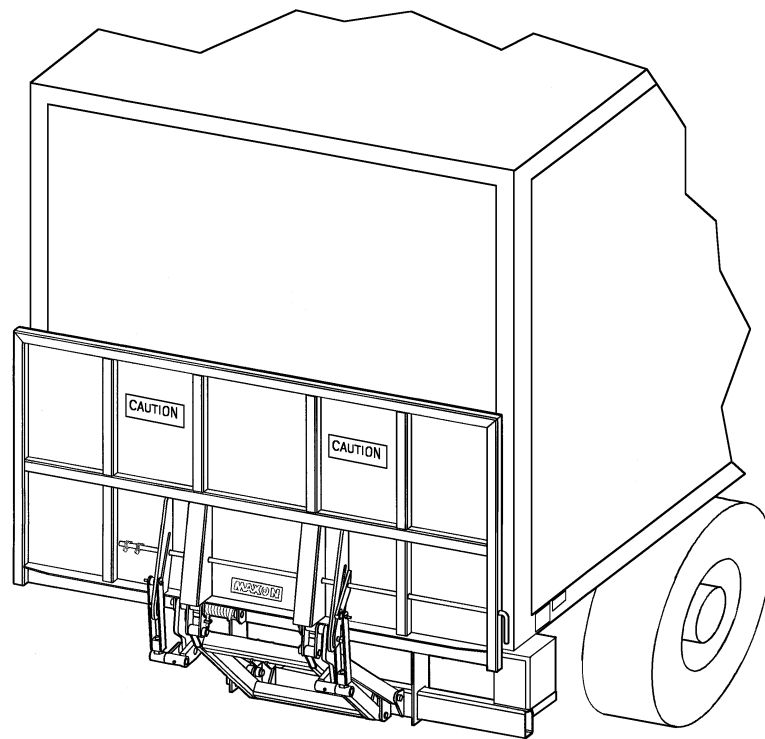


M-99-44
REV. 2
APRIL. 2000

INSTALLATION MANUAL

CONVENTIONAL

LIFTGATE SERIES



TG-150 LMV

TG-20 LMV

MAXON[®]
LIFT CORP.

11921 Slauson Avenue.
Santa Fe Springs, CA. 90670
(800) 227-4116

MAXON[®]

LIFT CORP.

**11921 Slauson Ave.
Santa Fe Springs, CA. 90670**

CUSTOMER SERVICE:

TELEPHONE (562) 464-0099 TOLL FREE (800) 227-4116

FAX: (888) 771-7713

**NOTE: Check with Customer Service for updated versions
of Manuals on an annual basis.**

WARRANTY POLICY & PROCEDURE

NEW LIFTGATE WARRANTY

Term of Warranty: 2 Years from Date of In-Service

Type of Warranty: Full Parts and Labor

MAXON agrees to replace any components which are found to be defective during the first 2 years of service, and will reimburse for labor based on MAXON's Liftgate Warranty Flat Rate Labor Schedule. (Call MAXON Customer Service for a copy).

All claims for warranty must be received within 30 Days of the repair date, and include the following information:

1. Liftgate Model Number
2. Liftgate Serial Number
3. Detailed Description of Problem
4. Corrective Action Taken, and Date of Repair.
5. Parts used for Repair, Including MAXON Part Number(s).
6. MAXON R.M.A. # and/or Authorization # if applicable (see below).
7. Person contacted at MAXON if applicable.

All warranty repairs must be performed by an authorized MAXON warranty station. For major repairs, MAXON Customer Service must be notified and an "Authorization Number" obtained. Major repairs would generally be considered repairs made to the structural assembly of the liftgate and/or repairs not outlined in the MAXON Liftgate Warranty Flat Rate Schedule.

Major components (i.e. hydraulic pumps, cylinders, valves, or failed structural parts) must be returned, freight pre-paid, prior to the claim being processed. To ensure timely processing of these warranty claims, an R.M.A. (Returned Merchandise Authorization) number must be obtained from MAXON Customer Service prior to the return of any defective part. Defective Parts must be returned within 60 days of the claim date for consideration to:

**MAXON Lift Corp.
16205 Distribution Way, Cerritos, CA 90703
Attn: RMA#__**

MAXON's warranty policy does not include the reimbursement for travel time, towing, vehicle rental, service calls, oil, batteries, defects due to misuse or abuse, or loss of income due to downtime. Fabrication of parts, which are available from MAXON, are also not covered.

MAXON's Flat Rate Labor Schedule takes into consideration the time required for diagnosis of a problem.

PURCHASE PART WARRANTY

Term of Warranty: 1 Year from Date of Purchase

Type of Warranty: Part Replacement

MAXON will guarantee all returned genuine replacement parts upon receipt and inspection of parts and invoice.

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INTRODUCTION

This publication contains the information required to install the following models and their options:

TG-150 LMV & TG-20 LMV

with 1500 and 2000 pound capacities respectively. If there is doubt regarding the suitability of these lifts being installed on the vehicle, or any portion of these instructions that you do not understand, please contact the **MAXON Customer Service Department** for consultation.

BEFORE YOU START!

The dimension of the open liftgate platform length must be added to the body length when considering proper weight distribution on the truck chassis. In other words, be mindful of the possibility that a loaded liftgate could raise the front wheels off of the ground.

Unauthorized modification to this equipment may cause failure or create hazards in it's use that are not foreseen during installation. These changes should be discussed with our Engineering Department before being undertaken.



CAUTION!



Any additional painting on the cylinder rods that retract beyond the seals, may cause premature failure and will void the warranty on the cylinders.

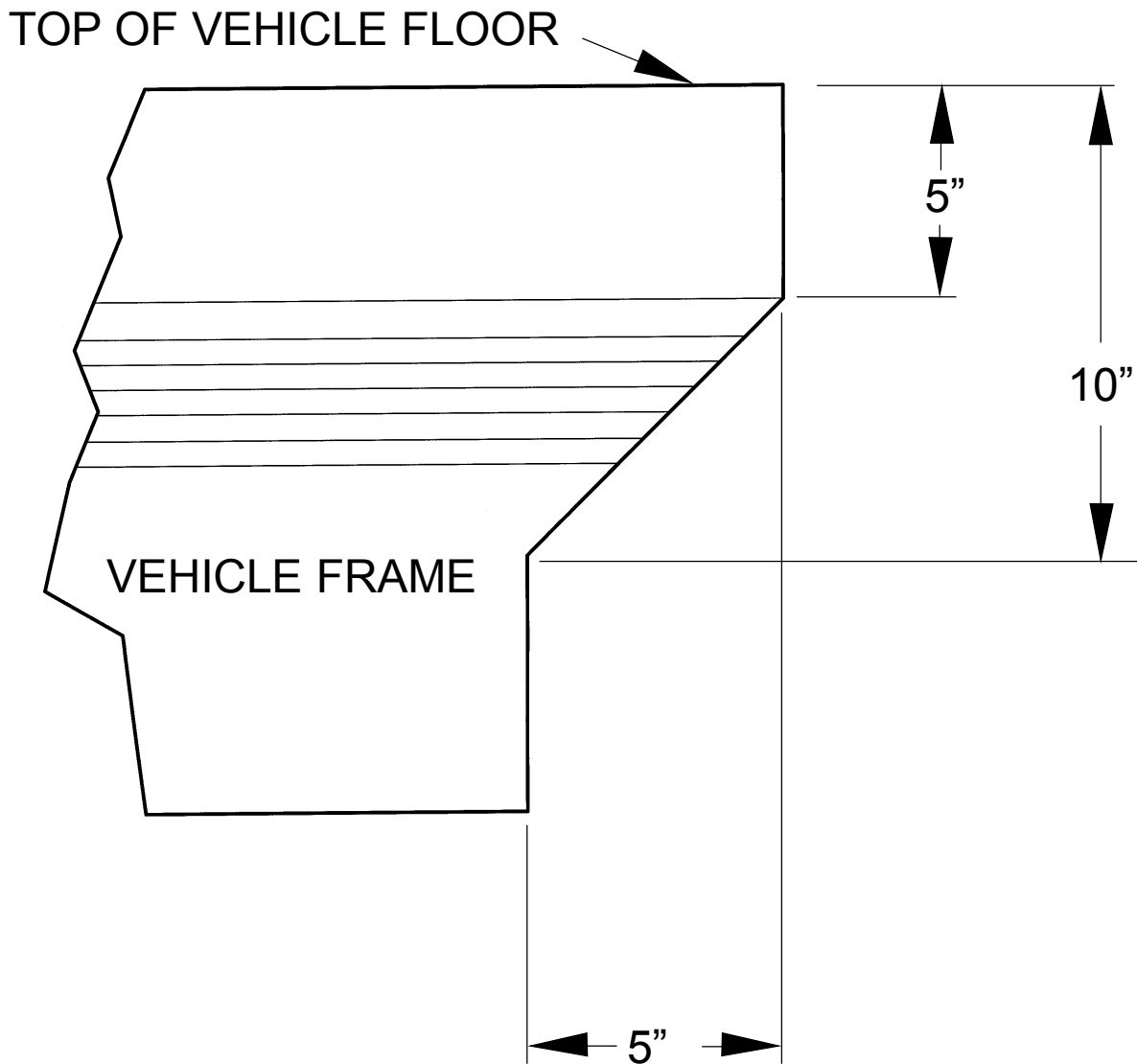
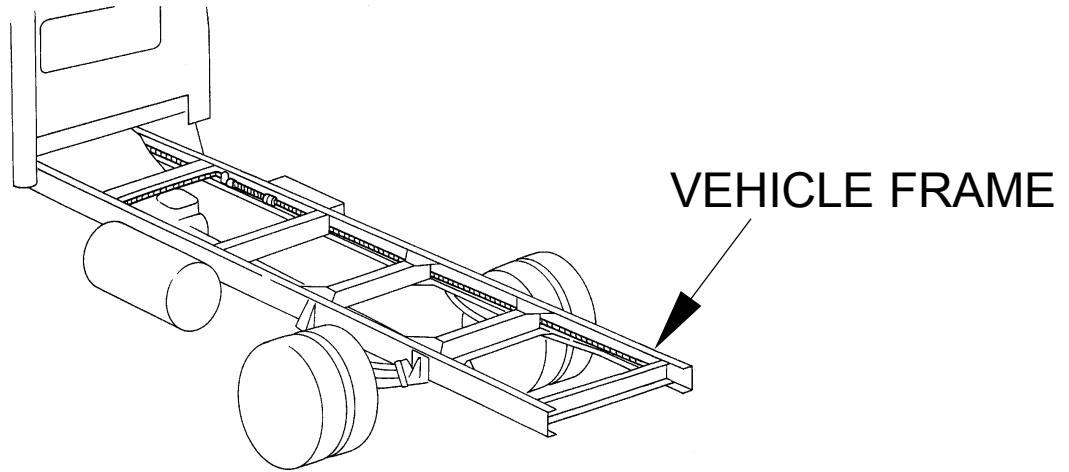
Installation of liftgates may obstruct the visibility of existing conspicuity devices. It is the responsibility of the installer to insure the vehicle meets all conspicuity requirements.

Bed height to ground requirements are: 34" Laden to 50" Unladen. These lifts may be installed on bodies with swing type doors.

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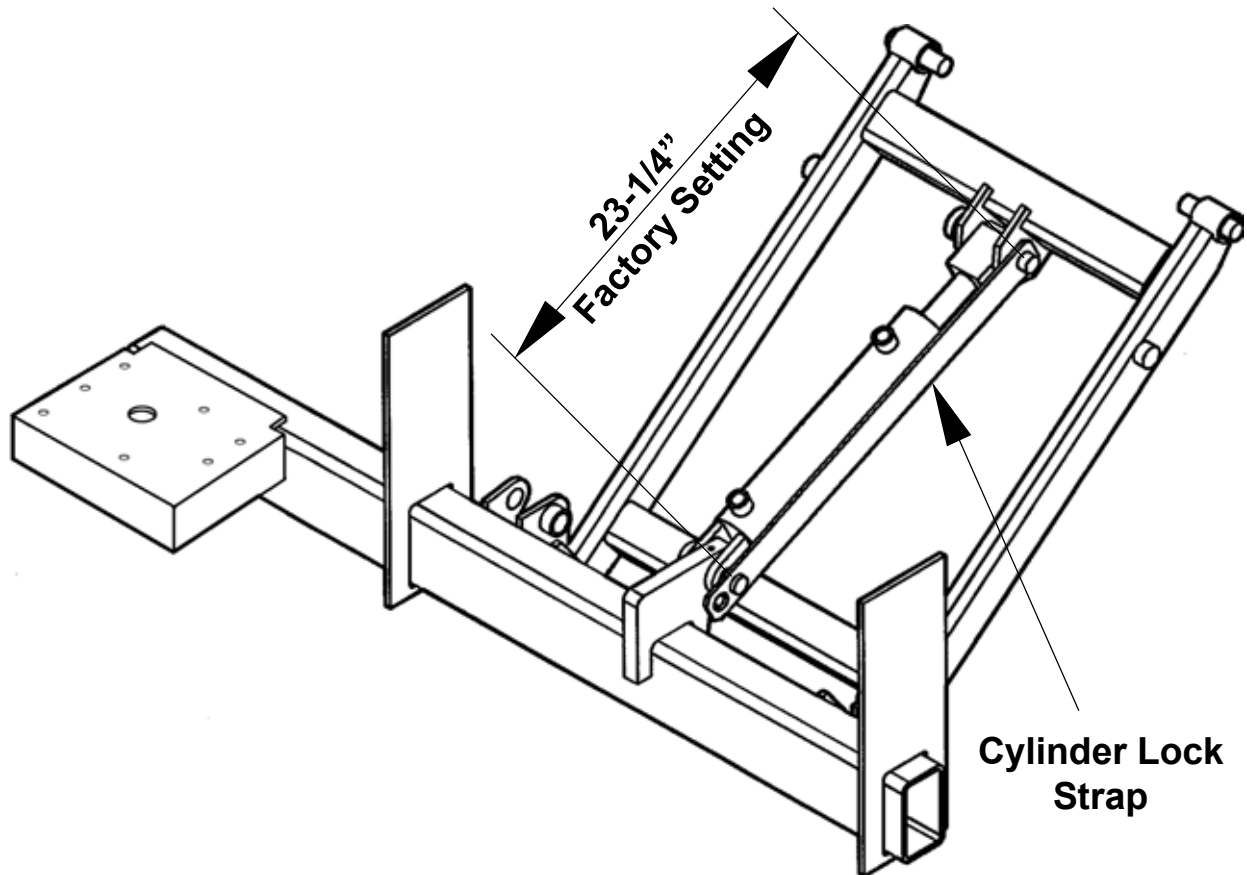
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TRUCK FRAME CUTOUT



CYLINDER LOCK STRAP

1. There are two sets of pin holes for the Cylinder Lock Strap. The shorter set of holes (23-1/4" center to center), are for bed heights of 40" to 50" from the ground. (This will be the standard setting from the factory). While the longer set of holes (24-1/2" center to center), are for bed heights of 34" to 39" from the ground.
2. Verify that the Cylinder Lock Strap is set for the proper bed height ***prior to installation.***
3. The Cylinder Lock Strap must ***not*** be removed until the unit has been welded to the vehicle, the wiring to the pump has been completed, and the hydraulic system has been activated to fill the hoses and cylinders under pressure.

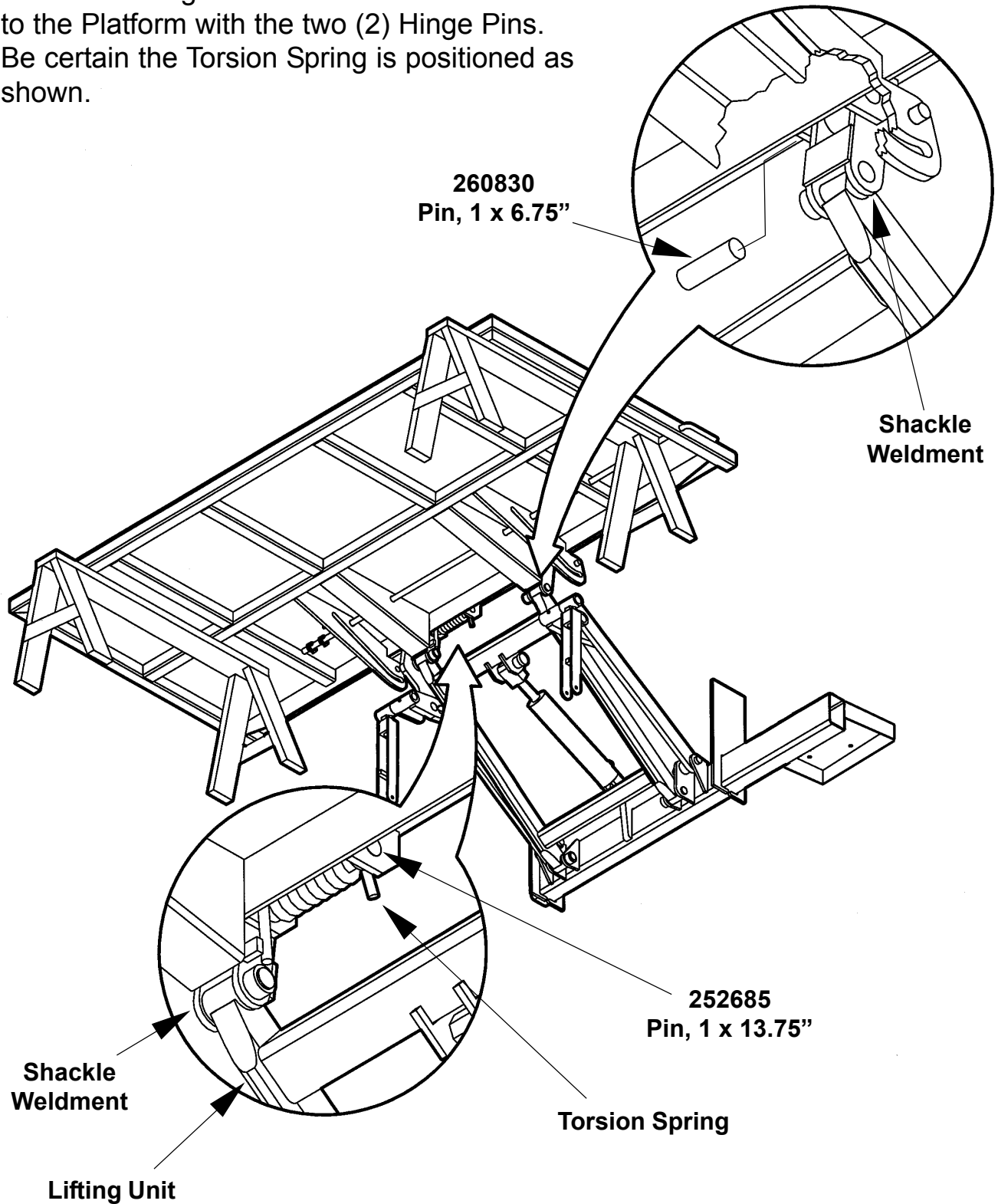


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PLATFORM INSTALLATION

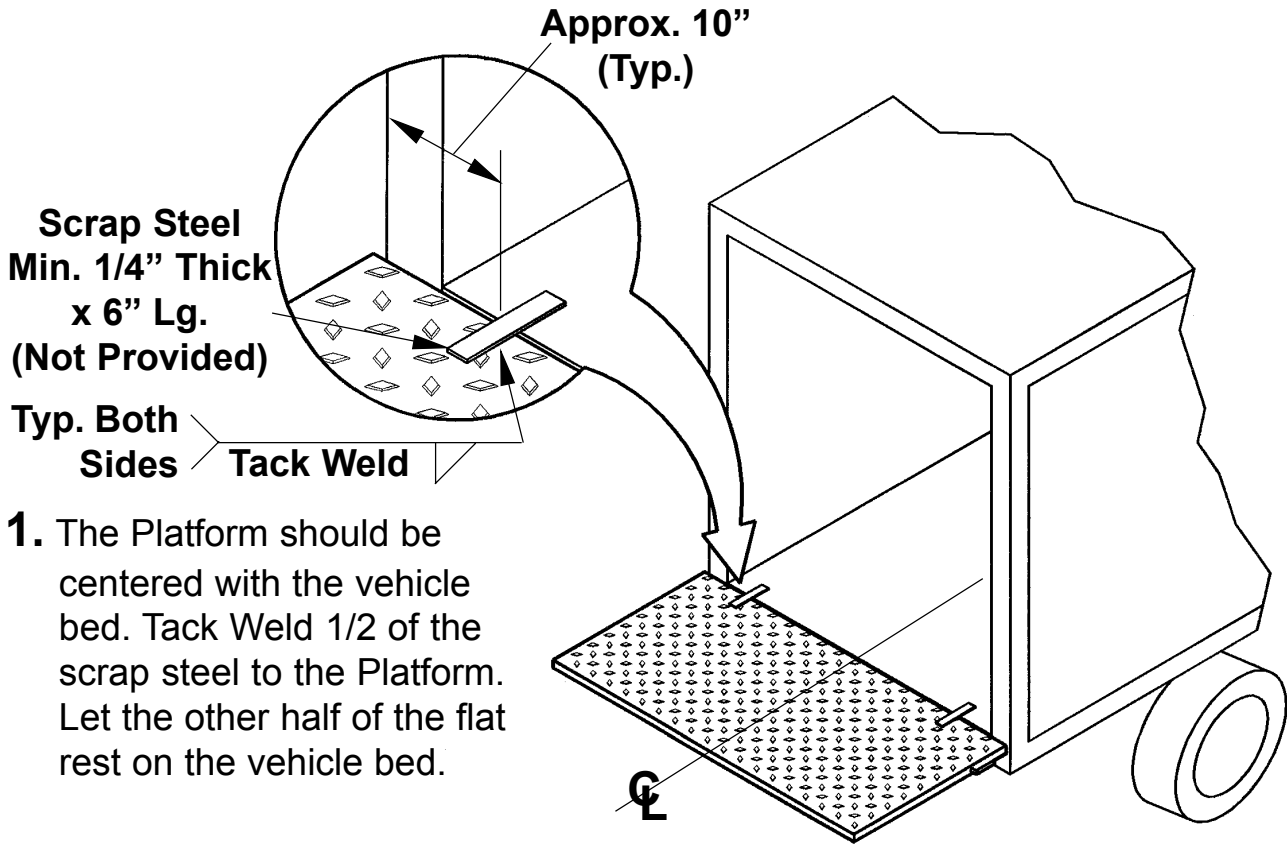
Position the Platform onto a stand.
Raise the lifting unit and secure the Shackles to the Platform with the two (2) Hinge Pins.
Be certain the Torsion Spring is positioned as shown.



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WELDING LIFTGATE TO VEHICLE

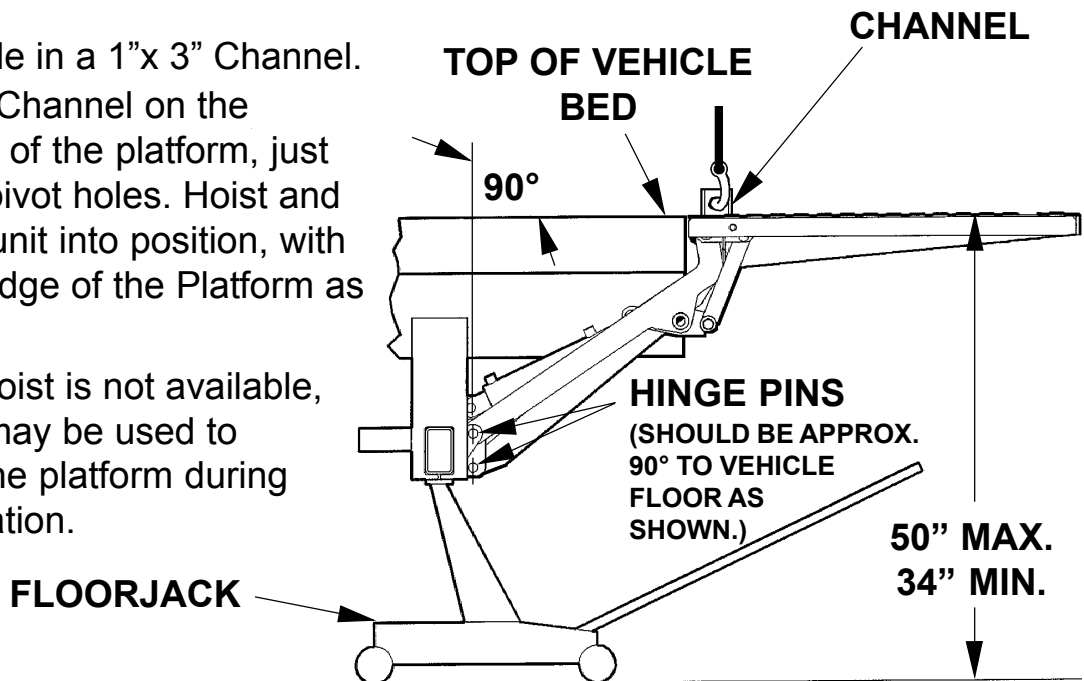
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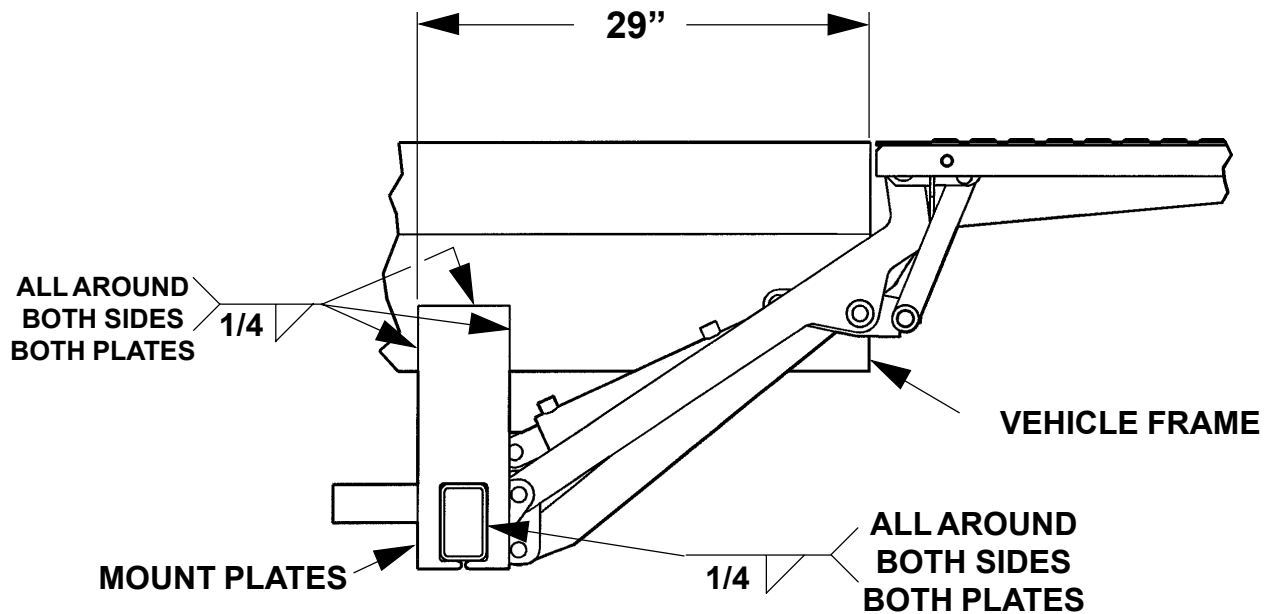
1. The Platform should be centered with the vehicle bed. Tack Weld 1/2 of the scrap steel to the Platform. Let the other half of the flat rest on the vehicle bed.

2. Burn a hole in a 1"x 3" Channel. Weld the Channel on the centerline of the platform, just over the pivot holes. Hoist and Jack the unit into position, with the rear edge of the Platform as shown.


NOTE: If a hoist is not available, a forklift may be used to support the platform during this operation.



WELDING LIFTGATE TO VEHICLE



The Mount Plates are shipped with a chassis spacing of 34". For chassis spacing greater than 34", burn off the tack welds and re-position the plates as needed.

 **IMPORTANT!** 

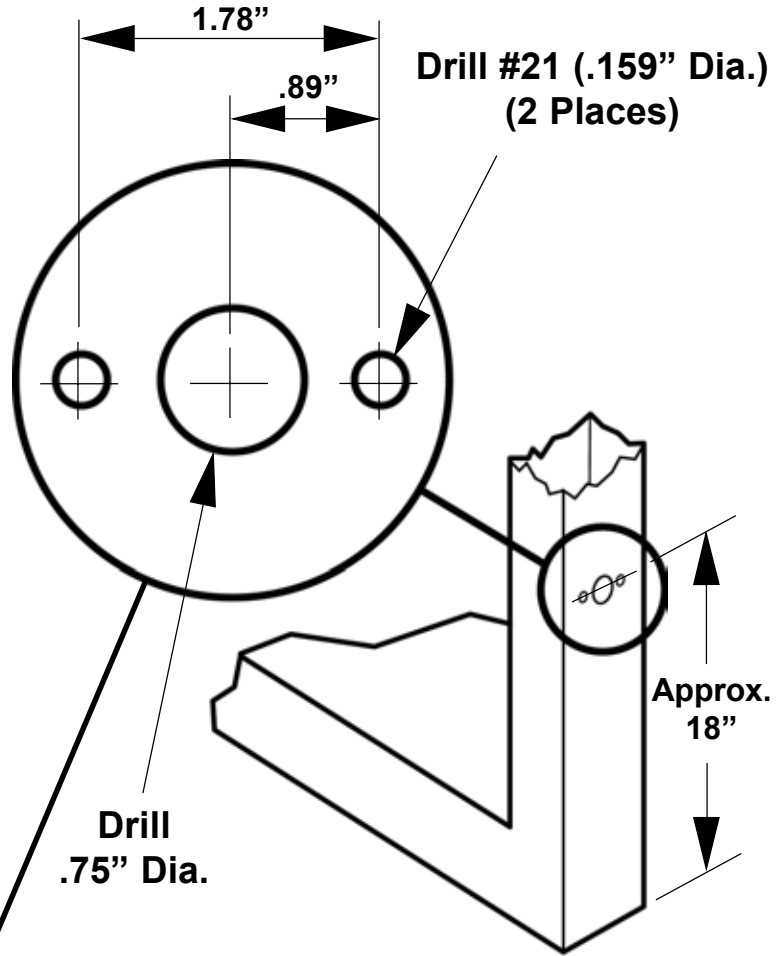
Mount Plates are only tack welded when shipped from the factory. Complete the welds as shown before using.

CONTROL SWITCH MOUNTING

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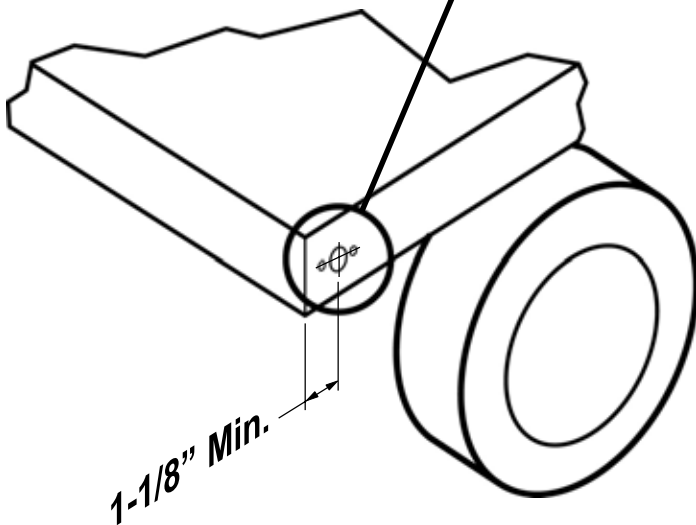
1. The Control Switch will be mounted on the vertical post of the vehicle. The surface of the vertical post should be at least 2-1/4" wide to accommodate the switch. Center the holes on the vertical post to the dimensions shown. Positioning the switch on the rear face of the vertical corner post may result in the operators hand being pinched or crushed by the closing platform. Make certain that the switch is on the outside of the corner post."



NOTE: Positioning the switch on the rear face of the vertical corner post may result in the operators hand being pinched or crushed by the closing platform. Make certain that the switch is on the outside of the corner post

2. FLATBED TRUCKS ONLY!

The surface of the side rail should be at least 2-1/4" tall. Center the holes in the middle of the side rail and drill to the dimensions shown.



POWER CABLE INFORMATION

CRIMPING

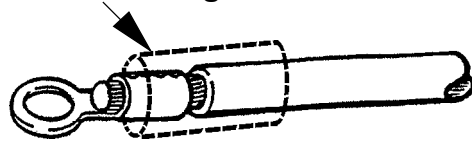
A proper crimp is one which does not have an air gap between the cable and the copper end fittings after crimping. The crimped end fitting shall not have any cracks.

Proper sized crimping dies shall be used with a hydraulic or manual crimping tool. Crimping dies which are struck with a hammer are not acceptable for initial installation, and should be used only in the case of an emergency repair. Heat Shrink tubing is provided and must be installed at each end fitting.



Extra Heavy Duty
Crimping Tool

Heat Shrink Tubing



Never use a Hammer to flatten
the End Fitting when installing
on Power Cable

ROUTING

For Trucks, route the cable along the chassis frame flange. Use caution when routing through or around chassis cross members to avoid sharp edges which could wear through the cable jacket. **MAXON** supplies cable installation clips as shown in **Fig. 1**.

For Trailers, clamps are provided in the Trailer Kit and can be bolted to the trailer cross members. This allows the cable to run under the cross members. See **Fig. 2**.

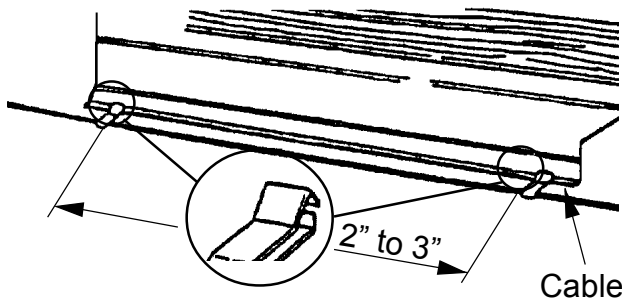


FIGURE 1

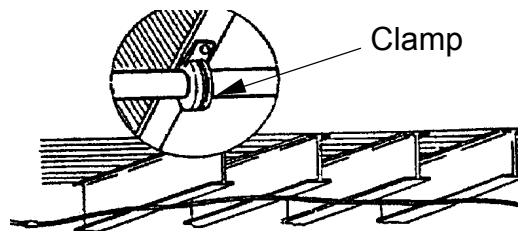
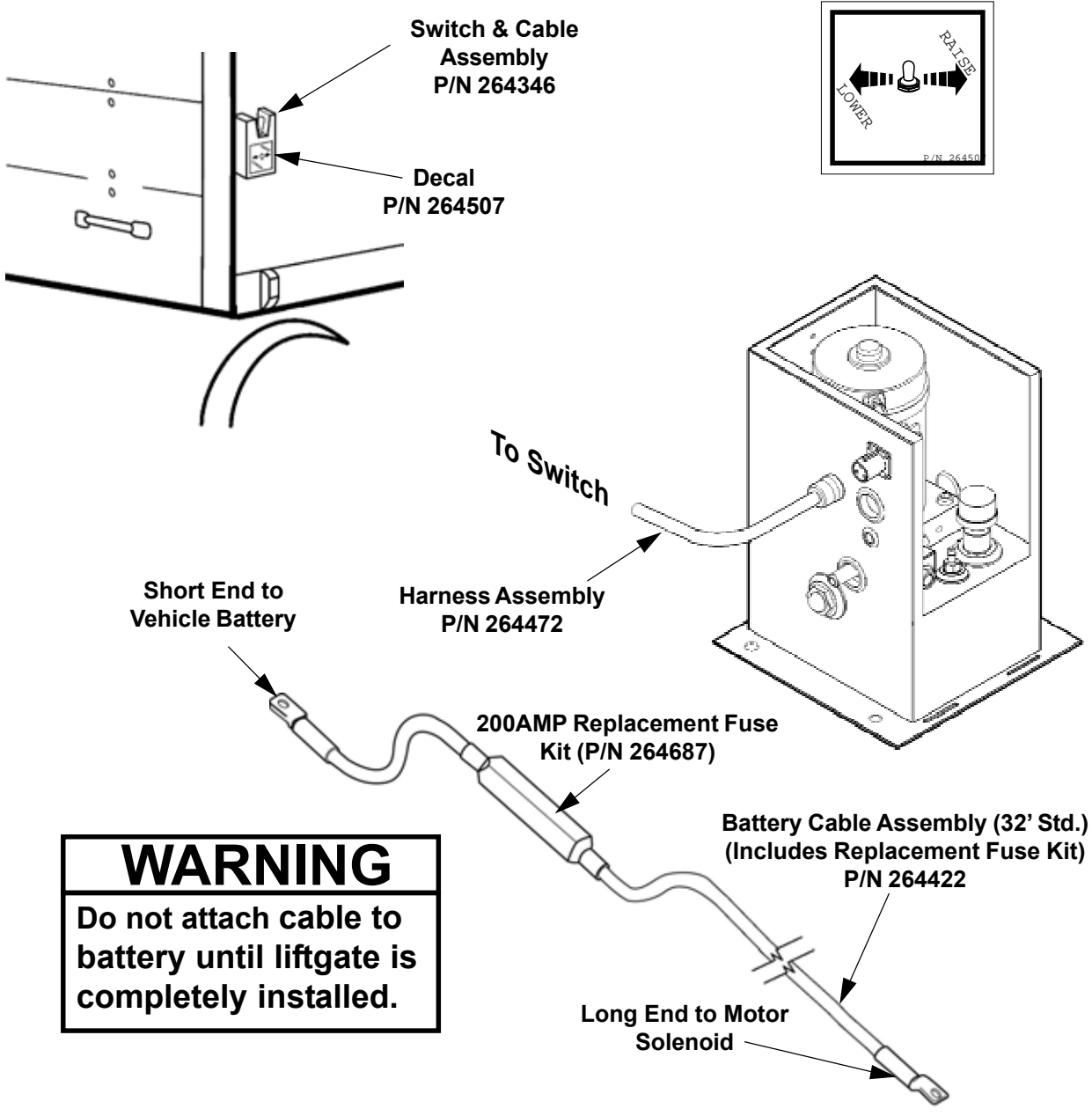


FIGURE 2

CONTROL SWITCH GRAVITY DOWN

Assemble Switch to the vertical post as shown.



WARNING
Do not attach cable to battery until liftgate is completely installed.

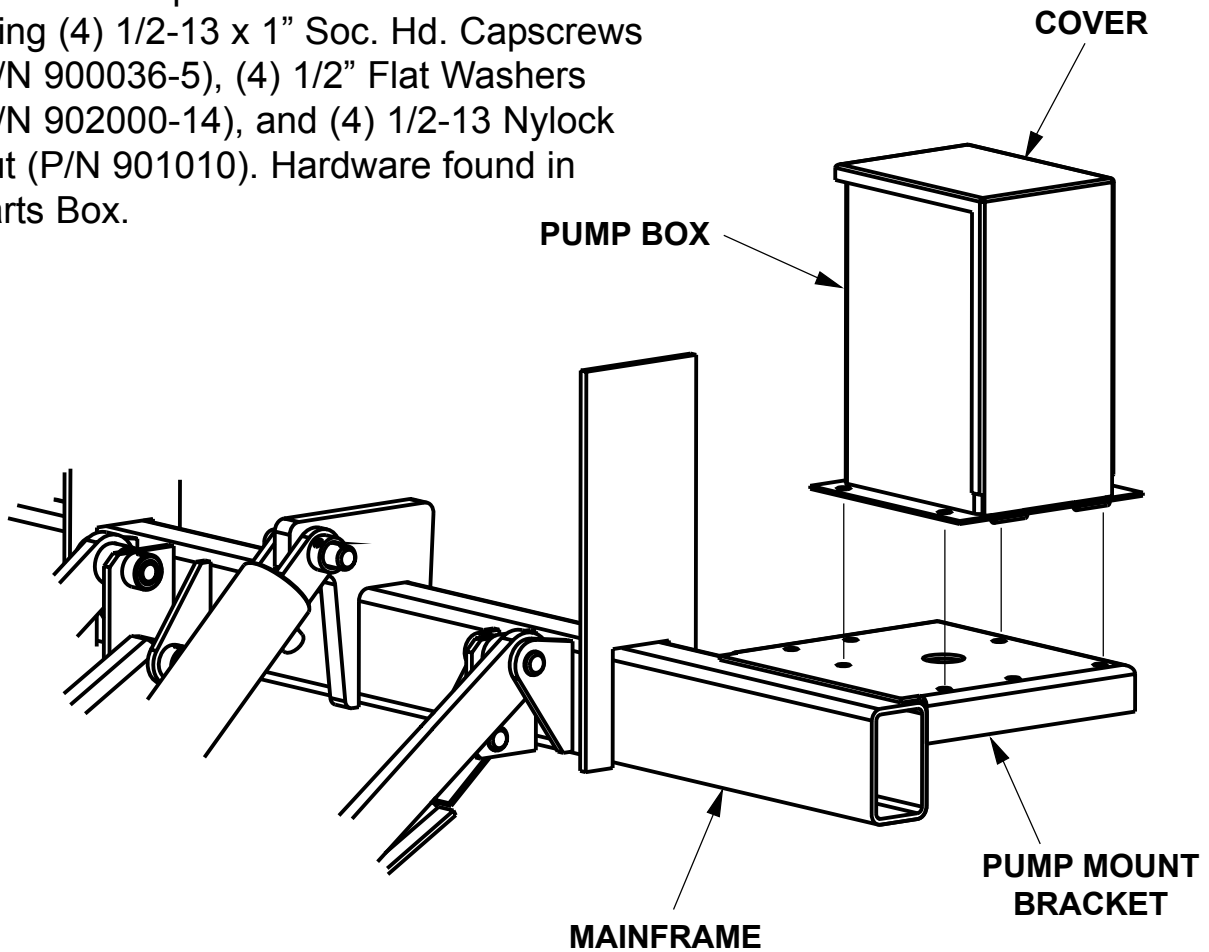
ADDITIONAL AVAILABLE BATTERY CABLE KITS

	PART NUMBER	
40' CABLE ASSEMBLY	264848	Cable Assembly
10' EXTENSION CABLE ASSEMBLY	264849	Extension Cable Assembly

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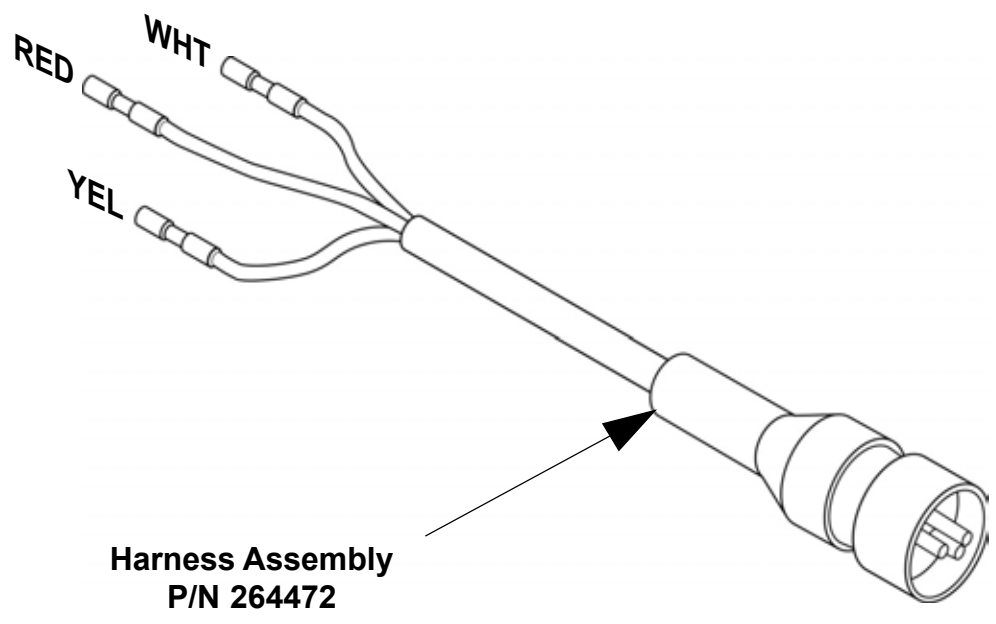
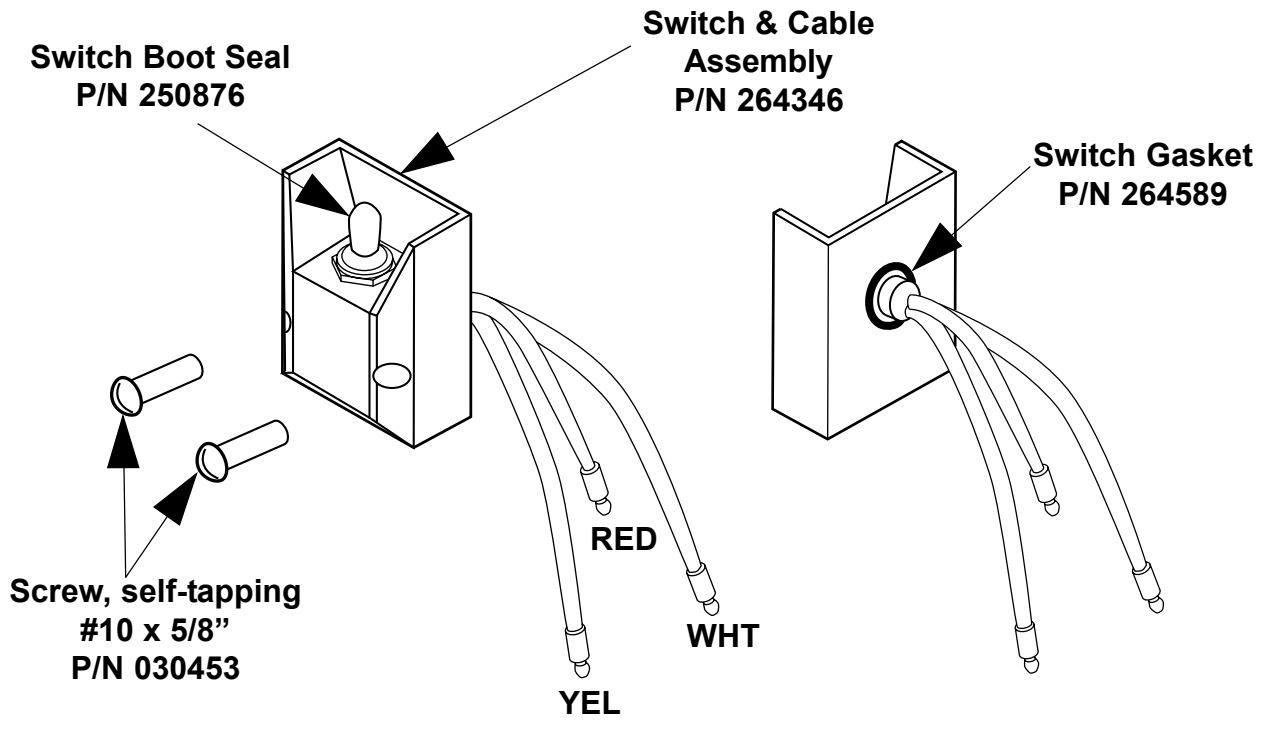
PUMP ENCLOSURE INSTALLATION

Bolt the Pump Box to the Mount Bracket using (4) 1/2-13 x 1" Soc. Hd. Capscrews (P/N 900036-5), (4) 1/2" Flat Washers (P/N 902000-14), and (4) 1/2-13 Nylock Nut (P/N 901010). Hardware found in Parts Box.

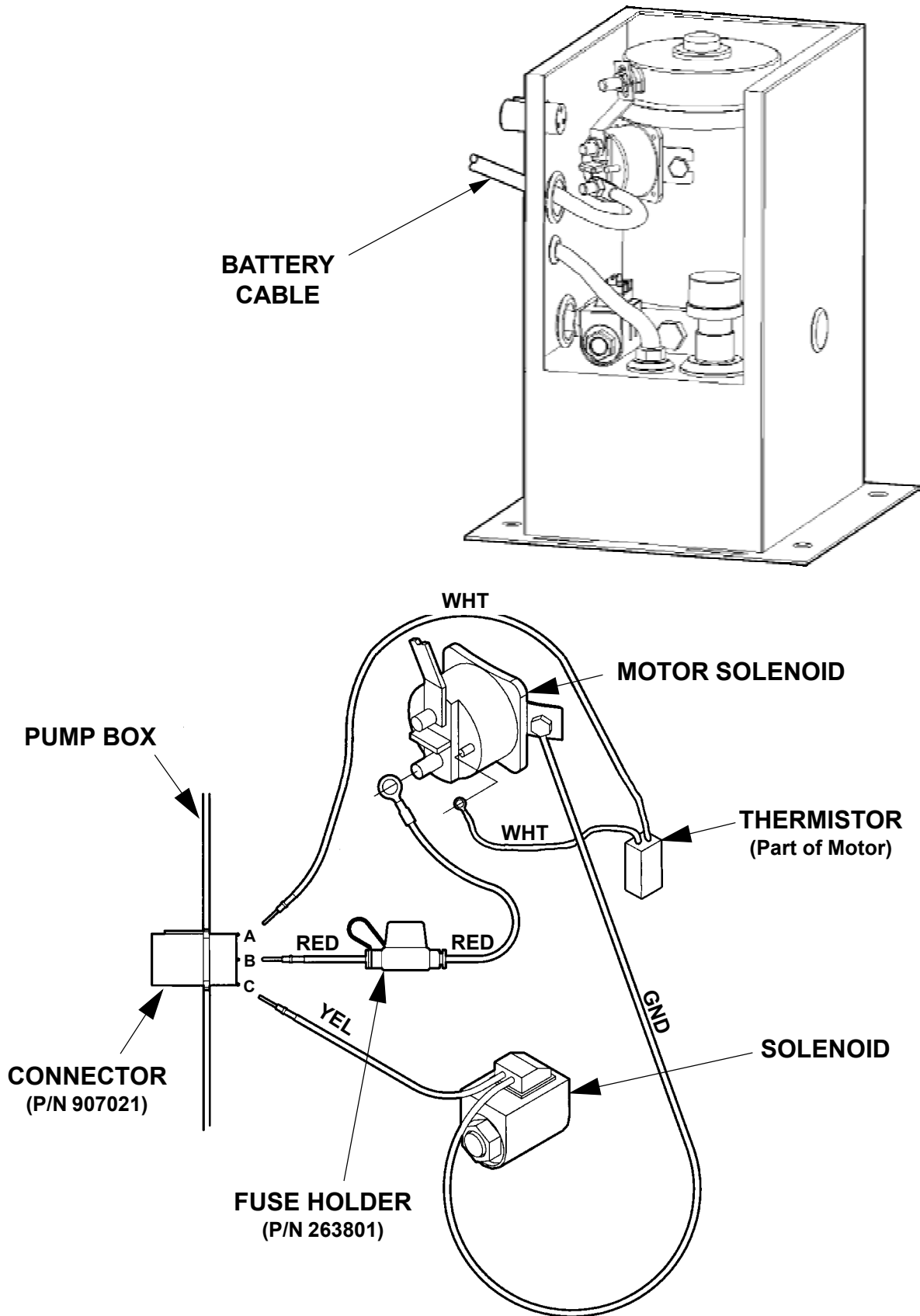


HARNESS & SWITCH ASSEMBLY

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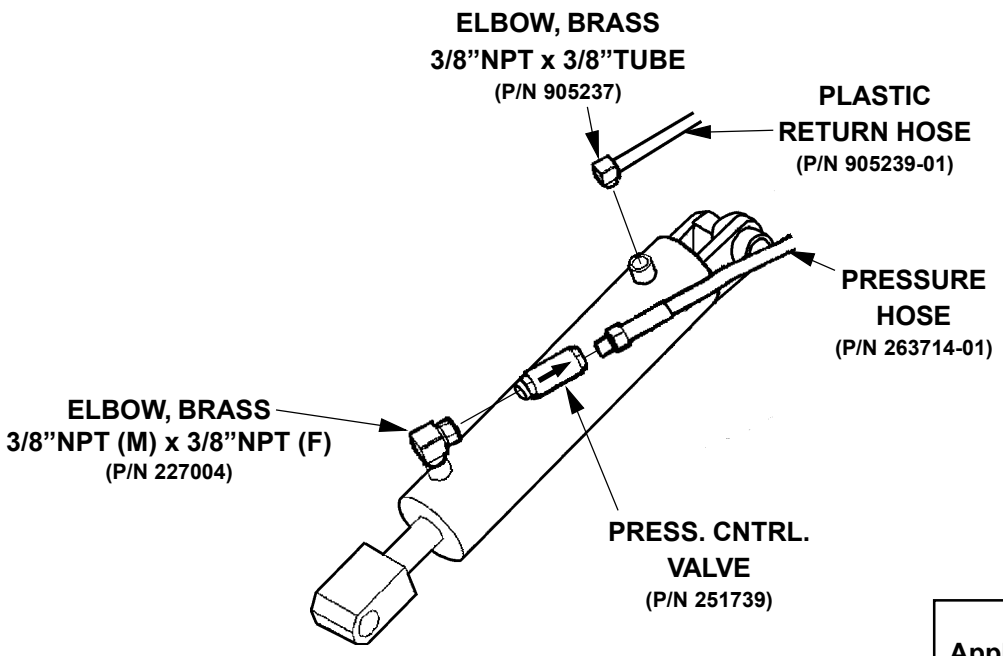
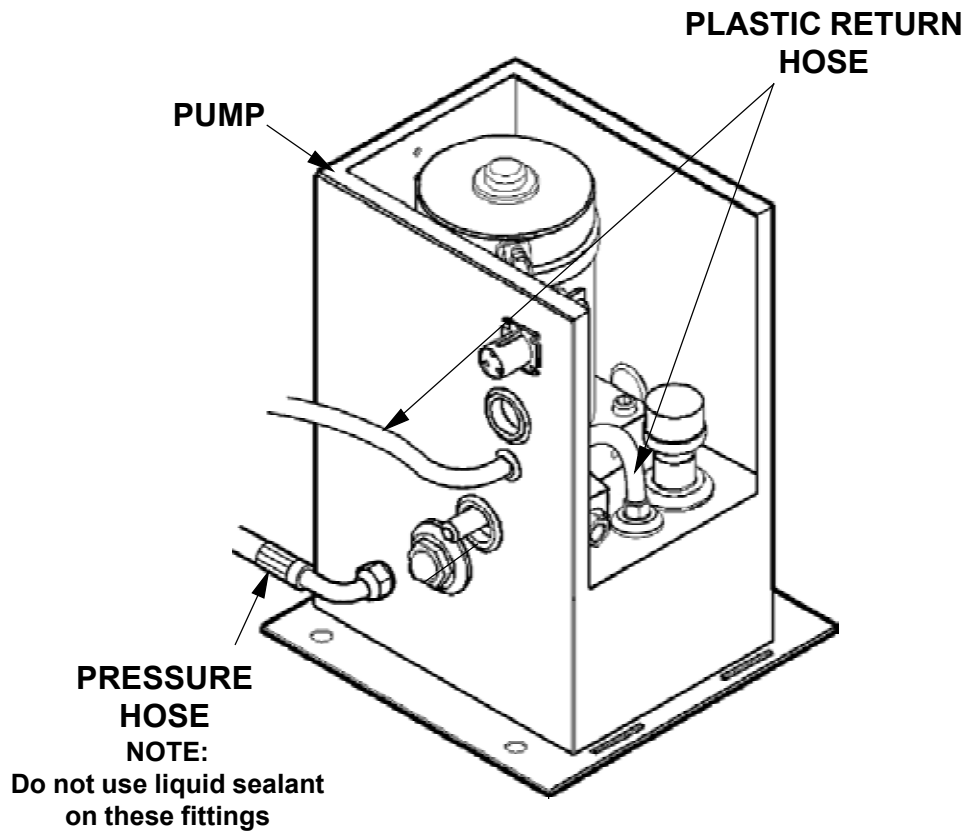


WIRE CONNECTIONS



HYDRAULIC ASSEMBLY

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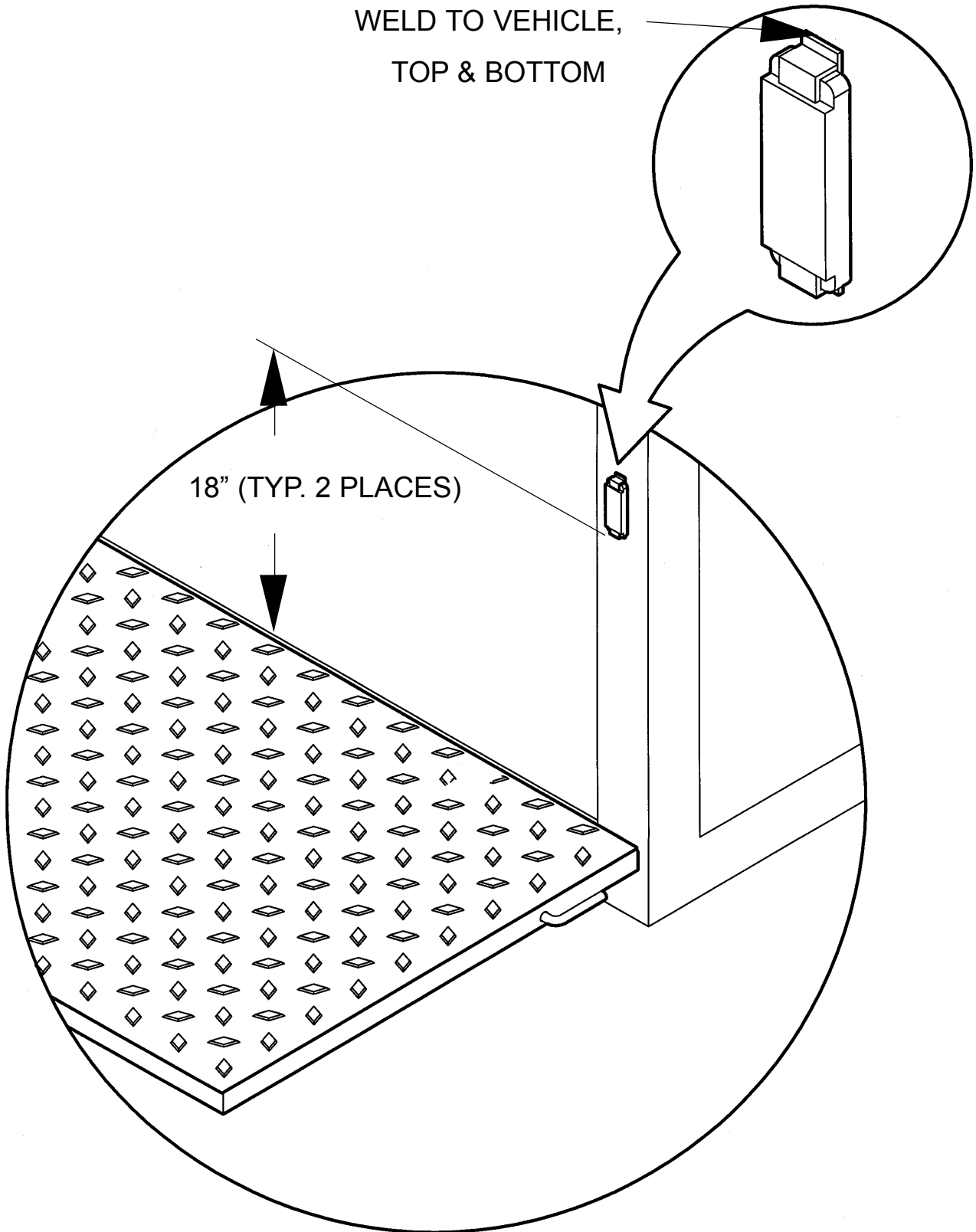


NOTE:
 Apply Sealant to connections per inside back cover of this manual

BUMPER INSTALLATION

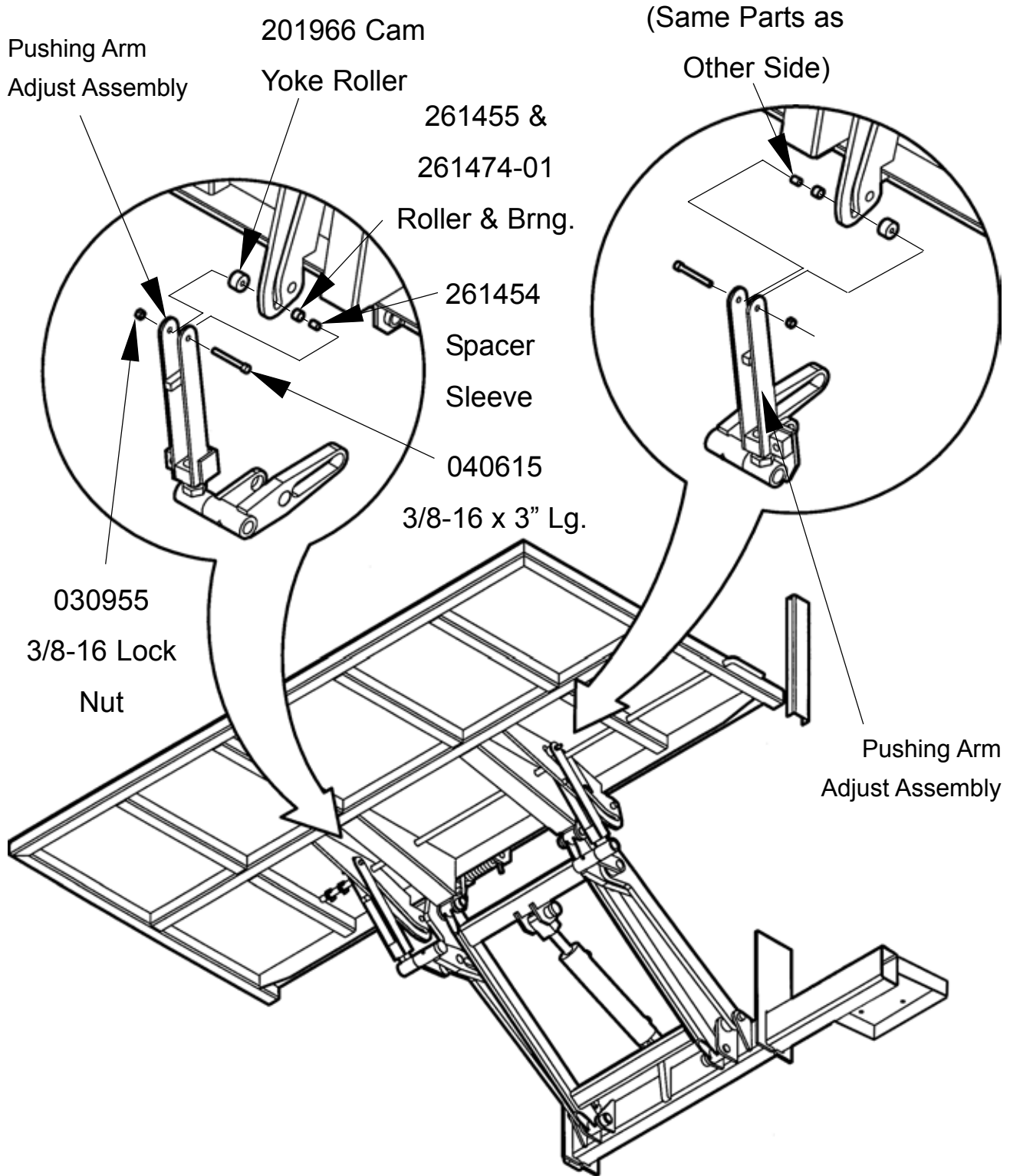
(Not Used on Flat Bed Installations)

WELD TO VEHICLE,
TOP & BOTTOM



ASSEMBLY OF PLATFORM CLOSER

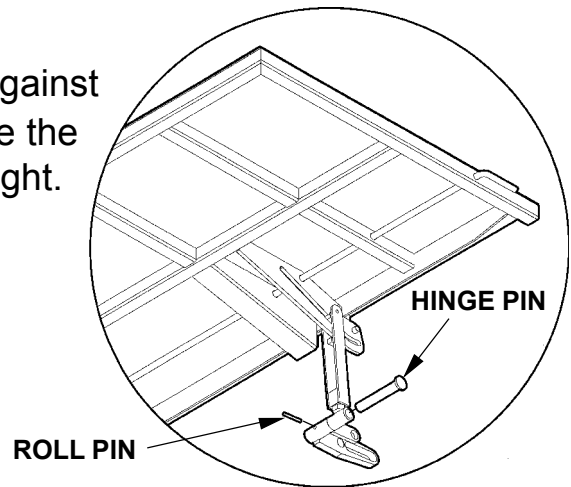
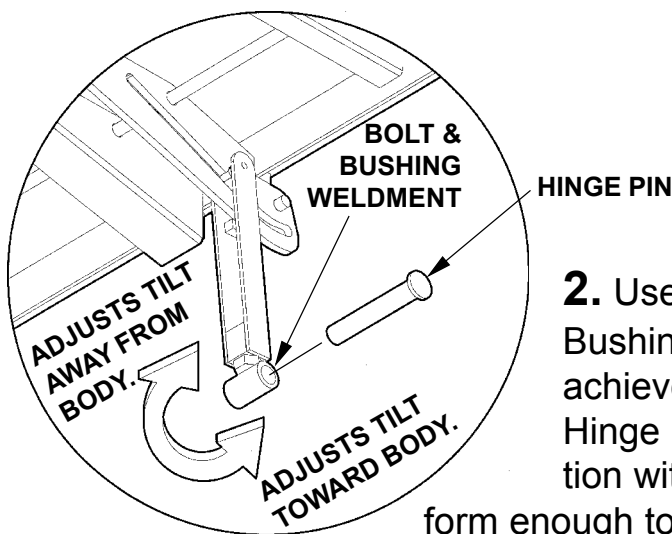
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PLATFORM ADJUSTMENT

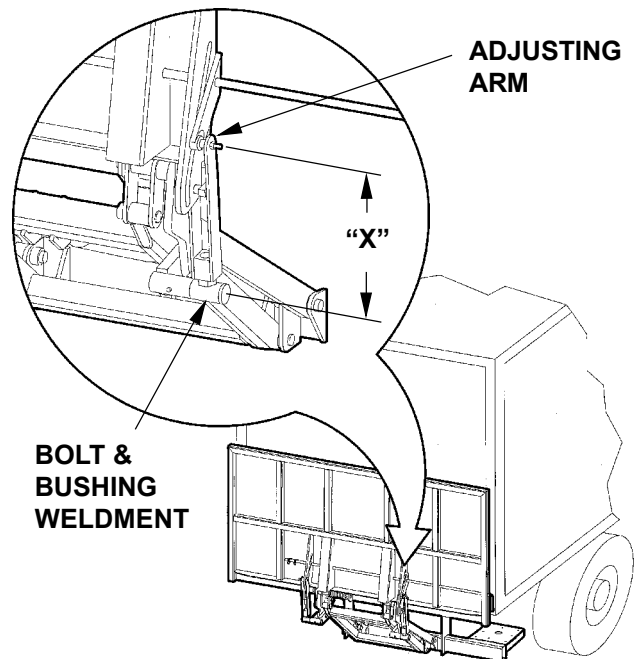
The Platform, when properly adjusted, should be in a vertical position approximately 1" from the Corner Post or "Swing Door" hardware, before finally closing against the bumpers. If this is not happening, adjust the Platform as follows:

1. Raise the Platform in the open position against the vehicle. ON ONE SIDE ONLY, remove the Roll Pin and Hinge Pin as shown to the right.



2. Use the Hinge Pin to twist the Bolt & Bushing Weldment in 1/4" increments to achieve the desired adjustment. Place the Hinge Pin back into the original configuration without the Roll Pin and lower the Platform enough to engage the handle to the closing process. The closed Platform should be vertical and flush with the bumpers. Repeat if needed.

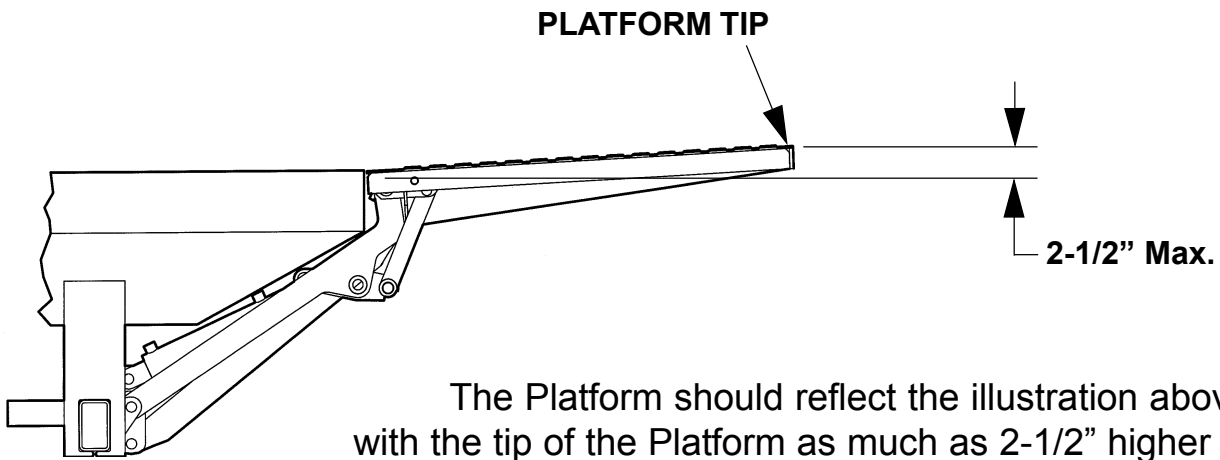
3. Once this side of the Platform is adjusted to the desired setting, replace the Hinge Pin and Roll Pin. Measure the distance from the end of the Adjusting Arm to the center of the Bolt & Bushing Weldment. Using the same procedure as described above, adjust the opposite side to the same measurement.



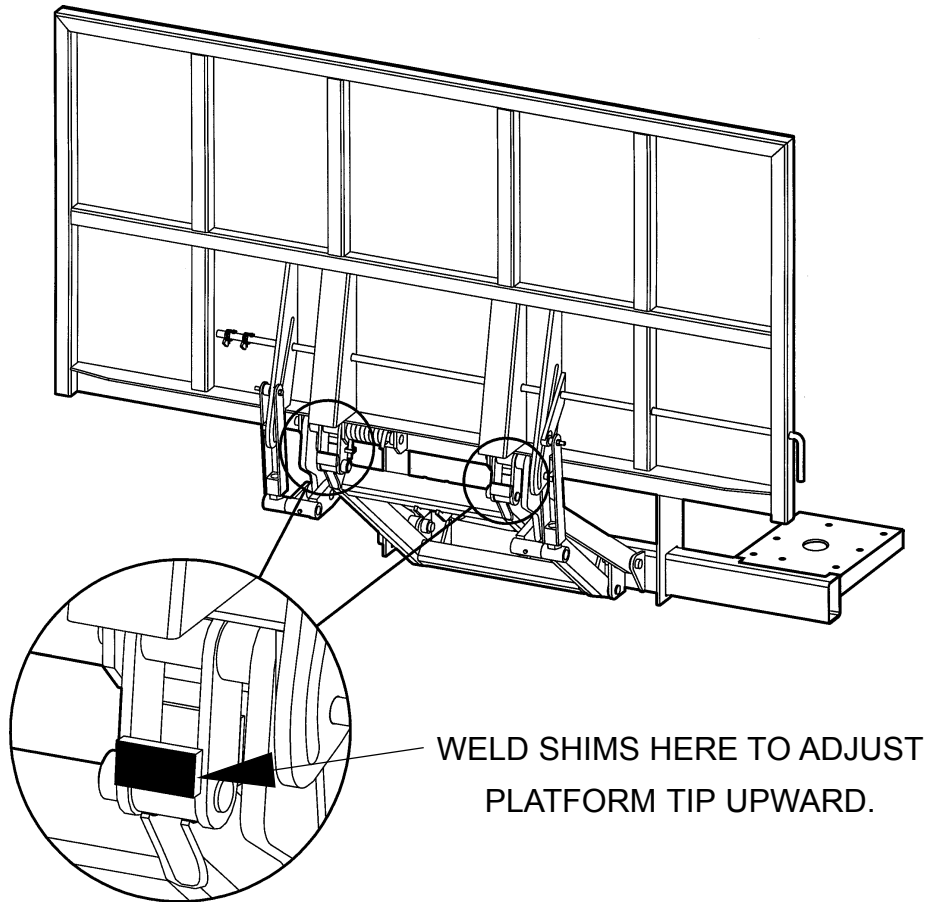
PLATFORM SHIMMING

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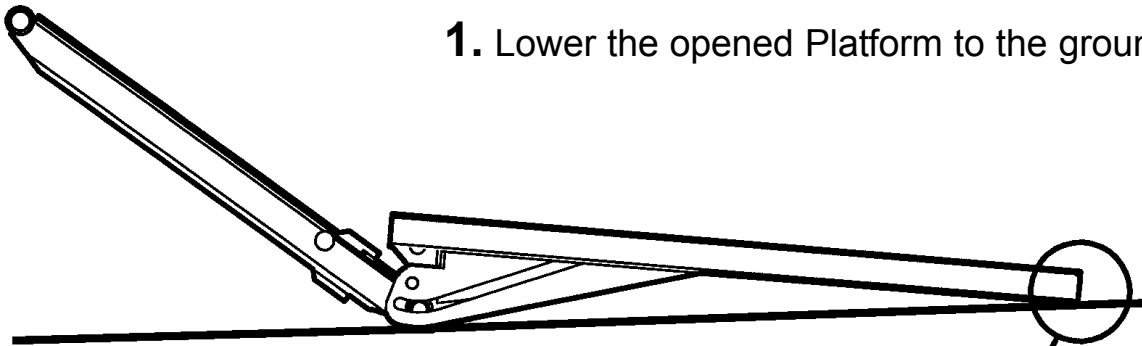


The Platform should reflect the illustration above with the tip of the Platform as much as 2-1/2" higher than the vehicle floor. This dimension will vary, according to bed height. Before adjusting, check platform at both upper and lower limits of travel. If a ramp is attached to the platform, it should touch the ground.

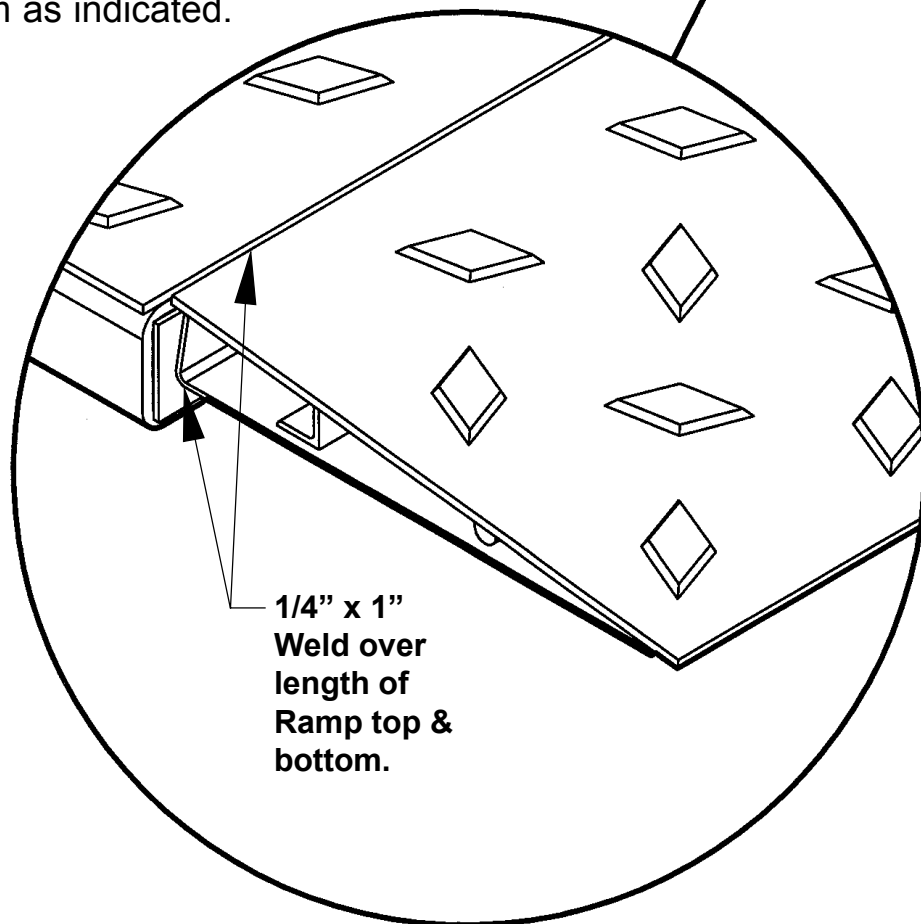


FIXED RAMP INSTALLATION INSTRUCTIONS

1. Lower the opened Platform to the ground.

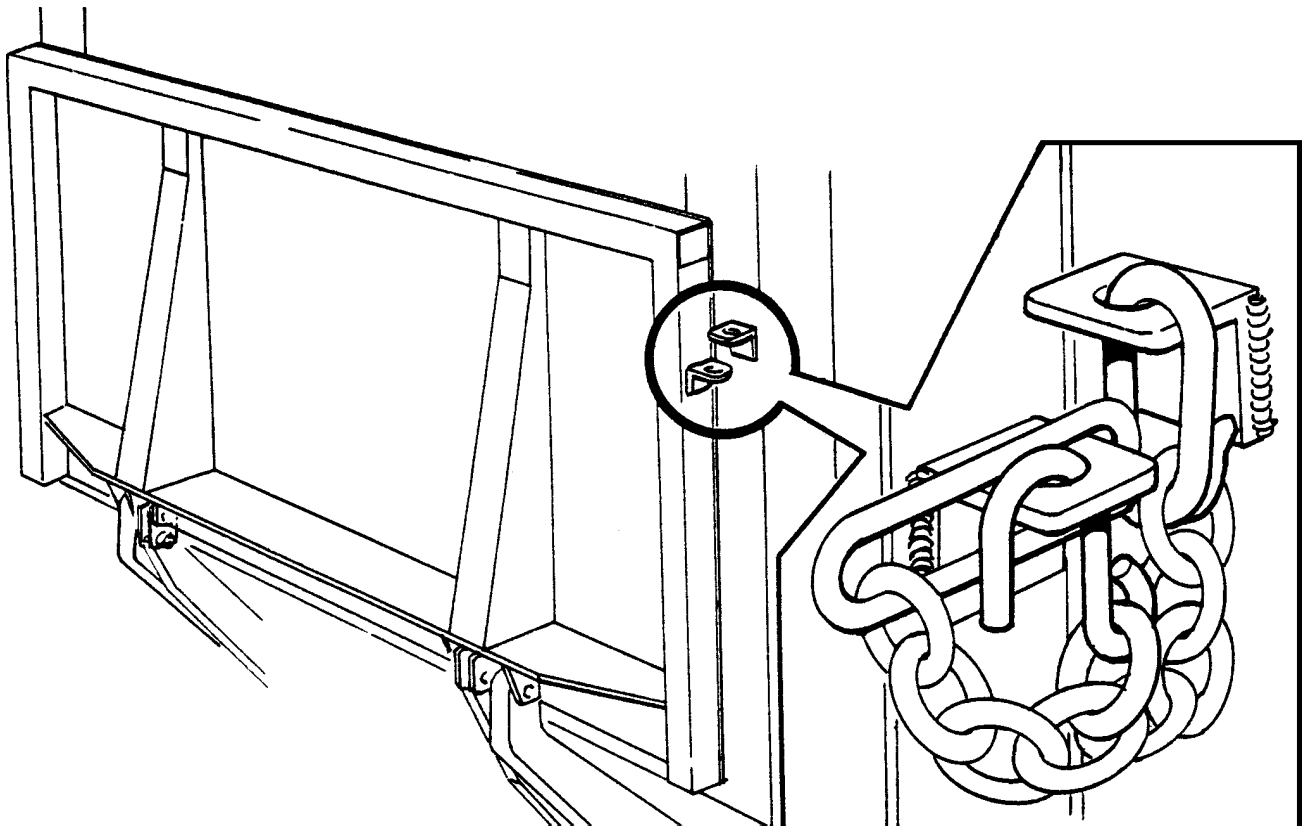


2. Center the Fixed Ramp against the Platform section, with the Diamond Plate surfaces flush, and the tip of the Fixed Ramp on the ground. Weld the top and bottom of the Fixed Ramp to the Platform as indicated.



SAFETY CHAIN LATCH

One safety chain, one repair link, and one hasp are supplied with the unit Parts Box. The hasp is to be welded to the truck corner post (curb side), approximately 1" above the hasp welded to the platform. Install the chain to the repair link, and the link to the hasp. Squeeze the ends of the link together. *Do Not Weld!*



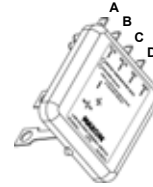
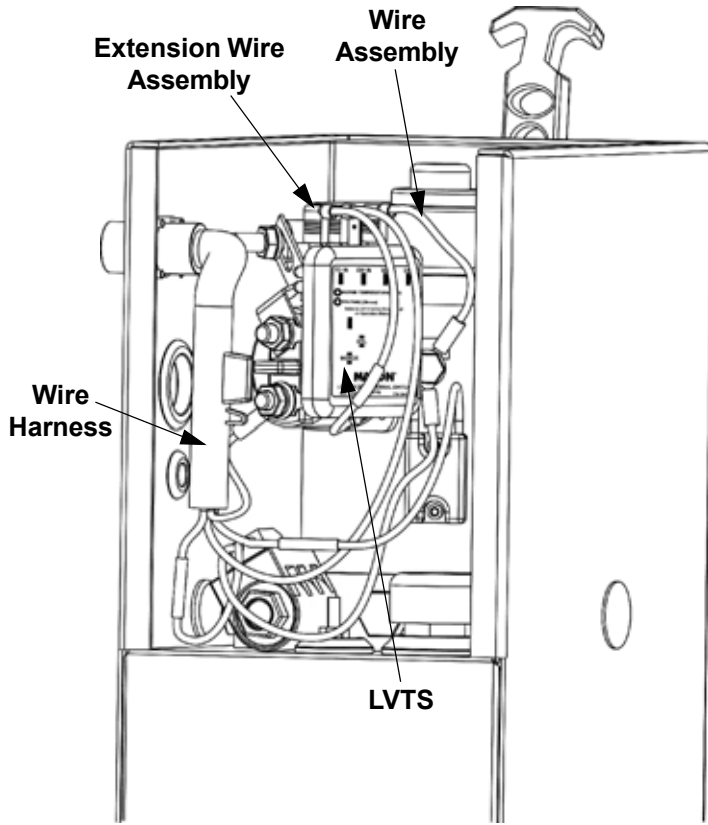
SAFETY CHAIN IN USE

IMPORTANT! Loop "S" hook from underneath the hasp as shown.

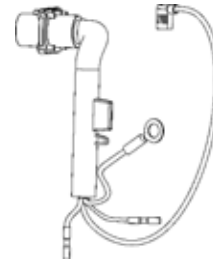
LOW VOLTAGE / THERMAL SWITCH (LVTS) (IF EQUIPPED ON LIFTGATE)

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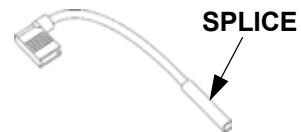
**Low Voltage/
Thermal Switch
(LVTS)
P/N 905197**



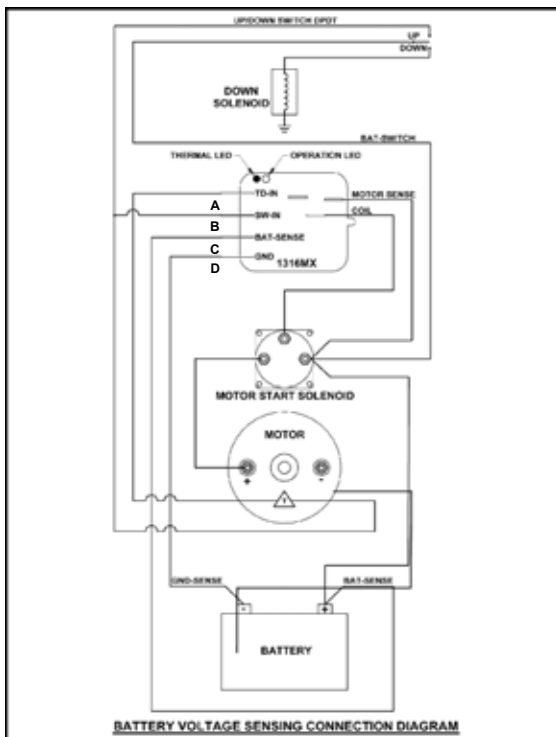
**Wire Harness
P/N 264548**



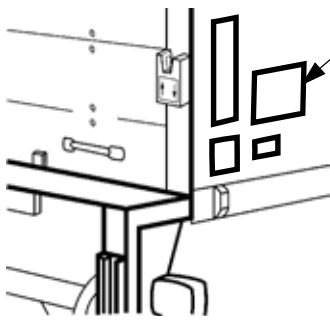
**Wire Assembly
P/N 264546**



**Extension Wire
Assembly
P/N 264755**



LOW VOLTAGE / THERMAL SWITCH (LVTS) (IF EQUIPPED ON LIFTGATE)

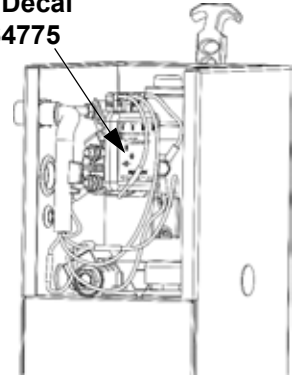


Suggested Decal Location

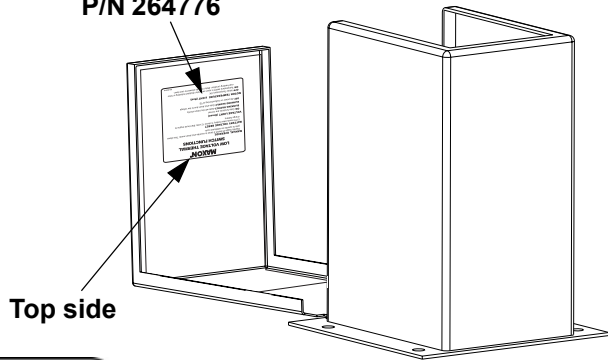
**Instruction Decal
P/N 264776**

Decals should be read and completely understood before operating the unit. They should also be kept clean and readable at all times. If any decal becomes detached from the vehicle, or is defaced, it must be replaced. Free decal replacements are available from: MAXON Lift Corp., Parts Department.

**Switch Decal
P/N 264775**



**Instruction Decal
P/N 264776**



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LOW VOLTAGE / THERMAL SWITCH (LVTS) INSTRUCTIONS

The LVTS system protection device, located inside the pump box on this liftgate, is designed to shutdown its operation when the motor temperature is too high or the battery voltage too low for reliable operation. Please follow the instructions below in the event this occurs.

VOLTAGE LIGHT (Green)


- ON**- Gate functions are normal
- BLINKING RAPIDLY**- Gate will shut down shortly
- BLINKING SLOWLY**- Gate shut down
- OFF**- No power or malfunctioning LVTS

MANUAL OVERRIDE
Rapidly toggle lift switch to the up position and back to the center position 5 times to override shut down mode. This allows gate to operate an additional cycle.

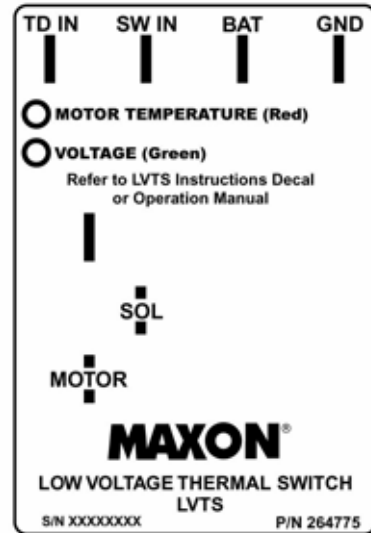
BATTERY VOLTAGE RESET
LVTS resets when battery is above 13 volts. Start truck engine to charge battery.

MOTOR TEMPERATURE LIGHT (Red)

- OFF**- Motor Temperature OK
- ON**- Motor is overheated and has shut down. Temperature switch will reset automatically and red light will go out when the motor has cooled down.



P/N 264776



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LIQUID SEALANT APPLICATION

NOTE:

Apply Sealant to NPT threads only!

1. Clean all threads with a soft brush and a suitable cleaning solvent.
2. Dry threads thoroughly with compressed air or shop towel.
3. Apply the Liquid Sealant (Compound PLS 2), to the external threads of the Male Connector.
4. Assemble the fitting and torque it to the prescribed value.
5. Check for leakage. If leakage exists, remove the fitting and return to Step # 1.
6. If fitting is loosened or removed, return to Step # 1.

