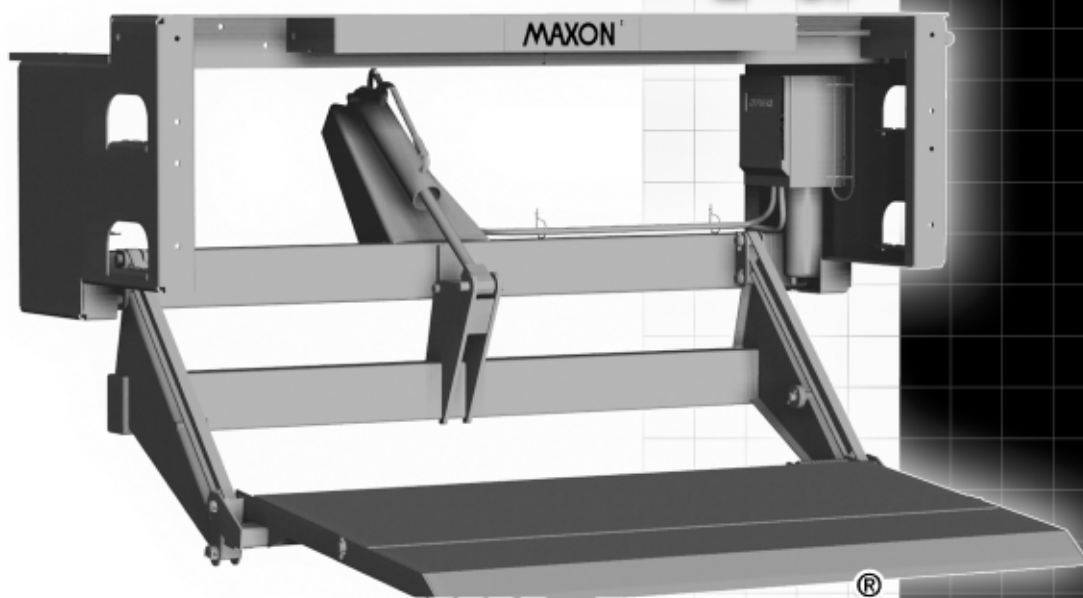


INSTALLATION

MANUAL

MAXON®



TUK-A-WAY®
LIFTGATE SERIES

MTB
72-25C • 72-30C

M-00-39
REV. A
MARCH 2002

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Comply with the following **WARNINGS** while installing Liftgates. See Operation Manual M-00-40 for operating safety requirements.

WARNING

- Read and understand the instructions in this **Installation Manual** before installing Liftgate.
- Before operating the Liftgate, read and understand the operating instructions in **Operation Manual M-00-40**.
- Comply with all **WARNING** and instruction decals attached to the Liftgate.
- Keep decals clean and legible. If decals are defaced or missing, replace them. Free replacement decals are available from **Maxon Customer Service**.
- Consider the safety and location of bystanders and location of nearby objects when operating the Liftgate. Stand to one side of the platform while operating the Liftgate
- Do not allow untrained persons to operate the Liftgate.
- Do not stand under, or allow obstructions under the platform when lowering the Liftgate. **Be sure your feet are clear of the Liftgate.**
- **Keep fingers, hands, arms, legs, and feet clear of moving Liftgate parts (and platform edges) when operating the Liftgate.**
- **Correctly stow platform when not in use. Extended platforms could create a hazard for people and vehicles passing by.**
- **Make sure vehicle battery power is disconnected** while installing Liftgate. Connect vehicle battery power to the Liftgate only when installation is complete or as required in the installation instructions.
- Wear appropriate safety equipment such as protective eyeglasses, faceshield and clothing while performing maintenance on the Liftgate and handling the battery. Debris from drilling and contact with battery acid may injure unprotected eyes and skin.
- Be careful working by an automotive type battery. Make sure the work area is well ventilated and there are no flames or sparks near the battery. Never lay objects on the battery that can short the terminals together. If battery acid gets in your eyes, immediately seek first aid. If acid gets on your skin, immediately wash it off with soap and water.
- If an emergency situation arises (vehicle or Liftgate) while operating the Liftgate, release the control Toggle Switch and the Liftgate will stop.
- A correctly installed Liftgate operates smoothly and reasonably quiet. The only noticeable noise during operation comes from the pump unit while the platform is raised. Listen for scraping, grating and binding noises and correct the problem before continuing to operate Liftgate.
- If it is necessary to stand on the platform while operating the Liftgate, keep your feet and any objects clear of the inboard edge of the platform. Your feet or objects on the platform could be trapped between the platform and the Liftgate extension plate.
- Never perform unauthorized modifications on the Liftgate. Modifications may result in early failure of the Liftgate and may create hazards for Liftgate operators and maintainers.

TRUCK BODY STRENGTH REQUIREMENTS



WARNING

Consult truck body manufacturer for truck body strength data. Make sure the forces created by the Liftgate are within the limits prescribed by truck body manufacturer.

NOTE: BODY Maximum and Minimum Operating Bed Height:

For Standard Platform and Platform with Aluminum Retention Ramp -

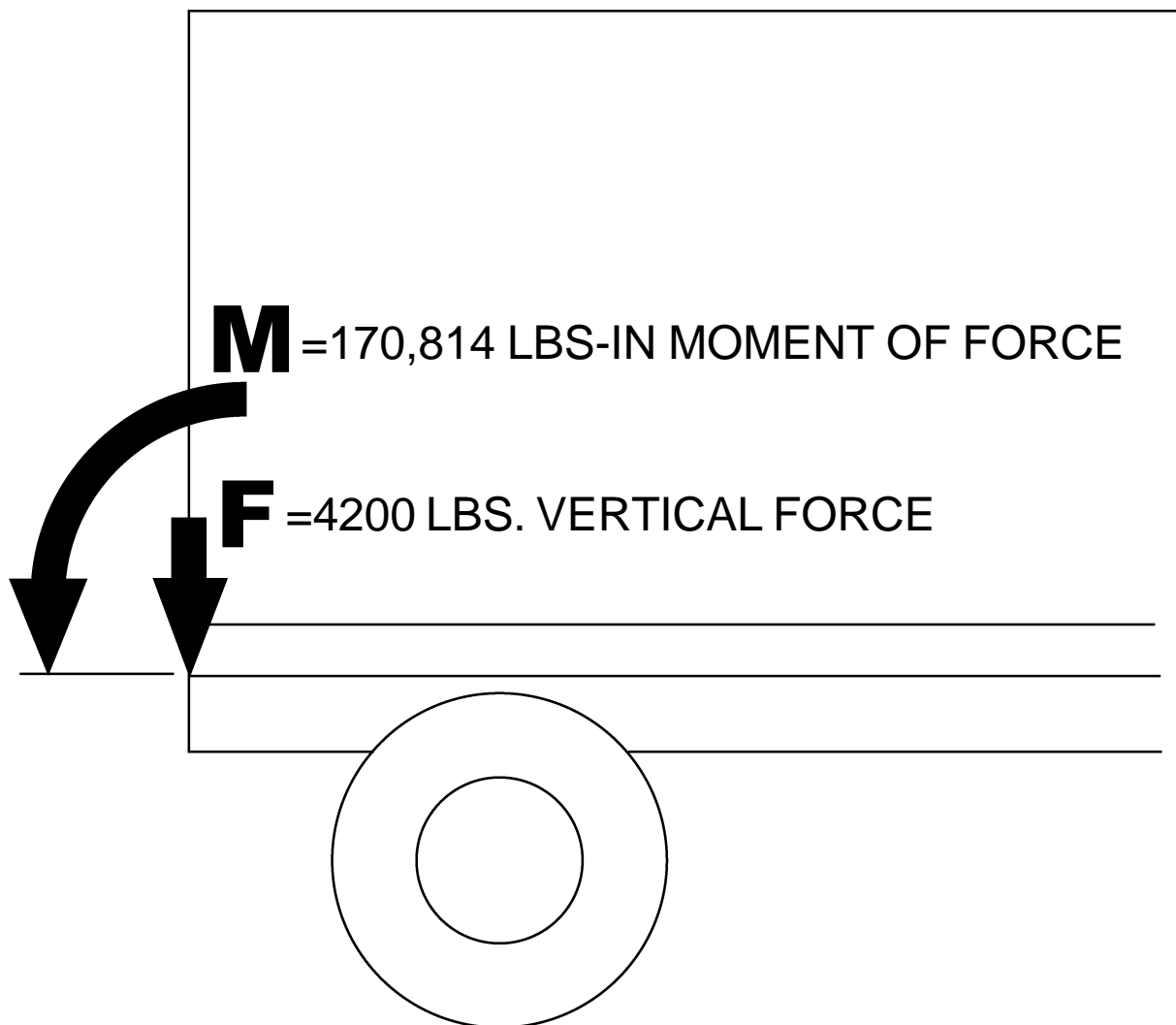
Maximum height is 54" (Unloaded). Minimum height is 43" (Loaded).

For Wedge Platform -

Maximum height is 54" (Unloaded). Minimum height is 48" (Loaded).

Do not install this Liftgate on vehicle bodies equipped with swing open doors.

The MTB 72 Series are body-mounted Liftgates that put force on the back of the truck body as shown in the illustration. For correct installation, truck body must be able to withstand the vertical force and moment of force shown.



PARTS BOX, RECOMMENDED TOOLS & EQUIPMENT

	PARTS BOX COMPONENTS	QTY.	PART NUMBER
1.	HEX HEAD BOLT 1/2" X 1-3/4"	21	901024-2
2.	LOCK NUT	21	901023
3.	MOLDED SWITCH	1	264346
4.	COPPER LUG (#2 GA)	1	226778
5.	FUSED POWER CABLE	1	264422
6.	DECAL & MANUALS KIT (72-25C)	1	280454-01
	DECAL & MANUALS KIT (72-30C)		280454-02
	A. INSTALLATION MANUAL	1	M-00-39
	B. OPERATION MANUAL	1	M-00-40
	C. MAINTENANCE MANUAL	1	M-00-41
	D. ADDITIONAL DECALS (SEE DECALS PAGE)	1	-----
7.	PLASTIC TIE, 7"	4	205780
8.	SELF-TAPPING SCREW 10-24 X 1"	2	900057-5
9.	FRAME CLIP, 1/2" X 1-3/8"	15	050079
10.	LOCK WASHER, 5/16" ID	1	902019-4
11.	NYLON LOCK NUT	1	901001
12.	FLAT WASHER, 5/16" ID	1	902000-7
13.	CAP SCREW, 5/16-18 X 1"	1	900009-2
14.	SPLICE	1	907038
15.	HEAT-SHRINK TUBING 4" LG	1	905286-01

RECOMMENDED TOOLS & EQUIPMENT	
1.	Forklift, 2500 lbs. capacity
2.	"C"-clamps, 8" capacity
3.	Hot Air Gun
4.	Electric drill motor
5.	#21, 3/8", 3/4" drill bits
6.	Flat-tip screwdriver, 5/16" wide
7.	Ratchet handle, socket wrench
8.	1/2" and 3/4" sockets
9.	1/2" and 3/4" wrenches, box-end
10.	Torque Wrench, 150 lbs-ft capacity
11.	Optional: air powered ratchet, 1/2" impact socket and 3/4" impact socket for faster installation.

STEP 1, PART A - PREPARE VEHICLE (BOLTING & WELDING METHODS)

CAUTION

Before installing Liftgate on a truck body, attach truck body to truck frame to prevent body from moving out of position. Use body manufacturer's prescribed method for attaching body to frame.

1. Measure distance from vehicle body floor to bottom of rear sill as shown in **FIG. 1**. Note minimum and maximum rear sill thickness (**FIG. 1**) required for Liftgate to fit correctly.

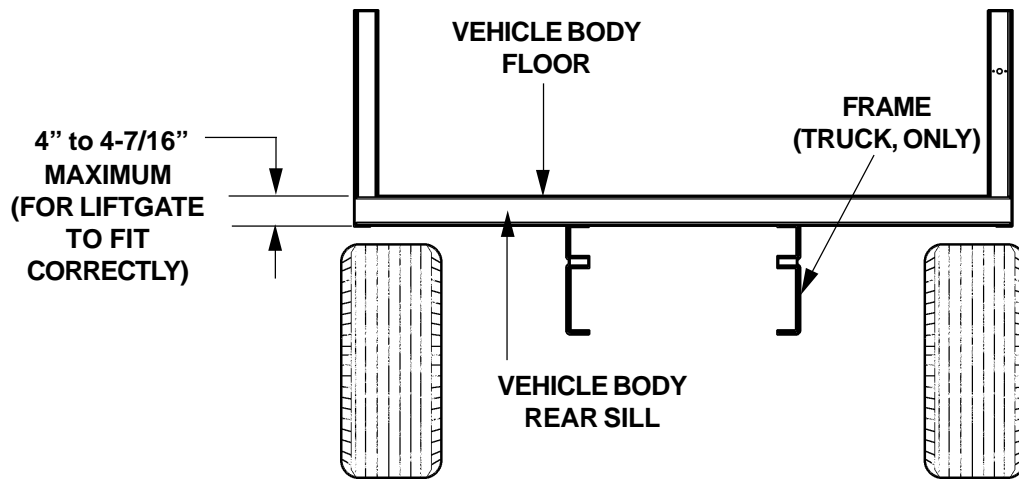
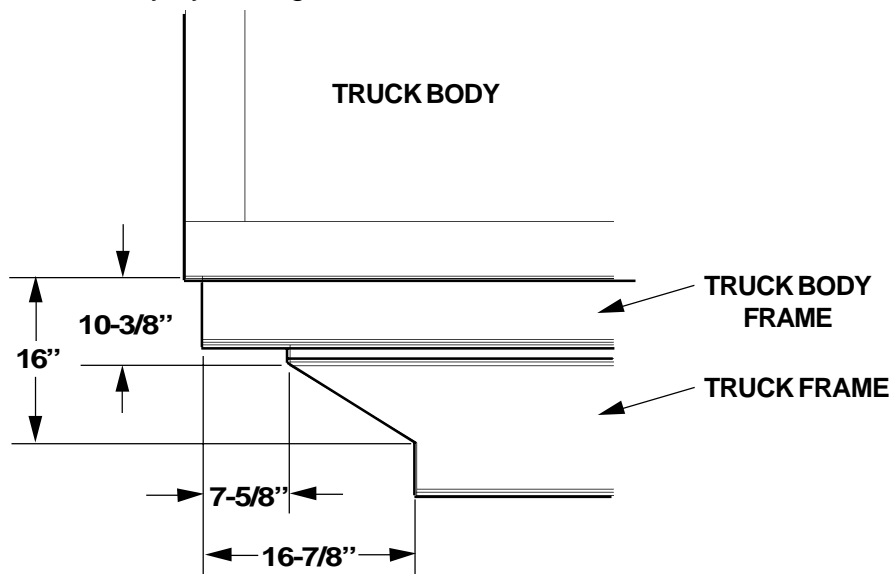


FIGURE 1

NOTE: If installing Liftgate on a trailer, skip frame cutting instructions in Item 2.

2. Fit Liftgate to a truck body by cutting the truck frame members as shown in **FIG. 2**.



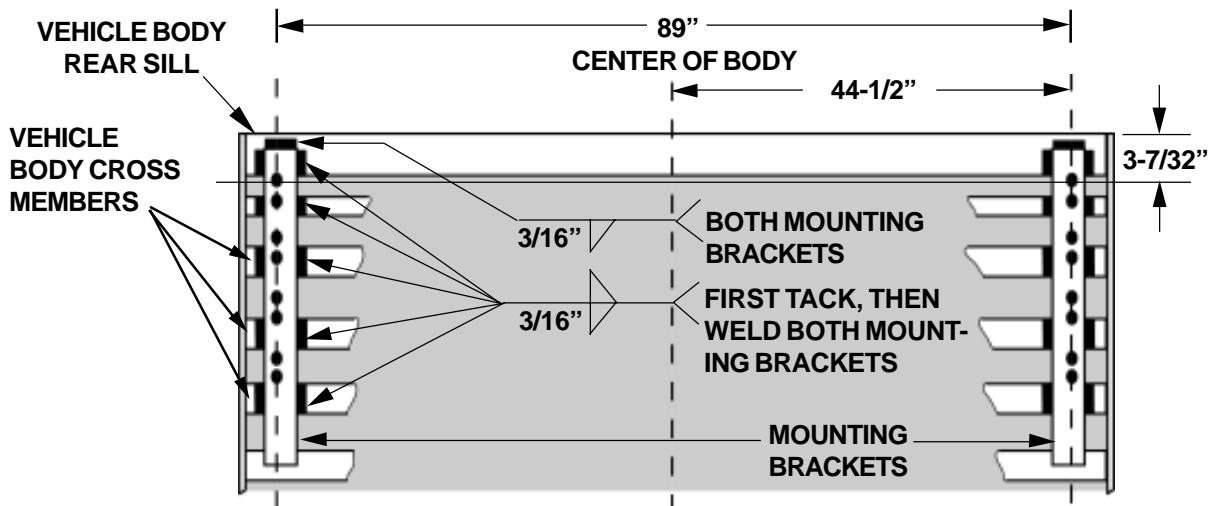
**DIMENSIONS FOR CUTTING TRUCK FRAME
(VIEW FROM CURB SIDE OF TRUCK BODY)**

FIGURE 2

STEP 1, PART B - PREPARE VEHICLE (BOLTING METHOD ONLY)

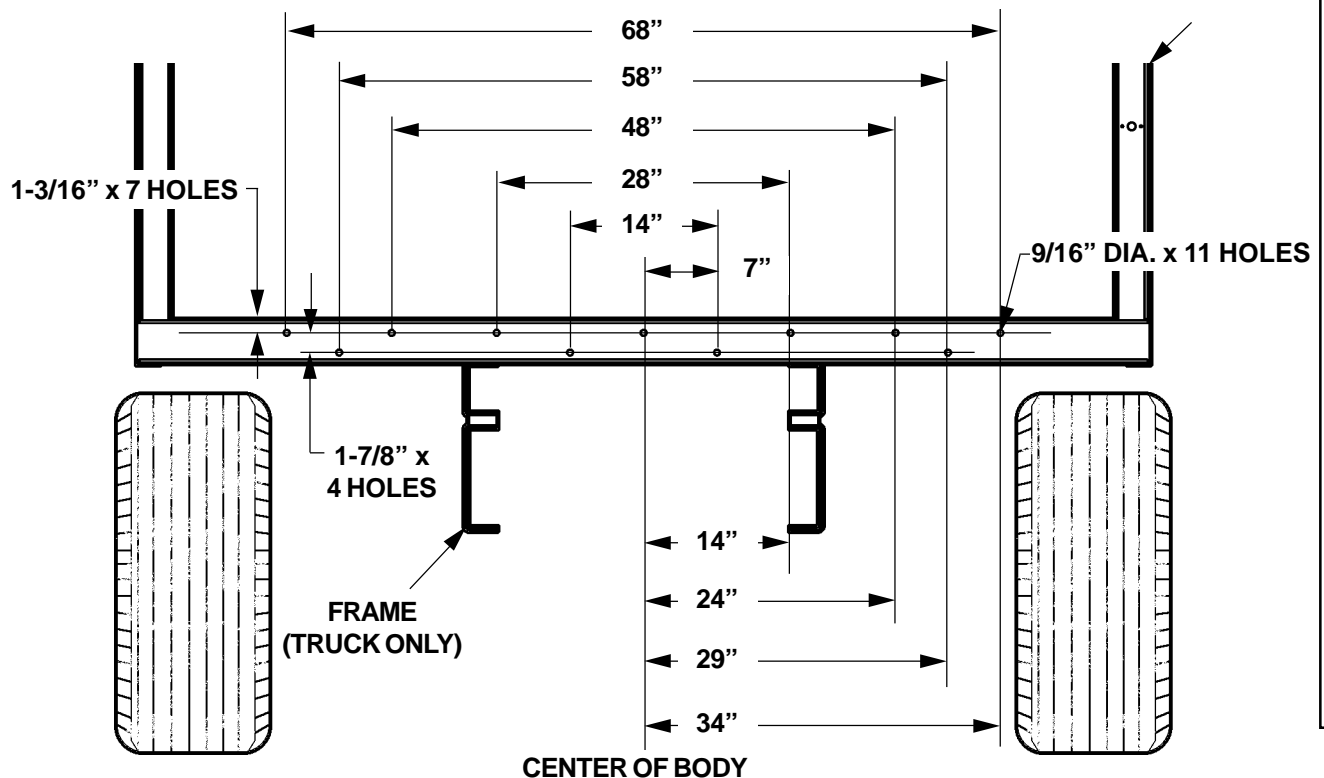
NOTE: If using **WELDING METHOD** to install Liftgate, skip **PART B** and go to **STEP 2**.

1. Position the 2 Mounting Brackets (P/N 280244, provided with Liftgate) under vehicle body as shown in **FIG. 3**. First tack weld, check spacing and then weld Brackets as shown **FIG. 3**.



**POSITIONING & WELDING MOUNTING BRACKETS (VIEW UNDER VEHICLE BODY)
FIGURE 3**

2. Measure, mark, and drill (11) 9/16" holes on vehicle body as shown in **FIG. 4**.



**DRILLING BOLT HOLES IN VEHICLE BODY (REAR VIEW OF VEHICLE BODY)
FIGURE 4**

STEP 2 - SECURE LIFTGATE TO FORKLIFT

Secure Liftgate to forklift with “C”-clamps as shown in **FIG. 5**. Use forklift to center the Liftgate in position on the back of the truck body. If necessary, have 1 person operate the forklift and 1 other person check alignment and weld (or bolt) Liftgate to truck body.



WARNING

Keep Liftgate clamped to forklift until Liftgate is welded (or bolted if required) to vehicle body. Liftgate may be damaged and create a hazard for the installer if it falls off the forklift.

NOTE: Rest the Liftgate Extension Plate against the forklift mast.

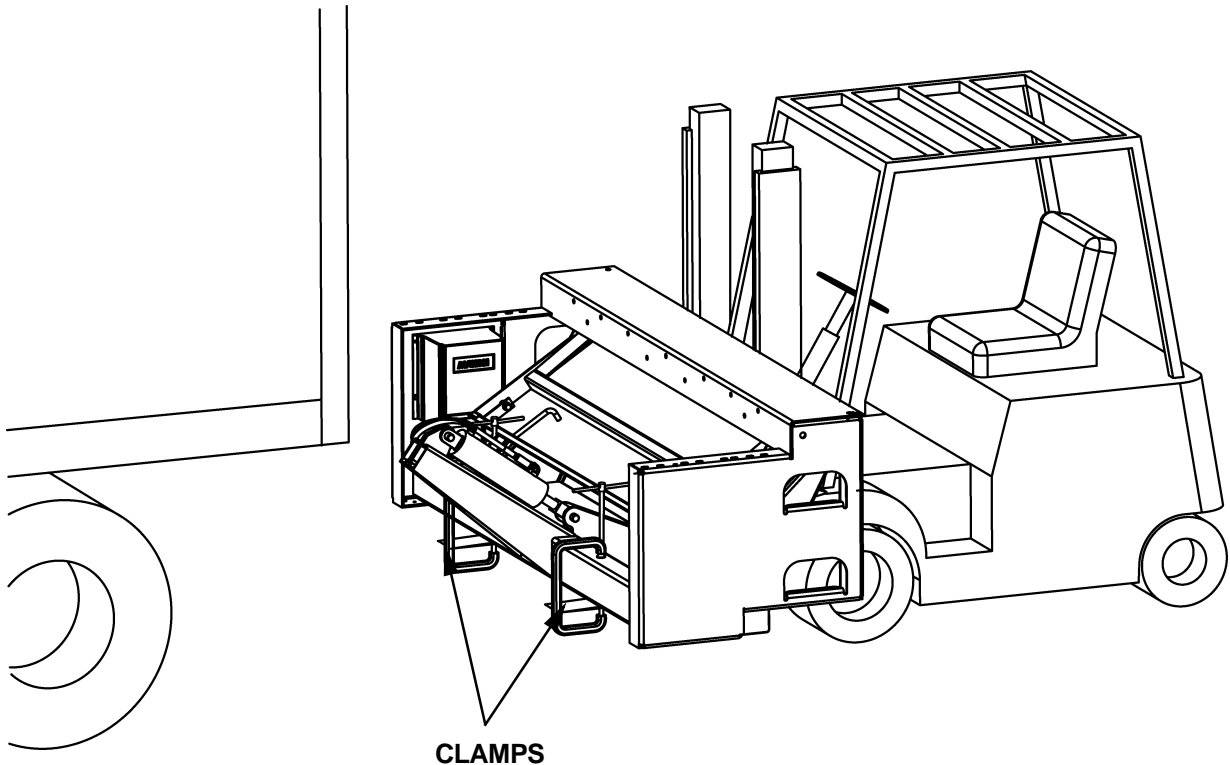


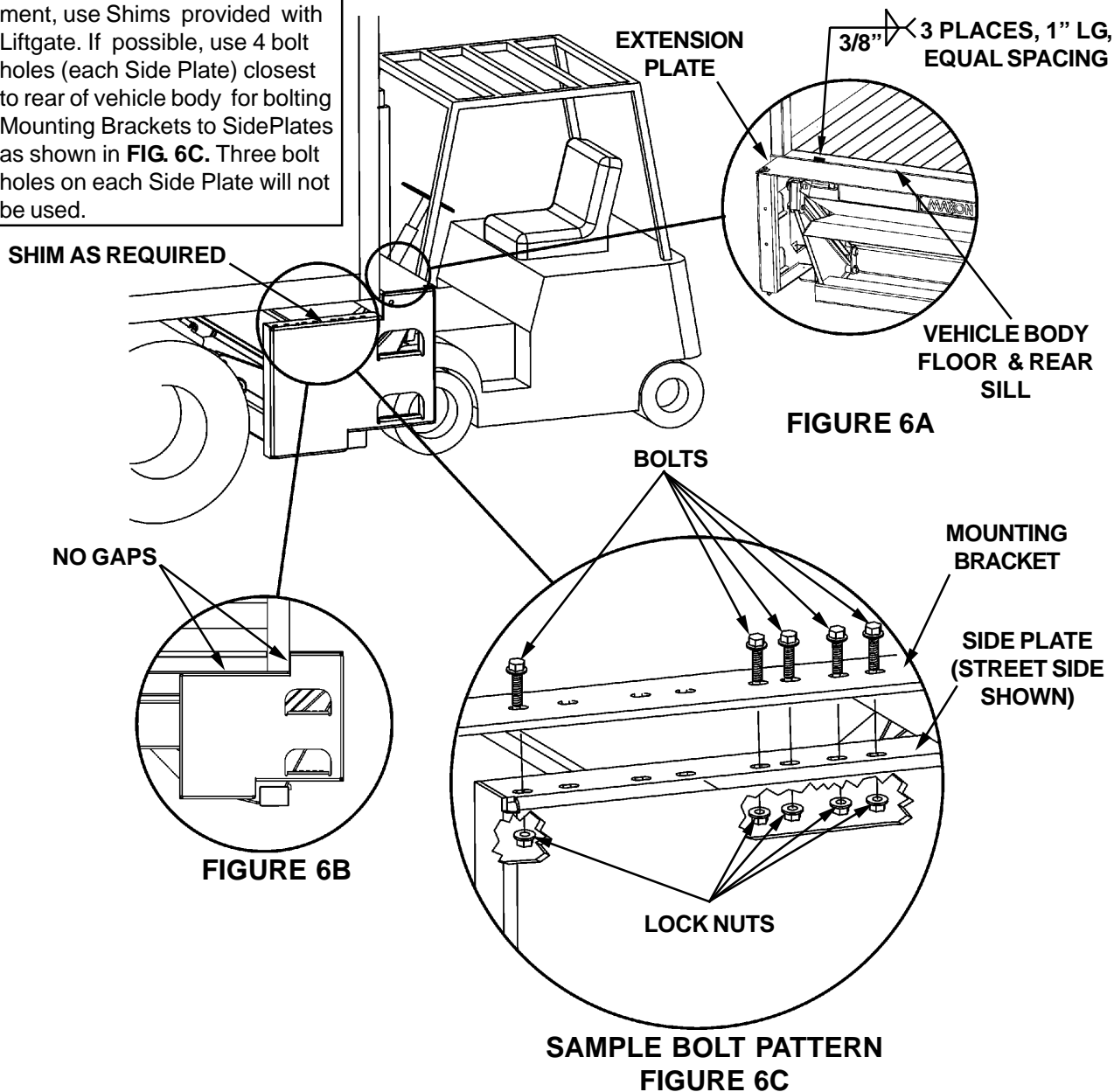
FIGURE 5

STEP 3, PART A - WELDING METHOD FOR SIDE PLATES

NOTE: If using **BOLTING METHOD** to install Liftgate, skip **PART A** and go to **PART B**.

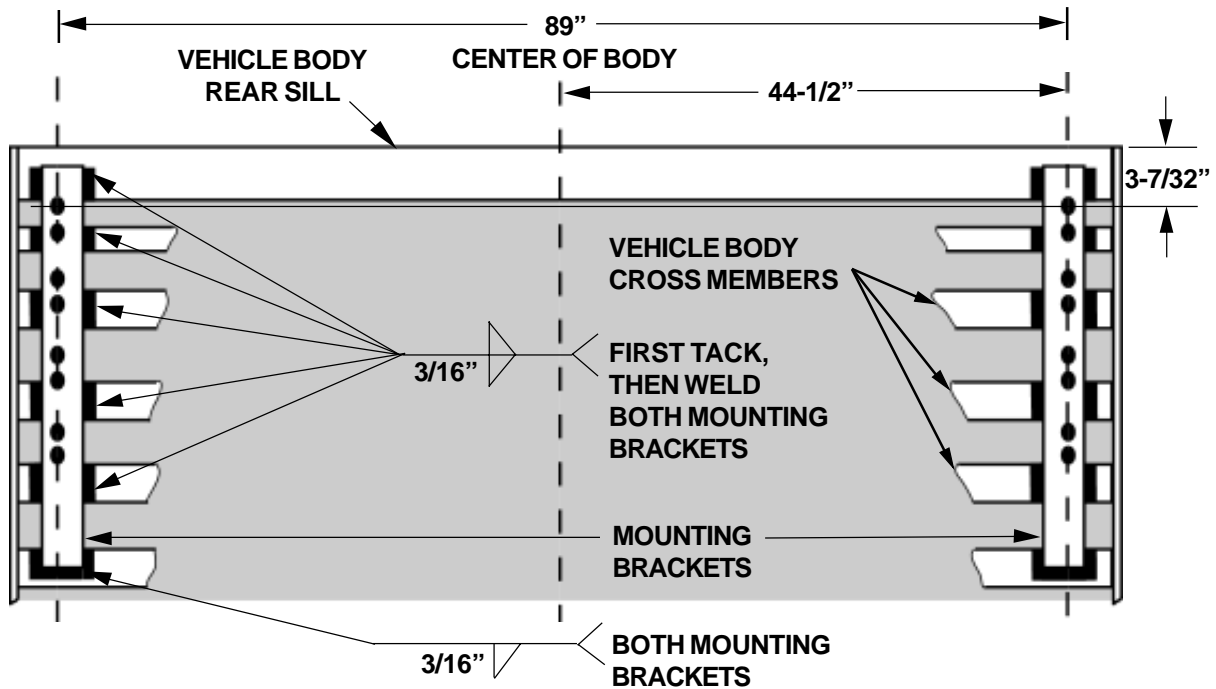
1. Cut shipping ties holding Mounting Bracket and shims to top of each Side Plate. Remove the Mounting Brackets and shims. Make sure Liftgate fits vehicle body as follows: Top of Extension Plate is flush with rear sill and floor of vehicle body (**FIG. 6A**); no gap between back of Extension Plate and back of vehicle body (**FIG. 6B**); and no gaps (**shim as required**) between top edges of each Side Plate and bottom of vehicle body (**FIG. 6B**). If required, bolt Mounting Bracket and shims from Parts Box to top of each Side Plate (**FIG. 6C**). Use 5 bolts and 5 locking nuts for each Side Plate. If any of the bolts interfere with vehicle body frame, move bolt to unused hole where bolt will not interfere. **Torque the 10 bolts to 105 lbs-ft each.**
2. Center Liftgate on vehicle body. Tack weld Extension Plate to Rear Sill as shown in **FIG. 6A**.

NOTE: If required for gap adjustment, use Shims provided with Liftgate. If possible, use 4 bolt holes (each Side Plate) closest to rear of vehicle body for bolting Mounting Brackets to Side Plates as shown in **FIG. 6C**. Three bolt holes on each Side Plate will not be used.



STEP 3, PART A - WELDING METHOD FOR SIDE PLATES - Continued

3. Tack weld both Mounting Brackets (bolted at top of each Side Plate) to vehicle body as shown in **FIG. 7**. Check if Liftgate still fits vehicle body correctly (**FIG. 6A & 6B**). If needed, re-center Liftgate, add shims, or subtract shims to get correct fit. If Liftgate fits correctly, weld both Mounting Brackets (bolted at top of each Side Plate) as shown in **FIG. 7**.

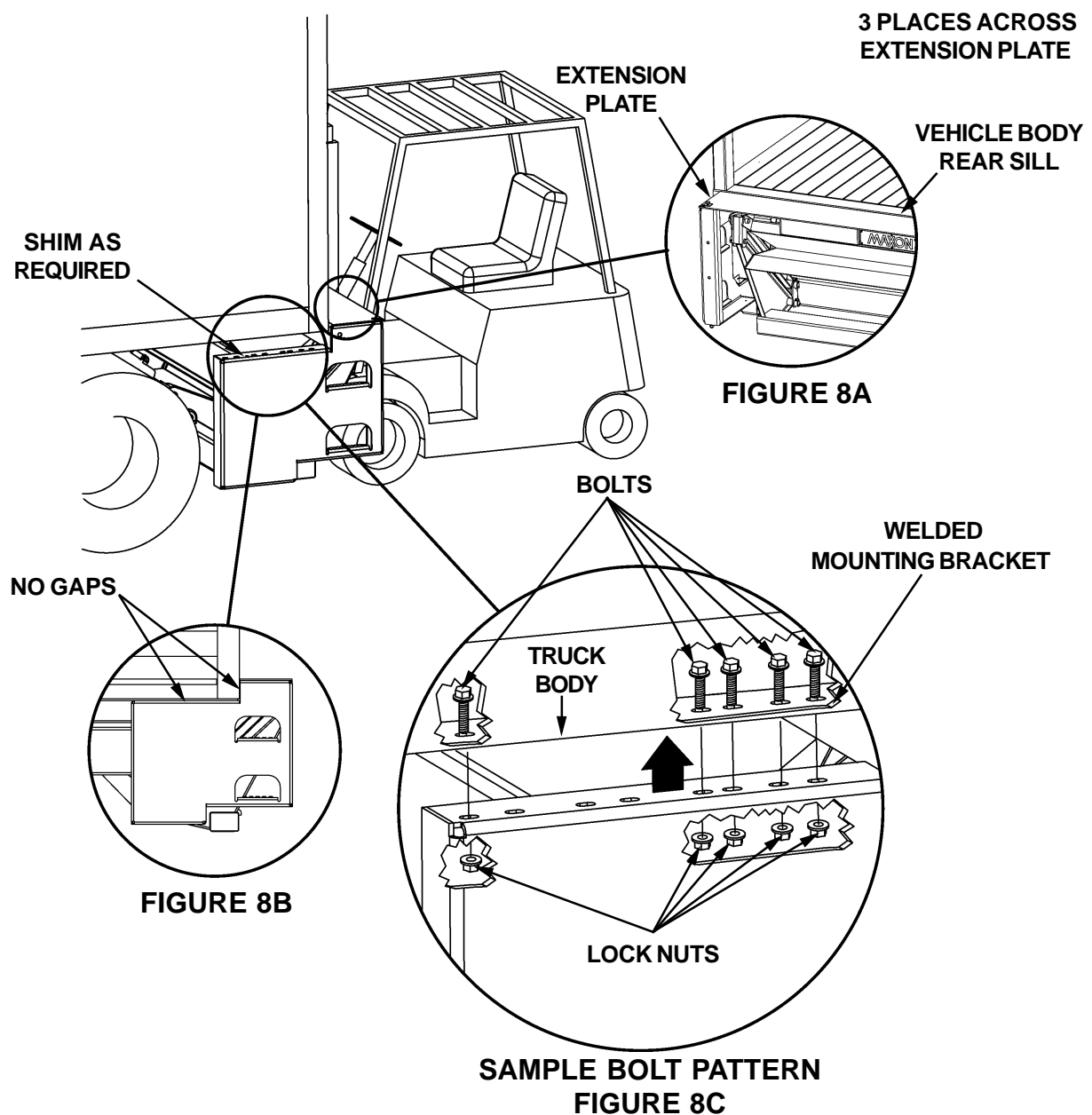


**POSITIONING & WELDING LIFTGATE MOUNTING BRACKETS
(VIEW UNDER VEHICLE BODY - LIFTGATE NOT SHOWN FOR CLARITY)
FIGURE 7**

STEP 3, PART B - BOLTING METHOD FOR SIDE PLATES

Make sure Liftgate fits the vehicle body as follows. Top of Extension Plate is flush with rear sill and floor of the vehicle body (**FIG. 8A**); no gap between back of Extension Plate and back of vehicle body (**FIG. 8B**); and no gaps (**shim as required**) between top edges of each Side Plate and bottom of vehicle body (**FIG. 8B**). Get five 1/2" x 1-3/4" frame bolts and lock nuts from Parts Box for each of the two Side Plates (roadside and curbside). Bolt the Liftgate Side Plates to the vehicle body as shown in the illustration (**FIG. 8C**). Torque the 10 bolts to 105 lbs-ft.

NOTE: If required for gap adjustment, use Shims provided with the Lift Gate. If possible, use 4 bolt holes (each Side Plate) closest to rear of vehicle body for bolting the Liftgate on as shown in **FIG. 8C**. Three bolt holes on each Side Plate will not be used.



STEP 4 - MOVE FORKLIFT

Remove "C"-clamps from Liftgate and back out forklift (**FIG. 9**).

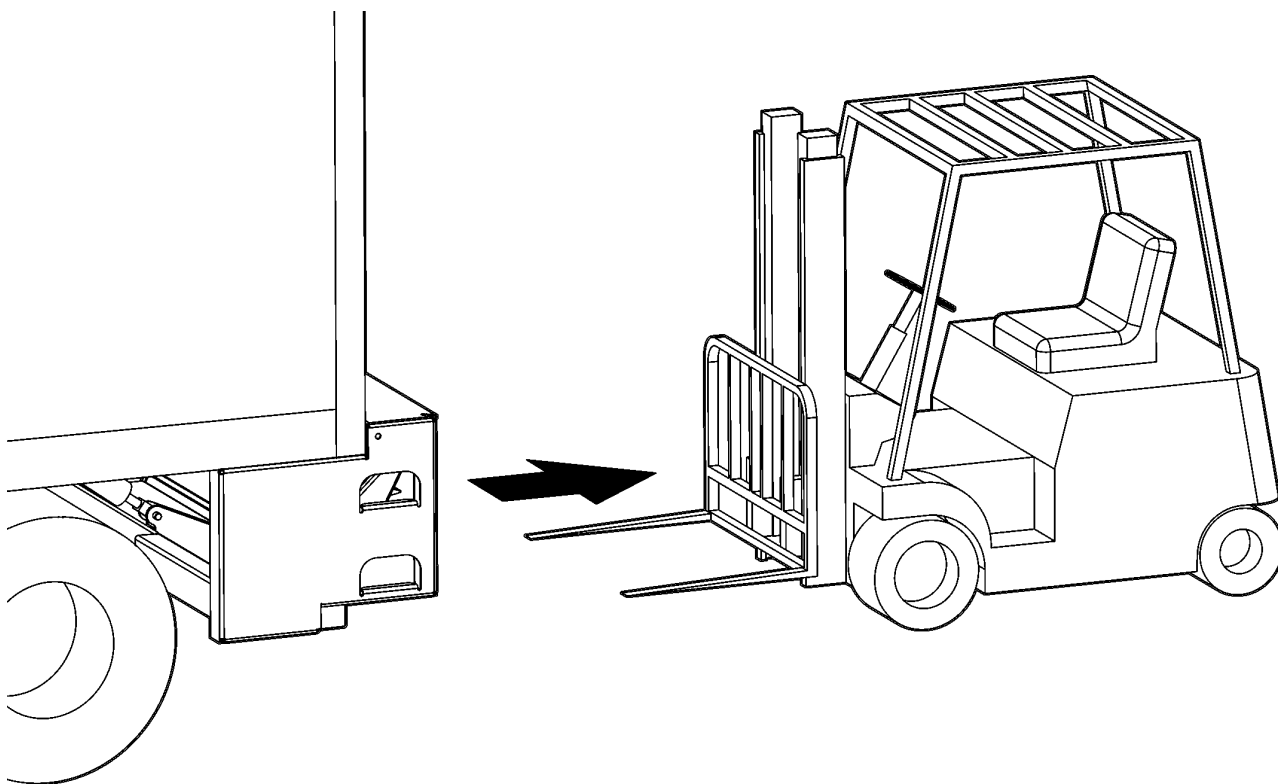


FIGURE 9

STEP 5 - RUN POWER CABLE

CAUTION

Never route an energized wire. Make sure the vehicle battery is disconnected. Always route electrical wires clear of moving parts, brake lines, sharp edges and exhaust systems. Avoid making sharp bends in wiring. Attach securely. If drilling is necessary, first check behind the drilling surface so you do not damage any fuel lines, vent lines, brake lines or wires.

Clip Fused Power Cable to vehicle chassis, with fuse nearest the vehicle battery, as shown in **FIG. 10**. Keep enough cable near the battery to reach the positive terminal without putting tension on cable (after connection).

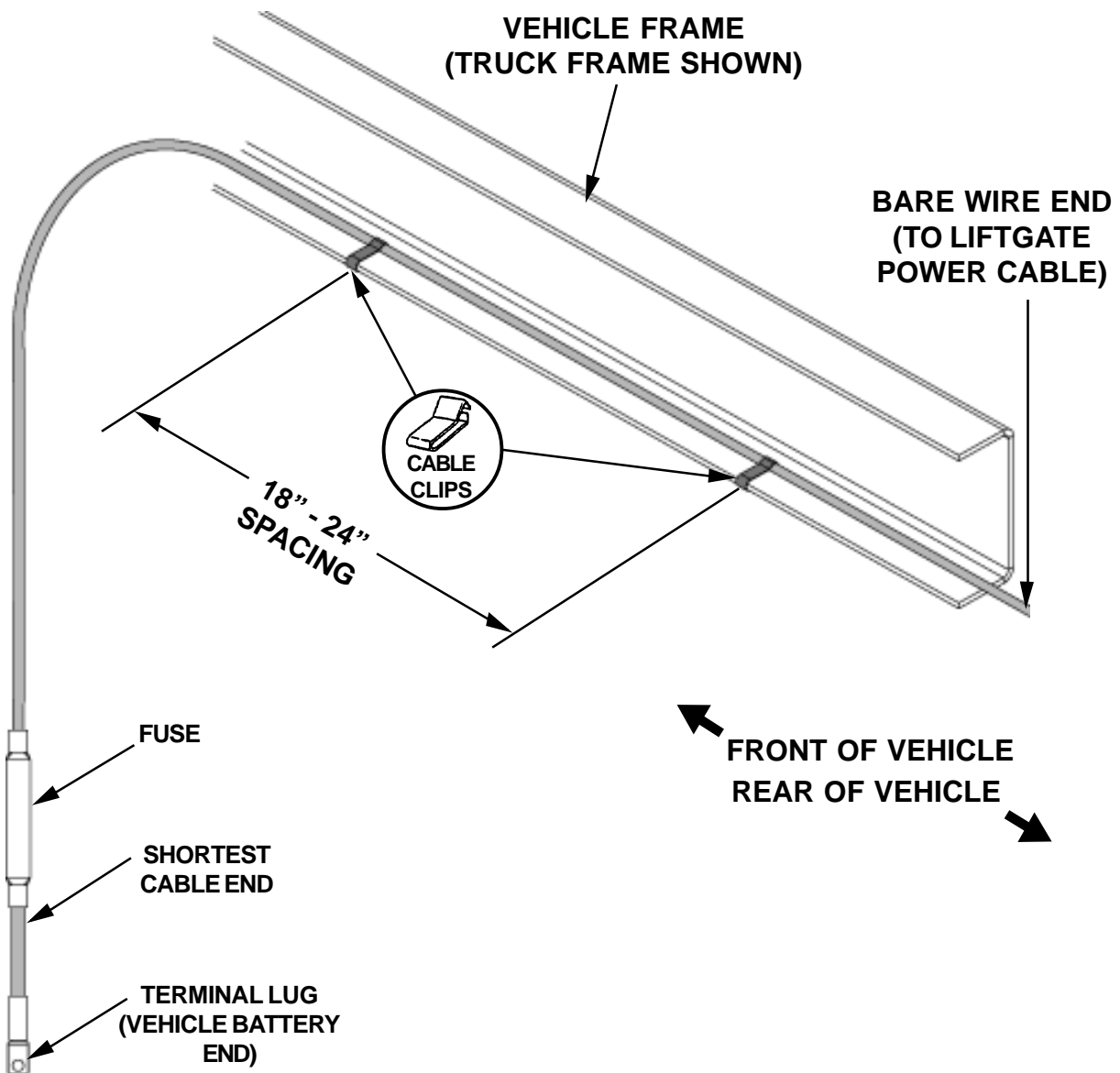


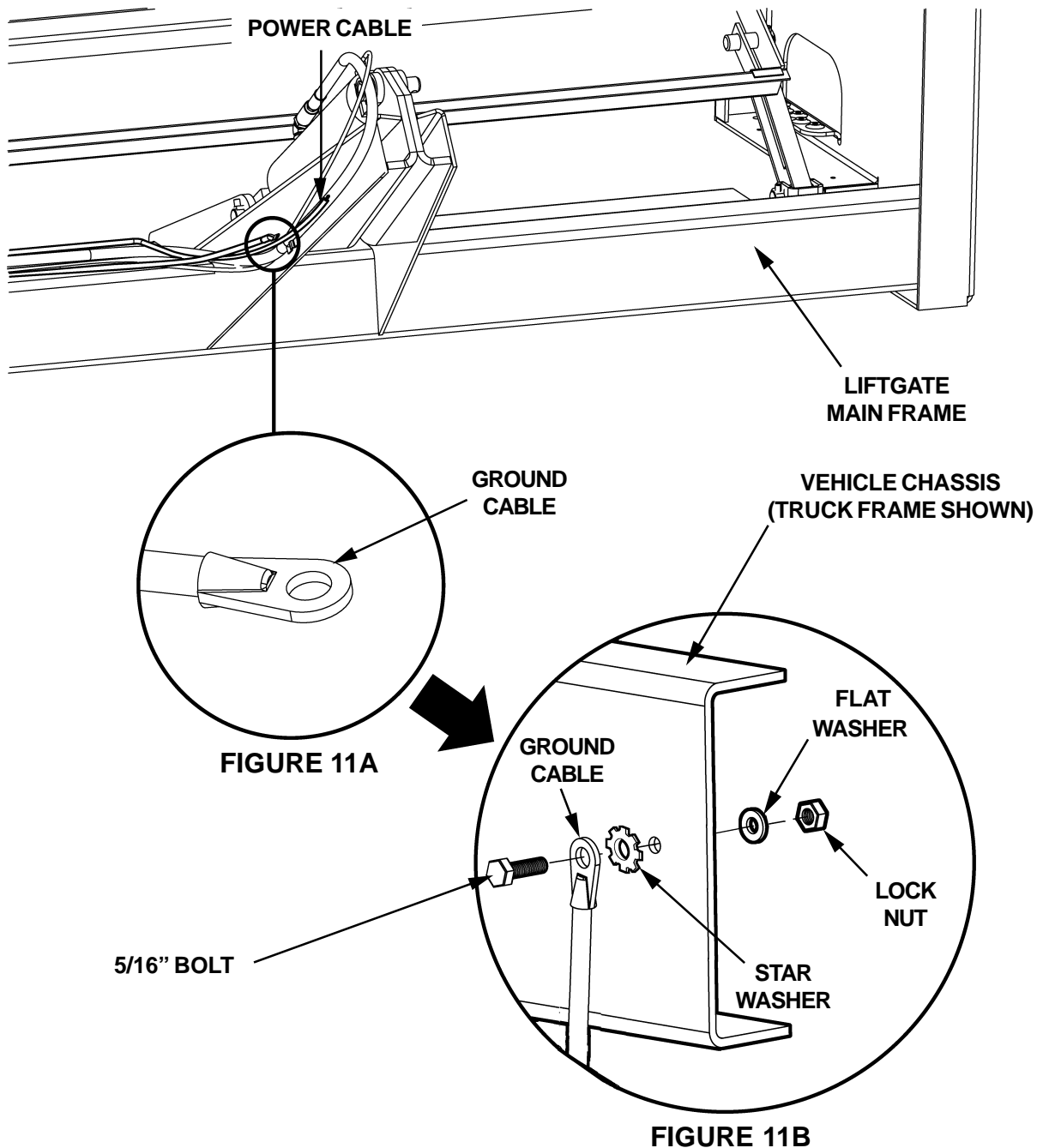
FIGURE 10

STEP 6 - CONNECT GROUND CABLE

CAUTION

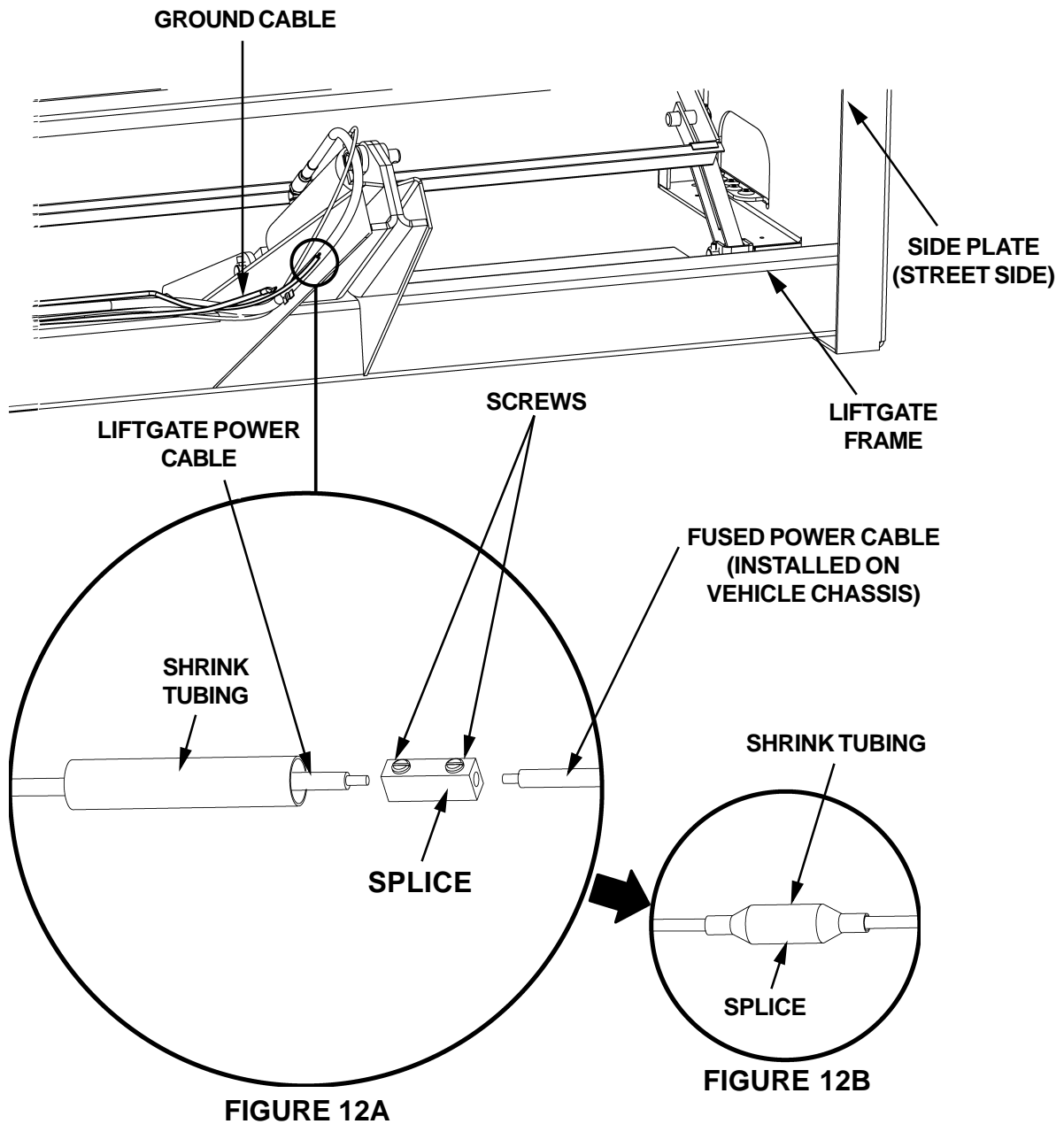
To prevent injury and equipment damage, do not connect Liftgate Power Cable until instructed.

Remove cable tie that bundles Ground Cable and Power Cable to Liftgate Frame for shipping. Extend Ground Cable until terminal lug will reach vehicle chassis without putting tension on cable (after connection). Drill 3/8" hole in vehicle chassis (**FIG. 11B**) for attaching Ground Cable (**FIG. 11A**). Bolt Ground Cable terminal lug to the chassis as shown in **FIG. 11B**.



STEP 7 - CONNECT POWER CABLE

Extend Liftgate Power Cable to reach bare wire end of Fused Power Cable (installed on vehicle chassis in previous step). Make sure there is enough cable to reach the Liftgate Power Cable without putting tension on the cables (after connection). Measure (if needed) then cut excess cable from end of Fused Power Cable closest to Liftgate. Slide shrink tubing (FIG. 12A) over Power Cable. Splice the Fused Power Cable and Liftgate Power cable together as shown in FIG. 12A. Slide shrink tubing over splice and shrink in place with heatgun (FIG. 12B).



STEP 8 - INSTALL SWITCH CONTROL

1. Drill one 3/4" hole and two #21-size holes in the vertical post on curb side of vehicle body as shown in **FIG. 13A**. Use template shown in **FIG. 13B**.

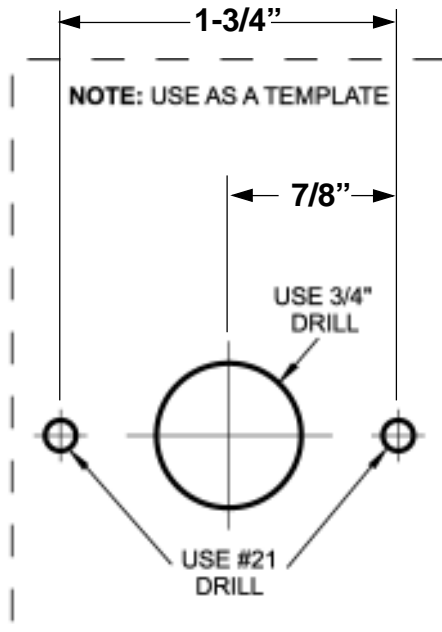


FIGURE 13B

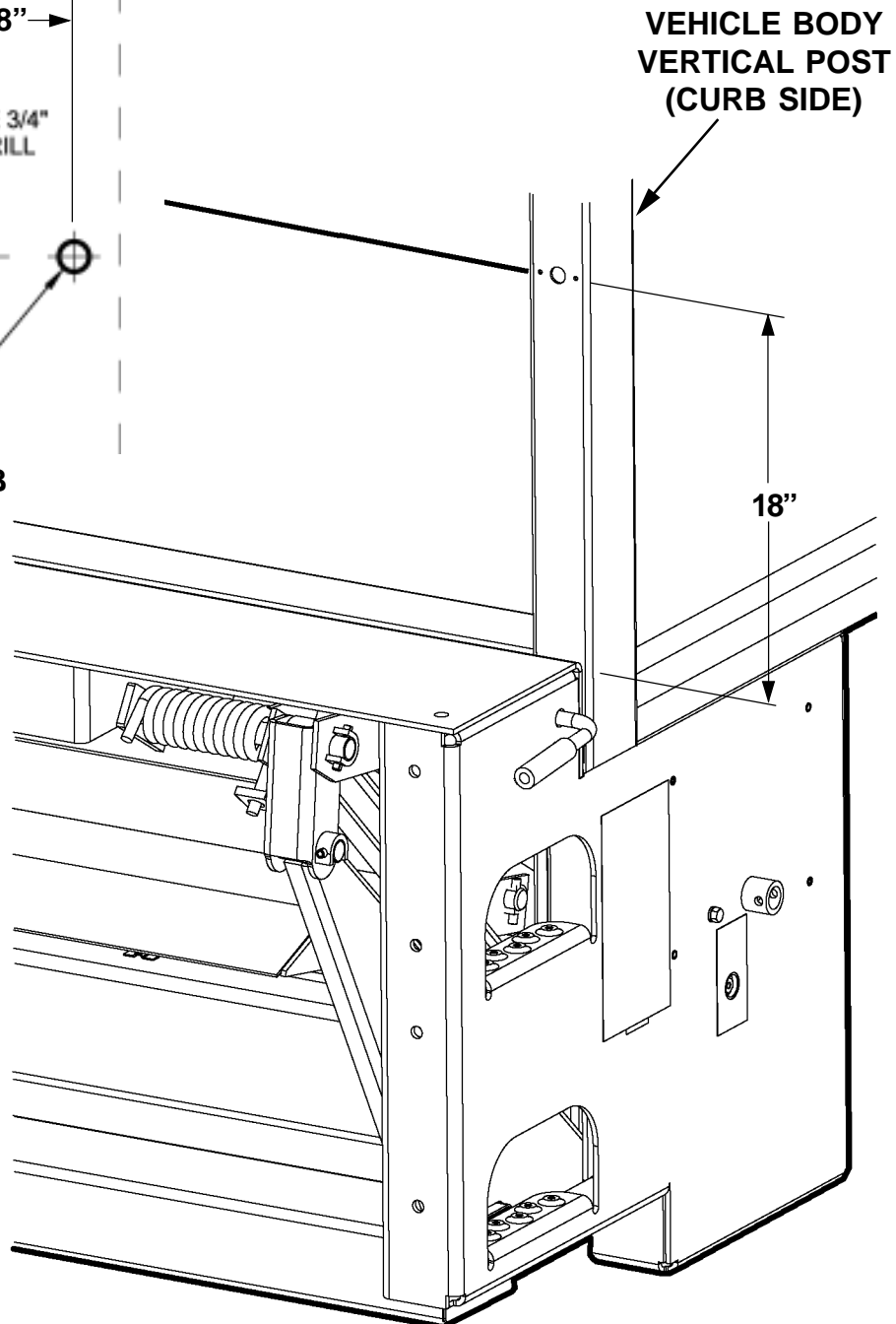


FIGURE 13A

STEP 8 - INSTALL SWITCH CONTROL - Continued

2. Route Switch Control wiring harness up through the inside of vertical post (**FIG. 14A**) and out the 3/4" hole from the previous step. Connect Switch Control wiring to the wiring harness as shown in (**FIG. 14B**). Push extended wiring back into the 3/4" hole in the vertical post until Switch Control touches the post. Attach Switch Control to vertical post with 2 self-tapping screws.

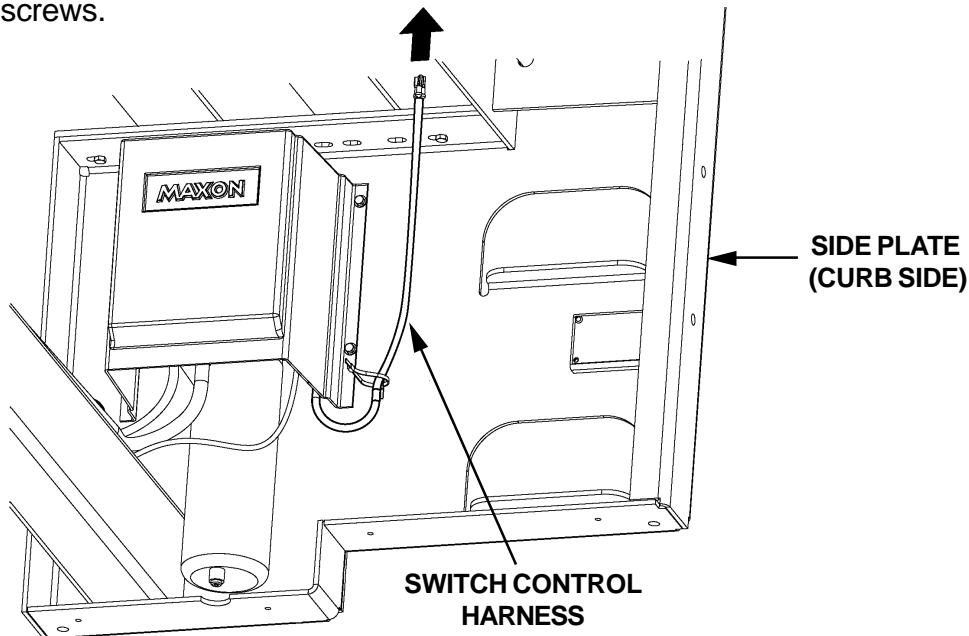


FIGURE 14A

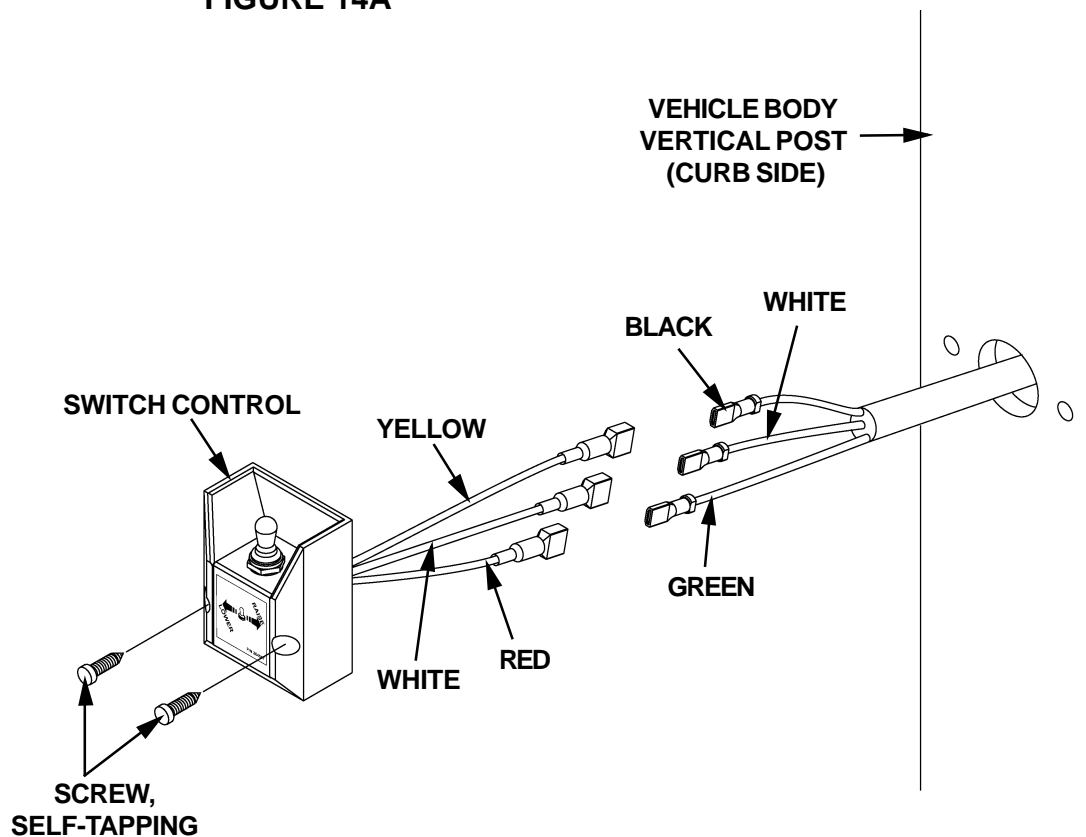


FIGURE 14B

STEP 9 - LOWER THE PLATFORM FOR ACCESS

Connect Power Cable to battery for power to **LOWER** the Liftgate: Remove nut from positive (+) battery terminal connector. Connect Power Cable to the positive (+) battery terminal connector (**FIG. 15**). Re-install and tighten nut. Depress Handle (**FIG. 16A**) and push Control Switch (**FIG. 16B**) to **LOWER** Liftgate to the ground (**FIG. 16C**). Remove nut from positive (+) battery terminal connector to disconnect Power Cable (**FIG. 15**). Re-install nut.

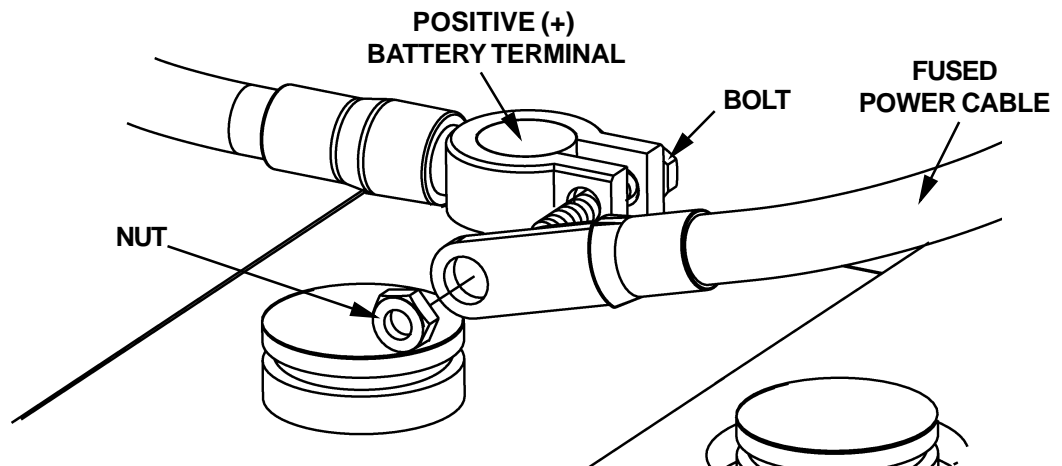


FIGURE 15

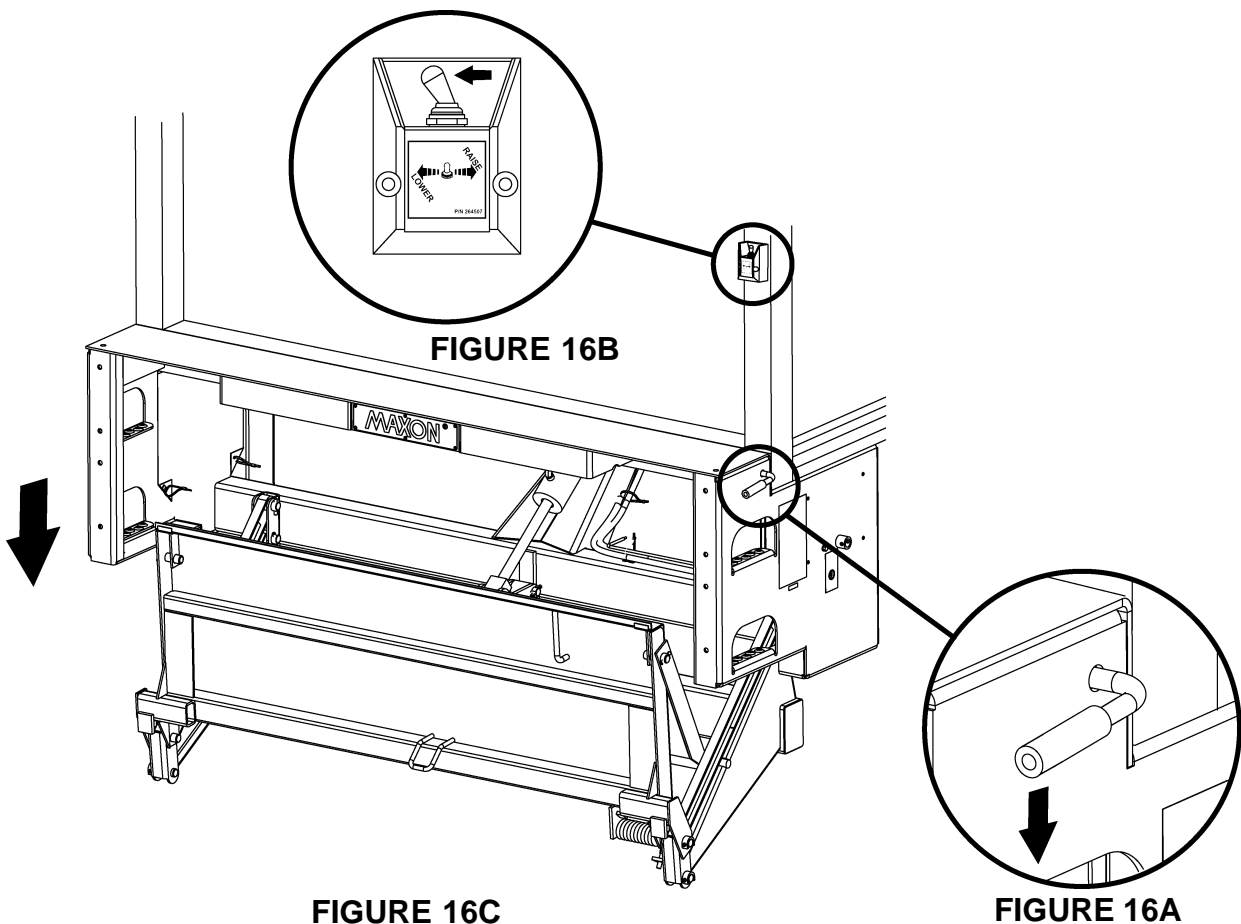


FIGURE 16C

FIGURE 16A

STEP 10, PART A - WELDING METHOD FOR EXTENSION PLATE

NOTE: If using **BOLTING METHOD** to install Liftgate, skip **PART A** and go to **PART B**.

Weld flush between top of Extension Plate and floor of the truck body as shown in **FIG. 17**.

NOTE: The 2" welds must be equally spaced between the 4" welds.

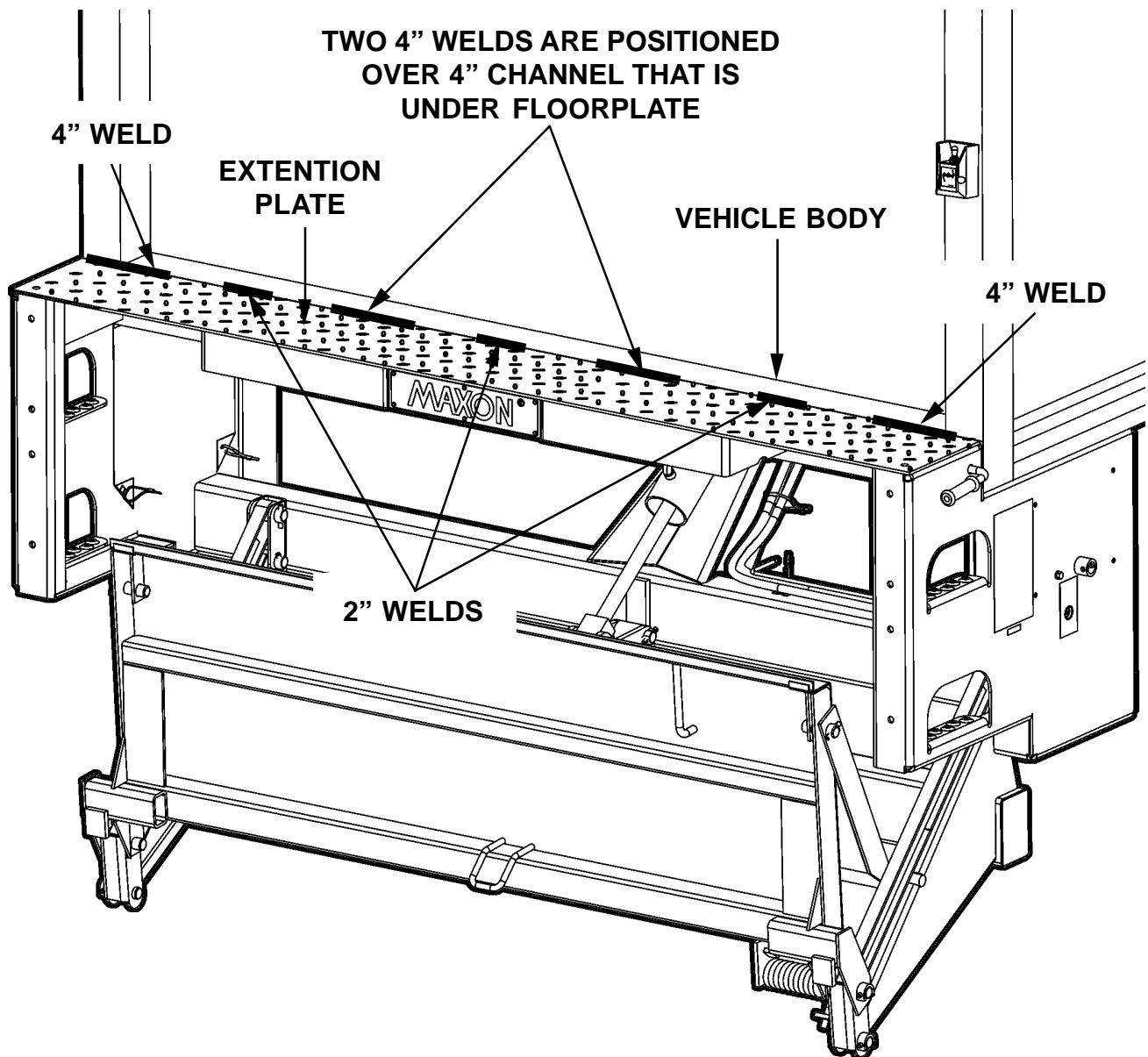
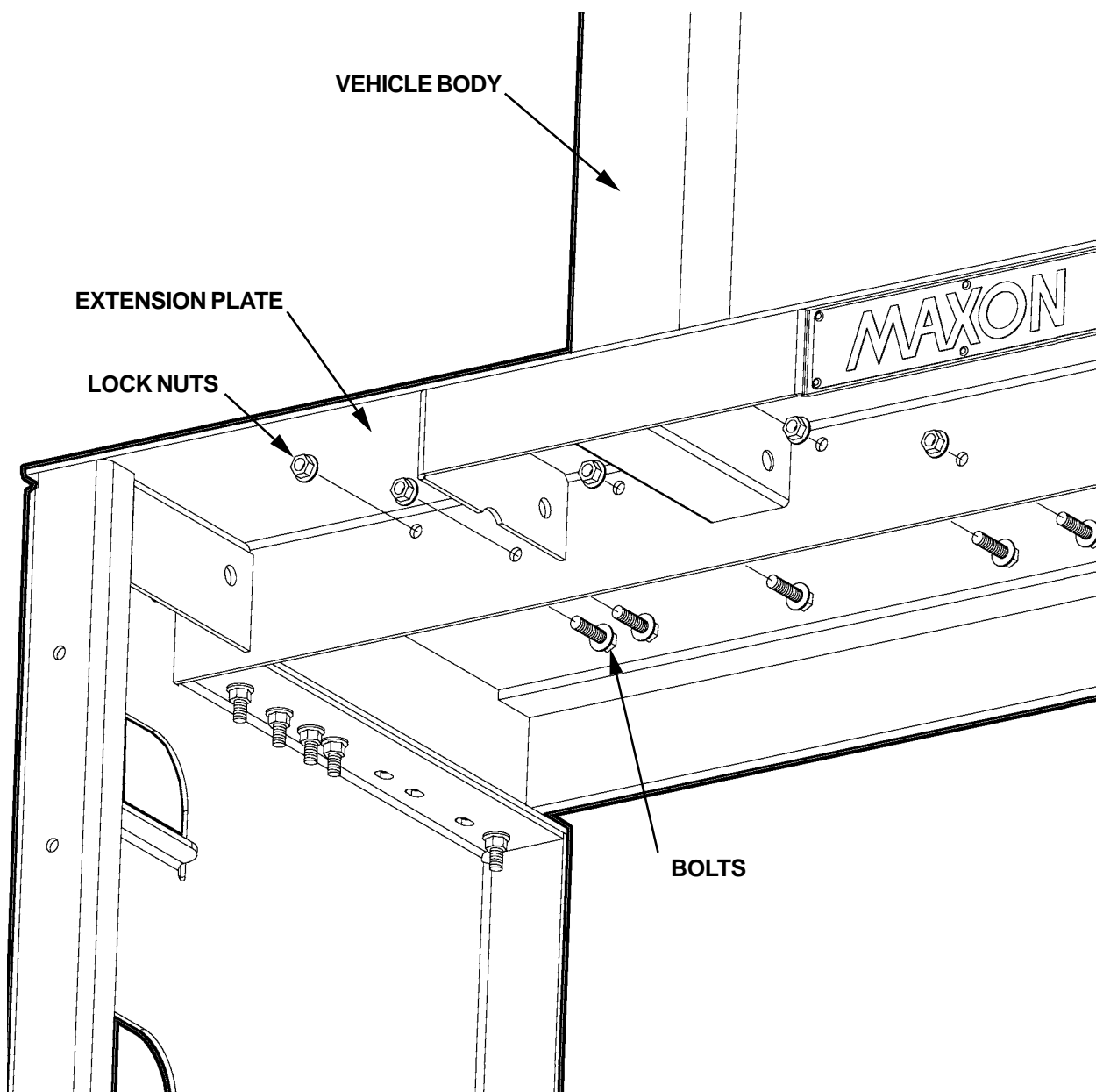


FIGURE 17

STEP 10, PART B - BOLTING METHOD FOR EXTENSION PLATE

Unfold Platform to gain access to bottom side of Extension Plate. Bolt the Liftgate Extension Plate to vehicle body with the remaining eleven 1/2" x 1-3/4" frame bolts and lock nuts from the Parts Box as shown in **FIG. 18**. Torque the 11 bolts to **105 lbs-ft each**. Reconnect Power Cable to battery (**FIG. 15**).



**EXTENSION PLATE BOLT PATTERN
(VIEW FROM UNDER EXTENSION PLATE)
FIGURE 18**

PLATFORM ADJUSTMENT

1. Open and **RAISE** Platform to bed level as shown in **Operation Manual M-00-40**. Platform should be angled upward at bed level (**FIG. 19A**) and angled downward at ground level (**FIG. 19B**).

2. If the platform is level at bed height (**FIG.19C**) and sags at ground level (**FIG.19D**), weld 1-1/2" x 3-1/2" shims in 1/16" increments to each lift arm Shackle (roadside and curbside) as shown in **FIG. 20**. Make sure bottom edge of shim is flush with bottom edge of shackle. Each shim raises up the outboard edge of the flipover as shown in **TABLE 1**.

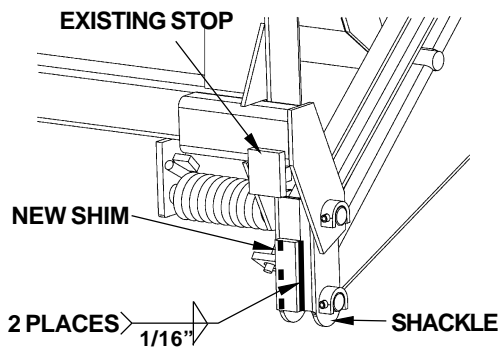
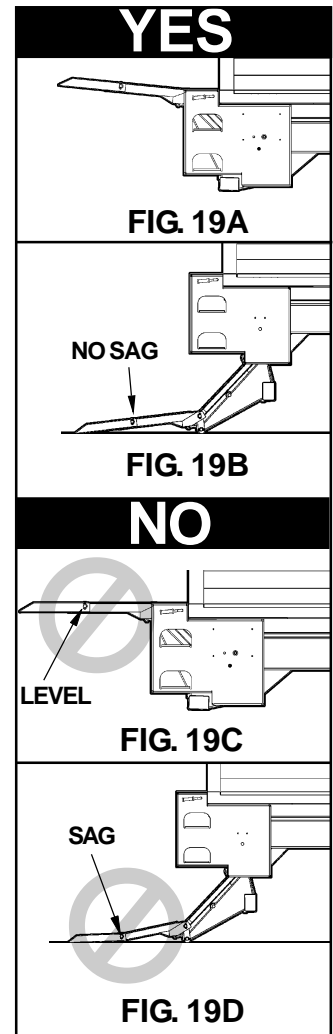


FIG. 20

NO. OF SHIMS (1/16") ADDED	RAISES FLIPOVER EDGE (OUTBOARD)
1	7/8"
2	1-3/4"
3	2-5/8"
4	3-1/2"

TABLE 1



3. If the outboard edge of the flipover will not reach level ground, grind off metal in 1/16" increments from the existing stop on the Platform (roadside and curbside) as shown in **FIG. 21**. Each 1/16" ground off the existing shims lowers the outboard edge of the flipover as shown in **TABLE 2**.

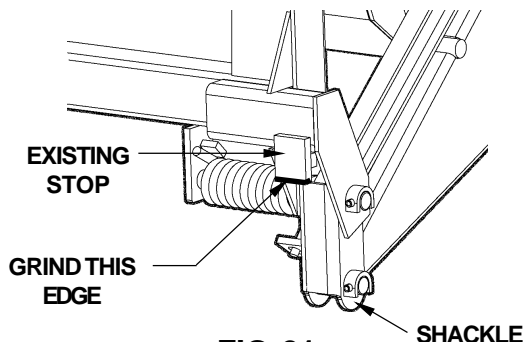


FIG. 21

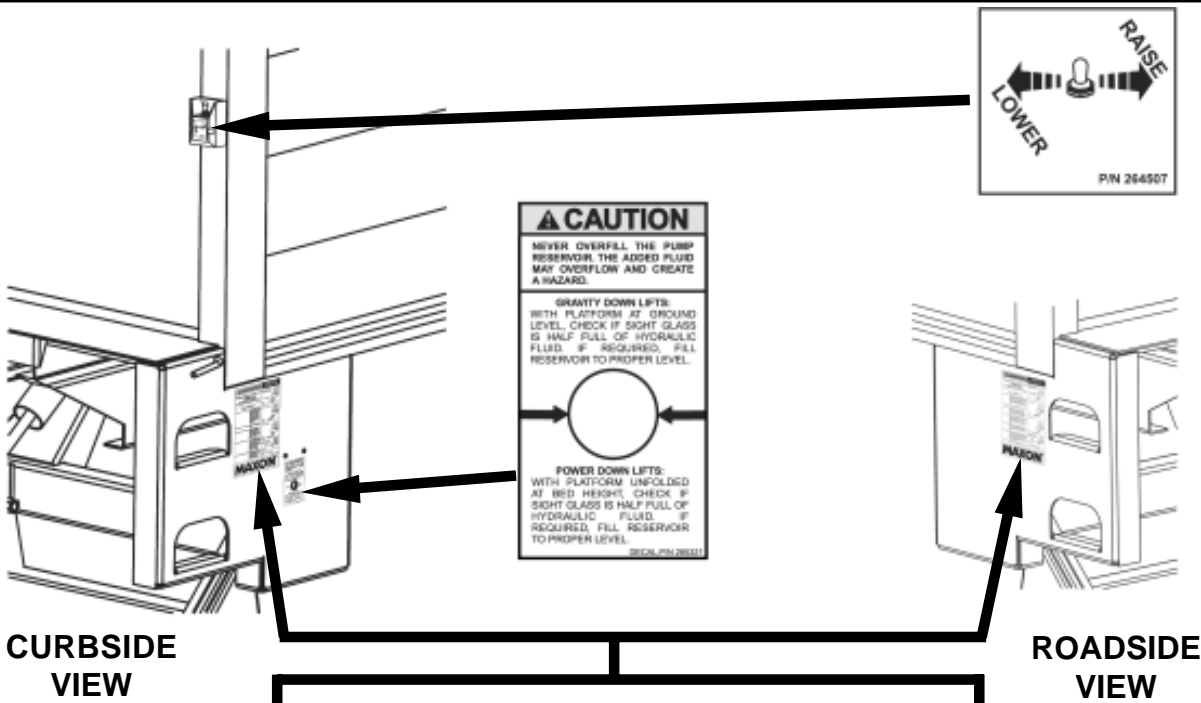
GRIND OFF EXISTING SHIM	LOWERS FLIPOVER EDGE (OUTBOARD)
1/16"	7/8"
1/8"	1-3/4"
3/16"	2-5/8"
1/4"	3-1/2"

TABLE 2

DECALS

⚠ WARNING

If decals are defaced or missing, replace with spare decals provided in Parts Box.



⚠ WARNING	OPERATING INSTRUCTIONS
MAXIMUM CAPACITY OF THIS LIFT IS 3000 lbs. WHEN LOAD IS CENTERED ON LOAD CARRYING SURFACE OF PLATFORM.	DEPRESS HANDLE & ACTIVATE TOGGLE SWITCH TO LOWER STOWED LIFTGATE.
READ CAREFULLY <ul style="list-style-type: none"> Improper use of this Lift can result in serious injury. Do not operate unless you have been properly instructed, and have read, and are familiar with, the operating instructions. If you do not have a copy of the instructions, please obtain them from your employer, distributor, or dealer, before attempting to operate the Lift. Be certain that the vehicle is properly and securely braked before using the Lift. Always inspect the Lift for improper maintenance, damage to vital parts or a slippery Platform surface before using it. Should any signs of these conditions exist, do not use the Lift until these conditions have been corrected. Do not overload the Lift. The load limit is based on evenly distributed cargo over the entire Platform surface. If you are using a pallet jack, be sure it can be maneuvered safely. Do not operate a forklift on the Platform or travel with the platform in an open position at any time. Load should be placed in a stable position close to the edge of the Platform nearest the truck. The heaviest portion of the load should never be placed beyond the center of the Platform away from the truck. Never allow anyone to stand in a position where a falling load could land on either of you. Also do not allow any part of your body or someone else's to be placed under, within or around any portion of the moving Lift mechanism, or in a position that would trap them between the Platform and the ground or truck when the Lift is operated. If a someone is riding the Platform with you, make sure you are both doing so safely, and that you are not in danger of coming in contact with any moving or potentially moving obstacles. If the load appears to be unsafe, do not lift or lower it. ALWAYS USE GOOD JUDGEMENT AND COMMON SENSE. 	
OPEN PLATFORM 	
OPEN FLIPOVER 	
ACTIVATE TOGGLE SWITCH TO RAISE OR LOWER PLATFORM 	
TO TUCK UNIT AWAY, REVERSE STEPS 1, 2, & 3. DECAL P/N 265439	

DECAL P/N 265439

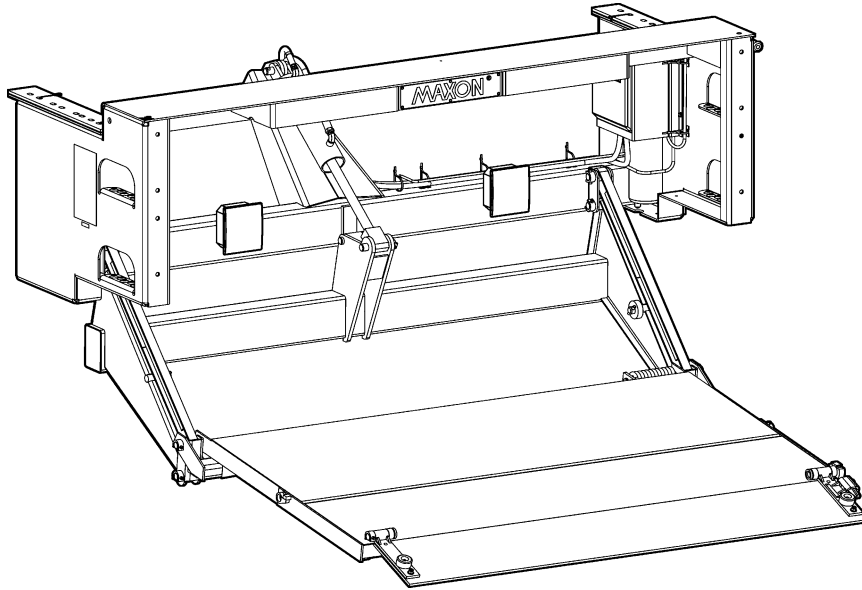
⚠ WARNING	OPERATING INSTRUCTIONS
MAXIMUM CAPACITY OF THIS LIFT IS 2500 lbs. WHEN LOAD IS CENTERED ON LOAD CARRYING SURFACE OF PLATFORM.	DEPRESS HANDLE & ACTIVATE TOGGLE SWITCH TO LOWER STOWED LIFTGATE.
READ CAREFULLY <ul style="list-style-type: none"> Improper use of this Lift can result in serious injury. Do not operate unless you have been properly instructed, and have read, and are familiar with, the operating instructions. If you do not have a copy of the instructions, please obtain them from your employer, distributor, or dealer, before attempting to operate the Lift. Be certain that the vehicle is properly and securely braked before using the Lift. Always inspect the Lift for improper maintenance, damage to vital parts or a slippery Platform surface before using it. Should any signs of these conditions exist, do not use the Lift until these conditions have been corrected. Do not overload the Lift. The load limit is based on evenly distributed cargo over the entire Platform surface. If you are using a pallet jack, be sure it can be maneuvered safely. Do not operate a forklift on the Platform or travel with the platform in an open position at any time. Load should be placed in a stable position close to the edge of the Platform nearest the truck. The heaviest portion of the load should never be placed beyond the center of the Platform away from the truck. Never allow anyone to stand in a position where a falling load could land on either of you. Also do not allow any part of your body or someone else's to be placed under, within or around any portion of the moving Lift mechanism, or in a position that would trap them between the Platform and the ground or truck when the Lift is operated. If a someone is riding the Platform with you, make sure you are both doing so safely, and that you are not in danger of coming in contact with any moving or potentially moving obstacles. If the load appears to be unsafe, do not lift or lower it. ALWAYS USE GOOD JUDGEMENT AND COMMON SENSE. 	
OPEN PLATFORM 	
OPEN FLIPOVER 	
ACTIVATE TOGGLE SWITCH TO RAISE OR LOWER PLATFORM 	
TO TUCK UNIT AWAY, REVERSE STEPS 1, 2, & 3. DECAL P/N 265438	

DECAL P/N 265438

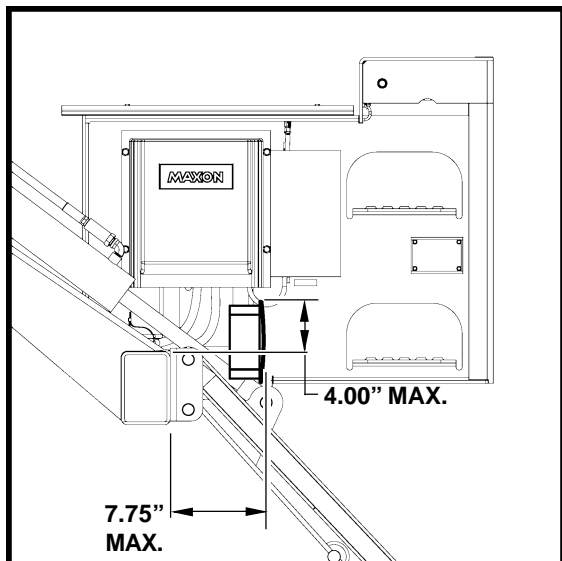
VEHICLE TAILLIGHT POSITIONING

NOTE: Taillights and attaching hardware are not provided with the Liftgate.

Install vehicle taillights as shown in **FIG. 22A**, **FIG. 22B**, and **FIG. 22C**.

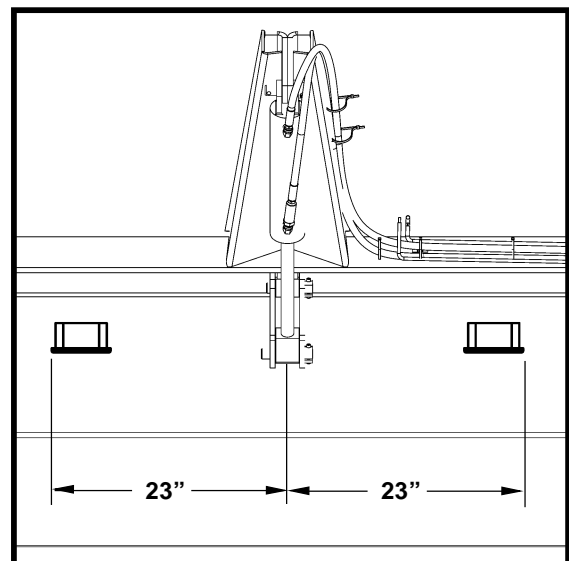


VEHICLE TAILLIGHTS INSTALLED ON LIFTGATE
FIG. 22A



TAILLIGHT POSITIONS, SIDE VIEW

FIG. 22B



TAILLIGHT HORIZONTAL SPACING,
TOP VIEW

FIG. 22C