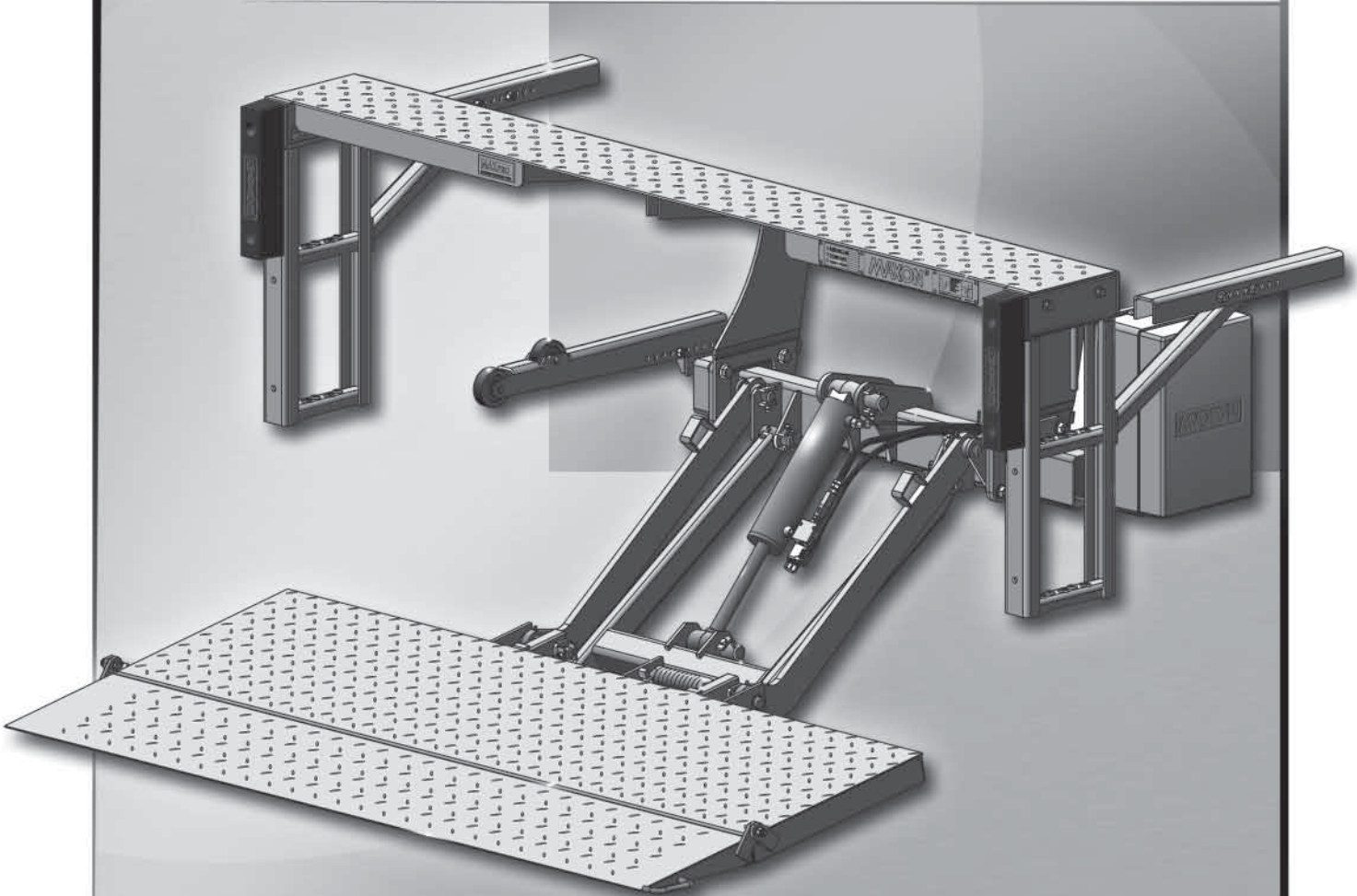


M-16-33  
REV D  
APRIL 2021

# MAXON®

## TE-20 TE-25 TE-30

### INSTALLATION MANUAL



To find **maintenance & parts** information for your **TE-20, TE-25 or TE-30 Liftgate**, go to **www.maxonlift.com**. Click the **PRODUCTS, TUK-A-WAY** and **TE-20 or TE-25/TE-30** buttons. Open the **Maintenance Manual** in the **PRODUCT DOCUMENTATION** window. For parts, click on the **PARTS PORTAL, TUK-A-WAY & TE-20 or TE-25/TE-30** buttons.

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## SUMMARY OF CHANGES: M-16-33, REVISION D

PAGE	DESCRIPTION OF CHANGE
Cover	Updated revision, date & copyright statement. Deleted TE-15 model information.
	Deleted discontinued TE-15 model information throughout installation manual.
12, 14	Added platform gap detail with dimension, and updated clearance dimensions.
13, 15	Updated chassis cut-out dimensions.
16	Updated center of mass dimensions and deleted references to discontinued steel & aluminum platforms.
26	Updated paragraph 3 with instruction to make sure heel of platform is tight against extension plate.
33-35	Updated instructions for optional battery box and frame. Added NOTE about weld-on option and combined instructions for pages 33 and 34 in paragraph 3. Battery connection instructions changed to paragraph 4.
45	Changed drill bit size from #21 drill bit to 5/32" drill bit for drilling 2 holes in vehicle body vertical post for mounting control switch.
49	Added brands and part numbers to tables of recommended hydraulic oils.
53	Updated platform gap to 3/4".
56	Deleted references to discontinued steel & aluminum platforms.
76, 77	Added 24 VDC battery to electrical schematics.
83	Updated Pre-delivery Inspection Form to include check for 3/4" gap between heel of platform and extension plate when platform is at bed height.

Comply with the following **WARNINGS** and **SAFETY INSTRUCTIONS** while installing Liftgates. See Operation Manual for operating safety requirements.

## **WARNING**

Installing and maintaining a liftgate can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, install and maintain liftgate in a well-ventilated area and wear **proper Personal protective equipment (PPE)**. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## **WARNING**

- Do not stand, 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.
- 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 can become 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.
- Recommended practices for welding on steel parts are contained in the current **AWS (American Welding Society) D1.1 Structural Welding Code - Steel**. Damage to Liftgate and/or vehicle, and personal injury can result from welds that are done incorrectly.
- Recommended practices for welding galvanized steel are contained in the current **AWS (American Welding Society) D19.0 Welding Zinc-Coated Steel**. Damage to Liftgate and/or vehicle, and personal injury can result from welds that are done incorrectly.

## SAFETY INSTRUCTIONS

- 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**.
- Comply with all **WARNING** and instruction decals attached to the Liftgate.
- Keep decals clean and legible. If decals are illegible 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.
- 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 switch to stop the Liftgate.
- A correctly installed Liftgate operates smoothly and reasonably quiet. The only noticeable noise during operation comes from the power unit while the platform is raised and lowered. Listen for scraping, grating and binding noises and correct the problem before continuing to operate Liftgate.

## NOTICE

- Maxon Lift is responsible for the instructions to correctly install **MAXON** Liftgates on trucks or trailers only.
- Liftgate installers, not Maxon Lift, are responsible for reviewing and complying with all applicable Federal, State, and Local regulations pertaining to the trailer or truck.
- Installers of the liftgate should ensure that all trucks and trailers are equipped with grab handles as needed. Refer to Technology Maintenance Council (TMC) RP 1428: Entry And Egress Guidelines for Vehicles With Fold-Under Type Liftgates.

# TE-SERIES LIFTGATE COMPONENTS

## ⚠ CAUTION

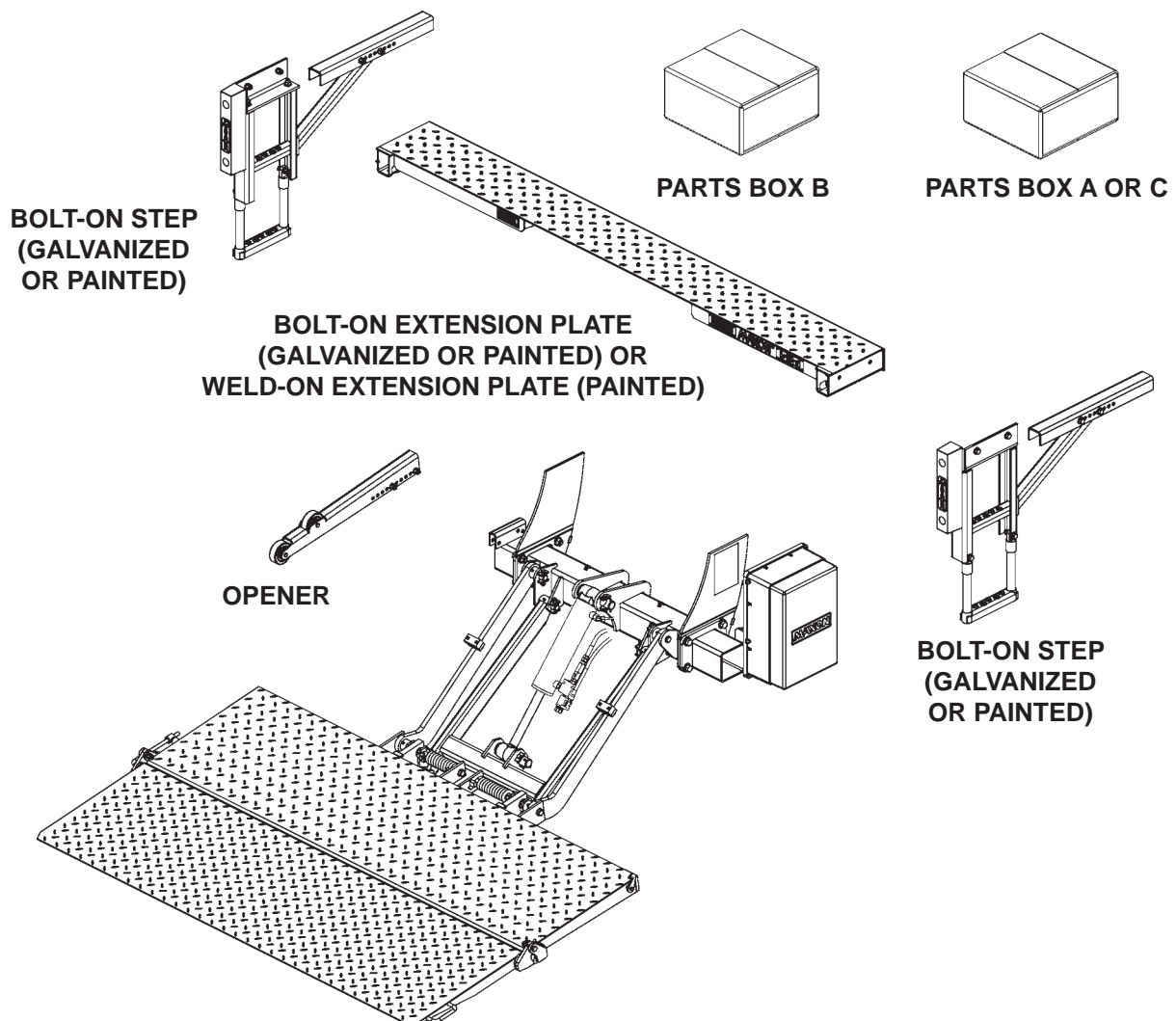
Prevent injuries and equipment damage. Before cutting the shipping straps from the Liftgate, put Liftgate on level ground that will support at least 1500 pounds. Be careful lifting and moving components (such as extension plate) after shipping straps are removed.

**NOTE:** Make sure you have all components and parts before you start installing Liftgate. Compare parts in the part box and each kit box with packing list closed in each box. If parts and components are missing or incorrect, call:

**Maxon Customer Service**

**Call (800) 227-4116 or**

**Send e-mail to [customersupport@maxonlift.com](mailto:customersupport@maxonlift.com)**



**LIFTGATE COMPONENTS**

**FIG. 7-1**



## PARTS BOXES FOR TE-SERIES

ITEM	NOMENCLATURE OR DESCRIPTION	QTY.	PART NUMBER
REF	PARTS BOX A	1	297502-01
1	SPRING CLIP	10	050079
2	PLASTIC TIE	2	206864
3	#10 LOOM CLAMP	2	801681
4	SCREW TAPPING #10 X 1/2" LG.	2	030458
5	GROUND CABLE ASSEMBLY, 2GA, 48" LG	1	251871-26
6	CABLE ASSEMBLY, 2GA, 49-3/4" LG. (GROUND)	1	268226-11
7	CAP SCREW, 5/16"-18 X 3/4" LG	1	900009-3
8	CABLE ASSEMBLY, 175A, 38 FT LG.	1	264422

**CONTENTS OF PARTS BOX A  
TABLE 8-1**

ITEM	NOMENCLATURE OR DESCRIPTION	QTY.	PART NUMBER
REF	PARTS BOX B	1	297049-01
1	TOGGLE SWITCH ASSEMBLY	1	296855-01
2	HEX NUT, 1/2"-13	2	901011-9
3	HEX HEAD CAP SCREW, 1/2"-13 X 1-1/2" LG.	2	900035-3
4	INSTALLATION BRACKET	2	269462-01
5	SCREW, SELF TAPPING, #10-24 X 1-1/2" LG	2	900057-7
6	LUG, 2GA COPPER	1	906497-02

**CONTENTS OF PARTS BOX B  
TABLE 8-2**

ITEM	NOMENCLATURE OR DESCRIPTION	QTY.	PART NUMBER
REF	PARTS BOX C	1	297502-02
1	SPRING CLIP	20	050079
2	PLASTIC TIE	4	206864
3	GROMMET, 1" DIA, 2 HOLES	1	266428-09
4	CABLE ASSY, 175 AMP 38' LG	1	264422
5	GROUND CABLE ASSY, 2 GA X 38' LG	1	269191-01
6	SCREW TAPPING #10 X 1/2" LG.	2	030458
7	#10 LOOM CLAMP	2	801681

**CONTENTS OF PARTS BOX C  
TABLE 8-3**



## MANUALS & DECALS KITS, TE-20

To find **maintenance & parts** information for your **TE-20, TE-25 or TE-30 Liftgate**, go to **www.maxonlift.com**. Click the **PRODUCTS, TUK-A-WAY and TE-20 or TE-25/TE-30** buttons. Open the **Maintenance Manual** in the **PRODUCT DOCUMENTATION** window. For parts, click on the **PARTS PORTAL, TUK-A-WAY & TE-20 or TE-25/TE-30** buttons.

ITEM	QTY.	PART NO.	DESCRIPTION
REF.	1	297048-02	KIT, MANUAL & DECAL TE-20
1	1	220387	DECAL, 2000# CAPACITY
2	1	285800-03	DECAL, OPERATING INSTRUCTIONS
3	1	265736-03	DECAL, PINCH HAZARD WARNING
4	1	282522-01	DECAL, SHEET, SMALL WARNING & CAUTION
5	1	282847-02	DECAL, WARNING, STOW
6	1	299038-01	DECAL SHEET, UP & DOWN, BILINGUAL
7	1	299348-01	DECAL, QR CODE, TE
8	1	299634-01	DECAL, MAXON 24/7 SUPPORT
9	1	M-16-33	MANUAL, TE-SERIES INSTALLATION
10	1	M-16-34	MANUAL, TE-SERIES OPERATION

**TABLE 9-1**

## MANUALS & DECALS KITS, TE-25 & TE-30

To find **maintenance & parts** information for your **TE-20, TE-25 or TE-30 Liftgate**, go to **www.maxonlift.com**. Click the **PRODUCTS, TUK-A-WAY and TE-20 or TE-25/TE-30** buttons. Open the **Maintenance Manual** in the **PRODUCT DOCUMENTATION** window. For parts, click on the **PARTS PORTAL, TUK-A-WAY & TE-20 or TE-25/TE-30** buttons.

ITEM	QTY.	PART NO.	DESCRIPTION
REF.	1	297048-03	KIT, MANUAL & DECAL TE-25
1	1	220382	DECAL, 2500# CAPACITY
2	1	285800-03	DECAL, OPERATING INSTRUCTIONS
3	1	265736-03	DECAL, PINCH HAZARD WARNING
4	1	282522-01	DECAL, SHEET, SMALL WARNING & CAUTION
5	1	282847-02	DECAL, WARNING, STOW
6	1	299038-01	DECAL SHEET, UP & DOWN, BILINGUAL
7	1	299348-02	DECAL, QR CODE, TE-25/TE-30
8	1	299634-01	DECAL, MAXON 24/7 SUPPORT
9	1	M-16-33	MANUAL, TE-SERIES INSTALLATION
10	1	M-16-34	MANUAL, TE-SERIES OPERATION

**TABLE 10-1**

ITEM	QTY.	PART NO.	DESCRIPTION
REF.	1	297048-04	KIT, MANUAL & DECAL TE-30
1	1	220388	DECAL, 3000# CAPACITY
2	1	285800-03	DECAL, OPERATING INSTRUCTIONS
3	1	265736-03	DECAL, PINCH HAZARD WARNING
4	1	282522-01	DECAL, SHEET, SMALL WARNING & CAUTION
5	1	282847-02	DECAL, WARNING, STOW
6	1	299038-01	DECAL SHEET, UP & DOWN, BILINGUAL
7	1	299348-02	DECAL, QR CODE, TE-25/TE-30
8	1	299634-01	DECAL, MAXON 24/7 SUPPORT
9	1	M-16-33	MANUAL, TE-SERIES INSTALLATION
10	1	M-16-34	MANUAL, TE-SERIES OPERATION

**TABLE 10-2**

## VEHICLE REQUIREMENTS

**NOTE:** The vehicle bed height for **TE-Series** high bed Liftgates is 54" maximum (unloaded) and 42" minimum (loaded). For the **TE-Series** low bed Liftgates, the bed height is 44" maximum (unloaded) and 36" minimum (loaded). Do not install this Liftgate on vehicle bodies equipped with swing open doors.

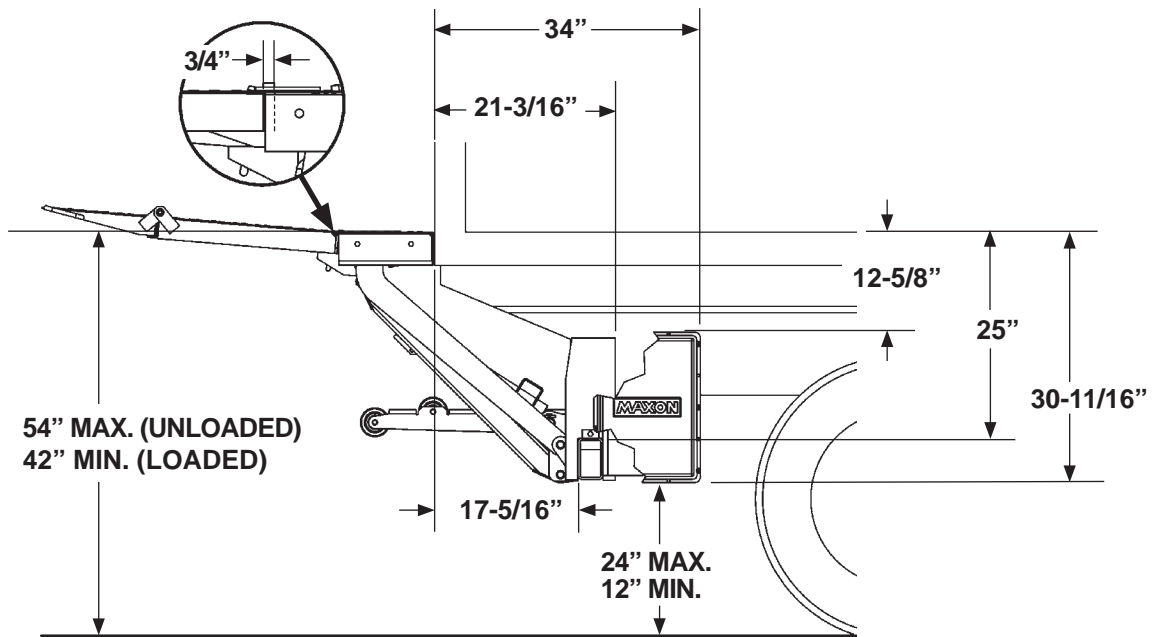
**NOTE:** Dimensions are provided as reference for fitting Liftgate to vehicle body.

**NOTE:** Measure the width of the Liftgate and the width of the vehicle body before you start doing this procedure. Ensure the Liftgate is the correct width for vehicle.

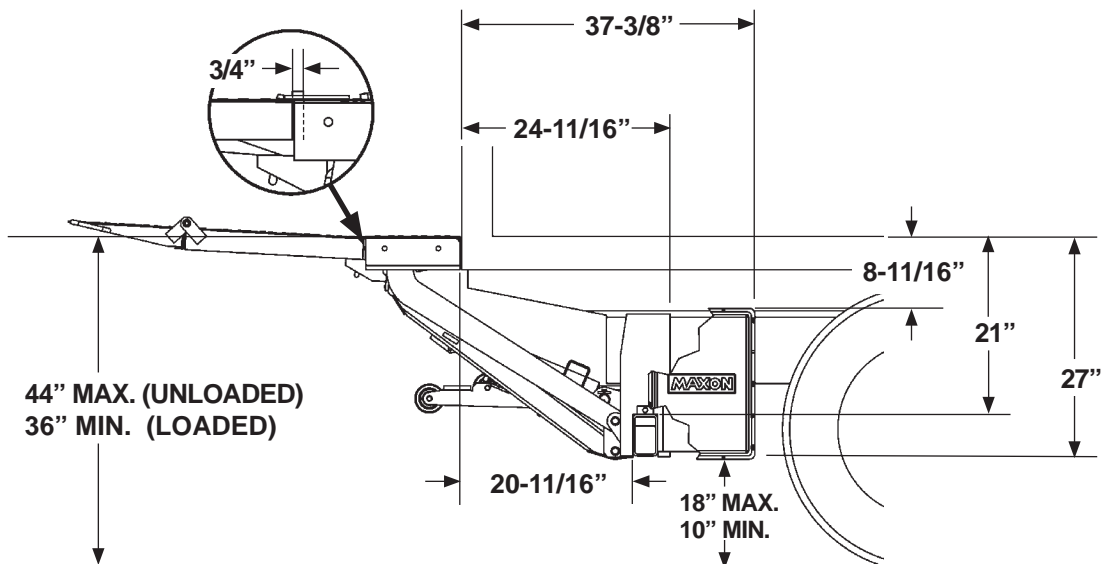
**NOTE:** Make sure vehicle is parked on level ground while preparing vehicle and installing Liftgate.

- See **TE-20** high bed installation dimensions in **FIG. 12-1**.
- See **TE-20** low bed installation dimensions in **FIG. 12-2**.
- See **TE-20** high bed truck frame cut-out dimensions in **FIG. 13-1**.
- See **TE-20** low bed truck frame cut-out dimensions in **FIG. 13-2**.
- See **TE-25** and **TE-30** high bed installation dimensions in **FIG. 14-1**.
- See **TE-25** and **TE-30** low bed installation dimensions in **FIG. 14-2**.
- See **TE-25** and **TE-30** high bed truck frame cut-out dimensions in **FIG. 15-1**.
- See **TE-25** and **TE-30** low bed truck frame cut-out dimensions in **FIG. 15-2**.

# VEHICLE REQUIREMENTS TE-20



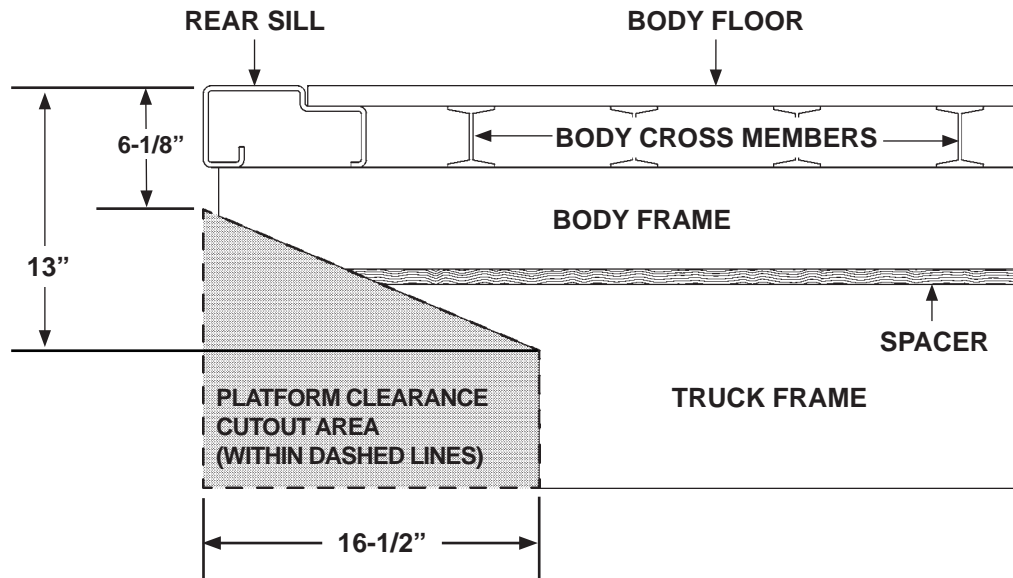
**CLEARANCES FOR TE-20 HIGH BED INSTALLATION (PAINTED)**  
**FIG. 12-1**



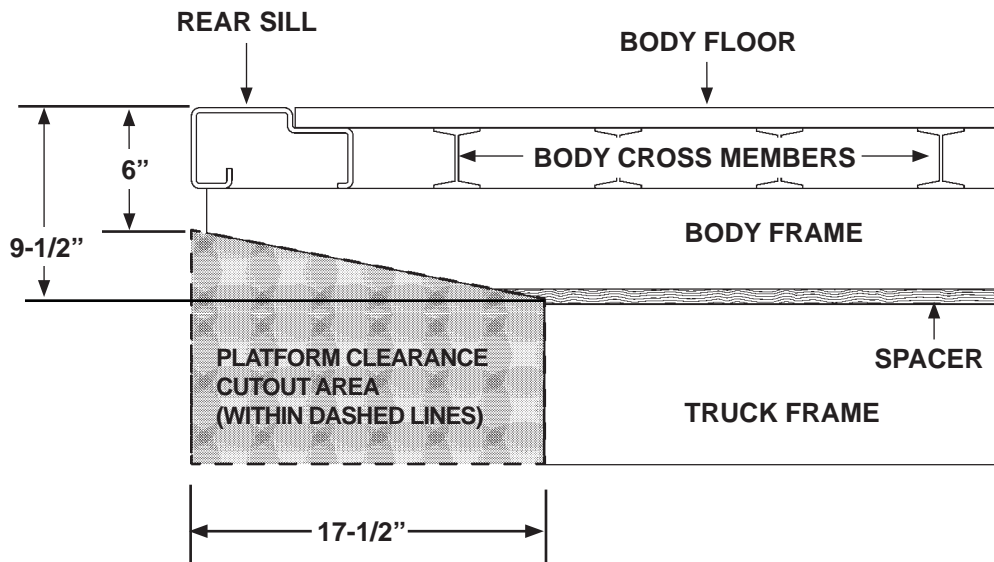
**CLEARANCES FOR TE-20 LOW BED INSTALLATION (PAINTED)**  
**FIG. 12-2**

# VEHICLE REQUIREMENTS

## TE-20 - Continued

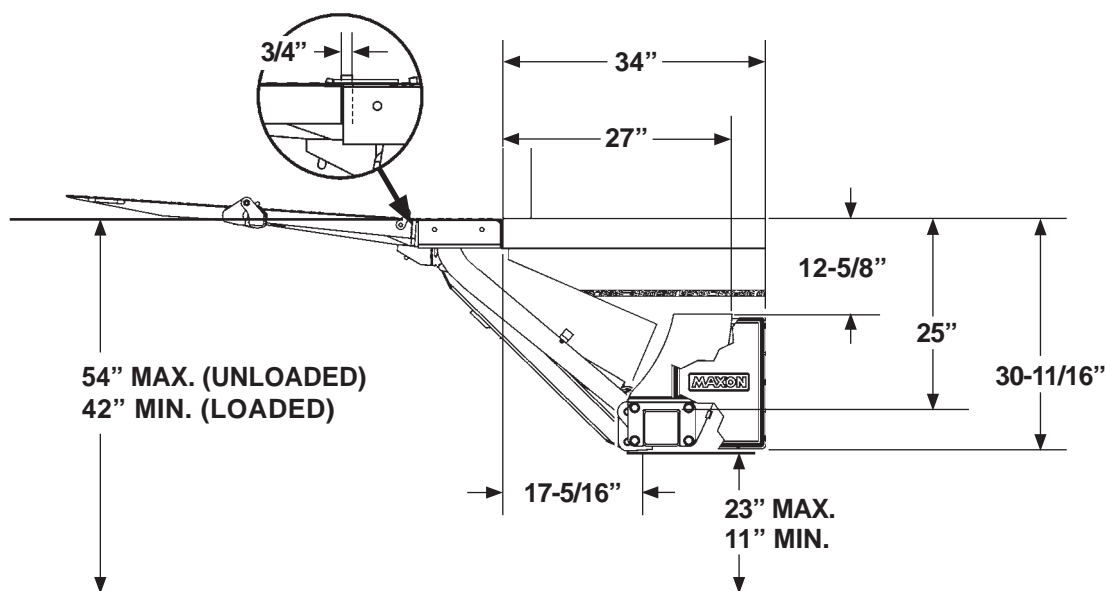


VEHICLE FRAME CUT-OUT (42" TO 54" BED HEIGHTS)  
FIG. 13-1

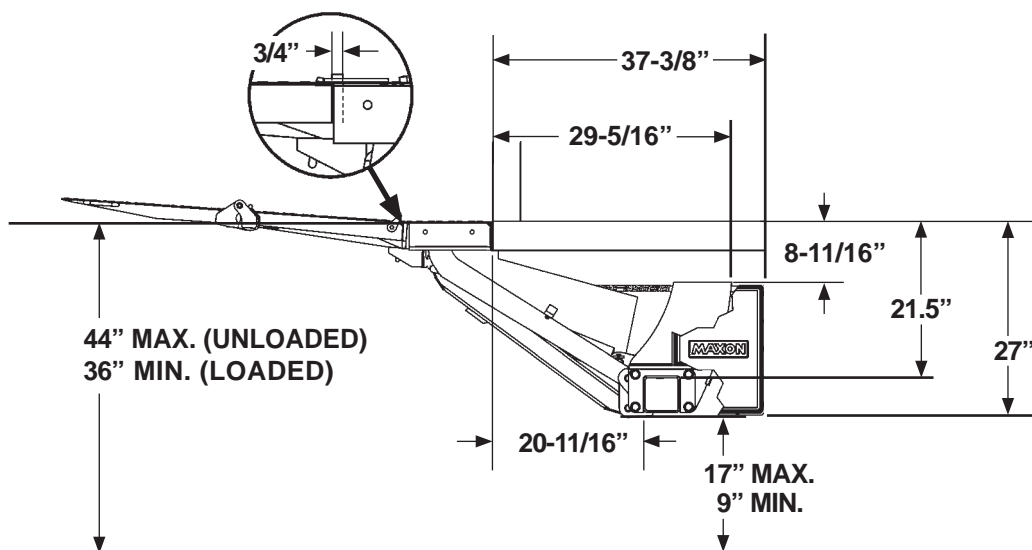


VEHICLE FRAME CUT-OUT (36" TO 44" BED HEIGHTS)  
FIG. 13-2

# VEHICLE REQUIREMENTS TE-25 & TE-30

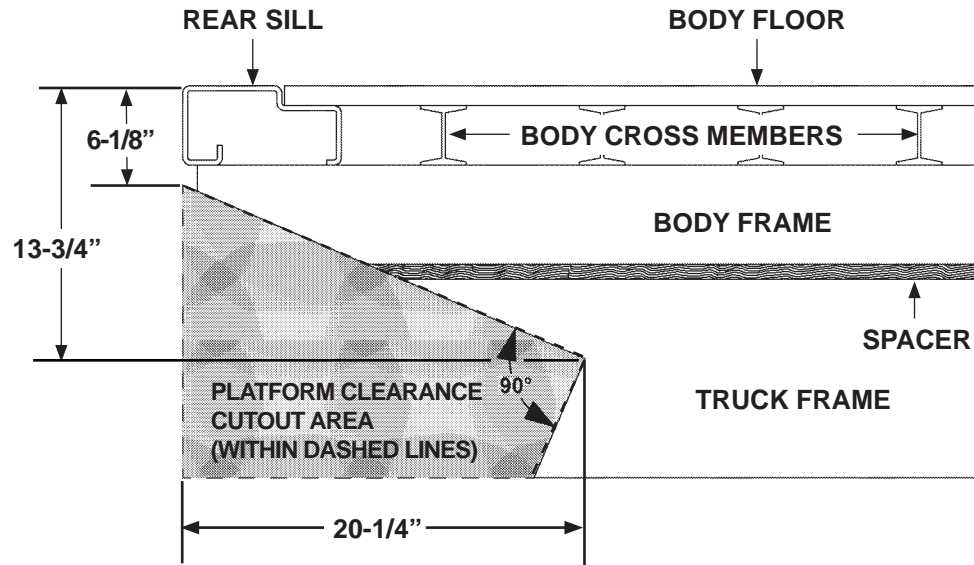


**CLEARANCES FOR TE-25 & TE-30 HIGH BED INSTALLATION**  
**FIG. 14-1**

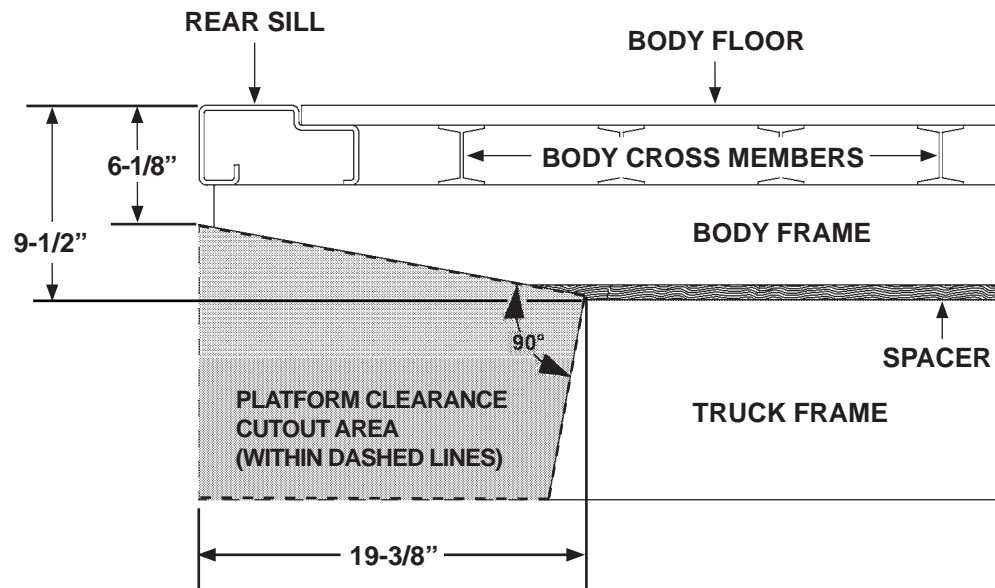


**CLEARANCES FOR TE-25 & TE-30 LOW BED INSTALLATION**  
**FIG. 14-2**

# VEHICLE REQUIREMENTS TE-25 & TE-30 - Continued



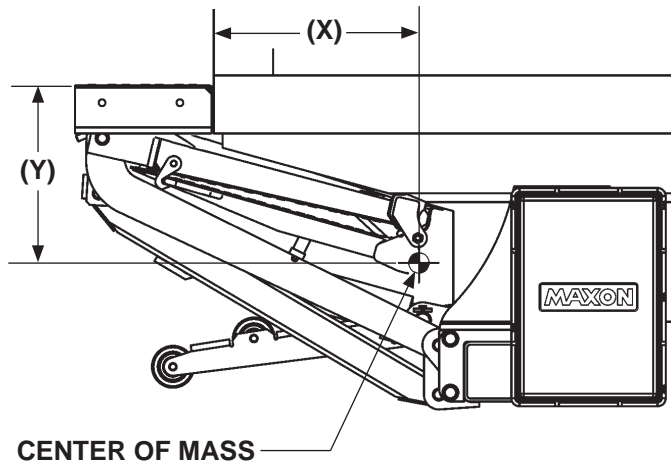
**VEHICLE FRAME CUT-OUT (42" TO 54" BED HEIGHTS)**  
**FIG. 15-1**



**VEHICLE FRAME CUT-OUT (36" TO 44" BED HEIGHTS)**  
**FIG. 15-2**



## CENTER OF MASS



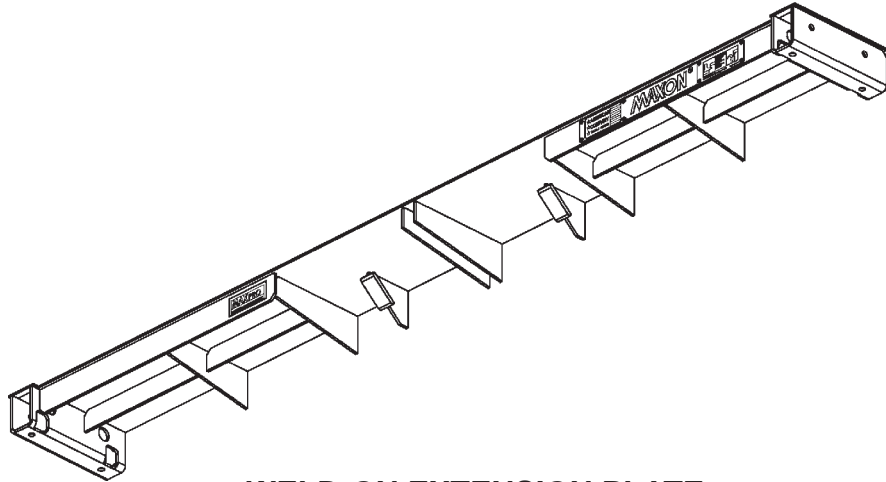
**CENTER OF MASS FOR TE-SERIES LIFTGATES  
(TE-25/TE-30 SHOWN WITH PLATFORM STOWED)  
FIG. 16-1**

MODEL	PLATFORM	X (+/-3/16")	Y (+/-3/16")
TE-25/TE-30	22"+14" STEEL	5-3/4"	14-1/4"
	24"+24" STEEL	5-11/16"	13-7/8"
	24"+24" ALUM	5-3/8"	13-11/16"
	26"+26" ALUM	5-11/16"	13-7/8"
TE-20	22"+14" STEEL	5-3/4"	14-1/4"
	22"+18" ALUM	5-11/16"	13-7/8"

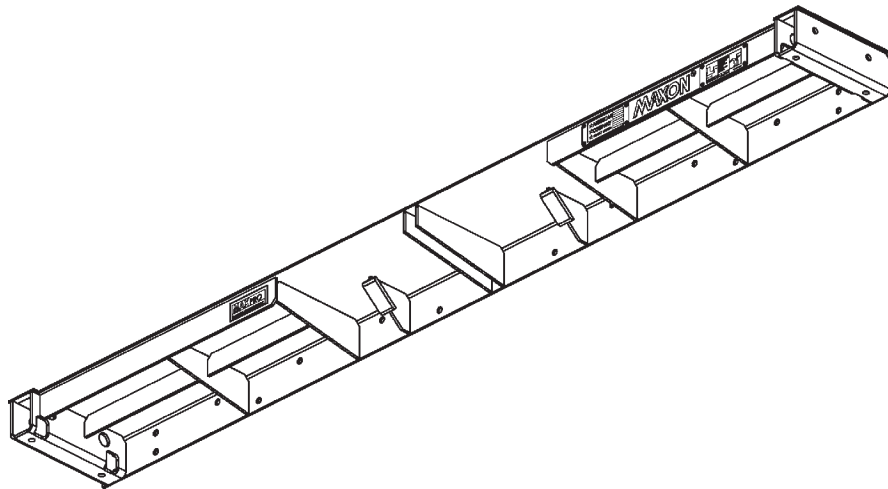
**CENTER OF MASS DIMENSIONS FOR TE-SERIES LIFTGATES  
TABLE 16-1**

## STEP 1 - INSTALL EXTENSION PLATES

**NOTE:** TE-20, TE-25 & TE-30 Liftgates may be equipped with two types of extensions plates. The **weld-on extension plate** is shown in **FIG. 17-1**. The bolt-on extension plate (**FIG. 17-2**) has bolt holes so it can be bolted to vehicle body. **GRADE 8** bolts are required. **MAXON** recommends getting the optional extension plate hardware kit listed in **OPTIONS** section. It also has holes for bolt-on steps and installation brackets, provided with components for installation. Refer to the following instructions for installing extension plates.



**WELD-ON EXTENSION PLATE**  
**FIG. 17-1**



**BOLT-ON EXTENSION PLATE**  
**FIG. 17-2**

# STEP 1 - INSTALL EXTENSION PLATES - Continued

## WELD EXTENSION PLATE TO VEHICLE

### CAUTION

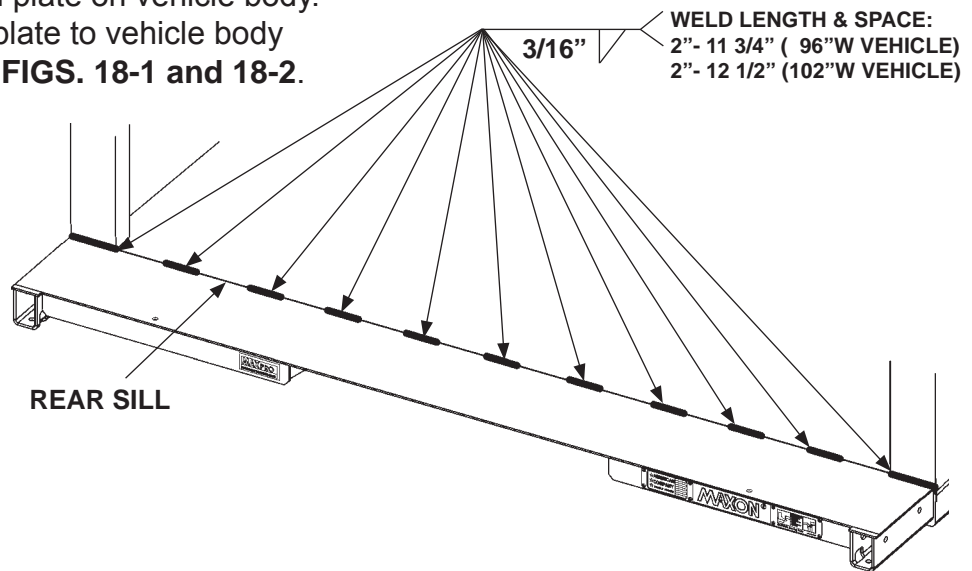
To protect the original paint system, a 3" wide area of paint must be removed from all sides of the weld area before welding.

**NOTE:** Before welding extension plate to vehicle body, make sure:

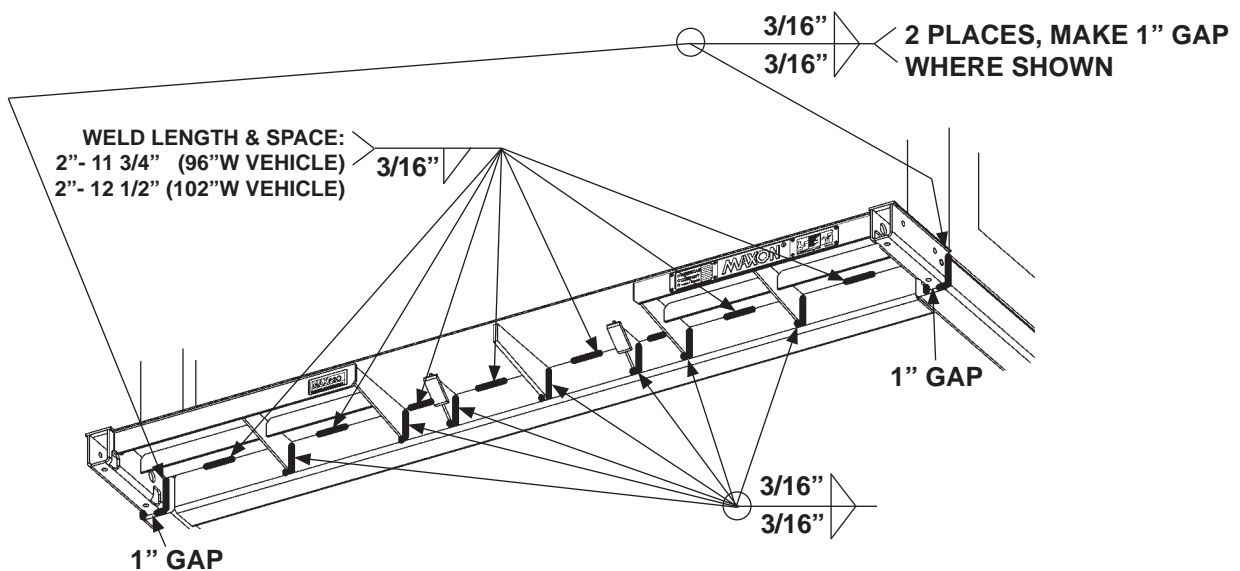
- Inboard edge of extension plate is flush with the top of sill on vehicle body.
- Top surface of extension plate is level with the ground.

Center the extension plate on vehicle body.

Weld the extension plate to vehicle body rear sill as shown in **FIGS. 18-1 and 18-2**.



**EXTENSION PLATE WELDS - VIEWED FROM ABOVE**  
**FIG. 18-1**



**EXTENSION PLATE WELDS - VIEWED FROM UNDERNEATH**  
**FIG. 18-2**

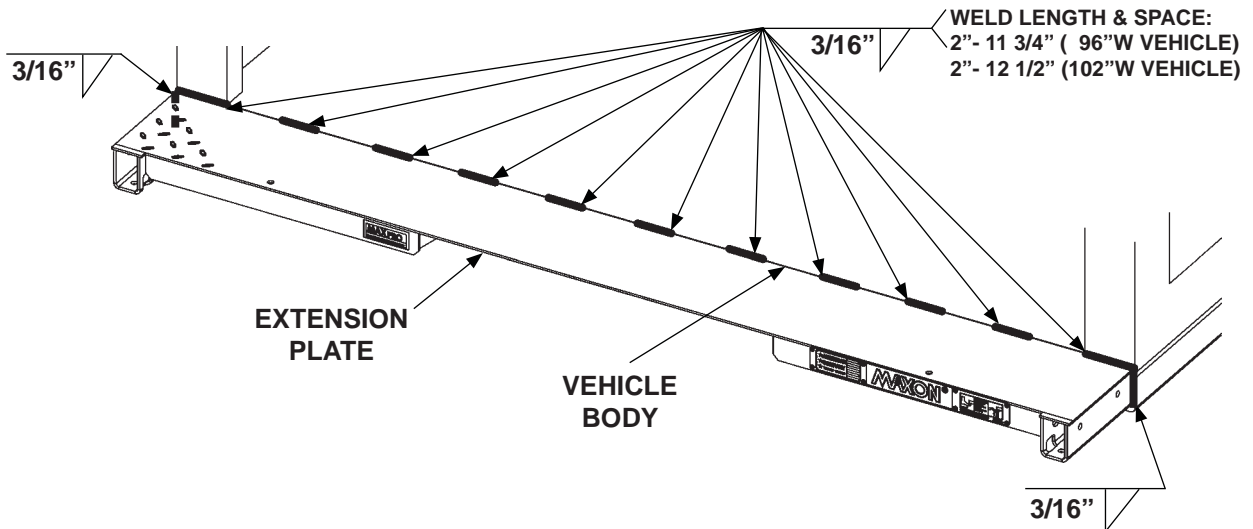
## STEP 1 - INSTALL EXTENSION PLATES - Continued

### WELD A BOLT-ON EXTENSION PLATE TO VEHICLE

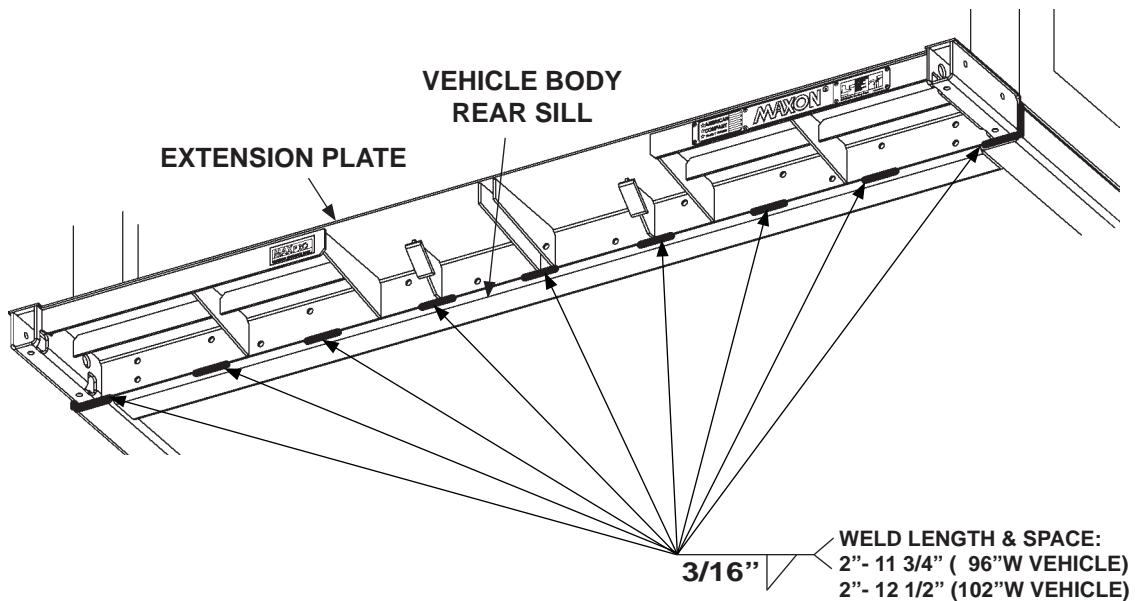
#### CAUTION

To preserve the corrosion resistance properties of the galvanized finish, MAXON recommends bolting the galvanized extension plate to vehicle.

Center the extension plate on vehicle body. Before welding extension plate to vehicle body, make sure top surface of extension plate is flush with floor of vehicle body. Weld the extension plate to vehicle body sill as shown in **FIGS. 19-1 and 19-2**.



EXTENSION PLATE WELDS - VIEWED FROM ABOVE  
FIG. 19-1



EXTENSION PLATE WELDS - VIEWED FROM UNDERNEATH  
FIG. 19-2

## STEP 1 - INSTALL EXTENSION PLATES - Continued

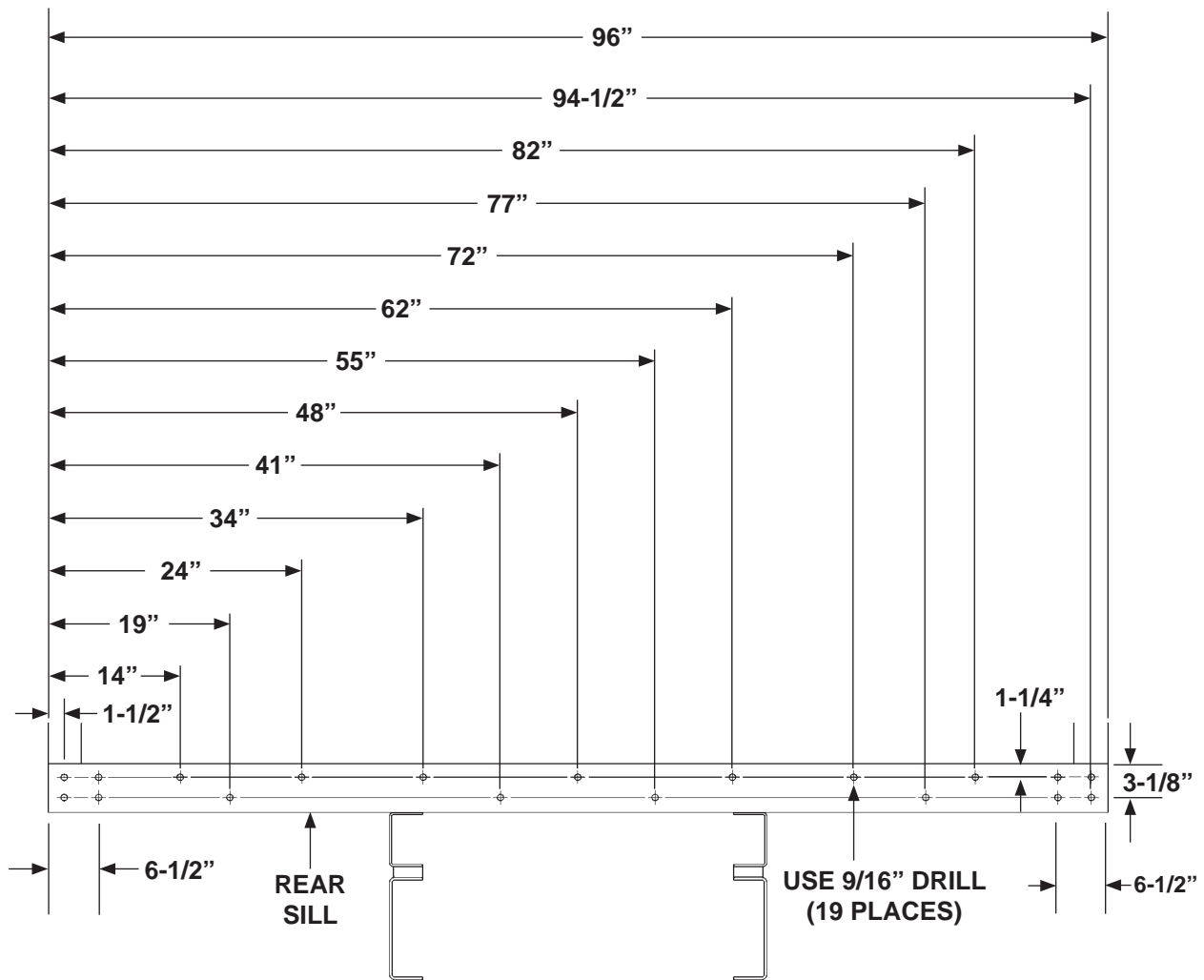
### BOLT EXTENSION PLATE TO VEHICLE

#### CAUTION

To preserve the corrosion resistance properties of the galvanized finish, **MAXON** recommends bolting the extension plate to vehicle.

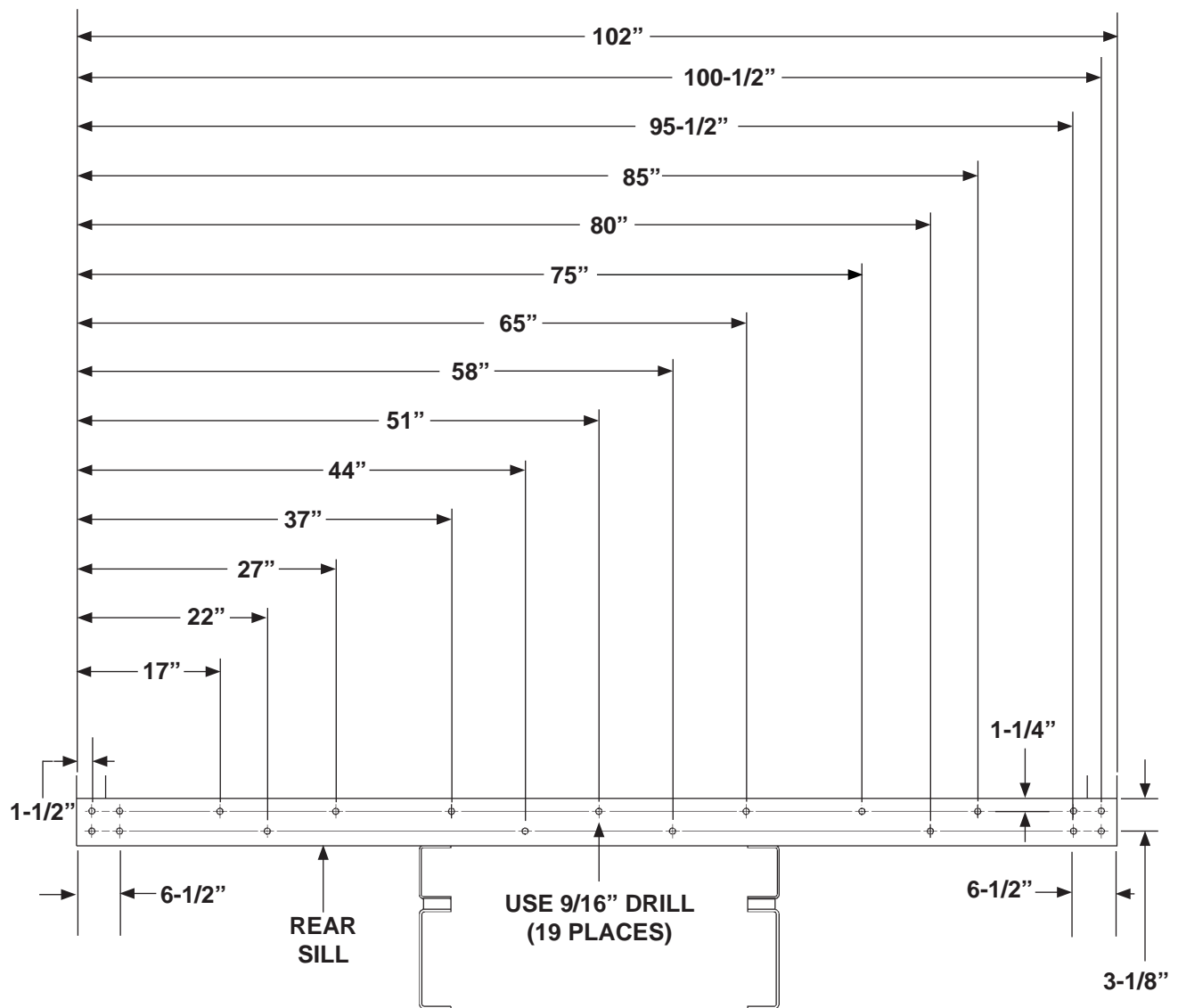
**NOTE:** The extension plate has bolt holes so it can be bolted to vehicle body. **Grade 8** bolts are required. **MAXON** recommends getting the optional extension plate hardware kit listed in **OPTIONS** section. Vehicle body must be drilled according to instructions. If necessary, extension plate may also be welded to vehicle body. Do the following bolting or welding instructions.

1. Mark and drill holes into rear sill as shown in **FIGS. 20-1 and 21-1**.



REAR SILL - HOLE LOCATIONS FOR 96" WIDE VEHICLE  
FIG. 20-1

# STEP 1 - INSTALL EXTENSION PLATES - Continued



REAR SILL - HOLE LOCATIONS FOR 102" WIDE VEHICLE  
FIG. 21-1

## STEP 1 - INSTALL EXTENSION PLATES - Continued

### BOLT EXTENSION PLATE TO VEHICLE - Continued

#### CAUTION

The mating surface between the bolt-on extension plate and vehicle rear sill must be as flat as possible. Interference between the mating surfaces could result in a distorted top surface of extension plate when all the bolts are tightened. Distorted extension plate can also make the dual steps difficult to install correctly. Remove interference or shim rear sill to eliminate or reduce the possibility of a distorted extension plate.

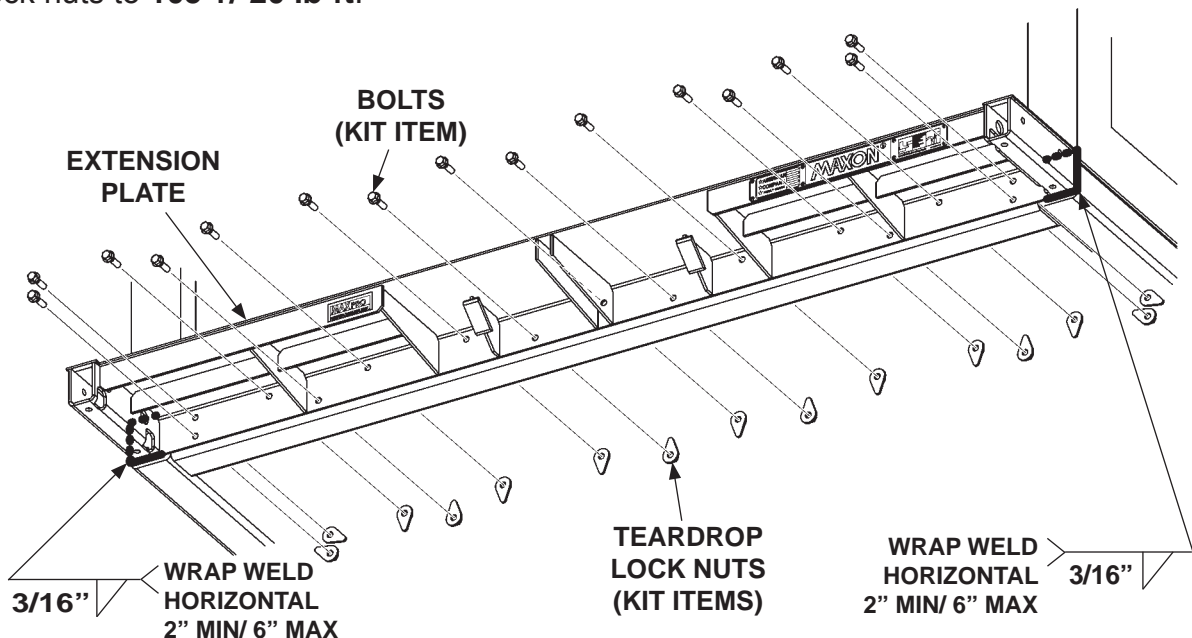
**NOTE:** Do not tighten extension plate bolts and lock nuts until:

- All the bolts and lock nuts are in place.
- Mating surfaces of extension plate and rear sill are made flat as possible.
- Top of extension plate is flush with top of rear sill.

**NOTE:** Weld the LH and RH ends of the extension plate to vehicle body as shown in **FIG. 22-1** if any of the following conditions apply.

- Bolt holes are not accessible on the corner posts of the vehicle body.
- Liftgate will be used for dock loading applications.
- As required by body/trailer manufacturer

2. Bolt extension plate to vehicle as shown in **FIG. 22-1**. If necessary, reposition extension plate so top surface is flush with top surface of sill. Then, torque bolts and lock nuts to **105 +/-20 lb-ft**.



**BOLTING EXTENSION PLATE (96" WIDE EXTENSION PLATE SHOWN)**  
**FIG. 22-1**

**NOTE:** An optional 102" wide extension kit is available for 102" wide vehicles.

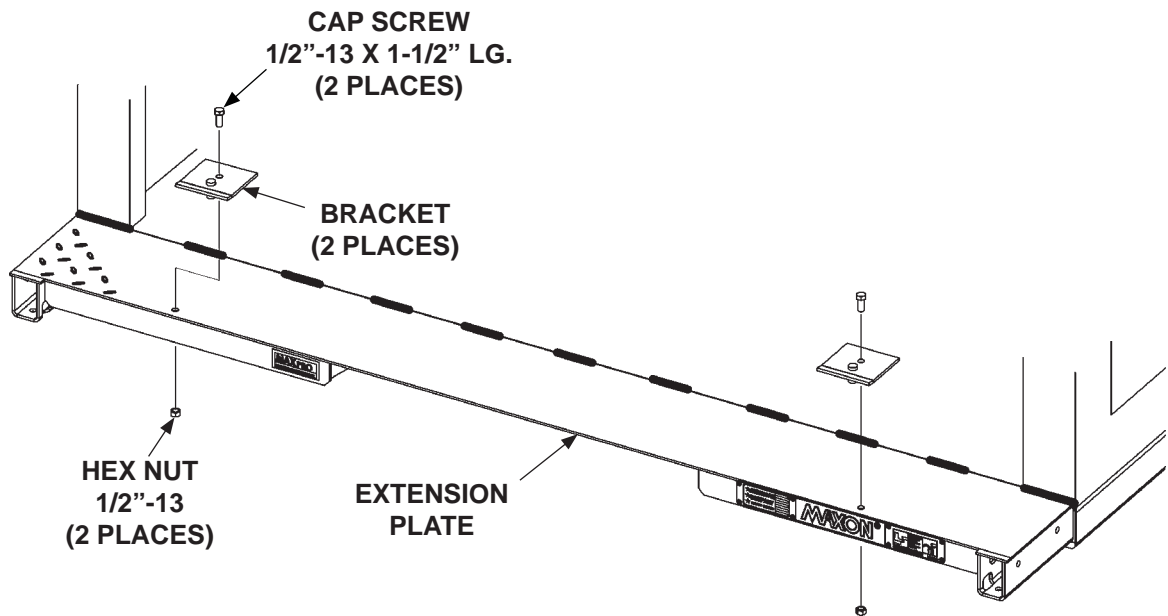


## STEP 1 - INSTALL EXTENSION PLATES - Continued

### BOLT INSTALLATION BRACKETS TO EXTENSION PLATE

**NOTE:** During installation of liftgate, installation brackets keep the heel of the platform level with extension plate and maintain a  $\frac{3}{4}$ " gap between extension plate and heel of platform. The extension plate has bolt holes for bolting on the installation brackets provided in parts box.

Bolt 2 installation brackets (parts box items) on the extension plate as shown in **FIG. 23-1**. Tighten hex nuts securely.



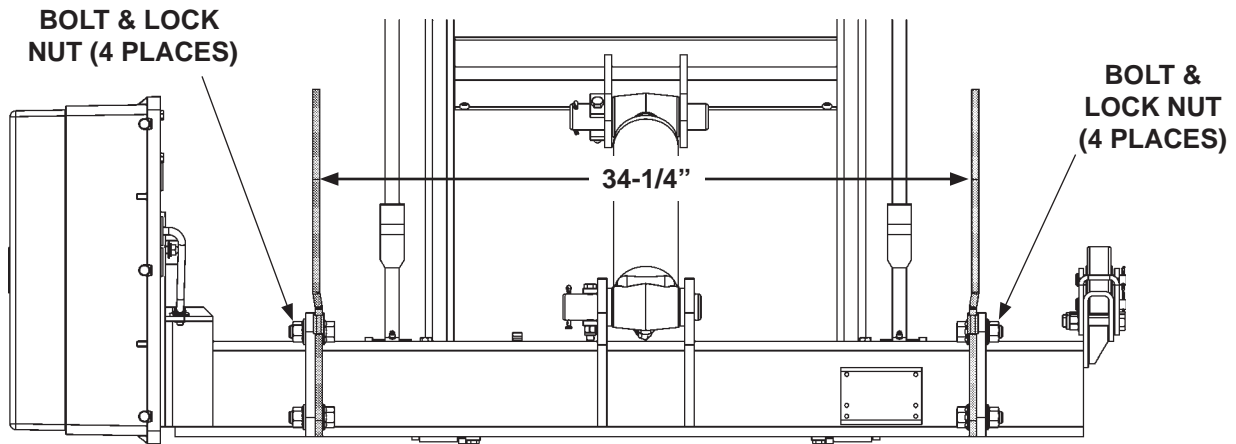
**BOLTING ON INSTALLATION BRACKETS**  
**FIG. 23-1**

## STEP 2 - WELD LIFTGATE TO VEHICLE

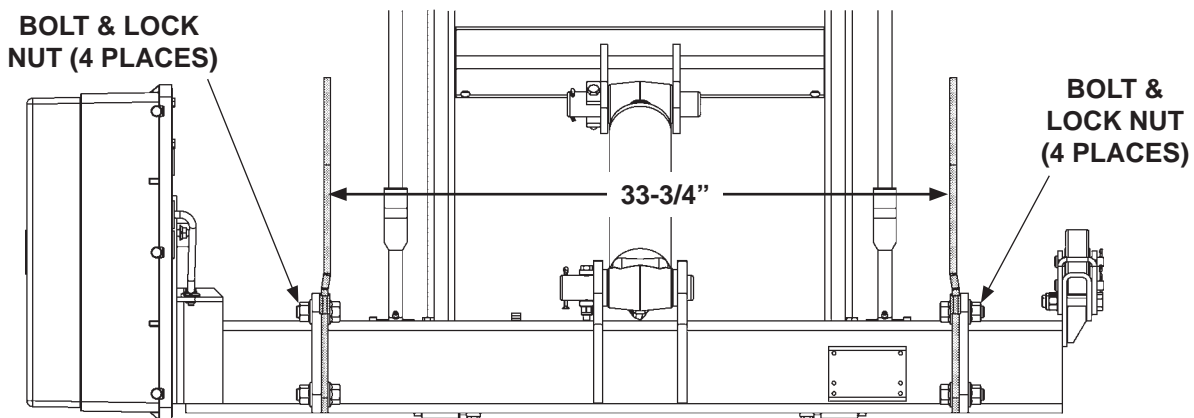
**NOTE: TE- Series** Liftgates are equipped with 2 types of mounting plates.

- Mounting plates on painted Liftgates are temporarily bolted to the main frame for shipping (**FIG. 25-2**). These mounting plates must be unbolted, repositioned, and welded to main frame and truck frame as shown in these instructions.
- On galvanized Liftgates, mounting plates are bolted to the main frame (**FIGS. 24-1, 24-2 and 25-1**). Liftgates are shipped at a standard distance of 34-1/4" between mounting plates (**FIG. 24-1**). For narrower chassis, the RH and LH plates may be unbolted from the main frame and bolted on the opposite side at a distance of 33-3/4" between plates (**FIG. 24-2**). For chassis that are wider than standard, a kit is available to set a distance of 42-1/4" between plates (**FIG. 25-2**).

If necessary, unbolt mounting plates from galvanized main frame (**FIG. 24-1**). Then, bolt in opposite position (**FIG. 24-2**). Torque mounting plate nuts and bolts **220 - 240 lb-ft**.

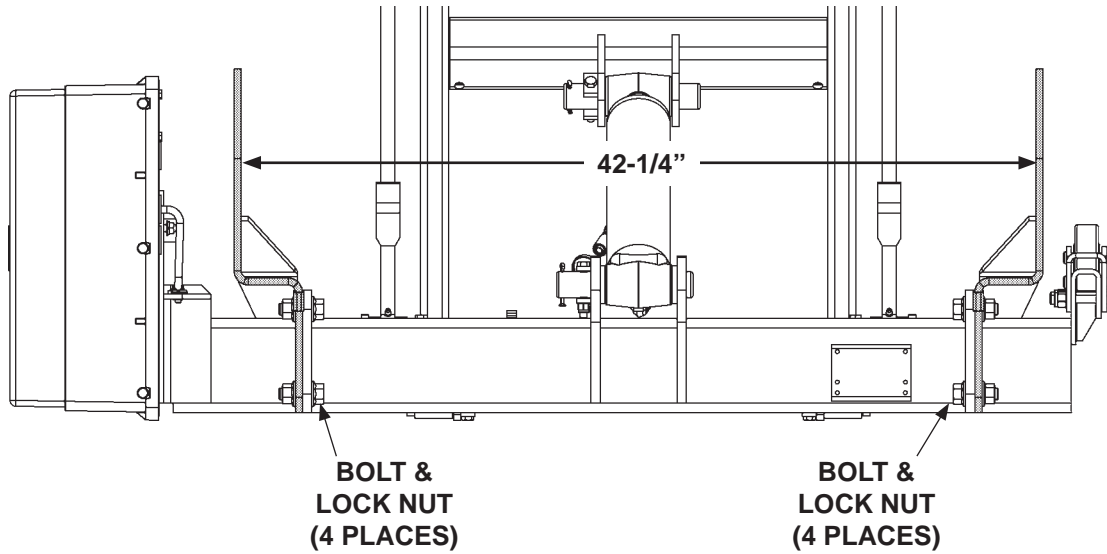


**BOLT-ON MOUNTING PLATES 34-1/4" (GALVANIZED)**  
**FIG. 24-1**

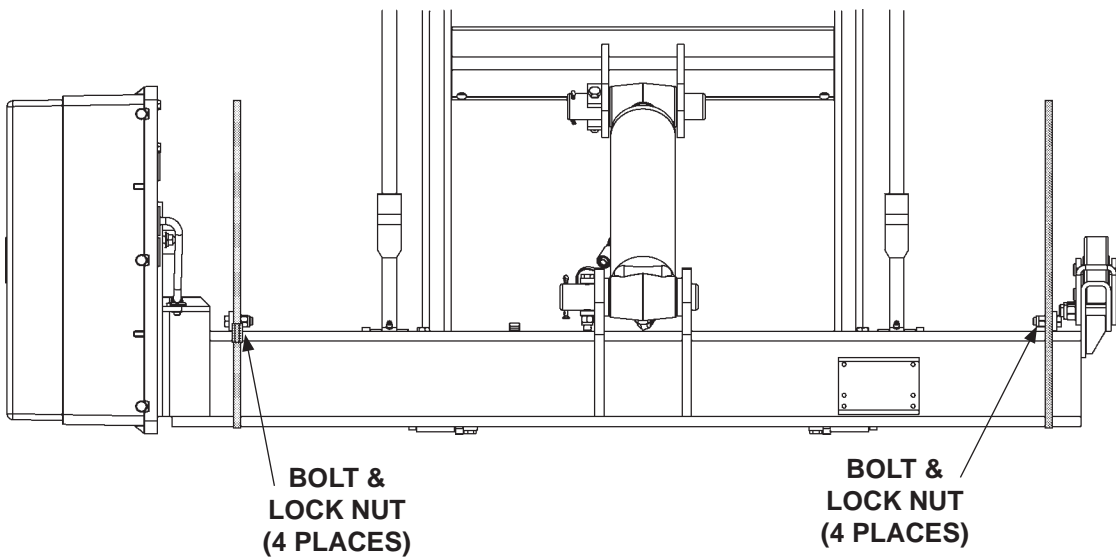


**BOLT-ON MOUNTING PLATES 33-3/4" (GALVANIZED)**  
**FIG. 24-2**

## STEP 2 - WELD LIFTGATE TO VEHICLE - Continued



**BOLT-ON MOUNTING PLATES 42-1/4" (GALVANIZED)**  
**FIG. 25-1**



**WELD-ON MOUNTING PLATES (PAINTED)**  
**TEMPORARILY BOLTED AS SHOWN**  
**FIG. 25-2**

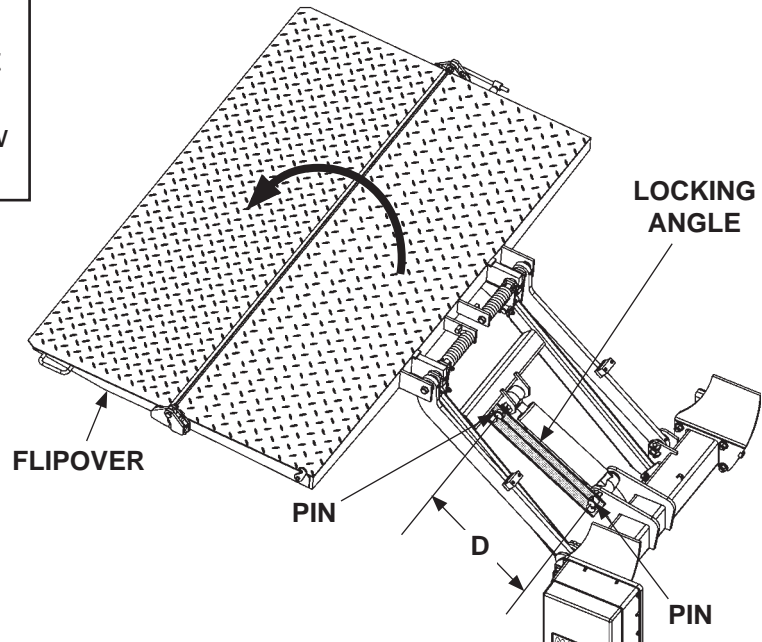
## STEP 2 - WELD LIFTGATE TO VEHICLE - Continued

### ⚠ WARNING

Do not remove lock angle except when instructed to do so in this manual.

**NOTE:** Liftgates are shipped with a locking angle that positions Liftgate correctly for high bed or low bed installation.

1. Unfold the flipover as shown in **FIG. 26-1**.
2. Measure distance "D" between the 2 cylinder pins captured by locking angle (**FIG. 26-1**). Refer to **TABLE 26-1** to verify if Liftgate is a high bed or low bed model.



UNFOLDING FLIPOVER  
FIG. 26-1

### ⚠ WARNING

To prevent injury, support Liftgate to keep it from tipping over. Stay clear of place under the platform where Liftgate could fall on you.

### CAUTION

To prevent damage to latch on the flipover, attach hoist chains with clearance from the latch.

LIFTGATE MODEL	DISTANCE "D" BETWEEN PINS
HIGH BED (42"-54" HT)	18-1/2"
LOW BED (36"-44" HT)	19-1/4"

DISTANCE BETWEEN CYLINDER PINS  
TABLE 26-1

3. Attach chain and hoist on each side of platform near the heel (**FIG. 26-2**). (Place chain all around platform.) Hoist the Liftgate, and then place floor jack under main frame (**FIG. 26-2**). Jack the Liftgate into position. Make sure vehicle floor is horizontal and platform heel is pushed tight against dowels of the installation brackets. Maintain distance between floor and top of main frame (**FIG. 26-2**).

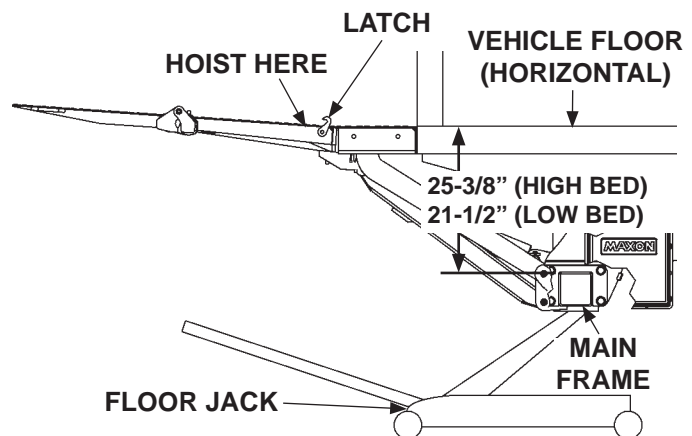


FIG. 26-2

## STEP 2 - WELD LIFTGATE TO VEHICLE - Continued

### CAUTION

Prevent damage to hydraulic hoses. If welding next to hydraulic hoses, use a protective cover such as a welding blanket to cover the hoses.

### CAUTION

To protect the original paint system, if equipped, a 3" wide area of paint must be removed from all sides of the weld area before welding.

### CAUTION

When using an electric welder, connect the welder ground to one of the parts being welded, as close to the weld as possible. Failure to comply could result in damage to cylinders and electrical parts.

### ⚠ WARNING

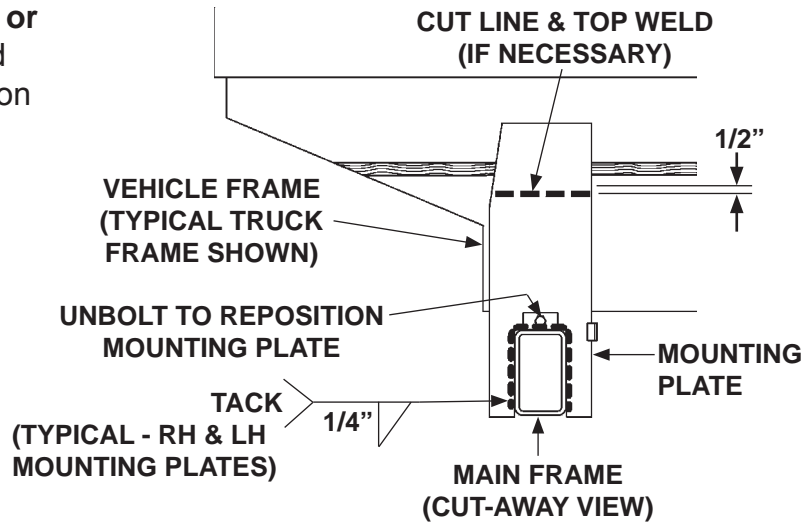
Painted Liftgate is shipped from factory with mounting plates temporarily bolted to main frame. Before operating Liftgate unbolt, position, & weld mounting plates to main frame as shown in illustrations below.

**NOTE:** On some low bed trucks, wood spacer may interfere with having two 7" vertical welds per mounting plate. If the spacer interferes with minimum 7" welds, cut and weld the top of each mounting plate 1/2" below the top radius of the truck frame.

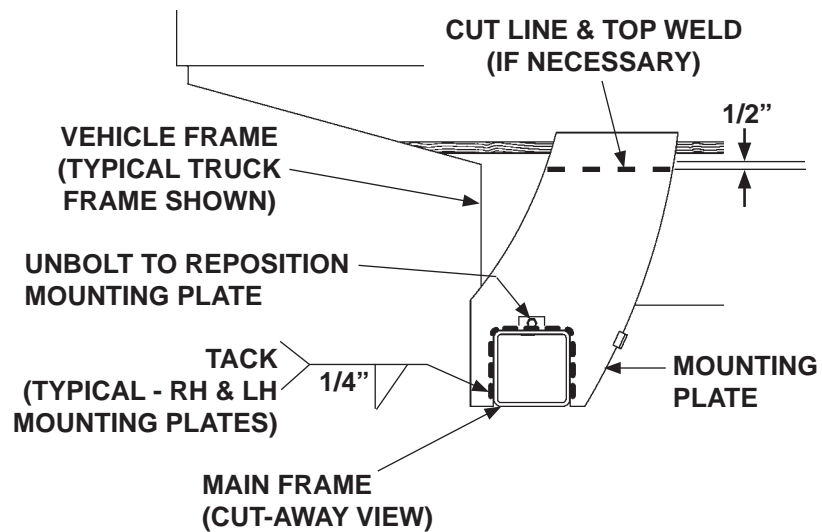
**NOTE:** If main frame is galvanized, skip instructions 4 and 5. Go to instruction 6.

## STEP 2 - WELD LIFTGATE TO VEHICLE - Continued

4. Unbolt mounting plate from main frame. Reposition mounting plate against vehicle frame. Tack weld as shown in **FIGS. 28-1 or 28-2**. Repeat for second mounting plate (reposition and tack weld).



**TE-20**  
**REPOSITIONING PAINTED MOUNTING PLATE**  
**(RH SIDE SHOWN)**  
**FIG. 28-1**

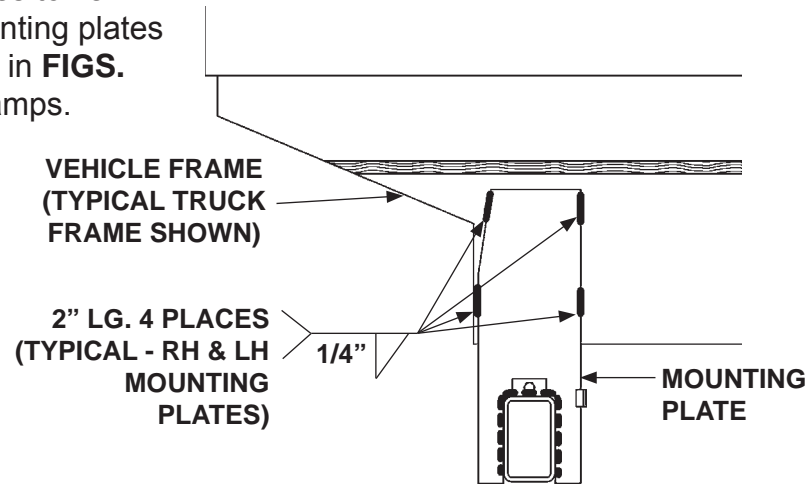


**TE-25 & TE-30**  
**REPOSITIONING PAINTED MOUNTING PLATE**  
**(RH SIDE SHOWN)**  
**FIG. 28-2**

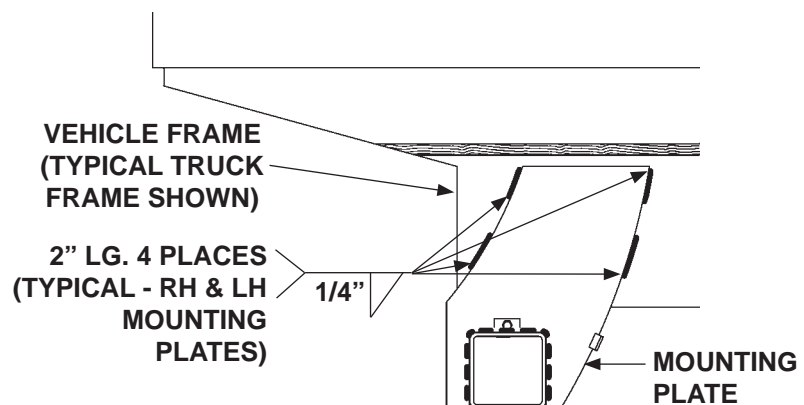
## STEP 2 - WELD LIFTGATE TO VEHICLE - Continued

**NOTE:** For painted Liftgates, weld both mounting plates to vehicle frame before fully welding mounting plates to painted main frame.

5. Clamp both mounting plates to vehicle frame. Weld the mounting plates to vehicle frame as shown in **FIGS. 29-1 or 29-2**. Remove clamps.



**TE-20  
WELD TO VEHICLE FRAME  
(RH SIDE SHOWN)  
FIG. 29-1**

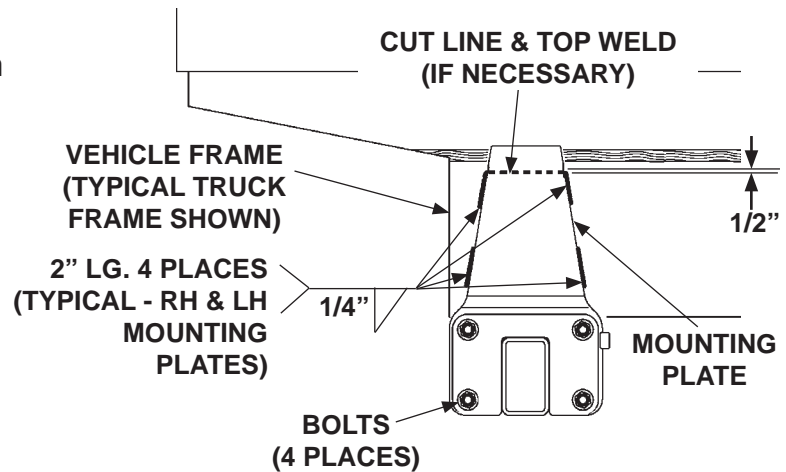


**TE-25 & TE-30  
WELD TO VEHICLE FRAME AND MAIN FRAME  
(RH SIDE SHOWN)  
FIG. 29-2**



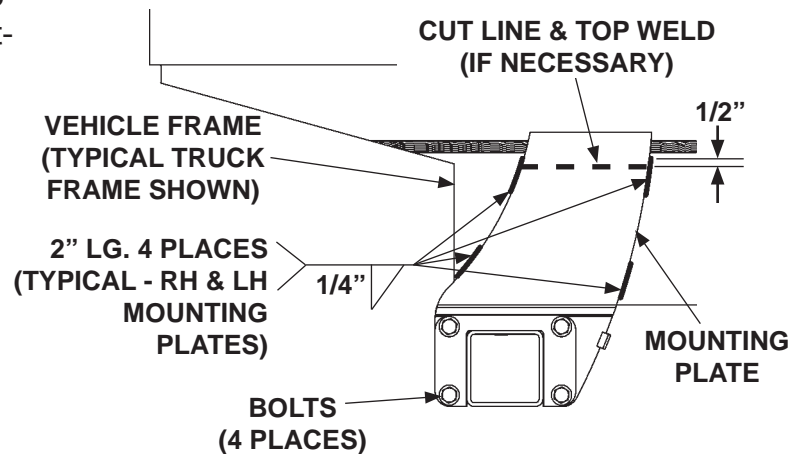
## STEP 2 - WELD LIFTGATE TO VEHICLE - Continued

6. If necessary, unbolt mounting plate to cut at the top as shown in **FIGS. 30-1 or 30-2**. Repeat for LH mounting plate. Then, bolt mounting plates in correct position. Torque mounting plate nuts and bolts **220 - 240 lb-ft.**



**TE-20**  
**WELD TO VEHICLE FRAME (RH SIDE SHOWN)**  
**FIG. 30-1**

7. Clamp both mounting plates to vehicle frame. Weld the mounting plates to vehicle frame as shown in **FIGS. 30-1 or 30-2**. Remove clamps.



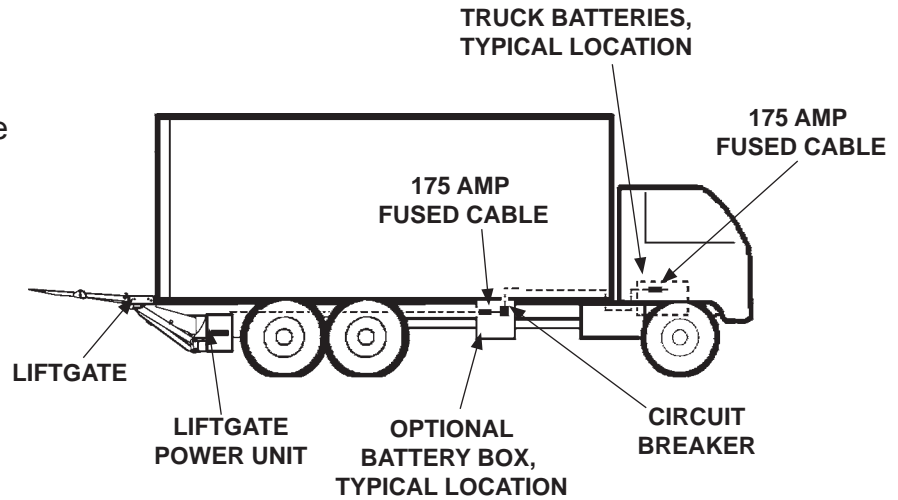
**TE-25 & TE-30**  
**WELD TO VEHICLE FRAME (RH SIDE SHOWN)**  
**FIG. 30-2**

## STEP 3 - ATTACH OPTIONAL BATTERY BOX & FRAME TO VEHICLE (IF EQUIPPED)

### RECOMMENDED CONFIGURATION

**NOTE:** Make sure the Liftgate power unit, and all batteries on the vehicle for the power unit, are connected correctly to a common chassis ground.

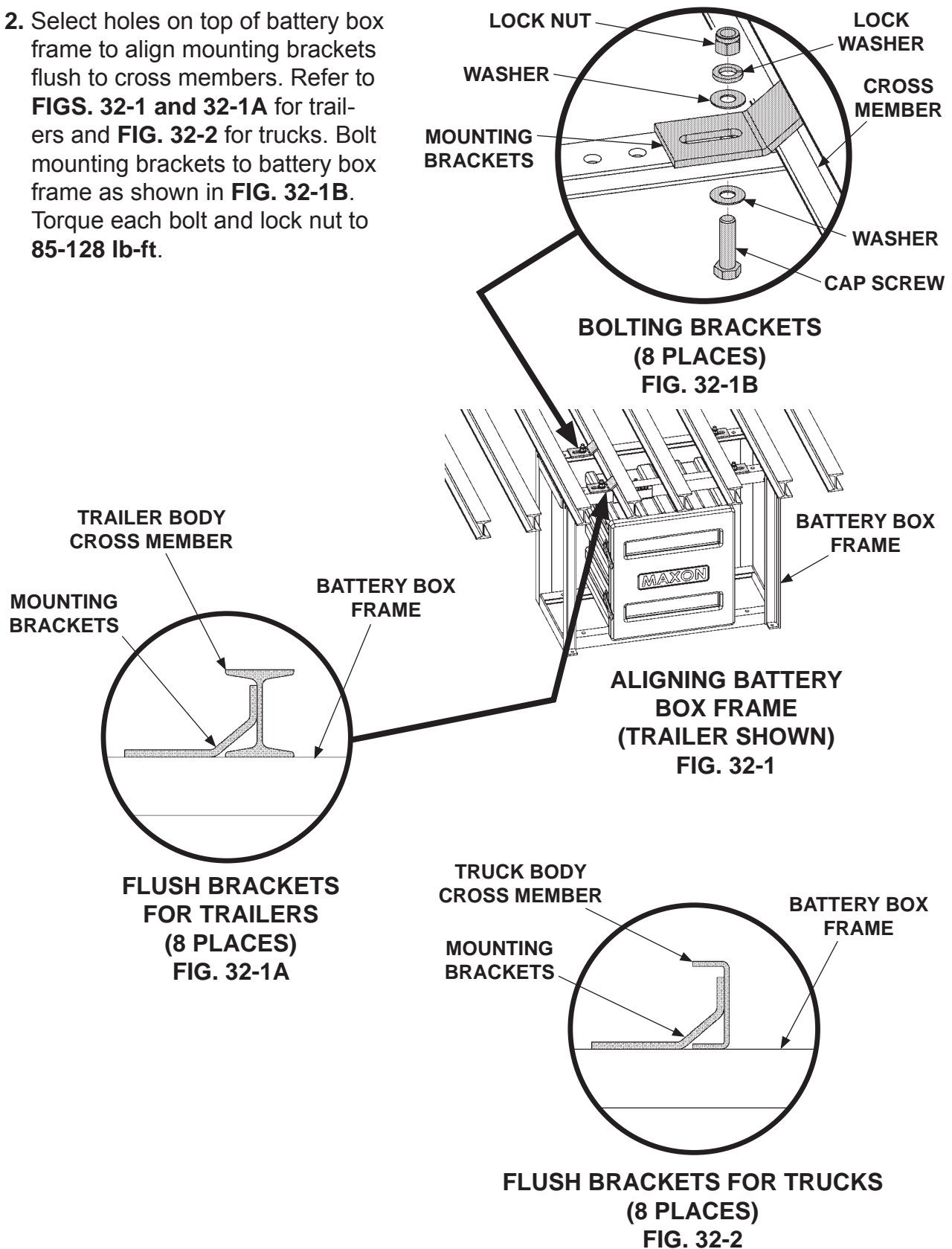
1. Liftgate and optional battery box are typically installed on trucks as shown in **FIG. 31-1**. See the following page for battery and cable connections.



**RECOMMENDED LIFTGATE & BATTERY BOX  
INSTALLATION ON TRUCK  
FIG. 31-1**

## STEP 3 - ATTACH OPTIONAL BATTERY BOX & FRAME TO VEHICLE (IF EQUIPPED) - Continued

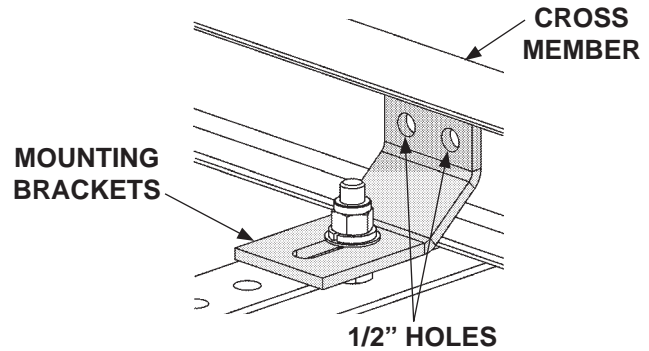
2. Select holes on top of battery box frame to align mounting brackets flush to cross members. Refer to **FIGS. 32-1 and 32-1A** for trailers and **FIG. 32-2** for trucks. Bolt mounting brackets to battery box frame as shown in **FIG. 32-1B**. Torque each bolt and lock nut to **85-128 lb-ft.**



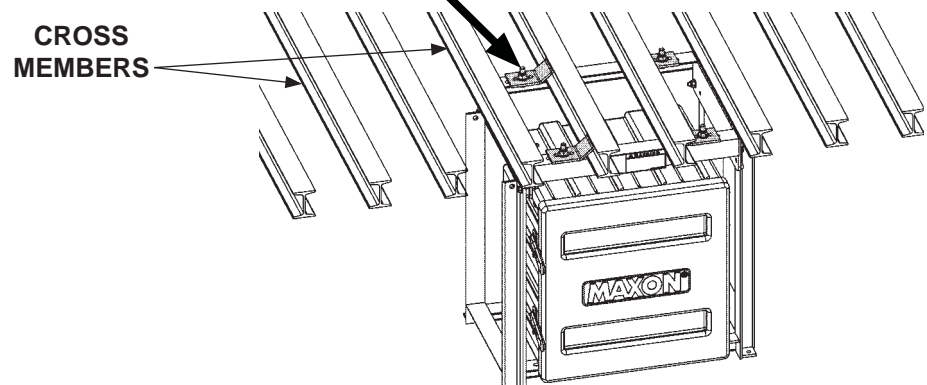
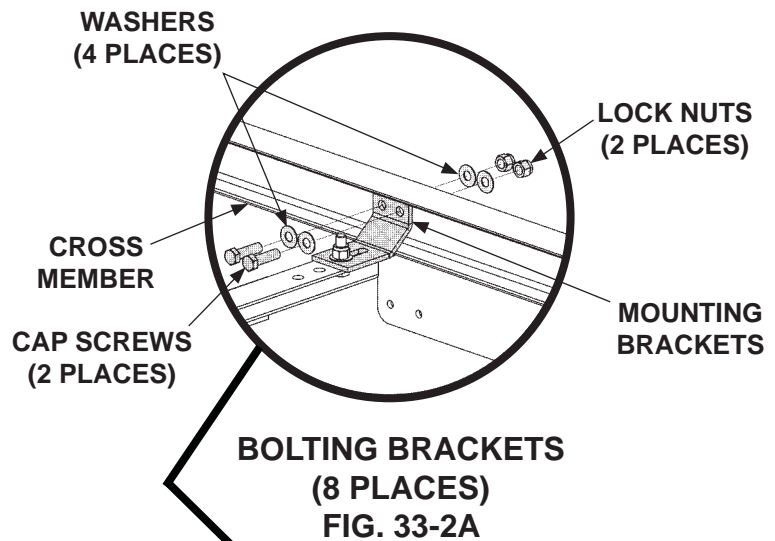
## STEP 3 - ATTACH OPTIONAL BATTERY BOX & FRAME TO VEHICLE (IF EQUIPPED) - Continued

**NOTE:** The hanger brackets for the battery box frame can either be bolted or welded to the cross members of the vehicle body. If welding mounting brackets to cross members, skip instruction 3.

3. To bolt hanger brackets to cross members, use hanger brackets as a template to mark and drill holes through cross members (**FIG. 33-1**). Then, bolt hanger brackets to cross members as shown in **FIGS. 33-2 and 33-2A**. Torque bolts and lock nuts to **85-128 lb-ft**. To weld brackets instead of bolting, weld each hanger bracket to cross member as shown in **FIGS. 34-1 and 34-1A**. Weld top of bracket if accessible.



**MARK AND DRILL BRACKET HOLES**  
**FIG. 33-1**



**BOLTING BATTERY BOX FRAME**  
**FIG. 33-2**

## STEP 3 - ATTACH OPTIONAL BATTERY BOX & FRAME TO VEHICLE (IF EQUIPPED) - Continued

### **⚠ WARNING**

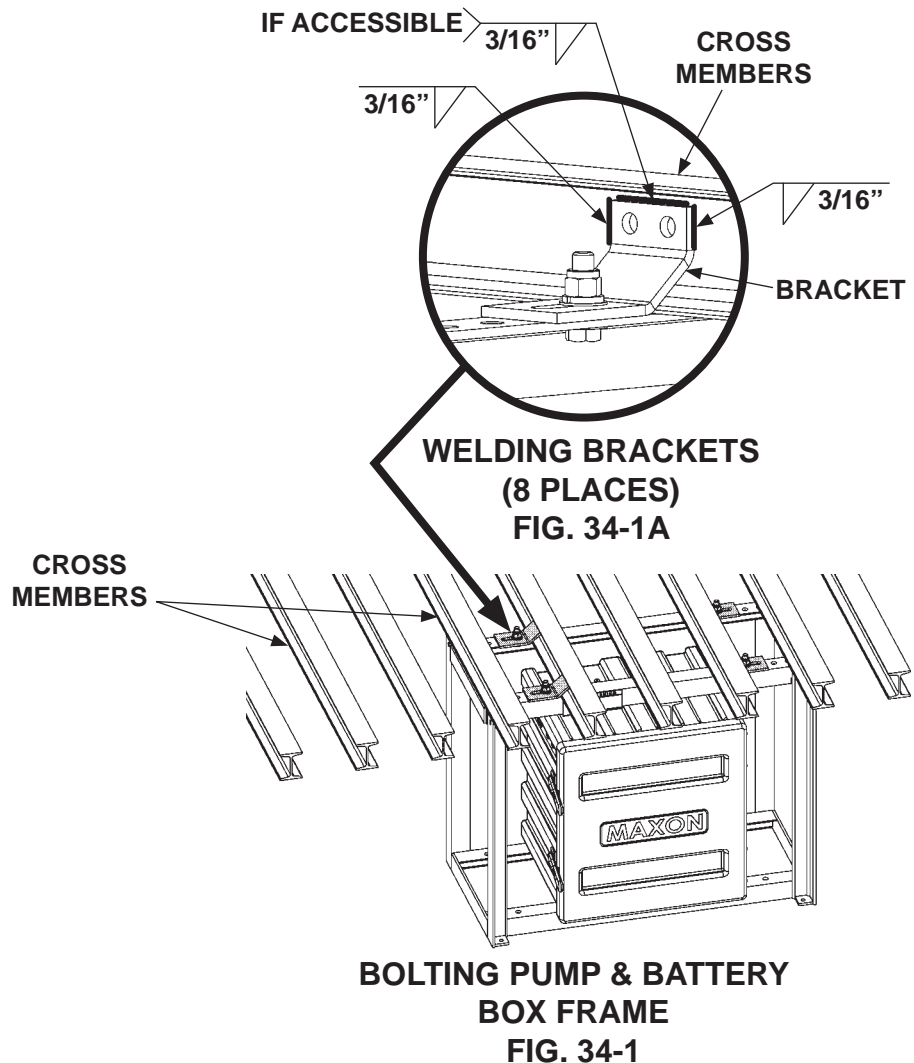
Recommended practices for welding on steel parts are contained in the current AWS (American Welding Society) D1.1 Structural Welding Code - Steel. Damage to Liftgate and/or vehicle, and personal injury can result from welds that are done incorrectly.

### **CAUTION**

To prevent pump box components from being damaged by electric current from welding, connect welder grounding cable to the part being welded.

### **CAUTION**

Cover pump box and optional battery box with flame-resistant covering before welding pump box frame to vehicle.



## STEP 3 - ATTACH OPTIONAL BATTERY BOX & FRAME TO VEHICLE (IF EQUIPPED) - Continued

### ⚠ WARNING

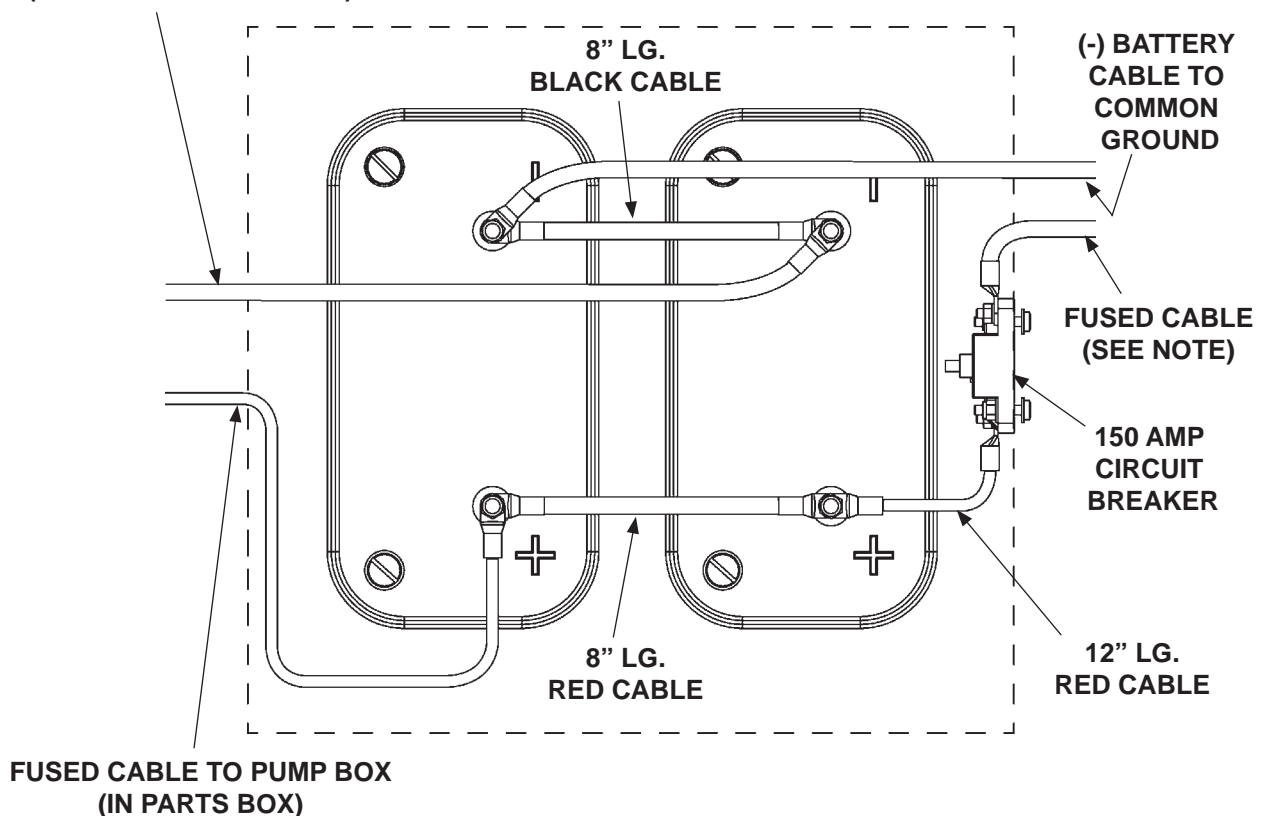
Remove all rings, watches and jewelry before doing any electrical work.

**NOTE:** Always connect fused end of power cable to battery positive (+) terminal.

**NOTE:** To connect charge lines, refer to instructions provided with each charge line kit.

4. Connect battery cables, fused cables, and ground cables for 12 volt power as shown in **FIG. 35-1** or 24 volt power as shown in **FIG. 36-1**.

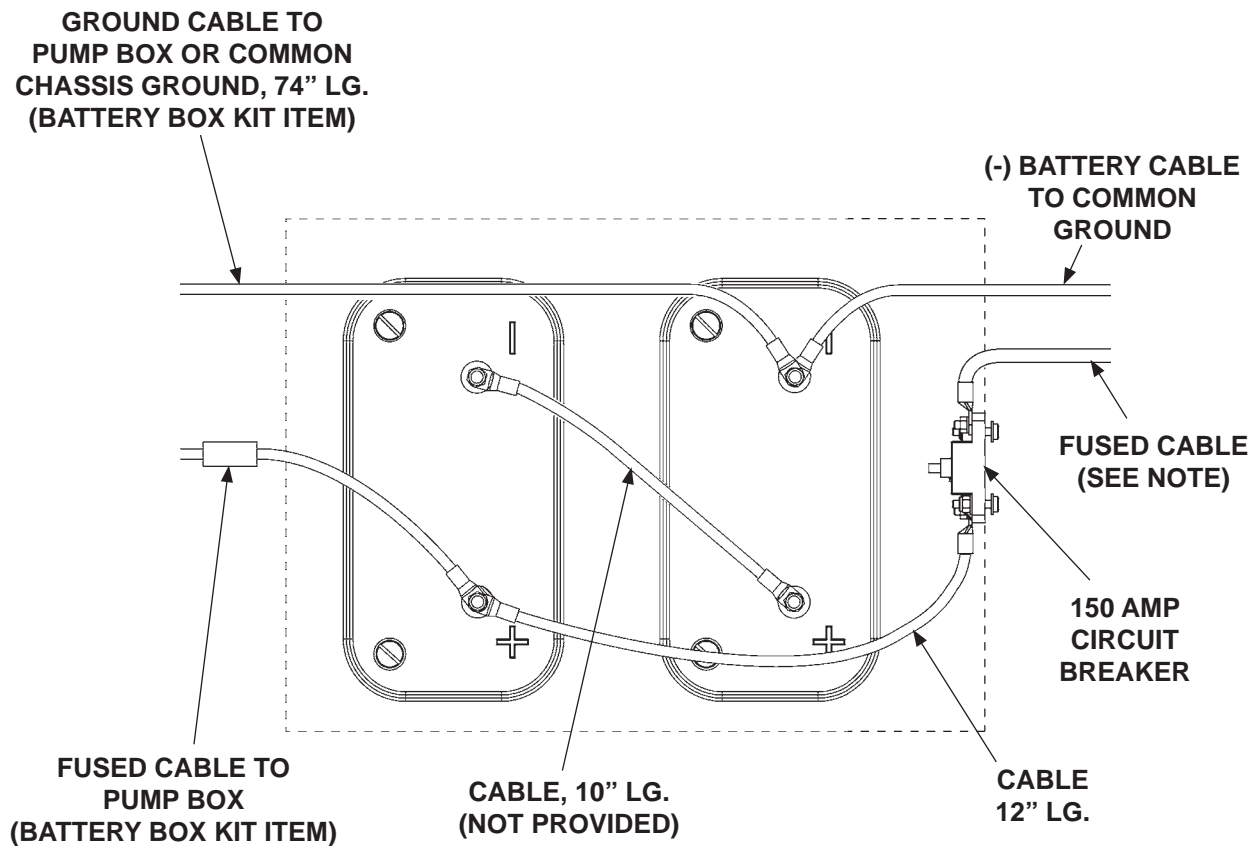
GROUND CABLE TO PUMP  
BOX OR COMMON CHASSIS  
GROUND, 74" LG.  
(BATTERY BOX KIT ITEM)



12 VOLT BATTERY CONNECTIONS  
FOR 12 VOLT POWER  
FIG. 35-1

## STEP 3 - ATTACH OPTIONAL BATTERY BOX & FRAME TO VEHICLE (IF EQUIPPED) - Continued

**NOTE:** Always connect fused end of power cable to battery positive (+) terminal.

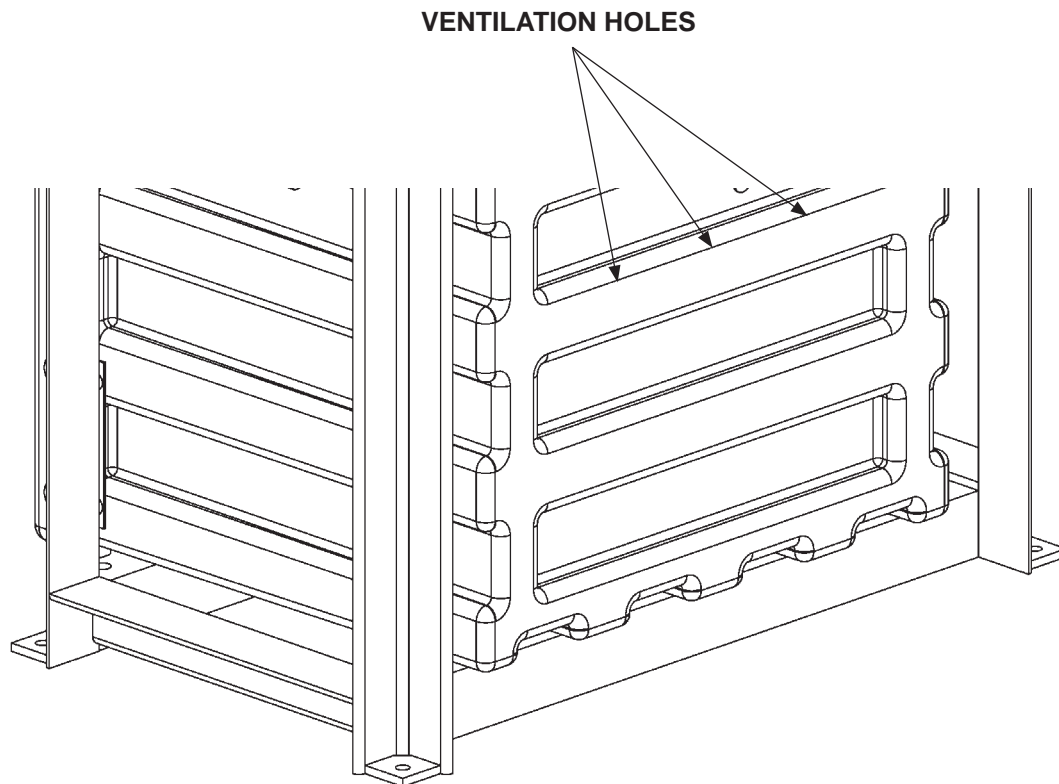


12 VOLT BATTERY CONNECTIONS  
FOR 24 VOLT POWER  
FIG. 36-1

## STEP 3 - ATTACH OPTIONAL BATTERY BOX & FRAME TO VEHICLE (IF EQUIPPED) - Continued

### **⚠ WARNING**

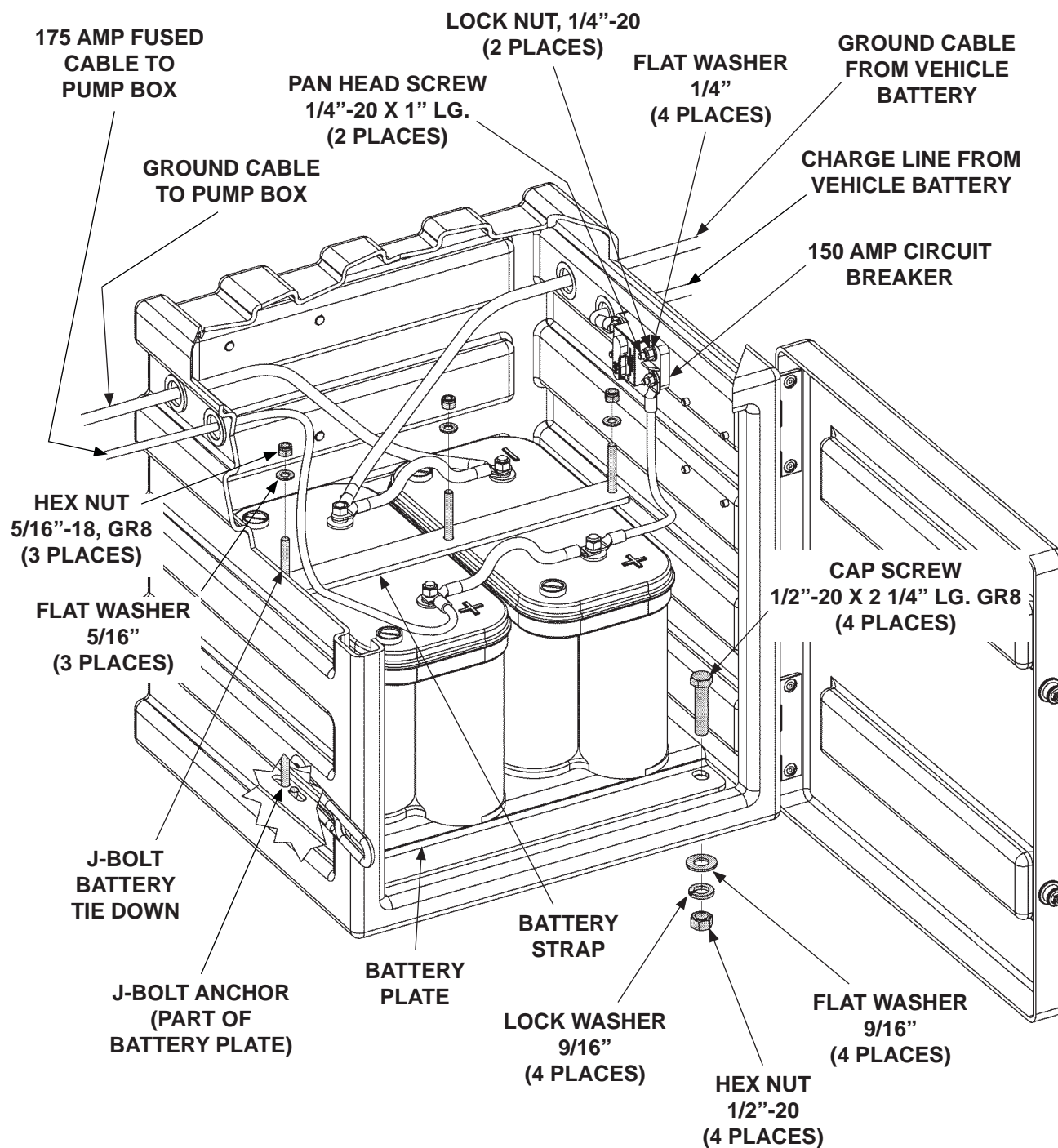
Explosive hydrogen gas from charging batteries can accumulate in battery box if not vented from the box. To prevent hydrogen gas from accumulating, ensure the 3 ventilation holes in battery box are not plugged or covered.



**BATTERY BOX ASSEMBLY  
(REAR VIEW SHOWN)  
FIG. 37-1**



## STEP 3 - ATTACH OPTIONAL BATTERY BOX & FRAME TO VEHICLE (IF EQUIPPED) - Continued



**BATTERY BOX ASSEMBLY  
(12 VOLT POWER CONNECTIONS SHOWN)**

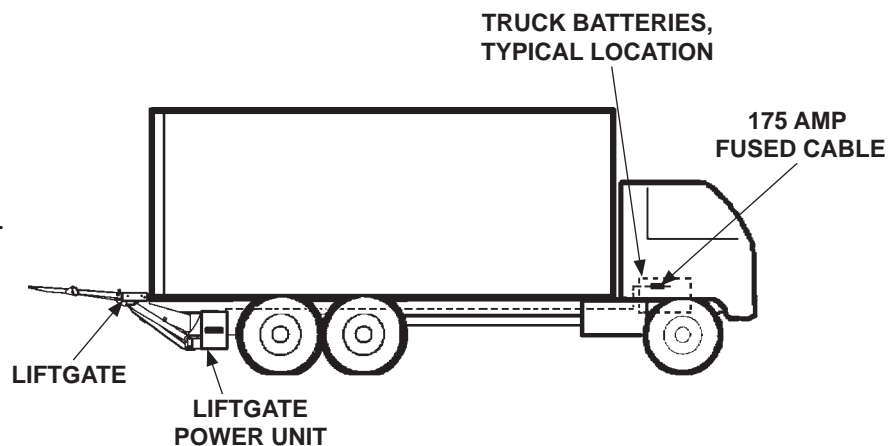
**FIG. 38-1**

## STEP 4 - RUN POWER CABLE

**NOTE:** Make sure the Liftgate power unit, and all batteries on the vehicle for the power unit, are connected correctly to a common chassis ground.

### RECOMMENDED CONFIGURATION

1. Liftgate powered from truck batteries is typically installed on trucks as shown in **FIG. 39-1**. See the following page for running the battery cable.



**RECOMMENDED LIFTGATE & BATTERY BOX  
INSTALLATION ON TRUCK**

**FIG. 39-1**

## STEP 4 - RUN POWER CABLE - Continued

### ⚠ 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.

2. Clip fused power cable to vehicle chassis with fuse nearest the vehicle battery, as shown in **FIG. 40-1**. Keep enough cable near the battery to reach the positive terminal without straining cable (after connection). Run cable to pump box on Liftgate.

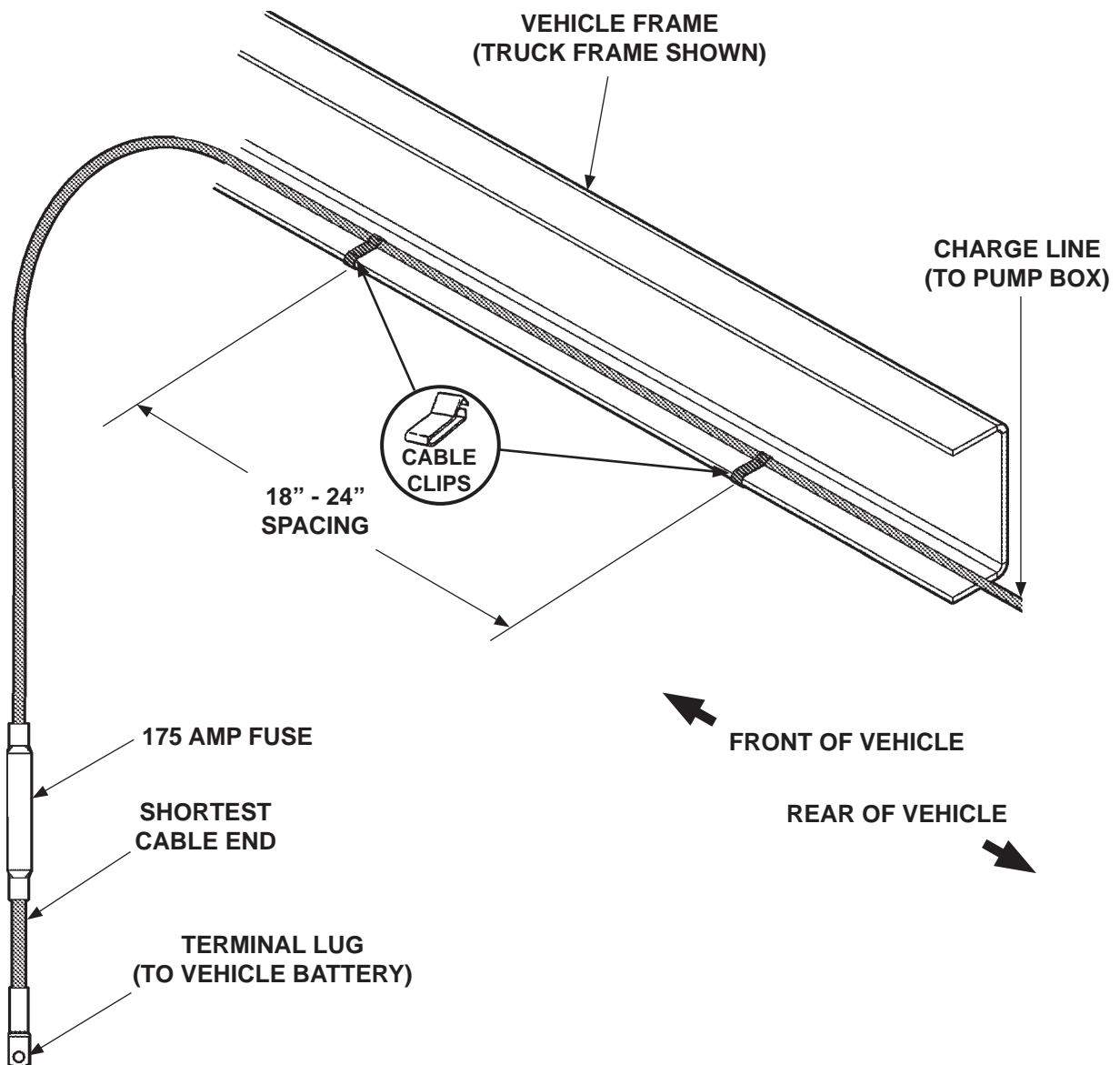
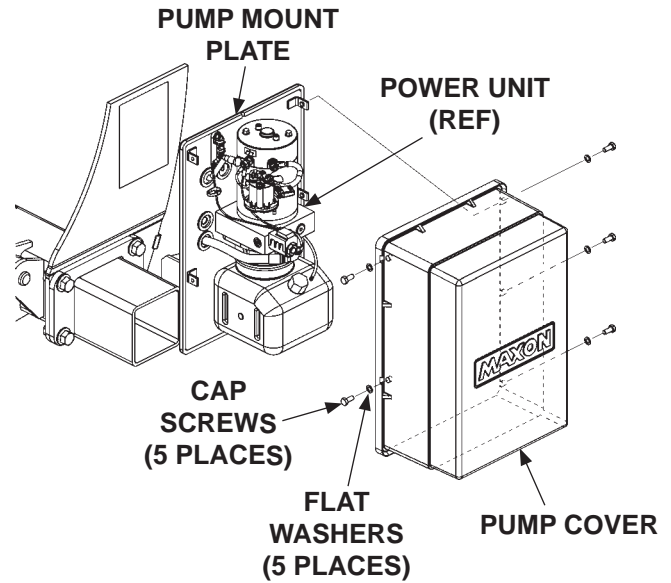


FIG. 40-1

## STEP 5 - CONNECT POWER CABLE

1. Unbolt the pump cover as shown in **FIG. 41-1**.

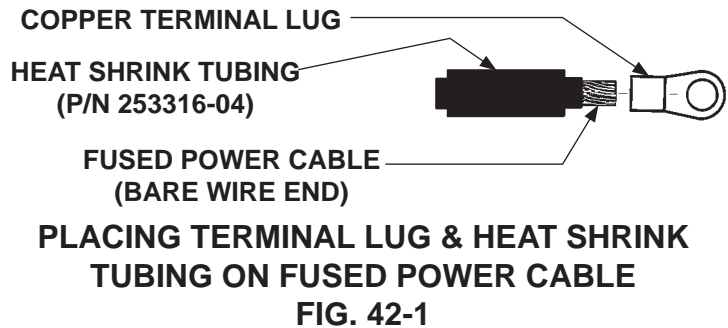


**UNBOLTING PUMP COVER**  
**FIG. 41-1**

## STEP 5 - CONNECT POWER CABLE - Continued

**NOTE:** Hydraulic lines and electrical lines must be run into pump box through sealing grommets (**FIG. 42-3**). To ensure a good seal on hydraulic & electrical lines, never cut the sealing grommets.

2. On the bare wire end of fused power cable, keep enough length to attach copper terminal lug and reach motor solenoid without putting tension on cable (after connection) (**FIG. 42-1**). Measure (if needed) and then cut excess cable from bare wire end of cable. Put heat shrink tubing (parts box) (**FIG. 42-2**) on the end of the cable (leave room for terminal lug). Crimp copper terminal lug (from parts box) on the fused power cable and shrink the heat shrink tubing (**FIG. 42-2**).

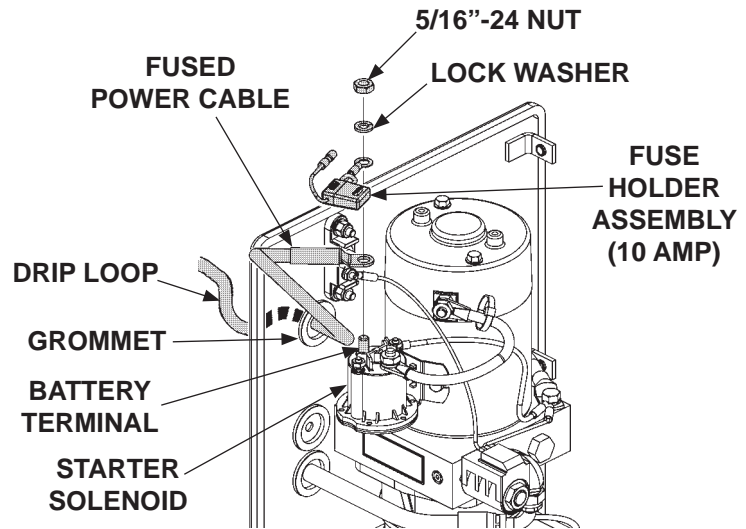


**TYPICAL FUSED POWER CABLE WITH  
TERMINAL LUG INSTALLED  
FIG. 42-2**

### CAUTION

**Do not over-tighten the terminal nuts.  
For the 5/16" load terminals, torque nuts  
to 35 lb-in. Torque the nuts on #10-32  
control terminals to 15 lb-in.**

3. Route fused power cable through grommet on the pump mounting plate (**FIG. 42-3**). Then, remove hex nut and lock washer from battery terminal post on the starter solenoid (**FIG. 42-3**). Connect fused power cable to starter solenoid as shown in **FIG. 42-3**. Reinstall and tighten lock washer and hex nut.
4. Form a drip loop on the fused power cable where the cable enters the grommet from outside the pump mounting plate (**FIG. 42-3**).



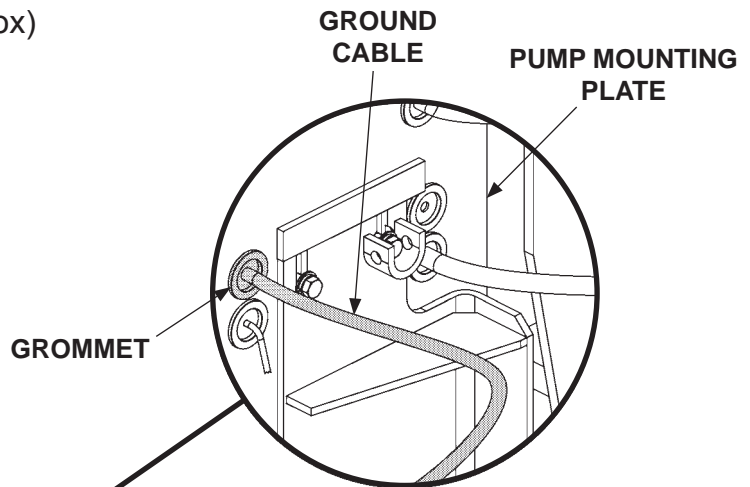
**TYPICAL FUSED POWER CABLE CONNECTION  
(GRAVITY DOWN PUMP SHOWN)  
FIG. 42-3**

## STEP 6 - CONNECT GROUND CABLE

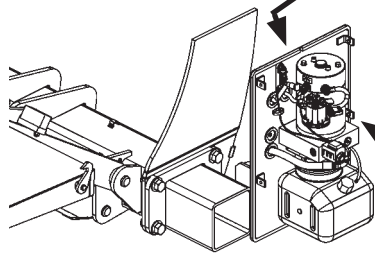
**NOTE:** Electrical lines must be run into pump box through sealing grommets (**FIG. 43-1A**). To ensure a good seal on the electrical lines, never cut the sealing grommets.

**NOTE:** To ensure power unit is correctly grounded, connect 2 gauge ground cable to grounding connection on pump.

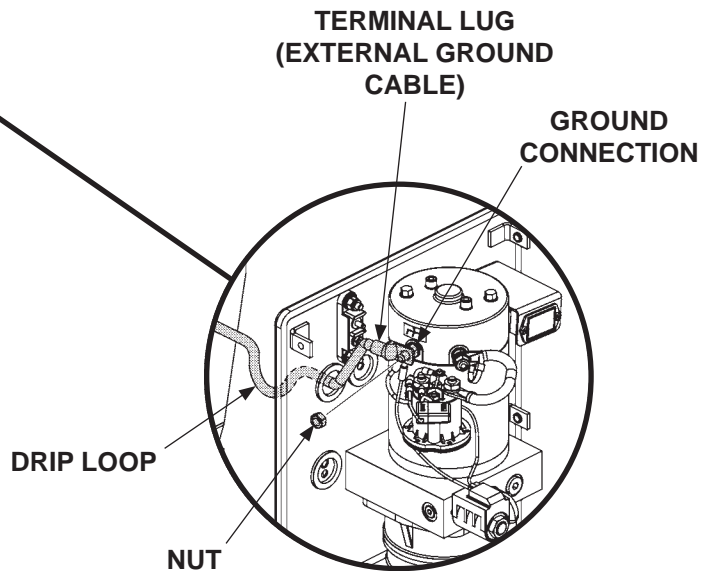
1. Insert external ground cable (parts box) through grommet on pump mounting plate (**FIGS. 43-1 & 43-1A**).
2. Attach ground cable to ground connection on pump using existing nut (**FIGS. 43-1 & 43-1B**).
3. Form a drip loop on the ground cable where it enters the grommet from outside the pump mounting plate (**FIGS. 43-1 & 43-1B**).



**INSERTING GROUND CABLE  
THROUGH GROMMET  
FIG. 43-1A**



**CONNECTING EXTERNAL  
GROUND CABLE  
FIG. 43-1**



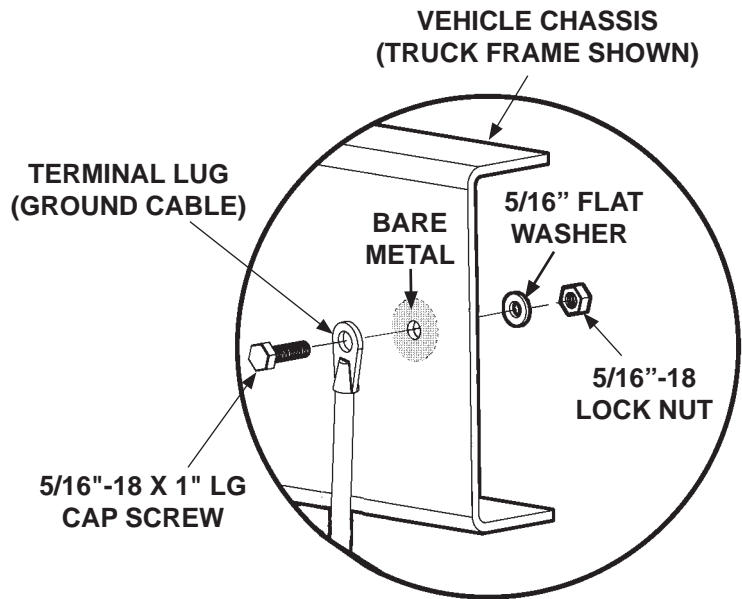
**BOLTING GROUND CABLE TO PUMP  
FIG. 43-1B**

## STEP 6 - CONNECT GROUND CABLE - Continued

**NOTE:** If there is a grounding point on the frame, use it to connect ground cable. Then, skip the step for drilling a hole.

**NOTE:** Clean the ground cable connection point on the frame down to bare metal.

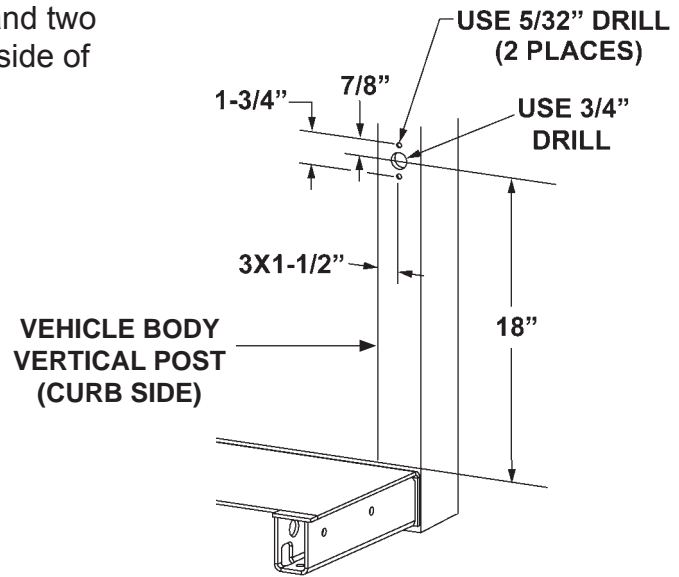
4. Extend the ground cable to reach vehicle frame (**FIG. 44-2**) without putting tension on cable (after connection). Connect to an existing grounding point if available.
5. If necessary, drill a  $11/32"$  ( $0.343"$ ) hole in vehicle frame for bolting the ground cable terminal lug (**FIG. 44-2**).
6. Bolt the ground cable terminal lug to vehicle frame as shown in **FIG. 44-2**.



**FIG. 44-2**

## STEP 7 - INSTALL CONTROL SWITCH

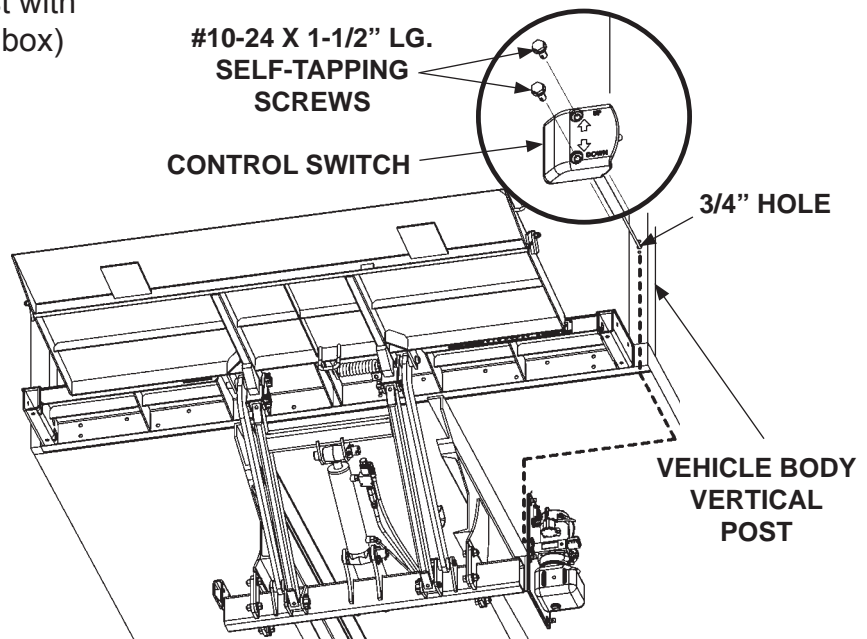
1. Measure, mark and drill one 3/4" hole and two 5/32" holes in the vertical post on curb side of vehicle body as shown in **FIG. 45-1**.



**DRILLING MOUNTING HOLES**  
**FIG. 45-1**

2. Insert control switch wiring (parts box) into the 3/4" hole on the corner post, down the corner post, and under the vehicle body to the pump assembly.  
(See dashed line - **FIG. 45-2**.)

3. Push control switch and cable back into the 3/4" hole in the vertical post until control switch touches the post (**FIG. 45-2**). Attach control switch to vertical post with 2 self-tapping screws (parts box) (**FIG. 45-2**).



**ROUTING CONTROL SWITCH WIRING**  
**FIG. 45-2**

4. If necessary, use clamps and self-tapping screws (parts box) to secure switch cable to vehicle under-body and frame (**FIG. 45-2**).



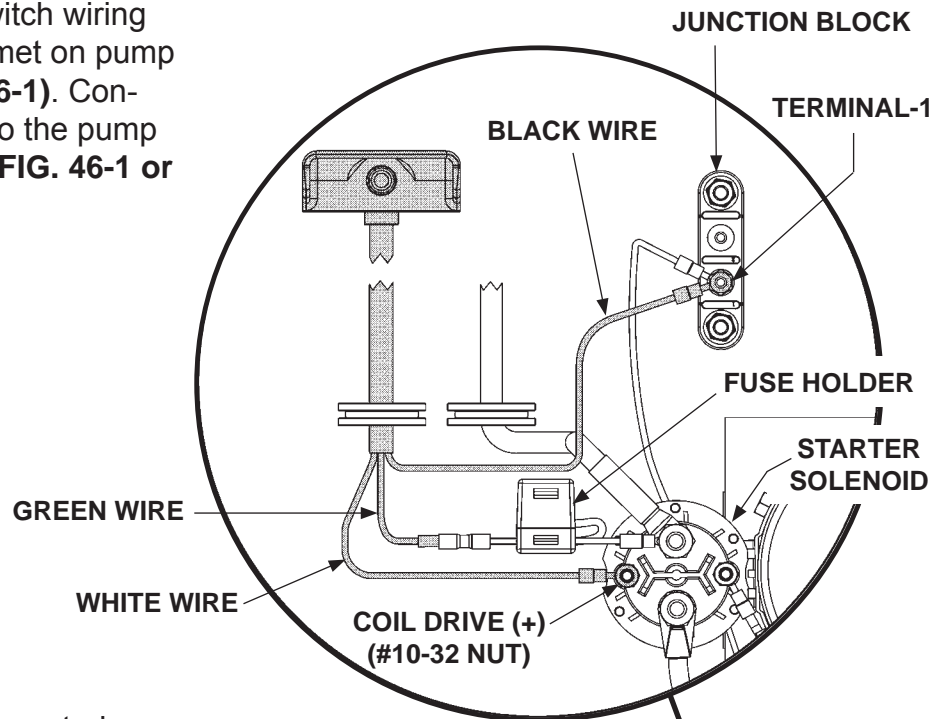
## STEP 7 - INSTALL CONTROL SWITCH - Continued

### CAUTION

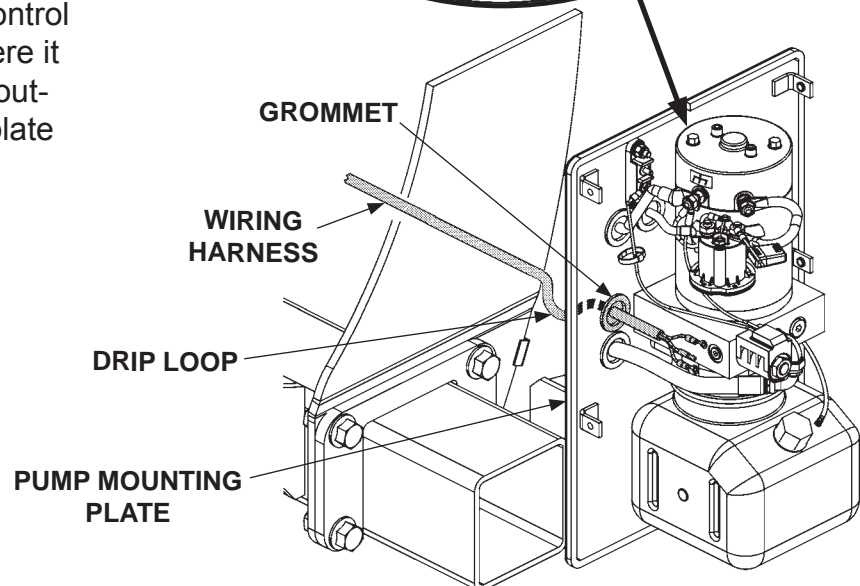
Do not over-tighten the terminal nuts. For the 5/16" load terminals, torque nuts to 35 lb-in. Torque the nuts on #10-32 control terminals to 15 lb-in.

**NOTE:** Hydraulic lines and electrical lines run into pump box through sealing grommets (**FIG. 46-1**). To ensure a good seal on hydraulic & electrical lines, never cut the sealing grommets.

5. Insert control switch wiring harness through grommet on pump mounting plate (**FIG. 46-1**). Connect the switch wiring to the pump assembly as shown in **FIG. 46-1** or **FIG. 47-1**.



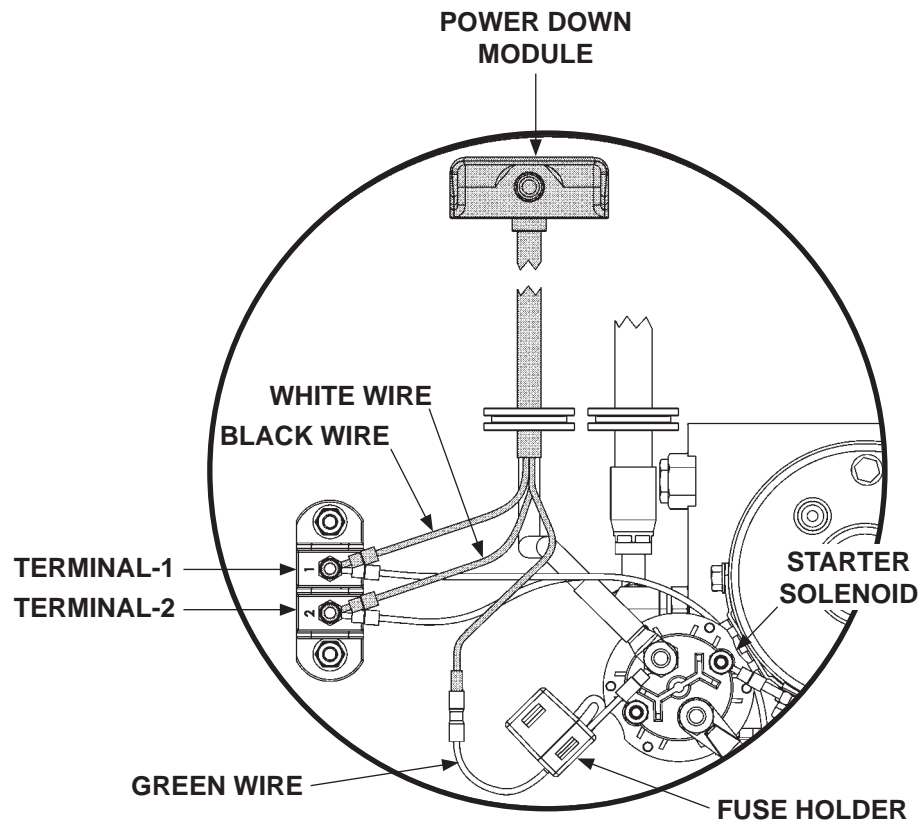
6. Form a drip loop on the control switch wiring harness where it enters the grommet from outside the pump mounting plate (**FIG. 46-1**).



CONTROL SWITCH CONNECTED TO  
GD PUMP ASSEMBLY

FIG. 46-1

## STEP 7 - INSTALL CONTROL SWITCH - Continued



CONTROL SWITCH CONNECTED TO  
PD PUMP ASSEMBLY

FIG. 47-1

## STEP 8 - CHECKING HYDRAULIC OIL

### CAUTION

Keep dirt, water and other contaminants from entering the hydraulic system. Before opening the hydraulic fluid reservoir filler cap, drain plug and hydraulic lines, clean up contaminants that can get in the openings. Also, protect the openings from accidental contamination.

**NOTE:** Liftgate is shipped with **ISO 32** oil. Use correct oil for climate conditions.

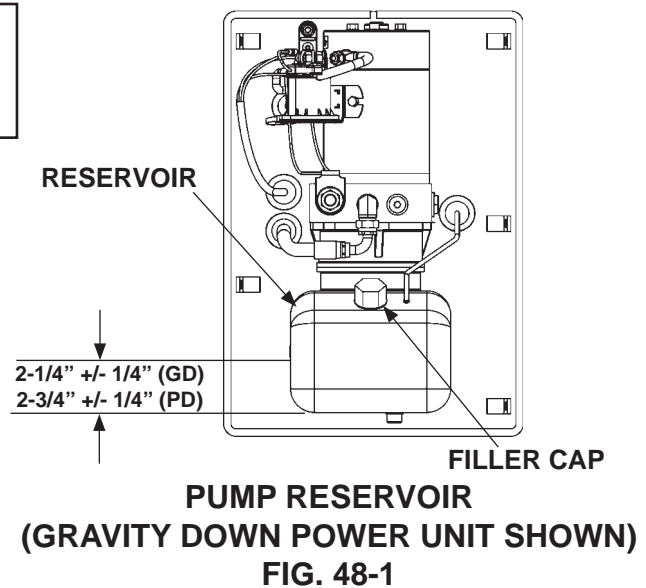
**+50 to +120 Degrees F - Grade ISO 32**

**Below + 70 Degrees F - Grade ISO 15 or MIL-H-5606**

See **TABLES 49-1 & 49-2** for recommended brands of **ISO 32 & ISO 15** oils.

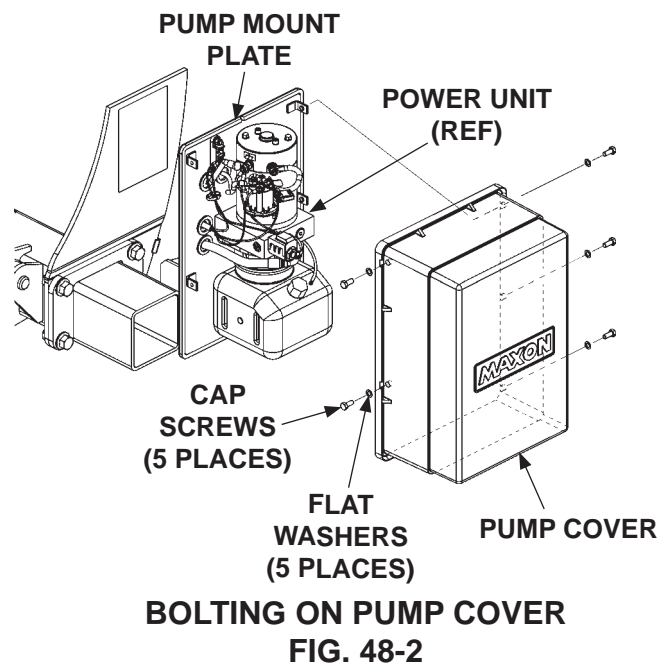
**NOTE:** Hydraulic oil level must be minimum of 1-1/2" above the bottom of reservoir to operate Liftgate.

1. With platform at bed height, check oil level in the pump reservoir (**FIG. 48-1**). To add oil, pull out filler cap (no threads) (**FIG. 48-1**). Add hydraulic oil in reservoir to the level shown in **FIG. 48-1**.



2. Reinstall filler cap (**FIG. 48-1**).

3. Bolt on the pump cover as shown in **FIG. 48-2**. Torque the bolts (cap screws) to **10 - 14 lb-in.**



## STEP 8 - ADD HYDRAULIC FLUID - Continued

ISO 32 HYDRAULIC OIL	
RECOMMENDED BRANDS	PART NUMBER
ROSEMEAD	ROSEMEAD MV150
EXXONMOBIL	MOBIL DTE 10 EXCEL 32
EXXONMOBIL	UNIVIS N-32, DTE-24
CHEVRON	CHEVRON AV MV32
CHEVRON	HIPERSYN 32
U.S. PRESTIGE	PRESTIGE AW HVI 32
KENDALL	GOLDEN MV
SHELL	TELLUS S2 VX 32

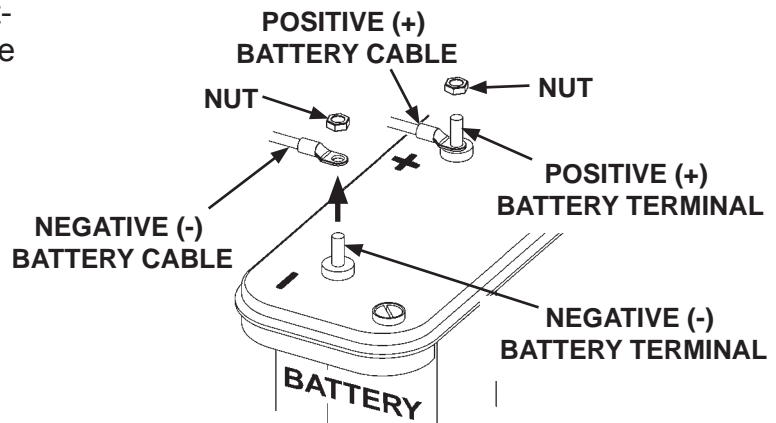
**TABLE 49-1**

ISO 15 OR MIL-H-5606 HYDRAULIC OIL	
RECOMMENDED BRANDS	PART NUMBER
CHEVRON	FLUID A, AW-MV-15
KENDALL	GLACIAL BLU
SHELL	TELLUS S2 VX 15
EXXONMOBIL	UNIVIS HVI-13
PHILLIPS 66	ARCTIC LOW POUR
ROSEMEAD	THS FLUID 17111

**TABLE 49-2**

## STEP 9 - CONNECT POWER CABLE TO BATTERY

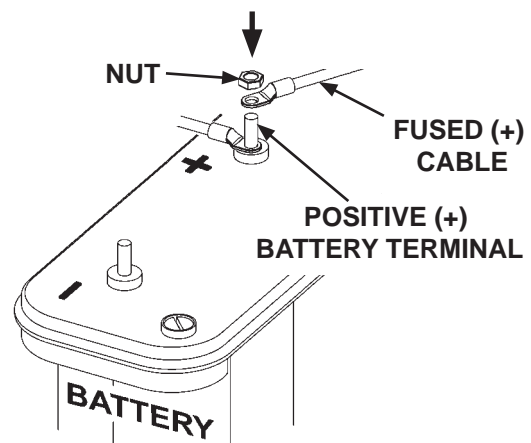
1. Remove nut from negative (-) battery terminal. Disconnect negative (-) battery cable (**FIG. 50-1**).



DISCONNECTING (-) BATTERY CABLE  
FIG. 50-1

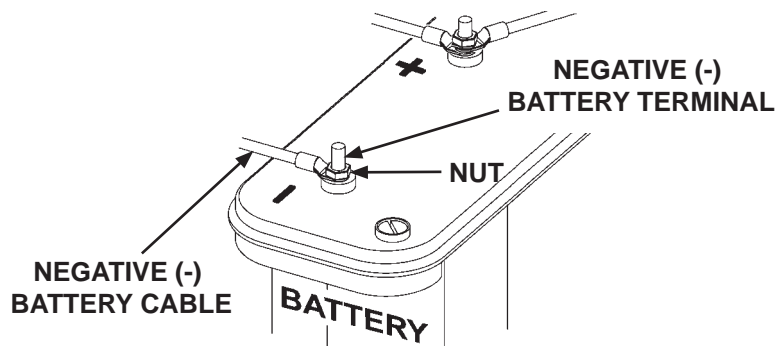
2. Remove nut from positive (+) battery terminal (**FIG. 50-1**).

3. Connect fused positive (+) cable to positive (+) battery terminal (**FIG. 50-2**). Then, reinstall nut on positive (+) battery terminal (**FIG. 50-2**).



CONNECTING FUSED (+) CABLE  
FIG. 50-2

4. Reconnect negative (-) battery cable to negative (-) battery terminal (**FIG. 50-3**). Then, reinstall nut on negative (-) battery terminal (**FIG. 50-3**).



RECONNECTED BATTERY CABLES  
FIG. 50-3

## STEP 10 - REMOVE LOCKING ANGLE AND CHECK FOR INTERFERENCE

### CAUTION

Do not fully pressurize the system in this step. Fully pressurize the system and check for hydraulic leaks after Liftgate is fully welded.

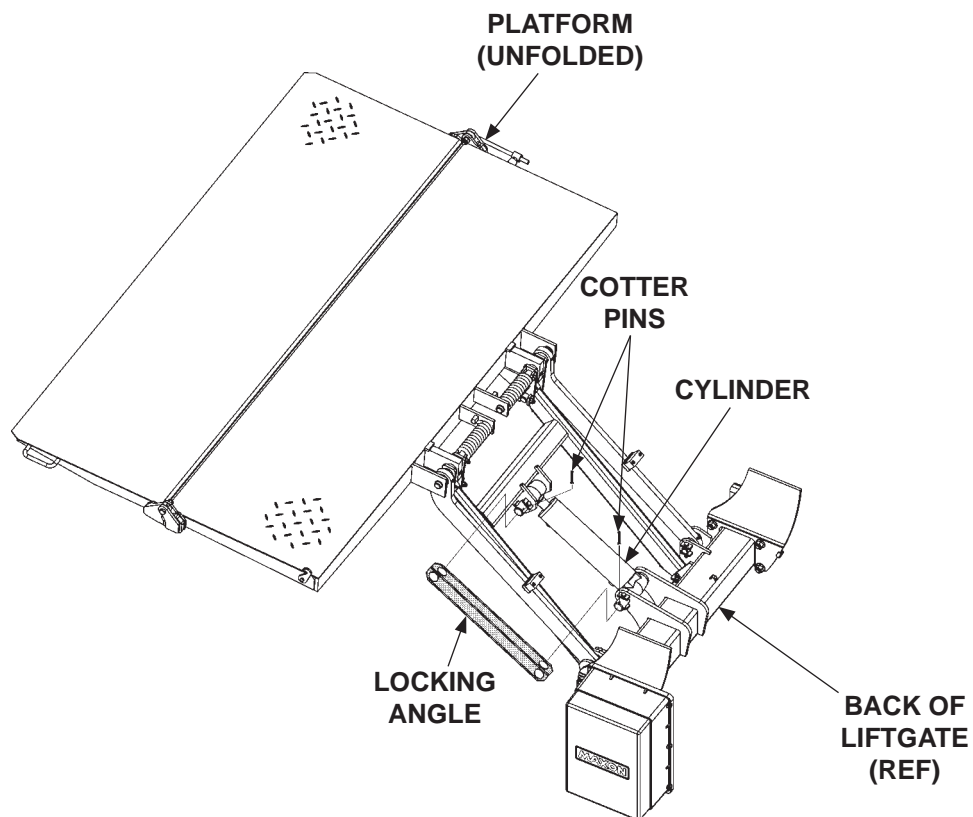
1. Push control switch to **UP** position and hold just enough time to pressurize hydraulic system. Release control switch. Hydraulic system is ready.

### ⚠ WARNING

To prevent possible injury, never work in the area under the platform. Get access to the locking angle from the back of the Liftgate.

**NOTE:** To operate Liftgate, locking angle must be removed from hydraulic cylinder.

2. Remove cotter pins (**FIG. 51-1**) from 2 cylinder pins. Remove the locking angle (**FIG. 51-1**).



REMOVING LOCKING ANGLE  
FIG. 51-1

## STEP 10 - REMOVE LOCKING ANGLE AND CHECK FOR INTERFERENCE - Continued

3. Remove floor jack and hoist supporting Liftgate (FIG. 52-1).

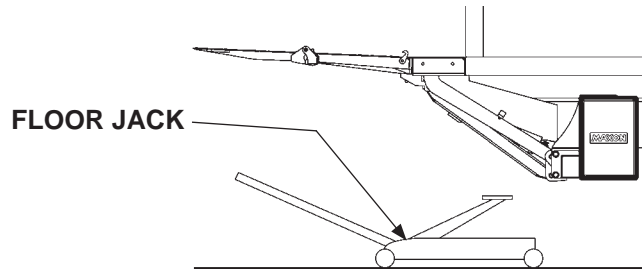
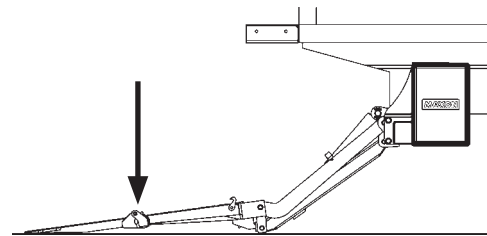
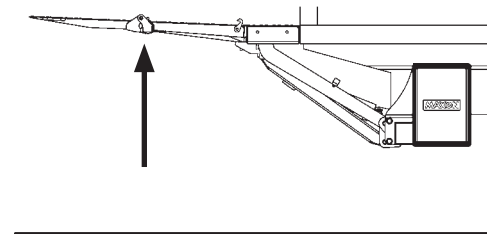


FIG. 52-1

4. Lower platform to the ground (FIG. 52-2). Look for any interference between liftgate and vehicle as platform is lowered. Then, raise the platform (FIG. 52-3). Look for any interference between liftgate and vehicle as platform is raised.

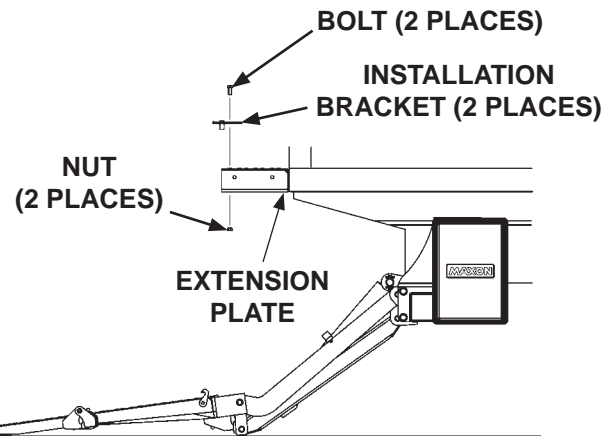


LOWERING PLATFORM  
FIG. 52-2



RAISING PLATFORM  
FIG. 52-3

5. Lower platform to the ground (FIG. 52-4).



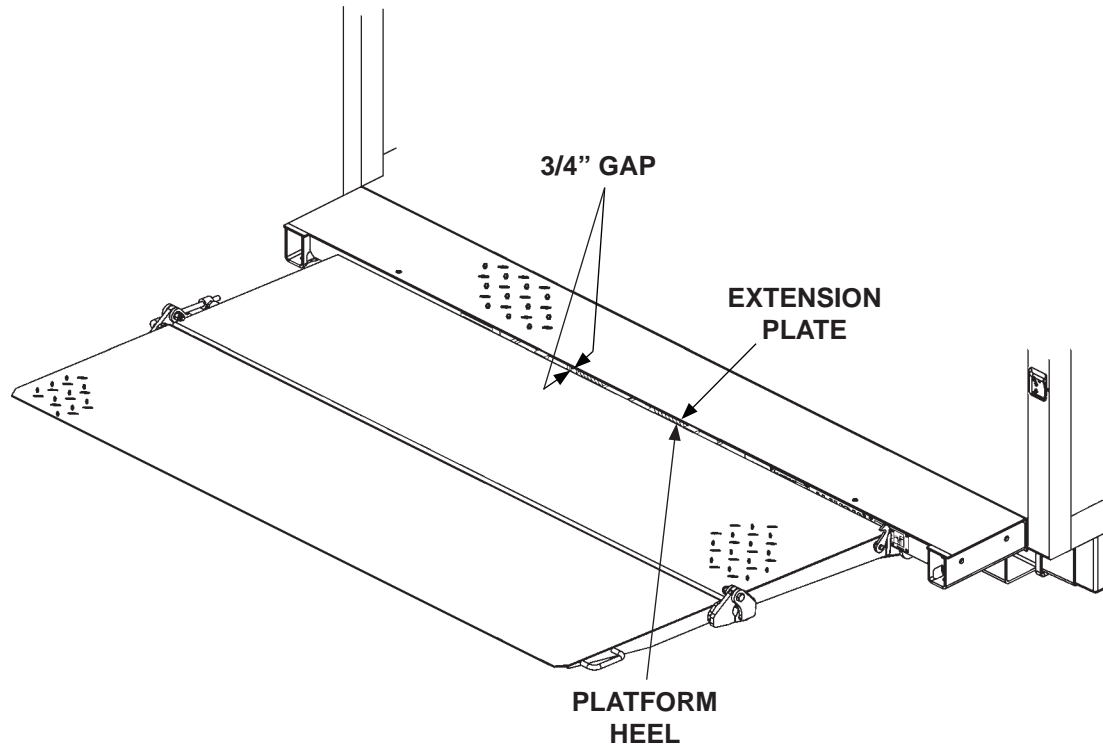
REMOVING INSTALLATION BRACKETS  
FIG. 52-4

6. Unbolt and remove the 2 installation brackets from extension plate (FIG. 52-4).

## STEP 10 - REMOVE LOCKING ANGLE AND CHECK FOR INTERFERENCE - Continued

**NOTE:** Correct any fit and interference problems before continuing with installation.

7. Raise platform to bed height (**FIG. 53-1**).  
There should be a 5/8" gap between the heel of platform and the extension plate (**FIG. 53-1**).



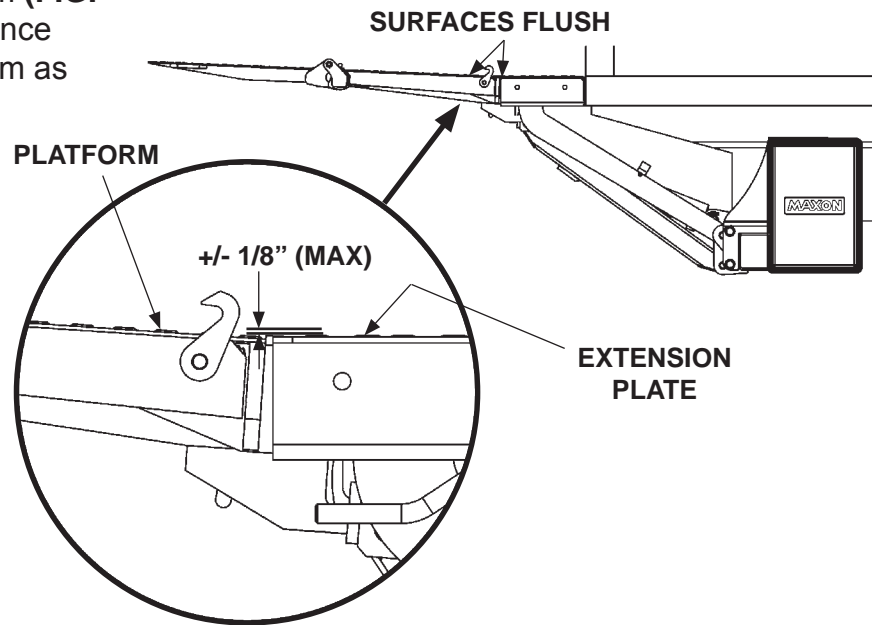
**PLATFORM AT BED LEVEL WITH 3/4" GAP  
BETWEEN HEEL & EXTENSION PLATE  
FIG. 53-1**



## STEP 10 - REMOVE LOCKING ANGLE AND CHECK FOR INTERFERENCE - Continued

**NOTE:** Correct any fit and interference problems before continuing with installation.

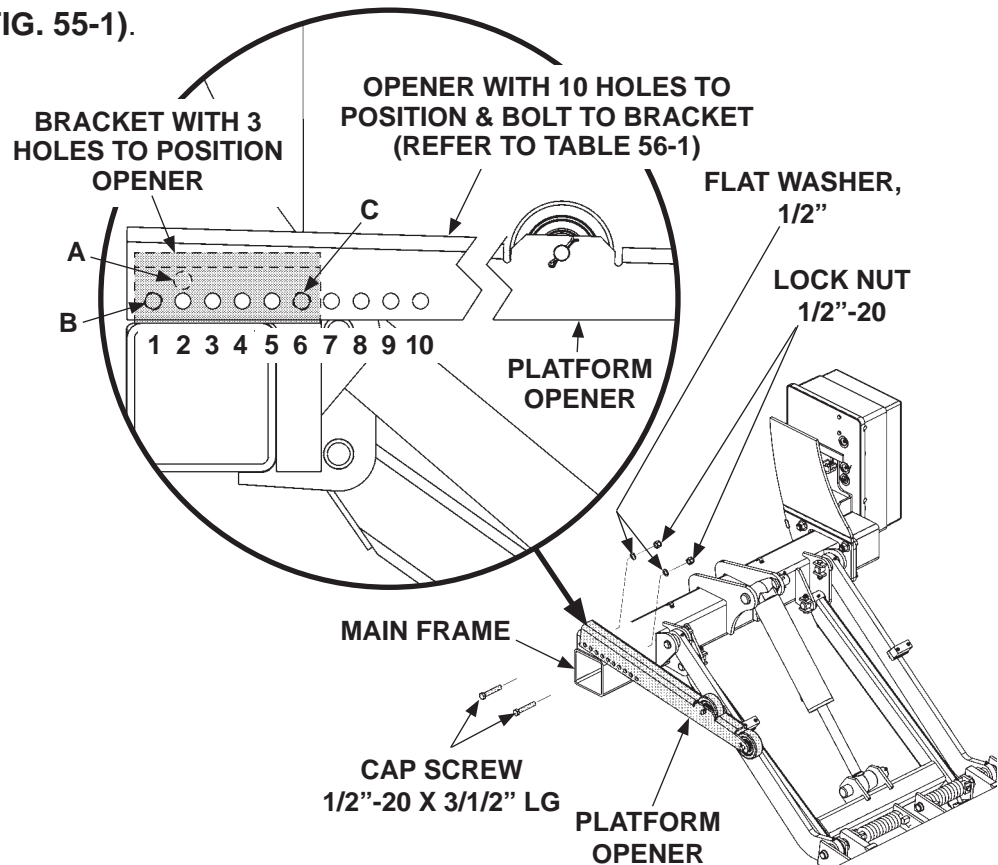
8. Ensure top surface of platform and extension plate are flush at the RH and LH sides of platform (**FIG. 54-1**). The allowable difference in height is  $\pm 1/8"$  maximum as shown.



**MAXIMUM DIFFERENCE IN HEIGHT FOR TOP OF  
PLATFORM & EXTENSION PLATE (RH VIEW)  
FIG. 54-1**

## STEP 11 - BOLT PLATFORM OPENER TO LIFTGATE

1. Start with platform unfolded at ground level (**FIG. 55-1**).



**BOLTING PLATFORM OPENER (TE-SERIES)**

**FIG. 55-1**

2. Position platform opener on bracket (**FIG. 55-1**). Then, bolt opener to bracket in 2 places at holes **A** and **C**, or holes **B** and **C** (**FIG. 55-1**). Refer to **TABLE 56-1** to select the correct mounting holes based on liftgate model, platform size, platform type, and vehicle bed height.

## STEP 11 - BOLT PLATFORM OPENER TO LIFTGATE - Continued

MODEL	PLATFORM & FLIPOVER	BED HEIGHT	HOLE ON OPENER ARM	HOLE ON BRACKET
TE-25/TE-30 (HIGH BED)	22”+14” STEEL	44” TO 50”	#1	B
		50” TO 54”	#2	A
	22”+18” ALUMINUM	44” TO 54”	#1	A
		48” TO 52”	#2	
		52” TO 54”	#3	
	26”+26” ALUMINUM	42” TO 48”	#1	A
		48” TO 52”	#2	
		52” TO 54”	#3	
	TE-20 (HIGH BED)	22”+14” STEEL	42” TO 50”	#1
50” TO 54”			#2	A
22”+18” ALUMINUM		42” TO 48”	#1	A
		48” TO 52”	#2	
		52” TO 54”	#3	
TE-25L/TE-30L (LOW BED)	22”+14” STEEL	36” TO 44”	#1	A
	24”+24” STEEL OR ALUMINUM			
TE-20L (LOW BED)	22”+14” STEEL	36” TO 44”	#1	A
	22”+18” ALUMINUM			

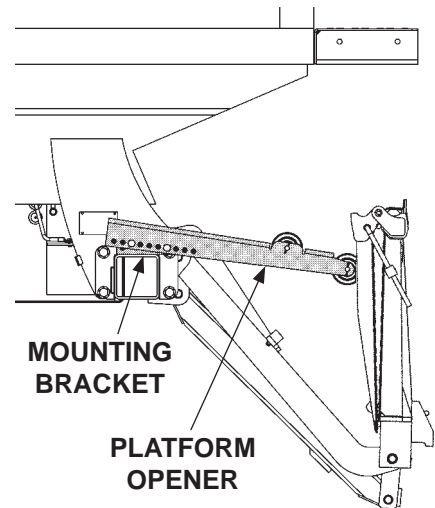
**PLATFORM OPENER & BRACKET MOUNTING HOLES  
TABLE 56-1**

## STEP 11 - BOLT PLATFORM OPENER TO LIFTGATE - Continued

### ⚠ CAUTION

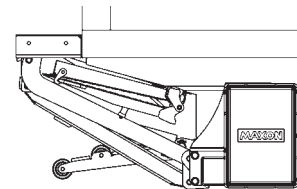
If there is any interference with the platform while stowing Liftgate, check for damage on bottom of platform, flipover, and the hinge in between. A damaged platform or flipover may result in personal injury and additional damage to Liftgate.

3. Fold platform and flipover against opener (**FIG. 57-1**). Platform and flipover should stay in near vertical position without falling open.

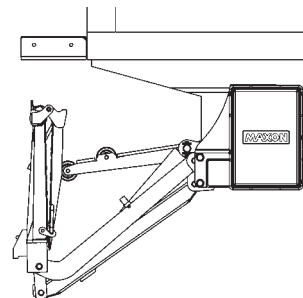


CHECKING OPENER POSITION  
FIG. 57-1

4. Stow and unstow platform several times to verify it stows and unstows correctly and there is no interference (**FIGS. 57-2 and 57-3**).



PLATFORM STOWED  
FIG. 57-2



PLATFORM UNSTOWED  
FIG. 57-3

## STEP 12 - PLATFORM ADJUSTMENT (IF REQUIRED)

**NOTE:** Before doing the following procedure, make sure vehicle is parked on level ground.

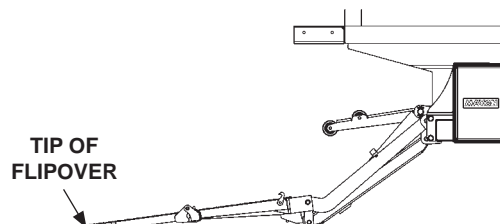
1. Make sure platform is at ground level. Unfold the platform and flipover. As the platform first touches the ground, shackles and tip of flipover must touch the ground at the same time (**FIG. 58-1**). If the shackles and the tip of flipover touch the ground at the same time, raise platform to bed height. Outboard edge on top of flipover should be above bed level (**FIG. 58-2**). If indications are correct in both cases (**FIGS. 58-1 & 58-2**), Liftgate is installed correctly and no adjustment is needed. If indications are incorrect, continue with instruction 2.

**NOTE:** If tip of flipover touches first (**FIG. 58-3A**), do instructions 2 and 3. If the shackle touches first (see **FIG. 60-1**), skip 2 and 3 and do instructions 4 and 5.

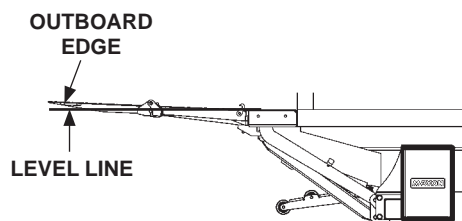
2. Make sure platform is still at ground level. If the shackle is not touching the ground, measure and compare distance "A" (**FIG. 58-3A**) with **TABLE 58-1** to determine the correct shim. Next, mark position on shackle (**FIG. 58-3B**).

RAISE TIP OF FLIPOVER THIS DISTANCE "A"	REQUIRED SHIM THICKNESS	WELD SIZE "W"
9/16"	1/16"	1/16"
1-1/4"	1/8"	1/8"
1-15/16"	3/16"	3/16"
2-5/8"	1/4"	1/4"

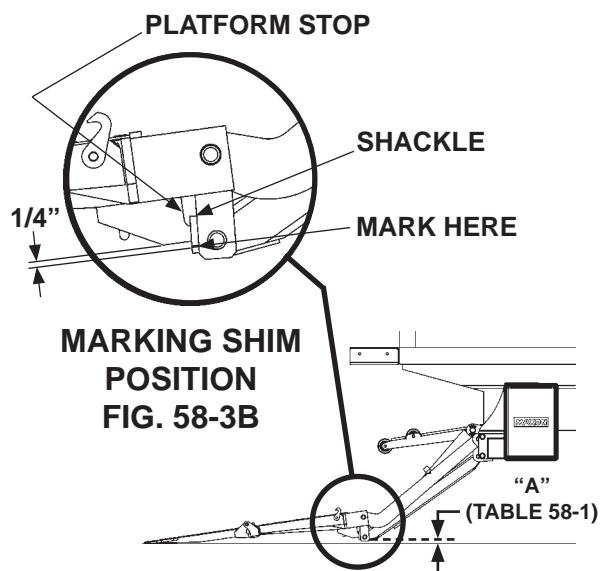
**SHIMS TO RAISE TIP OF FLIPOVER  
TABLE 58-1**



**PLATFORM & SHACKLES  
TOUCH GROUND  
FIG. 58-1**



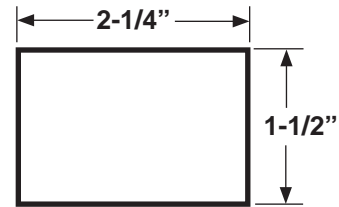
**PLATFORM EDGE  
ABOVE BED LEVEL  
FIG. 58-2**



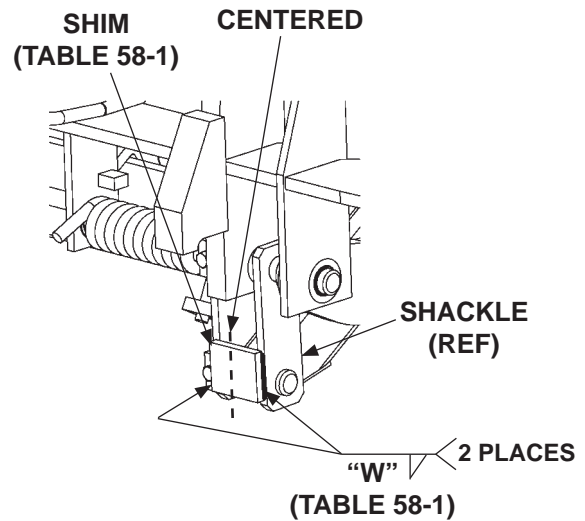
**SHACKLES DO NOT TOUCH GROUND  
FIG. 58-3A**

## STEP 12 - PLATFORM ADJUSTMENT (IF REQUIRED) - Continued

3. Make shims as needed (**FIG. 59-1**). Position bottom edge of shim to line up with mark on shackle (**FIG. 59-2**). Then, weld the shim to shackle as shown in **FIG. 59-2**.



**SHIM (1/16", 1/8", 3/16", or 1/4")  
MADE FROM STEEL FLAT  
FIG. 59-1**



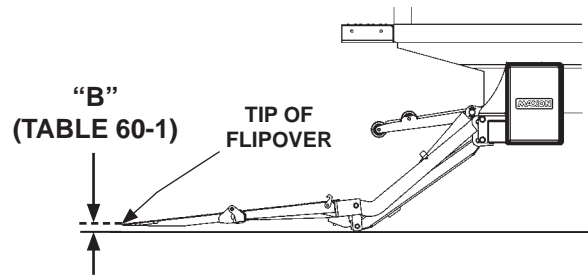
**WELDING SHIMS (RH SHACKLE SHOWN)  
FIG. 59-2**

## STEP 12 - PLATFORM ADJUSTMENT (IF REQUIRED) - Continued

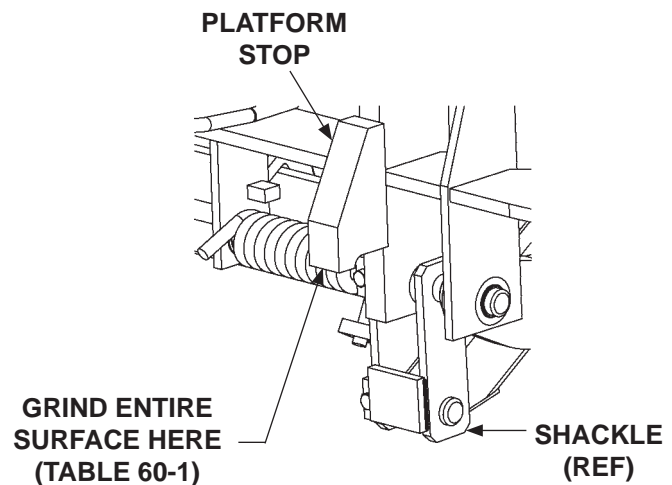
4. Make sure platform is still at ground level. If the tip of flipover is not touching the ground, measure and compare distance “B” (FIG. 60-1) with TABLE 60-1 to determine how much to grind from the platform stops (FIG. 60-2).

LOWER TIP OF FLIPOVER THIS DISTANCE “B”	GRIND METAL FROM PLATFORM STOP
9/16”	1/16”
1-1/4”	1/8”
1-15/16”	3/16”
2-5/8”	1/4”

**GRIND TO LOWER TIP  
TABLE 60-1**



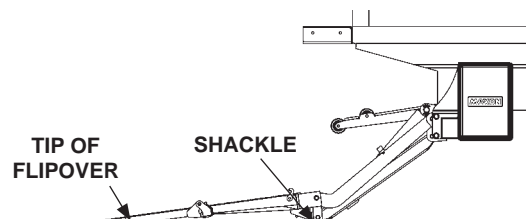
**TIP OF FLIPOVER DOES  
NOT TOUCH GROUND  
FIG. 60-1**



**GRINDING PLATFORM STOPS  
(RH SHACKLE SHOWN)  
FIG. 60-2**

5. Grind correct amount of metal (TABLE 60-1) from platform stop as shown in FIG. 60-2.

6. Raise the platform, then lower it to the ground. As the platform first touches the ground, the tip of flipover and shackle should touch at the same time as shown in FIG. 60-3.



**PLATFORM & SHACKLES  
TOUCH GROUND  
FIG. 60-3**

## STEP 13 - FINISH WELDING LIFTGATE TO VEHICLE

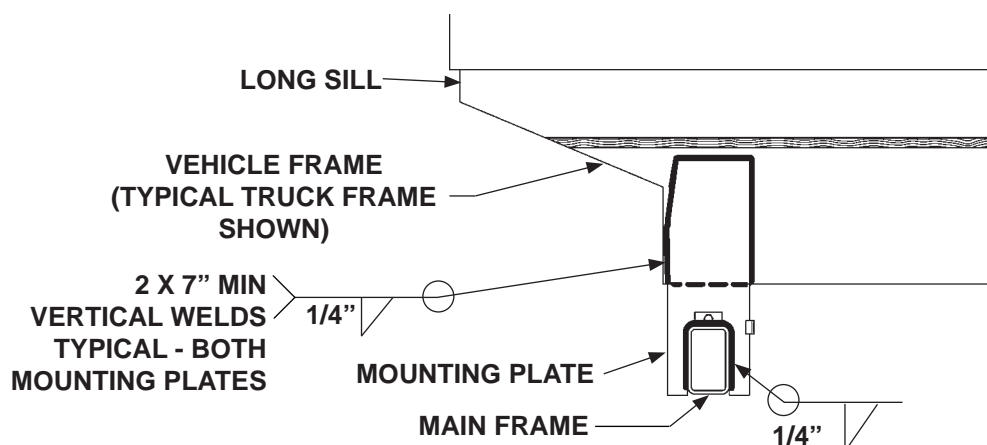
### CAUTION

Prevent damage to hydraulic hoses. Before welding next to hydraulic hoses, protect the hoses with a heat-resistant cover such as a welding blanket.

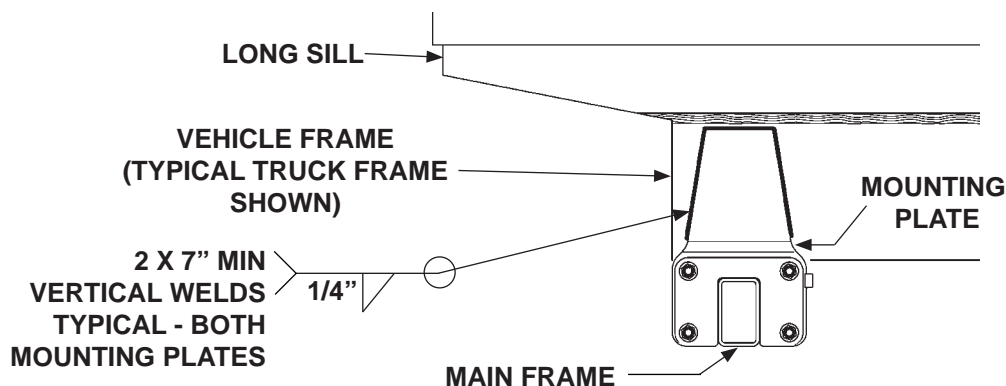
### CAUTION

To protect the original paint system if equipped, a 3" wide area of paint must be removed from all sides of the weld area before welding.

Weld each of the two mounting plates as shown in **FIGS. 61-1, 61-2, 62-1 or 62-2.**



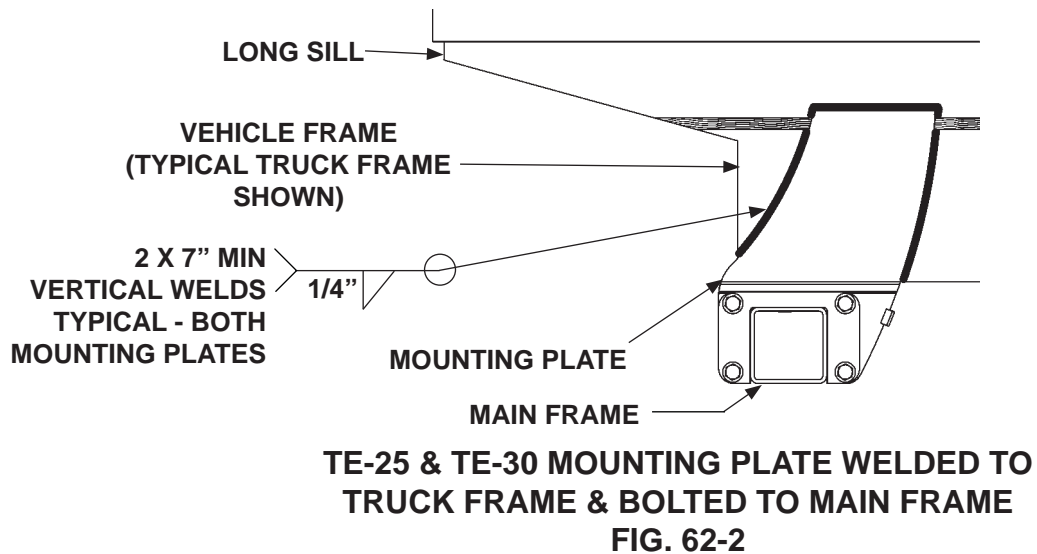
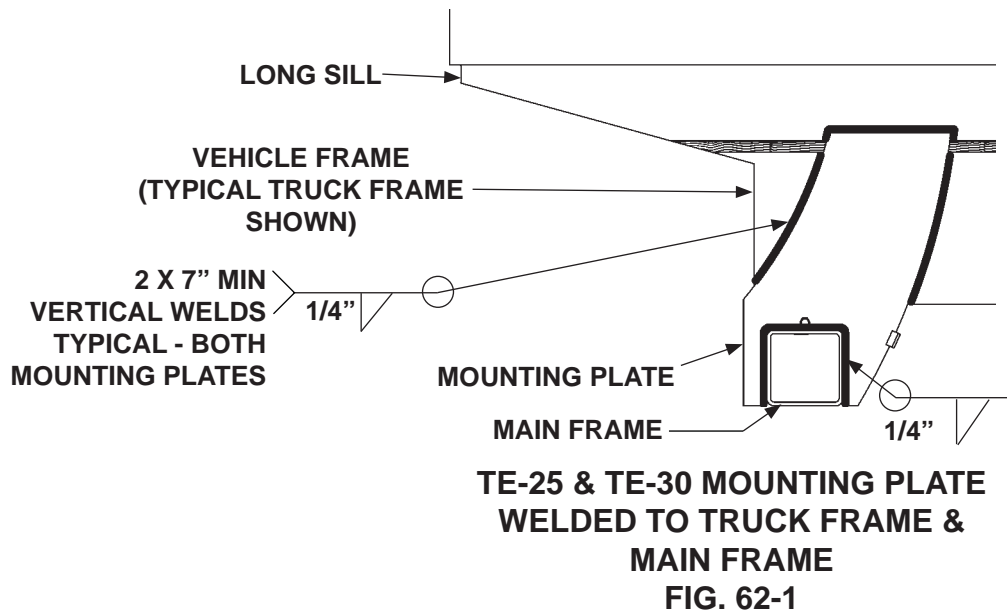
**TE-20 MOUNTING PLATE WELDED TO TRUCK FRAME & MAIN FRAME  
FIG. 61-1**



**TE-20 MOUNTING PLATE WELDED TO TRUCK FRAME & BOLTED TO MAIN FRAME  
FIG. 61-2**

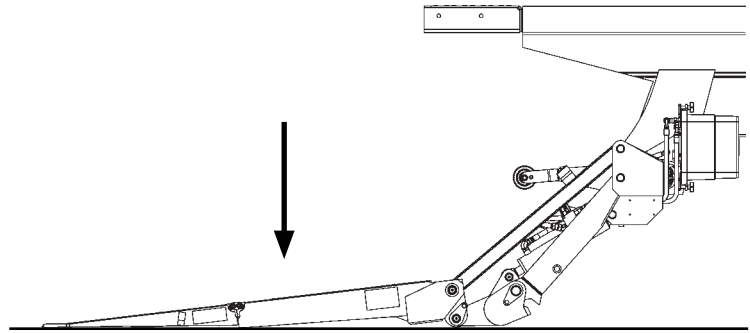


## STEP 13 - FINISH WELDING LIFTGATE TO VEHICLE - Continued



## STEP 14 - BOLT STEPS TO EXTENSION PLATE

1. Lower platform to the ground  
(FIG. 63-1).

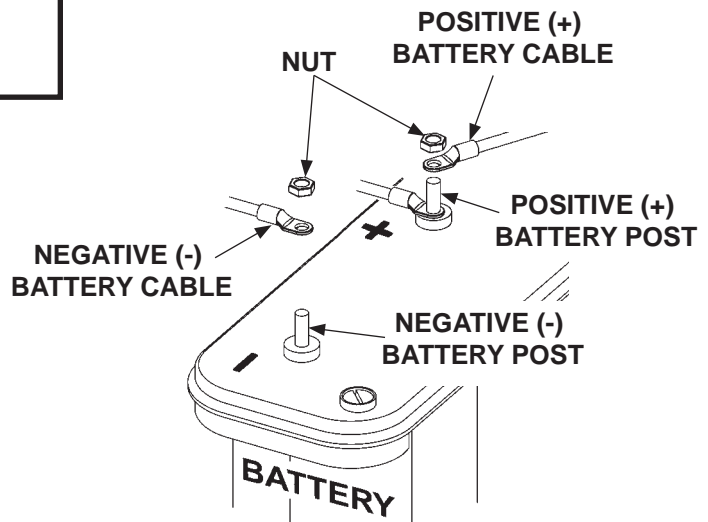


PLATFORM LOWERED TO GROUND  
FIG. 63-1

### WARNING

To prevent accidental personal injury and equipment damage, disconnect (-) battery cable and (+) cable from battery.

2. Disconnect power to the pump by disconnecting negative (-) and positive (+) cables from battery (FIG. 63-2). Reinstall nuts on negative (-) and positive (+) battery terminals.



DISCONNECTING BATTERY POWER  
FIG. 63-2

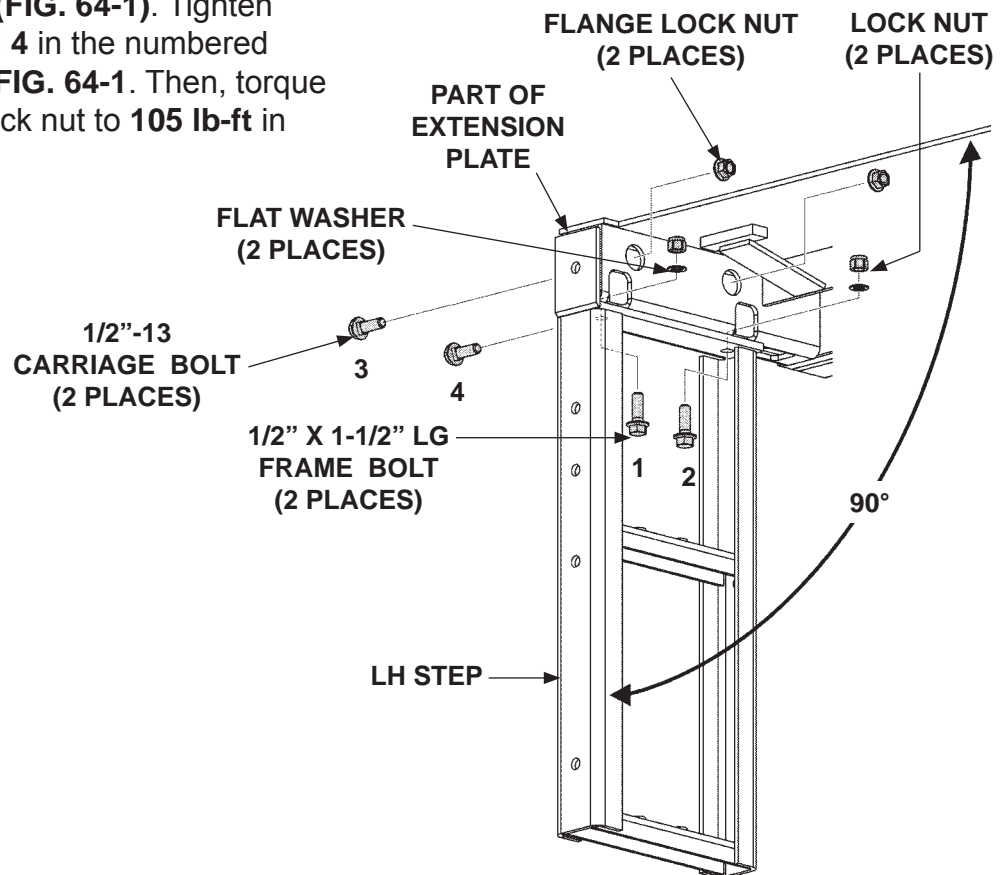
## STEP 14 - BOLT STEPS TO EXTENSION PLATE - Continued

### CAUTION

To prevent interference with Liftgate and possible damage, maintain 90° angle between steps and extension plate. Tighten bolts only in the order shown in illustration.

**NOTE:** If 102" extension kit is to be installed for 102" wide vehicle, install the extension kit before installing the steps.

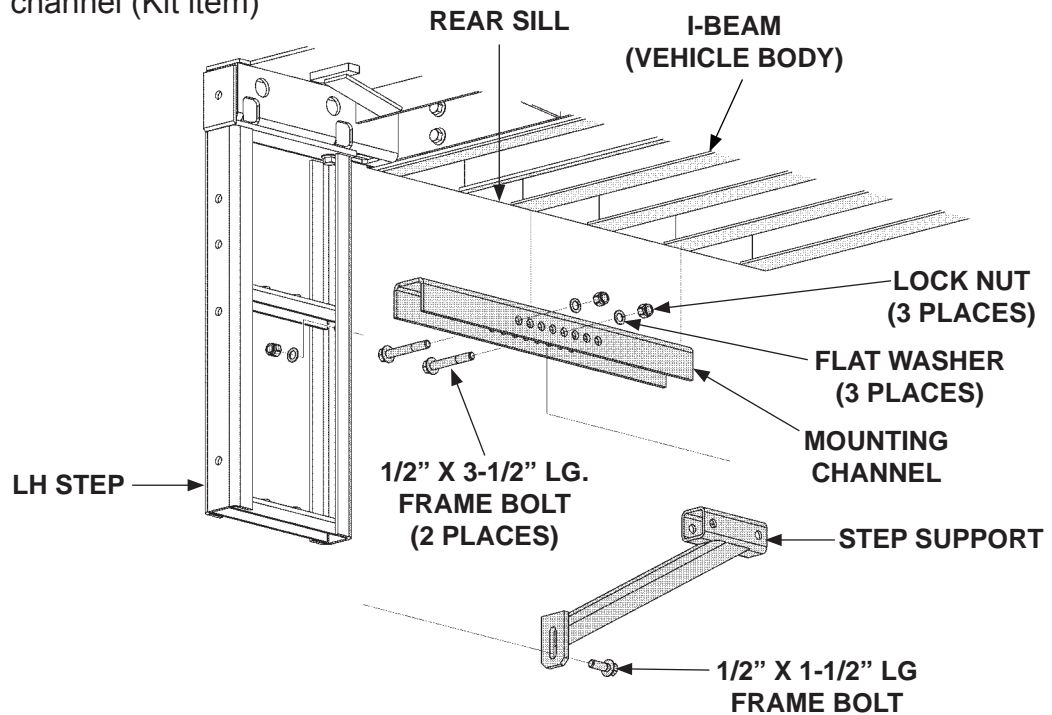
- Line up the LH step (Kit item) on LH side of the extension plate. Bolt step to extension plate (**FIG. 64-1**). Tighten bolts **1, 2, 3** and **4** in the numbered order shown in **FIG. 64-1**. Then, torque each bolt and lock nut to **105 lb-ft** in the same order.



**BOLTING STEP TO EXTENSION PLATE  
(LH DUAL STEP SHOWN)  
FIG. 64-1**

## STEP 14 - BOLT STEPS TO EXTENSION PLATE - Continued

4. Bolt the step support (Kit item) to mounting channel (Kit item) (FIG. 65-1).



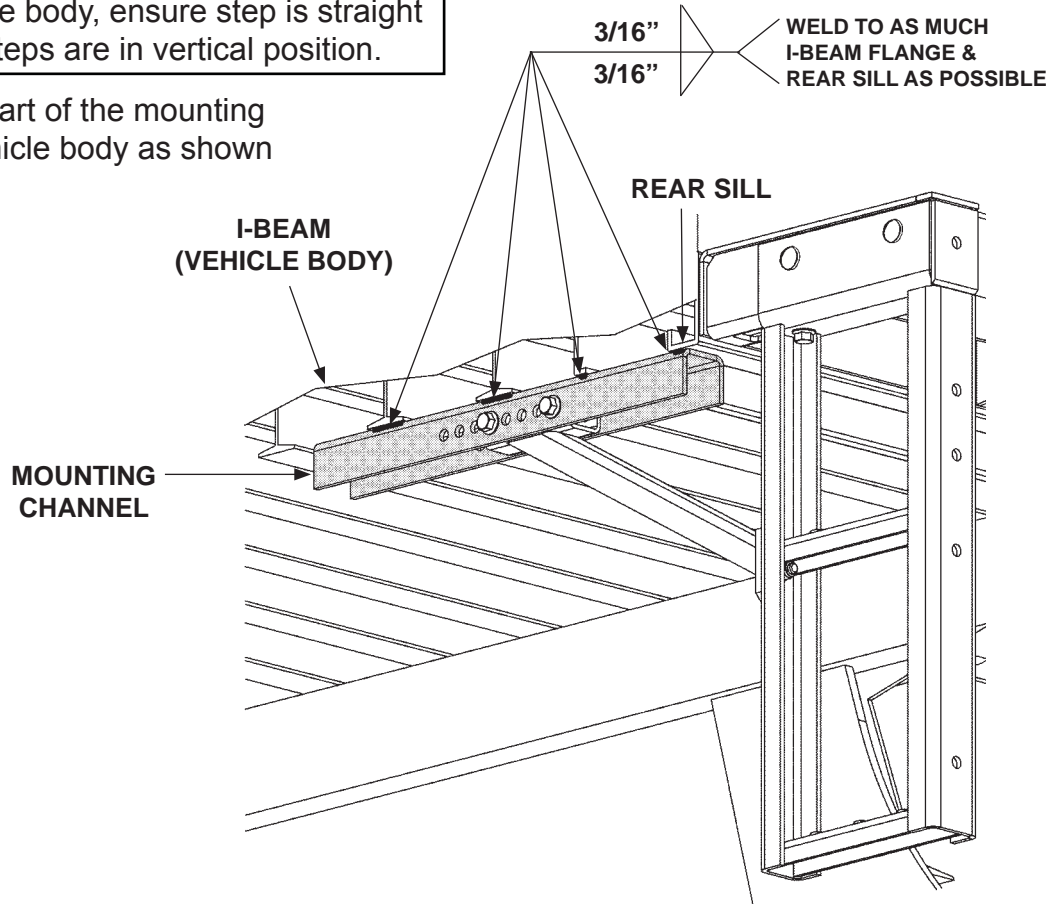
**BOLTING SUPPORT TO MOUNTING CHANNEL &  
STEP (LH DUAL STEP & SUPPORT SHOWN)  
FIG. 65-1**

5. Butt the flat part of the mounting channel against bottom of vehicle rear sill and I-beams. Then, butt the step support against back of the step (FIG. 65-1).
6. Ensure slotted hole in the step support is lined up with the hole on the step (FIG. 65-1). Then, bolt the support to step (FIG. 65-1). Torque the lock nuts (FIG. 65-1) to **105 lb-ft force**.

## STEP 14 - BOLT STEPS TO EXTENSION PLATE - Continued

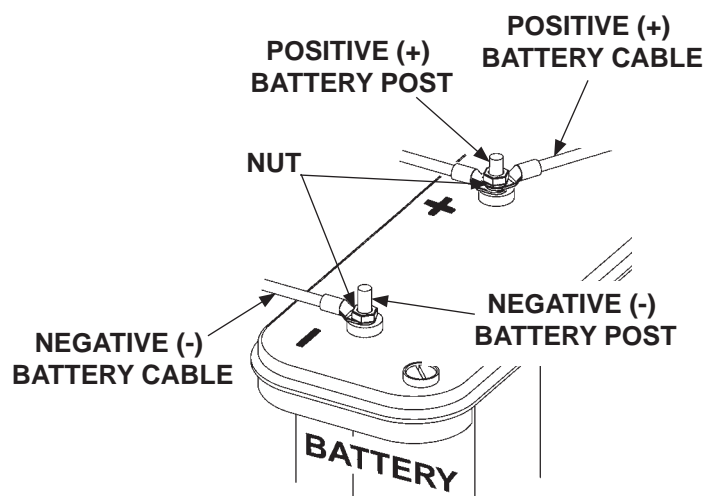
**NOTE:** Before welding mounting channel to vehicle body, ensure step is straight and steps are in vertical position.

7. Weld the flat part of the mounting channel to vehicle body as shown in **FIG. 66-1**.



**WELDING FLAT OF MOUNTING CHANNEL TO  
VEHICLE BODY (LH DUAL STEP SHOWN)  
FIG. 66-1**

8. Repeat instructions 3 through 7 for RH step. Use the RH Step Assembly (Kit item).
9. Reconnect power to the pump by reconnecting positive (+) and negative (-) cables to battery (**FIG. 66-2**). Reinstall and tighten nut when each battery cable is reconnected.



**RECONNECTING POWER  
FIG. 66-2**

## STEP 15 - VEHICLE TAILLIGHT POSITIONING

**NOTE:** Taillights may interfere with Liftgate. Taillights and attaching hardware are not provided with the Liftgate. If needed, install vehicle taillights to comply with state and federal vehicle lighting requirements, such as FMVSS 108.

# ATTACH DECALS

**NOTE:** Preferred decal layout is shown, Decals on the Liftgate are attached at the factory. If vehicle does not permit this layout, decals in the manual and decal kit must be applied so that they are easily visible when approaching vehicle to operate Liftgate. Use good common sense when locating these decals on vehicle.

**NOTE:** Ensure there is no residue, dirt or corrosion where decals are attached. If necessary, clean surface before attaching decals.

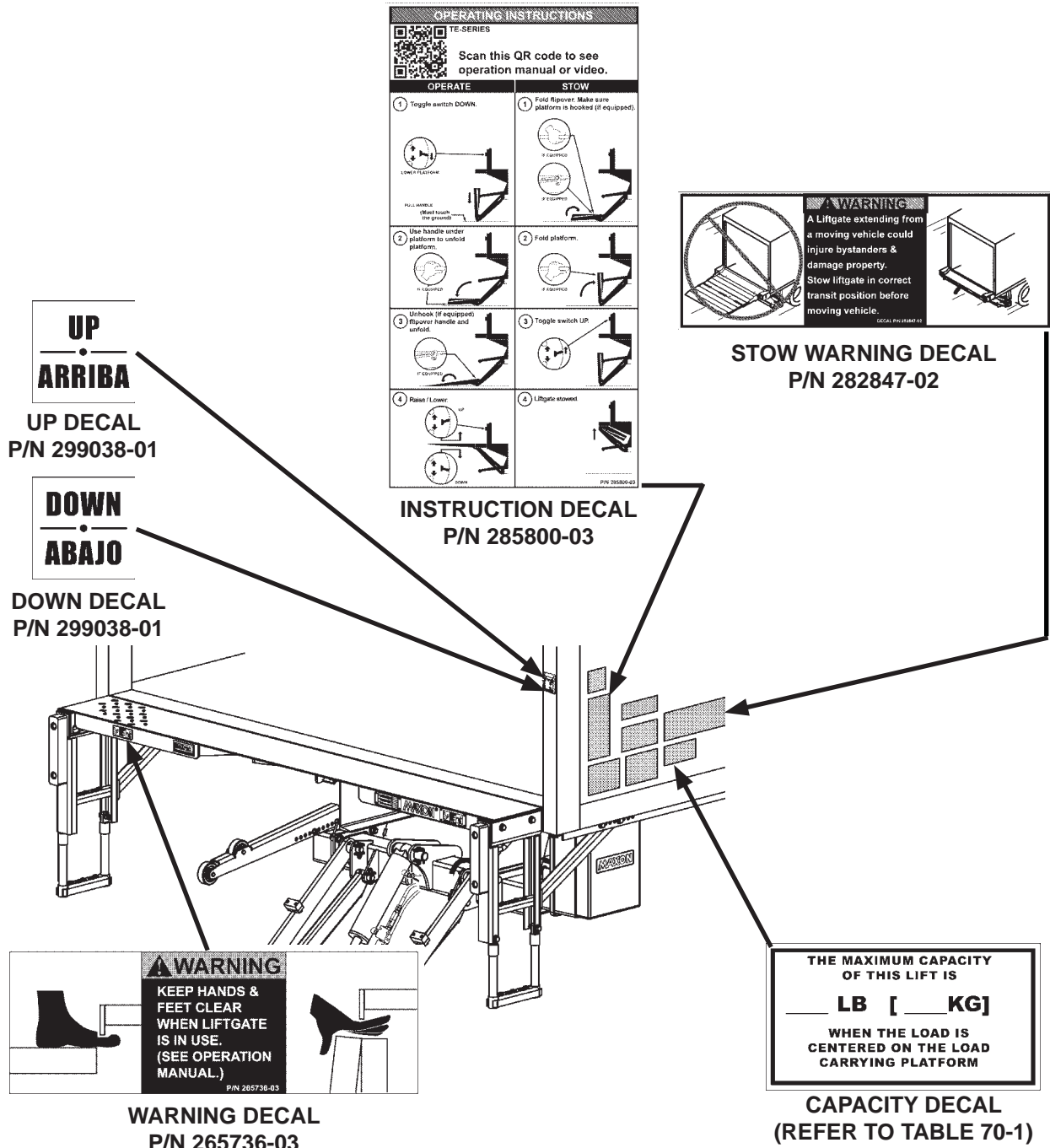


FIG. 68-1

# ATTACH DECALS - Continued

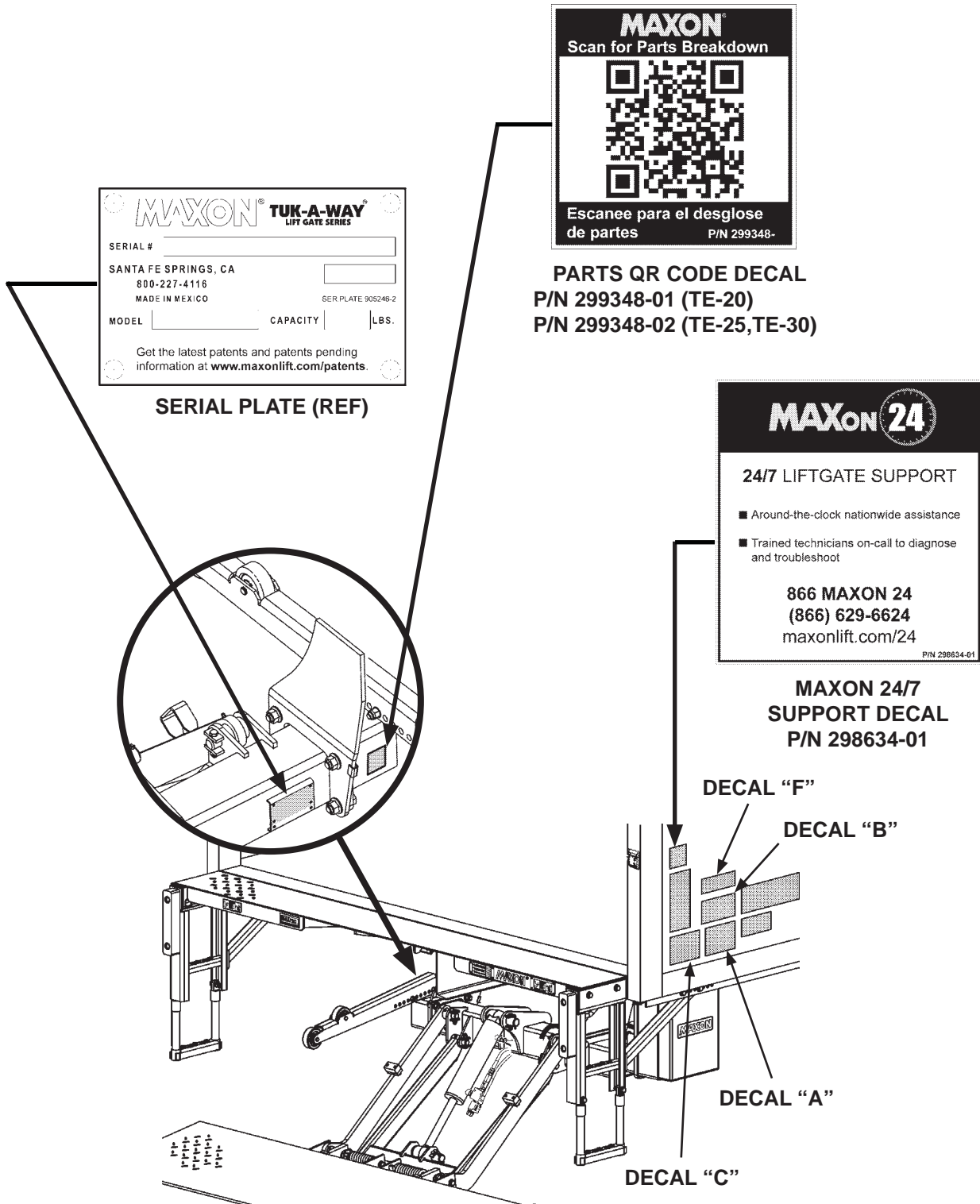


FIG. 69-1



# ATTACH DECALS - Continued

**SAFETY INSTRUCTIONS**

Read all decals and operation manual before operating liftgate.

1. Do not use liftgate unless you have been properly instructed and have read, and are familiar with, the operating instructions.
2. Be certain vehicle is properly and securely braked before using the liftgate.
3. Always inspect this liftgate for maintenance or damage before using it. Do not use liftgate if it shows any sign of damage or improper maintenance.
4. Do not overload
5. Make certain the area in which the platform will open and close is clear before opening or closing the platform.
6. Make certain platform area, including the area in which loads may fall from platform, is clear before and at all times during operation of liftgate.
7. This liftgate is intended for loading and unloading of cargo only. Do not use this liftgate for anything but its intended use.

(A)

**WARNING**

Read this information carefully.

- Improper operation of this Liftgate can result in serious personal injury. If you do not have a copy of the operating instructions, please obtain them from your employer, distributor, or lessor before you attempt to operate Liftgate.
- If there are signs of improper maintenance, damage to vital parts, or slippery platform surface, do not use the Liftgate until these problems have been corrected.
- If you are using a pallet jack, be sure it can be maneuvered safely.
- Do not operate a forklift on the platform.
- Do not allow any part of yours or your helper's body to be placed under, within, or around any portion of the moving Liftgate, or its mechanisms, or in a position that would trap them between the platform and the ground or truck when the Liftgate is operated.
- If a helper 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.
- **USE GOOD COMMON SENSE.**
- If load appears to be unsafe, do not lift or lower it.

For a free copy of other manuals that pertain to this model Liftgate, please visit our website at [www.maxonlift.com](http://www.maxonlift.com) or call Customer Service at (800) 227-4116.

(C)

**WARNING**

Liftgate hazards can result in crushing or falling.

Keep hands and feet clear of pinch points.

If riding liftgate, make sure load is stable and footing is solid.

Read and understand all instructions and WARNINGS before use.

(B)

**CAUTION**

Always stand clear of platform area.

(F)

**DECAL SHEET**  
**P/N 282522-01**  
**FIG. 70-1**

MODEL	DECAL P/N	CAPACITY
TE-20	220387	2000 POUNDS [907 KG]
TE-25	220382	2500 POUNDS [1134 KG]
TE-30	220388	3000 POUNDS [1360 KG]

**CAPACITY DECALS**  
**TABLE 70-1**

## TOUCHUP PAINTED OR GALVANIZED FINISH

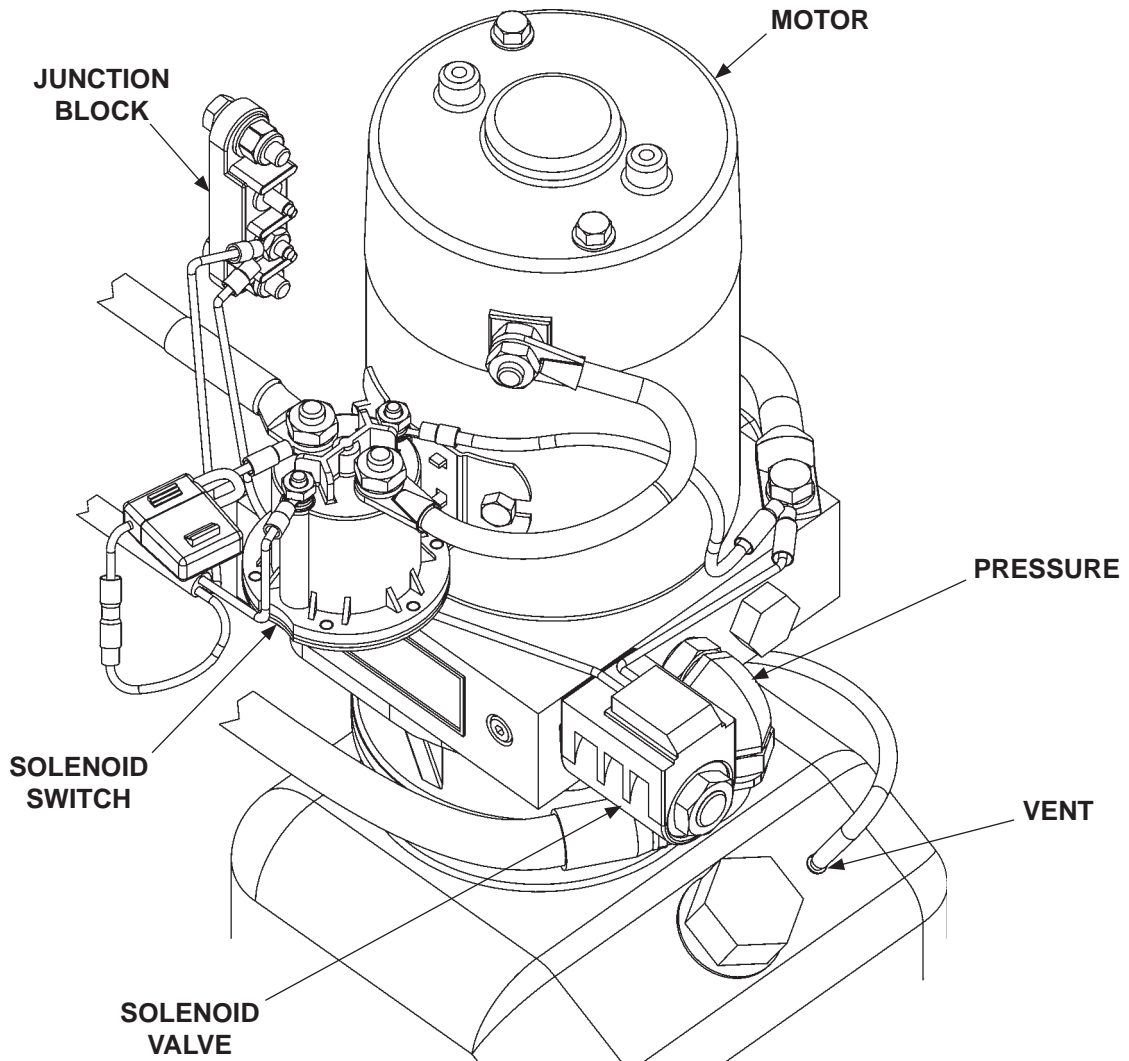
### CAUTION

Damaged cylinder seals and contaminated hydraulic fluid can result from painting the polished portion of the cylinder rod. To prevent damage, protect the exposed polished portion of the cylinder rod while painting.

- If bare metal or primer is exposed on the painted portions of the Liftgate, touch up the paint. To maintain the protection provided by the original paint system, **MAXON** recommends aluminum primer touchup paint.
- If bare metal is exposed on galvanized portions of the Liftgate, touch up the galvanized finish. To maintain the protection provided by the original galvanized finish, **MAXON** recommends cold galvanize spray.

# SYSTEM DIAGRAMS

## PUMP, MOTOR & SOLENOID OPERATION - GRAVITY DOWN

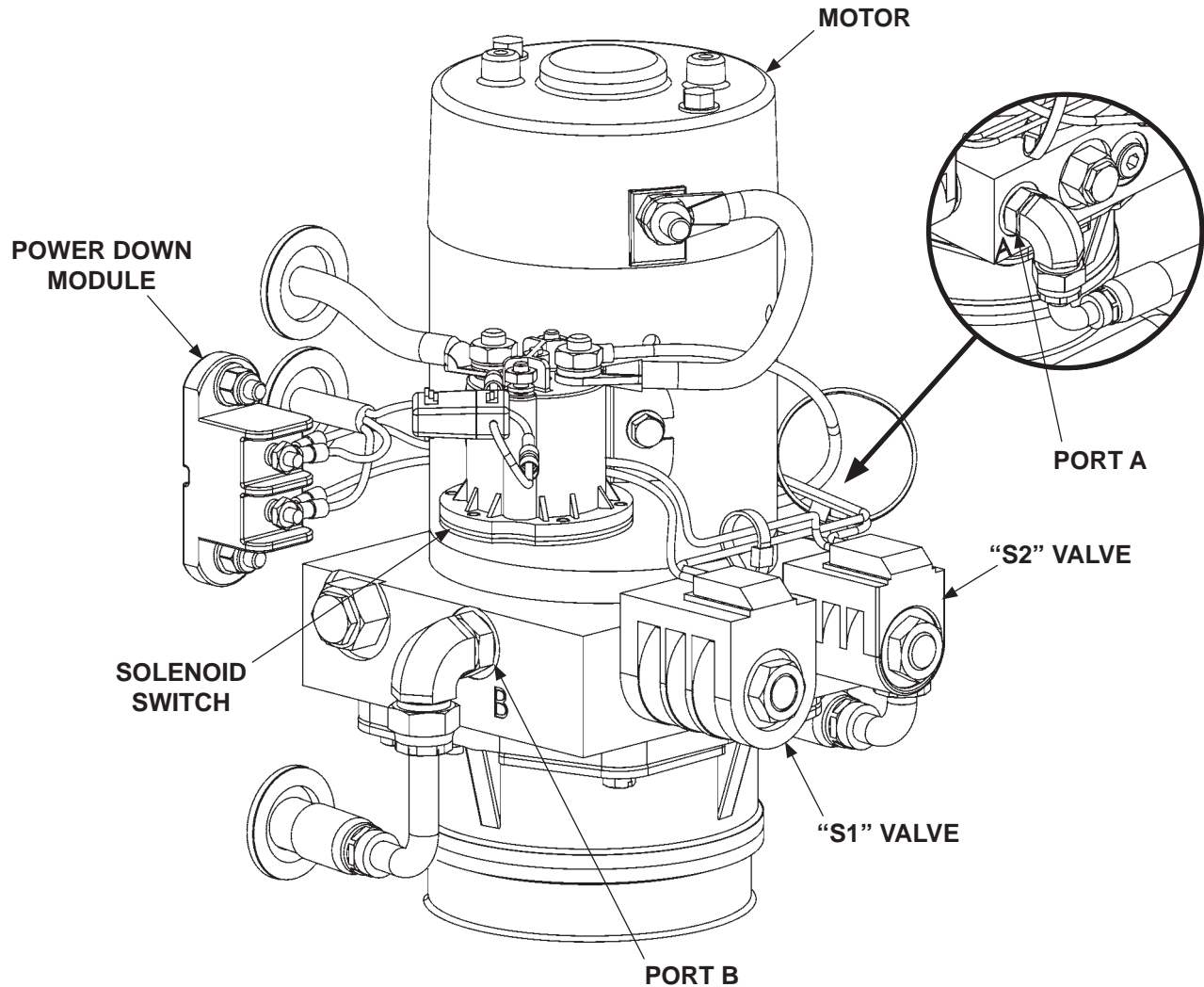


GRAVITY DOWN PUMP MOTOR & SOLENOID SWITCH OPERATION				
LIFTGATE FUNCTION	PORT	SOLENOID SWITCH OPERATION (✓ MEANS ENERGIZED)		
		MOTOR	SOLENOID VALVE A	LOCK VALVE
RAISE	PRESSURE	✓	-	
LOWER	VENT	-	✓	✓
REFER TO VALVES SHOWN ON HYDRAULIC SCHEMATIC				

TABLE 72-1

# SYSTEM DIAGRAMS

## PUMP, MOTOR & SOLENOID OPERATION - POWER DOWN



POWER DOWN PUMP MOTOR & SOLENOID SWITCH OPERATION						
LIFTGATE FUNCTION	PORT	SOLENOID SWITCH OPERATION (✓ MEANS ENERGIZED)				
		MOTOR	VALVE "S2"	VALVE "S1"	LOCK VALVE	POWER DOWN MODULE
RAISE	A	✓	-	✓		-
LOWER	B	✓	✓	-	✓	✓
REFER TO VALVES SHOWN ON HYDRAULIC SCHEMATIC						

TABLE 73-1

# HYDRAULIC SYSTEM DIAGRAMS

## HYDRAULIC SCHEMATIC (GRAVITY DOWN)

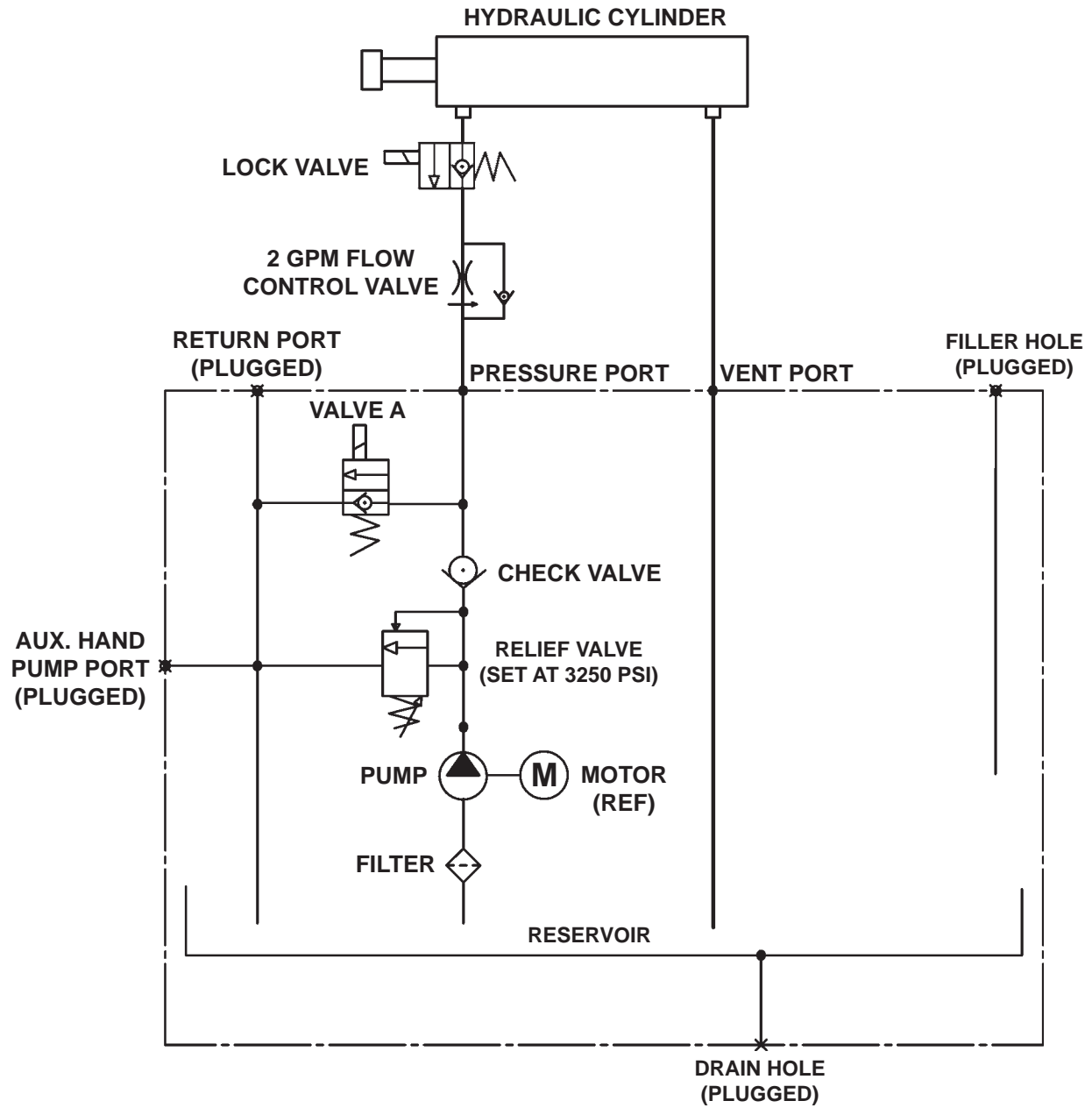


FIG. 74-1

# HYDRAULIC SYSTEM DIAGRAMS

## HYDRAULIC SCHEMATIC (POWER DOWN)

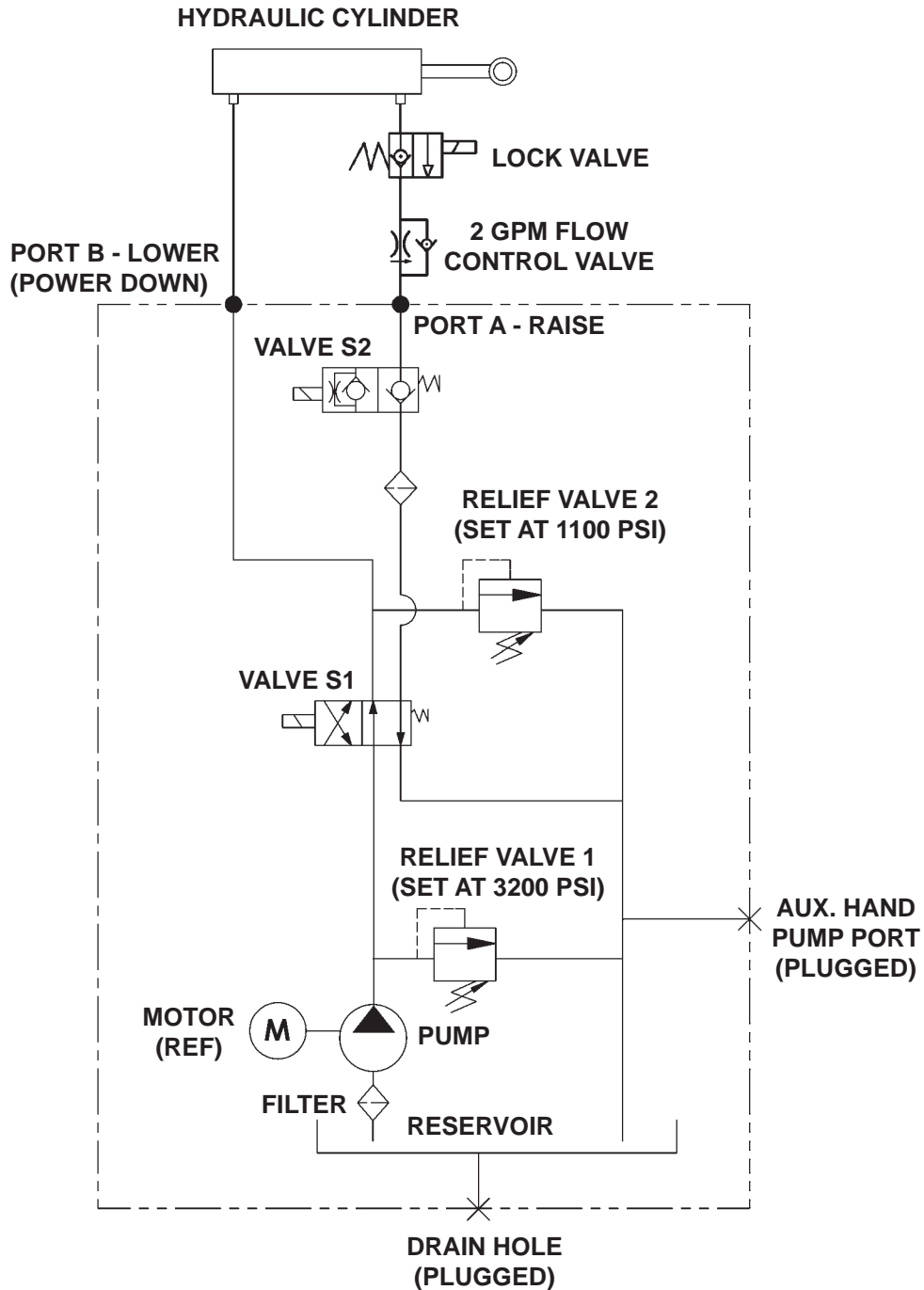


FIG. 75-1

# ELECTRICAL SYSTEM DIAGRAMS

## ELECTRICAL SCHEMATIC (GRAVITY DOWN)

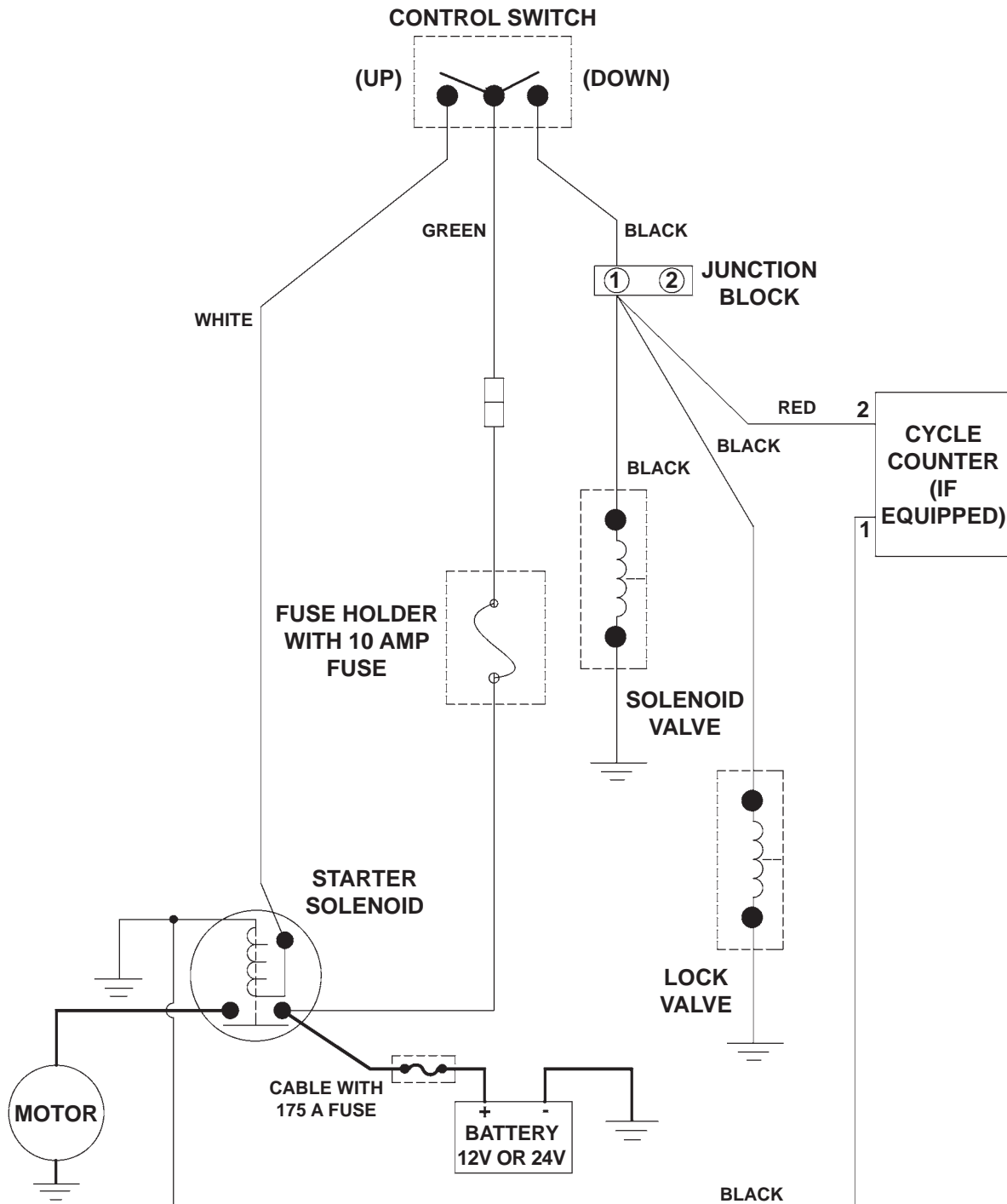


FIG. 76-1

# ELECTRICAL SYSTEM DIAGRAMS

## ELECTRICAL SCHEMATIC (POWER DOWN)

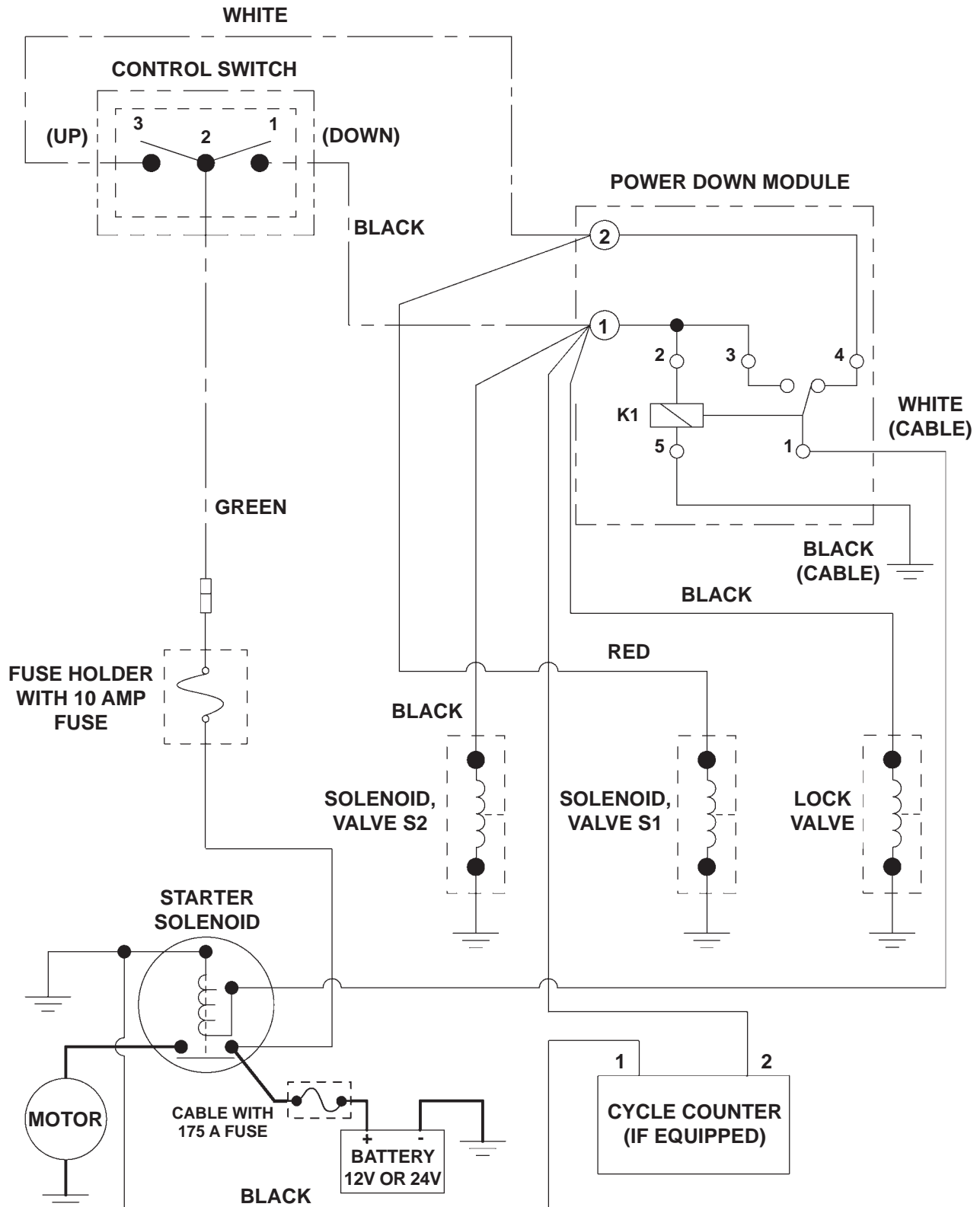


FIG. 77-1



## SYSTEM DIAGRAMS

### ELECTRICAL VALUES

<b>Solenoid Switch</b>	<b>12V</b>	<b>24V</b>
Coil Resistance:	5.4Ω @70°F, ±15%	20.1Ω @70°F, ±15%
Ampere:	2.2A	1.2A
Coil terminal torque: <b>10-15 lb-in</b> max.		
Contact terminal torque: <b>30-35 lb-in</b> max.		
<b>Solenoid Valves (S1 &amp; S2)</b>		
S1 Coil Resistance:	6.6Ω @ 70°F, ±15%	26.7Ω @ 70°F, ±15%
S1 Ampere:	1.8A	0.9A
S2 Coil Resistance:	7.5Ω @ 70°F, ±15%	30.8Ω @ 70°F, ±15%
S2 Ampere:	1.6A	0.78A
Coil terminal torque: <b>15-45 lb-in</b> max.		
Valve cartridge torque: <b>25-30 lb-ft</b> max.		
Coil nut torque: <b>15-45 lb-in</b>		
<b>Digital Cycle Counter</b>		
Operating Voltage:	7V - 30 VDC	
Ampere:	<2mA	
<b>Solenoid Lock Valve</b>		
Coil Resistance:	8.0Ω @ 70°F, ±15%	30Ω @ 70°F, ±15%
Ampere:	1.5A	0.8A
Coil nut torque: <b>3-4.5 lb-ft</b> max.		
Valve cartridge torque: <b>18.5-22 lb-ft</b> max.		
<b>Ground Cable</b>		
Cap Screw Torque: <b>24 lb-ft</b> max.		

TABLE 78-1

# OPTIONS

## OPTIONAL LIFTGATE COMPONENTS

<b>MISCELLANEOUS KITS</b>	<b>PART NO.</b>	<b>GD</b>	<b>PD</b>
TRAFFIC CONES	268893-01	X	X
RELOCATE PUMP MTG KIT, GD TUK-A-WAY	297619-01	X	
RELOCATE PUMP MTG KIT, GD TUK-A-WAY, GALVANIZED	297619-01G	X	
RELOCATE PUMP MTG KIT, PD TUK-A-WAY	297619-02		X
RELOCATE PUMP MTG KIT, PD TUK-A-WAY, GALVANIZED	297619-02G		X
EXTENSION PLATE HARDWARE, 96" & 102" LG INSTALLATIONS	283257-02	X	X
MOUNTING PLATES, TE, 42-1/4" INSIDE	298385-01	X	X
<b>MECHANICAL KITS</b>			
102" EXTENSION, 11" EXT. PLATE (1/4" THICK EXTENSION PLATES ONLY)	287095-01	X	X
102" EXTENSION, GALVANIZED, 11" EXT. PLATE (1/4" THICK EXT. PLATES ONLY)	287095-01G	X	X
<b>ELECTRICAL KITS</b>			
CAB CUT OFF SWITCH	250477	X	X
DUAL CONTROL, TUK-A-WAY	297115-01	X	X
STREET SIDE CONTROL, TUK-A-WAY	297116-01	X	X
HAND HELD CONTROL KIT	280570-07	X	X
HAND HELD CONTROL KIT, 120" LG (CURB SIDE MOUNT)	263260-13	X	X
HAND HELD CONTROL KIT, 240" LG (STREET SIDE MOUNT)	263260-14	X	X
FRAME MOUNTING BRACKET FOR 2 OVAL LIGHTS	282372-01	X	X
FRAME MOUNTING BRACKET FOR 2 OVAL LIGHTS, GALVANIZED	282372-01G	X	X
CYCLE COUNTER (DIGITAL), TUK-A-WAY	297620-01	X	X
<b>HAND PUMP OPTIONS</b>			
KIT, HAND PUMP, TUK-A-WAY (GRAVITY DOWN)	297117-01	X	

# OPTIONS

## OPTIONAL LIFTGATE COMPONENTS - Continued

HIGH BED STEP OPTIONS (42" TO 54" BED HEIGHT, 30" OVERALL STEP HEIGHT)			
	PART NO.	GD	PD
<b>PAINTED DUAL STEP KITS WITH BUMPER</b>			
DUAL STEPS, 14" RUBBER BUMPERS	288705-01	X	X
DUAL STEPS, 13.5" RUBBER BUMPERS	288705-02	X	X
DUAL FLEX STEPS 14" RUBBER BUMPERS WITH FLEXIBLE WIRE ROPE LOWER STEP & 14" LG. RUBBER BUMPER	288705-21	X	X
DUAL FLEX STEPS WITH FLEXIBLE WIRE ROPE LOWER STEP & 13.5" LG. RUBBER BUMPER	288705-22	X	X
DUAL STEPS WITH BRACKET FOR LIGHT AND 14" RUBBER BUMPERS	288705-31	X	X
DUAL STEPS WITH BRACKET FOR LIGHT AND 13.5" PLASTIC BUMPERS	288705-32	X	X
<b>PAINTED DUAL STEP KITS WITH BUMPERS AND NO STEPS ON STREET SIDE</b>			
DUAL STEPS, STREETSIDE NO STEPS, 14" BUMPER	288705-03	X	X
DUAL STEPS, STREETSIDE NO STEPS, 13.5" BUMPER	288705-04	X	X
DUAL FLEX STEPS, STREETSIDE NO STEPS, 14" BUMPER	288705-23	X	X
DUAL FLEX STEPS, STREETSIDE NO STEPS, 13.5" BUMPER	288705-24	X	X
DUAL STEPS, WITH LIGHT, STREETSIDE NO STEPS, 14" BUMPER	288705-33	X	X
DUAL STEPS, WITH LIGHT, STREETSIDE NO STEPS, 13.5" BUMPER	288705-34	X	X
<b>PAINTED DUAL STEP KITS WITHOUT BUMPERS</b>			
DUAL STEPS, NO BUMPERS	288705-05	X	X
DUAL STEPS, STREETSIDE NO STEPS, NO BUMPERS	288705-06	X	X
DUAL FLEX STEPS, NO BUMPERS	288705-25	X	X
DUAL FLEX STEPS, STREETSIDE NO STEPS, NO BUMPERS	288705-26	X	X
DUAL STEPS WITH LIGHT, NO BUMPERS	288705-35	X	X
DUAL STEPS WITH LIGHT, STREETSIDE NO STEPS, NO BUMPER	288705-36	X	X
<b>GALVANIZED DUAL STEP KITS WITH BUMPERS</b>			
DUAL STEPS, 14" RUBBER BUMPERS	288705-01G	X	X
DUAL STEPS, 13.5" PLASTIC BUMPERS	288705-02G	X	X
DUAL FLEX STEPS 14" RUBBER BUMPERS	288705-21G	X	X
DUAL FLEX STEPS 13.5" PLASTIC BUMPERS	288705-22G	X	X
DUAL FLEX STEPS W/LIGHT, 14" RUBBER BUMPERS	288705-31G	X	X
DUAL FLEX STEPS W/LIGHT, 13.5" PLASTIC BUMPERS	288705-32G	X	X
<b>GALVANIZED DUAL STEPS WITH BUMPERS AND NO STEPS STREET SIDE</b>			
DUAL STEP KIT, STREETSIDE, NO STEPS, 14" RUBBER BUMPER	288705-03G	X	X
DUAL STEP KIT, STREETSIDE, NO STEPS, 13.5" BUMPER	288705-04G	X	X
DUAL FLEX STEP KIT, STREETSIDE, NO STEPS, 14" RUBBER BUMPERS	288705-23G	X	X
DUAL FLEX STEP KIT, STREETSIDE, NO STEPS, 13.5" RUBBER BUMPERS	288705-24G	X	X
DUAL STEPS W/LIGHT, STREETSIDE, NO STEPS, 14" RUBBER BUMPERS	288705-33G	X	X
DUAL STEPS W/LIGHT, STREETSIDE, NO STEPS, 13.5" RUBBER BUMPERS	288705-34G	X	X
<b>GALVANIZED DUAL STEPS WITHOUT BUMPERS</b>			
DUAL STEPS, NO BUMPERS	288705-05G	X	X
DUAL STEPS, STREETSIDE, NO STEPS, NO BUMPERS	288705-06G	X	X
DUAL FLEX STEPS, NO BUMPERS, GALVANIZED	288705-25G	X	X
DUAL FLEX STEPS, STREETSIDE, NO STEPS, NO BUMPERS	288705-26G	X	X
DUAL STEPS W/LIGHT, NO BUMPERS	288705-35G	X	X
DUAL STEPS W/LIGHT, STREETSIDE, NO STEPS, NO BUMPER, GALVANIZED	288705-36G	X	X

# OPTIONS

## OPTIONAL LIFTGATE COMPONENTS - Continued

LOW BED SINGLE STEPS OPTIONS (36" TO 44" BED HEIGHT, 21" OVERALL STEP HEIGHT)			
<b>PAINTED SINGLE STEP KITS WITH BUMPERS</b>			
SINGLE STEP, 14" RUBBER BUMPERS	288705-11	X	X
SINGLE STEP, 13.5" PLASTIC BUMPERS	288705-12	X	X
<b>PAINTED SINGLE STEP KITS WITH BUMPERS, NO STEPS ON STREET SIDE</b>			
SINGLE STEPS, STREETSIDE NO STEPS, 14" RUBBER BUMPERS	288705-13	X	X
SINGLE STEPS, STREETSIDE NO STEPS, 13.5" PE BUMPERS	288705-14	X	X
<b>PAINTED SINGLE STEP KITS WITHOUT BUMPERS</b>			
SINGLE STEP, NO BUMPERS	288705-15	X	X
SINGLE STEP, STREETSIDE NO STEPS, NO BUMPERS	288705-16	X	X
<b>GALVANIZED SINGLE STEP KITS WITH BUMPERS</b>			
SINGLE STEP, 14" RUBBER BUMPERS	288705-11G	X	X
SINGLE STEP, 13.5" PLASTIC BUMPERS	288705-12G	X	X
<b>GALVANIZED SINGLE STEP KITS WITH BUMPERS, NO STEPS ON STREET SIDE</b>			
SINGLE STEP, STREETSIDE NO STEPS, 14" RUBBER BUMPERS	288705-13G	X	X
SINGLE STEP, STREETSIDE NO STEPS, 13.5" PLASTIC BUMPERS	288705-14G	X	X
<b>GALVANIZED SINGLE STEP KITS WITHOUT BUMPERS</b>			
SINGLE STEP WITH NO BUMPERS	288705-15G	X	X
SINGLE STEP, STREETSIDE NO STEPS, NO BUMPERS	288705-16G	X	X
<b>PAINTED STEP KITS WITHOUT BUMPERS (WELD-ON STEPS)</b>			
2 STEP DOCK BUMPER	251416	X	X
RUBBER DOCK BUMPER (2.5"W X 3"H X 14" LG RUBBER BUMPERS)	203410	X	X

# OPTIONS

## OPTIONAL LIFTGATE COMPONENTS - Continued

LOW BED DUAL STEPS OPTIONS (36" TO 44" BED HEIGHT, 21" OVERALL STEP HEIGHT)			
<b>PAINTED DUAL STEPS WITH BUMPERS (WITH LIGHTS)</b>			
DUAL STEPS WITH LIGHT (2.5"W X 3"H X 14" LG RUBBER BUMPERS)	288705-41	X	X
DUAL STEPS WITH LIGHT (2.9"W X 1.5"H X 13.5" LG PLASTIC BUMPERS)	288705-42	X	X
<b>PAINTED DUAL STEPS WITH BUMPERS NO STEPS ON STREET SIDE (WITH LIGHTS)</b>			
DUAL STEPS WITH LIGHT (NO STEP ON STREET SIDE, 14" RUBBER BUMPERS)	288705-43	X	X
DUAL STEPS WITH LIGHT (NO STEP ON STREET SIDE, 13.5" RUBBER BUMPERS)	288705-44	X	X
<b>PAINTED DUAL STEPS WITHOUT BUMPERS (WITH LIGHTS)</b>			
DUAL STEPS WITH LIGHT, NO BUMPERS	288705-45	X	X
DUAL STEPS WITH LIGHT, STREETSIDE NO STEPS, NO BUMPERS	288705-46	X	X
<b>GALVANIZED DUAL STEPS WITH BUMPERS (WITH LIGHTS)</b>			
DUAL STEPS WITH LIGHT, GALV. (2.5"W X 3"H X 14" LG RUBBER BUMPERS)	288705-41G	X	X
DUAL STEPS WITH LIGHT, GALV. (2.9"W X 1.5"H X 13.5" LG PLASTIC BUMPERS)	288705-42G	X	X
<b>GALVANIZED DUAL STEPS WITH BUMPERS NO STEPS ON STREET SIDE (WITH LIGHTS)</b>			
DUAL STEPS WITH LIGHT, GALV (NO STEP ON STREET SIDE, 14" RUBBER BUMPERS)	288705-43G	X	X
DUAL STEPS WITH LIGHT, GALV (NO STEP ON STREET SIDE, 13.5" RUBBER BUMPERS)	288705-44G	X	X
<b>GALVANIZED DUAL STEPS WITHOUT BUMPERS</b>			
DUAL STEPS WITH LIGHT, NO BUMPERS, GALV	288705-45G	X	X
DUAL STEPS WITH LIGHT, STREETSIDE, NO STEPS, NO BUMPERS, GALV.	288705-46G	X	X
<b>BUMPERS KIT</b>			
RUBBER BUMPER KIT, 14" BUMPERS (2.5"W X 3"H X 14" LG)	288706-01	X	X
RUBBER BUMPER KIT, 13.5" PLASTIC BUMPERS (2.9"W X 1.5"H X 13.5" LG)	288707-01	X	X



## PRE-DELIVERY INSPECTION FORM

**Important!** This pre-delivery checklist is to aid the installer in confirming the proper installation of this Maxon product. It is not a comprehensive list and does not replace the use of the installation manual. The installer is responsible for following all instructions in the installation manual.

**Model:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Serial Number:** \_\_\_\_\_

**Technician:** \_\_\_\_\_

### Pre-Installation Inspection:

- ☐ Correct model
- ☐ Correct capacity
- ☐ Correct platform size
- ☐ Correct options
- ☐ Manuals & decals

### Structural Inspection:

- ☐ Inspect alignment of final assembly
- ☐ Inspect pump box secure mounting
- ☐ Inspect all installation welds
- ☐ Check roll pins, bolts and fasteners
- ☐ Inspect tightness of hardware used to secure liftgate to vehicle.
- ☐ Ensure platform ramp tip and bottom of shackles touch the ground at the same time.

### Hydraulic Inspection:

- ☐ Proper fluid level (See **CHECKING HYDRAULIC FLUID** step in this manual.)
- ☐ Check hydraulic fittings in pump box for leaks
- ☐ Check hydraulic line connections for leaks

### Electrical Inspection:

- ☐ Check power/charge plug and terminal
- ☐ Check for tight wire connections
- ☐ Circuit breaker (150A) installed in battery box (if equipped) or by truck/tractor battery.
- ☐ Ensure batteries are fully charged, all cable connections are tight & tie-downs are tight.
- ☐ Inspect all solenoid connections
- ☐ Check all wiring harness connections
- ☐ Check electrical cable connections are tight & secure.

### Operation Inspection:

**NOTE:** The following times are for 55" bed height, aluminum platform and flipover, Exxon Unis HVI-13 oil, & temperature at 70°F. Times are for reference only and may vary for larger platforms, smaller platforms, or temperature changes.

- ☐ Check operation of all main and optional control switches.

#### TE-20 only

- ☐ Unloaded platform lowers in **6 sec.**
- ☐ Unloaded platform raises in **15 sec.**

#### TE-25 or TE-30 only

- ☐ Unloaded platform lowers in **10 sec.**
- ☐ Unloaded platform raises in **25 sec.**
- ☐ **All TE-Series:** Unloaded platform raises and lowers evenly. At the extension plate, heel of platform at bed height must not be more than **1/4"** uneven, from side to side, and gap between extension plate and heel of platform must be **3/4"**.
- ☐ **All TE-Series:** Breakaway force to unfold platform is **30 lb-ft** maximum. Breakaway force to fold platform is **40 lb-ft** maximum.
- ☐ **All TE-Series:** Platform stores securely under vehicle body
- ☐ Check if cycle counter works
- ☐ Decals in correct location and legible

### Verify all lights are operational (For lights supplied by MAXON only)

- ☐ Platform lights turn **ON** when platform is unfolded, and turn **OFF** when platform is stowed.
- ☐ Taillights, stop lights, turn lights, and backup lights turn **ON** and **OFF** correctly.

