

TABLE OF CONTENTS

| WARNINGS | 4 |
|---|----|
| SAFETY INSTRUCTIONS | 4 |
| GPTLR LIFTGATE COMPONENTS | 5 |
| GPTLR-SERIES INSTALLATION PARTS BOX | 6 |
| VEHICLE REQUIREMENTS | 7 |
| STEP 1 - WELD LIFTGATE TO VEHICLE | 12 |
| STEP 2 - RUN POWER CABLE | 17 |
| STEP 3 - CONNECT POWER CABLE | |
| STEP 4 - INSTALL CONTROL SWITCH | 20 |
| STEP 5 - CHECKING HYDRAULIC FLUID | 22 |
| STEP 6 - CONNECT POWER CABLE TO BATTERY | 24 |
| STEP 7 - REMOVE LOCKING BRACKETS | 25 |
| STEP 8 - FINISH WELDING EXTENSION PLATE | 29 |
| STEP 9 - ADJUST PLATFORM (IF REQUIRED) | 31 |
| STEP 10 - FINISH WELDING LIFTGATE TO VEHICLE | 39 |
| STEP 11 - WELD TRUCK BODY TO FRAME (TRUCKS ONLY) | 40 |
| STEP 12 - ADJUST OPENER (IF REQUIRED) | 41 |
| STEP 13 - BOLT ON STOP BLOCK | 44 |
| STEP 14 - ADJUST UNDERRIDE (IF REQUIRED) | 45 |
| STEP 15 - ATTACH DECALS | 50 |
| STEP 16 - ATTACH NONSKID & SAFETY STRIPING | 52 |
| STEP 17 - VEHICLE TAILLIGHT POSITIONING (IF REQUIRED) | 53 |
| LIFTGATES WITH STANDARD ICC BUMPER | 53 |
| LIFTGATES WITH STANDARD AND OPTIONAL UNDERRIDE | 54 |
| OVAL LIGHT BRACKETS | 55 |

| TOUCHUP PAINT | . 56 |
|--|------|
| SYSTEM DIAGRAMS | . 57 |
| PUMP & MOTOR SOLENOID OPERATION (GRAVITY DOWN) | . 57 |
| PUMP & MOTOR SOLENOID OPERATION (POWER DOWN) | . 58 |
| HYDRAULIC SCHEMATIC (GRAVITY DOWN) | . 59 |
| HYDRAULIC SCHEMATIC (POWER DOWN) | . 60 |
| ELECTRICAL SCHEMATIC (GRAVITY DOWN) | . 61 |
| ELECTRICAL SCHEMATIC (POWER DOWN) | . 62 |
| OPTIONS | . 63 |
| RECOMMENDED LIFTGATE POWER CONFIGURATION | . 63 |

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

A 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.

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.

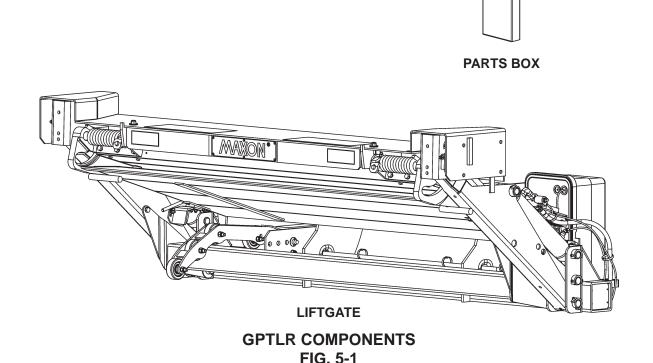
GPTLR LIFTGATE COMPONENTS

A CAUTION

Unpacking the Liftgate on unlevel surface may allow heavy components to slide off when shipping bands are cut. Injury and equipment damage could result. Before the shipping bands are cut, put Liftgate on level surface that will support 1500 lbs. When unpacking the Liftgate, remove heavy components carefully to avoid injury and damage.

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 enclosed in each box. If parts and components are missing or incorrect call:

> **Maxon Customer Service** Call (800) 227-4116 or Send e-mail to cservice@maxonlift.com



GPTLR-SERIES INSTALLATION PARTS BOX

| ITEM | DESCRIPTION | QTY. | PART NO. | |
|------|-------------------------------------|-------------|--|--|
| 1 | FRAME CLIP, 1/2" X 1-3/8" | 7 | 050079 | |
| 2 | COPPER LUG, #2 GA, 5/16" CLOSED END | 1 | 906497-02 | |
| | MOLDED SWITCH ASSY (GRAVITY DOWN) | 1 267959-01 | | |
| 3 | MOLDED SWITCH ASSY (POWER DOWN) | 1 | 264951-04 | |
| 4 | FUSED POWER CABLE, 200 AMP, 38' LG. | 1 | 264422 | |
| 5 | DECAL & MANUAL KIT | 1 | 281101-01 (GPTLR-25) 281101-02 (GPTLR-33) 281124-01 (GPTLR-44) 281124-02 (GPTLR-55) | |
| | A. INSTALLATION MANUAL | 1 | M-04-06 | |
| | B. OPERATION MANUAL | 1 | M-04-05 | |
| | C. MAINTENANCE MANUAL | 1 | M-04-04 | |
| | D. WARRANTY CARD | 1 | M-78-78 | |
| | E. CUSTOMER SURVEY FORM | | M-94-04 | |
| | F. DECALS, NONSKID & SAFETY TAPE | | REFER TO PAGES FOR DECALS, NONSKID & SAFETY TAPE IN THIS MANUAL | |
| 6 | CLAMP, #10 RUBBER LOOM | 2 | 801681 | |
| 7 | SELF-TAPPING SCREW, #10-24 X 1" LG. | 4 | 900057-5 | |
| 8 | SHIM, PLATFORM ADJUSTMENT 1/16" | 2 | 281166-01 | |
| 9 | SHIM, PLATFORM ADJUSTMENT 1/8" | 2 | 281166-02 | |
| 10 | STOP BLOCK | 1 | 281673-01 | |
| 11 | CAP SCREW, 1/2"-13 X 2-1/2" LG. | 2 | 900035-7 | |
| 12 | LOCK NUT, 1/2"-13 | 2 | 901010 | |
| 13 | FLAT WASHER, 1/2" | 2 | 902000-16 | |

TABLE 6-1

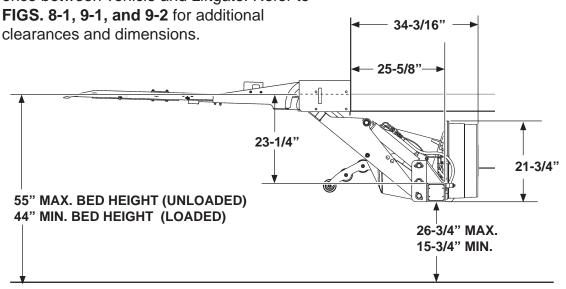
VEHICLE REQUIREMENTS

NOTE: BODY maximum and minimum operating bed height:
For GPTLR-25, GPTLR-33, GPTLR-44, & GPTLR-55 with standard platform:
Maximum height is 55" (Unloaded). Minimum height is 44" (Loaded).
On vehicle bodies equipped with swing open doors, the extension plate and vehicle body must be modified to install this Liftgate.

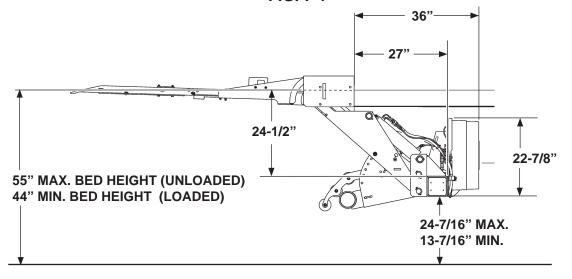
NOTE: Make sure vehicle is parked on level ground while preparing vehicle and installing Liftgate.

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

1. Check for correct clearances (FIGS. 7-1 and 7-2) on vehicle to prevent interference between vehicle and Liftgate. Refer to

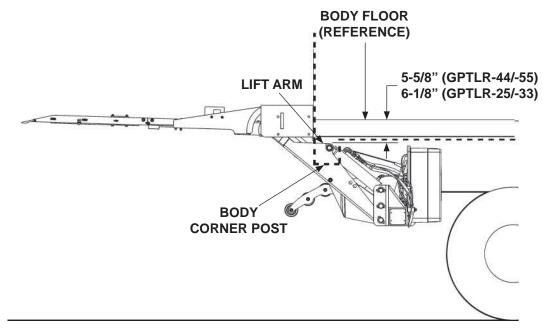


GPTLR-25 & -33 LIFTGATE CLEARANCE DIMENSIONS (FOR REFERENCE) FIG. 7-1



GPTLR-44 & -55 LIFTGATE CLEARANCE DIMENSIONS (FOR REFERENCE) FIG. 7-2

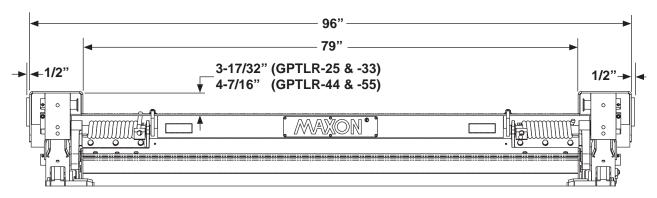
VEHICLE REQUIREMENTS - Continued



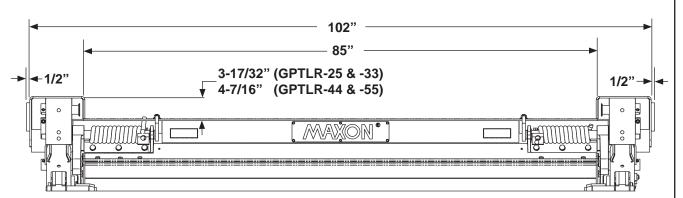
VEHICLE BODY CORNER POST CLEARANCE (FOR REFERENCE) FIG. 8-1

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VEHICLE REQUIREMENTS - Continued



GPTLR EXTENSION PLATE DIMENSIONS FOR 96" WIDE BODY FIG. 9-1



GPTLR EXTENSION PLATE DIMENSIONS FOR 102" WIDE BODY FIG. 9-2

VEHICLE REQUIREMENTS - Continued

CAUTION

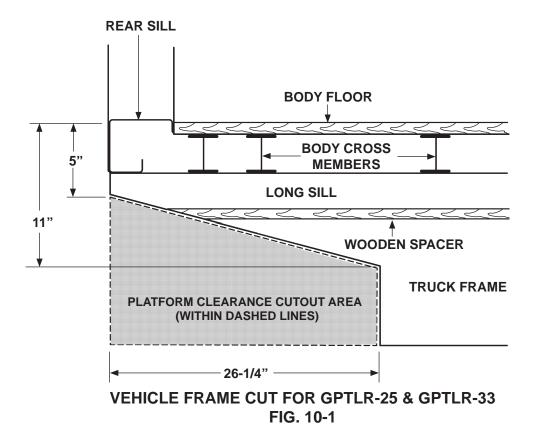
- To prevent aluminum platform from being damaged, make sure vehicle frame is cut correctly and rear sills are modified if over 5" in height (GPTLR-25 & GPTLR-33) or 6" in height (GPTLR-44 & GPTLR-55). If the cutouts are incorrect, platform may hit vehicle frame or underbody when stowing the Liftgate. The bottom of the platform may also hit the sill.
- Installer is responsible for ensuring that vehicle body and frame modifications do not adversely affect the integrity of the body and frame.

NOTE: The dimensions, shown in the illustration below, are maximums except as indicated.

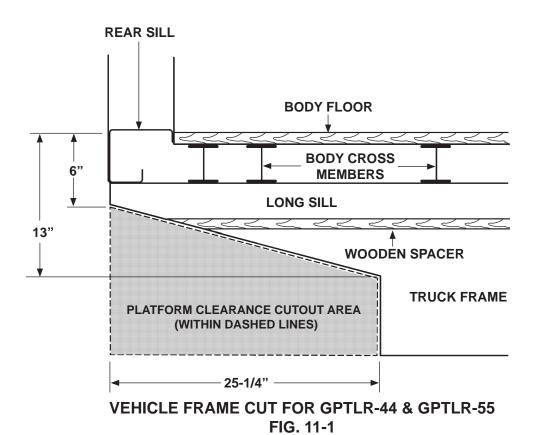
NOTE: The platform cutout area shown below applies to trucks and trailers.

NOTE: Refer to the platform clearance cutout area in **FIGS. 10-1 and 11-1**. Remove any part of the rear sill that protrudes into this area.

2. Fit the Liftgate to vehicle body by cutting vehicle frame as shown in FIG. 10-1.



VEHICLE REQUIREMENTS - Continued



STEP 1 - WELD LIFTGATE TO VEHICLE

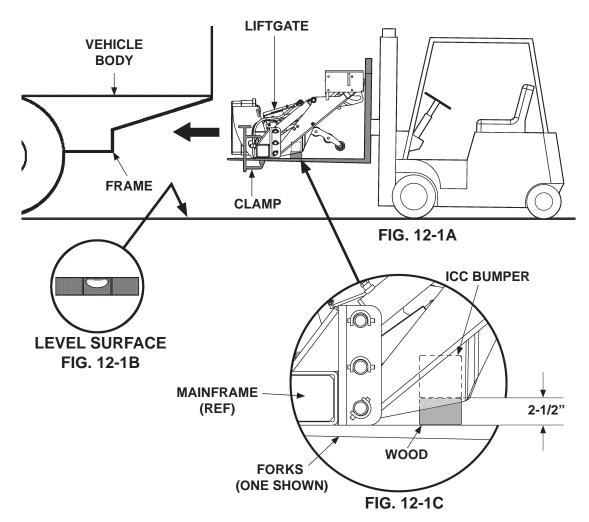
A WARNING

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: This procedure contains the recommended method for lifting and supporting the Liftgate during installation. Other methods, such as hoisting the Liftgate, may be used if careful shop practices are employed.

NOTE: To install Liftgate correctly, you must park the vehicle on level ground and follow the instructions in this manual.

1. Clamp Liftgate to forklift as shown in FIG. 12-1A. For GPTLR-25 and GPTLR-33 Liftgates equipped with ICC bumper, place a piece of wood between the ICC bumper and forks on the forklift for additional support as shown in FIG. 12-1C.



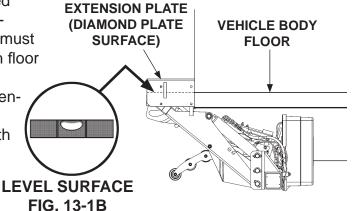
2. Use forklift to center the Liftgate in position on the back of the vehicle body and frame (FIG. 12-1A). If necessary, have 1 person operate the forklift and 1 other person check alignment of Liftgate and vehicle.

STEP 1 - WELD LIFTGATE TO VEHICLE - Continued

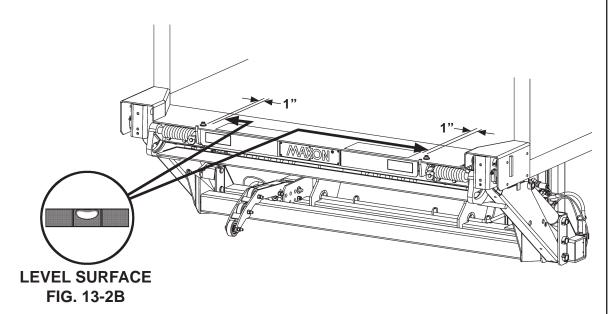
3. Make sure the extension plate is butted against vehicle body (FIG. 13-1A). Extension plate (diamond plate surface) must be level with the ground and flush with floor of vehicle body (FIGS. 13-1A & 13-

1B). Position levels in 2 places on extension plate (FIGS. 13-2A & 13-2B) to show when extension plate is level with

the ground.



SIDE VIEW OF EXTENSION PLATE AND TRUCK BODY (FORKLIFT NOT SHOWN) FIG. 13-1A



POSITIONING LEVELS ON EXTENSION PLATE FIG. 13-2A

STEP 1 - WELD LIFTGATE TO VEHICLE - Continued

A WARNING

Liftgate is shipped from factory with mounting plates bolted to the main frame. Weld the mounting plates as shown in illustrations before opertaing Liftgate.

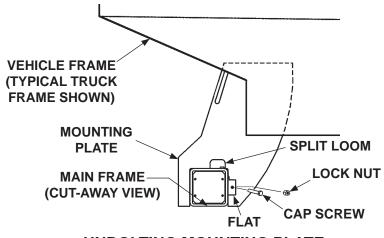
CAUTION

Prevent damage to hydraulic hoses. Before welding next to hydraulic hoses, protect with heat-resistant cover.

CAUTION

When using electrical welder to weld on mounting plates, make sure the welder ground lead is connected directly to the mounting plate, as close as possible to the place being welded. Failure to comply can result in damaged cylinders and electrical parts.

- 4. Unbolt the RH side mounting plate from the flat on the main frame (FIG. 14-1). Repeat for LH side mounting plate. Make sure Liftgate stays centered on vehicle body. Reposition both mounting plates against vehicle frame (FIG. 15-1).
- **5.** Remove the split loom from RH side mounting plate (FIG. 14-1). Repeat for LH side mounting plate. Save the split loom to reinstall.



UNBOLTING MOUNTING PLATE (RH SIDE SHOWN) FIG. 14-1

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STEP 1 - WELD LIFTGATE TO VEHICLE - Continued

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: Weld both mounting plates to vehicle frame before welding mounting plates to main frame.

6. Clamp both mounting plates to outboard side of vehicle frame. Weld each mounting plate to vehicle frame as shown in FIG. 15-1. Next, weld both mounting plates to main frame (FIG. 15-1). Remove clamps.

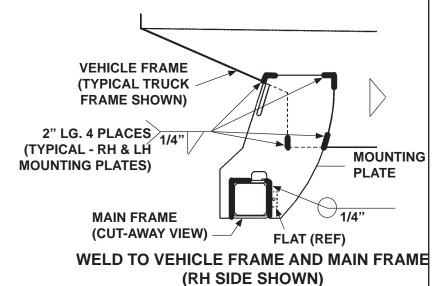


FIG. 15-1

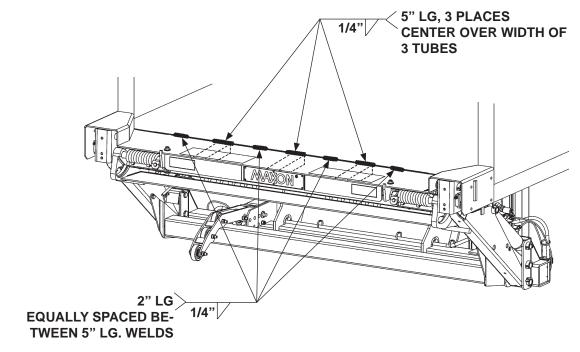
STEP 1 - WELD LIFTGATE TO VEHICLE - Continued

CAUTION

When using electrical welder to weld on extension plate, make sure the welder ground lead is connected directly to the extension plate, as close as possible to the place being welded. Failure to comply can result in damaged cylinders and electrical parts.

NOTE: While welding extension plate to vehicle body sill, make sure the diamond plate surface on the extension plate stays flush with the sill.

7. Weld the top of extension plate to vehicle body sill as shown in **FIG. 16-1**.



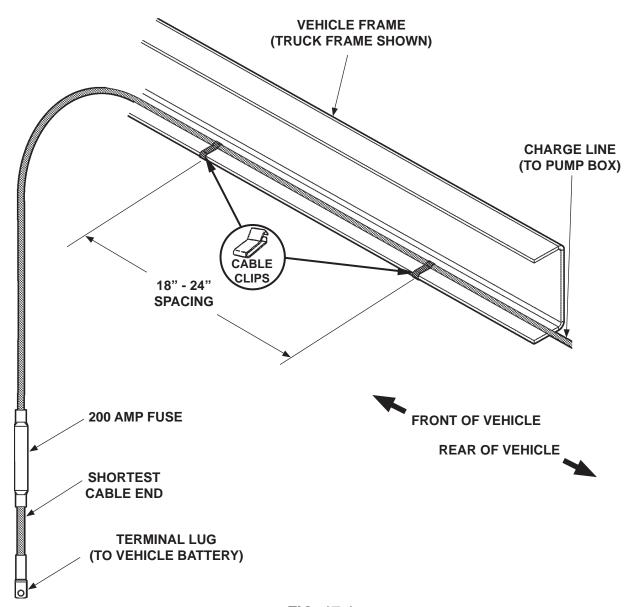
EXTENSION PLATE WELDS - VIEWED FROM ABOVE (FORKLIFT NOT SHOWN) FIG. 16-1

STEP 2 - RUN POWER CABLE

A 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. 17-1**. Keep enough cable near the battery to reach the positive terminal without straining cable (after connection). Run cable to pump box on Liftgate.



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STEP 3 - CONNECT POWER CABLE

1. Unbolt the pump cover as shown in FIG. 18-1.

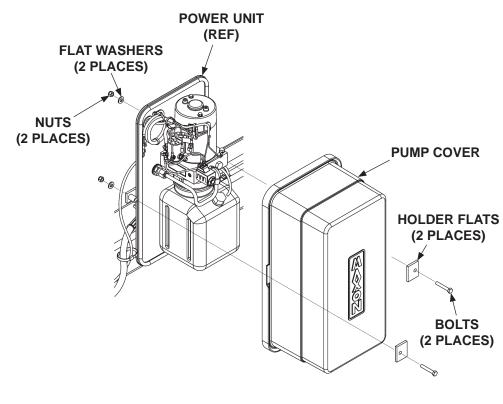


FIG. 18-1

STEP 3 - CONNECT POWER CABLE - Continued

NOTE: Electrical lines must be run into pump box through sealing grommets **(FIG. 19-3)**. To ensure a good seal on hydraulic & electrical lines, never cut the sealing grommets.

- 2. Run fused power cable through grommet on pump mounting plate (FIG. 19-3).
- 3. On the bare wire end of fused power cable, keep enough length to attach copper terminal lug and reach starter solenoid without putting tension on cable (after connection) (FIG. 19-1). Measure (if needed) and then cut excess cable from bare wire end of cable. Put heatshrink tubing (parts box) (FIG. 19-1) 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 heatshrink tubing (FIG. 19-2).

COPPER TERMINAL LUG

HEATSHRINK TUBING (P/N 253316-04)



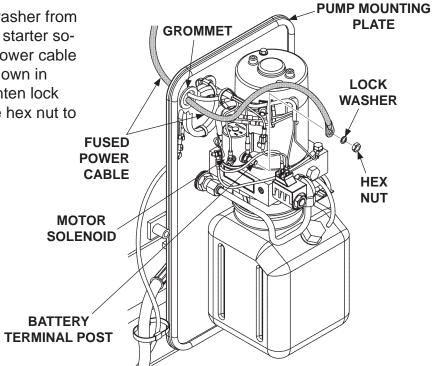
PLACING TERMINAL LUG & HEATSHRINK TUBING ON FUSED POWER CABLE FIG. 19-1



TYPICAL FUSED POWER CABLE WITH TERMINAL LUG INSTALLED FIG. 19-2

NOTE: MAXON recommends using dielectric grease on all electrical connections.

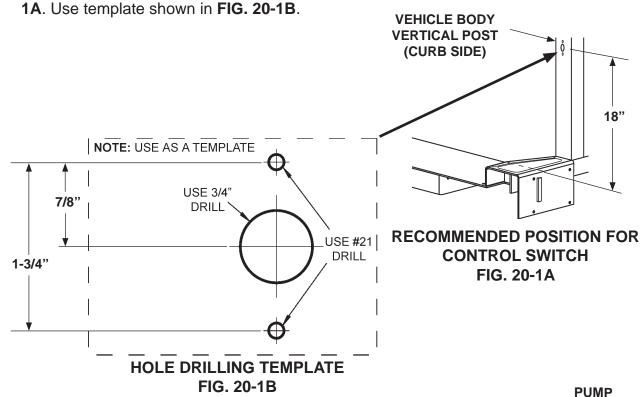
4. Remove hex nut and lock washer from battery terminal post on the starter solenoid. Connect the fused power cable to the starter solenoid as shown in FIG. 19-3. Reinstall and tighten lock washer and hex nut. Torque hex nut to 95 lbs.-in.



TYPICAL FUSED POWER CABLE CONNECTION (GRAVITY DOWN PUMP SHOWN)
FIG. 19-3

STEP 4 - INSTALL CONTROL SWITCH

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. 20**-



NOTE: Electrical lines must be run into pump box through sealing grommets (FIG. 20-2). To ensure a good seal on the electrical lines, never cut the sealing grommets.

2. Cut tie strap on coiled wiring harness (FIG. 20-2). Pull the wiring harness through grommet on the pump mounting plate (FIG. 20-2).

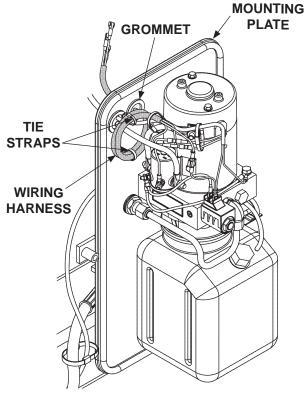


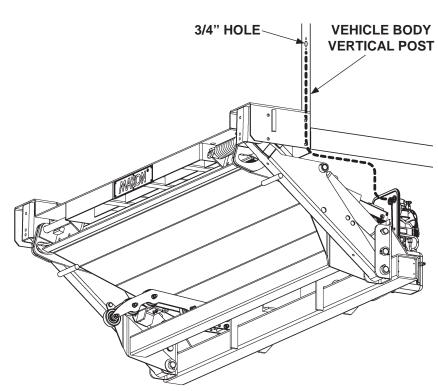
FIG. 20-2

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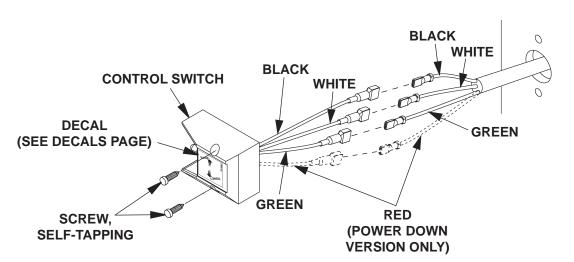
STEP 4 - INSTALL CONTROL SWITCH - Continued

NOTE: MAXON recommends using dielectric grease on all electrical connections.

3. Run wiring harness under vehicle body (see dashed line - FIG. 21-1) and up through inside of vertical post. Next, pull control switch wiring harness out the 3/4" hole drilled in vertical post (FIG. 21-1). Connect the control switch wiring to the wiring harness as shown in FIG. 21-2. Push extended wiring back into the 3/4" hole in the vertical post until control switch touches the post. Attach the control switch to vertical post with 2 self-tapping screws (FIG. 21-2).



ROUTING CONTROL SWITCH WIRING FIG. 21-1



CONTROL SWITCH WIRING CONNECTIONS FIG. 21-2

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STEP 5 - CHECKING HYDRAULIC FLUID

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.

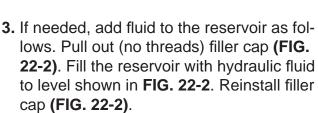
NOTE: Use correct grade of hydraulic fluid for your location.

+50 to +120 Degrees F - Grade ISO 32

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

See TABLES 23-1 & 23-2 for recommended brands.

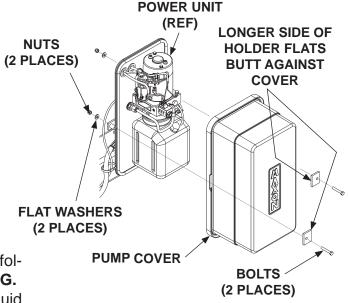
- 1. Unbolt and remove pump cover (FIG. 22-1).
- 2. Check the hydraulic fluid level in reservoir as follows. With Liftgate stowed, or platform at vehicle bed height, level should be as shown in FIG. 22-2.



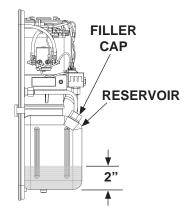
CAUTION

Pump cover must be correctly secured to prevent it from becoming a hazard. To secure pump cover, the long side of the holder flats must butt against pump cover as shown in the illustration.

4. Bolt on the pump cover as shown in **FIG. 22-1**. Torque the 5/16"-18 cover bolts from **10 to 14 lbs.-ft**.



UNBOLTING / BOLTING PUMP COVER FIG. 22-1



POWER UNIT FLUID LEVEL FIG. 22-2

STEP 5 - CHECKING HYDRAULIC FLUID - Continued

| ISO 32 HYDRAULIC OIL | | | | |
|-----------------------|--------------------------------------|--|--|--|
| RECOMMENDED BRANDS | PART NUMBER | | | |
| AMSOIL | AWH-05 | | | |
| CHEVRON | HIPERSYN 32 | | | |
| KENDALL | GOLDEN MV | | | |
| SHELL | TELLUS T-32 | | | |
| EXXON | UNIVIS N-32 | | | |
| MOBIL | DTE-13M, DTE-24, HYDRAULIC OIL-13 | | | |

TABLE 23-1

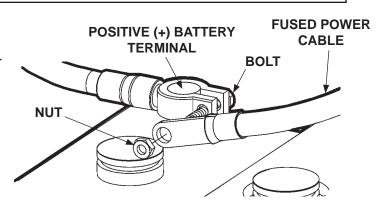
| ISO 15 OR MIL-H-5606 HYDRAULIC OIL | | | | |
|------------------------------------|-------------------|--|--|--|
| RECOMMENDED BRANDS | PART NUMBER | | | |
| AMSOIL | AWF-05 | | | |
| CHEVRON | FLUID A, AW-MV-15 | | | |
| KENDALL | GLACIAL BLU | | | |
| SHELL | TELLUS T-15 | | | |
| EXXON | UNIVIS HVI-13 | | | |
| MOBIL | DTE-11M | | | |
| ROSEMEAD | THS FLUID 17111 | | | |

TABLE 23-2

STEP 6 - CONNECT POWER CABLE TO BATTERY

NOTE: MAXON recommends using dielectric grease on all electrical connections.

Remove nut from positive (+) battery terminal connector. Connect power cable to the positive (+) battery terminal connector (FIG. 24-1). Reinstall and tighten nut.



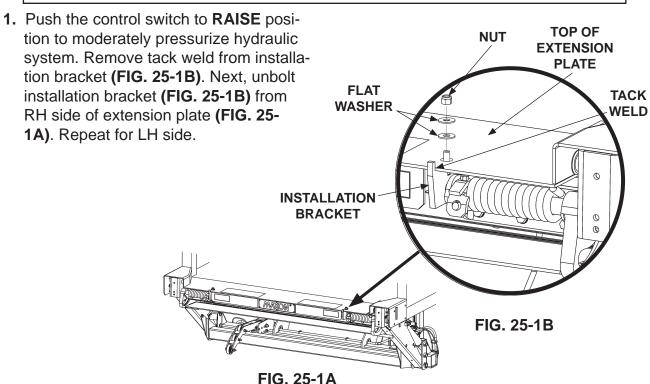
CONNECTING POWER CABLE FIG. 24-1

STEP 7 - REMOVE LOCKING BRACKETS

A 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 bracket must be removed.



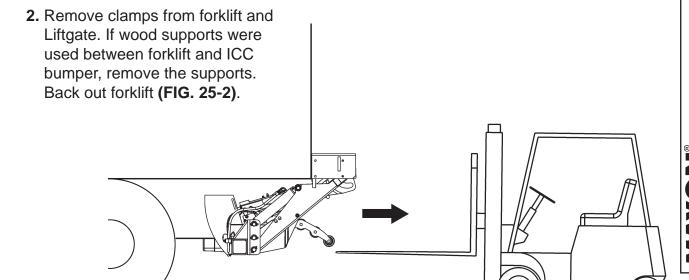
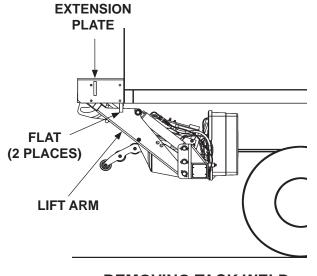


FIG. 25-2

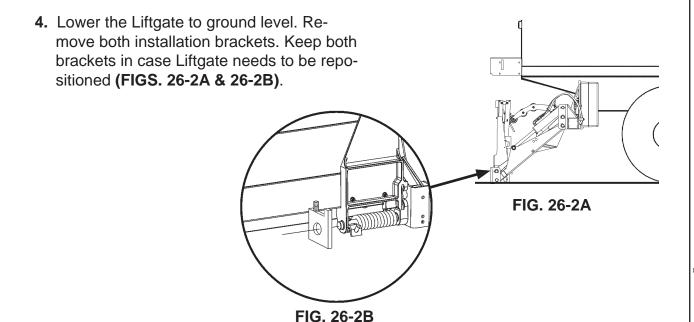
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STEP 7 - REMOVE LOCKING BRACKETS - Continued

 Remove the flat welded between each lift arm and extension plate (FIG. 26-1). Repeat for LH side of Liftgate.



REMOVING TACK WELD (RH SIDE OF LIFTGATE SHOWN) FIG. 26-1



STEP 7 - REMOVE LOCKING BRACKETS - Continued

5. Unfold platform and flipover (FIG. 27-1).

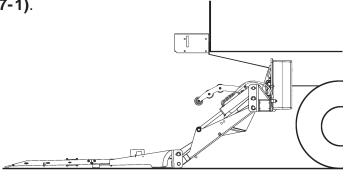
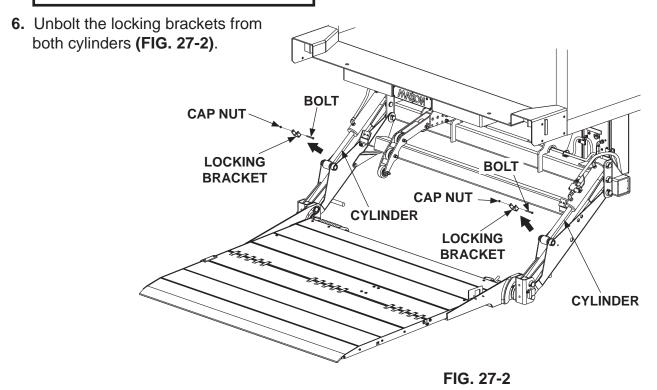


FIG. 27-1

CAUTION

To prevent damage to Liftgate, the locking bracket on each cylinder must be removed before operating Liftgate.

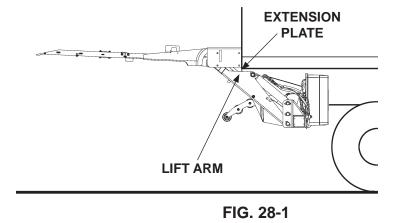


27

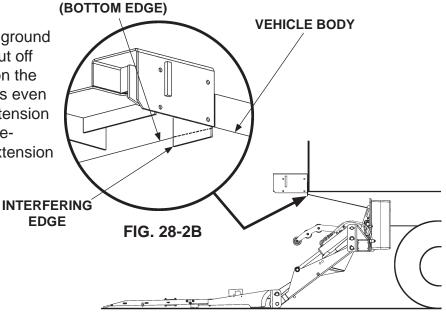
STEP 7 - REMOVE LOCKING BRACKETS - Continued

EXTENSION PLATE

7. Raise the Liftgate to vehicle bed height. Check if extension plate interferes with lifting arm (FIG. 28-1).



8. Lower the Liftgate to ground level (FIG. 28-2A). Cut off the interfering edge on the extension plate so it is even with the bottom of extension plate (FIG. 28-2B). Repeat for LH side of extension plate.



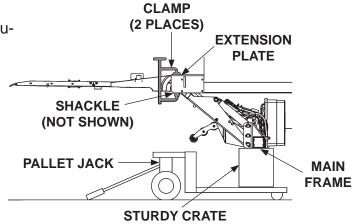
PLATFORM AT GROUND LEVEL (RH SIDE SHOWN) FIG. 28-2A

STEP 8 - FINISH WELDING EXTENSION PLATE

CAUTION

When using electrical welder to weld on extension plate, make sure the welder ground lead is connected directly to the extension plate, as close as possible to the place being welded. Failure to comply can result in damaged cylinders and electrical parts.

- RAISE the platform to bed level under moderate hydraulic pressure (FIG. 29-1).
- 2. Support the main frame with pallet jack (FIG. 29-1).

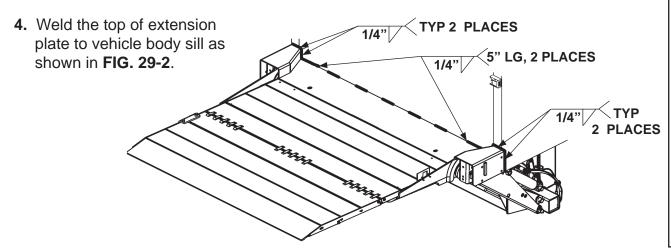


SUPPORTING PLATFORM & MAIN FRAME (GPTLR-25 SHOWN) FIG. 29-1

Clamp the shackles to extension plate (FIG. 29-1).

CAUTION

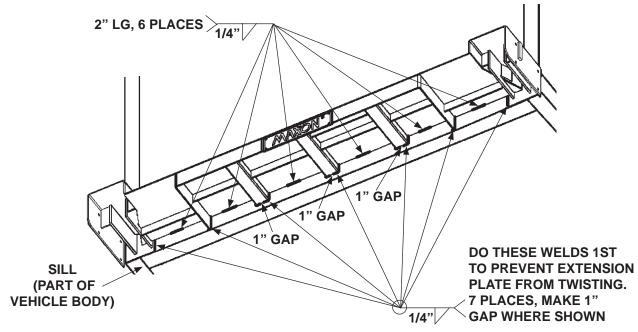
To protect the original paint system, a 3" wide area of paint must be removed from all sides of the weld area before welding.



EXTENSION PLATE WELDS - VIEWED FROM ABOVE (FORKLIFT NOT SHOWN)
FIG. 29-2

STEP 8 - FINISH WELDING EXTENSION PLATE - Continued

5. Weld the bottom of extension plate to vehicle body sill as shown in FIG. 30-1.



EXTENSION PLATE WELDS - VIEWED FROM UNDERNEATH (PLATFORM NOT SHOWN) FIG. 30-1

STEP 9 - ADJUST PLATFORM (IF REQUIRED)

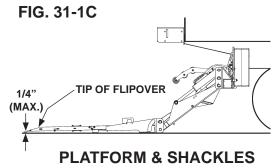
NOTE: In most cases, if Liftgate is installed according to the instructions in this manual, platform will not require adjustment. Use the following instructions to check the platform. Adjust the platform only if required.

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

1. RAISE platform to bed height. Check the platform as follows. Inboard edge on top of platform must be no more than 1/4" from diamond plate surface on top of extension plate (FIGS. 31-1A & 31-1B). The maximum allowable horizontal gap between inboard edge of platform and adjacent edge of extension plate is 1/4" (FIGS. 31-1A & 31-1C). LOWER platform to ground level. Shackles and tip of flipover should touch the ground at the same time (FIG. 31-2). Tip of flipover must not be higher than 1/4" above the ground. If all indications are correct (FIGS. 31-1A, 31-1B, 31-1C, & 31-2), Liftgate is installed correctly and no adjustment is needed. If the tip of flipover is too high above the ground, if shackles are off the ground, or if there is too much gap between platform and extension plate, continue doing this procedure.

1/4" MAX **PLATFORM EXTENSION PLATE VERTICAL GAP** FIG. 31-1B **PLATFORM AT BED LEVEL** FIG. 31-1A 1/4" MAX. **PLATFORM EXTENSION PLATE HORIZONTAL GAP**

NOTE: If the shackles do not touch the ground (see FIG. 27-1), do instruction 2. If the tip of the flipover is more than 1/4" above the ground (see FIG. 31-2), skip instructions 2 - 5 and do instruction 6. If there is too much vertical space (FIG. 31-1B) or horizontal space (FIG. 31-1C) between platform and extension plate, start with instruction 7 to remove and reinstall Liftgate.

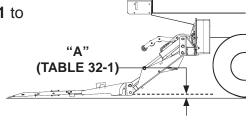


TOUCH GROUND FIG. 31-2

 Make sure platform is still at ground level. If the shackles are not touching the ground, measure and compare distance "A" (FIG. 32-1) with TABLE 32-1 to determine the correct shim.

| RAISE TIP OF FLIPOVER THIS DISTANCE "A" | REQUIRED SHIM THICKNESS | WELD SIZE "W" |
|--|----------------------------|---------------------|
| 1" | 1/16" | 1/32" |
| 2" | 1/8" | 1/16" |

TABLE 32-1



SHACKLES DO NOT TOUCH GROUND FIG. 32-1

3. Fold the flipover and platform. Then, raise the platform to position shown in **FIG. 32-2A**.

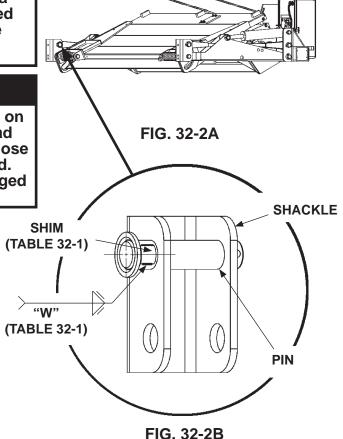
CAUTION

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

CAUTION

When using electrical welder to weld on pin, make sure the welder ground lead is connected directly to the pin, as close as possible to the place being welded. Failure to comply can result in damaged cylinders and electrical parts.

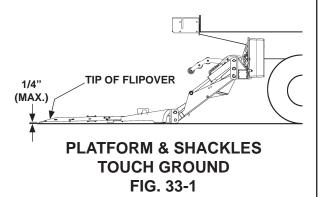
4. Use TABLE 32-1 to select the correct size shim and refer to TABLE 32-1 for the correct shim to get from the parts box. Weld shim to pin as shown in FIG. 32-2B.



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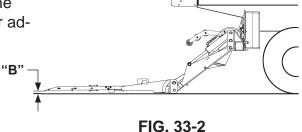
STEP 9 - ADJUST PLATFORM (IF REQUIRED) - Continued

5. Lower platform to the ground. Unfold platform and flipover. RAISE the platform to bed height, then LOWER it to the ground. The tip of flipover and shackle should touch the ground as shown in FIG. 33-1. Tip of flipover must not be higher than 1/4" above the ground.

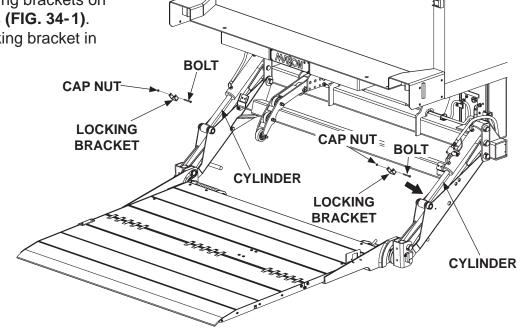


NOTE: For an aluminum platform & flipover equipped with retention ramp, 2" of ground clearance is acceptable at the tip of flipover.

6. If the tip of flipover is more than 1/4" above the ground (FIG. 33-2), note the distance "B" above ground level. See the exception in the NOTE above. Distance "B" will be used for adjusting the platform later in this procedure.

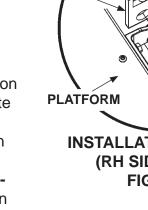


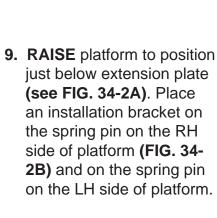
7. Reinstall locking brackets on both cylinders (FIG. 34-1). Bolt each locking bracket in place.



REINSTALLING LOCKING BRACKETS FIG. 34-1

8. Review the **WARNING** page at the front of this manual before continuing this procedure. Stay clear of moving Liftgate parts.





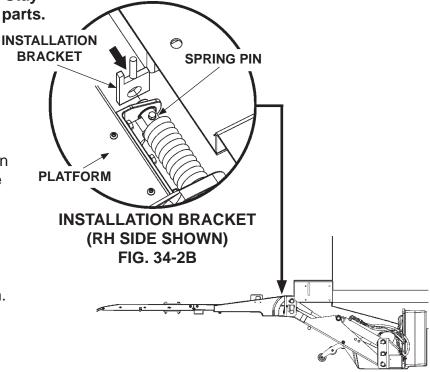
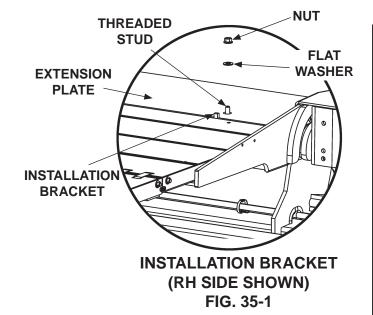


FIG. 34-2A

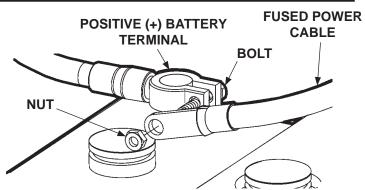
10. Carefully RAISE the platform to vehicle bed height. Make sure threaded stud on each installation bracket comes up through hole in extension plate (FIG. 35-1). Bolt the installation bracket (FIG. 35-1) to extension plate. Torque nut from 39 to 59 lbs.-ft. Repeat for bolting and torquing the installation bracket on the LH side.



A WARNING

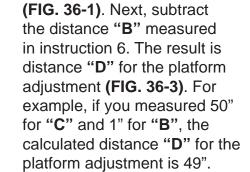
To prevent accidental personal injury and equipment damage, make sure power is disconnected from Liftgate while installing parts.

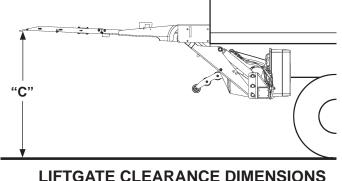
11. Disconnect power from Liftgate by removing nut from positive (+) battery terminal connector and disconnect power cable (FIG. 35-2). Reinstall nut on positive (+) battery terminal connector.



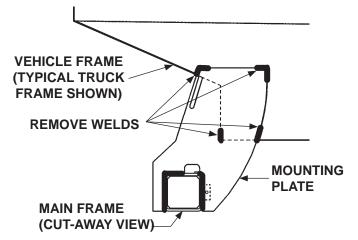
DISCONNECTING BATTERY FIG. 35-2

- 12. Support the Liftgate under main frame with a floor jack.
- 13. Measure distance "C" from the tip of the flipover to ground level (FIG. 36-1). Next, subtract the distance "B" measured in instruction 6. The result is distance "D" for the platform adjustment (FIG. 36-3). For example, if you measured 50" for "C" and 1" for "B". the calculated distance "D" for the platform adjustment is 49".
- 14. Remove welds from RH side and LH side mounting plates (FIG. 36-2).





LIFTGATE CLEARANCE DIMENSIONS FIG. 36-1



REMOVING WELDS FROM MOUNTING PLATE (RH SIDE SHOWN) FIG. 36-2

15. Raise or lower the floor jack to adjust distance "D" between tip of flipover and ground level (FIG. 36-3). Use the distance "D" calculated in instruction 13.

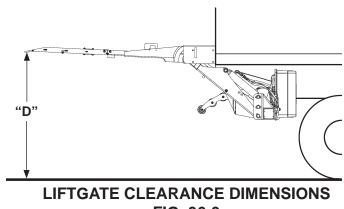


FIG. 36-3

STEP 9 - ADJUST PLATFORM (IF REQUIRED) - Continued

CAUTION

When using electrical welder to weld on mounting plates, make sure the welder ground lead is connected directly to the mounting plate, as close as possible to the place being welded. Failure to comply can result in damaged cylinders and electrical parts.

CAUTION

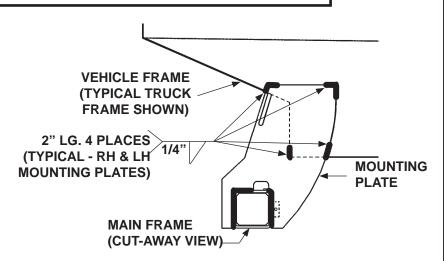
Prevent damaged hydraulic hoses. Before welding next to hydraulic hoses, protect the hoses with a heat-resistant cover.

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.

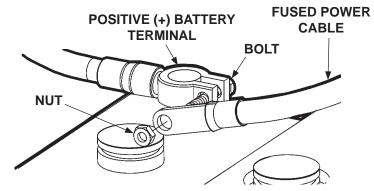
16. Clamp the RH side and LH side mounting plates to vehicle frame. Weld the mounting plates to vehicle frame as shown in FIG. 37-

1. Remove clamps.



17. Connect power to Liftgate by removing nut from positive (+) battery terminal connector and connect power cable (FIG. 37-2). Reinstall and tighten nut on positive (+) battery terminal connector.





18. Lower the floor jack and move it away from the Liftgate.

RECONNECTING BATTERY FIG. 37-2

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STEP 9 - ADJUST PLATFORM (IF REQUIRED) - Continued

19. Unbolt the installation brackets (FIG. 38-1) from RH side and **FLAT EXTENSION** LH side of extension plate. **WASHER** PLATE **THREADED** STUD INSTALLATION **BRACKET INSTALLATION BRACKET** (RH SIDE SHOWN) 20. LOWER the Liftgate to ground FIG. 38-1 level (FIG. 38-2A). Remove the installation brackets from RH side and LH side of platform (FIG. 38-2B). **BOLT** CAP NUT LOCKING CAP NUT ≥ BOLT **BRACKET CYLINDER INSTALLATION BRACKET LOCKING BRACKET CYLINDER INSTALLATION BRACKET REMOVING LOCKING BRACKETS** FIG. 38-2A

21. Unbolt the locking brackets from both cylinders **(FIG. 38-2A)**. Remove the locking brackets.

REMOVING INSTALLATION BRACKET (RH SIDE SHOWN) FIG. 38-2B

STEP 10 - FINISH WELDING LIFTGATE TO VEHICLE

CAUTION

When using electrical welder to weld on mounting plates, make sure the welder ground lead is connected directly to the mounting plate, as close as possible to the place being welded. Failure to comply can result in damaged cylinders and electrical parts.

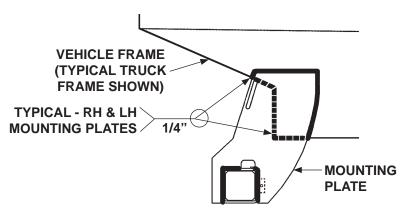
CAUTION

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

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.

1. Weld the mounting plates to vehicle frame as shown in **FIG. 39-1**.

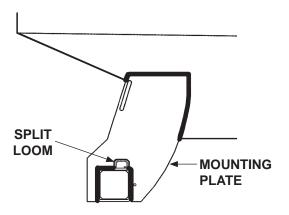


WELD TO VEHICLE FRAME (RH SIDE SHOWN)
FIG. 39-1

A CAUTION

To prevent injury and damaged parts, let mounting plate cool off from welding before reinstalling split loom.

2. Reinstall the split looms on RH side and LH side mounting plates (FIG. 39-2).



REINSTALLING SPLIT LOOM (RH SIDE SHOWN) FIG. 39-2

STEP 11 - WELD TRUCK BODY TO FRAME (TRUCKS ONLY)

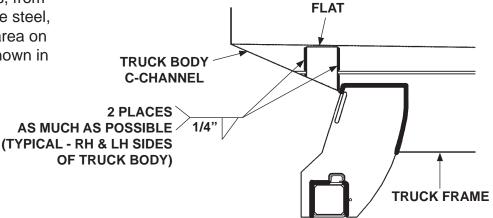
CAUTION

When using electrical welder to weld flats on truck frame, make sure the welder ground lead is connected directly to the flat, as close as possible to the place being welded. Failure to comply can result in damaged cylinders and electrical parts.

CAUTION

To prevent truck body from moving out of position, weld the C-channels on each side of truck body to truck frame.

1. Fabricate two flats, from 1/4" thick x 4" wide steel, that will fit in the area on the truck frame shown in FIG. 40-1.



WELDING TRUCK BODY TO FRAME (RH SIDE SHOWN) FIG. 40-1

CAUTION

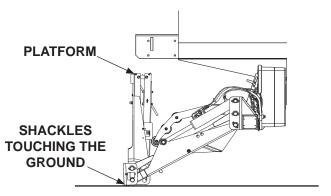
To protect the original paint system, a 3" wide area of paint must be removed from all sides of the weld area before welding.

2. Weld flat to the truck frame and the C-channel on the RH side of truck body as shown in FIG. 40-1. Repeat for the LH side of the truck body.

STEP 12 - ADJUST OPENER (IF REQUIRED)

NOTE: The platform must always stow and unfold without hitting underside of vehicle. Platform should unfold as close as possible to position shown in **FIG. 41-1**, but must never be positioned so it falls open.

The MAXON-recommended procedure for repositioning the opener is as follows. Lower the platform from stowed position (FIG. 41-1).

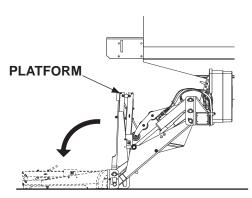


PLATFORM LOWERED FROM STOWED POSITION (RH SIDE VIEW)
FIG. 41-1

A CAUTION

To prevent injury, unfold platform before repositioning opener.

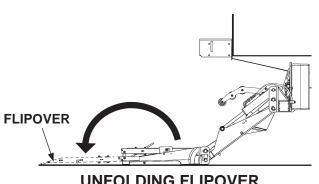
2. Unfold the platform (FIG. 41-2).



UNFOLDING PLATFORM FIG. 41-2

3. Unfold the flipover (FIG. 41-3).

4. Measure vehicle bed height.
Then move the opener, as required, to the matching bed height position for your Liftgate as shown in FIG. 42-1B or FIG. 43-1B.



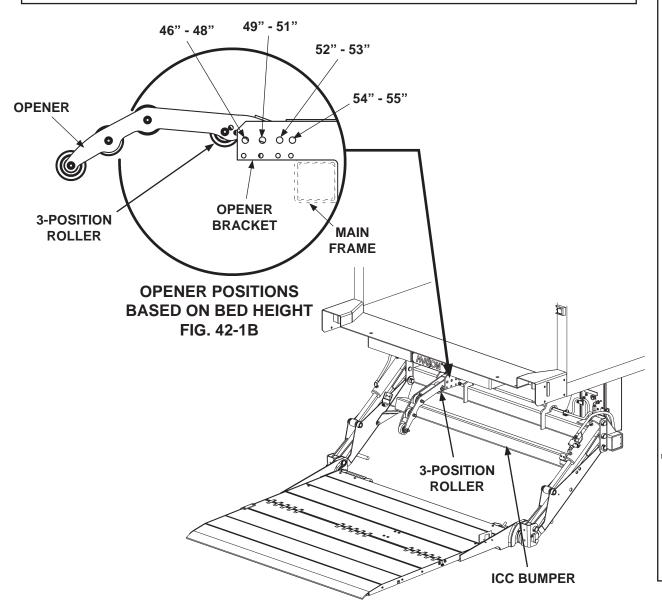
UNFOLDING FLIPOVER FIG. 41-3

STEP 12 - ADJUST OPENER (IF REQUIRED) -Continued

CAUTION

To prevent damage to ICC bumper, opener must not rub against bumper. Ensure the 3-position roller remains in contact with ICC bumper at first contact and through the full range of motion to highest position. Bolt roller in one of the 3 hole positions that best maintains contact between roller and bumper.

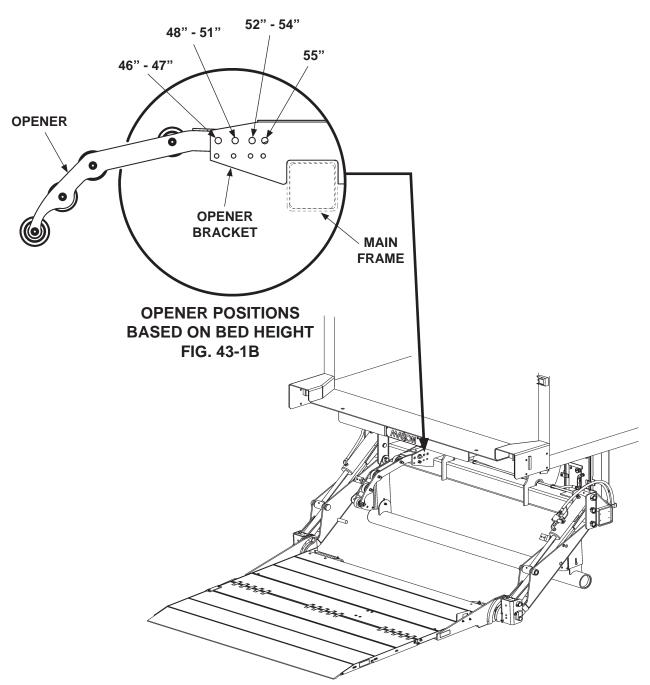
NOTE: Opener can be repositioned to best open the platform when vehicle bed heights are 44" to 55". The platform must always stow and unfold without hitting underside of vehicle. Platform should unfold as close as possible to position shown in **FIG. 41-1**, but must never be positioned so it falls open.



GPTLR-25 OR GPTLR-33 FIG. 42-1A

STEP 12 - ADJUST OPENER (IF REQUIRED) - Continued

NOTE: Opener can be repositioned to best open the platform when vehicle bed heights are 44" to 55". The platform must always stow and unfold without hitting underside of vehicle. Platform should unfold as close as possible to position shown in **FIG. 41-1**, but must never be positioned so it falls open.



GPTLR-44 & GPTLR-55 FIG. 43-1A

STEP 13 - BOLT ON STOP BLOCK

CAUTION

The opener adjustment in STEP 12 must be done (if required) before installing and adjusting the stop blocks. If the opener is not adjusted before the stop blocks are installed, the platform can become damaged when stowing Liftgate.

1. Stow the platform under hydraulic pressure (FIG. 44-1).

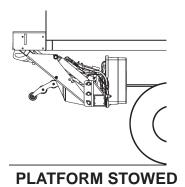
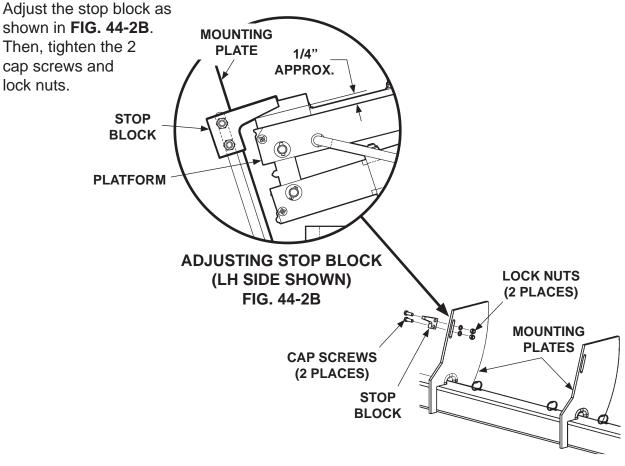


FIG. 44-1

2. Bolt the stop block (part box item) to the LH mounting plate (FIGS. 44-2A & 44-2B). Leave the cap screws and lock nuts loose.

lock nuts.

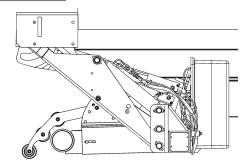


BOLTING ON STOP BLOCKS FIG. 44-2A

STEP 14 - ADJUST UNDERRIDE (IF REQUIRED)

NOTE: The following adjustment is for:

- GPTLR-25 & GPTLR-33 with optional underride
- GPTLR-44 & GPTLR-55 with standard underride
- **1.** Stow the Liftgate under hydraulic pressure (**FIG. 45-1**).

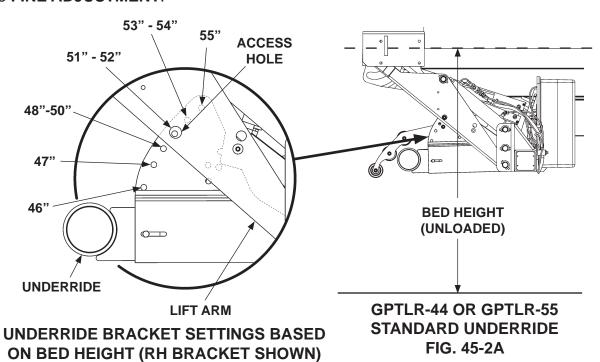


NOTE: The bed height dimensions for each hole shown below apply to an unloaded vehicle.

2. Measure vehicle bed height (FIG. 45-2A). Look for the hole on each underride bracket that matches your bed height (FIG. 45-2B). If underride is already bolted with the holes for your bed height, go to instruction 8 and do the FINE ADJUSTMENT.

FIG. 45-2B

LIFTGATE WITH PLATFORM STOWED (GPTLR-44 OR GPTLR-55 STANDARD UNDERRIDE SHOWN) FIG. 45-1

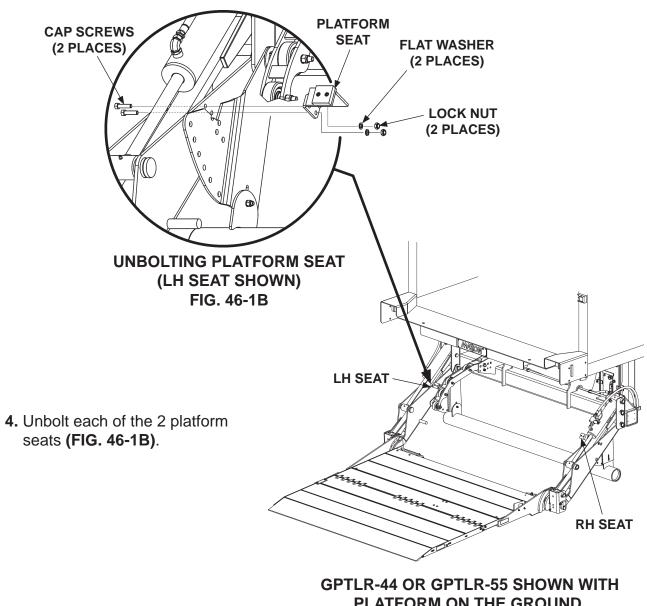


STEP 14 - ADJUST UNDERRIDE (IF REQUIRED) - Continued

"BALLPARK" ADJUSTMENT

NOTE: Platform seats must be removed from lift arms to do "BALLPARK" ADJUSTMENT. Seats must be reinstalled after doing the adjustment.

3. Lower platform to the ground. Then, unfold platform and flipover (FIG. 46-1A).

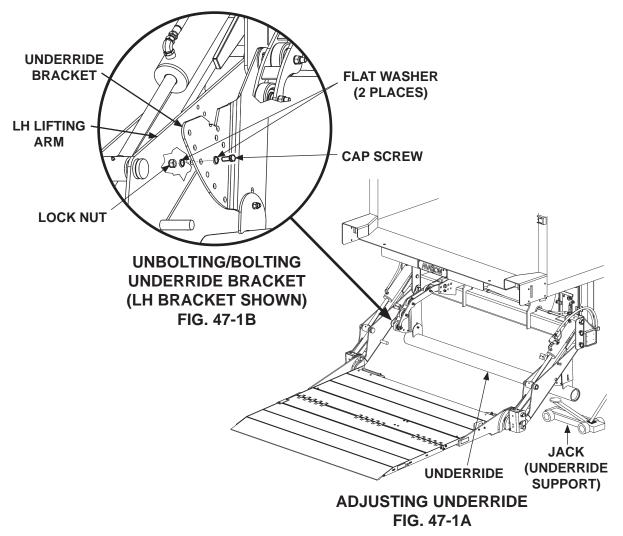


PLATFORM ON THE GROUND FIG. 46-1A

STEP 14 - ADJUST UNDERRIDE (IF REQUIRED) - Continued

NOTE: At the lowest bed heights, underride may have too little ground clearance for a jack. If necessary, raise the platform up to 6" to get a jack in position to support the underride.

5. Adjust the underride as follows. Support underride with floor jack (FIG. 47-1A). Next, unbolt LH underride bracket (FIG. 47-1B) and RH underride bracket from lifting arms. Then swing the underride to the hole setting observed in FIG. 45-2B. Bolt the underride brackets in the new position (FIG. 47-1B). Torque the 1/2"-13 cap screws to 85 lbs.-ft.



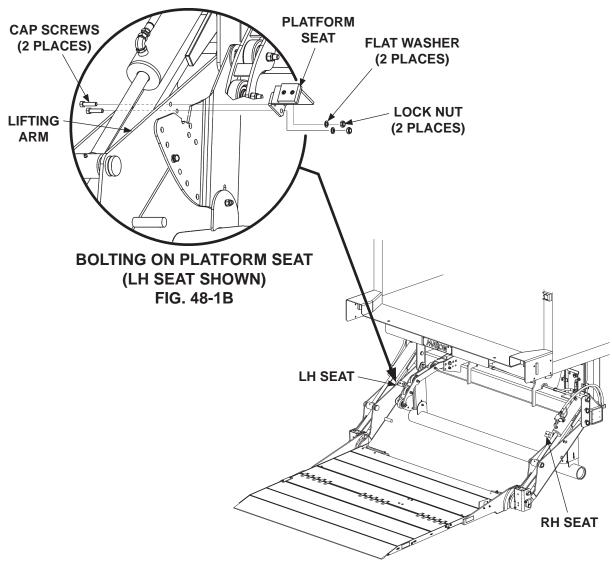
6. Lower and remove floor jack (FIG. 47-1A).

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STEP 14 - ADJUST UNDERRIDE (IF REQUIRED) - Continued

NOTE: For some bed heights, platform seat may be bolted against the underride bracket.

7. Bolt the LH platform seat (FIG. 48-1B) and the RH platform seat in the new position. Torque the cap screws to 42 lbs.-ft.

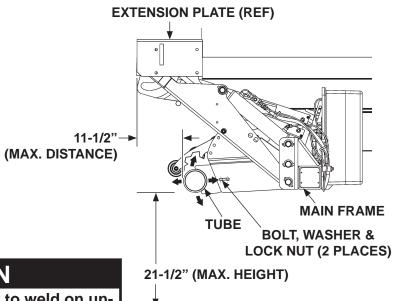


GPTLR-44 OR GPTLR-55 SHOWN WITH PLATFORM ON THE GROUND FIG. 48-1A

STEP 14 - ADJUST UNDERRIDE (IF REQUIRED) - Continued

FINE ADJUSTMENT

8. Stow the platform. Refer to FIG. 49-1. Loosen bolt and lock nut, at each end of tube, just enough to move underride tube (FIG. 49-1). Rotate the tube up or down, and slide the tube outward or inward to the dimensions shown in FIG. 49-1. Tighten bolts and lock nuts to secure tube in correct position.



UNDERRIDE ADJUSTMENT

(RH SIDE SHOWN)

FIG. 49-1

CAUTION

When using electrical welder to weld on underride, make sure the welder ground lead is connected directly to the underride, as close as possible to the place being welded. Failure to comply can result in damaged cylinders and electrical parts.

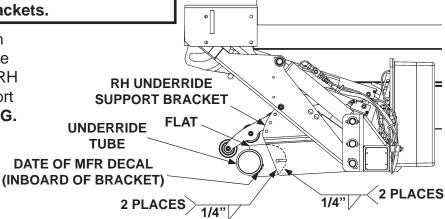
CAUTION

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

CAUTION

Prevent the date of manufacture decal from being damaged. Cover decal when welding underride support brackets.

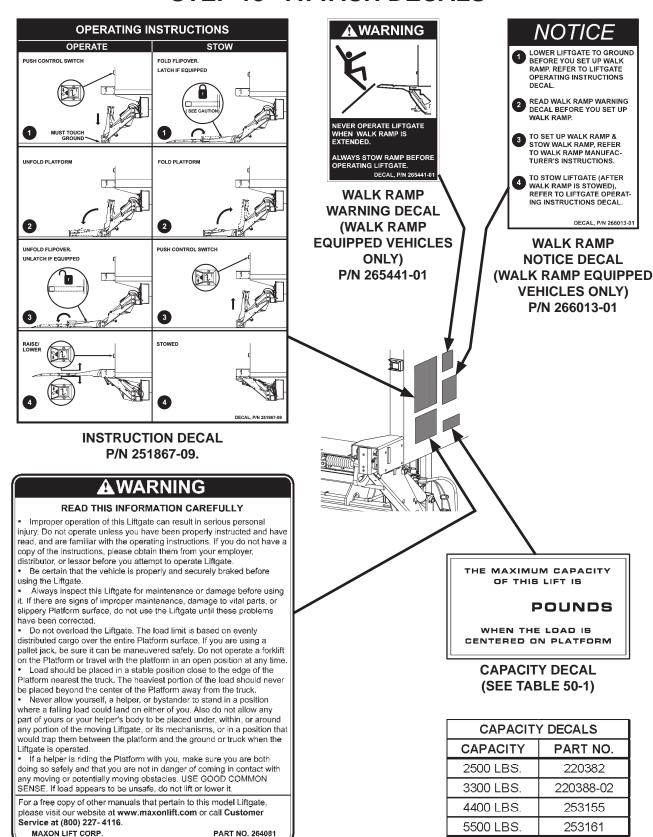
 When the underride is in correct position, weld the flats on the tube to the RH and LH underride support brackets as shown in FIG. 49-2.



WELDING FLATS TO SUPPORT BRACKETS (RH SIDE SHOWN) FIG. 49-2

Slauson 11921

STEP 15 - ATTACH DECALS

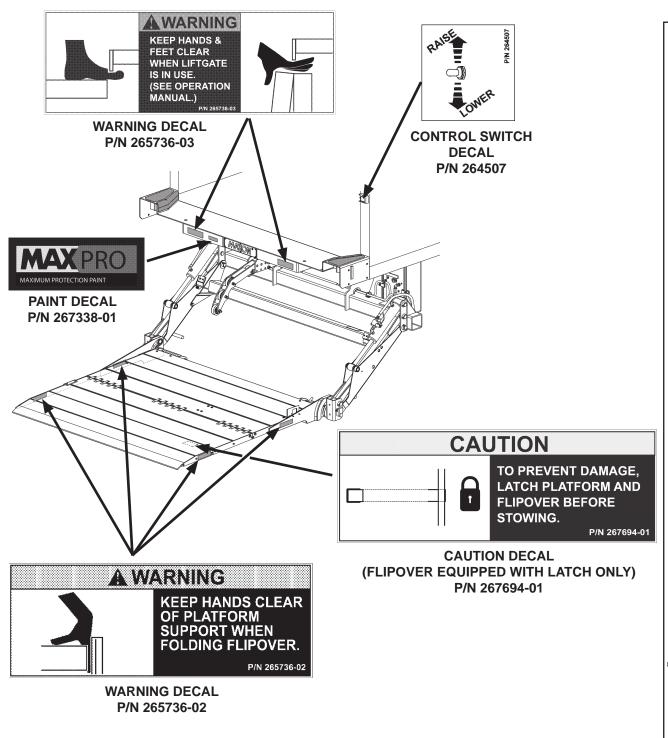


WARNING DECAL P/N 264081

TABLE 50-1

(800) 227-4116 FAX (888) 771-7713 02906 CA. Santa Fe Springs, MAXON® 11921 Slauson Ave.

STEP 15 - ATTACH DECALS - Continued



STEP 16 - ATTACH NONSKID & SAFETY STRIPING

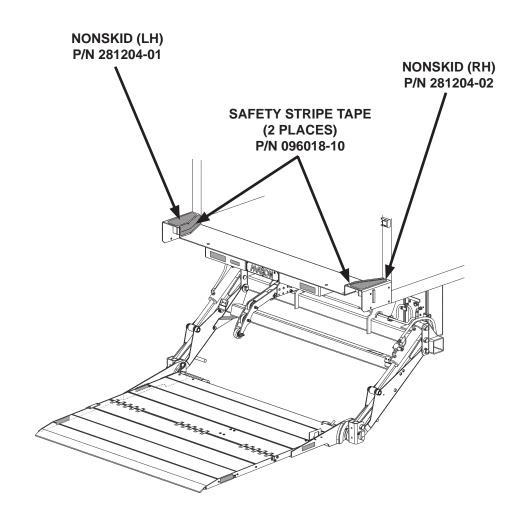
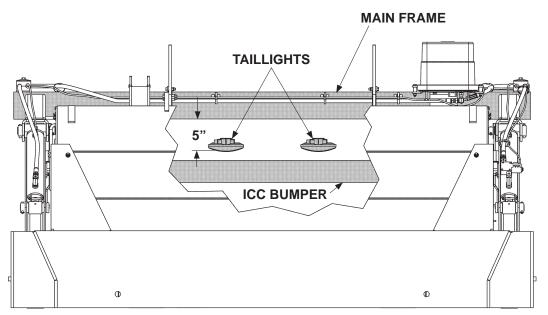


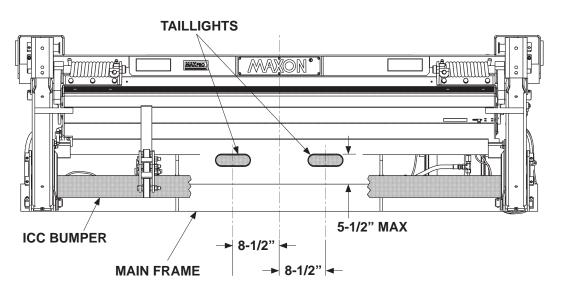
FIG. 52-1

STEP 17 - VEHICLE TAILLIGHT POSITIONING (IF REQUIRED) LIFTGATES WITH STANDARD ICC BUMPER

NOTE: Positions are based on using oval taillights of 2-1/4" height by 6-1/2" width. Larger taillights may interfere with Liftgate. Taillights and attaching hardware are not provided with the Liftgate.



TAILLIGHTS POSITION (TOP VIEW OF GPT-25) FIG. 53-1

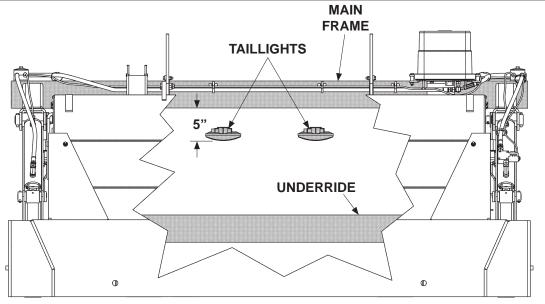


TAILLIGHTS SPACING (FRONT VIEW OF GPT-25) FIG. 53-2

STEP 17 - VEHICLE TAILLIGHT POSITIONING (IF REQ'D) - Continued

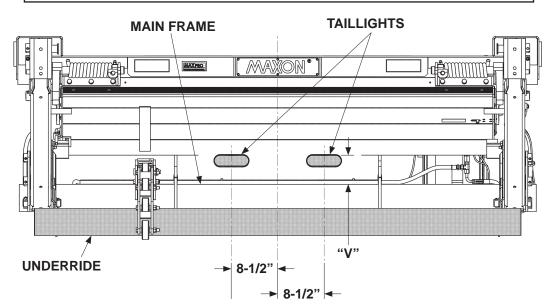
LIFTGATES WITH STANDARD AND OPTIONAL UNDERRIDE

NOTE: Positions are based on using oval taillights of 2-1/4" height by 6-1/2" width. Larger taillights may interfere with Liftgate. Taillights and attaching hardware are not provided with the Liftgate.



TAILLIGHTS POSITION (TOP VIEW OF GPT-4) FIG. 54-1

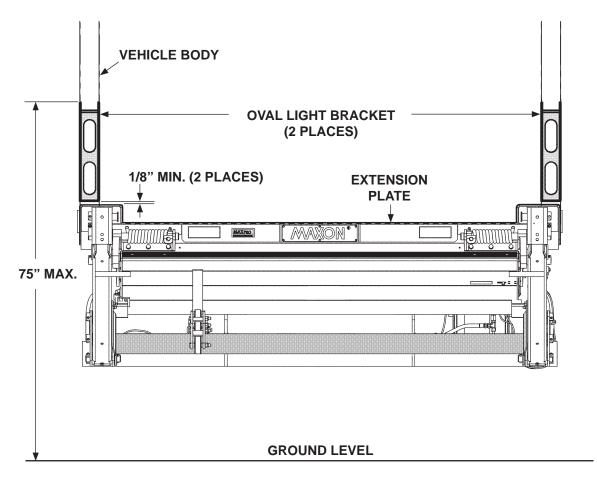
NOTE: Dimension "V" is variable. Position the taillights to a height with the best visibility. The underride and other Liftgate parts must not cover the lights when platform is stowed.



TAILLIGHTS SPACING (FRONT VIEW OF GPT-4) FIG. 54-2

STEP 17 - VEHICLE TAILLIGHT POSITIONING (IF REQ'D) - Continued **OVAL LIGHT BRACKETS**

To simplify taillight installation, MAXON recommends the optional oval light brackets kit, P/N 282372-01. Each kit contains 2 light brackets, to mount on vehicle body, and installation instructions. Oval taillights are not included.



TAILLIGHT BRACKET POSITIONS (GPT-25 SHOWN) FIG. 55-1

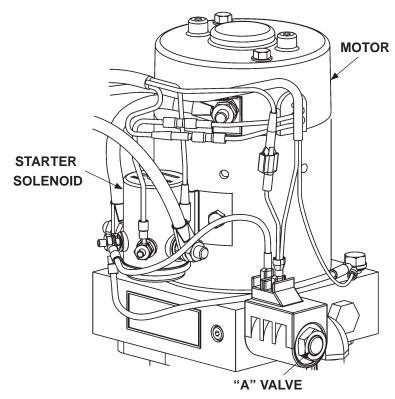
TOUCHUP PAINT

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 kit, P/N 908134-01.

SYSTEM DIAGRAMS PUMP & MOTOR SOLENOID OPERATION (GRAVITY DOWN)



GRAVITY DOWN POWER UNIT FIG. 57-1

| POWER UNIT MOTOR & SOLENOID OPERATION | | | | | | | |
|---------------------------------------|------|---|--------------|---------------|--|--|--|
| LIFTGATE FUNCTION | PORT | SOLENOID OPERATION (✓ MEANS ENERGIZED) | | | | | |
| | | MOTOR | VALVE "A" | LOCK VALVE | | | |
| RAISE | Α | ✓ | - | - | | | |
| LOWER | VENT | - | \ | ✓ | | | |
| REFER TO VALVES SHOWN ON | | | | | | | |
| HYDRAULIC SCHEMATIC | | | | | | | |

TABLE 57-1

PUMP & MOTOR SOLENOID OPERATION (POWER DOWN)

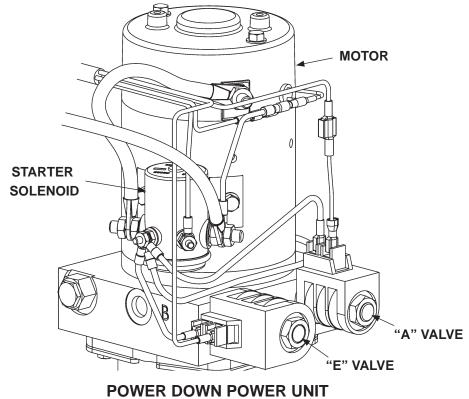


FIG. 58-1

| POWER UNIT MOTOR & SOLENOID OPERATION | | | | | | | |
|--|------|---|--------------|--------------|---------------|--|--|
| LIFTGATE FUNCTION | PORT | SOLENOID OPERATION (✓ MEANS ENERGIZED) | | | | | |
| | | MOTOR | VALVE "A" | VALVE "E" | LOCK VALVE | | |
| RAISE | Α | \ | | \ | - | | |
| LOWER | В | \ | > | | ✓ | | |
| REFER TO VALVES SHOWN ON HYDRAULIC SCHEMATIC | | | | | | | |

TABLE 58-1

HYDRAULIC SCHEMATIC (GRAVITY DOWN)

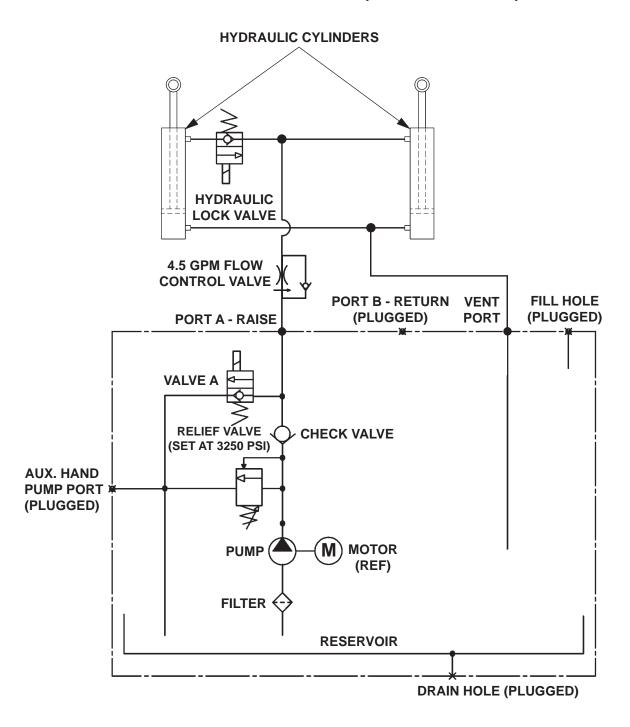


FIG. 59-1

HYDRAULIC SCHEMATIC (POWER DOWN)

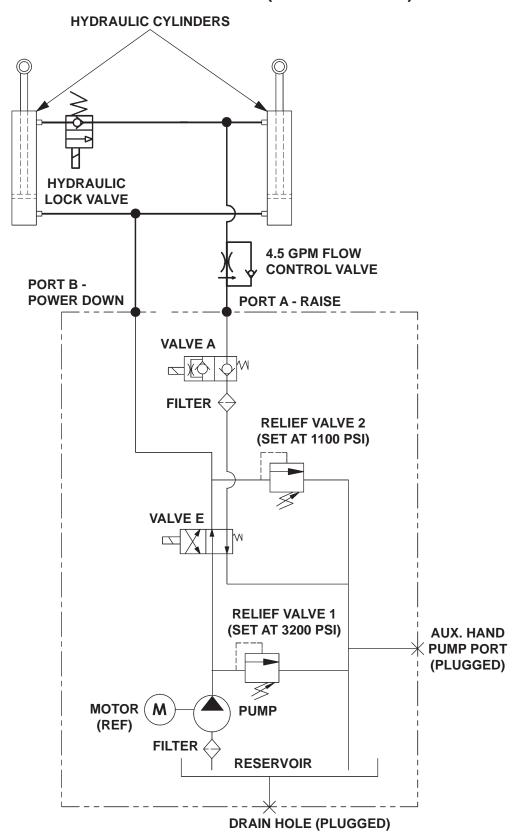


FIG. 60-1

ELECTRICAL SCHEMATIC (GRAVITY DOWN)

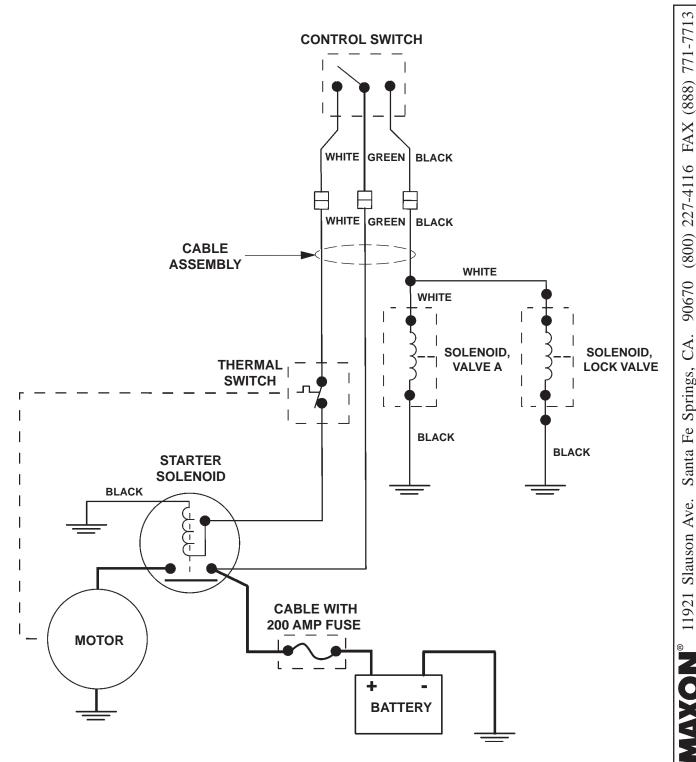


FIG. 61-1

90670 (800) 227-4116 FAX (888) 771-7713 CA. Santa Fe Springs, **ALXON**® 11921 Slauson Ave.

ELECTRICAL SCHEMATIC (POWER DOWN)

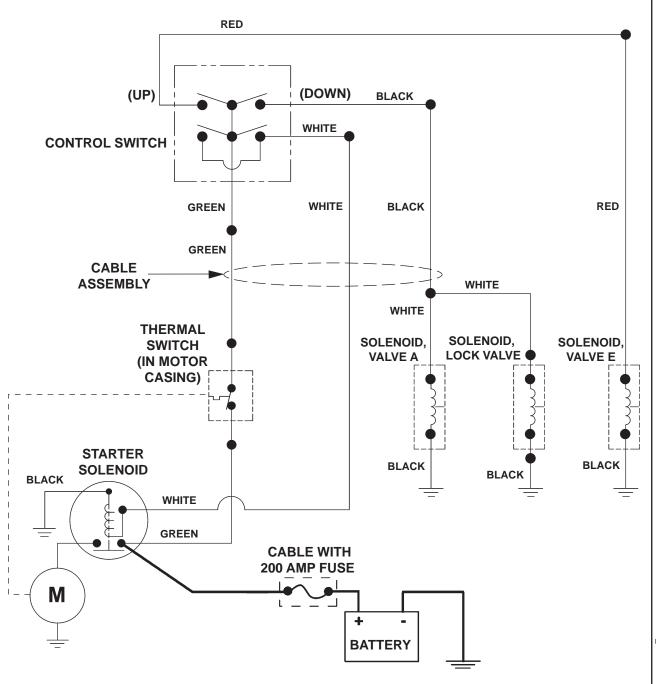
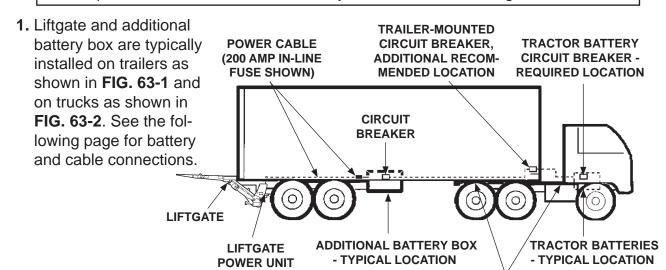


FIG. 62-1

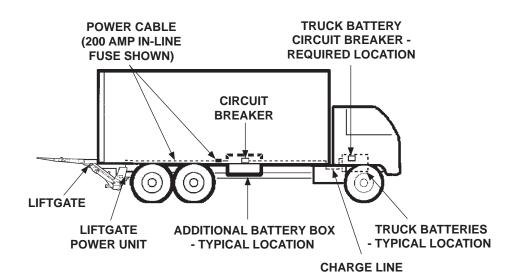
OPTIONS RECOMMENDED LIFTGATE POWER CONFIGURATION

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.



RECOMMENDED LIFTGATE & BATTERY BOX INSTALLATION ON TRAILER FIG. 63-1

CHARGE LINE

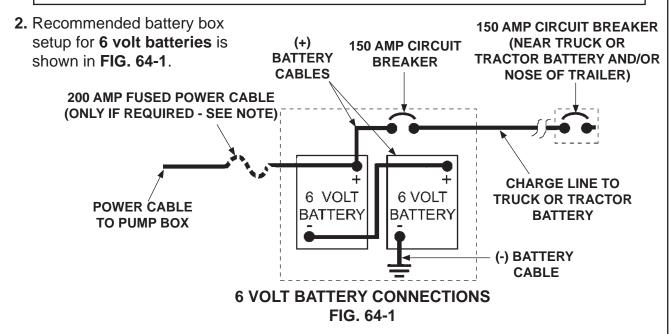


RECOMMENDED LIFTGATE & BATTERY BOX INSTALLATION ON TRUCK FIG. 63-2

OPTIONS

RECOMMENDED LIFTGATE POWER CONFIGURATION - Continued

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



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

