

M-06-34
REV. A
AUGUST 2008

MAXON[®]

MIGHTY MAX

CONVENTIONAL LIFT MM-1650

INSTALLATION MANUAL

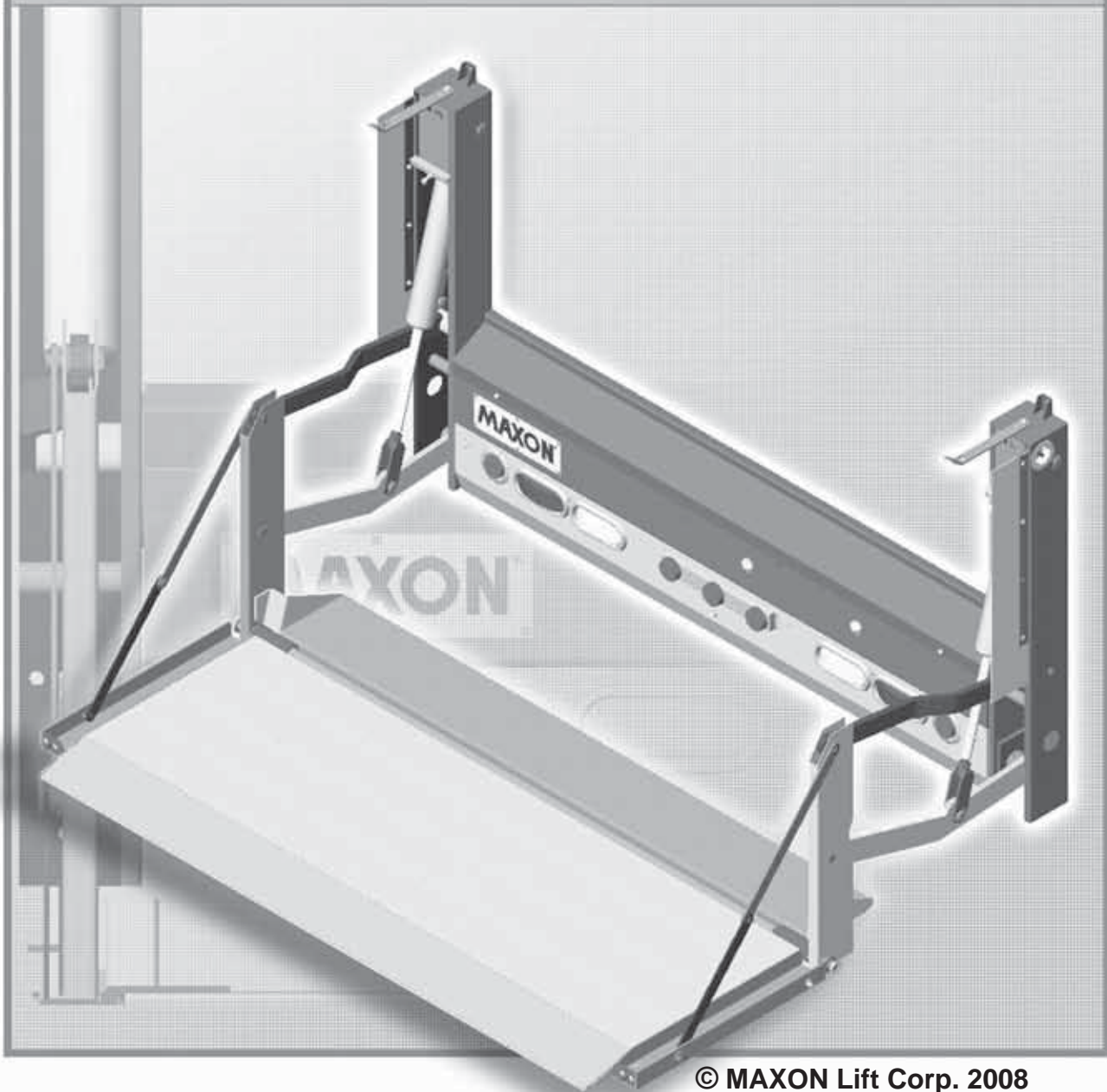


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Comply with the following **WARNINGS** while installing Liftgates. See Operation Manual for operating safety requirements.

⚠️ WARNING

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

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MM-1650 LIFTGATE COMPONENTS

CAUTION

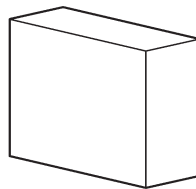
Prevent injuries and equipment damage. Before cutting the shipping straps from the Liftgate, put Liftgate on level ground that will support at least 1500 pounds. Be careful lifting and moving components after shipping straps are removed.

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

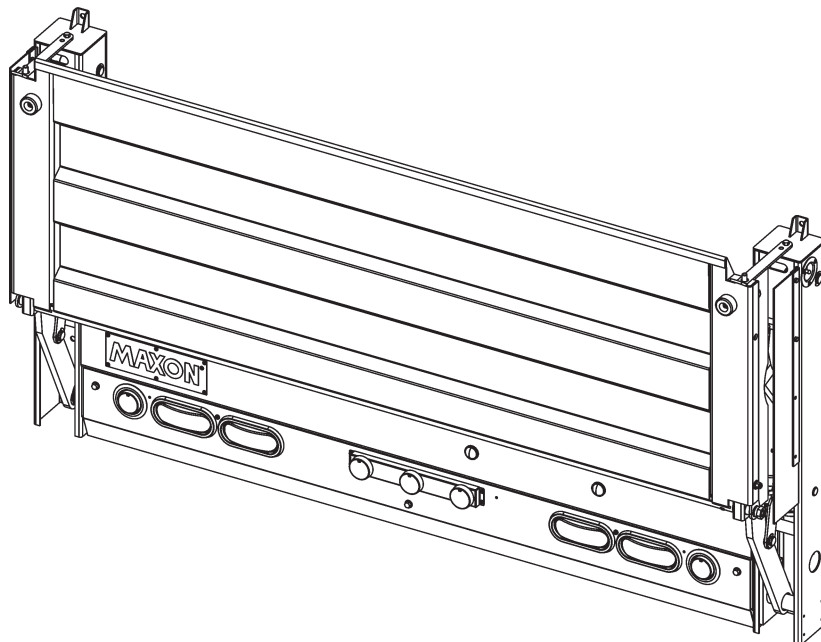
Maxon Customer Service

Call (800) 227-4116 or

Send e-mail to customersupport@maxonlift.com



PARTS BOX



LIFTGATE

MM-1650 COMPONENTS
FIG. 5-1

PARTS BOX (MM-1650 EQUIPPED WITH TAILLIGHTS)

ITEM	DESCRIPTION	QTY.	PART NO.
1	SCREW (TAPPING) 1/4" X 3/4" LG.	2	030460
2	SPLIT LOOM, 1/2" X 360" LG.	1	040103-360
3	ANGLE (BRACKET), 2-1/2" X 2" X 1/4" X 10" LG.	2	091093-10
4	PLASTIC TIE, 7" LG.	4	205780
5	DECAL & MANUAL KIT	1	
	A. INSTALLATION MANUAL	1	M-06-34
	B. MAINTENANCE, OPERATION MANUAL	1	M-06-35
	C. WARRANTY CARD	1	M-78-78
	D. CUSTOMER SURVEY FORM	1	M-94-04
	E. DECALS		REFER TO DECAL PAGES IN THIS MANUAL
6	BUTT SPLICE (10 AWG STEPDOWN TO 14 AWG)	4	263348
7	BUTT SPLICE (16 AWG)	8	263891
8	FLAT WASHER (2" X 7" LG.)	2	264363
9	MOUNTING BRACKET (LH SUPPORT BRACE)	1	264364-01
10	MOUNTING BRACKET (RH SUPPORT BRACE)	1	264364-02
11	HEX HD CAP SCREW, 1/2"-13 X 1-1/4" LG, GR 8	6	900035-2
12	HEX HD CAP SCREW, 1/2"-13 X 2-1/2" LG, GR 8	4	900035-7
13	LOCK NUT, 1/2"-13	8	901010
14	NUT, NYLON GROMMET (FOR 1/4" SCREW)	2	901015-03
15	KIT, POWER CABLE (200 AMP FUSE)	1	266747-01
16	LOCK WASHER, 1/2"	8	902011-6

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PARTS BOX (MM-1650 WITHOUT TAILLIGHTS)

ITEM	DESCRIPTION	QTY.	PART NO.
1	SCREW (TAPPING) 1/4" X 3/4" LG.	2	030460
2	SPLIT LOOM, 1/2" X 360" LG.	1	040103-360
3	ANGLE (BRACKET), 2-1/2" X 2" X 1/4" X 10" LG.	2	091093-10
4	PLASTIC TIE, 7" LG.	4	205780
5	DECAL & MANUAL KIT	1	
	A. INSTALLATION MANUAL	1	M-06-34
	B. MAINTENANCE, OPERATION MANUAL	1	M-06-35
	C. WARRANTY CARD	1	M-78-78
	D. CUSTOMER SURVEY FORM	1	M-94-04
	E. DECALS		REFER TO DECAL PAGES IN THIS MANUAL
6	BUTT SPLICE (16 AWG)	1	263891
7	FLAT WASHER (2" X 7" LG.)	2	264363
8	MOUNTING BRACKET (LH SUPPORT BRACE)	1	264364-01
9	MOUNTING BRACKET ((RH SUPPORT BRACE)	1	264364-02
10	HEX HD CAP SCREW, 1/2"-13 X 1-1/4" LG, GR 8	6	900035-2
11	HEX HD CAP SCREW, 1/2"-13 X 2-1/2" LG, GR 8	4	900035-7
12	LOCK NUT, 1/2"-13	8	901010
13	NUT, NYLON GROMMET (FOR 1/4" SCREW)	2	901015-03
14	LOCK WASHER, 1/2"	8	902011-6
15	LICENSE PLATE LIGHTS HARNESS	1	267386-01
16	LICENSE PLATE LIGHT ASSEMBLY	2	267387-01
17	KIT, POWER CABLE (200 AMP FUSE)	1	266747-01

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TRUCK REQUIREMENTS

NOTE: The maximum operating Vehicle Body bed height for the MM1650 Series Liftgates (unloaded) is 50”.

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.

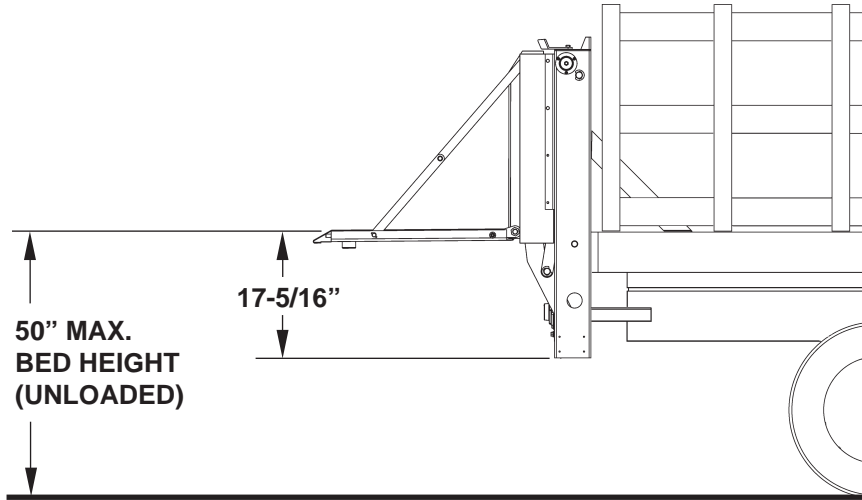


FIG. 8-1

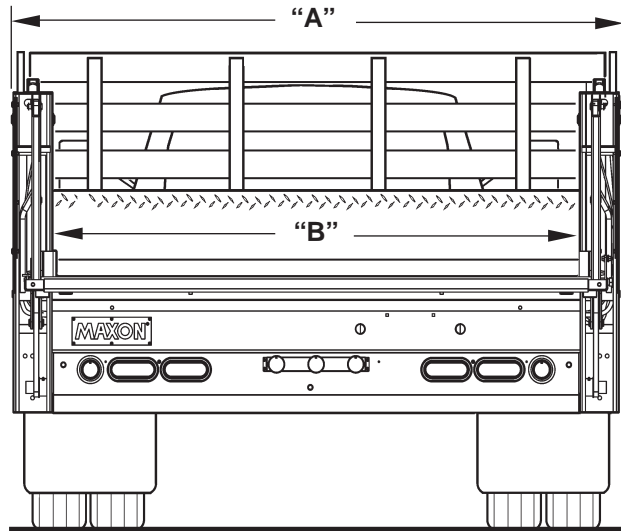


FIG. 8-2

MODEL	“A”	“B”
MM-1650-01	91”	80”
MM-1650-02	86”	74-1/2”

TABLE 8-1

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STEP 1 - PREPARE VEHICLE

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

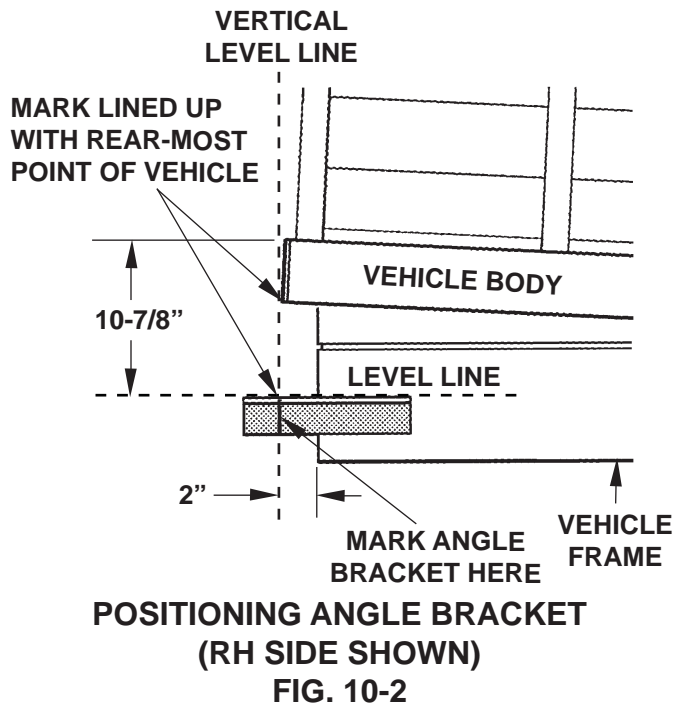
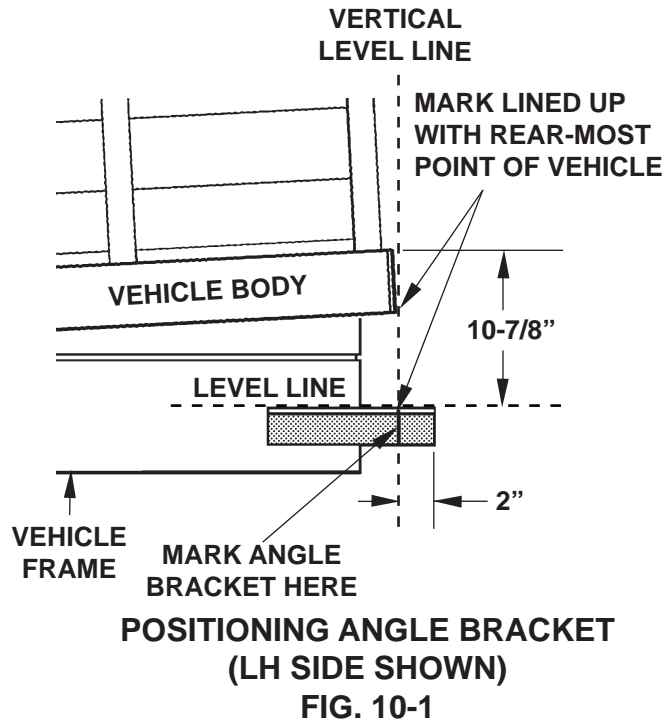
NOTE: Items that extend past the rear of vehicle body such as taillights, bumpers, and brackets, should be removed from vehicle so they do not interfere with correct installation of the Liftgate. If necessary, reposition vehicle taillights.

1. Remove items that extend past the rear-most part of vehicle body (**FIG. 10-1**).

NOTE: The 2-1/2" wide face of the angle bracket butts against vehicle frame. Keep the bracket level while attaching it to vehicle.

2. Measure and mark each angle bracket 2" from the end as shown in **FIGS. 10-1 and 10-2**.

3. Measure and mark position for angle bracket (Parts Box item) on outboard LH side of vehicle frame (**FIG. 10-1**). Line up angle bracket and clamp in place. Repeat for RH side of vehicle frame (**FIG. 10-2**).



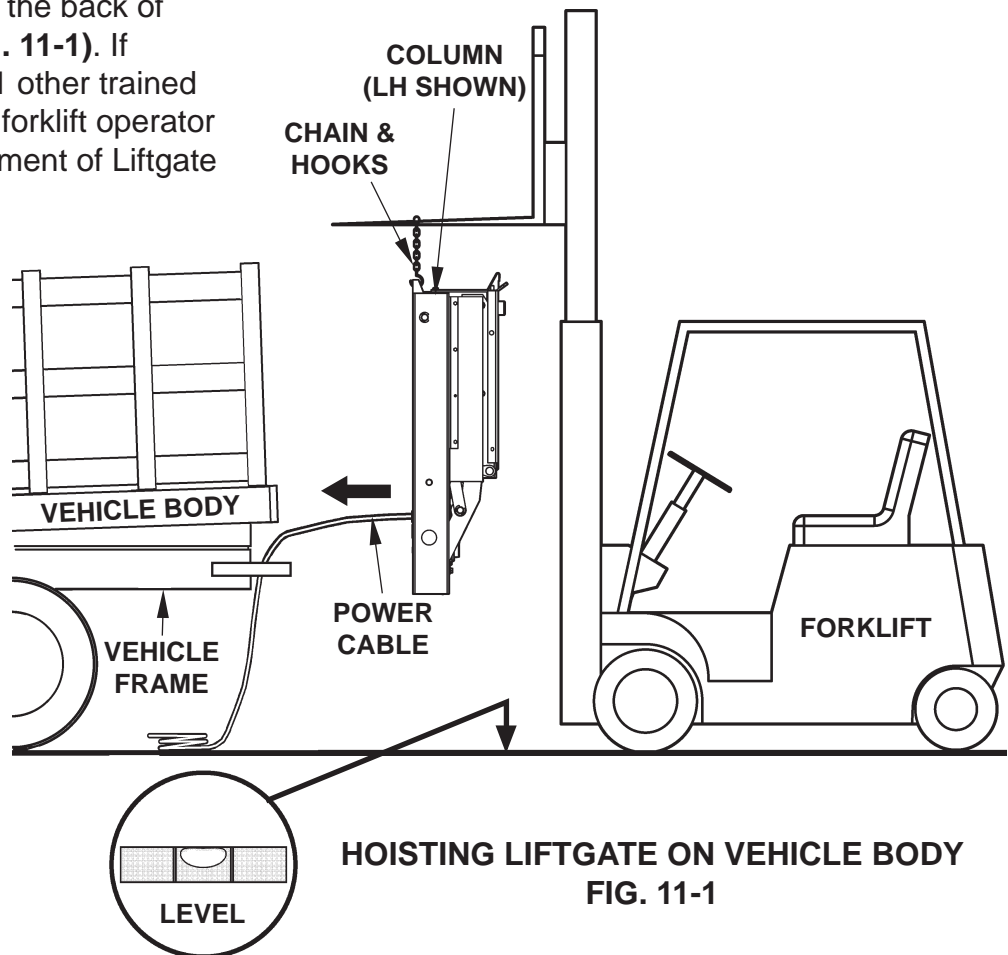
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! WARNING

Keep the Liftgate secured to forklift until Liftgate is attached to vehicle. Liftgate may be damaged and create a hazard for installer if it falls from forklift.

4. Use hooks and chain to secure the Liftgate to forklift at LH and RH columns (**FIG. 11-1**).
5. Use forklift to hoist Liftgate and center Liftgate on the back of vehicle body (**FIG. 11-1**). If necessary, have 1 other trained person assist the forklift operator by checking alignment of Liftgate and vehicle.



**HOISTING LIFTGATE ON VEHICLE BODY
FIG. 11-1**

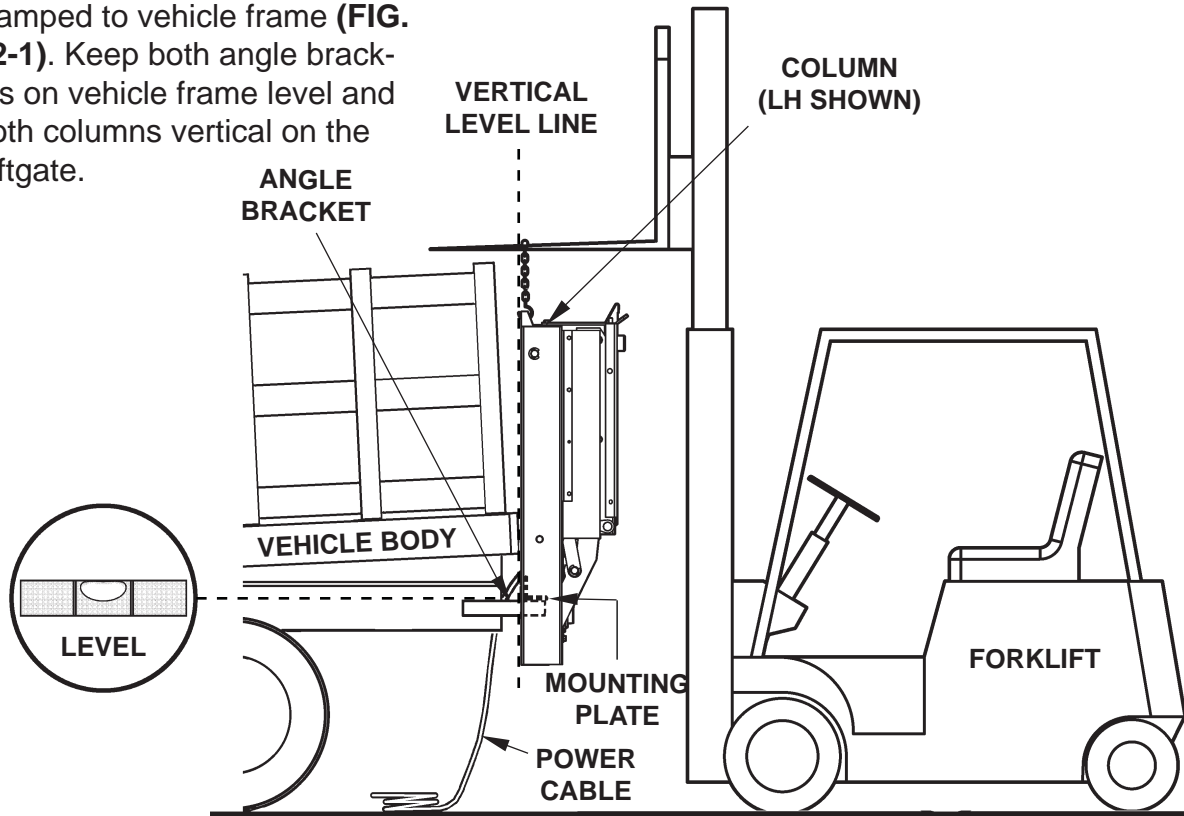
CAUTION

To prevent power cable from getting pinched and damaged between vehicle body and Liftgate, reposition cable .

6. Uncoil power cable (**FIG. 11-1**). Route power cable between vehicle body and mounting plate.

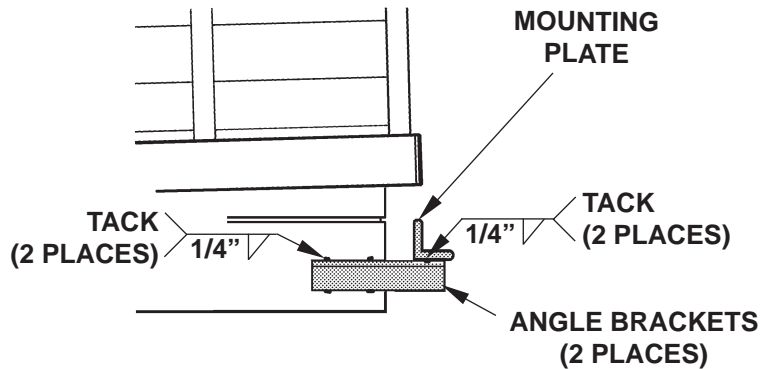
STEP 1 - PREPARE VEHICLE - Continued

7. Place the Liftgate against vehicle body and carefully lower Liftgate until mounting plate makes contact with the 2 angle brackets clamped to vehicle frame (**FIG. 12-1**). Keep both angle brackets on vehicle frame level and both columns vertical on the Liftgate.



POSITIONING LIFTGATE MOUNTING PLATE ON ANGLE BRACKETS
FIG. 12-1

8. When Liftgate and mounting plate are correctly positioned, tack weld both angle brackets to vehicle frame (**FIG. 12-2**). Then tack weld mounting plate to both angle brackets.

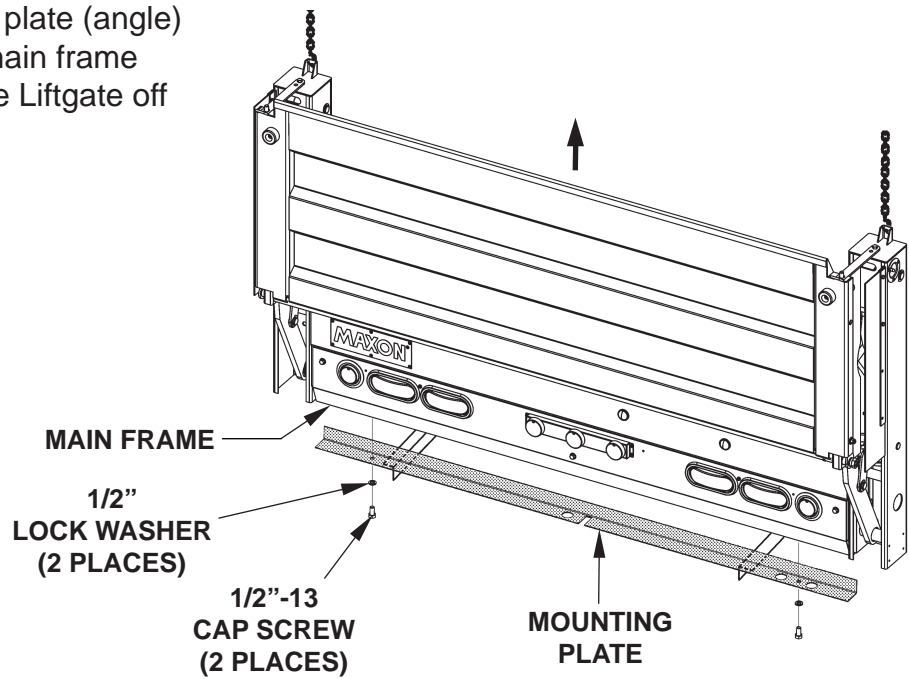


TACK WELDING BRACKETS & MOUNTING PLATE (LH SIDE SHOWN, LIFTGATE NOT SHOWN)
FIG. 12-2

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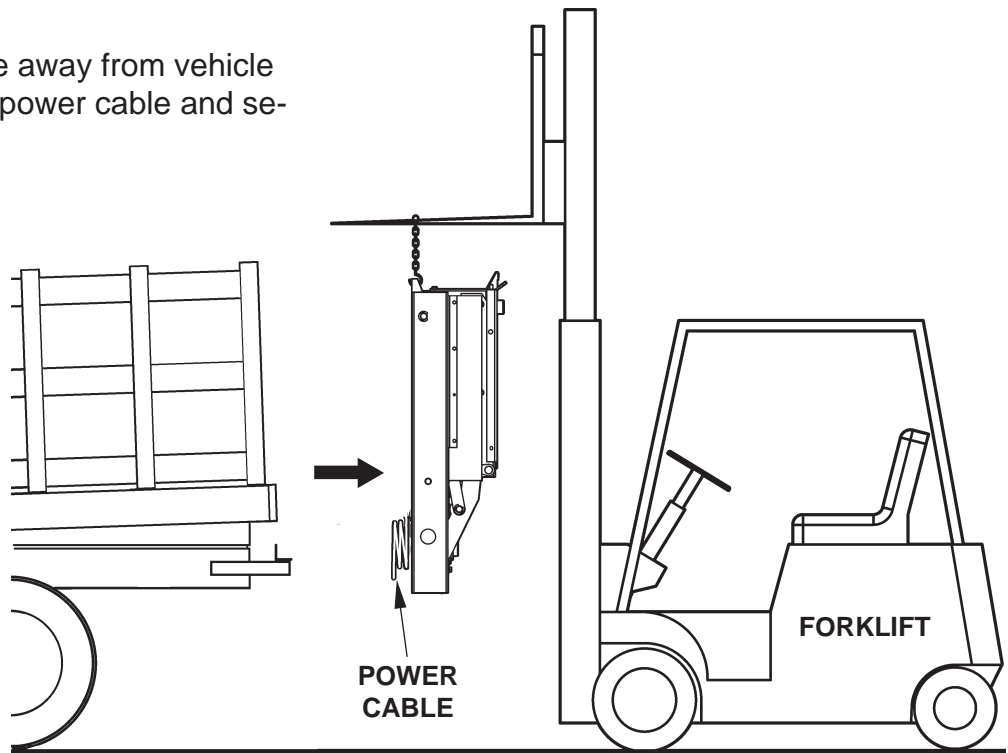
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- Unbolt the mounting plate (angle) from the bottom of main frame (FIG. 13-1). Hoist the Liftgate off the mounting plate.



**UNBOLTING MOUNTING PLATE
(FORKLIFT NOT SHOWN)
FIG. 13-1**

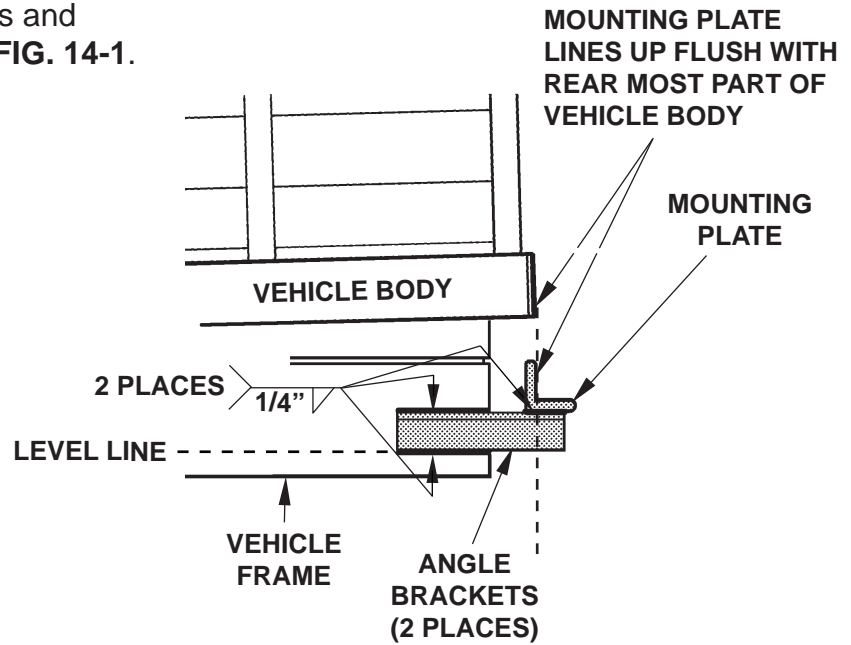
- Move the Liftgate away from vehicle (FIG. 13-2). Coil power cable and secure to Liftgate.



**MOVING LIFTGATE TO GAIN
ACCESS FOR WELDING
FIG. 13-2**

STEP 1 - PREPARE VEHICLE - Continued

11. Weld solid the angle brackets and mounting plate as shown in FIG. 14-1.



POSITIONING & WELDING BRACKETS & MOUNTING PLATE (LH SIDE SHOWN)
FIG. 14-1

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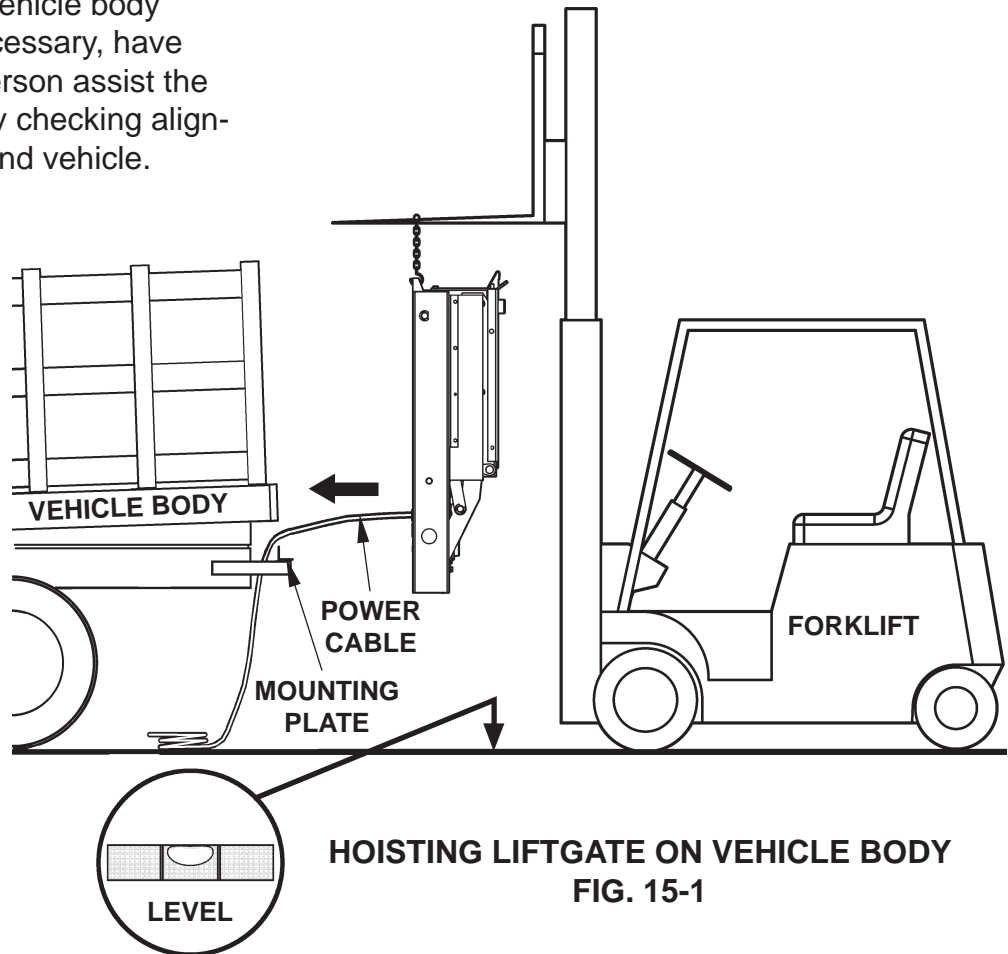
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STEP 2 - BOLT OR WELD LIFTGATE TO VEHICLE

WARNING

Keep the Liftgate secured to forklift until Liftgate is attached to vehicle. Liftgate may be damaged and create a hazard for installer if it falls from forklift.

1. Use forklift to hoist Liftgate in position against vehicle body (FIG. 15-1). If necessary, have 1 other trained person assist the forklift operator by checking alignment of Liftgate and vehicle.



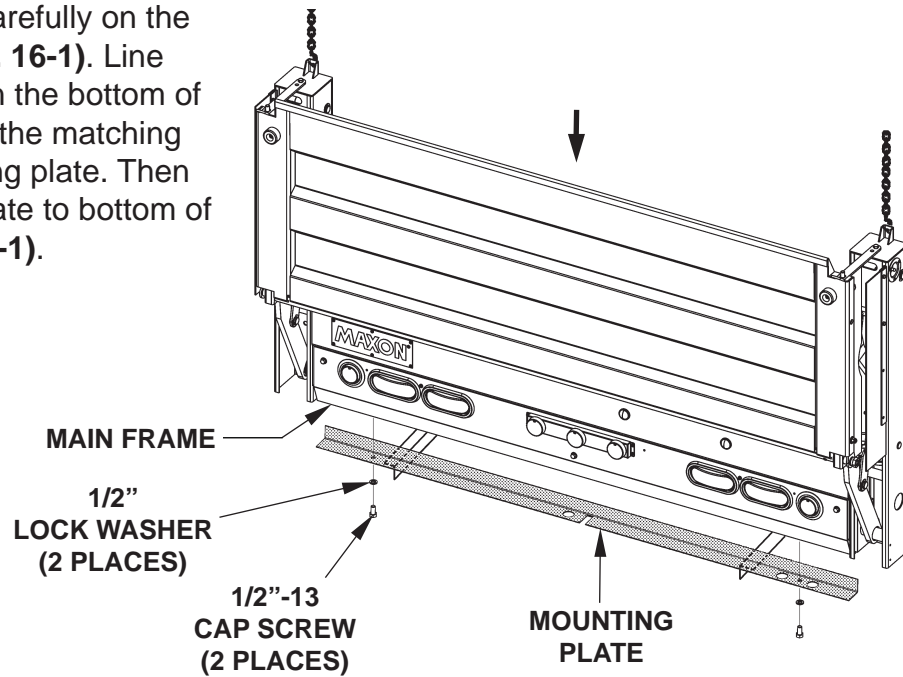
CAUTION

To prevent power cable from getting pinched and damaged between vehicle body and Liftgate, reposition cable .

2. Uncoil power cable (FIG. 15-1). Route power cable between vehicle body and mounting plate.

STEP 2 - BOLT OR WELD LIFTGATE TO VEHICLE - Continued

3. Lower the Liftgate carefully on the mounting plate (FIG. 16-1). Line up the 2 bolt holes in the bottom of the main frame with the matching bolt holes in mounting plate. Then bolt the mounting plate to bottom of main frame (FIG. 16-1).



**BOLTING LIFTGATE TO MOUNTING PLATE
(FORKLIFT NOT SHOWN)
FIG. 16-1**

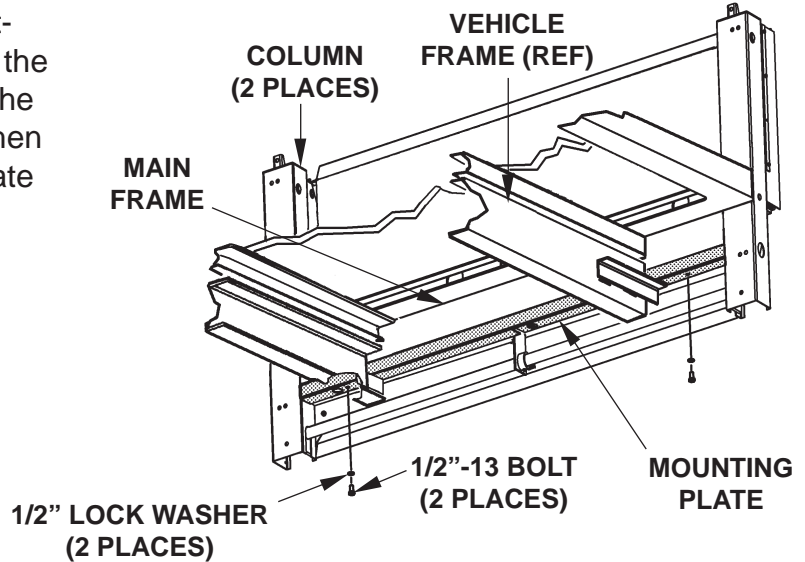
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INSTALL ON FLAT BED OR STAKE BED BODY

NOTE: Before attaching Liftgate, make sure power cable can be routed from main frame to vehicle body.

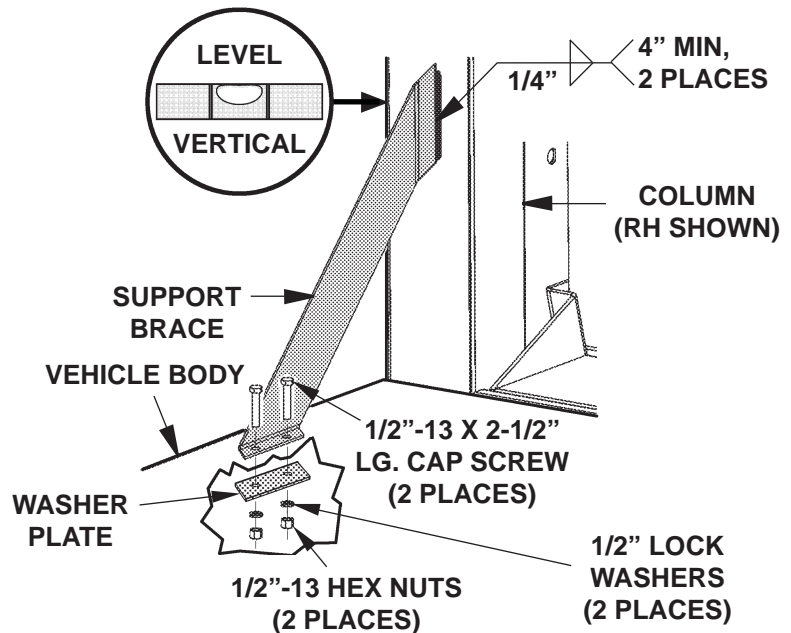
1. Place the Liftgate on the mounting plate. Next, line up holes in the bottom of the main frame with the holes on the mounting plate. Then bolt main frame to mounting plate (**FIG. 17-1**).



BOLTING MAIN FRAME TO MOUNTING PLATE (BOTTOM OF BODY SHOWN)

FIG. 17-1

2. Place the support brace (Parts Box item) against RH column on the Liftgate and the floor of the vehicle body (**FIG. 17-2**). Weld the support brace to column (**FIG. 17-2**).



WELDING & BOLTING SUPPORT BRACE

FIG. 17-2

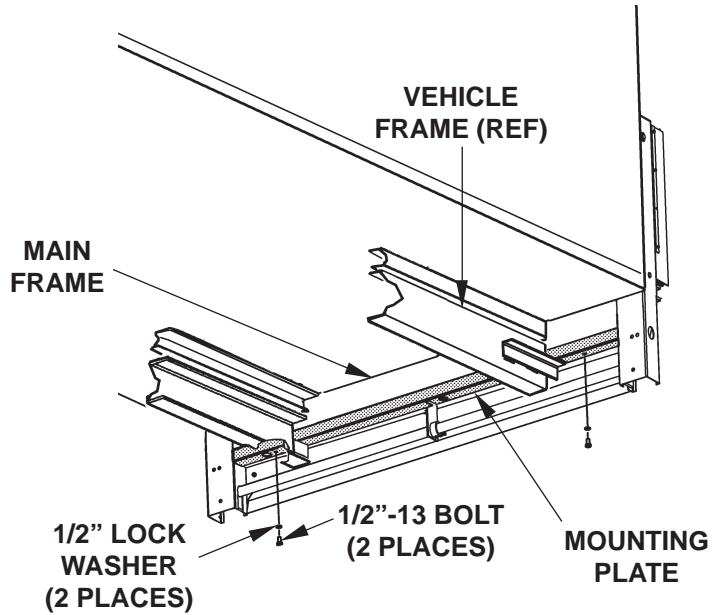
3. Drill two (2) 17/32" holes through the vehicle floor, using the support brace as a template (**FIG. 17-2**). Bolt the support brace and washer plate (Parts Box item) to vehicle floor (**FIG. 17-2**).

4. Repeat instructions 2 and 3 for LH column.

INSTALL ON VAN BODY

1. Place the Liftgate on the mounting plate. Next, line up holes in the bottom of the main frame with the holes on the mounting plate. Then bolt main frame to mounting plate (**FIG. 18-1**).

2. Choose one or more of the following welding and bolting methods to attach Liftgate to vehicle body.

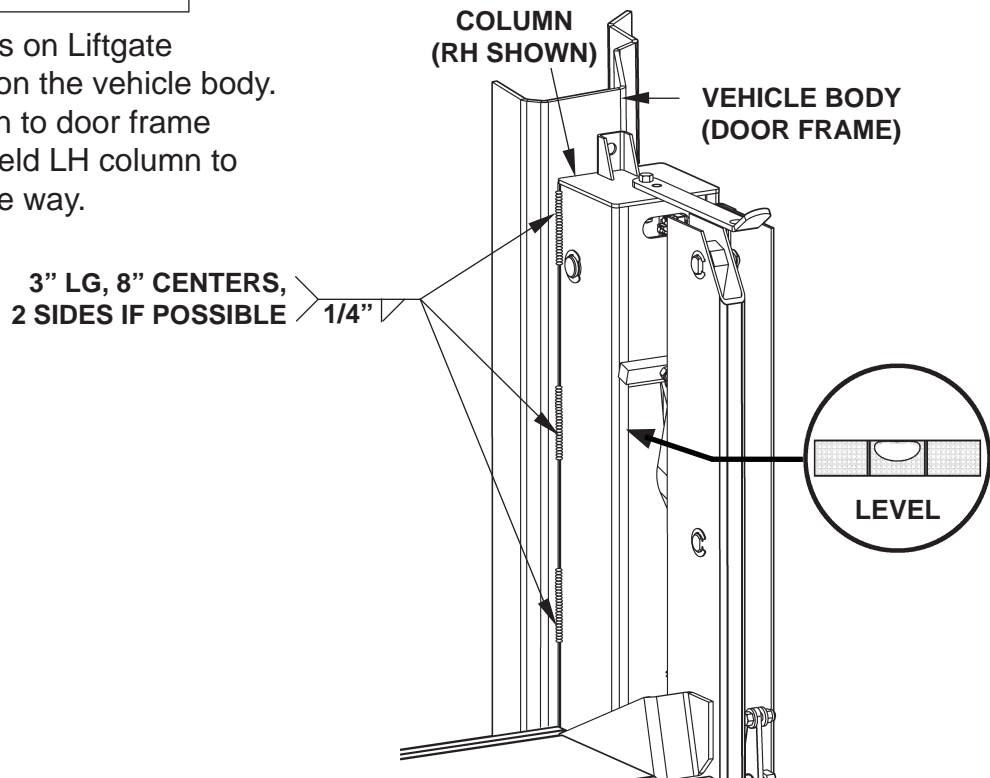


BOLTING MAIN FRAME TO MOUNTING PLATE (BOTTOM OF BODY SHOWN)
FIG. 18-1

WELD TO BODY

NOTE: Keep column vertical while welding it to vehicle body.

Position the columns on Liftgate against door frame on the vehicle body. Weld the RH column to door frame (**FIG. 18-2**). Then weld LH column to door frame the same way.



WELDING COLUMN TO VEHICLE BODY
FIG. 18-2

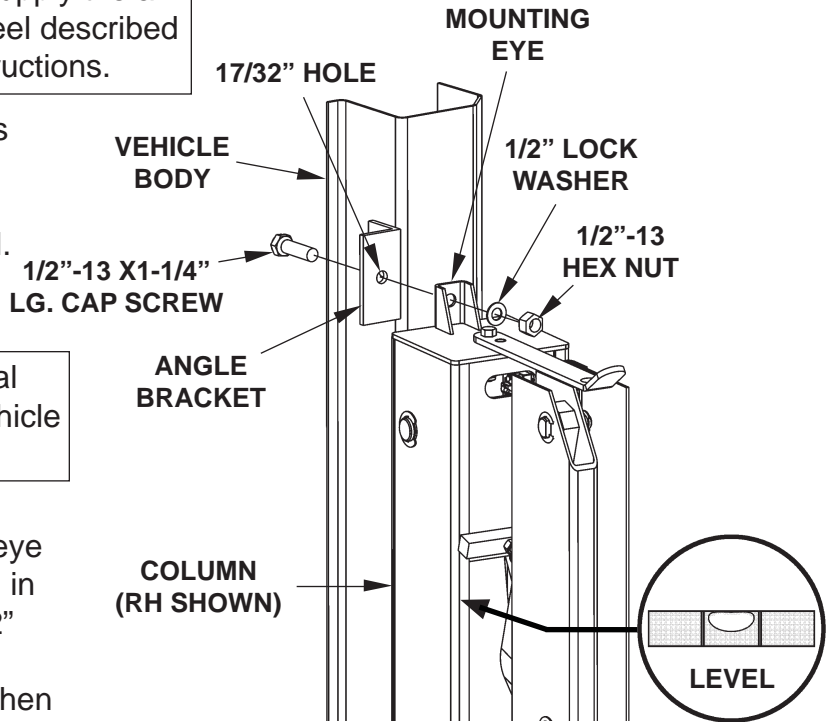
BOLT TO BODY WITH ANGLE BRACKET

NOTE: MAXON does not supply the angle brackets and steel described in the following instructions.

1. Fabricate two angle brackets (**FIG. 19-1**), 2" x 2" x 3" long, from 10 gauge (minimum) general purpose steel.

NOTE: Keep column vertical while bolting it to vehicle body.

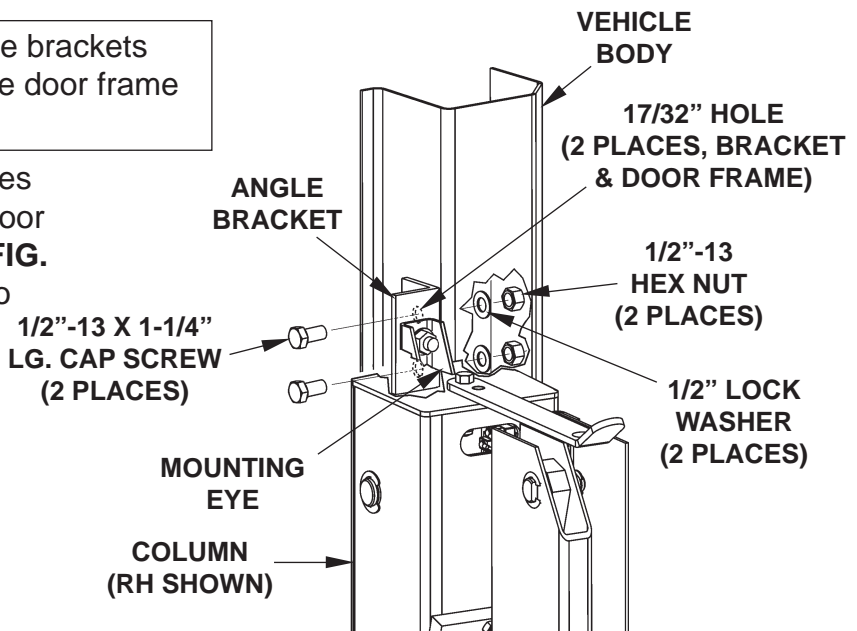
2. Line up angle bracket with vehicle body and mounting eye on the RH column as shown in **FIG. 19-1**. Next, drill a 17/32" hole in bracket that lines up with hole in mounting eye. Then bolt mounting eye to the angle bracket (**FIG. 19-1**).



BOLTING BRACKET TO COLUMN
FIG. 19-1

NOTE: If required, the angle brackets can be welded to the door frame on the vehicle body.

3. Drill two 17/32" diameter holes through angle bracket and door frame on the vehicle body (**FIG. 19-2**). Bolt mounting angle to door frame (**FIG. 19-2**).



BOLTING BRACKET TO DOOR FRAME
FIG. 19-2

4. Repeat instructions 2 and 3 for LH column.

INSTALL ON VAN BODY - Continued

BOLT TO BODY WITH ADAPTER BRACKET

NOTE: MAXON does not supply the mounting bracket adapters, bracket seals, and steel described in the following instructions.

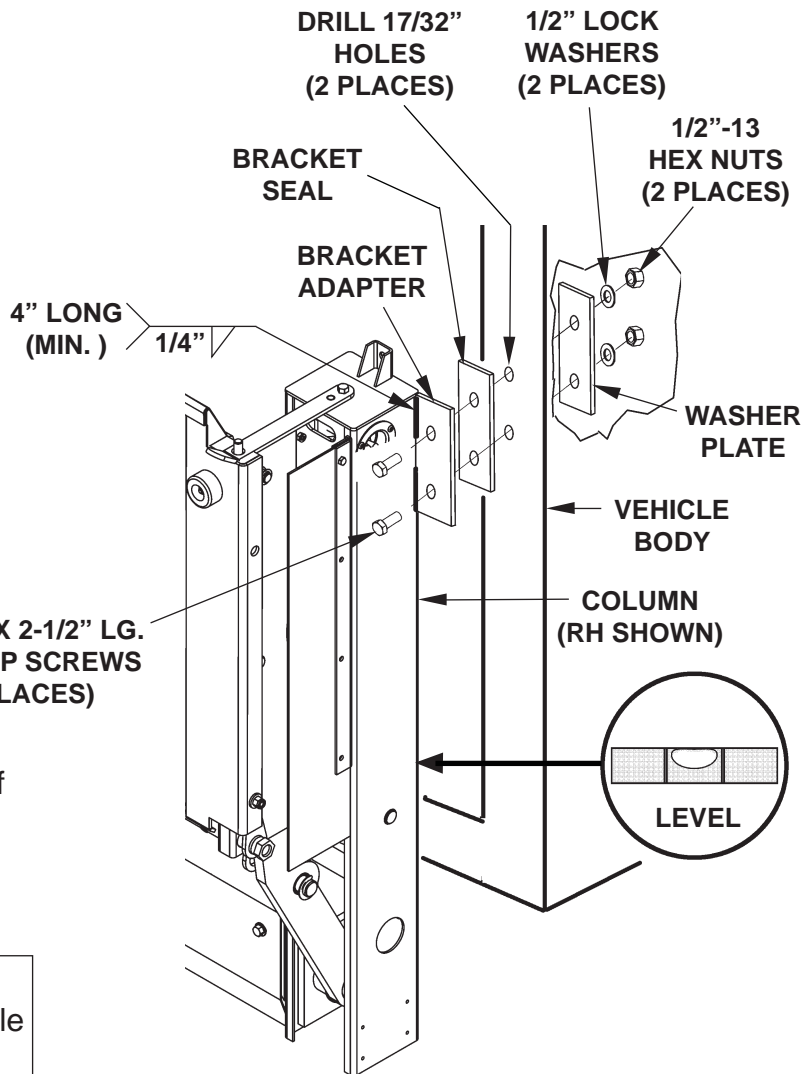
1. Use a washer plate (2" x 7" flat washer from Parts Box) as a template for sizing the mounting bracket adapters and positioning the 2 holes. Make adapter (**FIG. 20-1**) a little larger than the washer plate. Fabricate 2 of the mounting bracket adapters from 10 guage (minimum) general purpose steel.

1/2"-13 X 2-1/2" LG. HEX CAP SCREWS (2 PLACES)

2. Weld a mounting bracket adapter to the outboard side of the RH column (**FIG. 20-1**). Repeat this instruction for the LH column.

NOTE: Keep column vertical while bolting it to vehicle body.

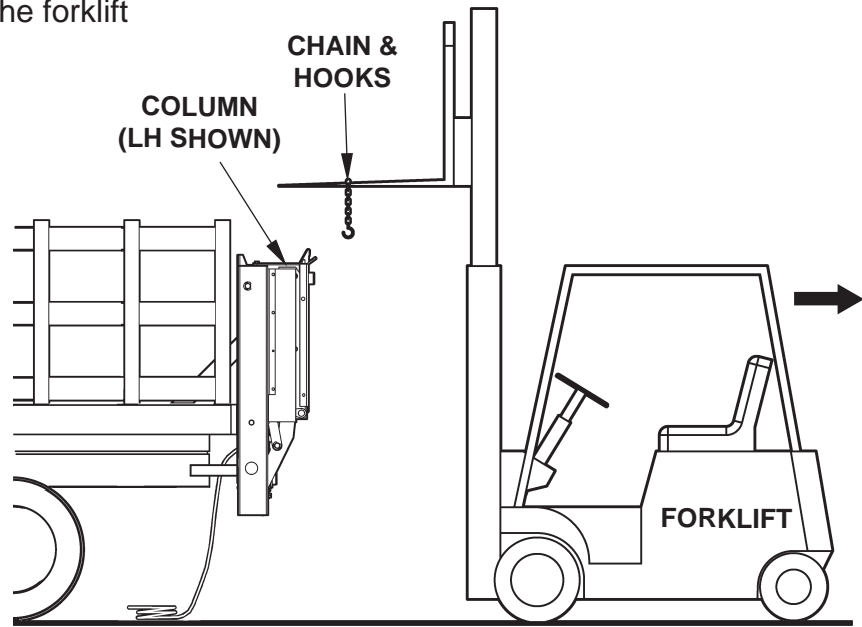
3. Drill two (2) 17/32" holes through the vehicle body using the mounting bracket adapter as a template. Place a bracket seal (use washer plate as a template) between the adapter bracket and vehicle body. Bolt the RH column to vehicle body (**FIG. 20-1**). Repeat this instruction for LH column.



**BOLTING ADAPTER TO VEHICLE BODY
9RH COLUMN SHOWN)**

MOVE FORKLIFT

1. Lower forks enough to unhook the columns (Liftgate) from the forklift (FIG. 21-2).



BACKING FORKLIFT AWAY FROM LIFTGATE
FIG. 21-2

2. Back the forklift away from Liftgate (FIG. 21-2). Then move forklift away from work area.

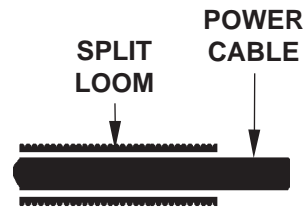
STEP 3 - RUN POWER CABLE

CAUTION

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

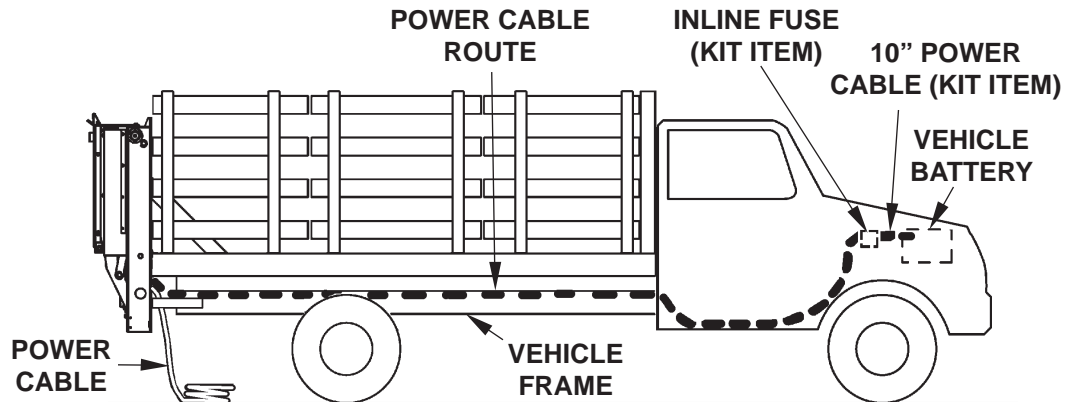
NOTE: Parts Box contains split loom tubing for protecting power cable.

1. Put the split loom tubing (Parts Box item) on power cable (**FIG. 22-1**).



POWER CABLE COVERED WITH SPLIT LOOM
FIG. 22-1

2. Run power cable along the vehicle frame to the battery (**FIG. 22-2**).



POWER CABLE ROUTE TO VEHICLE BATTERY
FIG. 22-2

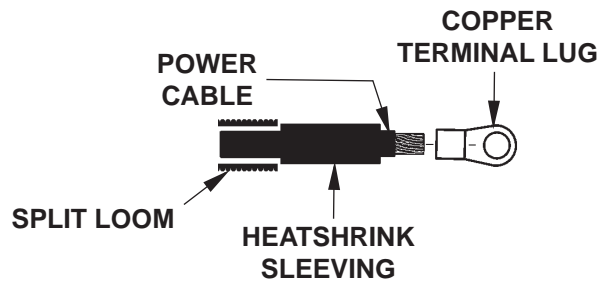
NOTE: The 200 amp fuse kit contains Instruction Sheet **M-04-03**. Disregard **M-04-03**. Install the fuse according to the following instructions.

3. Get the 10" power cable and 200 amp fuse (**FIG. 22-2**) from the kit (Parts Box item). Measure how much main power cable is needed to run the 200 amp fuse and 10" power cable to the positive (+) battery terminal. Leave enough cable length to prevent strain when the fuse and 2 cables are connected, in line, to the battery.

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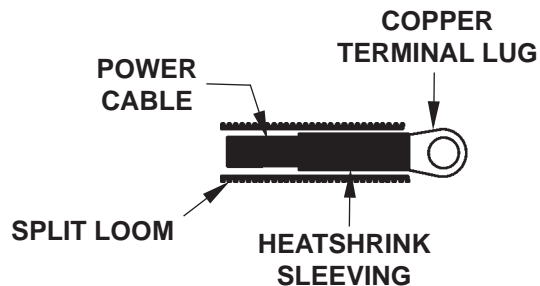
- Cut excess cable from bare wire end of the main power cable. Next, pull the protective split loom away (**FIG. 23-1**) to gain access to cable end.



POWER CABLE WITH BARE WIRE END
FIG. 23-1

- Put heatshrink tubing (Parts Box item) (**FIG. 23-1**) on the end of cable. Leave room for terminal lug (**FIG. 23-1**).

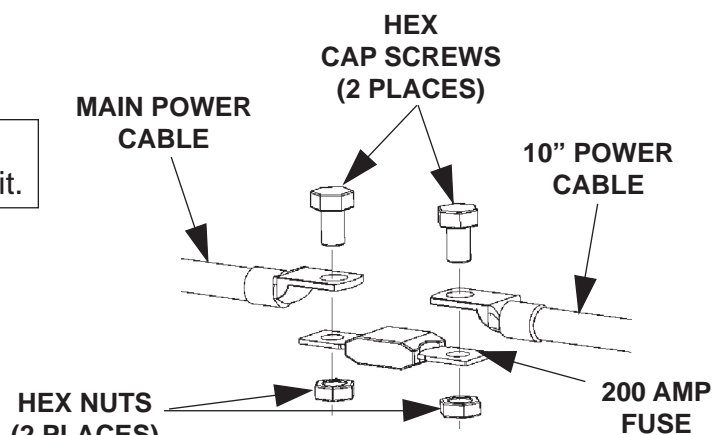
- Crimp copper terminal lug (Parts Box item) on the power cable (**FIG. 23-2**) and shrink the heatshrink tubing. Then put protective loom in place over the cable. Cut off any excess loom if it covers the terminal lug.



POWER CABLE WITH CRIMPED & INSULATED TERMINAL LUG
FIG. 23-2

NOTE: Hex nuts and cap screws are provided with 200 amp fuse kit.

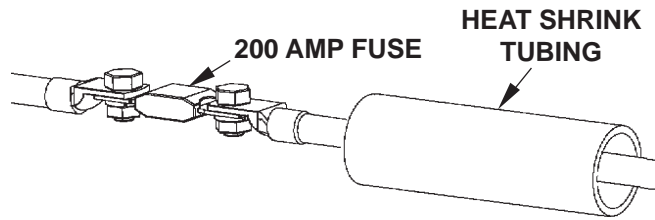
- Bolt the 200 amp fuse to the main power cable and 10" power cable as shown in **FIG. 23-3**.



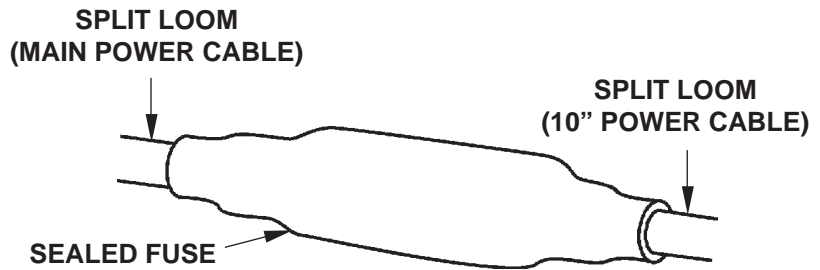
BOLTING 200 AMP FUSE TO POWER CABLES
FIG. 23-3

STEP 3 - RUN POWER CABLE - Continued

8. Place the heat shrink tubing around the 200 amp fuse (**FIG. 24-1**). Make sure tubing is centered on fuse and covers both bolted connections. Shrink the tubing to seal the fuse and cable connections (**FIG. 24-2**).

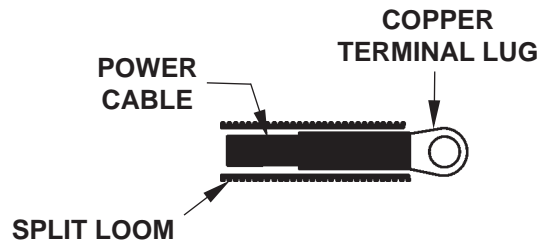


INSTALLING HEAT SHRINK TUBING
FIG. 24-1



SEALED FUSE & CABLE CONNECTIONS
FIG. 24-2

9. Put split loom tubing (Parts Box item) on the 10" power cable, between the sealed fuse and terminal lug (**FIGS. 24-2 and 24-3**).



SPLIT LOOM ON POWER CABLE
FIG. 24-3

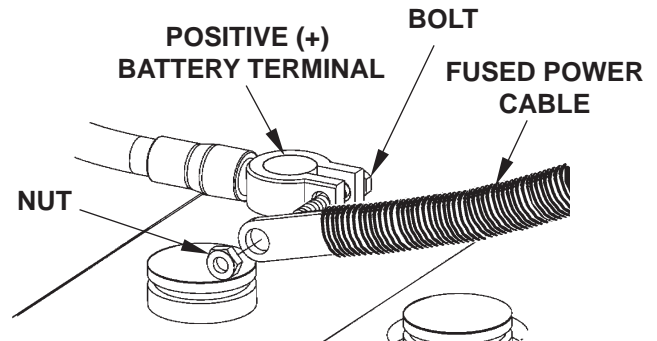
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STEP 4 - CONNECT POWER CABLE TO BATTERY

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

Remove nut from positive (+) battery terminal connector. Connect fused power cable to the positive (+) battery terminal connector (**FIG. 25-1**). Reinstall and tighten nut.



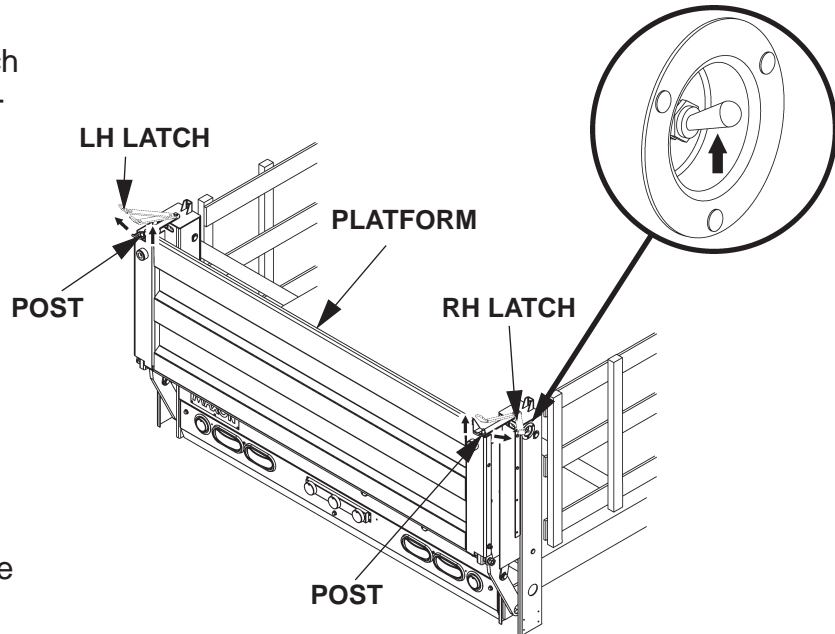
CONNECTING POWER CABLE
FIG. 25-1

STEP 5 - CHECKING HYDRAULIC FLUID

WARNING

To prevent personal injury and damage to Liftgate, make sure hydraulic system is pressurized before unlatching platform.

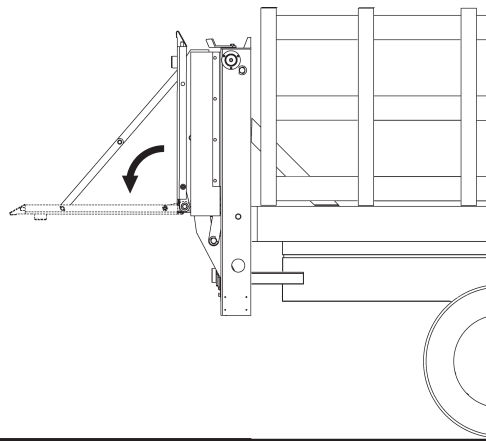
1. Pressurize hydraulic system as follows. Push toggle switch **UP** for 1 second and then release (**FIG. 26-1**).



2. Release the platform as follows. Standing to the RH side of platform (**FIG. 26-1**), lift RH latch upward and rotate away from platform (**FIG. 26-1**). Repeat for LH latch.

RELEASING PLATFORM
FIG. 26-1

3. Unfold the platform (**FIG. 26-2**).
If equipped, unfold flipover.

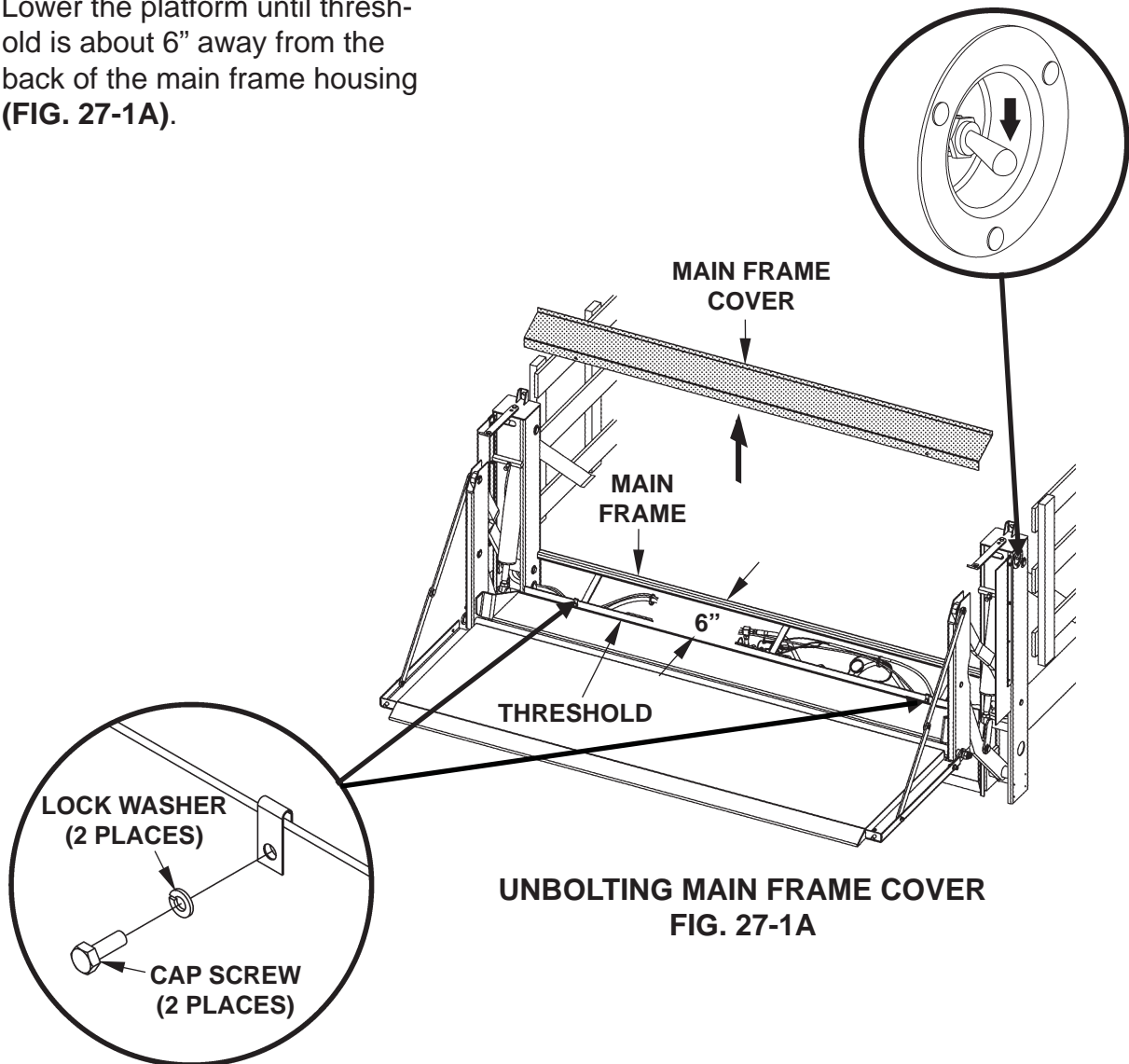


UNFOLDING PLATFORM
FIG. 26-2

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4. Lower the platform until threshold is about 6" away from the back of the main frame housing (FIG. 27-1A).



UNBOLTING MAIN FRAME COVER
FIG. 27-1A

FIG. 27-1B

5. Unbolt the main frame cover as shown in FIGS. 27-1A & 27-1B.

STEP 5 - CHECK HYDRAULIC FLUID - Continued

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

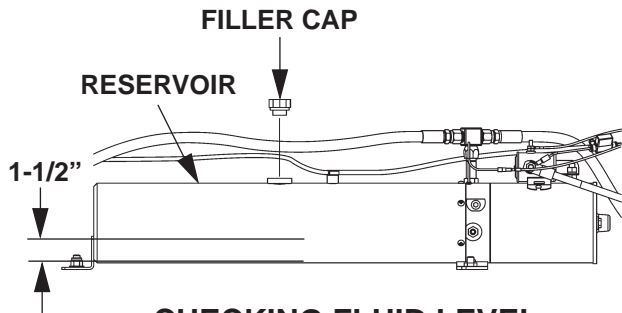
Below + 70 Degrees F - Grade ISO 15 or MIL-H-5606

See **TABLES 29-1 & 29-2** for recommended brands.

6. Remove filler cap (**FIG. 28-1**).

7. Use a clean rod as a dipstick to check the hydraulic fluid level in reservoir. Add hydraulic fluid until dipstick indicates 1-1/2" level as shown in **FIG. 28-1**.

8. Reinstall filler cap (**FIG. 28-1**).



**CHECKING FLUID LEVEL
FIG. 28-1**

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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 29-1

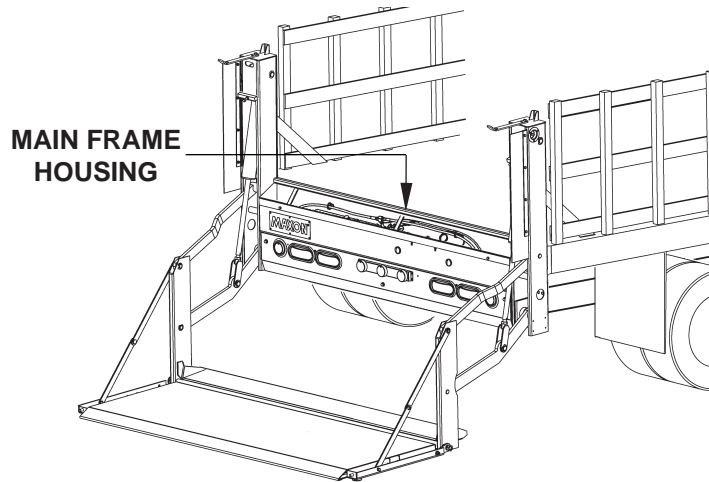
ISO 15 OR MIL-H-5606 HYDRAULIC OIL	
RECOMMENDED BRANDS	PART NUMBER
AMSOIL	AWF-05
CHEVRON	FLUID A, AW-MV-15
KENDALL	GLACIAL BLU
SHELL	TELLUS T-15
EXXON	UNIVIS HVI-13
MOBIL	DTE-11M
ROSEMEAD	THS FLUID 17111

TABLE 29-2

STEP 6 - CONNECT LIGHTS

NOTE: Main frame cover was removed in **STEP 5**.

1. Lower the platform to ground level for better access to main frame housing (**FIG. 30-1**).

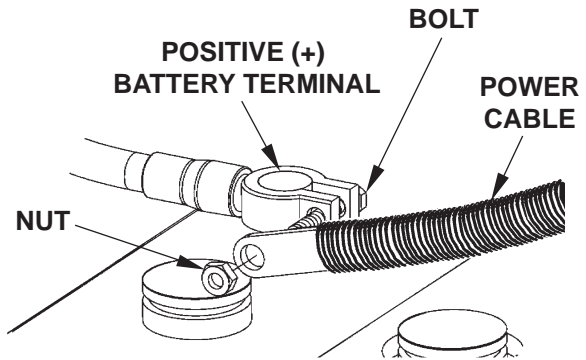


**LIFTGATE WITH PLATFORM LOWERED
& MAIN FRAME COVER REMOVED
FIG. 30-1**

CAUTION

To prevent personal injury and damage to Liftgate, make sure the vehicle battery is disconnected before installing electrical parts.

2. Remove nut from positive (+) battery terminal connector (**FIG. 30-2**). Disconnect fused power cable from the positive (+) battery terminal connector (**FIG. 30-2**). Reinstall and tighten nut.



**DISCONNECTING FUSED POWER CABLE
FIG. 30-2**

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NOTE: If your Liftgate came equipped with truck lights, skip the instructions for installing the license plate lights. Do the instructions for connecting truck lights to vehicle wiring.

LICENSE PLATE LIGHTS

NOTE: The lens on each license plate light must face inboard toward the license plate mounting area.

1. Insert the 2 license plate lights (Parts Box item) in the 2 holes in the main frame (**FIGS. 31-1A and FIG. 31-1B**). Position each lens to face inboard.

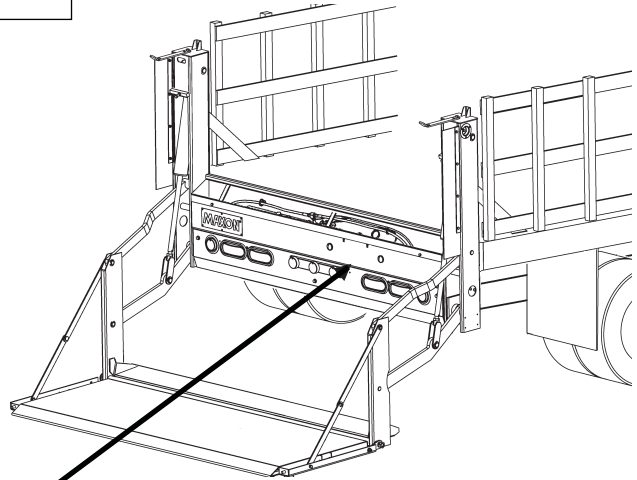
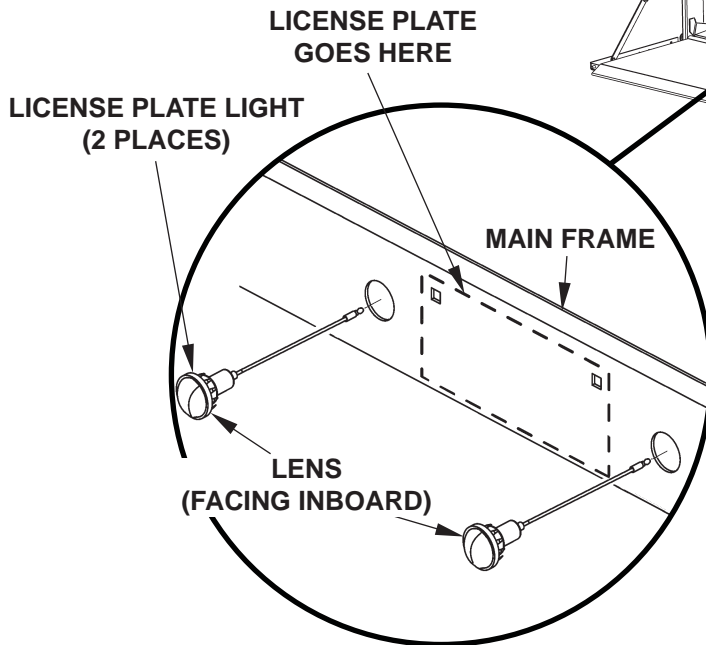


FIG. 31-1A



**INSERTING LICENSE PLATE LIGHTS IN MAIN FRAME
FIG. 31-1B**

STEP 6 - CONNECT LIGHTS - Continued

CAUTION

Always route electrical wires clear of any moving parts, brake lines, sharp edges, and exhaust systems. Use the hole with grommet to run wiring from main frame to vehicle.

2. Position the license plate lights wiring harness (Parts Box item) in the main frame housing as shown in **FIG. 32-1B**). Then connect the license plate lights to the harness (**FIG. 32-1B**).

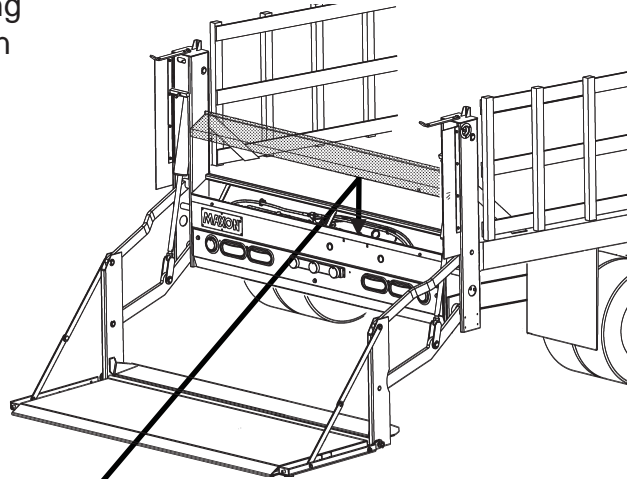
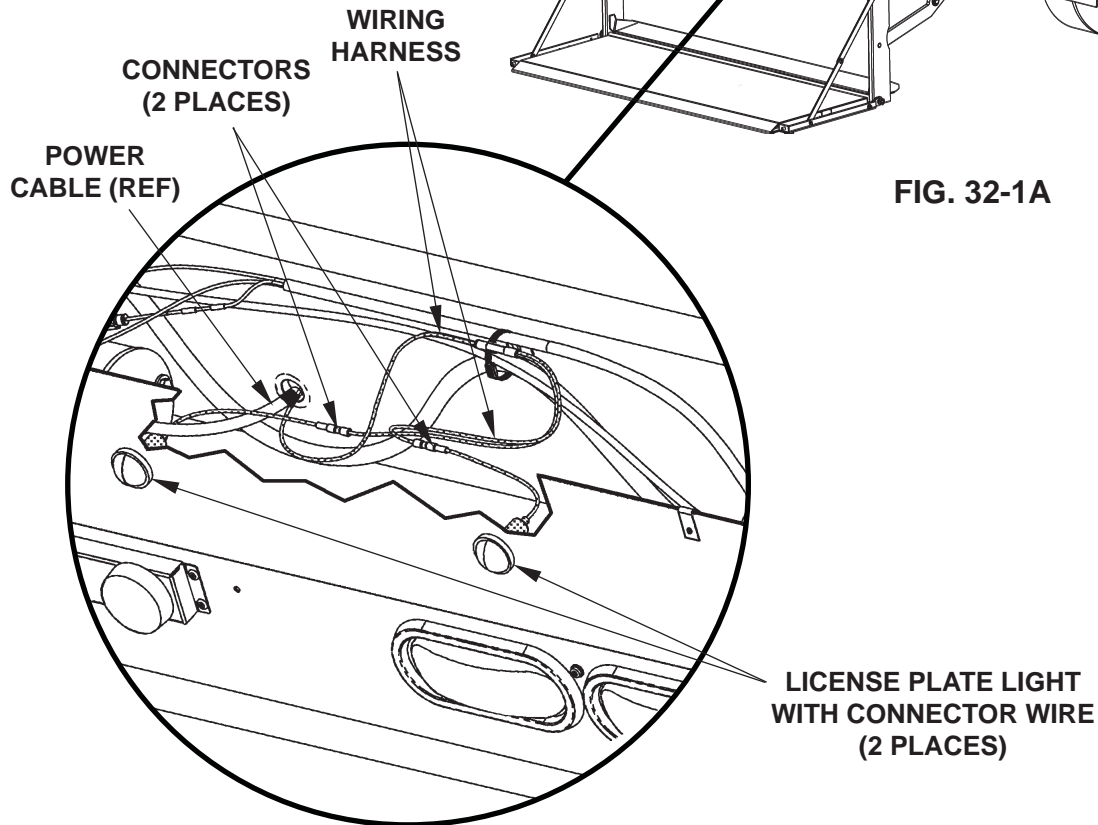


FIG. 32-1A



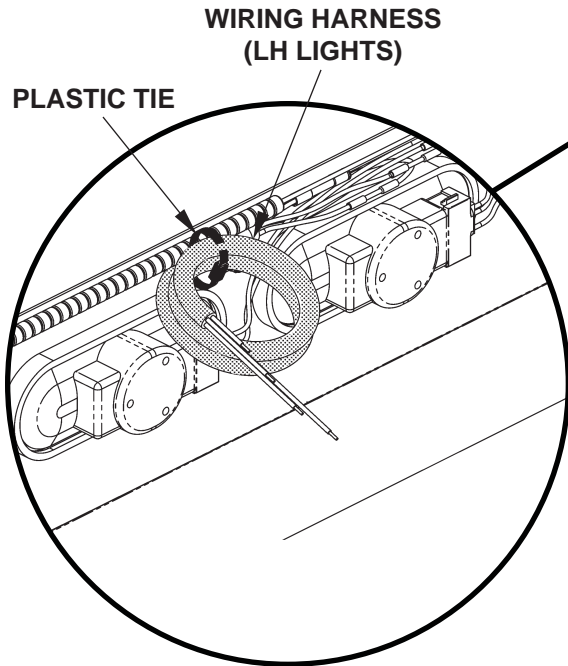
LICENSE PLATE LIGHTS CONNECTED
TO WIRING HARNESS
FIG. 32-1B

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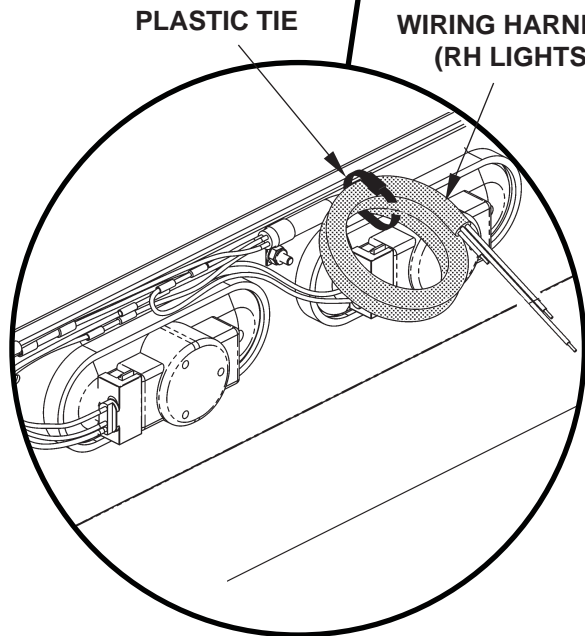
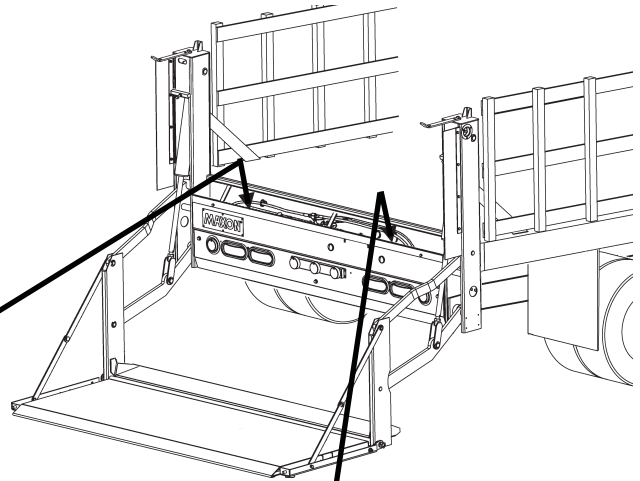
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TRUCK LIGHTS

1. Cut the plastic ties that hold the wiring harness for the RH lights (**FIG. 33-1B**) and LH lights (**FIG. 33-1C**).



REAR VIEW OF LH LIGHTS
FIG. 33-1C



REAR VIEW OF RH LIGHTS
FIG. 33-1B

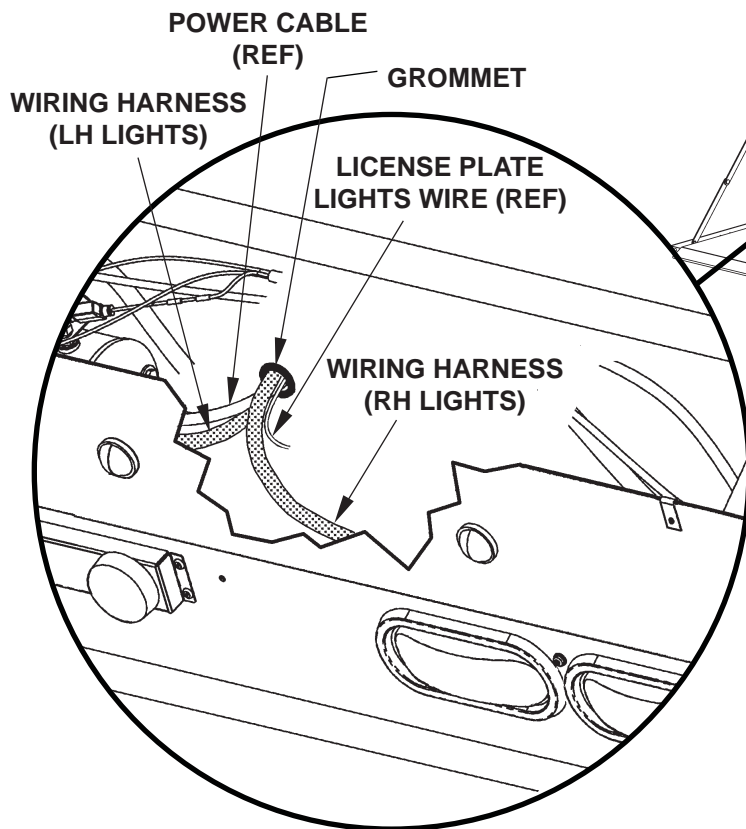
STEP 6 - CONNECT LIGHTS - Continued

TRUCK LIGHTS - Continued

⚠ CAUTION

Always route electrical wires clear of any moving parts, brake lines, sharp edges, and exhaust systems. Use the hole with grommet to run wiring from main frame to vehicle.

2. Route the RH lights wiring harness through the grommet (FIG. 34-1B) to connect with vehicle wiring. Repeat this instruction for LH lights wiring harness (FIG. 34-1B).



WIRING FOR LIGHTS ROUTED TO VEHICLE WIRING
FIG. 34-1B

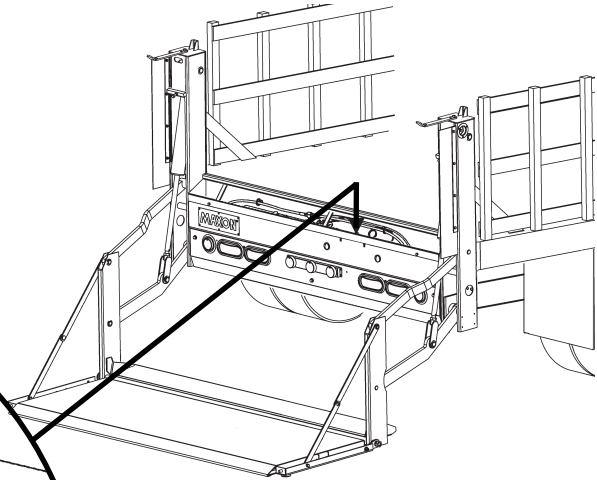
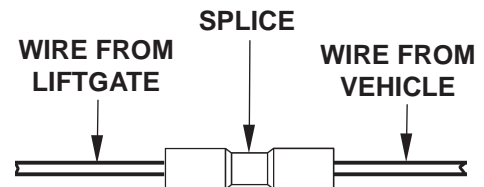


FIG. 34-1A

NOTE: The lens on each license plate light must face inboard toward license plate mounting area.

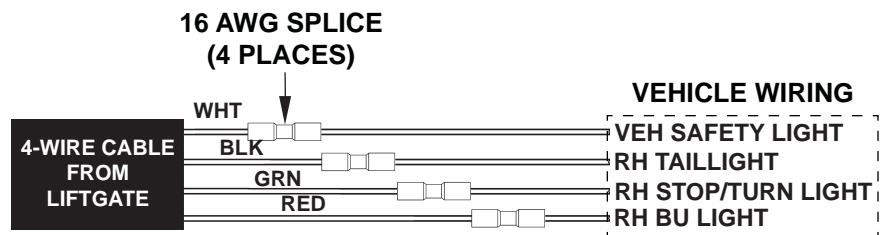
3. Extend the license plate lights wire through grommet to connect with vehicle wiring (FIG. 34-1B). Splice the wire from license plate lights to vehicle wiring (FIG. 34-2). After the splice is crimped, heat splice with hot air gun to shrink the sleeving and seal the splice.



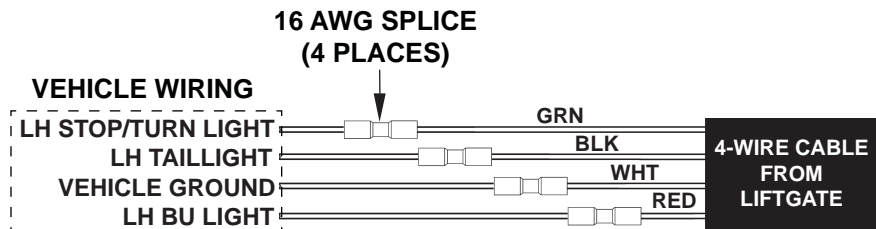
SPLICED WIRES
FIG. 34-2

NOTE: If the vehicle wiring to the rear lights is larger than 16 AWG or requires more than 1 wire on the same side of splice, use stepdown splice from Parts Box (**FIG. 35-3**).

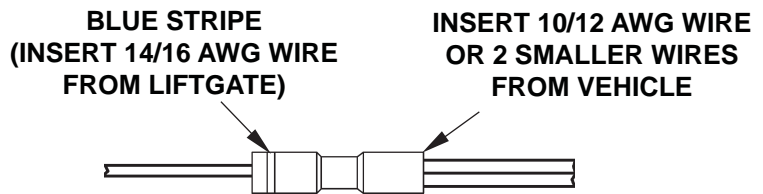
4. Splice the RH rear lights wiring harness to vehicle wiring (**FIG. 35-1**). After crimping each splice, use hot air gun to shrink sleeving and activate sealant. Repeat this instruction for LH rear lights wiring harness (**FIG. 35-2**).



**RH TRUCK LIGHTS WIRING CONNECTIONS
FIG. 35-1**



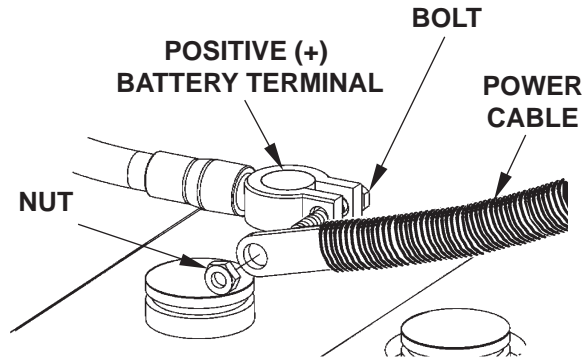
**LH TRUCK LIGHTS WIRING CONNECTIONS
FIG. 35-2**



**STEPDOWN SPLICE
FIG. 35-3**

STEP 6 - CONNECT LIGHTS - Continued

5. Remove nut from positive (+) battery terminal connector (FIG. 36-1). Reconnect fused power cable to positive (+) battery terminal connector (FIG. 36-1). Reinstall and tighten nut.



CONNECTING FUSED POWER CABLE
FIG. 36-1

CAUTION

Pump Cover must be correctly secured to prevent it from becoming a hazard. To secure Pump Cover, bolt it in place on the Liftgate.

6. Make sure lights work. Then bolt on main frame cover. (FIG. 36-2A and 36-2B).

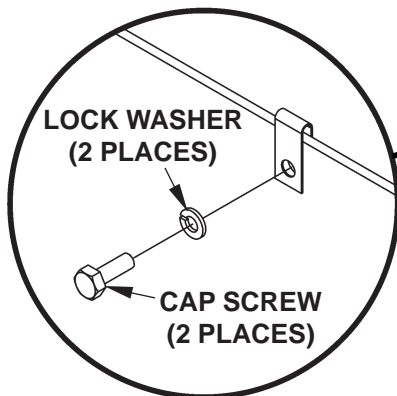
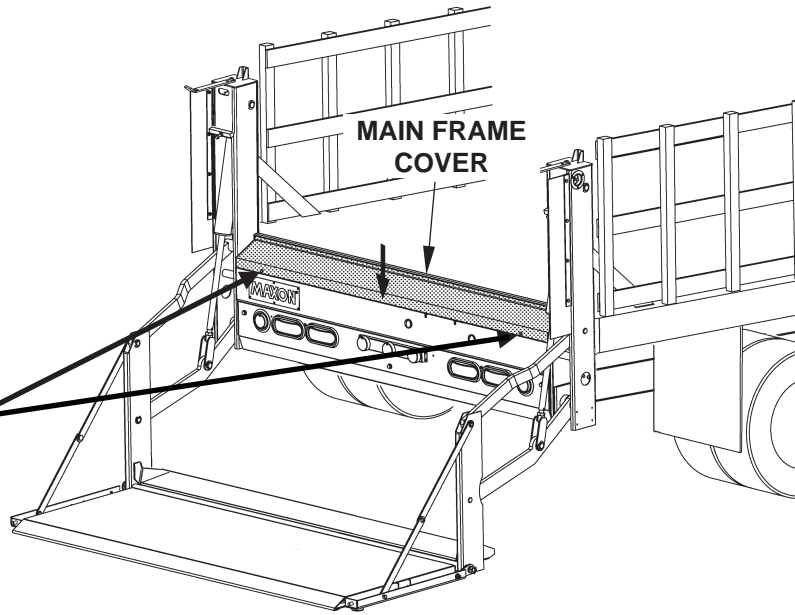


FIG. 36-2B



BOLTING ON MAIN FRAME COVER
FIG. 36-2A

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STEP 7 - BOLT ON LICENSE PLATE

Use plastic grommet nuts and 1/4" self-tapping screws (Parts Box items) to bolt license plate to main frame (**FIG. 37-1B**).

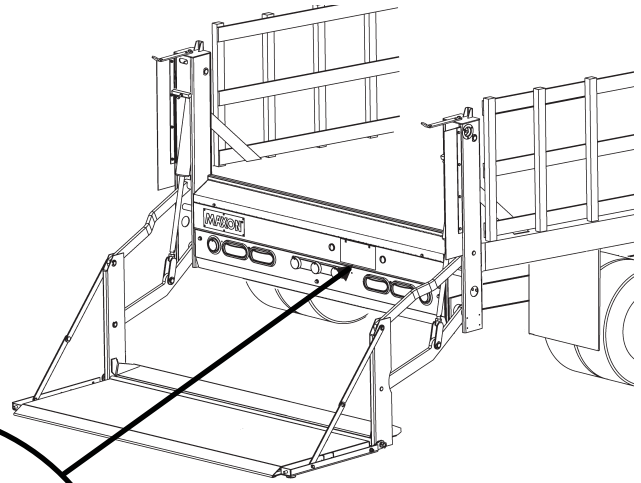
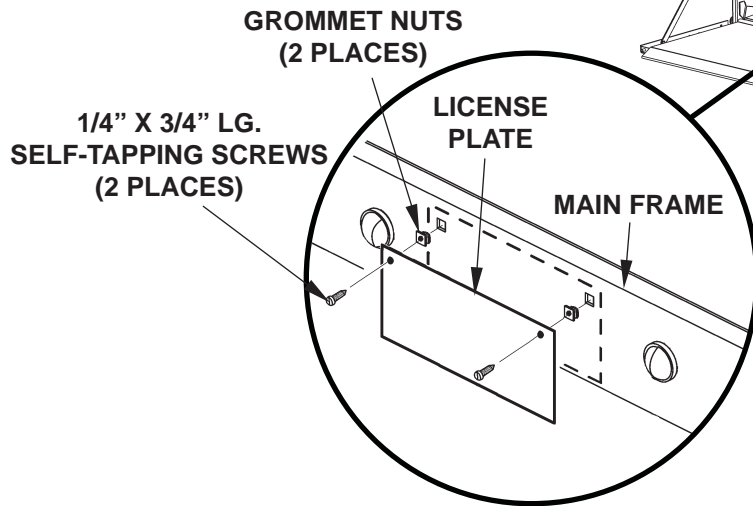


FIG. 37-1A



**INSTALLING LICENSE PLATE
FIG. 37-1B**

DECAL PLACEMENT

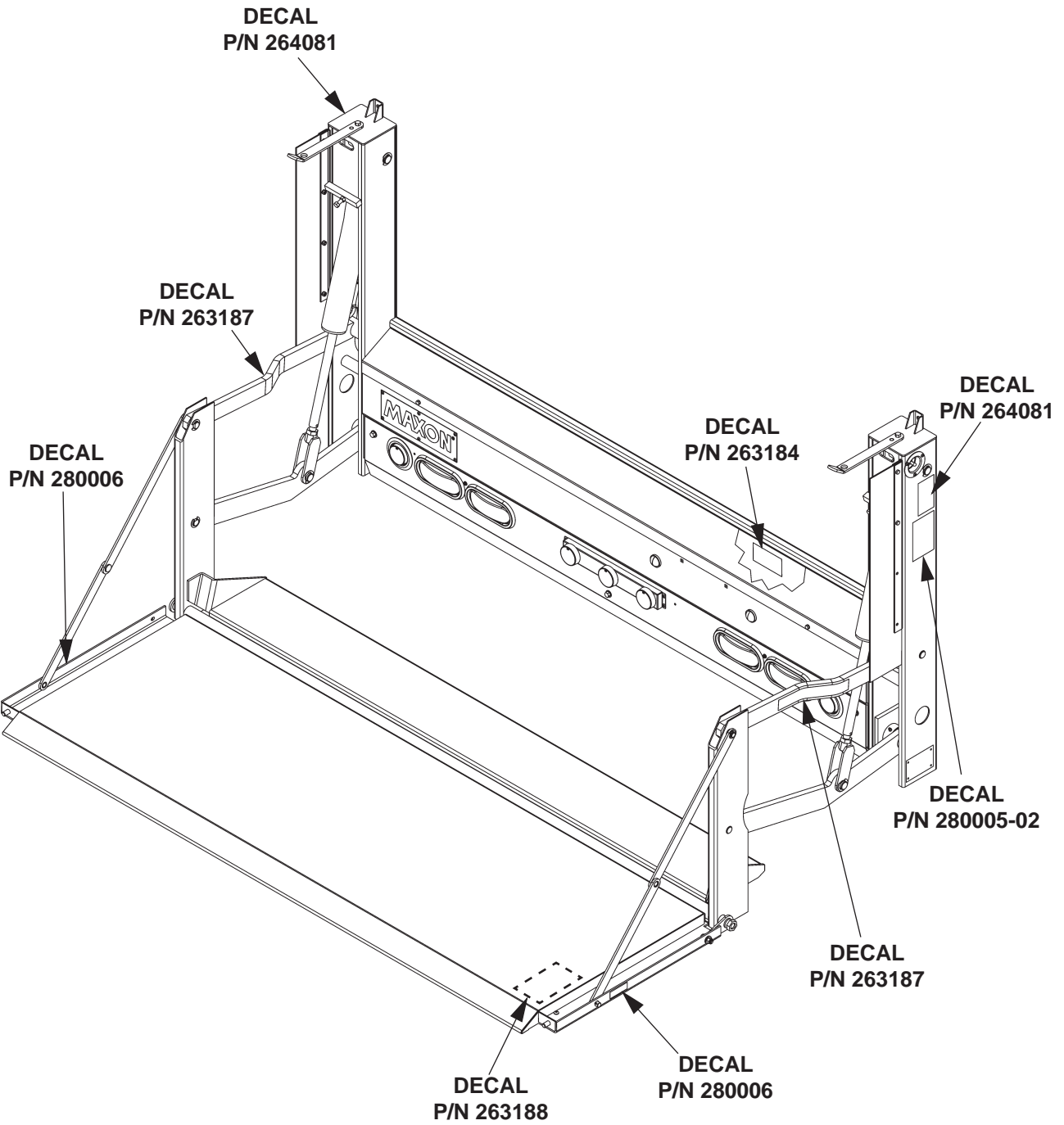


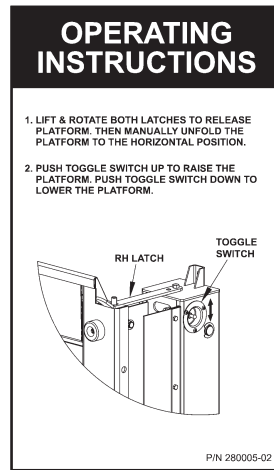
FIG. 38-1

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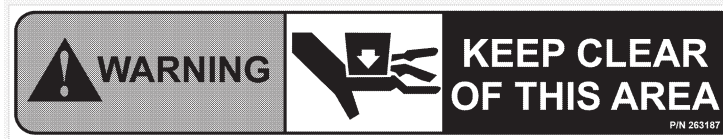
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WARNING DECAL
P/N 264081



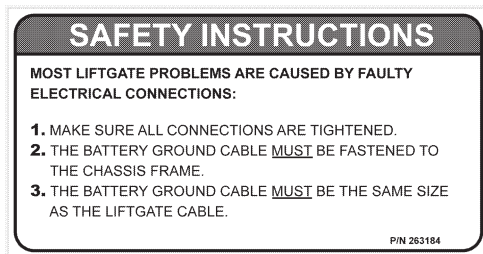
INSTRUCTION DECAL
P/N 280005-02



CAUTION DECAL
P/N 263187



CAPACITY DECAL
P/N 280006



WARNING DECAL
P/N 263184



CAUTION DECAL
P/N 263188

