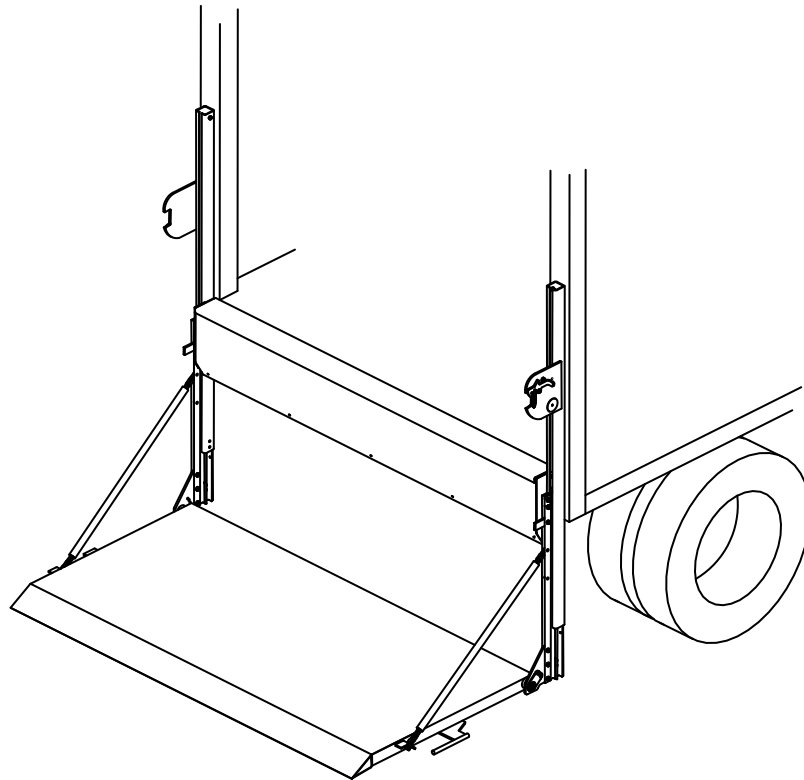


# Installation Manual

## MDL, DS, DT, SB

1250 lb. - 3000 lb. Capacity Rail Liftgates



GR02909

### Last Change


Date	Page(s)	Description
9-2013	14, 15, 16, 20, 22, 23, 26, 29, 30	P14 – Added note about control becoming operational P15 – Deleted steps for cab shut-off switch (moved to back of manual) P15-16 – Revised schematics P20 – Revised fluid chart P22-23 – Added additional operation decals P26 – Added instructions for cab shut-off switch P29-30 – Revised schematics

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**Waltco Lift Inc.**  
**Canada**  
90 North Queen St.  
Etobicoke, ON M8Z 2C5  
P: 888-343.4550

# Table of Contents

	<p><b>Improper installation of this liftgate could result in severe personal injury or death.</b></p> <p><b>Read and understand the contents of these instructions before proceeding.</b></p> <p><b>When installed, this liftgate must not alter or prevent vehicle compliance to any existing state or federal standards.</b></p> <p><b>Each chassis manufacturer’s recommendations should be consulted for compliance.</b></p>
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# Introduction

If anyone observes improper installation, improper operation, or damage, they should immediately contact a qualified person for assistance and correction. We strongly urge anyone that has any questions or doubts as to the installation, condition, use, operation, maintenance or repair of the liftgate to contact us at Waltco where we have qualified personnel that will be happy to assist you. Telephone numbers and addresses of these locations are listed in the Owner's Manual and Installation Instructions.

## **INSTALLATION**

Waltco liftgates should only be installed by those with sufficient basic skills to understand the installation and operation of the liftgate, along with the equipment on which the liftgate is being installed. Waltco's installation instructions are not intended to give rationale for all the instructions that are given; however, it is the intent of these instructions to give the installer both the operations and what we believe to be the most desirable sequence of implementing these operations. These instructions can in no way expand into an area where they will replace a qualified person, or clear thinking and a basic knowledge that must be possessed by the installer.

It has been our experience that a knowledgeable journeyman following these instructions and observing the operation of the liftgate will have a sufficient comprehension of the liftgate to enable this person to troubleshoot and correct all normal problems that may be encountered.

Failure to follow the installation instructions, adjustments and mounting dimensions may result in improper and unsafe operation of the liftgate. Unauthorized alterations of the liftgate can cause an undesirable and dangerous condition.

## **OWNER'S MANUAL**

The Waltco Owner's Manual is intended to act as a guide for operation and routine maintenance but is no way intended to encourage usage or repair of the liftgate by those who are not qualified to do so.

The contents of the owner's manual include, but are not limited to general operation instructions, routine lubrication, parts lists, and an outline of things that should be checked but may not be obvious to those not technically qualified. This manual assumes the liftgate is properly installed, undamaged and operates correctly. Improper installation, improper operation, or damage should be immediately corrected by a qualified person.

## **INSPECTION**

As part of the regular inspection of a liftgate and after damage or suspicion of an overload, inspect for wear or structural damage and make necessary repairs or replacements. Check all structural components and their attachment to the liftgate for cracked welds, loose fasteners, wear and part deformation. Check cylinder and hose for leaks. Inspections and repairs should be made by a qualified mechanic.

## **REPLACEMENT PARTS**

Use only Waltco original equipment replacement parts. Components of other liftgate manufacturers may outwardly appear to be the same but are not interchangeable with Waltco products. Waltco components are specifically designed for safety requirements, reliability and compatibility with our products. Refer to your Waltco parts manual when ordering parts. NOTE: When ordering, give model and serial number of liftgate.

## **DECALS**

It is important that every vehicle that has a WALTCO Liftgate have legible DECALS clearly posted on the vehicle and an OWNER'S MANUAL in the vehicle at all times as a guide for proper operation and maintenance.

Additional DECALS and OWNER'S MANUALS can be obtained from WALTCO LIFT CORP.

# Chapter 1 Safety Information



**Read, understand, and follow all of the warning listed below.**

**Failure to follow these warning could result in severe personal injury or death.**

- Read and understand the Owner's Manual, all decals and warning on liftgate before operating liftgate.
- Do not operate liftgate without a thorough knowledge and understanding of the operation of the liftgate.
- Liftgate hazards can result in crushing or falling.
- This liftgate is designed for loading and unloading of cargo. If personnel are required to ride liftgate, observe and familiarize yourself with the liftgate operation, decals and manuals. Ensure stable footing at all times.
- Do not ride liftgate with unstable loads.
- Wheeled loads must be properly retained from rolling.
- Tall, high center of gravity loads must be retained from falling over.
- Never overload liftgate:  
Load platform as close to the vehicle, and towards the middle of the platform as possible. Refer to owner's manual and capacity decal of liftgate for maximum load and load placement.
- Keep hands and feet clear of all potential pinch points.
- Never use liftgate if it makes any unusual noise, has unusual vibration, raises or lowers unevenly, or fails to operate smoothly.
- Never use liftgate if it shows any signs of structural damage such as cracked welds, bent or distorted members.
- Do not attempt any repairs unless you are qualified to do so. Care should be taken when work is performed on a disabled liftgate located near moving traffic. When possible the vehicle should be moved away from traffic areas for repair. Precautionary measures should be taken to ensure personal safety including those recommended in Federal Motor Vehicle Safety Standards 571.125.
- When welding to liftgate, or liftgate components, take all necessary safety precautions, including using respiratory protection and other pertinent personal protective gear when welding harmful materials.
- All protective covers, guards, and safety devices must be in place and access doors closed before operating liftgate.
- Do not allow anyone to stand in, or near area, in which Platform will open and close before opening or closing Platform.
- Do not allow anyone to stand near the Platform where a falling load could land on them.
- Platform is always to be properly stored and secured for transit. See the Owner's Manual for details.
- Take care to retain cargo during transit for liftgate Platforms which function as the tailgate or door of the cargo area. Small objects can fall through the space between the vehicle and the folded Platform.
- A Lock-Out device or Shut-Off Switch should always be used to prevent unauthorized use of liftgate.
- For liftgates with Runners, never use liftgate if Runners do not travel freely and smoothly.
- For liftgates with Roller Lifting Chain, the Chain should be replaced every (5) five years or 15,000 cycles, whichever comes first. Replace only with Waltco approved Roller Chain.
- Never transfer loads which exceed lifting capacity on or over any part of the Platform unless the liftgate is equipped with a special reinforced Platform and Platform Support Bars for use when the Platform is used as loading ramp (dock board). Refer to the "Using Platform as a loading ramp" Chapter in the Operation Instructions of the BZ/RZ series Owner's Manual.
- For liftgates equipped with Trailer Hitches, never exceed the rated capacity of the hitch. Do not exceed the vehicle's weight rating. Refer to the vehicle's Owner's Manual.
- Vehicle must comply with all state and federal standards.
- Follow the "Maintenance Guide" chapter in the Owner's Manual.

### Liftgates with Tilt Function

- Proper use of the Control Switches is of extreme importance.
- Improper use of Tilt Switch could cause load to fall from the Platform or damage the liftgate.
- Platform should be in a generally horizontal position when raising or lowering with a load.
- In any tilt position, the Platform may vary from level while raising or lowering the Platform.

### Liftgates equipped with spring operated Cam Closer

- Replace Cam Release Spring every five (5) years or 15,000 cycles, whichever comes first.

### RGL-Series Liftgates

- Make certain Platform Brake mechanisms are operating properly.
- The Runners are always to remain powered up against the Up-stops Pins when in transit.
- Inspect Cables every three (3) months or 750 cycles, whichever comes first. Cables must be replaced if they show signs of wear, distortion, kinking or if any broken wires are visible
- Replace cables every five (5) years or 10,000 cycles, whichever comes first.



This is the safety alert symbol. This manual uses this symbol to alert you to potential personal injury hazards.

Obey all safety messages that follow this symbol to avoid personal injury or death.

### SIGNAL WORDS

#### **WARNING**

Indicates a potentially hazardous situation, which if not avoided, could result in death or serious injury.

Black letters on an orange background

#### **CAUTION**

Indicates a potentially hazardous situation, which if not avoided, may result in minor or moderate injury. May also be used to alert against unsafe practices.

Black letters on a yellow background.

#### **NOTICE**

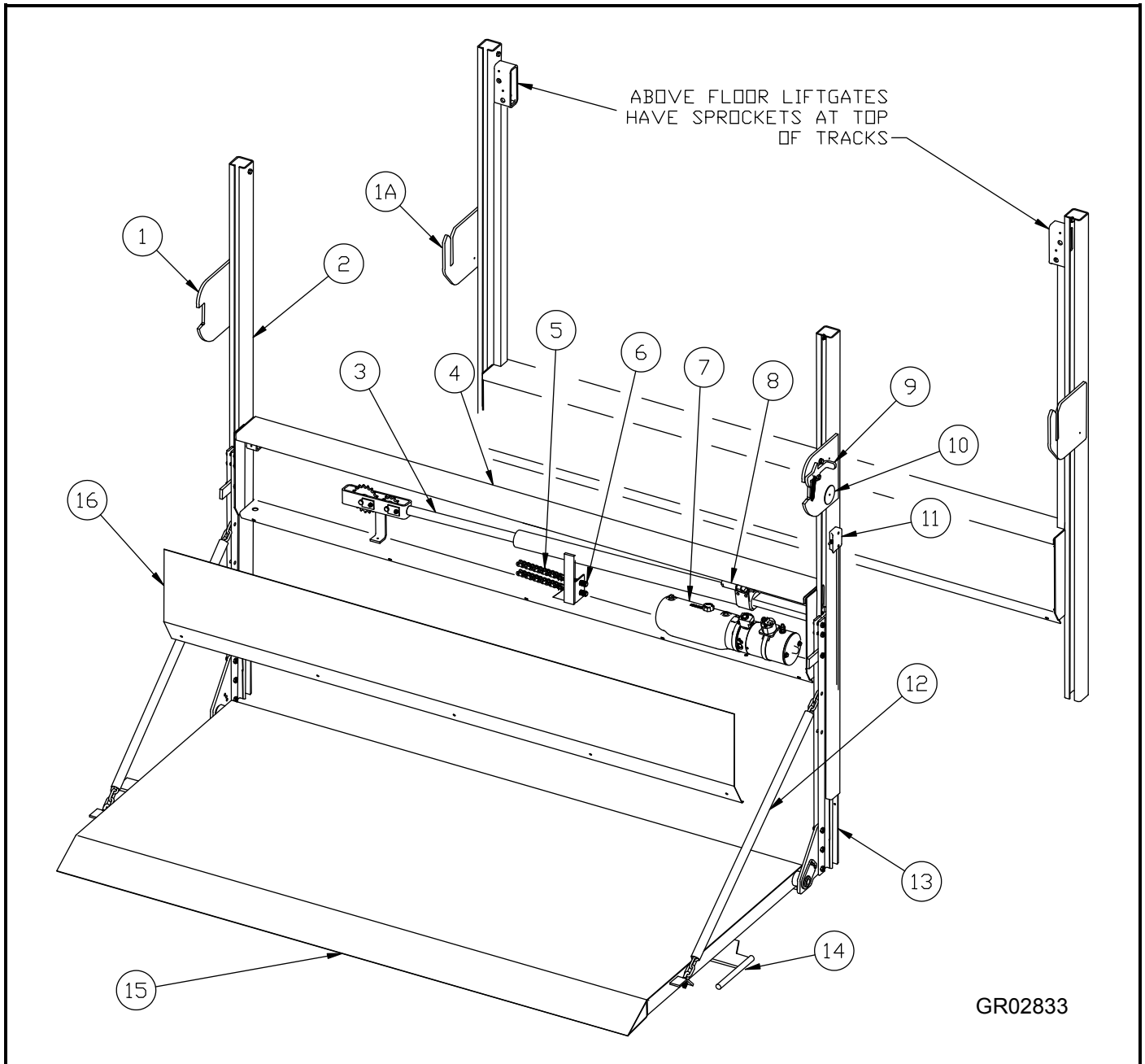
Indicates a potentially hazardous situation, which if not avoided, may result in property damage.



# Chapter 2 Liftgate Terminology

## TERMINOLOGY

- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>1. Travel Plate (Snap Lock Design)</li><li>1A. Travel Plate (Drop-In Design)</li><li>2. Rail (Track)</li><li>3. Lift Cylinder</li><li>4. Crossbeam Box (Housing)</li><li>5. Lifting Chain</li><li>6. Anchor Bolt</li><li>7. Pump Unit</li><li>8. Flow Control Valve</li></ul> | <ul style="list-style-type: none"><li>9. Latch</li><li>10. Spec Tag</li><li>11. Switch Assembly</li><li>12. Support Chain</li><li>13. Runner (Slider)</li><li>14. Travel Ear and Grab Handle</li><li>15. Platform</li><li>16. Housing Cover</li></ul> |
|---|---|



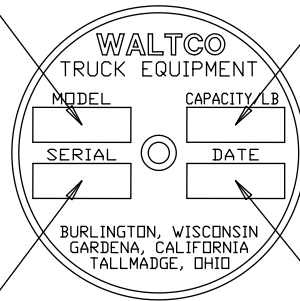
# Chapter 2 Liftgate Terminology

## Explanation of Specification Tag

Model Name	Description	Capacity
MDL-12	Medium Duty Lift	1200 lbs.
MDL-16	Medium Duty Lift	1600 lbs.
MDL-20	Medium Duty Lift	2000 lbs.
MDL-30	Medium Duty Lift	3000 lbs.
MDLBG-16	MDL Bottle Gas	1600 lbs.
MDLBG-20	MDL Bottle Gas	2000 lbs.
DS-16	Dock Storage	1600 lbs.
DS-20	Dock Storage	2000 lbs.
DS-30	Dock Storage	3000 lbs.
SB-12	Service Body	1200 lbs.
SB-16	Service Body	1600 lbs.
DT-16	Dump Through	1600 lbs.
DT-20	Dump Through	2000 lbs.
DT-30	Dump Through	3000 lbs.

**MODEL NAME**

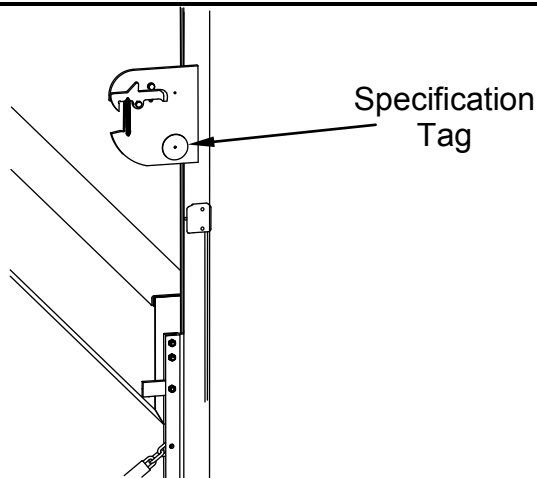
**RATED CAPACITY**  
Based on an evenly distributed load on the platform flat surface.



**SERIAL NUMBER**  
of liftgate. To be used when ordering parts or when contacting Walco for service or warranty questions

**DATE OF MANUFACTURE**  
Month / Year

GR00241



GR02834

# Chapter 3 Mounting Requirements

## DETERMINE BED HEIGHT AND ABOVE FLOOR TRAVEL RANGES

- Maximum bed height (measured with vehicle empty) must be within the range shown in the chart below.

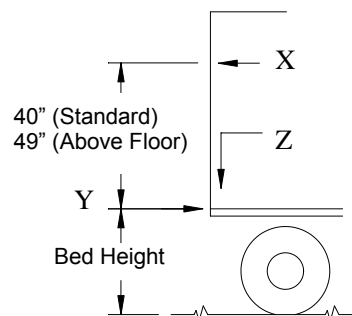
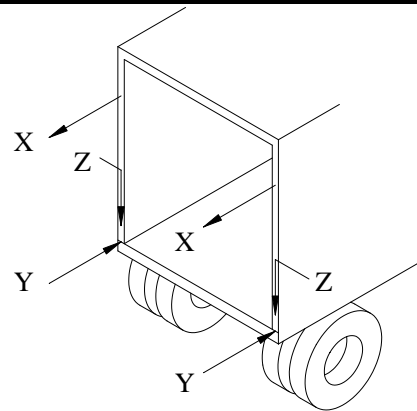
Model	Standard Bed Height Range	Above Floor Bed Height Range	Above Floor Travel Limitations
MDL12	30" – 46"	30" – 46"	Travels to 11" above floor
MDL16, MDL20, MDL30	30" – 56"	38" – 46"	
DS with 36" platform	38" – 57"	38" – 46"	
DS with 42" platform	42" – 57"	42" – 46"	
DS with 48" platform	45" – 57"	45" – 46"	
DT	30" – 56"	N/A	N/A
SB	25" – 46"	25" – 41"	Travels to 7" above floor.

**NOTE:** Some liftgates can be adjusted for additional travel above floor, contact Waltco Technical Services for additional information.

- Vehicle must be capable of supporting the following forces
  - X – Side Wall, Tension – 1800 lbs.
  - Y – Side Wall, Compression – 1800 lbs.
  - Z – Side Wall, Shear – 1800 lbs.



**Vehicle body must be capable of supporting forces of liftgate.**



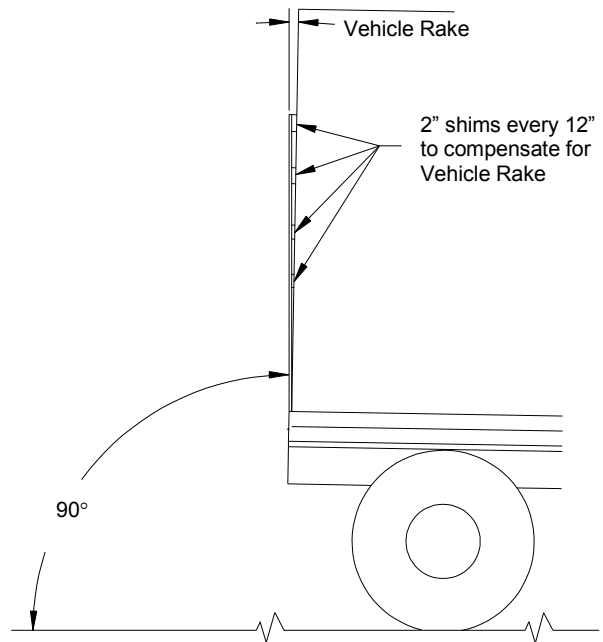
GR00516



# Chapter 4 Liftgate Installation

## PREPARATION OF VEHICLE

If corner posts are not 90° to the ground shims will have to be added as shown to compensate for vehicle rake.

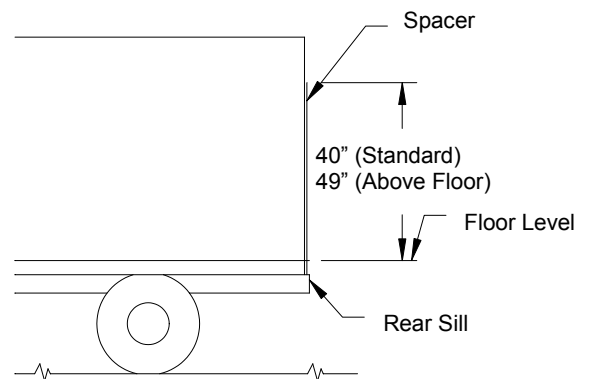


GR00517

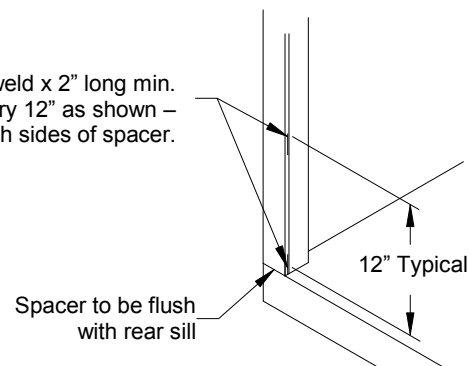
Remove all obstructions that would interfere with operation of liftgate such as dock bumpers, trailer hitches, projections, etc.

Locate and mark center of body sill.

Spacers must be added if corner posts are not flush with rear sill.



1/4" weld x 2" long min. every 12" as shown – both sides of spacer.

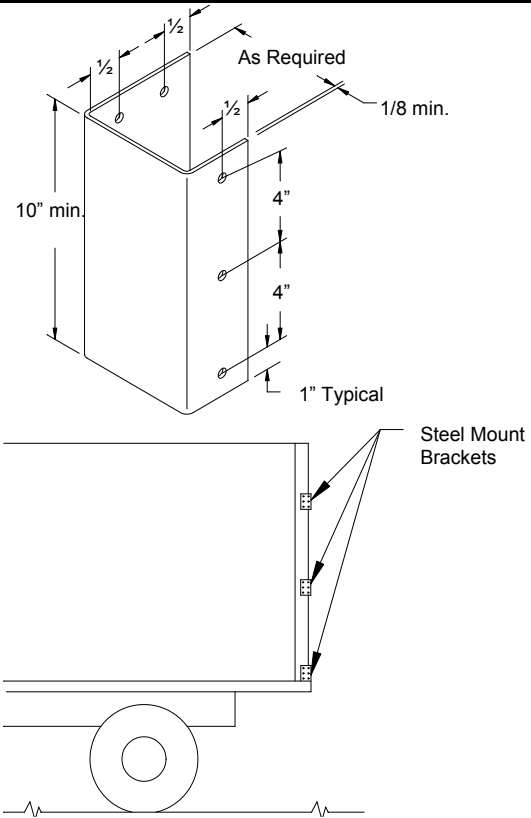


GR00518

# Chapter 4 Liftgate Installation

If vehicle has aluminum corner posts, six steel mounting brackets will have to be fabricated and installed on corner posts.

Attach mounting brackets to corner posts using  $\frac{1}{4}$ " or larger fasteners.

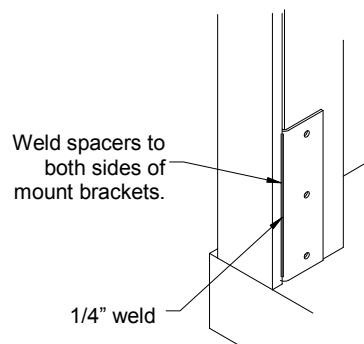
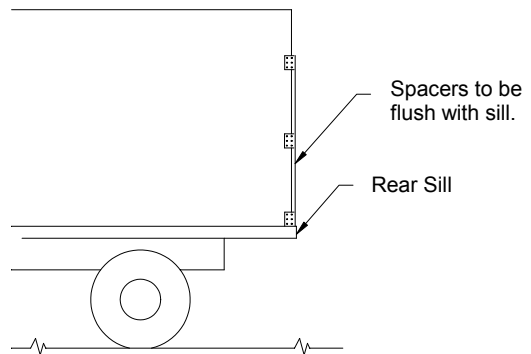


GR00519

Check that mounting brackets are flush with rear sill.

Add spacer to mount brackets as necessary.

Build out sill as necessary.



GR00520

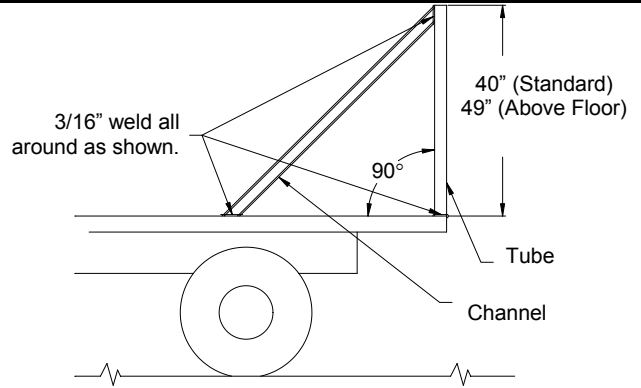
# Chapter 4 Liftgate Installation

## PREPARATION OF FLAT BED

Fabricate and install support tubes and braces as shown or equivalent.

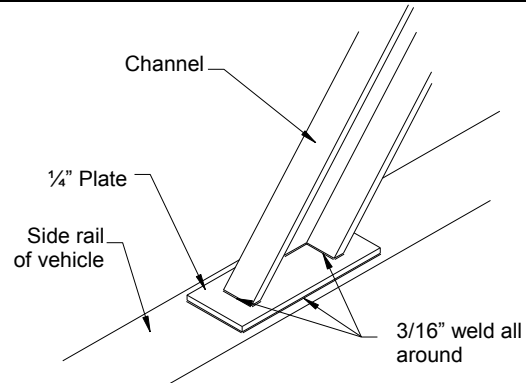
Support – 3" x 3" x 3/16" square tubing

Brace – 3" x 4.1 lbs. min channel



GR00522

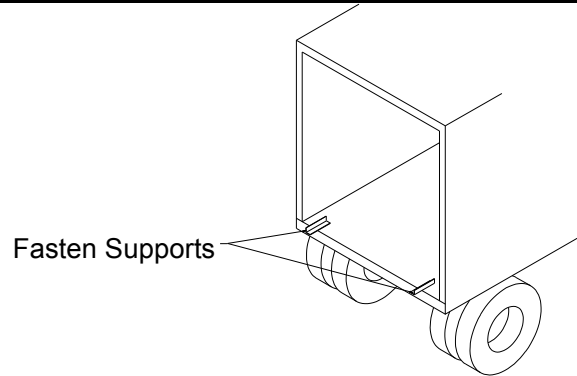
If side rail of vehicle is less than 1/4" thick, bolt or weld a 1/4" thick plate to side rail first, then weld channel to plate as shown.



GR00523

Cut two mounting supports out of angle or channel at least 7" long.

Fasten supports with tack weld or weight to floor of vehicle as shown.



GR00521

# Chapter 4 Liftgate Installation

## LIFTGATE INSTALLATION

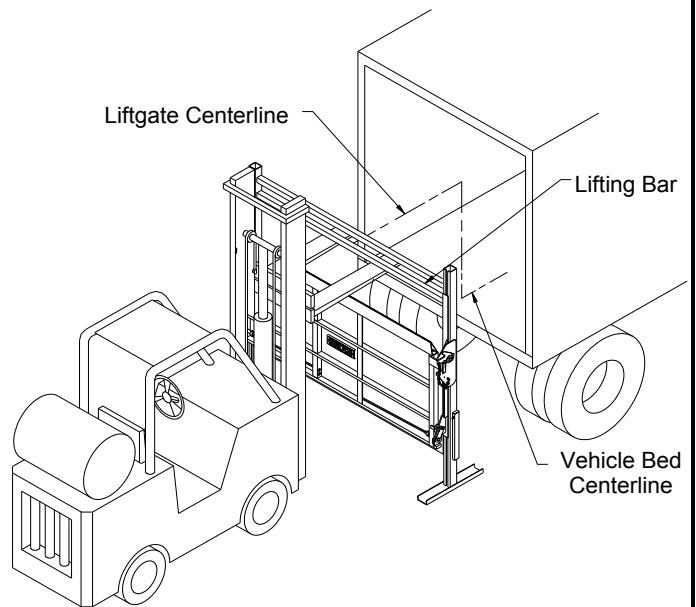
Use forklift or other means to raise liftgate by lifting bar as shown.

Position liftgate at rear of vehicle so the temporary supports rest on crossbeam box and centerline of liftgate is aligned with centerline of vehicle bed.

Stand clear of installation area while positioning liftgate



**Stand clear of installation area while positioning liftgate.**



GR00524

Clamp liftgate to vehicle as shown.  
Do not over tighten.

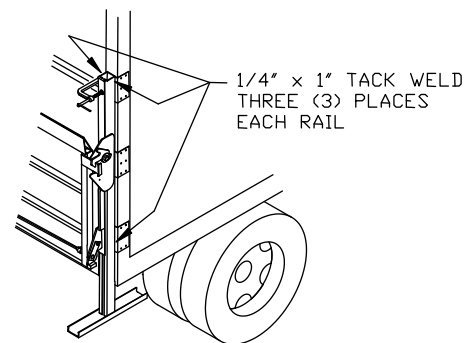
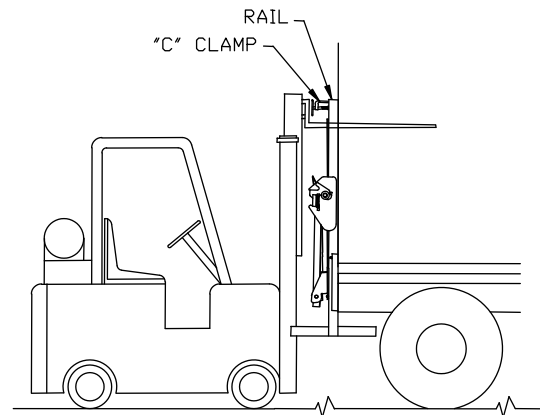
Tack-weld rails to vehicle corner-posts or mount brackets as shown.

### NOTE:

**Liftgate is only tack welded, additional welding will be required as instructed before installation is completed.**



**Do not load platform before installation is completed.**

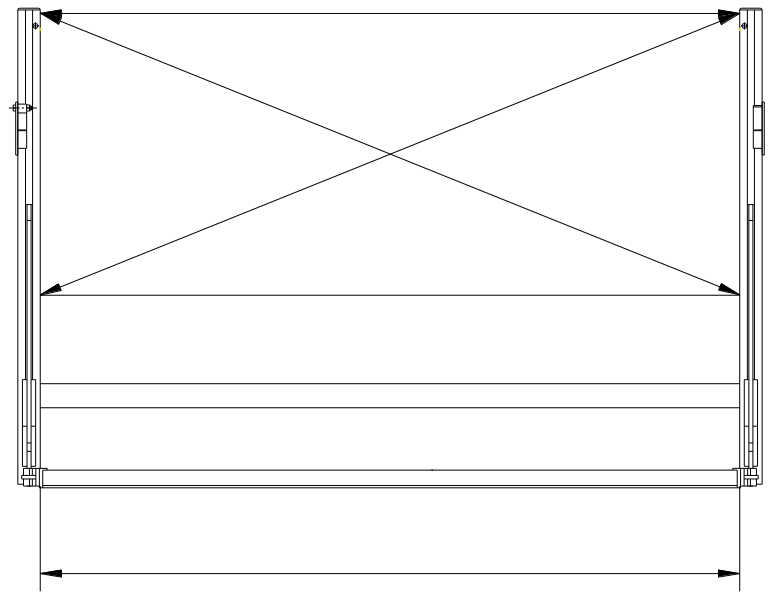


GR02846

# Chapter 4 Liftgate Installation

Check that the top of the liftgate housing is level with the rear sill of the truck. Check the tracks for squareness using a square.

Double check tracks for squareness using the diagonal measurements as shown. This is essential to ensure the smooth operation of the lift.



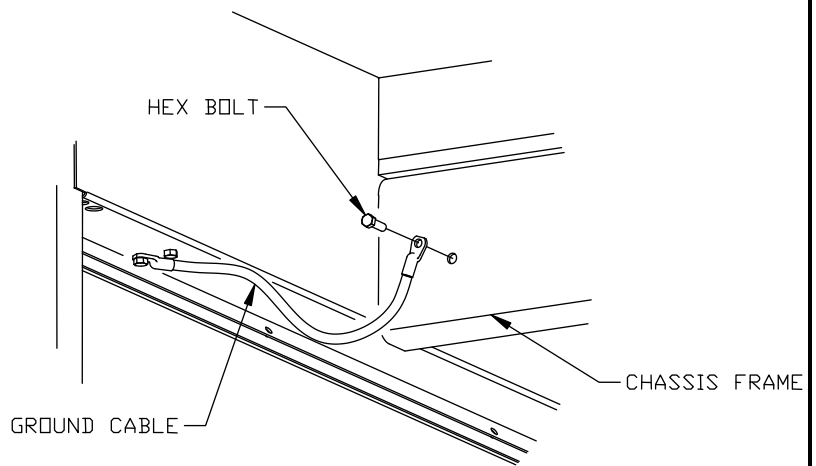
## INSTALLATION OF GROUND CABLE

Route ground cable, located under the crossbeam box of liftgate, to the vehicle chassis frame.

Drill 7/16" hole in chassis frame to attach ground cable.

**IMPORTANT:**  
**Grind area around hole to insure good electrical ground.**

Bolt cable in place with 3/8" bolt and nut provided.



Under side view of vehicle body.

GR02856

# Chapter 4 Liftgate Installation

## INSTALLATION OF POWER CABLE

Locate and mount 150 Amp circuit breaker directly to batteries using copper terminal link supplied.

Circuit breaker must be mounted to give good protection against any objects coming into contact with circuit breaker terminals and causing a short.

Position must also be readily accessible to reset breaker.

### NOTE:

**Circuit Breaker is to rest solidly on battery to prevent vibration during transit.**

If unable to connect circuit breaker direct to batteries, an optional 24", maximum length, 2 Ga. battery cable may be used.

Connect end of battery cable from liftgate to Terminal Link attached to circuit breaker.



**By connecting battery cable from liftgate to battery(s), the liftgate controls become operational.**

Apply a generous amount of Dielectric Grease to all Battery terminals and Circuit Breaker terminals.

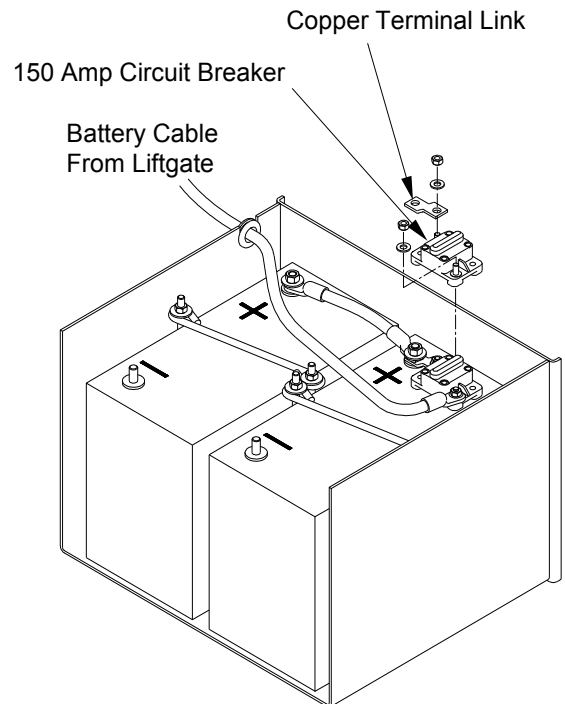
Secure all battery cables to chassis frame with cable ties provided.



**Protect wires from any sharp edges or holes that may abrade insulated covering of wires.**



**Secure battery cable so it does not come near, or in contact with, other vehicle wiring, fuel lines, brake lines, air hoses, exhaust system, etc.**



## IMPORTANT

Original equipment ground cable furnished on vehicle should be at least a number 2 ga. to insure proper operation of pump unit. An auxiliary ground cable should be added between engine block and chassis frame if engine is not adequately grounded to chassis frame. When there are two or more batteries, all cables connecting batteries together must be 2 ga. or heavier. This includes all original equipment batteries on vehicle.

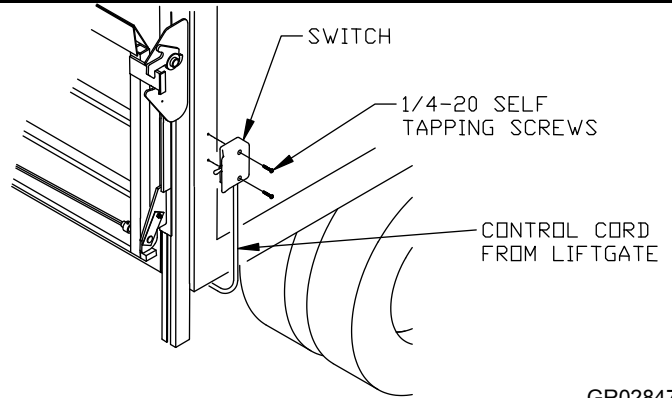
GR00080

# Chapter 4 Liftgate Installation

Install control switch to side of vehicle body.

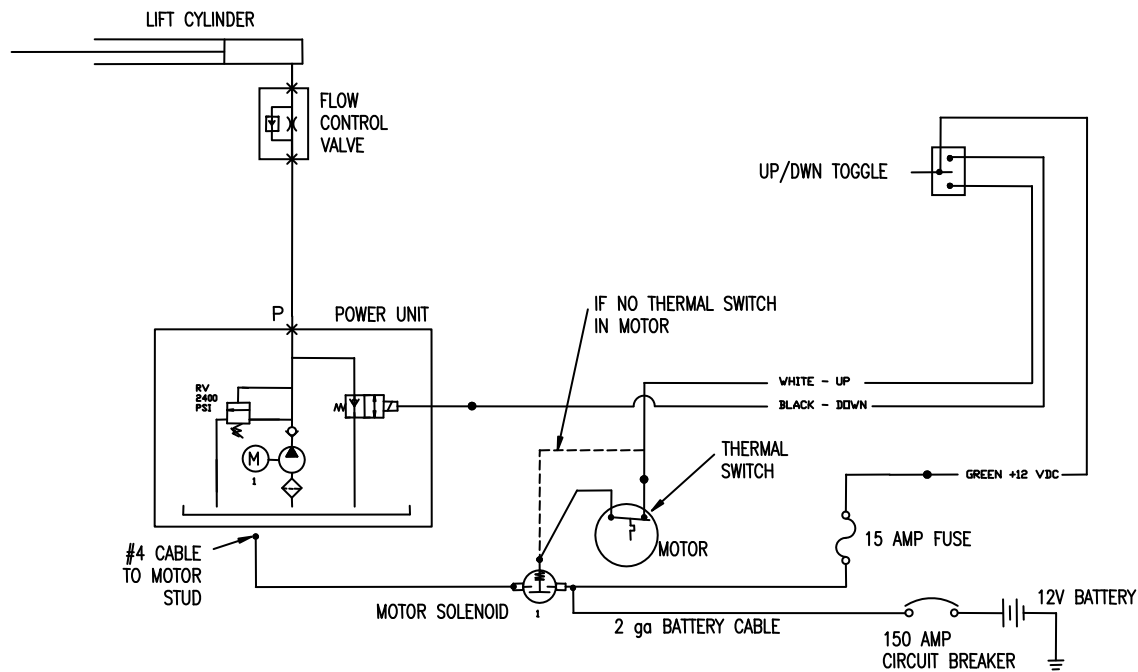
Use switch as template, drill two 7/32" dia. holes.

Use 1/4-20 self tapping screws provided.



GR02847

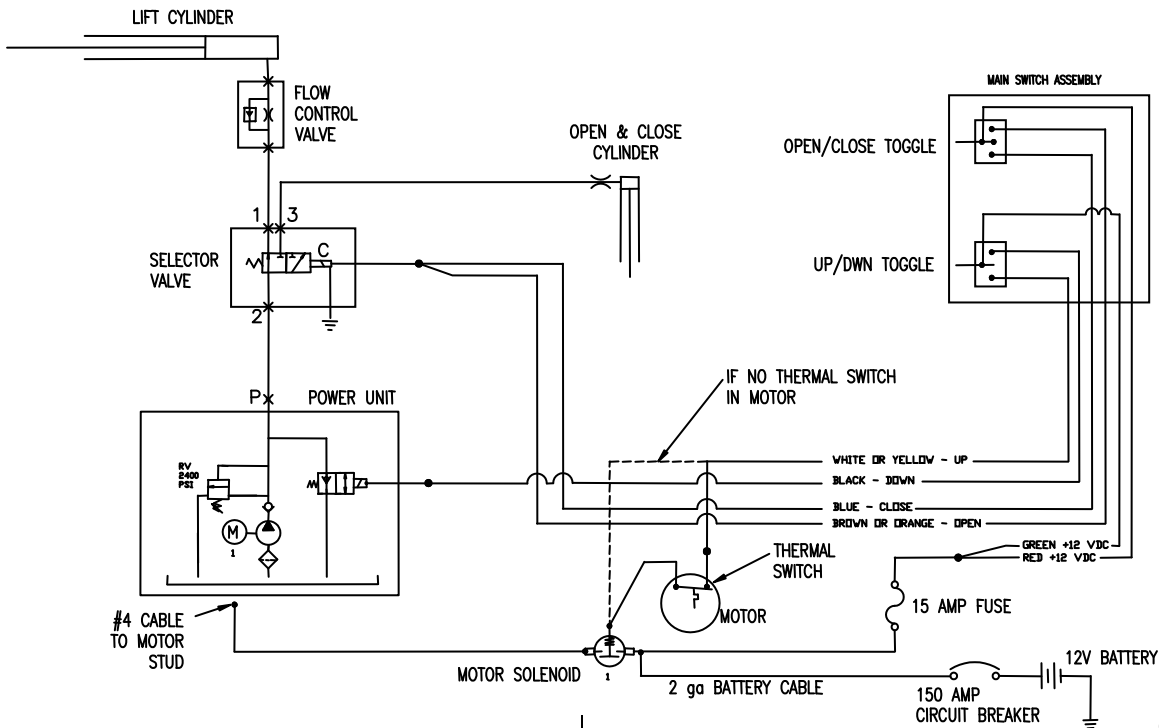
## ELECTRIC / HYDRAULIC SCHEMATIC STANDARD



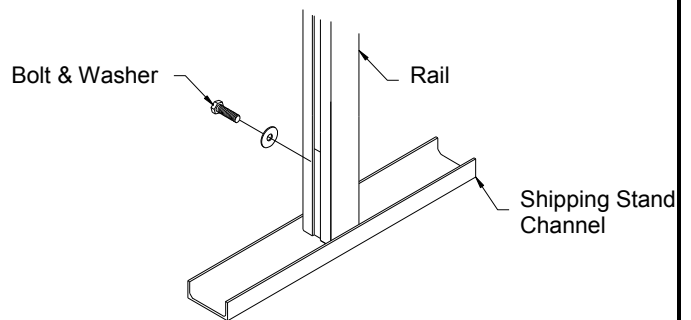
GR02952A

# Chapter 4 Liftgate Installation

## ELECTRIC / HYDRAULIC SCHEMATIC Power Close



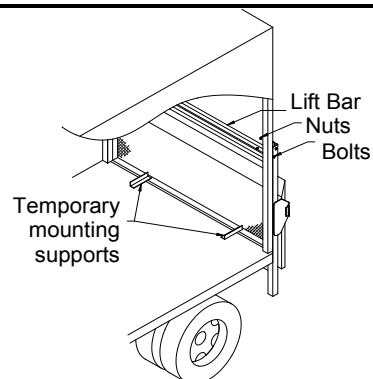
Remove shipping stands.



GR00529

Remove temporary mount supports.

Remove lifting bar.



GR00530



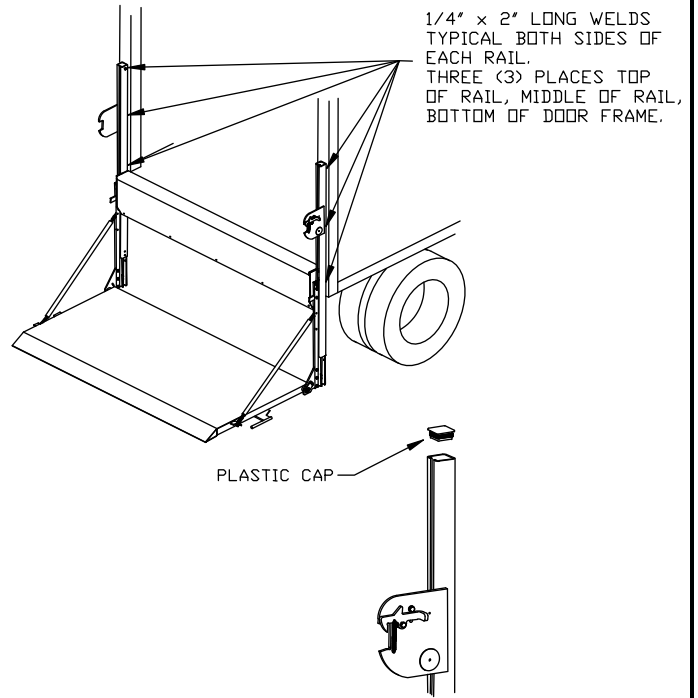
# Chapter 4 Liftgate Installation

Open and lower platform to ground.  
See Owner's Manual for operating instructions.

After verifying liftgate position, and that tracks are parallel and square, weld tracks to corner posts, or steel brackets if used.

**NOTE:**  
**Be aware of plastic slide bearing inside tracks. Too much heat can damage bearings.**  
**Weld with platform lowered to ground to lessen chance of damage.**

After welds cool, install plastic caps in top of tracks (non-above floor units only).

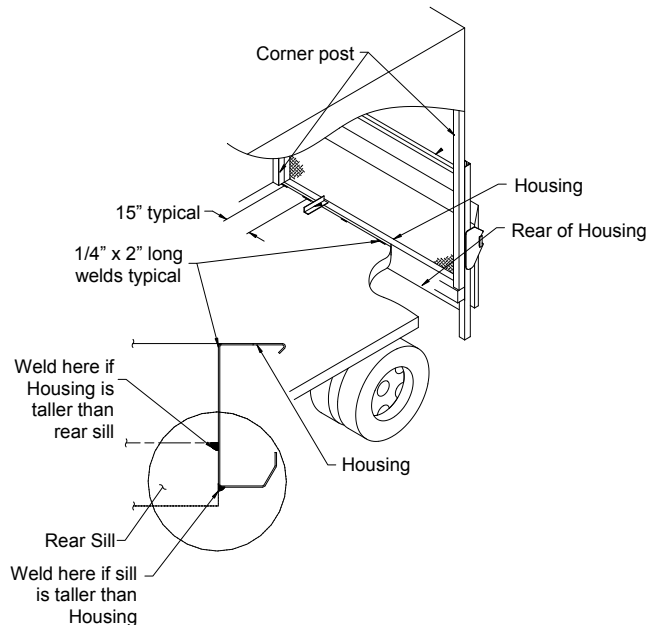


GR02848

Go to next step if sill is not steel.

Weld liftgate housing to vehicle with 1/8" welds as shown.

Weld bottom of housing (crossbeam box) to rear sill as shown.



GR00527

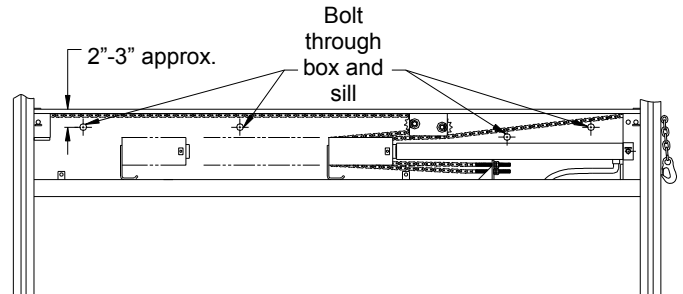
# Chapter 4 Liftgate Installation

Skip this step if sill is steel.

Remove housing cover before performing this step.

Drill four 3/8" diameter holes through crossbeam box assembly and rear sill approximately as shown. Assure bolt heads will not interfere with function of liftgate. Install four 3/8" bolts evenly spaced, 2"-3" below top of crossbeam box.

Remove any metal shavings after drilling, and reinstall cover.



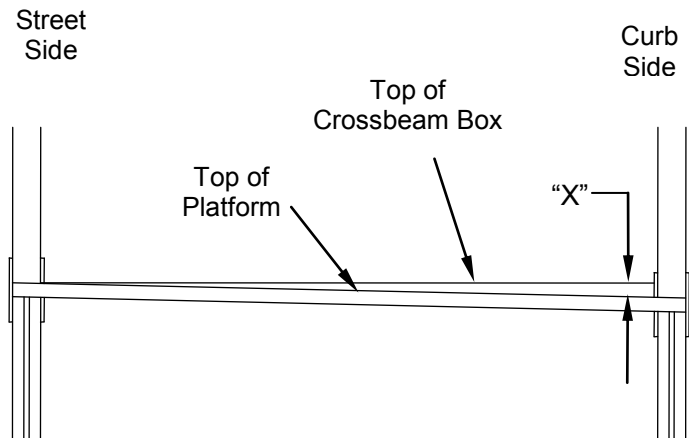
GR00528

## PLATFORM ADJUSTMENT

Unfold and raise platform to bed level and check for:

1. If platform travels more than 1/4" above the top of the crossbeam box, and liftgate is not an Above Floor model liftgate, see below for adjustment.
2. If platform is uneven see below for adjustment.

Lower platform to ground. Remove housing cover from crossbeam box.



# Chapter 4 Liftgate Installation

If liftgate is Above Floor model:

- Adjust as required to level platform.

If liftgate is not an Above Floor model:

- Adjust platform so it is level with top of crossbeam box.



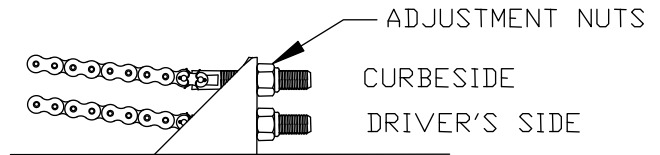
**For non-Above Floor liftgates, never adjust platform to travel more than 1/4" above the crossbeam box.**



**Never adjust nut out less than 3/8" from end of anchor bolt.**

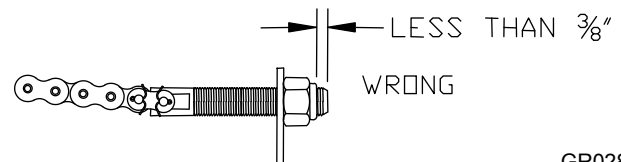
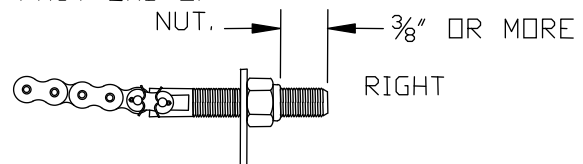


**Never have any part of your body underneath the platform while making adjustments.**



LOWER ← → RAISE  
ANCHOR DIRECTION

3/8" MINIMUM OF  
THREADED ROD  
MUST EXTEND  
PAST END OF



GR02871

## ABOVE FLOOR TRAVEL

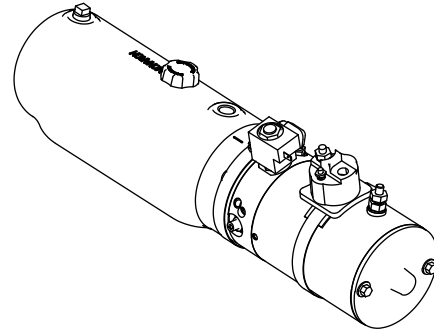
If above floor travel is to be reduced, additional links will need to be added to the lifting chains.

If additional above floor travel is desired, contact Waltco for assistance. Ability to increase travel varies with each specific model of liftgate and bed height of vehicle.

# Chapter 4 Liftgate Installation

## FILLING HYDRAULIC RESERVOIR

- Lower platform to ground and remove access cover.
- Remove breather & fill reservoir with hydraulic fluid until 1/2" from top.
- Cycle liftgate several times to release trapped air from system.



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### Recommended Fluids

Temperature Range	Acceptable Fluids
0° to 120° F	Waltco Biodegradable Liftlube™ part #85803860
	Shell Tellus S2 V 32
	Chevron Rando HDZ 32
-20° to 90° F	Waltco Biodegradable LiftLube Arctic part #85803866
	Waltco All Season Hyd Oil Part 85803867
	Shell Tellus S2 V 15
	Mobil DTE 10 Excell 15

A good quality SAE 10W motor oil may also be used in temperatures above 32° F.

### Fill reservoir

- Fill with recommended fluid or equivalent.
- Fill the reservoir to within 1/2" from the top.
- Fluids are available from the Waltco parts Dept. 1-800-411-5685 [www.waltco.com](http://www.waltco.com)

### NOTE:

**Do not use the following fluids:**

**Brake Fluid**

**Power steering fluid**

**Automatic Transmission Fluid (ATF)**

Rev 06

# Chapter 4 Liftgate Installation

## INCREASING DEPARTURE ANGLE

It may be necessary to increase departure angle if vehicle has a low bed height and / or a long overhang.

Secure platform in stored position.

Make certain vehicle is empty.

Note: Vehicles with air ride suspension must have air bags fully inflated before measuring and trimming tracks.

Trim tracks to dimension in table.

MODEL	MAX. TRIM
MDL12 & SB	15"
All other models	20"

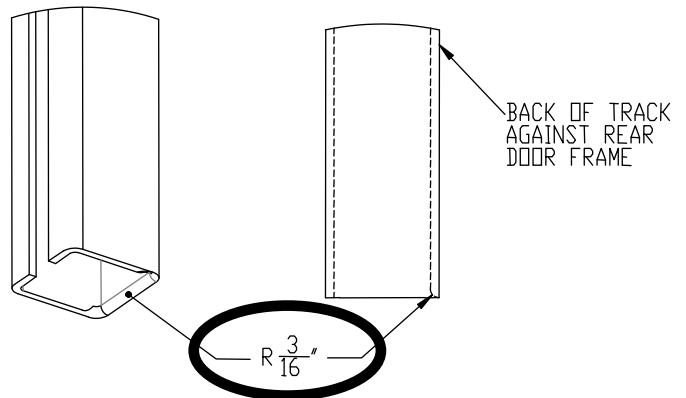
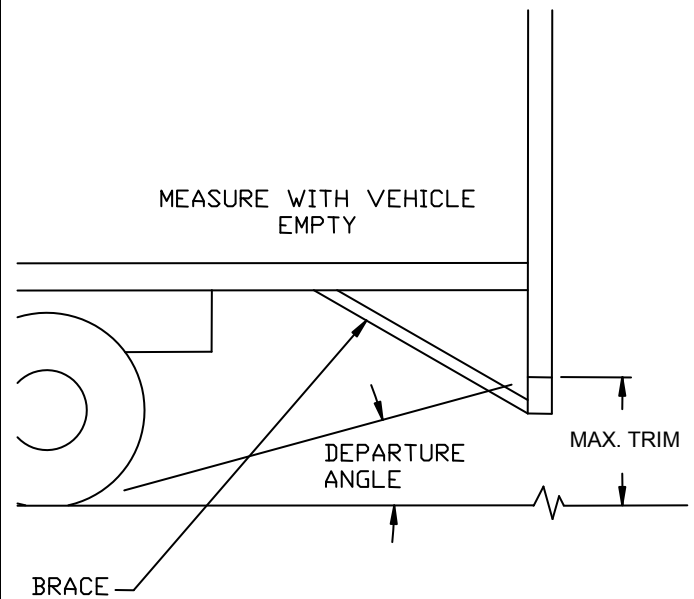
## IMPORTANT

**DO NOT LOWER PLATFORM UNTIL BOTTOM OF TRACK IS GROUND AS INDICATED.**

**Grind inside and outside edges of track smooth after cutting.**

**Round back edge of track, where rear slide bearing contacts, to 3/16" radius.**

Note: If tracks are not trimmed, brace as shown.



GR02851 / GR02852

# Chapter 5 Placement of Decals



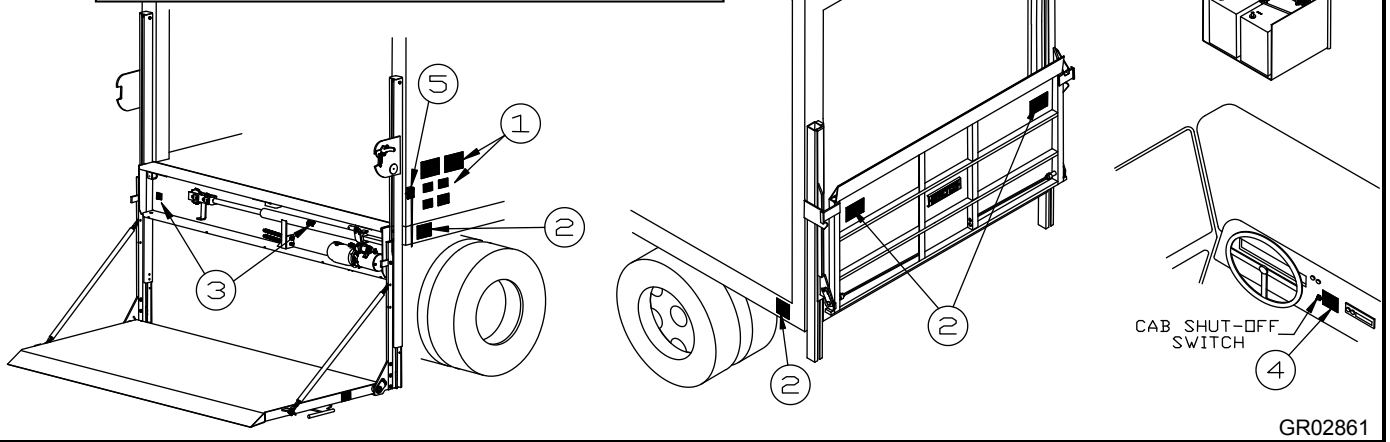
All decals must be in place and legible or all warranties are void.

ITEM	DECAL	QTY	PART NO.	LOCATION
1	Safety Instructions	1	80100850	Locate in a conspicuous place near controls.
	Operation Decals (see Owner's Manual for details)			
	Snap Lock / Manual	1	80101575	
	Drop-In / Manual		80101577	
	Drop-In / Power Close		80101536	
	Power Up Storage / Manual		80101639	
	Power Up Storage / Power Close		80101638	
	Drop-In with Cam / Manual		80101640	
	Hazard Decal		1	
	Important Decal	1	80100828	
	1250 # Capacity Decal	2	80100266	
1600 # Capacity Decal	80100252			
2000 # Capacity Decal	80100253			
3000 # Capacity Decal	80100257			
2	Caution Decal	4	75089296	Locate one in a conspicuous place near controls. Locate one in a conspicuous place on driver side of vehicle.
3	Protective Cover Decal	2	75089282	Locate one on hydraulic cylinder. Locate on back of crossbeam box.
4	Cab Shut Off Decal (Optional)	1	75089267	Locate next to cab shut-off switch inside vehicle.
5	Switch Decal	1	80101532	Locate on switch housing (single toggle switch)
			80101533	Locate on switch housing (2 toggle switch)
6	Warning Decal	1	80100829	Locate next to liftgate circuit breaker. In applications where more than one circuit breaker is used, decal must be placed in both locations.
<b>If your liftgate is equipped with dual controls, an additional Safety Instruction decal (80100850) is to be placed in a conspicuous place near the second set of controls.</b>				

# Chapter 5 Placement of Decals

To maximize decal adhesion to surfaces:

- Surface must be dry and clean
- Firm pressure must be applied to decal
- Minimum surface temperature 65°  
Heat gun may be used to heat surface



GR02861

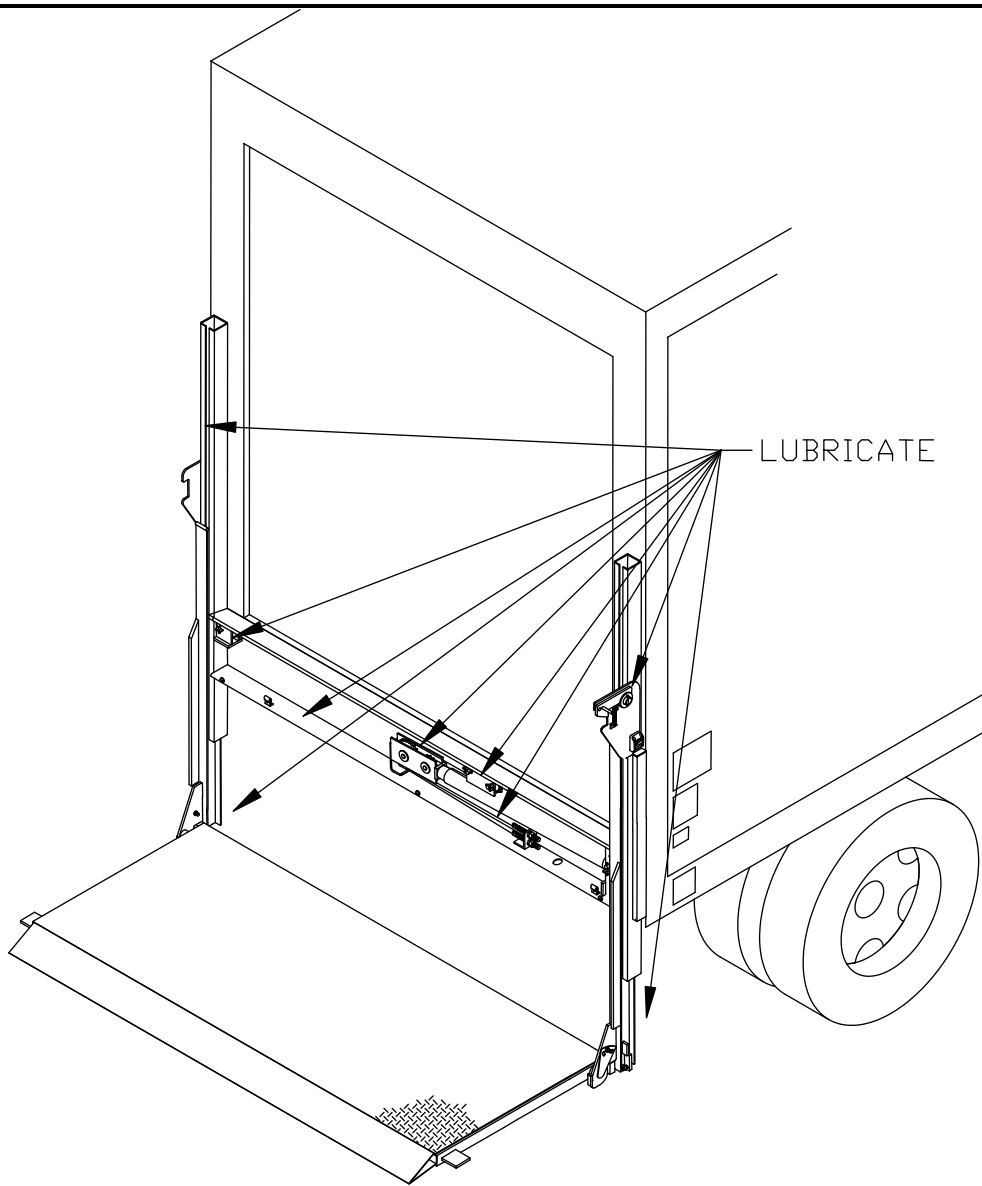
# Chapter 6 Lubrication Instructions

- Lubricate lifting chains including sections in crossbeam box, rails, & runner assemblies with machine oil or motor oil.
- Lubricate latch, inside rails, crossbeam box, and platform hinges with machine oil or motor oil.
- Lubricate driver and passenger side tracks.

Suggested Minimum Lubrication Schedule (in days)

Monthly Cycles	Light Duty	Medium Duty	Heavy Duty
< 250	45	30	21
250 – 350	30	21	14
350 – 450	21	14	7
> 450	Contact Factory		

- Lubricate every 30 days if cycles are unknown.



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# Chapter 7 Final Inspection List

## IMPORTANT

**All of the following are to be checked and verified before installation is complete.**

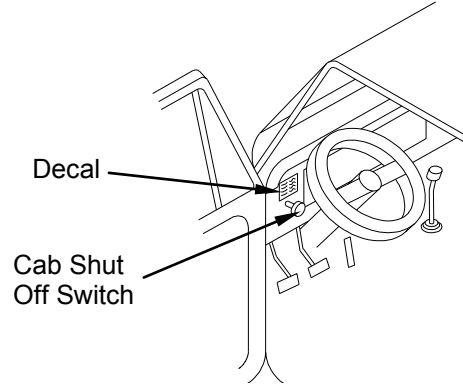
- 1. Vehicle side walls are strong enough to support lifting forces.
- 2. Platform is level with vehicle bed and ground.
- 3. All welds are done properly.
- 4. Check Crossbeam Box for proper welds above and below rear sill if welded.
- 5. Check fasteners if Crossbeam Box is bolted to rear sill.
- 6. Tracks (Rails) properly trimmed, and back edge ground smooth.
- 7. All fasteners are tight.
- 8. Controls operate properly.
- 9. Cab Shut-Off switch (optional) properly installed and working.
- 10. Pump Reservoir filled to proper level.
- 11. All phases of liftgate operation work properly
- 12. Platform adjusted properly and chain-anchor lock nuts tight.
- 13. All sprockets and chain mesh properly and all fasteners properly installed.
- 14. All doors and covers properly in place and secure.
- 15. All decals are in place and legible.
- 16. Lights installed and properly operating. Reflectors re-installed if necessary.
- 17. Vehicle meets all state and federal standards.
- 18. Owner's manual in vehicle.
- 19. Liftgate has been operated through its entire cycle several times and checked for smooth and even operation throughout entire operating cycle with no unusual noise or vibration.



**Do not use liftgate if any of the above are not checked and verified. If you have any questions not covered in this manual, contact your nearest Waltco distributor, or the nearest Waltco factory.**

# Installation of Cab Shut Off Switch

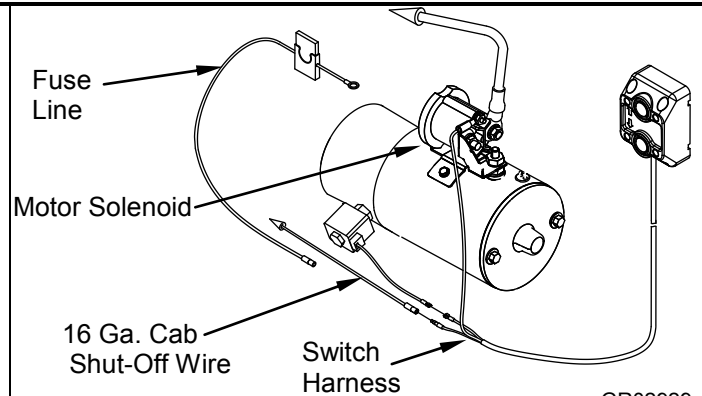
Install cab shut off switch and shut off switch decal in convenient location in vehicle cab.



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Remove fuse line from motor solenoid. Unplug fuse line from switch harness and save for later installation.

Plug green 16 ga. x 40 ft. cab shut-off wire into switch harness.



GR02929

Run green 16 ga. x 40 ft. cab shut-off wire to cab shut-off switch.

Cut off excess wire and connect to cab shut off switch with supplied #10 ring terminal.

Re-using the fuse line, plug into excess 16 ga. wire.

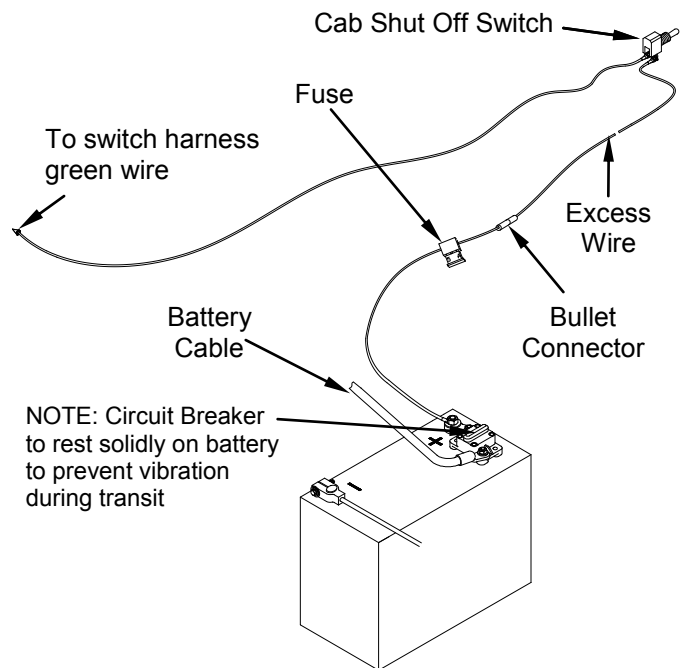
Run excess 16 ga. wire from vehicle battery to cab shut off switch. Fuse end to be toward battery.

**Note: Do not connect to battery at this time.**

Connect 16 ga. wire to cab shut off switch with supplied #10 ring terminal.

Connect fuse line to battery with attached 3/8" ring terminal.

**Important: Heat shrink all connectors.**



GR00716



## Dual Control Switch and Remote, Installation Instructions

### Locating and Mounting Permanent Switch

Locate a position for Switch such that operator has a clear view of entire Platform area and will not be in the area that liftgate passes through.

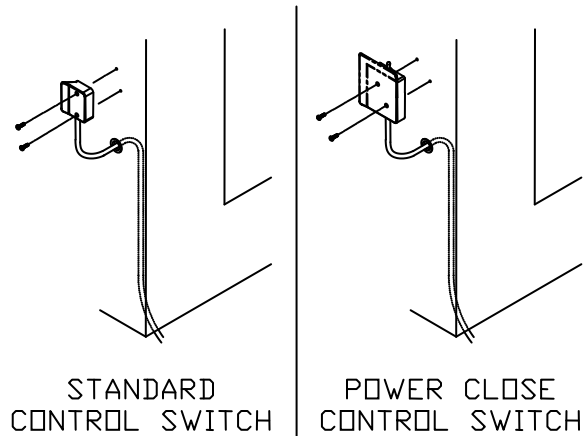
**IMPORTANT**

**Verify that Control Cord is long enough to reach pump unit before advancing to the next step.**

Using Switch as Mounting Template, drill two 7/32" dia. holes.

If Control Cord will be run through a hole in the side of the truck, remove all sharp edges from center hole and insert a grommet.

Mount Switch with 1/4" Self-tapping screws provided.



GR02812

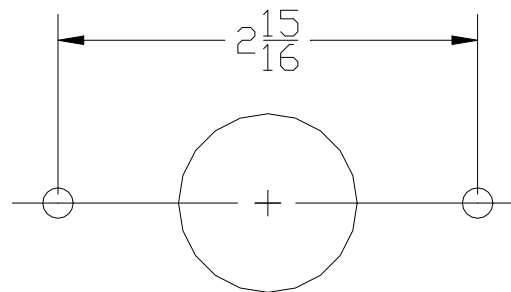
### Mounting Socket for Hand Held Switch

Locate a position for Socket such that operator has a clear view of entire Platform area and will not be in the area that liftgate passes through.

Using dimension shown, drill mounting holes in desired location for socket.

**IMPORTANT**

**Verify that Control Cord is long enough to reach pump unit before advancing to the next step.**



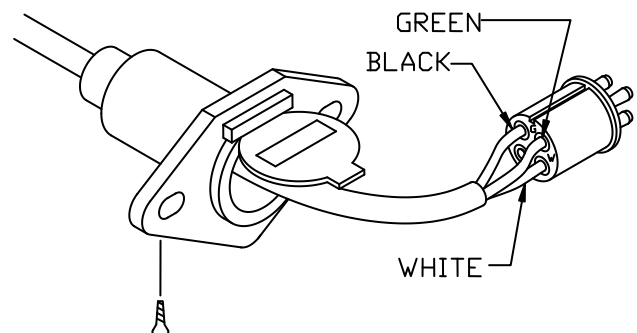
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### Assembly and Install Socket

Assemble socket as shown.

Install wires according to colors:

- W = White (Raise)
- B or BK = Black (Lower)
- G = Green (Power)



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## Connect Wiring

Route cord from Dual Control Switch into pump enclosure.

Disconnect existing switch wires from pump.

Connect one end of Adapter Harness 10098413 (w/3 connectors to pump unit and power wire from battery).

Connect other end of adapter harness (w/6 connectors) to the two switches.

For Power Close units, also install Adapter Harness 10098429 to Selector Valve on cylinder, and to Open/Close switches.

Bundle wires inside crossbeam box with small zip ties provided to insure wires do not come into contact with roller chain or other moving mechanisms.

Secure switch cord with large zip ties.

### NOTE:

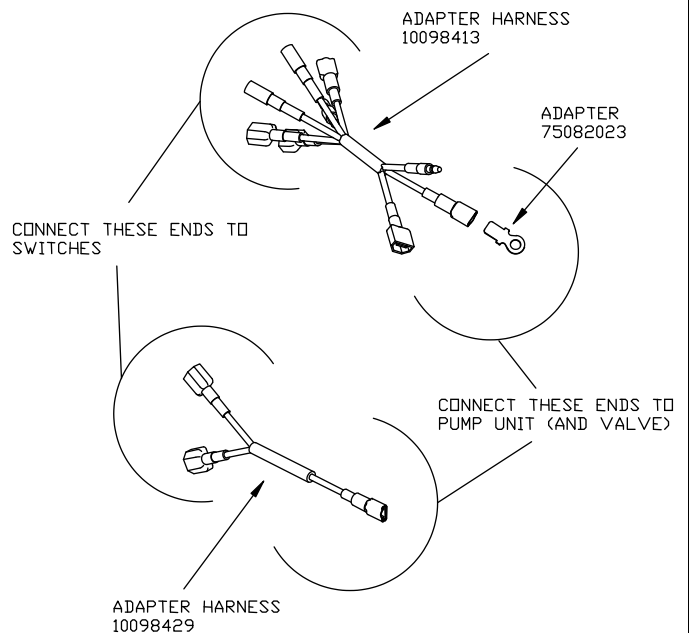
Match wire connections male to female.

Color of wire may vary.

Also refer to numbers stamped on wires of adapter.

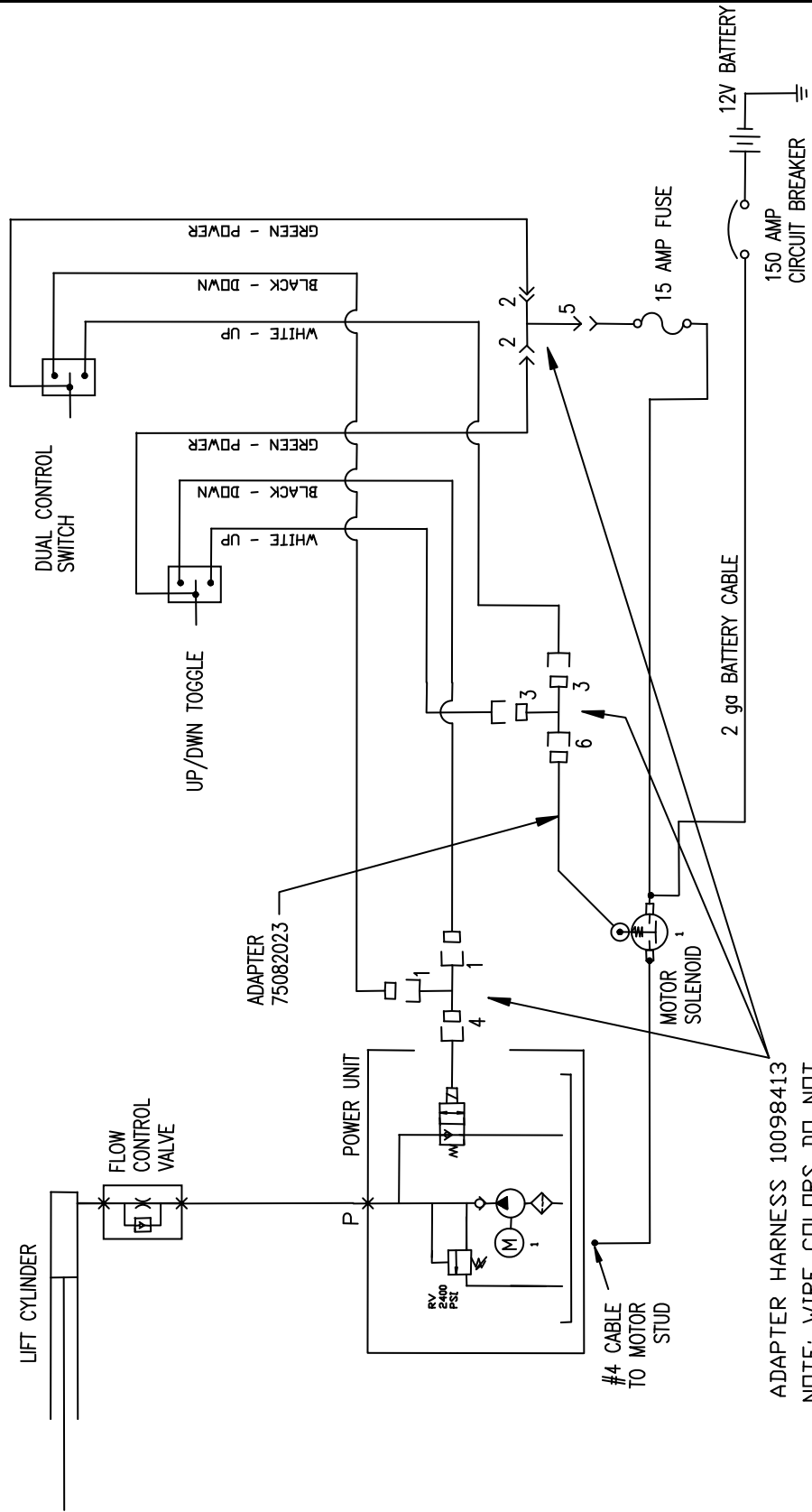


**Protect wires from any sharp edges or holes that may abrade insulated covering of wires.**



GR02931

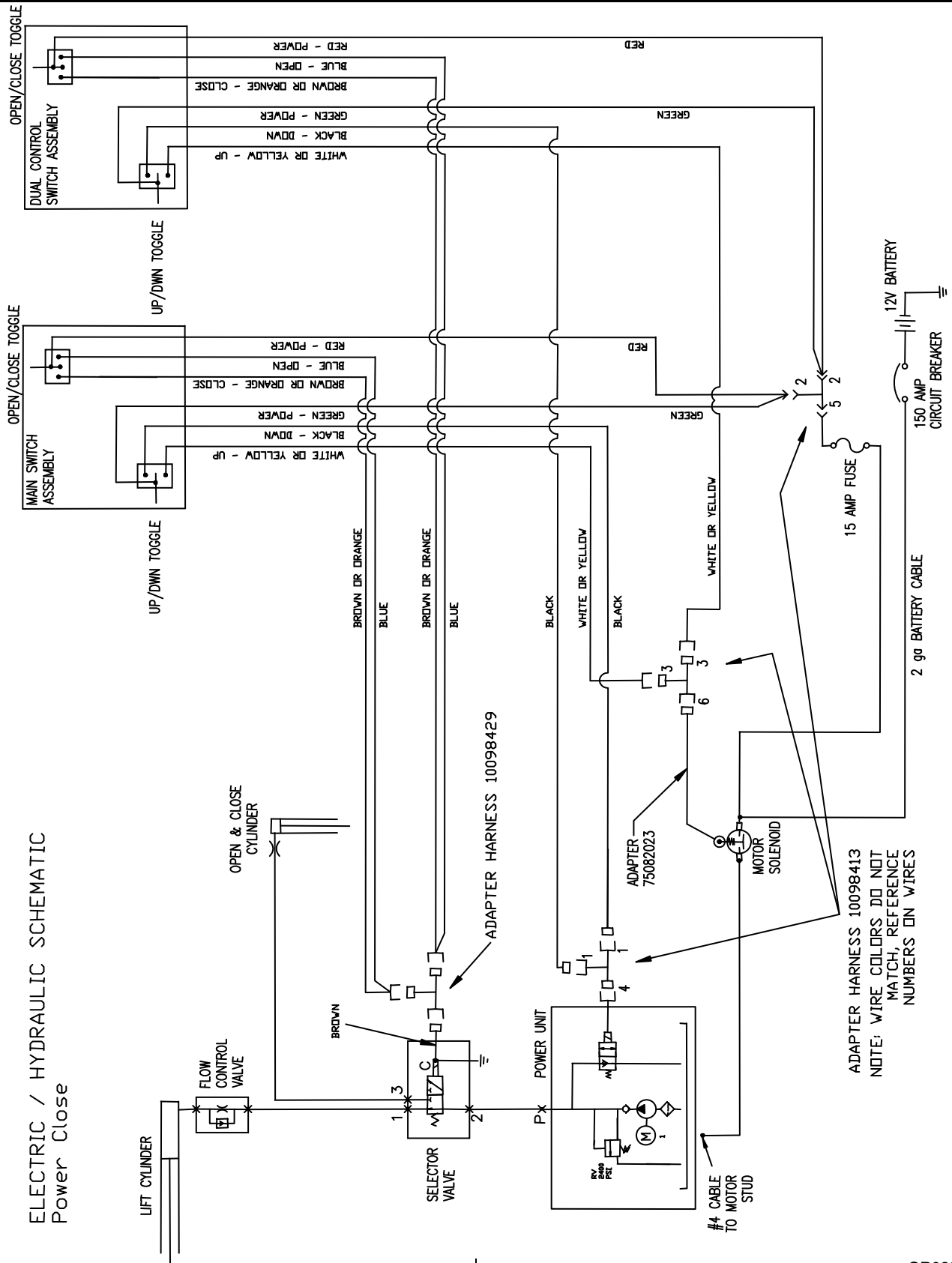
# ELECTRIC / HYDRAULIC SCHEMATIC STANDARD



ADAPTER HARNESS 10098413  
 NOTE: WIRE COLORS DO NOT  
 MATCH, REFERENCE  
 NUMBERS ON WIRES

# ELECTRIC / HYDRAULIC SCHEMATIC

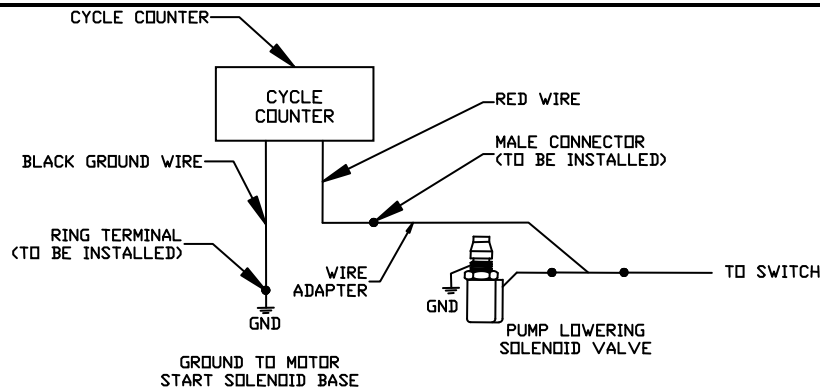
## Power Close



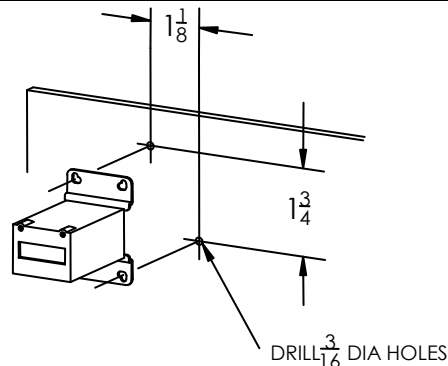
ADAPTER HARNESS 10098413  
 NOTE: WIRE COLORS DO NOT  
 MATCH, REFERENCE  
 NUMBERS ON WIRES

# Cycle Counter Installation Instructions

- **IMPORTANT!** Disconnect battery power supply.
- Review these instructions before beginning. Locate a position on your liftgate for the cycle counter. Be certain that location will not interfere with liftgate operation and is in a relatively protected area. Refer to diagrams shown for suggested locations.
- Make certain wires will reach connections on pump unit.
- See below for hole size and pattern required for mounting counter.
- Locate and drill two mounting holes as shown. Take necessary precautions to prevent metal shavings from contaminating the hydraulic system.
- Mount cycle counter bracket using two #6-32 screws and lock nuts.
- Install ring terminal to ground wire (black) from cycle counter. Use appropriate size ring.
- Install male connector on to red wire from cycle counter.
- Connect ground wire of cycle counter to ground stud or base of start solenoid.
- Connect red wire from cycle counter to wire adapter, and connect other ends of wire Adapter between lowering valve coil and control switch wire.
- Loosely bundle and wire tie slack wires as needed.
- Re-connect battery power supply and operate liftgate to test.



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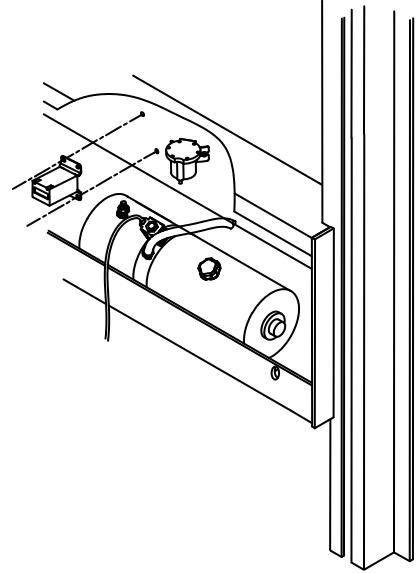
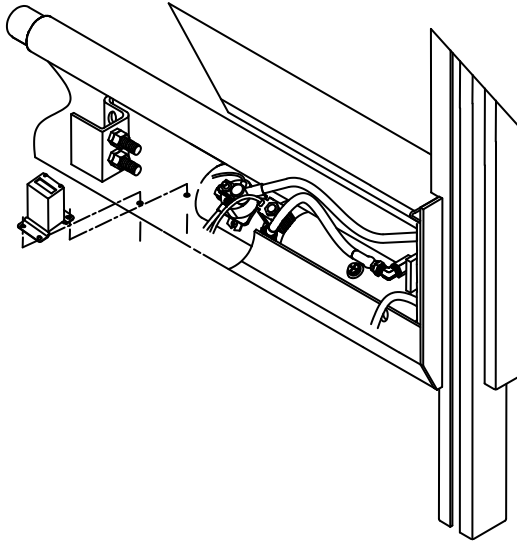
GR02824

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80101564 6/11 Rev 02

# Cycle Counter Installation Instructions

**Models:**  
MDL, DS, DT, PTBG, PTN,  
SB, and ACL



GR02826



# How To Order Parts

**Repairs should be made only by authorized mechanics using WALTCO Replacement parts.**

When ordering repair or replacement parts, please include all the information asked for below. If this information is not available, a complete written description or sketch of the required part will help WALTCO identify and deliver the needed part to you.

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## THE FOLLOWING INFORMATION MUST BE INCLUDED:

1. SERIAL NUMBER - [WALTCO liftgate serial numbers can be found on the Specification Tag attached to the mount frame.]
2. MODEL NUMBER
3. CAPACITY
4. PLATFORM SIZE

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## THEN INCLUDE THE FOLLOWING INFORMATION:

5. PART NUMBERS
6. DESCRIPTION
7. QUANTITY REQUIRED

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## MAIL, E-MAIL OR PHONE YOUR REQUEST TO:

**Waltco Lift Corp**  
285 Northeast Avenue  
Tallmadge, OH 44278  
1-800-411-5685  
FAX: 1-800-411-5684  
E-MAIL: [parts@waltco.com](mailto:parts@waltco.com)

**ALL PARTS ARE F.O.B. FROM THE SHIPPING FACTORY**

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## PLEASE NOTE:

To assure you of continuing and effective quality control, our warranty policy permits replacement of hydraulic cylinders, valves and motor pump units when their factory seals are intact. Parts under warranty will be exchanged promptly after careful inspection of the returned assemblies.

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Every vehicle that has a WALTCO Liftgate must have legible **WARNING AND OPERATION DECALS** clearly posted on the vehicle and an **OWNER'S MANUAL** in the vehicle at all times as a guide for proper operation and maintenance.

Additional **WARNING DECALS**, **OPERATION DECALS** and **OWNER'S MANUALS** can be obtained from **WALTCO LIFT CORP.**

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**NOTE:**

**When ordering, give model  
and serial number of the liftgate.**

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# ***IMPORTANT***

## **WARNING**

**Improper operation and maintenance of this liftgate could result in severe personal injury or death.**

**Read and understand the contents of this manual and all warning and operation decals before operating and/or performing maintenance on this liftgate.**

**For SAFETY information on this liftgate see Chapter 1 of this manual**