



MDR-125,160,200

Visit us at www.waltco.com

Installation Instructions
1250, 1600, & 2000 lb. Capacity, Rail-Gate

ATTENTION

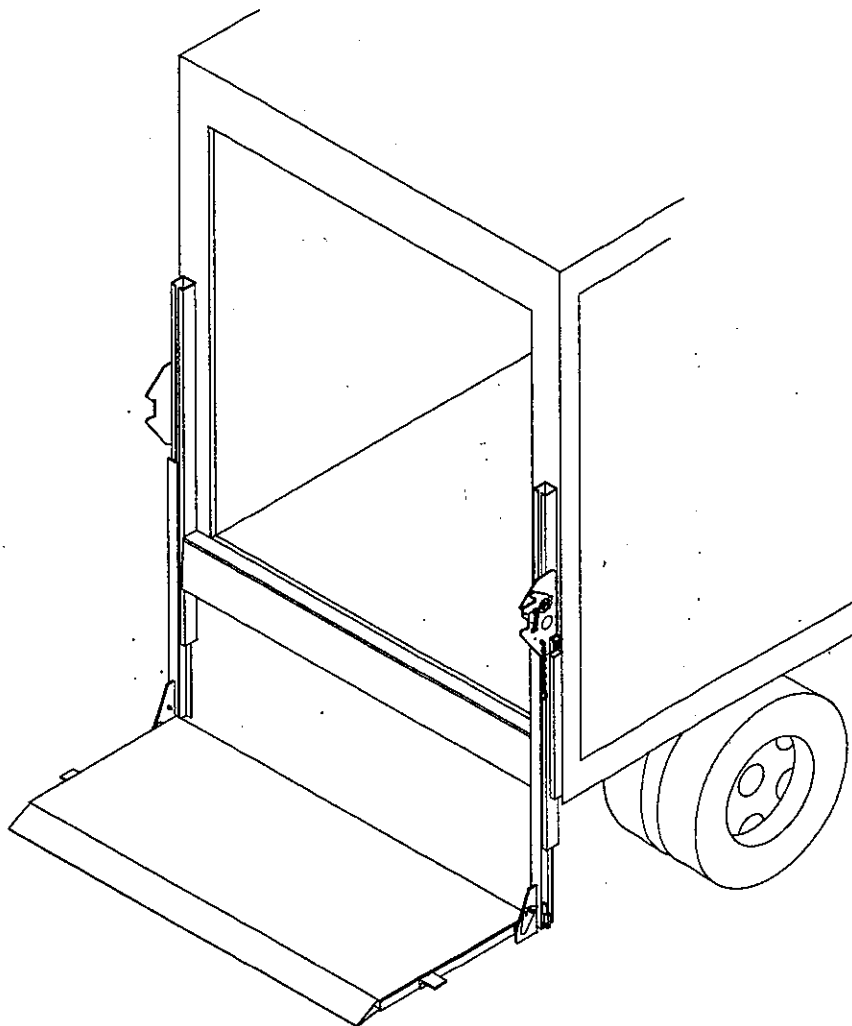
THE SUCCESS OR FAILURE OF THIS EQUIPMENT COULD VERY WELL DEPEND ON THOROUGH AND PROPER INSTALLATION.

READ AND UNDERSTAND THE CONTENTS OF THESE INSTRUCTIONS BEFORE PROCEEDING.

IMPORTANT

WHEN INSTALLED, THIS LIFT MUST NOT ALTER OR PREVENT VEHICLE COMPLIANCE TO ANY EXISTING STATE OR FEDERAL STANDARDS.

EACH CHASSIS MANUFACTURER'S RECOMMENDATIONS SHOULD BE CONSULTED FOR COMPLIANCE.



4-04

GR00514

OHIO

285 Northeast Avenue
Tallmadge, OH 44278
(330) 633-9191
FAX - (330) 633-1418

CALIFORNIA

227 E. Compton Blvd
Gardena CA 90248
(310) 243-6800
FAX - (310) 538-1136

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701 Blackhawk Dr. Unit A
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ATTENTION

INSTALLATION INSTRUCTIONS INTRODUCTION

EVEN THOUGH THE FOLLOWING GOES WITHOUT SAYING, WE FEEL
COMPELLED TO STATE...

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 of 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.

We urge the installer (or anyone else) to call us if they have any questions. We have qualified personnel at both the California and Ohio locations to answer any questions you may have. A detailed discussion on the phone is far more satisfactory than a detailed written explanation.

It has been our experience that a knowledgeable journeyman following these installation instructions and observing the operation of the liftgate will have sufficient comprehension of the liftgate to enable this person to troubleshoot and correct all normal problems that may be encountered. However, again we urge you to call us at the California or Ohio plants if you find the liftgate not operating properly or if you do not know how to make the necessary repair, or have any doubts or questions.

California

227 E. Compton Blvd.
Gardena, CA 90248
(310) 243-6800
FAX - (310) 538-1136

Ohio

285 Northeast Avenue
Tallmadge, OH 44278
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FAX - (330) 633-1411

Chapter 1 Safety Information

The following safety information must be read before operating Waltco liftgates.

- Read and understand the Owner's Manual and all decals on liftgate before operating liftgate.
- Do not operate liftgate without a thorough knowledge and understanding of the operation of the liftgate.
- 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.
- **NEVER OVERLOAD LIFTGATE**
Refer to the Explanation of Specification Tag in the Liftgate Terminology chapter for liftgate capacity rating.
- 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.
- For liftgates with Runners, never use liftgate if Runners do not travel freely and smoothly.
- All protective covers, guards, and safety devices must be in place and access doors closed before operating liftgate.
- Make certain the Platform area, including the area in which loads may fall, is clear before and at all times during the operation of the liftgate.
- Keep hands and feet clear of all pinch points.
- 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.
- A Lock-Out device or Shut-Off Switch should always be used to prevent unauthorized use of liftgate.
- 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.
- Platform is always to be properly stored and secured for transit. See the Owner's Manual for details.
- 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.
- 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.
- 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.

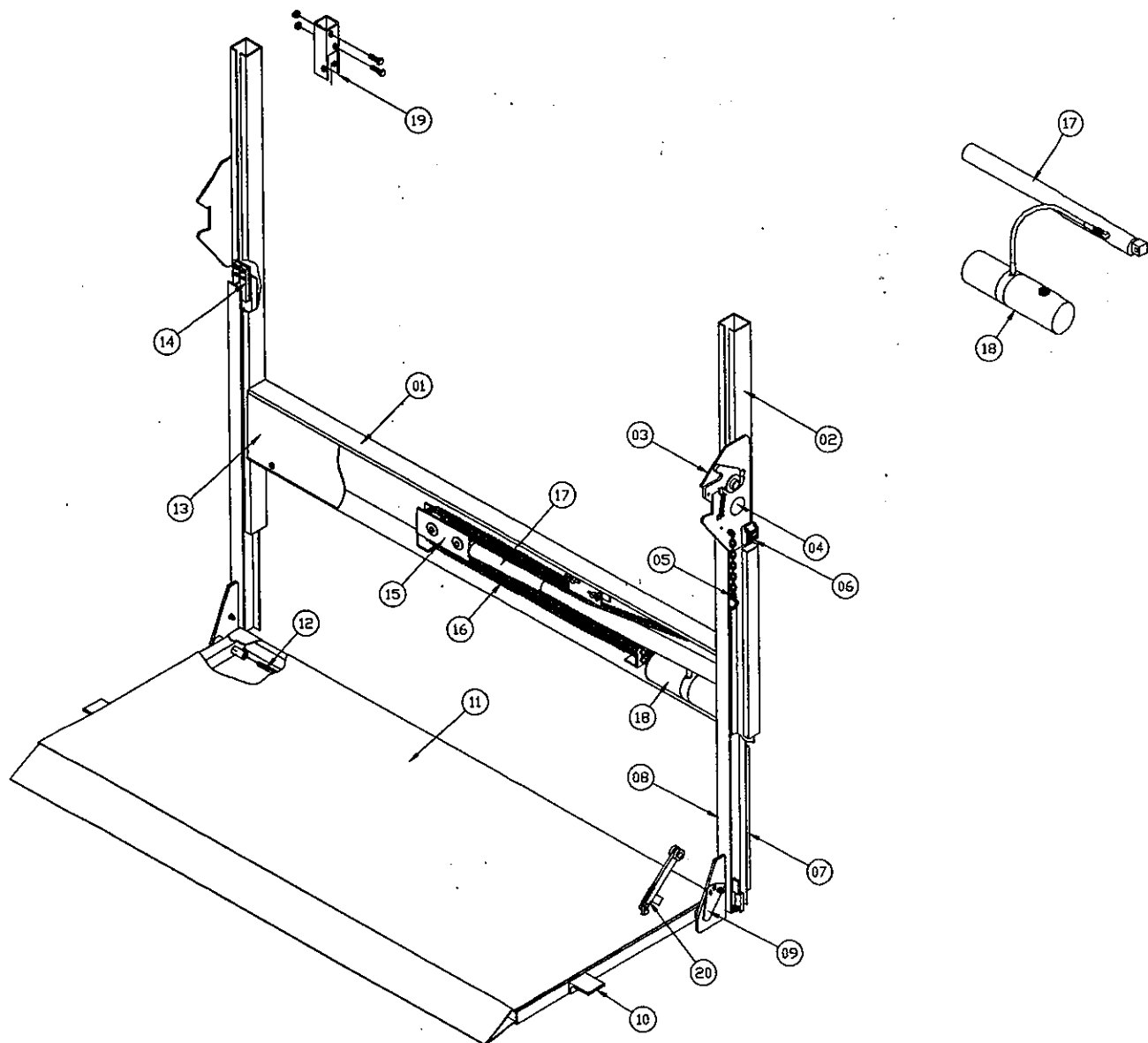
RGL

- Make certain Platform Brake mechanisms are operating properly.
- The Runners are always to remain powered up against the Upstops 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.

Chapter 2 Liftgate Terminology

TERMINOLOGY

- | | |
|---|---|
| <ul style="list-style-type: none">1. Crossbeam Box2. Rail3. Latch Assembly4. Specification Tag5. Latch Chain Assembly6. Super Switch7. Rear Slide Bearing8. Runner Assembly9. Hinge Pin | <ul style="list-style-type: none">10. Platform Retainer Assembly11. Platform Assembly12. Torsion Bar13. Access Cover14. Front Slide Bearing15. Shoe Assembly16. Lifting Chain17. Hydraulic Cylinder18. Pump Unit19. Sprocket Assembly (Above Floor Only)20. Cam Follower (Cam Close Only) |
|---|---|



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Chapter 2 Liftgate Terminology

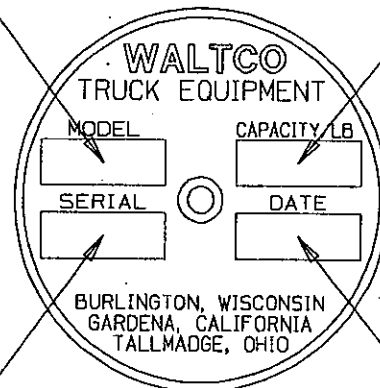
EXPLANATION OF SPECIFICATION TAG

MODEL NO.	MODEL NAME	DESCRIPTION	CAPACITY
390	MDR 125	MEDIUM DUTY RAIL LIFT	1250 LB
391	MDR 125AF	MEDIUM DUTY RAIL LIFT ABOVE FLOOR	1250 LB
395	MDR 160	MEDIUM DUTY RAIL LIFT	1600 LB
396	MDR 160AF	MEDIUM DUTY RAIL LIFT ABOVE FLOOR	1600 LB
390C	MDR 125C	MEDIUM DUTY RAIL LIFT	1250 LB
391C	MDR 125AFC	MEDIUM DUTY RAIL LIFT ABOVE FLOOR	1250 LB
395C	MDR 160C	MEDIUM DUTY RAIL LIFT	1600 LB
396C	MDR 160AFC	MEDIUM DUTY RAIL LIFT ABOVE FLOOR	1600 LB
397	MDRRM 200	MEDIUM DUTY RAIL LIFT	2000 LB
399	MDRRM 200AF	MEDIUM DUTY RAIL LIFT ABOVE FLOOR	2000 LB

MODEL NUMBER

RATED CAPACITY

Based on an evenly distributed load on the platform flat surface.



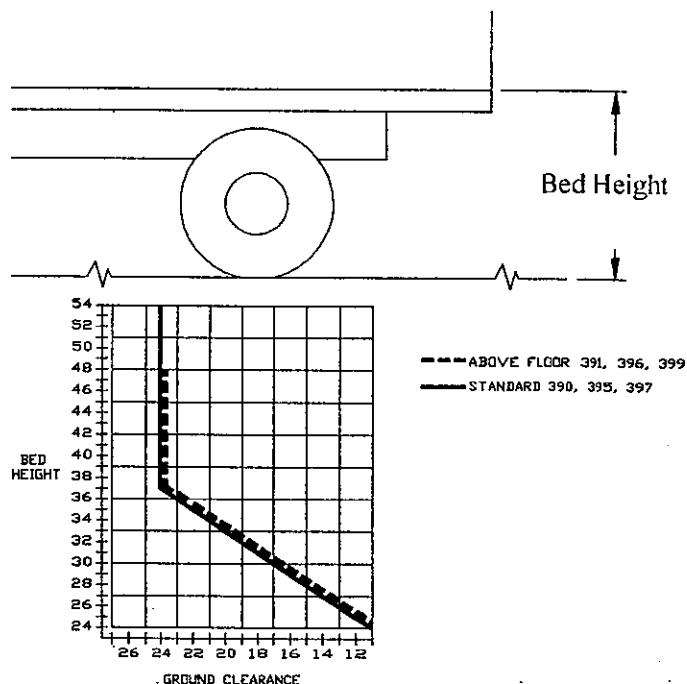
SERIAL NUMBER

of liftgate. To be used when ordering parts or when contacting Waltco for service or warranty questions.

DATE OF MANUFACTURE
Month/Year

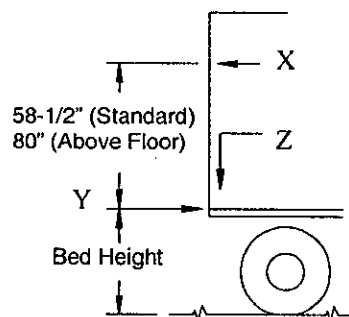
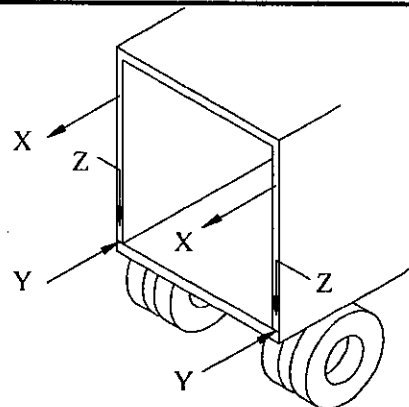
Chapter 3 Mounting Requirements

- Required mounting dimensions are as shown.
- All maximum bed heights are given for empty vehicles.
- All minimum bed heights are given for loaded vehicles.
- MDR series cannot be installed on vehicles with "swing type" doors or any other door that will obstruct operation.



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- 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.

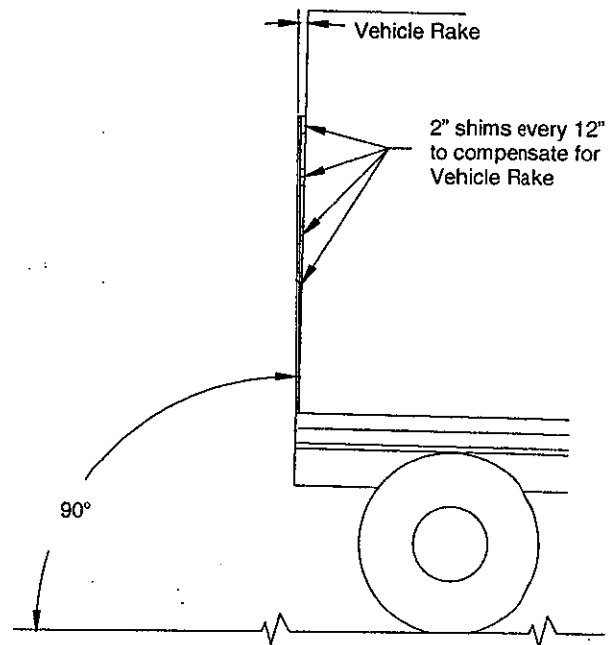


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Chapter 4 Liftgate Installation

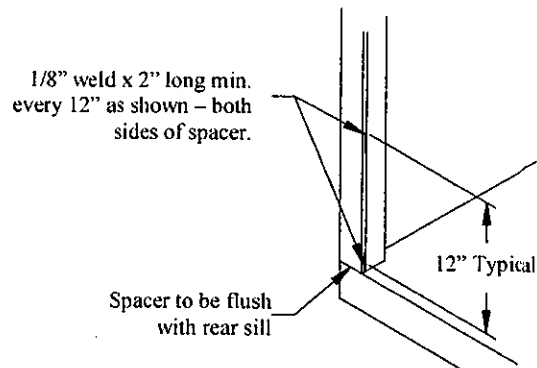
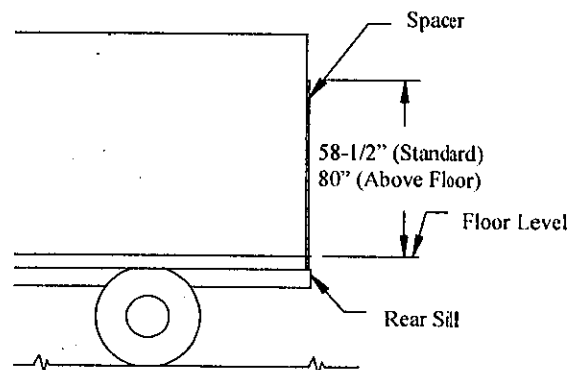
PREPARATION OF VEHICLE

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



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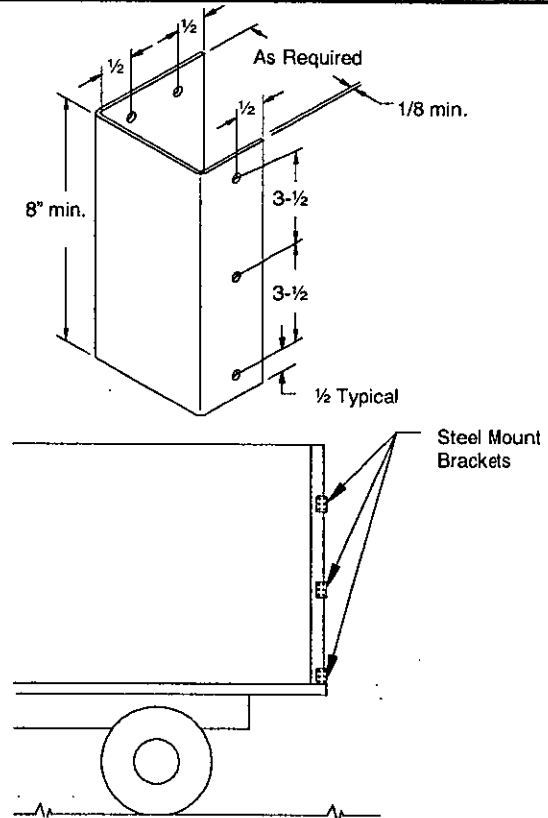
- Remove all obstructions that would interfere with operation of liftgate such as dock bumpers, trailer hitches, projections, etc.
- Locate and mark center of body sill.
- Spacers must be added if corner posts are not flush with rear sill.



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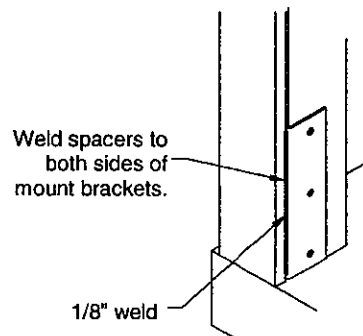
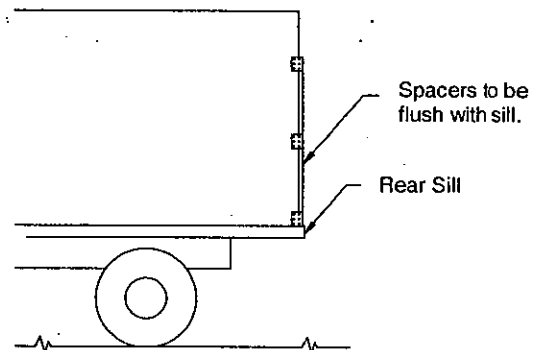
Chapter 4 Liftgate Installation

- 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.



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- Check that mounting brackets are flush with rear sill.
- Add spacer to mount brackets as necessary.
- Build out sill as necessary.

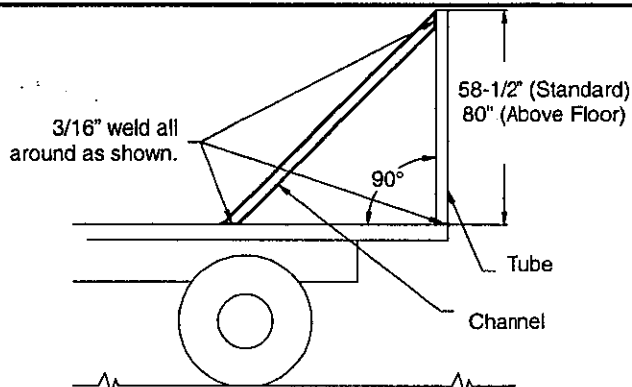


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Chapter 4 Liftgate Installation

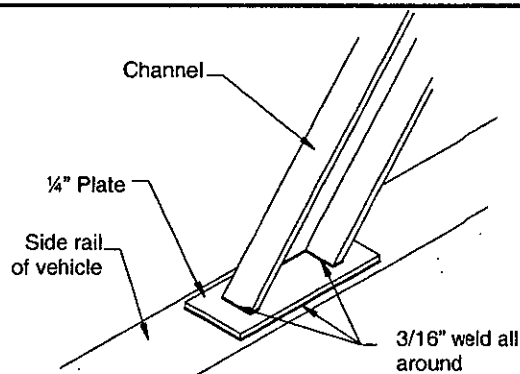
PREPARATION OF FLAT BED

- 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



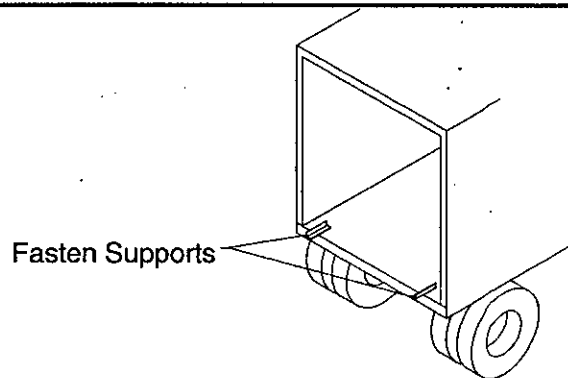
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- If side rail of vehicle is less than 1/4" thick, bolt or weld a 1/4" thick plate to side rail first, then weld channel to plate as shown.



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- 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.

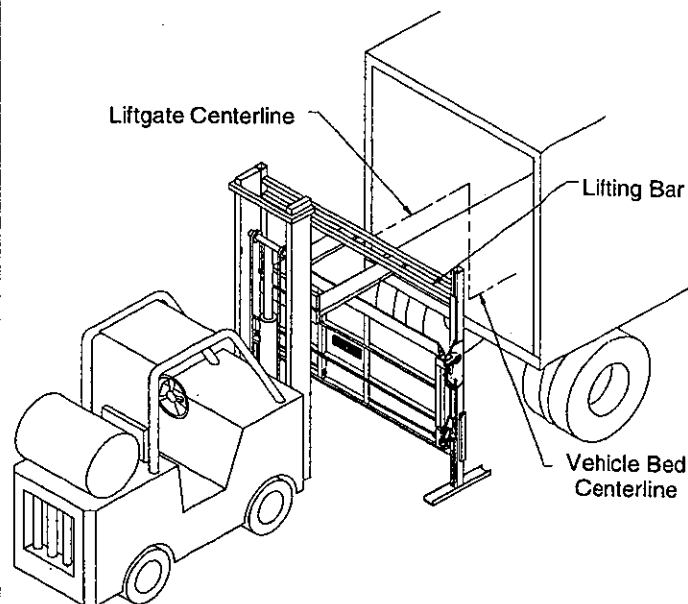


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Chapter 4 Liftgate Installation

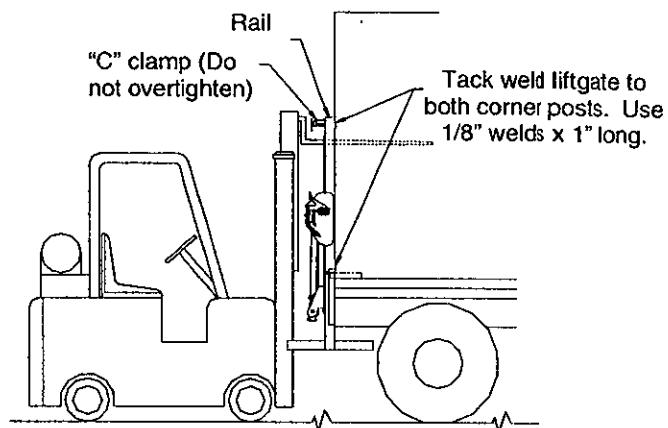
LIFTGATE INSTALLATION

- 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



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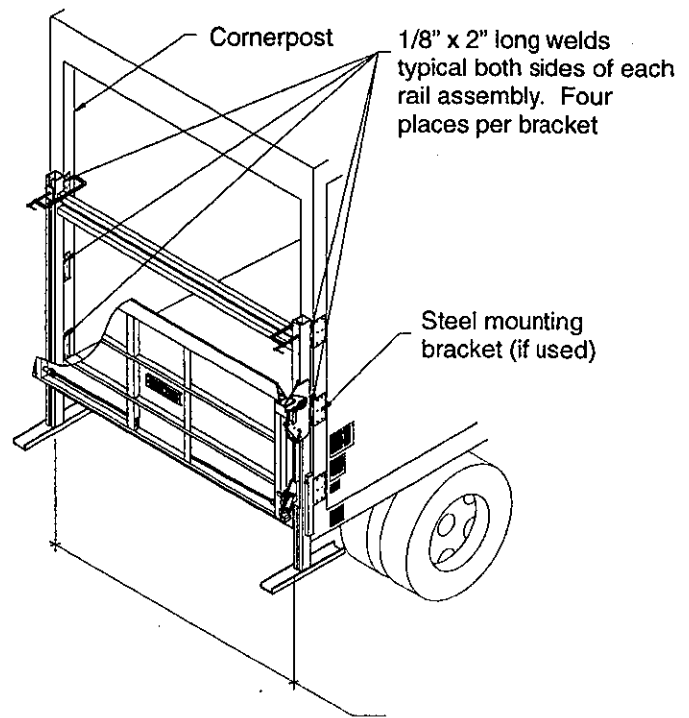
- Clamp liftgate to vehicle as shown.
- Tack-weld rails to vehicle corner-posts or mount brackets as shown.



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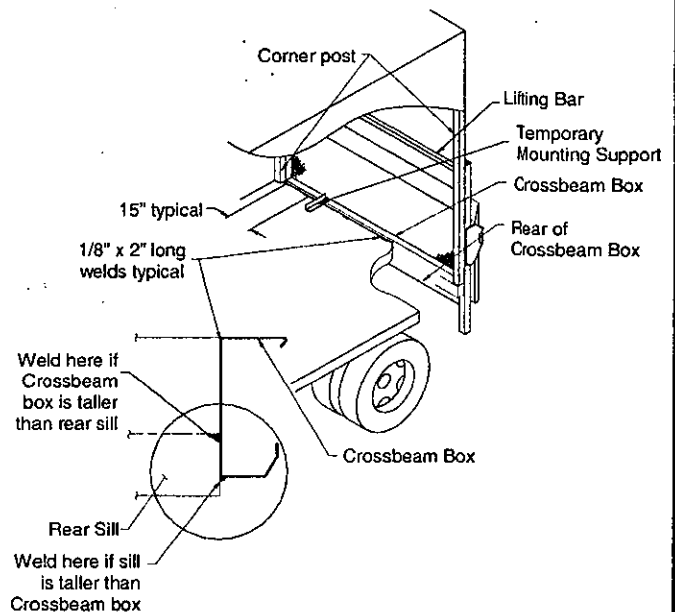
Chapter 4 Liftgate Installation

- Check that:
 - Crossbeam box is flush with vehicle floor.
 - Temporary supports are resting on crossbeam box.
 - Liftgate is centered on vehicle.
 - Rails are vertical, parallel, and tight against corner-posts or brackets.
- Weld liftgate to vehicle or brackets as shown and remove forklift.



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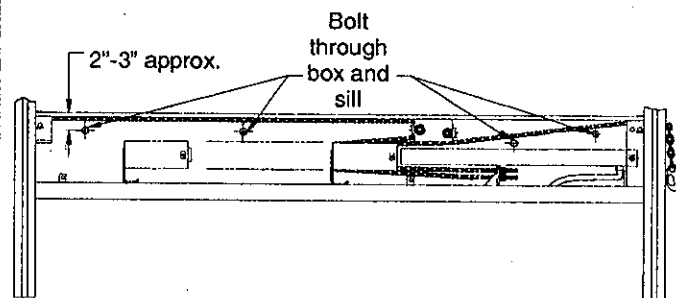
- Go to next step if sill is not steel.
- Weld liftgate to vehicle with 1/8" welds as shown.
- Weld bottom of crossbeam box to rear sill as shown.



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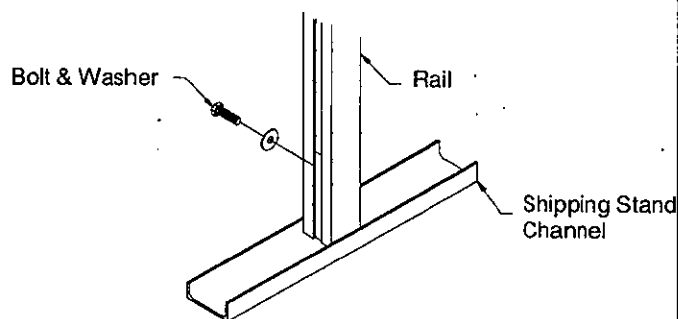
Chapter 4 Liftgate Installation

- Skip this step if sill is steel.
- Complete electrical system assembly, remove shipping aids, lower platform, and remove access door 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.



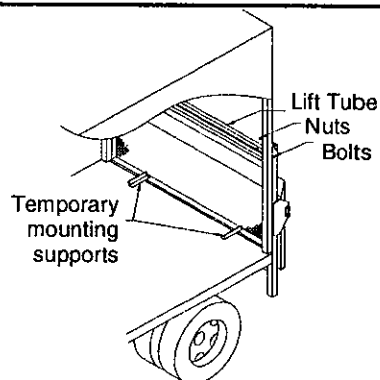
GR00528

- Remove shipping stands by loosening fasteners as shown.



GR00529

- Remove temporary mount supports.
- Remove lift-tube by cutting through tube & removing fasteners that hold bar in place.
- On above floor models do not remove bolts while taking off lift tube.



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Chapter 4 Liftgate Installation

INSTALLATION OF POWER CABLE

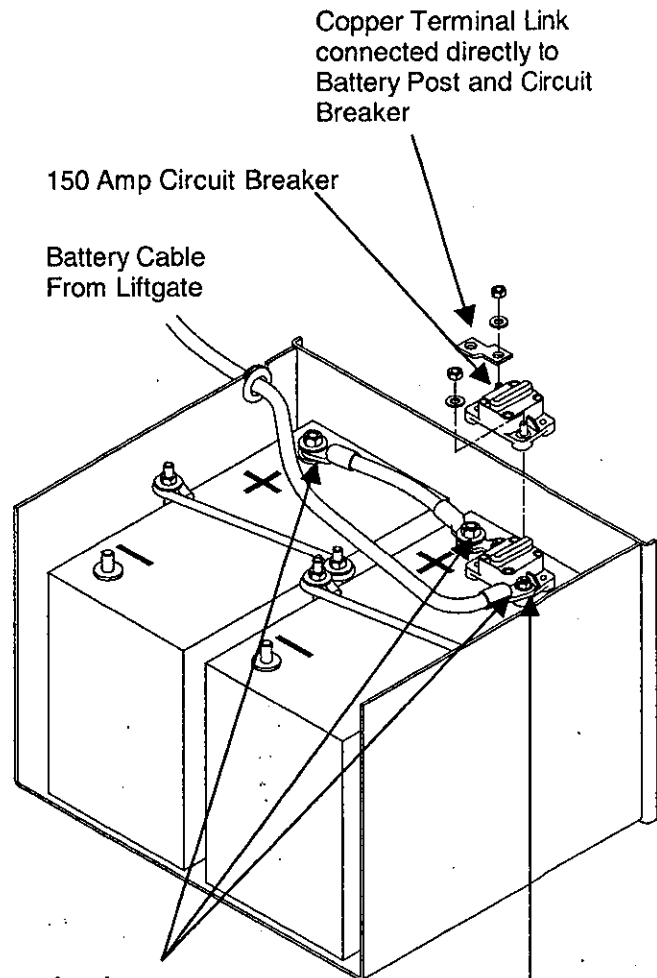
- Locate and mount 150 Amp circuit breaker directly to batteries using copper terminal link supplied.
- Circuit breaker must be mounted to give good protection against any objects coming into contact with circuit breaker terminals and causing a short. Position must also be readily accessible to reset the breaker.
- 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.
- Apply a generous amount of Dielectric Grease to all Positive (Hot) Battery terminals and Circuit Breaker terminals.
- Secure all battery cables to chassis frame with cable ties provided.

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 the batteries together must be 2 Ga. or heavier. This includes all original equipment batteries on vehicle.

IMPORTANT:

Be certain wires are protected from any sharp edges or holes that may abrade insulated covering of wires.



Apply a generous amount of Dielectric Grease to all Positive (Hot) Battery terminals and Circuit Breaker terminals.

NOTE:
Circuit Breaker is to rest solidly on battery to prevent vibration during transit

IMPORTANT:

Never secure battery cable in such a way that it comes near, or in contact with, other vehicle wiring, fuel lines, brake lines, air hoses, exhaust system, etc.

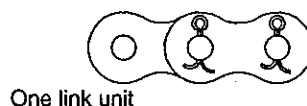
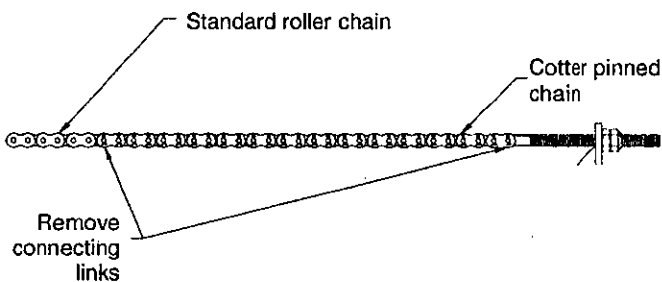
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Chapter 4 Liftgate Installation

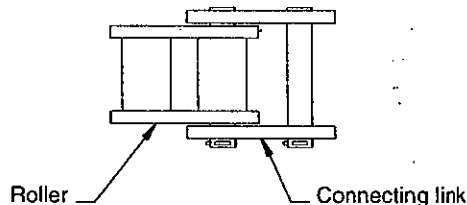
ABOVE FLOOR ADJUSTMENT

- Skip this step if not installing above floor model.
- Chain links may need to be removed for platform to travel 54" above ground. Platform will not travel to 54" if bed height is less than 32"
- Lower platform to ground and remove access door.
- Detach connecting links and remove cotter pinned sections of roller chains.
- Use chart below to determine how many links must be removed.
- Clamp one section of cotter pinned chain into a vice. Remove as many units as required using a hammer and punch. Repeat for other chain.
- Install cut down chains using previously removed connecting links and new cotter pins supplied in parts bag.
- Raise platform until it stops. Assure runners to not contact sprockets at top of rails. Re-install links if necessary.

Bed Height	Number of Link Units Removed	
	MDR 125/160	MDR 200
44-3/4" – 46"	0	0
43-1/2" – 44-3/4"	1	1
42-1/4" – 43-1/2"	2	2
41" – 42-1/4"	3	2
39-3/4" – 41"	4	3
38-1/2" – 39-3/4"	5	4
37-1/4" – 38-1/2"	6	5
36" – 37-1/4"	7	6
34-3/4" – 36"	8	7
33-1/2" – 34-3/4"	9	7
32" – 33-1/2"	10	8

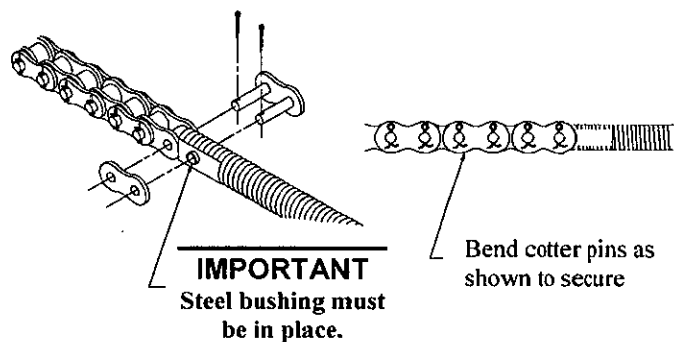


One link unit



Roller

Connecting link



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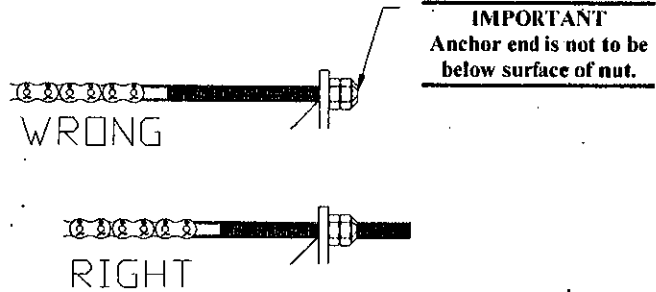
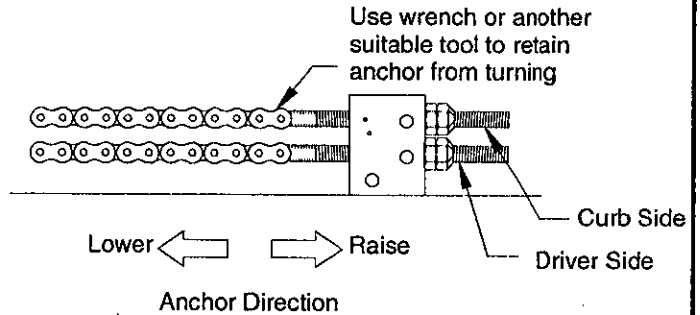
Chapter 4 Liftgate Installation

PLATFORM ADJUSTMENT

- Lower platform to ground and remove access door.
- Loosen lock-nuts on anchor bolts and slacken chains approximately $\frac{1}{4}$ ".
- Stand clear of operation area and raise platform until it stops.
- Measure distance from platform to top of crossbeam box on each side of liftgate.
- Lower platform to ground.
- Tighten adjustment bolts according to measurements previously taken.
- Raise platform and repeat until platform is level with top of crossbeam box.
- Tighten lock-nuts and replace access door.

IMPORTANT:

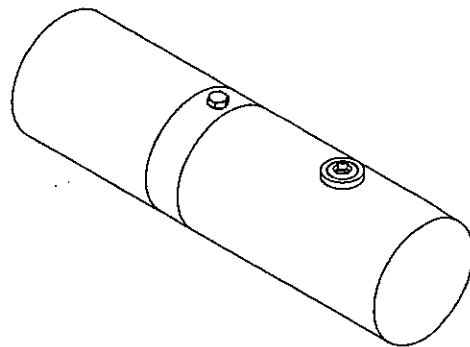
At no time should you do any work on liftgate while beneath platform. At no time is chain to be adjusted so the platform travels above the crossbeam box on non-above floor liftgates.



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FILLING HYDRAULIC RESERVOIR

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



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Chapter 4 Liftgate Installation

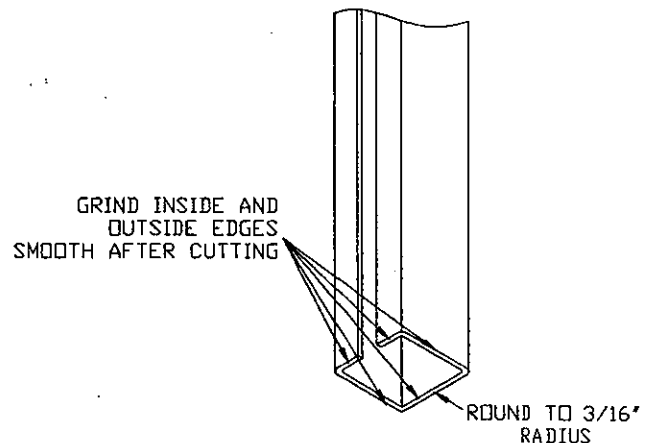
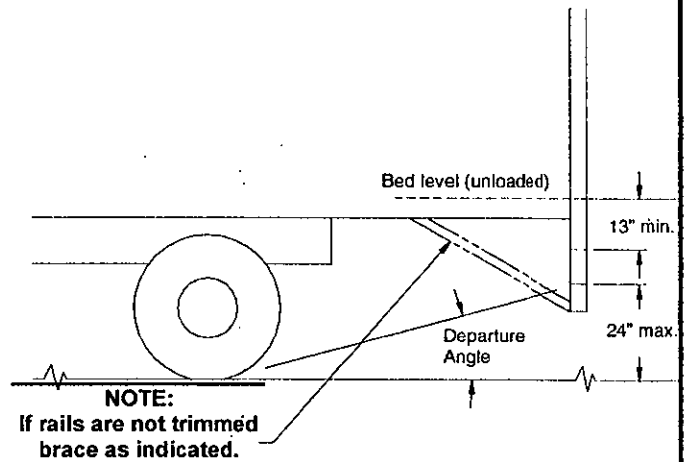
RECOMMENDED FLUIDS

- This chart lists some acceptable fluids by temperature range. Listing is not complete and brand names are used as a guide.
- **Important:** Do not use brake fluid
- Good quality SAE 10W motor oil may be used.

Recommended Fluids	
Temp Range	Acceptable Fluids
32 to 150 F	Exxon Unisvis J-26 Mobil DTE 13 Chevrom AW 32 Shell Tellus 23
-10 to 110 F	Exxon Unisvis J-13 Mobil DTE 11
-40 to 80 F	Mobil DTE 11 MIL-H-5606

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.
- Trim rails as shown.
- Grind inside and outside edges of rail smooth after cutting. Round back edge of rail to 3/16" radius where rear slide bearing contacts.



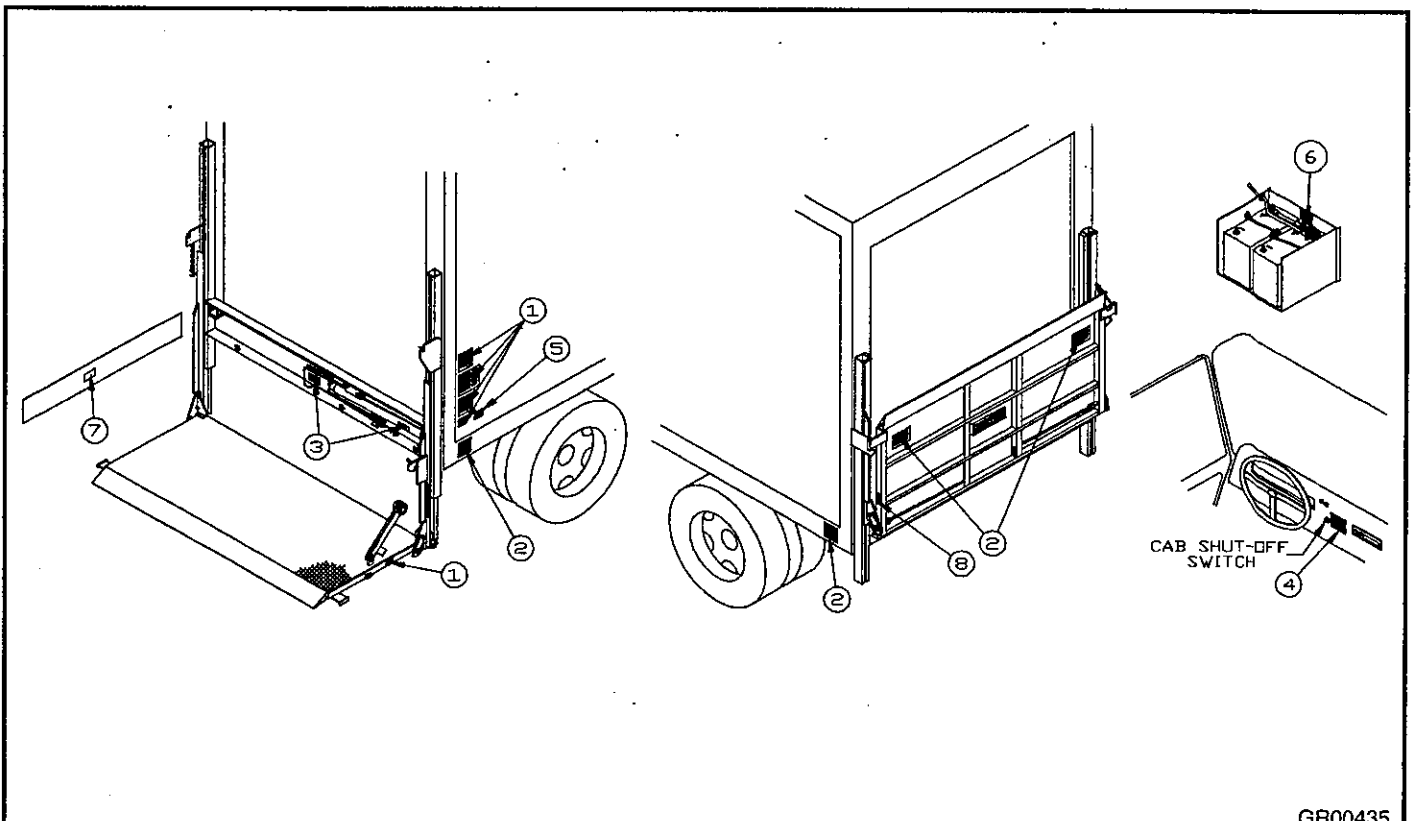
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Chapter 5 Placement of Decals

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, Standard	1	80101205	Locate in a conspicuous place near controls.
	Operation, Cam Close	1	80100895	
	1250 # Capacity Decal	2	80100266	Locate one in a conspicuous place near controls.
	1600 # Capacity Decal	2	80100252	Locate one on curb side of platform.
	2000 # Capacity Decal	2	80100253	
2	Caution Decal	4	75089296	Locate one in a conspicuous place near controls. Locate one in a conspicuous place on driver side of vehicle. Locate two on bottom of platform.
3	Protective Cover Decal	2	75089282	Locate one on Hydraulic Cylinder. Locate one on Shoe Assembly
4	Cab Shut Off Decal	1	75089267	Locate next to cab shut-off switch inside vehicle.
5	Important Decal	1	80100828	Locate in a conspicuous place near controls.
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.
7	Diagnostic Decal	1	80101421	Locate on inside of access door

Note: All item 1 and 5 decals must also be located on driver side for dual controls.



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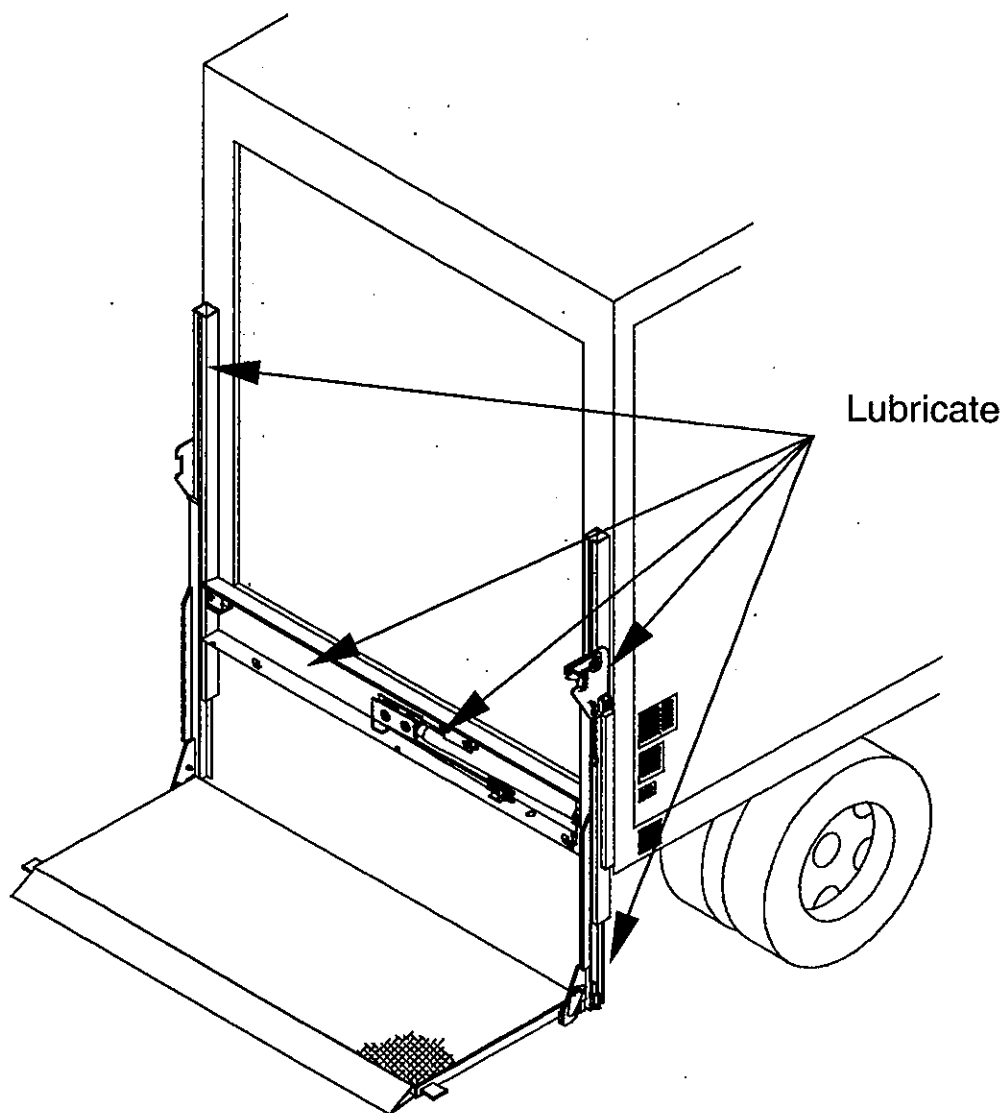
Chapter 6 Lubrication Instructions

- Lubricate lifting chains including sections in crossbeam box, rails, & runner assemblies with machine oil or motor oil.
- Lubricate latch, inside rails, and crossbeam box with machine oil or motor oil.
- Lubrication of greaseless bearings is not necessary or desirable.

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 items are to be checked and verified before installation is complete and liftgate is ready for service.

- ☐ 1. Vehicle side walls are strong enough to support lifting forces.
- ☐ 2. Platform is level with vehicle bed.
- ☐ 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. Controls operate properly.
- ☐ 7. All fasteners are tight.
- ☐ 8. Pump Reservoir full of oil.
- ☐ 9. All phases of liftgate operation work properly
- ☐ 10. Platform adjusted properly and chain-anchor lock nuts tight.
- ☐ 11. All sprockets and chain mesh properly and all cotter pins properly installed.
- ☐ 12. All doors and covers properly in place and secure.
- ☐ 13. All decals are in place and legible.
- ☐ 14. License plate properly installed.
- ☐ 15. 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.

Chapter 8 – 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.

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. (On older units the Specification Tag is located on the side or bottom of the platform.)]
2. MODEL NUMBER - [Or capacity]
3. PLATFORM SIZE

THEN INCLUDE THE FOLLOWING INFORMATION:

4. PART NUMBERS
5. DESCRIPTION
6. QUANTITY REQUIRED

MAIL OR PHONE YOUR REQUEST TO:

CALIFORNIA
227 E. Compton Blvd.
Gardena, CA 90248
(310) 243-6800
FAX - (310) 538-1136

OHIO
285 Northeast Avenue
Tallmadge, OH 44278
(330) 633-9191
FAX - (330) 633 1418

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

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.

SUBJECT: INSPECTION AFTER DAMAGE OR SUSPECTED OVERLOADING

As a part of the regular inspection of a liftgate, and especially after damage or suspicion of an overload, particular attention should be given to the hydraulic lift cylinder and its attachment to the lifting mechanism. In addition, any time that it is necessary to replace the cylinder, lift arm, cylinder pins, or any structural member, the following parts must be inspected for wear or structural damage and the necessary repairs or replacements made.

Upon inspection, should any of the following conditions exist, it is an indication that the liftgate has been subjected to abuse.

Inspect:

1. The ends of the cylinder for structural damage at its point of attachment to the lift arm and mount frame.
2. The cylinder clevises on the lift arm and mount frame for structural damage to the material surrounding the cylinder pin holes.
3. The welds attaching the cylinder clevises to the lift arm tube and the mount frame for fractures.
4. The lower and upper cylinder pins for wear, straightness and structural damage such as fractures etc.
5. The cylinder assembly for internal and external leakage, fractures and deformation of the cylinder barrel.
6. Hydraulic lines and fittings for damage and external leakage.

If any of the above conditions are found to exist, the cylinder should be inspected by a qualified mechanic for internal damage and repaired or replaced.

IMPORTANT

Only original equipment replacement parts are to be used.

SUBJECT: SERVICE PARTS ORDERING - ALL MODELS

It has been called to our attention that both Service Literature and Equipment parts for other than WALTCO liftgates have been used for reference and replacement parts on WALTCO liftgates.

We would like to emphasize the extreme importance of using only the literature such as Parts Manuals and Installation Instructions furnished by WALTCO for our liftgates. The information contained in this literature is carefully prepared by our staff to assist you in providing the highest quality of service possible to your customers. Of even greater importance, is the proper selection of replacement parts. A casual inspection of the many parts used in WALTCO liftgates should never lead you to the conclusion that these parts are necessarily interchangeable with those used by other liftgate manufacturers. Since each component in our product is specifically designed to be compatible with overall product design, it is obvious that the use of parts other than those furnished by WALTCO may seriously affect the reliability of the product.

The following are some of the items which may outwardly appear to be the same as those used by other liftgate manufacturers and a few critical points on each:

Electro Hydraulic Power Pack

The capacity of the oil reservoir, relief valve pressure, release mechanism, cam and the mounting bracket.

Control Valves

Operating sequence and compatibility with control geometry, relief valve pressure and the pressure rating of the valve itself.

Push Button and Solenoid Starter Switches

Ampere rating of switch, duty cycle rating, general construction and quality of electrical switching device. (WALTCO at one time used a lubricant filled push button starter switch on certain model power packs. We have replaced this switch with an improved design which is specially constructed with resistance washers, a protective coating and a rubber terminal cover in order to improve its resistance to corrosion.)

Pivot Pins

Many of the pins used in the WALTCO product line are made of high strength alloy steels and should only be replaced with original equipment replacement parts.

Hydraulic Hoses

Pressure rating, resistance to abrasion and cutting, type of construction, attachment of end fittings, are a few of the considerations to be made when selecting a Hydraulic Hose Assembly.

Parts Manuals

The key to the proper selection of replacement parts is found by referring to the parts manuals furnished by the equipment manufacturer. Although parts may appear to be similar in appearance in a parts manual published by two different manufacturers, there may be a significant difference in the actual part. Be sure to refer to the WALTCO Parts Manual only, when ordering parts for WALTCO liftgates.

We suggest that you update your literature and request from us the latest Parts Manuals. We will be glad to furnish them at no charge.

SUBJECT: SPECIAL SERVICE BULLETIN

DO NOT IGNORE THIS BULLETIN - READ IT !

**THIS INFORMATION IS IMPORTANT TO THE SAFETY
OF YOU, YOUR CUSTOMER AND THE LIFTGATE USER.**

**THE FOLLOWING IS OFFERED TO HELP
PREVENT SERIOUS PERSONAL INJURY.**

**YOUR FAILURE TO ADHERE TO THESE GUIDELINES
MAY RESULT IN LIABILITY TO YOU.**

Even though the following goes without saying, as part of WALTCO's on going safety program, we again wish to call your attention to items of concern.

This list, of items provided below, is not intended to cover all areas that could result, or contribute to serious personal injury.

If you have ever installed or have ever had a WALTCO liftgate installed and the WALTCO INSTALLATION INSTRUCTIONS were not FOLLOWED, then these instructions should be checked IMMEDIATELY by QUALIFIED personnel to insure proper installation, and operation of the liftgate.

If you have maintained, repaired or have had maintenance or repair on a WALTCO liftgate and WALTCO's MANUAL, INSTRUCTIONS BOOKLET and SERVICE BULLETINS were not consulted or referred to, then these materials should be checked IMMEDIATELY by QUALIFIED personnel to insure proper installation, operation, repair and maintenance to the liftgate.

1. Faulty welds can result in loads falling, the liftgate itself failing or unexpected movements of the platform.
2. Improper adjustments and/or improper installation of up stops could result in abnormal opening of the platform.
3. The lack of provided guards, required protective margins, or the improper location of controls can result in accidental or unexpected operations of the controls. NOTE: Controls that do not work freely or stick in an up or down position are not operating properly.
4. Pins which are improperly secured can fall out or cause the pivot to fail.
5. Improper attachment of liftgates can result in uneven alignment of surfaces and/or protrusion beyond the legal widths.
6. Improper supports or bracing may result in a sudden failure.
7. Improper attachment of hoses can result in the improper operation of the liftgate or the leaking of oil.

8. Lack of lockout devices could result in unauthorized use.
9. Parts which are not manufactured by WALTCO or which are not used as intended may be too weak, not fit properly and/or not work in concert with the design.
10. Unauthorized alteration of the liftgate may result in an undesirable and dangerous condition.
11. Improper dimension in mounting may cause the liftgate to work improperly.
12. Improper installation or repairs by unqualified personnel or lack of maintenance can result in improper operation.
13. Omission of decals or painting over them will result in those not acquainted with the liftgate, operating the liftgate without the benefit of instructions contained therein.
14. Failure to install, maintain or repair in accordance with WALTCO's INSTRUCTIONS or the lack of knowledge applicable to the skills of qualified personnel can result in improper operation.
15. Failure to regularly and/or systematically check the liftgate to determine if it meets the manufacturer's original standards and is in proper repair and operating condition can result in placing into service a liftgate that does not meet our intended standards.

IF THERE ARE OTHERS YOU HAVE SHIPPED OR SOLD WALTCO LIFTGATES TO, WHO HAVE OR WILL BE INSTALLING, MAINTAINING, OR REPAIRING THESE LIFTGATES, YOU MUST FORWARD A COPY OF THIS BULLETIN TO THESE PEOPLE.

If you have any questions, contact us at one of the following locations.

CALIFORNIA

227 E. Compton Blvd.
Gardena, CA 90248
(310) 243-6800
FAX - (310) 538-1136

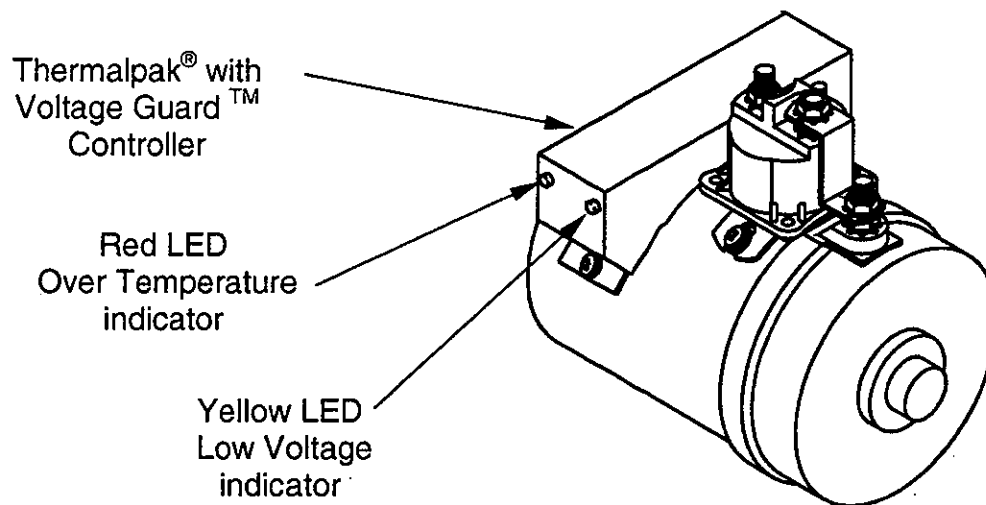
OHIO

285 Northeast Avenue
Tallmadge, OH 44278
(330) 633-9191
FAX - (330) 633-1418

TROUBLESHOOTING

WALTCO'S Thermalpak® with Voltage Guard™

This liftgate is equipped with Waltco's Thermalpak® with Voltage Guard™ hydraulic unit. This feature protects the liftgate motor(s) and solenoid(s) from damage due to overheating and low voltage.



The following conditions will cause the Thermalpak® With Voltage Guard™ controller unit to temporarily disable the liftgate motor:

Condition: Over temperature

When the Thermalpak® with Voltage Guard™ controller detects a liftgate motor overheating condition, the following occurs:

- The red LED on the controller lights.
- The liftgate motor is temporarily disabled.
- An alarm will sound intermittently each time the Raise function of the liftgate is activated.

Solution:

- Allow motor to cool until red LED on controller turns off and that the alarm no longer sounds when activating the Raise function of the liftgate.
- Hold Raise Switch for five (5) seconds to reset controller. Liftgate motor will then activate and normal operation will be restored.
- During the shut down period the liftgate may still be lowered or unfolded.

Troubleshooting (Why did liftgate motor overheat?):

Some conditions that may have caused the motor to overheat are:

- Overuse: Liftgate is being operated too many times within a short period of time.
- Battery cables are not securely connected or cable ends are corroded.
- Bad or insufficient ground.
- Insufficiently charged or bad batteries.

Condition: Low Voltage

When the Thermalpak® with Voltage Guard™ controller senses long term battery voltage falling to a level that would prevent the vehicle from starting or when it senses a short term severe drop in voltage that would cause solenoid "door belling" (rapid chattering of solenoid), the following occurs:

- The yellow LED on the controller lights.
- The liftgate motor is temporarily disabled.
- A steady alarm will sound each time the Raise function of the liftgate is activated.

Solution:

- Run vehicle motor to charge batteries.
- If the Thermalpak® with Voltage Guard™ does not automatically reset, turn off the vehicle. Disconnect the (+) positive battery cable from the battery(s) operating the lift gate for approx. (1) minute. Reconnect the battery cable.
- During the shut down period the liftgate may still be lowered or unfolded.

Troubleshooting (Why did liftgate motor stop working?):

Some conditions that may have caused a low voltage condition are:

- Overuse: Liftgate is being operated too many times with the vehicle engine not running.
- Battery cables are not securely connected or cable ends are corroded.
- Bad or insufficient ground.
- Insufficiently charged or bad batteries.
- If liftgate is mounted on a trailer, the tractor/trailer plug supplying charging power to the liftgate batteries is unplugged.

Super Switch Diagnostics

Super Switch Diagnostics

The Waltco Super Switch now has the ability to perform limited diagnostics at the controls to facilitate trouble shooting and expedite repairs.

Each switch has built in LED lights to indicate the switch is functioning properly.

The LED will illuminate when the switch is activated in either position.

See Below for Detailed Instructions On:

No LED Indicators:

Check Power and Ground

LEDs Operate but No Liftgate Operation:

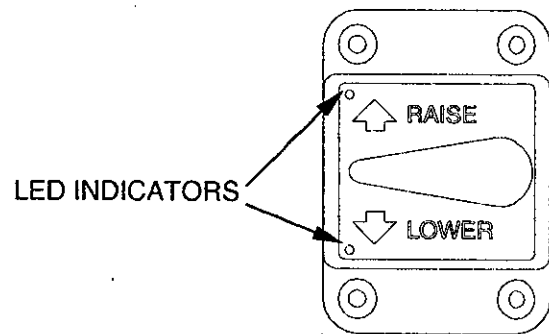
Check Pump unit

LED Indicators In Only One Position or Continuous On:

Replace Switch

No LED Indicators:

If the LED indicator does not illuminate in either position and liftgate does not operate, check the following items:



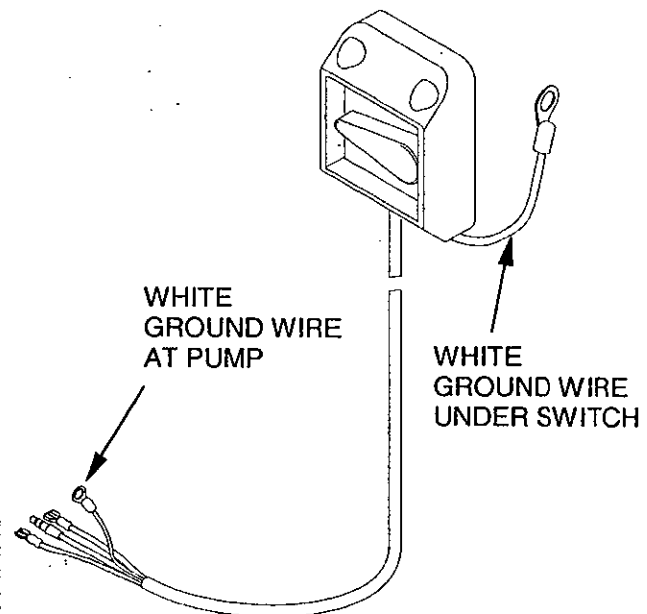
GR00919

Clean and tighten switch ground connection (white wire).

The white ground wire may be located under one of the switch mounting screws or at the pump unit.

Remove dirt and paint from beneath the ground terminal to ensure proper ground.

A ground path must exist between pump unit and switch. For body mounted liftgates that have pump unit mounted to the vehicle chassis, ensure ground path exists between body and chassis.



GR00920

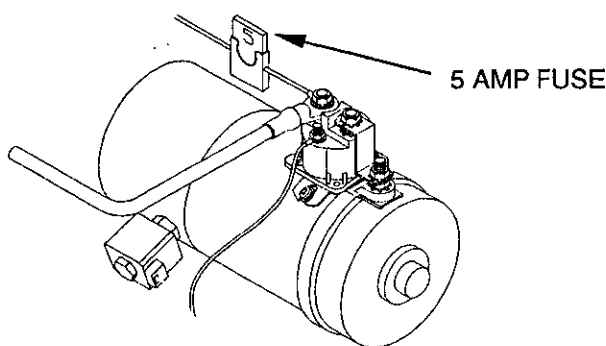
Super Switch Diagnostics

Ensure power is getting to the switch (red wire). Clean and tighten power connection to the switch.

Check fuse.

If fuse is blown replace with **5 amp** fuse only.

If the LED indicator does not illuminate in either position but liftgate operates properly, replace switch.



GR00921

LEDs Operate but No Liftgate Operation:

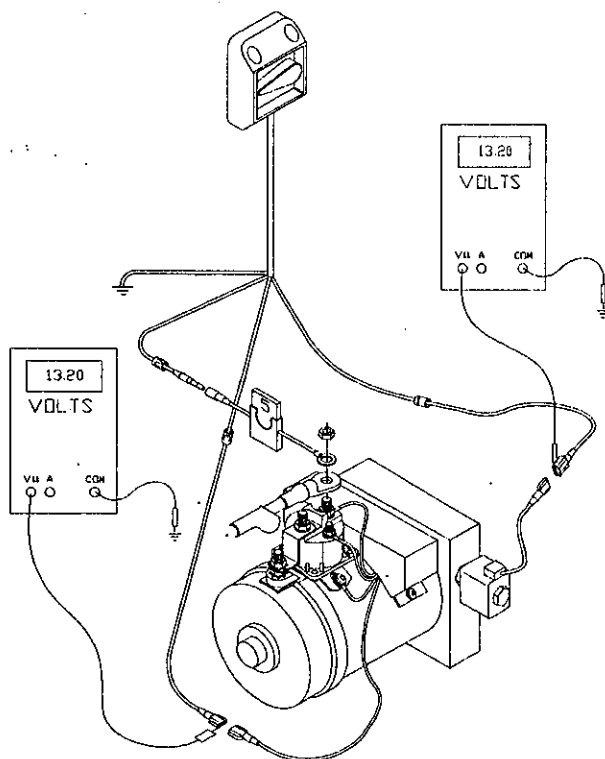
If the LED indicator illuminates when switch is activated but the liftgate does not operate, check the following items:

Check to ensure power is going from the switch to the pump when the switch is activated in both positions. There should be voltage readings for the lowering function as well as the raise function.

This will also apply to the open and close circuits for liftgates with power fold functions.

If power is confirmed, check for faulty components on pump unit.

If no power, fault is in cord or harness. Check cord or harness.

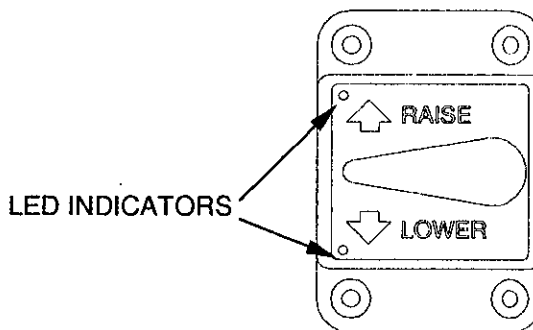


GR00922

LED Indicators In Only One Position or Continuous On:

If the LED indicator illuminates in only one of the two positions, replace switch.

If LED indicator light is illuminated when switch is at rest. Replace switch.



GR00919

IMPORTANT

It is important that every vehicle that has a WALTCO Liftgate 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 TRUCK EQUIPMENT COMPANY**.

NOTE:

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

IMPORTANT

TO BE KEPT IN VEHICLE

CAUTION:

**STAND CLEAR AND KEEP CLEAR OF PLATFORM
AREA WHILE OPERATING LIFTGATE.**

FOR OPERATION OF THIS UNIT, REFER TO THE "OPERATION INSTRUCTIONS" INSIDE THE OWNER'S MANUAL AND THE OPERATION INSTRUCTIONS DECAL.

LUBRICATION INSTRUCTIONS

Refer to the lubrication chart in this manual.

DO'S AND DON'TS

- DO:** Make certain area in which the platform will open and close is clear before opening or closing platform.
- DO:** Make certain platform is properly latched when in transit.
- DO:** Make certain platform area, including the area in which loads may fall from platform, is clear before and at all times during operation of the liftgate.
- DO:** Operate the liftgate with the control switches only.
- DO:** Check oil level monthly and change oil yearly.
- DO:** Use hydraulic fluids listed on the HYDRAULIC FLUID CHART (found inside this manual) or equivalent.
- DO:** Lubricate as per the LUBRICATION INSTRUCTIONS AND LUBRICATION SCHEDULE found in this book.
- DO:** Read and follow WARNING DECALS, OPERATION DECALS and OWNER'S MANUAL.
- DO:** Visually inspect the liftgate frequently and keep it in adjustment.
- DO:** Be certain vehicle is properly and securely braked before using the liftgate.
- DO:** Repair the liftgate when it is found to be faulty to prevent accidents.
- DO:** Keep all decals in place and legible and retain the Owner's Manual in the vehicle or ALL WARRANTIES ARE VOID.
- DON'T:** Allow the liftgate to be used by persons not familiar with its operation.
- DON'T:** Use the liftgate if unit shows signs of abuse or fails to operate freely.
- DON'T:** Permit the motor to run after the liftgate is raised to bed level.
- DON'T:** Overload the liftgate (Refer to Manual for proper capacity of liftgate).
- DON'T:** Use brake fluid.