

ANTHONY
LIFTGATES, INC.®

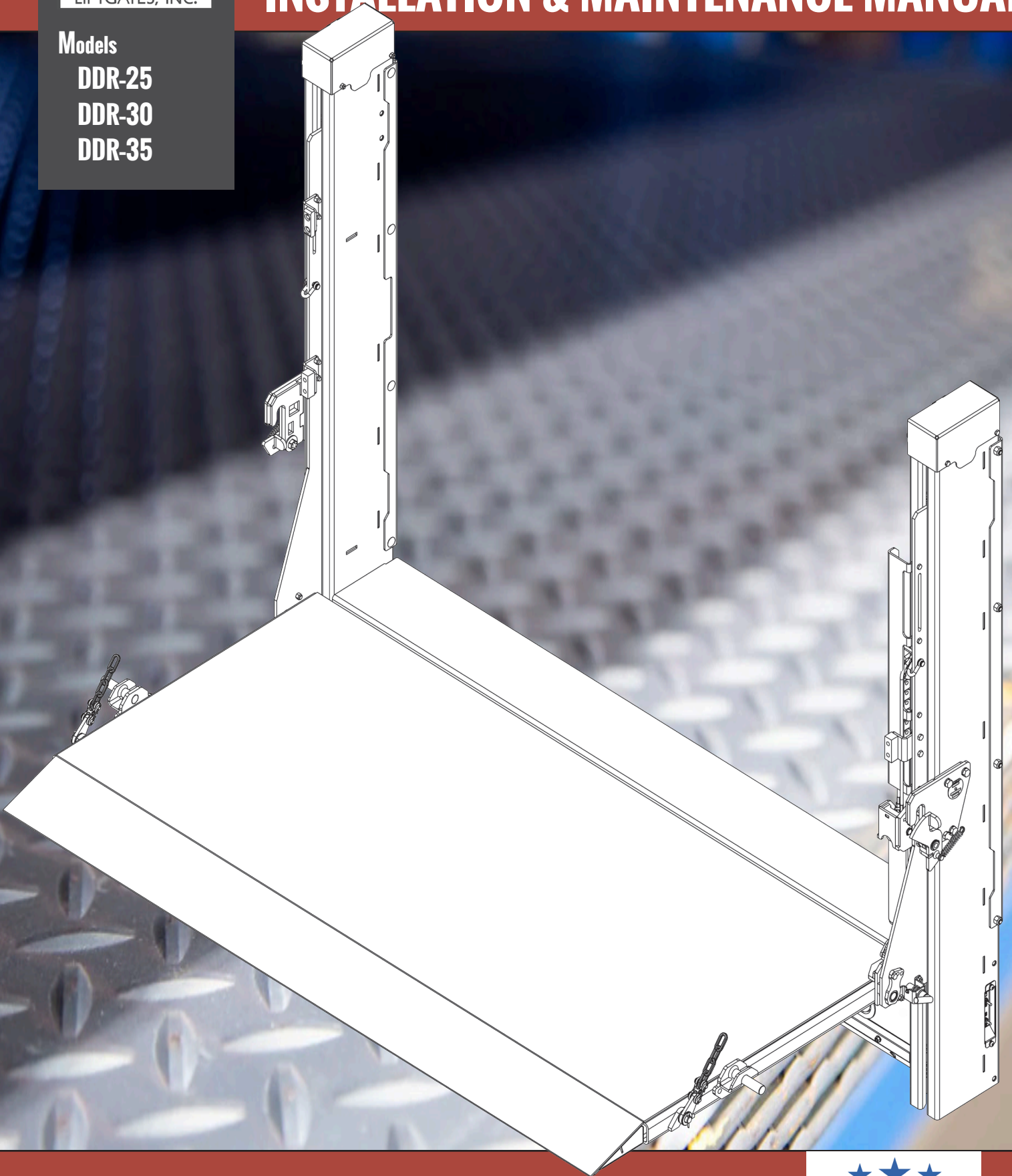
INSTALLATION & MAINTENANCE MANUAL

Models

DDR-25

DDR-30

DDR-35



QUALITY, RELIABILITY, CUSTOMER SERVICE



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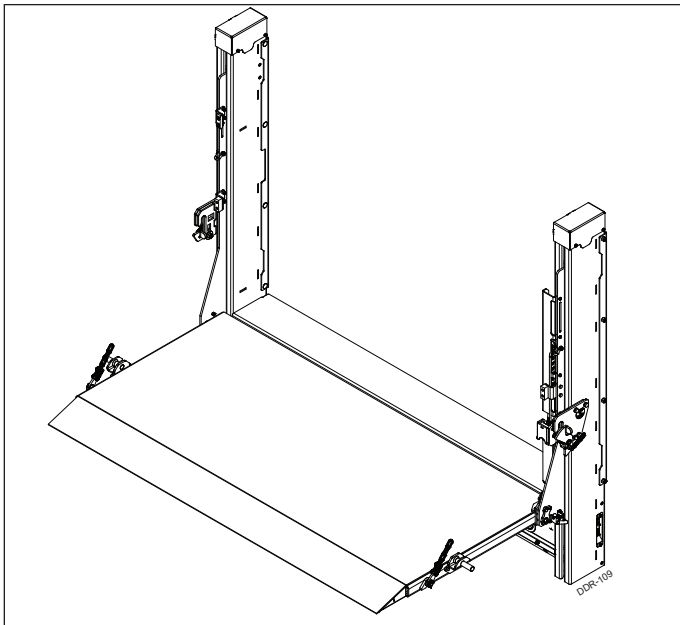
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1. General Information

1.1 Introduction

Congratulations on selecting an Anthony DDR RailTrac™ Liftgate. Anthony liftgates are among the finest liftgates available on the market today and are factory-assembled, energized, and tested to ensure the highest quality performance standards. DDR liftgates ship completely assembled for fast, clean, and easy installation.

To ensure your liftgate will perform to your expectations, we have provided this Installation Manual, which is designed to provide you with the necessary installation and maintenance procedures for the DDR RailTrac™ liftgates.



1.2 General Safety

WARNING



Read, Understand, and Follow Instructions

To avoid personal injury or death, carefully read and understand all instructions pertaining to this liftgate. Do not attempt to operate a vehicle or this unit without fully understanding all of the instructions and safety recommendations in this and other related OEM manuals.

If any doubt or question arises about the correct or safe method of performing anything found in this manual, contact Anthony Liftgates. Proper care is your responsibility.

SAFETY INSTRUCTIONS

All users of this liftgate must be at least 18 years old and have read and understood all operation instructions and safety decals before use.

1.3 State and Federal Regulations

1.3.1 Brakes

WARNING When installed, the operation or weight of this liftgate must not alter or prevent vehicle compliance with any existing State or Federal standards, such as FMVSS 105 – Hydraulic And Electric Brake Systems. Each truck frame manufacturer's recommendations should be consulted for compliance.

Also, make sure the weight of the liftgate and its fully loaded capacity will not overbalance the truck, possibly raising the front wheels off the ground.

1.3.2 Lighting

WARNING When installed, the transport position of this liftgate must not alter or prevent vehicle compliance to any existing State or Federal standards such as FMVSS 108 – Lamps, Reflective Devices, and Associated Equipment. Each truck manufacturer's recommendations should be consulted for compliance.

1.3.3 Rear Impact Guards

WARNING When installed, the transport position of this liftgate must protect against rear impact, using State or Federal standards, such as FMVSS 223 – Rear Impact Guards and FMVSS 224 – Rear Impact Protection.

The installer must make sure that guards are installed, if necessary, to fulfill these standards. Each truck manufacturer's recommendations should also be consulted for compliance.

1.4 Intended Use

Do not use the liftgate for anything other than its intended purpose of loading and unloading material from a truck. The maximum lifting capacity of the unit ranges from 2500 to 3500 pounds, depending on the model.

WARNING  **Crush Hazard**
Unsecured loads, when raised and lowered on the liftgate, could shift or fall. To prevent personal injury or death, make sure loads are securely fastened to the liftgate or restrained by cart stops, a retention ramp, or fencing.

1.5 Customer Assistance

Anthony Liftgates manufactures high-quality liftgates that require very little maintenance or repair. However, should assistance be required for installation, warranty, or other product information, our knowledgeable dealers can make sure you receive the help you need. Before calling, have the serial number, model number, and lift capacity of your liftgate available.

To find the most current version of all reference material or for additional information, refer to the Anthony Liftgates website at www.anthonyliftgates.com.

Anthony Liftgates, Inc.
1037 West Howard Street
Pontiac, Illinois 61764
(815) 842-3383 or 800-482-0003

1.6 Safety Signs (Decals)

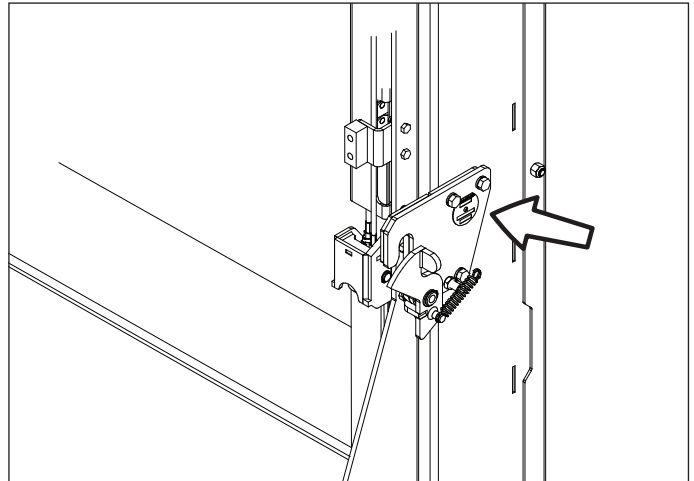
 **SAFETY INSTRUCTIONS** To prevent personal injury of the end user from not being aware of safety recommendations, the installer must make sure all decals are attached to the liftgate and truck and are legible.

The liftgate comes fully assembled with all decals attached in the proper location. Other decals must be installed on the truck body, as shown in this manual. Immediately replace any decal that is damaged or worn.

Refer to the separate Parts Manual for a list of decals and their locations on the liftgate and the truck.

1.7 Serial Number

This information is stamped into the identification plate on the side of the rail and will help us verify your specific liftgate. Record the serial number, model number, date of installation, and load capacity for easy reference.



Serial Number Information	
Serial No.	
Model No.	
Installation Date	
Lift Capacity	

1.8 Warranty Issues

Refer to "8. Warranty Section" on page 33 for the complete warranty statement.

The liftgate must be installed according to these instructions or the warranty will be void.

1. Unauthorized modifications may cause improper operation or other unforeseen problems or dangers. If any deviation is deemed necessary, written permission must be obtained from Anthony Liftgates.
2. All decals must be attached by the installer and legible, or all warranties are void.

1.9 Replacement Parts

Dealers: To order replacement parts or hazard/informational decals, contact us through your normal dealer channels.

2. Safety

2.1 Safety is Your Responsibility

It is the responsibility of the user to understand and properly use this liftgate. Be aware of the inherent dangers in the use of this unit. Read and understand all Warnings, Cautions, Notices, and Safety Instructions in this manual, on the liftgate, or on the vehicle.

Most work-related accidents are caused by failure to observe basic safety rules or precautions. Accidents can often be avoided by being alert and recognizing potentially hazardous situations. Anyone installing or operating the liftgate must have the necessary training, skills, and tools required to perform these functions properly and safely. The safety information in this manual serves as a basic guide to prevent injury or even death.



Do not use the liftgate until you read and understand the information contained in this manual or other OEM related manuals.

Safety precautions and warnings are provided in this manual and may also be on the unit. If these hazard warnings are not followed, bodily injury or death could occur to you or other persons.

Anthony Liftgates cannot anticipate every possible circumstance that might involve a potential hazard. *The identification of hazardous situations in this manual and on the product itself is, therefore, not all-inclusive. If procedures, work methods, or operating techniques that are not specifically mentioned by Anthony Liftgates are used, you must satisfy yourself that they are safe for you and for bystanders.*

Improper installation, operation, or maintenance of this unit could cause a dangerous situation resulting in personal injury or death. Make sure the lift or vehicle that it is installed on will not be damaged or made unsafe by any installation or operating method you choose.

DO NOT proceed if any doubt arises about the correct or safe method of performing anything found in this or other related equipment manuals. If in doubt, seek out expert assistance from a qualified person before continuing.

2.2 Safety Alert Symbol



Personal injury hazards are identified by the "Safety Alert Symbol" and followed by a signal word such as WARNING or CAUTION to indicate the severity of the hazard. Obey all safety messages that follow this symbol to avoid possible injury or death.



This blank safety alert icon surrounds an image showing a specific type of hazard that should be avoided.

This manual contains WARNINGS, CAUTIONS, IMPORTANT NOTICES, and NOTES which must be followed to prevent the possibility of improper service, damage to the equipment, personal injury, or death. The following keywords call the reader's attention to potential hazards.

WARNING

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

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTICE

Indicates that equipment or property damage can result if instructions are not followed.

SAFETY INSTRUCTIONS


















Safety instructions (or equivalent) signs indicate specific safety-related instructions or procedures.

Note: Contains additional information important to a procedure.








2.3 Safety Icons Nomenclature



This manual and the equipment have numerous safety symbols. These safety symbols indicate important information about personal injury hazards.

2.3.1 Personal Protection/Important Information

-  Read, understand, and follow manual
-     Protection (eye, hand, foot, ear)
-  Inspect equipment
-  Warning decal alert
-  Fire extinguisher
-  First aid kit
-  Use only authorized parts
-  Use proper parts
-  Safety first
-  Visually inspect
-  Ingress / egress
-  Use two people when lifting heavy objects
-  Move freely
-  Power on/off

Prohibited Actions

-  Do not operate (drugs)
-  Do not operate (alcohol)
-  No bystanders
-  No children
-   No unauthorized welding or modifications
-  Do not leave out tools

-  Do not climb
-  No sharp edges


2.3.2 Hazard Avoidance

-   Crush hazard
-     Pinch point
-  Falling hazard
-  Slip Hazard
-  Fire hazard
-  High-pressure fluid hazard
-  Pressure (zero)
-  Pressure (high)
-  Tools (use proper tools)
-  Defective or broken part
-  Crush hazard (intended use)
-   Guards / protective covers
-  Welding arc hazard
-  Maintain safe distance
-  Contact hazard (hand)
-  Battery explosion hazard
-  Adequate ventilation
-  Dangerous fumes
-  Battery arcing hazard
-  Crush hazard (chock wheels)
-  Liftgate crush hazard (under-tire)

3. Safety

3.1 General Safety Instructions


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



 Do not use this lift for any other purpose than its intended use of loading and unloading cargo from the bed of a vehicle.


 Do not allow the liftgate to be used by persons unfamiliar with its operation.

 Do not allow children to play on/around or operate the liftgate.



    Do not place hands or feet in pinch points, between the platform and the platform extension, or under the edge of the liftgate.


 — Do not stand in the platform's work area while operating the liftgate as a load may shift, fall, or be unstable on the platform.
— Do not go under the liftgate while it is in a raised position.
— Accidental lowering could cause serious crushing injuries.
— Do not stand under or place any object under the liftgate work area.

  To avoid slipping, immediately clean up any spilled fluid on the liftgate platform. To avoid tripping, do not leave anything lying on the platform or around the work area.

 Do not overload the platform. The maximum rated capacity is based on an evenly distributed load on the platform's flat surface.

CAUTION The following safety instructions are provided to help prevent potential injury. Not following these instructions may lead to injury.


  Anthony Liftgates recommends not riding the liftgate, however, if the delivery operation requires it, make sure your footing is stable before raising or lowering platform.

 Always stand away from the edge. When on the ground, always stand clear of the liftgate when it is operating. Always use/set the truck's parking brake before operating the liftgate.

 Even though the Anthony Liftgate is easy to install, the installation should be done with at least two people.

 Many liftgate models provide steps for drivers as a convenience feature. When steps are present, customer-supplied grab handles and other ingress/egress items should be installed.


SAFETY INSTRUCTIONS The following safety instructions are provided to help prevent injury or limit equipment damage.


 The liftgate and its related components should only be installed by a qualified installer. They should have knowledge and skill in using lifting equipment and a cutting torch.

  Visually inspect the liftgate before use to make sure all parts are in good working condition and operate freely. Have any damaged parts replaced immediately.

 To prevent improper operation, make sure all decals are attached to the liftgate and/or vehicle and are legible at all times.

 Make sure the area in which the platform will operate is clear before raising or lowering the platform.

 Always place the load as close to the center of the platform as possible and as close to the vehicle as possible.

 Only operate the liftgate with the switch controls provided.

 Do not operate lift trucks on or over any part of the platform.

3.2 Installation Safety

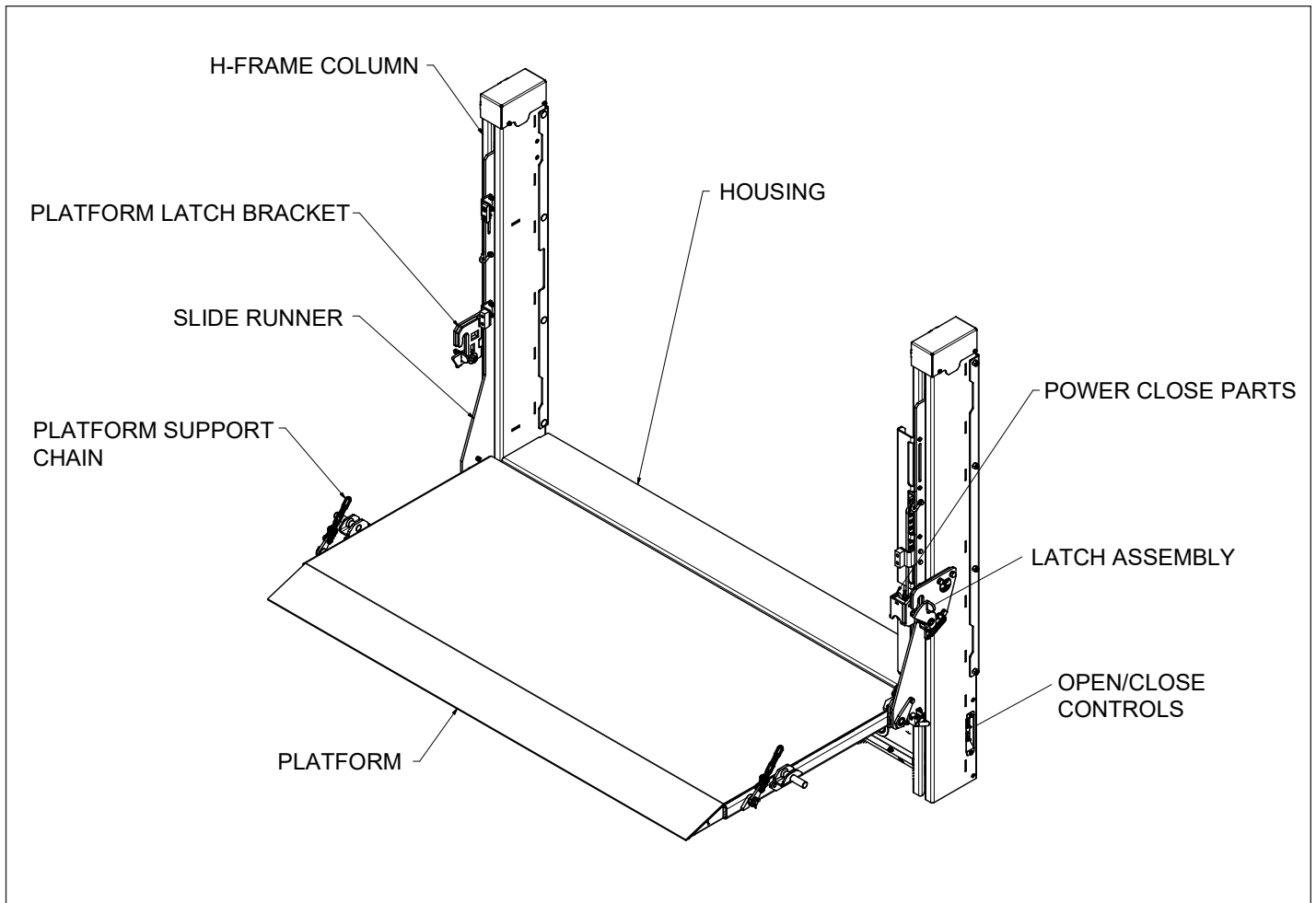
SAFETY INSTRUCTIONS Read and understand the safety instructions located in section "5.2 Installation Safety Instructions" on page 12 in connection with this general safety information.

3.3 Maintenance Safety

SAFETY INSTRUCTIONS Read and understand the safety instructions located in section "6.1 Maintenance Safety Instructions" on page 22 in connection with this general safety information.

4. Nomenclature

4.1 Liftgate Nomenclature



4.2 Liftgate Pump Nomenclature

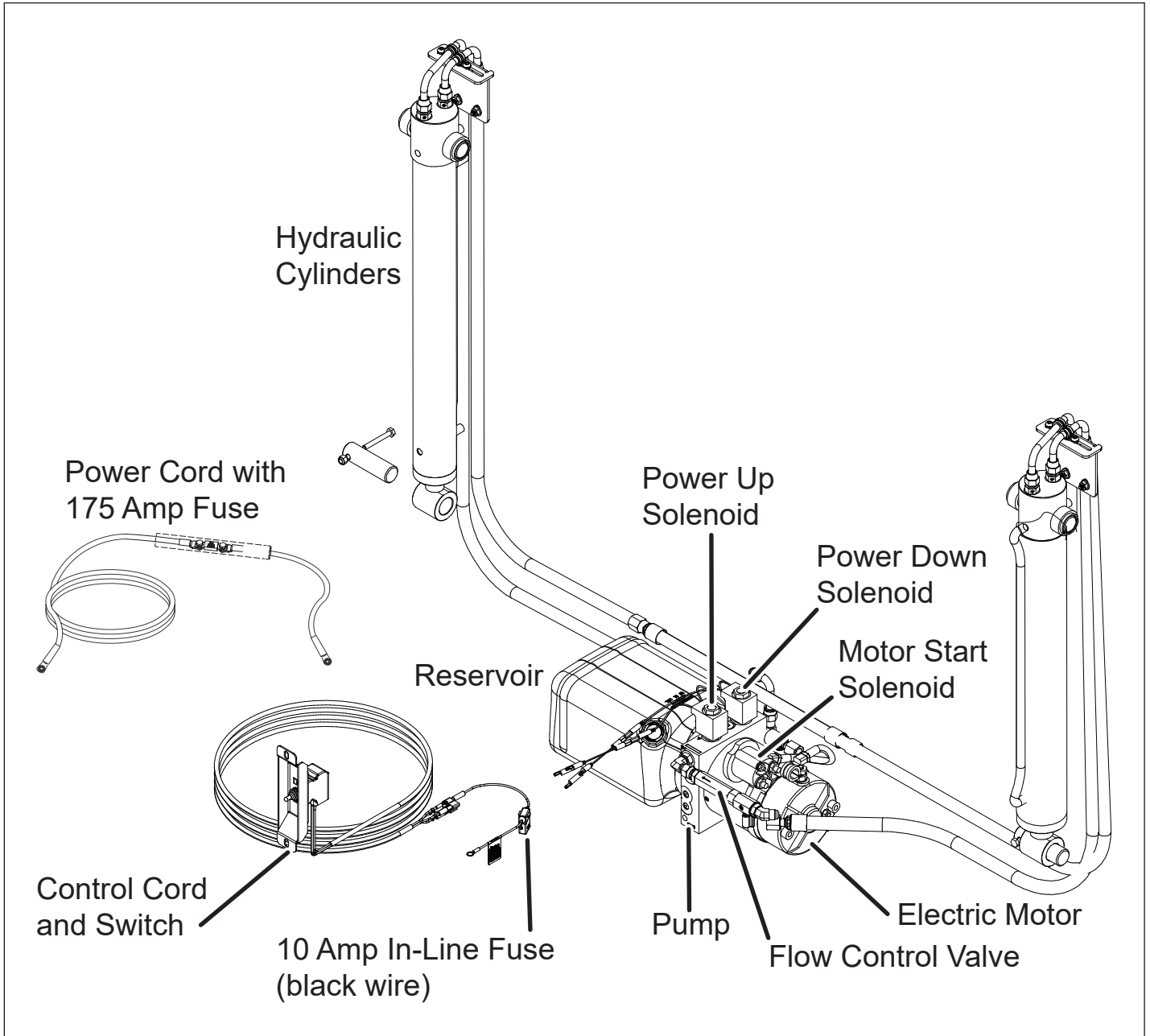


Illustration of a standard pump for liftgates of this type. Some pumps may vary in appearance or included parts.

4.3 Power Open / Close Pump Nomenclature

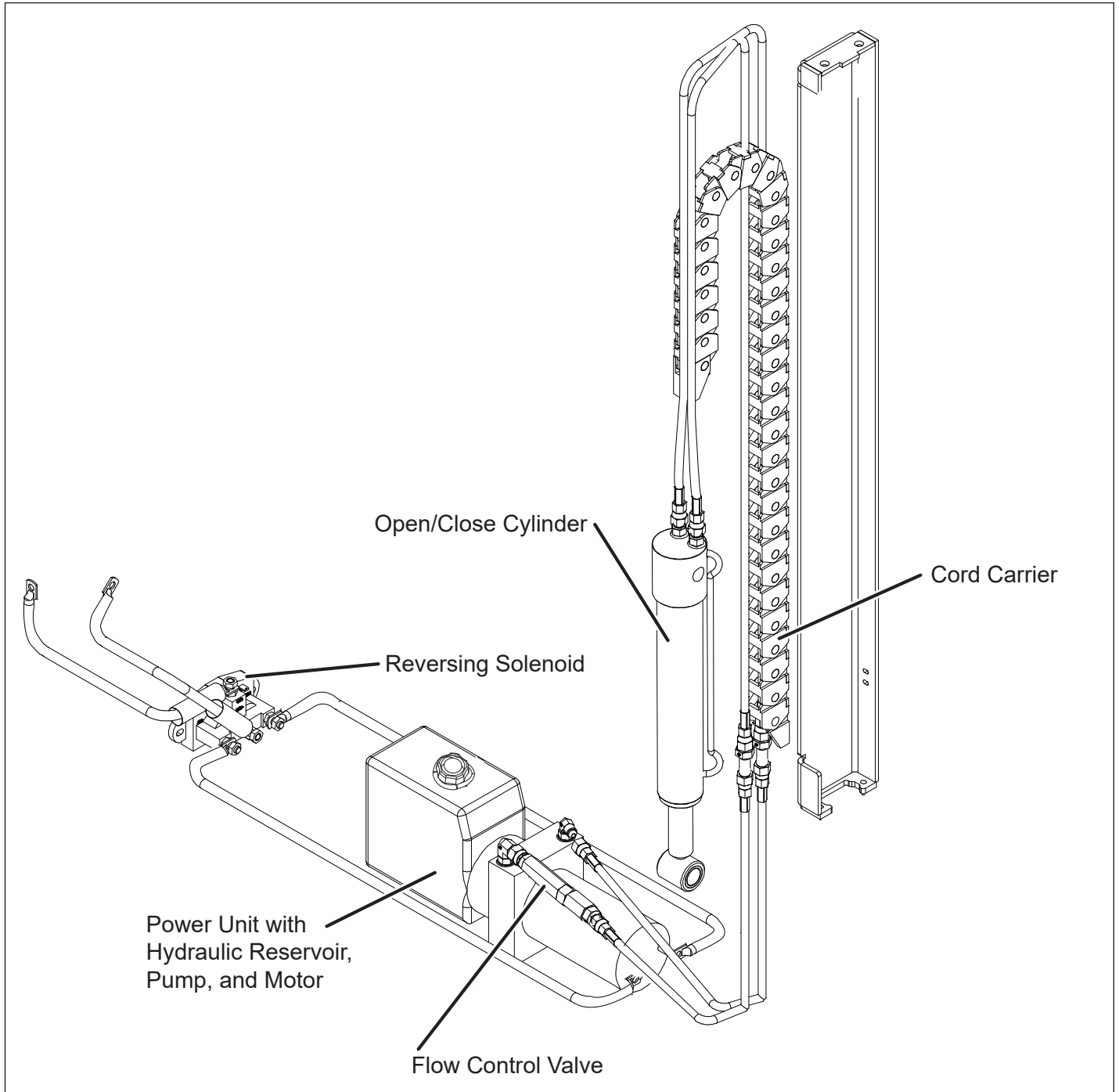


Illustration of a standard pump for liftgates of this type. Some pumps may vary in appearance or included parts.

5. Installation

5.1 General Information

These units should only be installed by those with sufficient skills to understand the installation and operation of the unit, along with the equipment required to install the liftgate. The installation instructions in this manual are intended to give typical installation methods to the installer for what we believe to be the most desirable sequence of installation. These instructions cannot replace a qualified installer.

SAFETY INSTRUCTIONS

Read and understand the general safety instructions located in section "3.1 General Safety Instructions" on page 8 before operating this liftgate.

5.2 Installation Safety Instructions

WARNING

Indicates a potentially hazardous situation

which, if not avoided, could result in death or serious injury.



Proper Installation

The success or failure of this liftgate to function efficiently will depend on a thorough and proper installation. Failure to read, understand, and follow the installation and operating instructions and safety recommendations in this manual and other related OEM manuals before installing the liftgate could result in serious injury or death.

When installed, this liftgate must not alter nor prevent vehicle compliance with any existing state or federal standards, and especially FMVSS 105. Each truck manufacturer's recommendations should be consulted for compliance. Also make sure the weight of the liftgate and its load will not overbalance the truck, possibly raising the front wheels off the ground.



Whenever working near batteries, keep sparks or open flames away from the top of the battery. Battery gas can explode.



Always follow all the manufacturer's safety recommendations when working around the truck's battery.



Sparks can cause an explosion of combustible materials. Take precautions to avoid sparks coming into contact with the truck's fuel tank, brake lines, or other flammable components.



A cut battery cable can cause arcing (sparks) resulting in loss of vehicle control. Never secure the power cable to anything which allows it to contact sharp edges, other wiring, the fuel tank, fuel lines, brake lines, air lines, exhaust system, or any other object that could cause the power cable to wear or be damaged.



If required for installation, always use a cutting torch in a well-ventilated area and, if in an enclosed area, vent the fumes to the outside.

WARNING



Breathing smoke and fumes can cause serious injury. Always follow all State and Federal health and safety laws and/or local regulations when using a cutting torch. Also, follow all manufacturer's safety guidelines. If other people are present during the installation of the liftgate, make sure they remain clear of the cutting area and are shielded from view of any welding. This will prevent serious eye injury from the bright light.



To avoid eye injury, always wear eye protection with the proper lens to protect your eyes. Tack welds must be strong enough to hold the weight of the individual components being held in place. Insufficient tack welds may not hold the parts in place, resulting in possible bodily harm.



Failure to prevent the truck from moving during the installation of the liftgate could result in a serious crushing injury. Do not work under the liftgate while it is suspended from the lifting equipment. Failure of the lifting equipment could cause serious crushing injuries.



Do not remove the lifting equipment until the liftgate is completely bolted or welded onto the truck frame.

5.3 Tools Required

The following is a list of suggested tools that should be used to install the liftgate.

- Overhead Crane or Forklift
- Mig or Stick Welder
- Heavy-Duty C-Clamps
- Tape Measure
- Level (small, magnetic)
- Cutting Torch (may or may not be needed)

5.4 Basic Mounting Information

1. The bed height is measured from the ground to the floor of the truck body. This liftgate fits on trucks with bed heights between 38 to 54 inches. If the bed height is less than 38 inches, contact Anthony Liftgates for specific installation instructions.

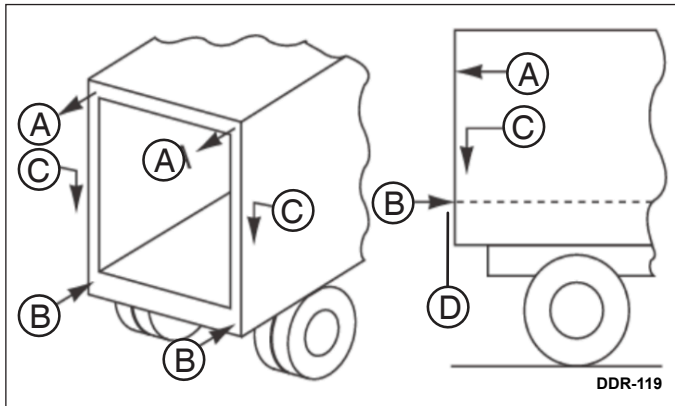
Note: All minimum bed height dimensions are measured with the truck loaded to full capacity. All maximum bed height dimensions are measured with the truck empty.

- Make sure the frame of the truck will support the following weights of the liftgate.

2500 lb. capacity models (each side wall & corner post)
 Tension 2700 lbs.
 Compression 2700 lbs.
 Shear 2700 lbs.

3000 lb. capacity models (each side wall & corner post)
 Tension 3200 lbs.
 Compression 3200 lbs.
 Shear 3200 lbs.

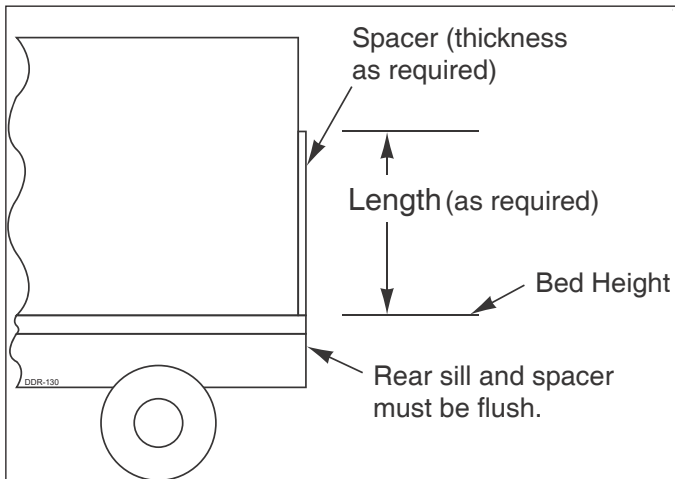
3500 lb. capacity models (each side wall & corner post)
 Tension 3700 lbs.
 Compression 3700 lbs.
 Shear 3700 lbs.



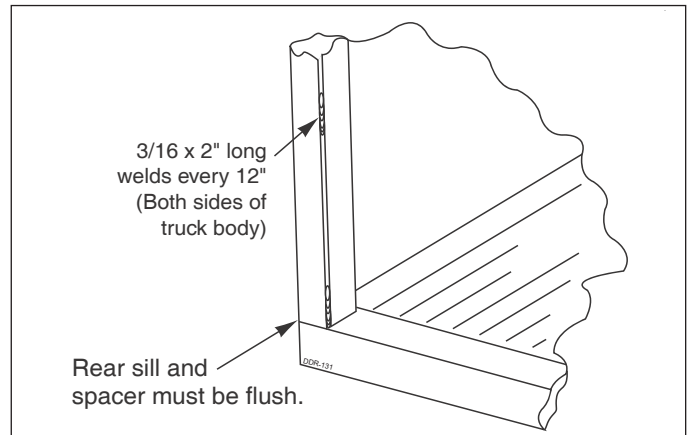
Locations of load. (A) Tension. (B) Compression. (C) Shear. (D) Corner post and rear sill are flush.

WARNING If the sill of the truck must be cut, it is the responsibility of the installer(s) to make sure the structure of the truck has not been weakened. Failure to follow this recommendation may result in damage to the truck body, causing possible injury or death to the liftgate operator.

- Make sure the corner posts are flush with the rear sill. If they are not flush, add spacers where needed.



- Weld the spacers to the corner post using 3/16 x 2" long welds every 12" long welds every 12".



5.5 Attaching the Liftgate to the Truck Body

SAFETY INSTRUCTIONS



Even though the liftgate is easy to install, the installation should be done with at least two people.

Note: Check the OEM vehicle manual for any special requirements prior to welding on the truck. If required, disconnect the battery cable before welding on the truck.

Note: The power unit box should contain plastic tie wraps for the power cable, one fuse assembly power cable, and one package containing decals and manuals.

WARNING Failure to prevent the truck from moving during the installation of the liftgate could result in serious injury or death from crushing.

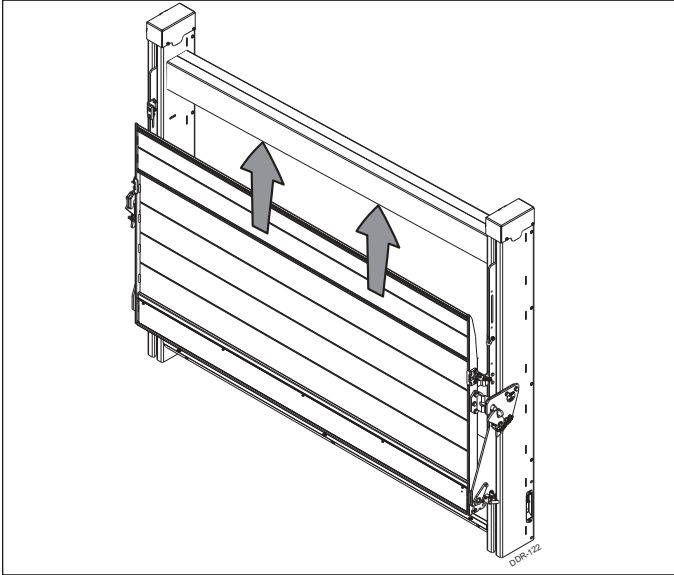
- Place the truck on a flat, level surface. Block the wheels to prevent possible truck movement during liftgate installation.
- If necessary, remove all obstructions from the rear of the truck that would interfere with the installation of the liftgate. Obstructions may include dock bumpers, ICC bumpers, taillights, or any other protrusion.
- Measure and mark the centerline of the liftgate.
- Measure and mark the centerline of the truck's rear sill.

Note: If the bolt-on kit is being used to install the liftgate, refer to "5.12 Bolt-on Kit Installation" on page 19.

- Lift and center the liftgate on the truck's rear sill. Make sure the top of the liftgate's housing is flush with the truck bed.

WARNING To avoid personal injury, do not work under the liftgate during installation.

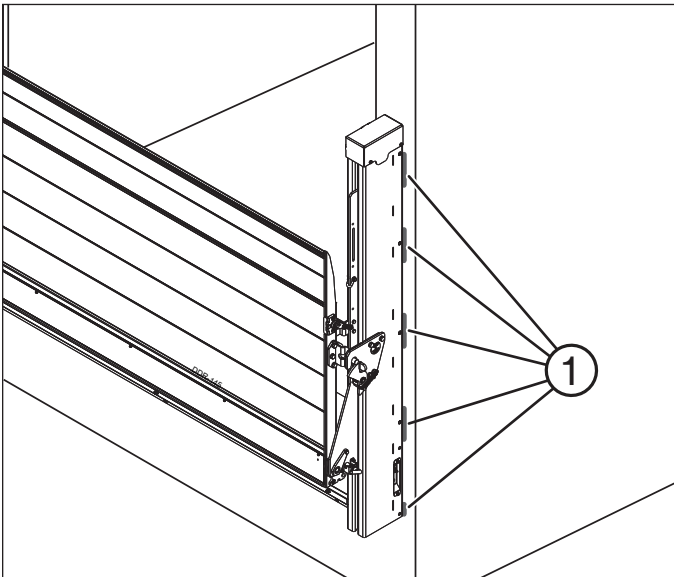
Note: One common method of installing the liftgate is to raise it using the spreader bar and an adequately sized forklift.




6. Clamp the liftgate to the frame of the truck, if desired to hold the liftgate against the truck body, using heavy-duty C-clamp(s) on each side. (Do not remove the lifting device at this time.)

WARNING  Do not remove the lifting equipment until the liftgate is completely bolted or welded onto the truck frame.

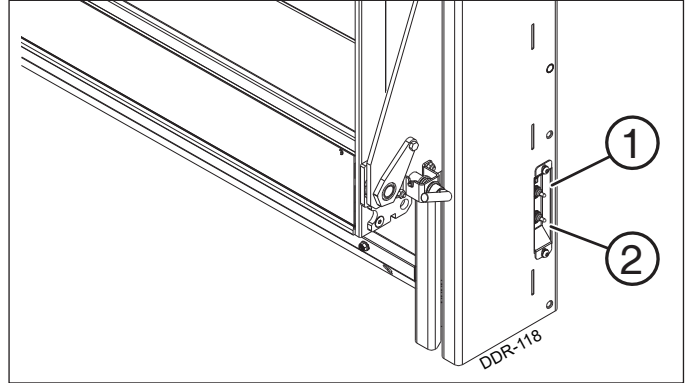
7. Weld (1) the liftgate's H-frame columns to the truck's side rails and the housing to the truck's rear sill.



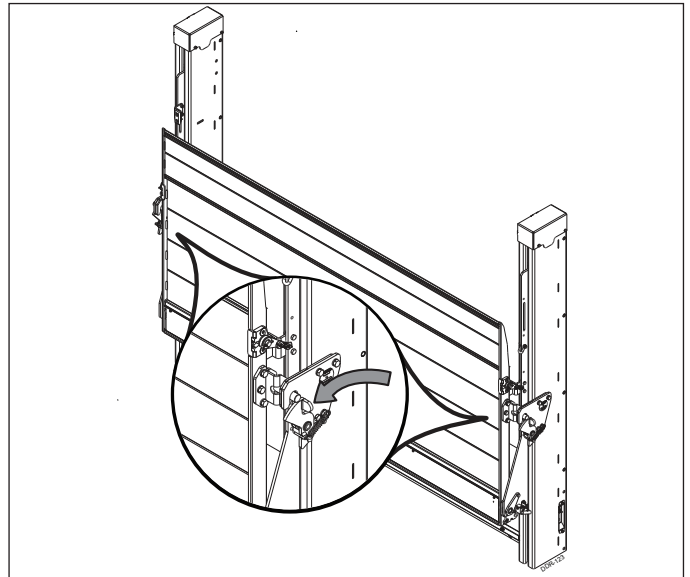
8. Temporarily connect the liftgate motor to an auxiliary battery or the truck's battery to check the operation of the platform. When using a temporary battery connection make sure all safety precautions are followed.

WARNING  Make sure the area in which the platform will open and close, and move up and down, is free of obstructions or people before operating the liftgate.

9. Depending on the assisted platform open option, the switch at the curbside location may have two control switches; the Up / Down Switch (1) and the Open / Close Switch (2).

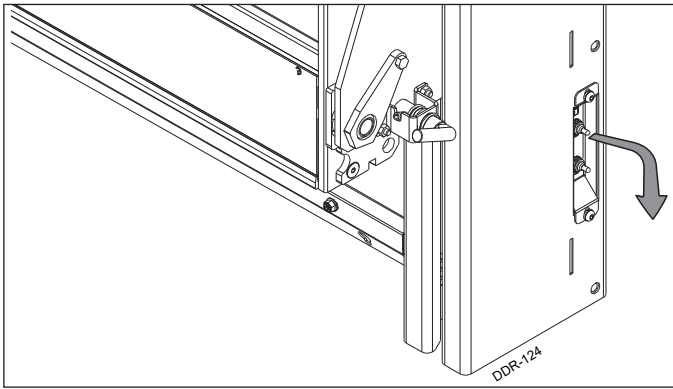


10. Release the curbside and streetside latches. The latches will remain unlatched until the platform is lowered.



Note: The latches will automatically re-latch every time the liftgate is raised into the TRAVEL position and must be released before operating the liftgate.

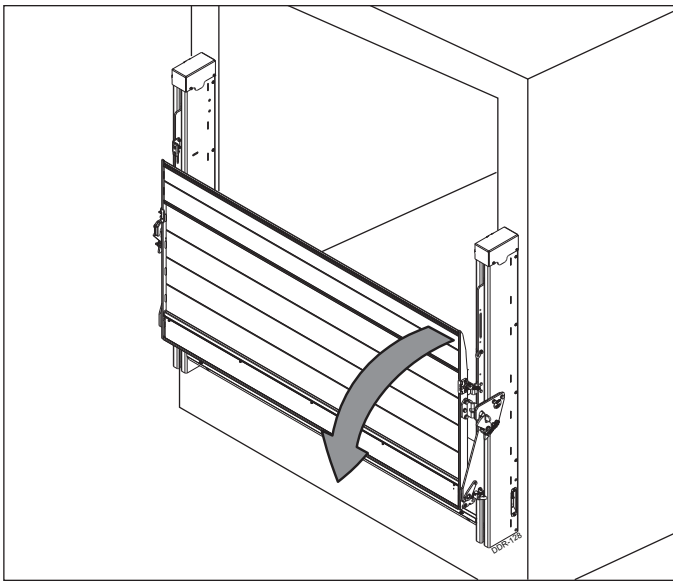
11. Lower the platform using the raise / lower switch on the curbside of the platform.



12. Unfold the platform.

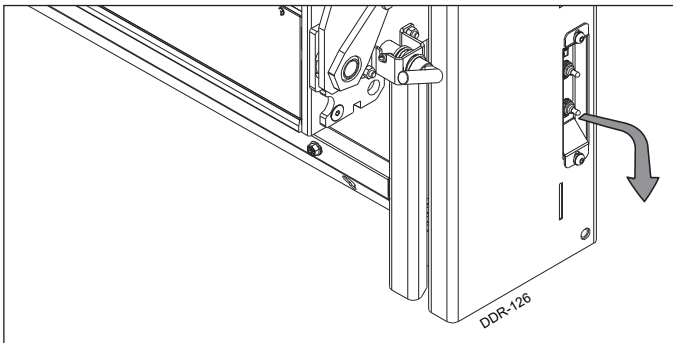
a. Manual Option

- Lower the platform to a height where it is easy to grasp the upper right-hand corner.
- Manually pull the platform outward while standing to the side.



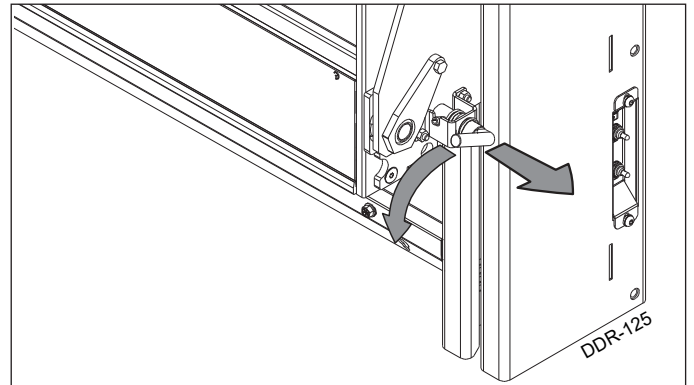
b. Hydraulic Option

- Standing to the side of the liftgate, hold the control switch in the open position until the platform is fully opened.

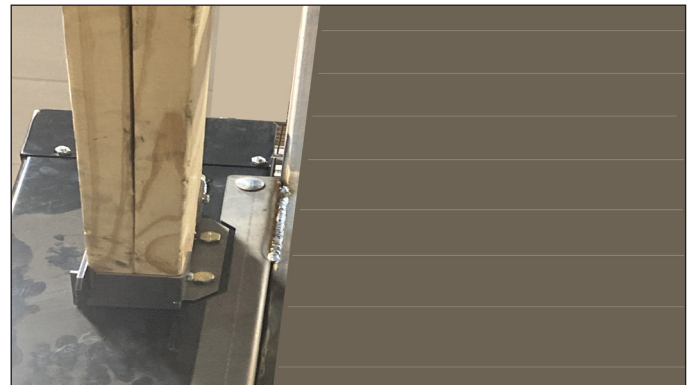
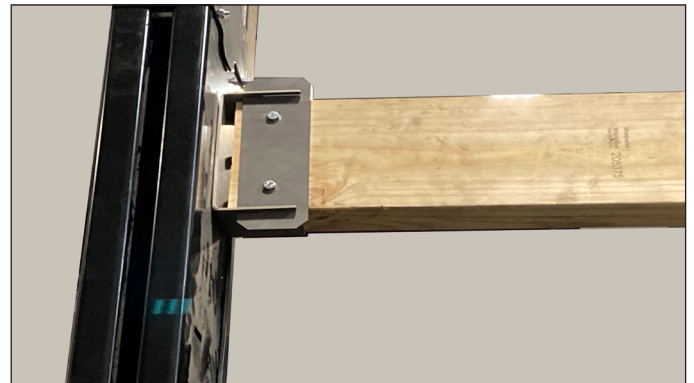


13. Operate the platform through its full range of motion using the temporary battery connection. Make sure it operates smoothly and easily without binding. If you experience a problem with the operation, contact Anthony Liftgates.

14. To stow the liftgate platform, first release the spring-loaded platform lock by pulling outward and rotating until the spring pin is securely in the lock notch. Then close the platform and run upward until it is latched in the column latches."



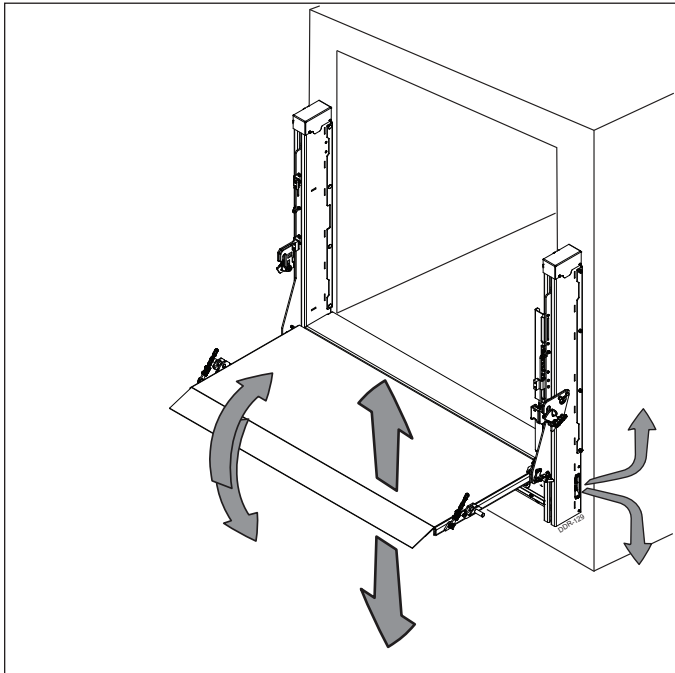
15. Remove the temporary, wooden cross-brace from the connecting brackets and then remove the brackets.



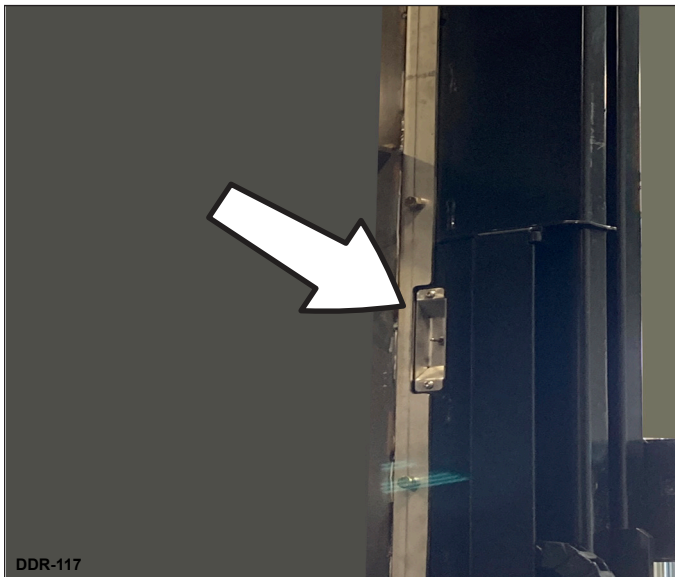
16. Connect the supplied battery cable to the truck's battery. Refer to "5.6 Electrical Connection to Truck's Battery" on page 16.

NOTICE Do not hold the switch in the open or close position for extended periods of time at the top or bottom of a cycle. Doing so will build heat in the hydraulic power unit, which may eventually lead to damage and premature component failure.

17. Verify the up, down, open, and close functions are working properly.
- This unit has two control switch locations and can be operated by either at any time. The up, down, open, and close switch is located on the outside of the curbside column to operate the liftgate from street level.



- An up and down switch is also located on the curbside column to operate the liftgate from the bed of the truck.



NOTICE Do not hold the switch to run the liftgate motor for extended periods of time at the top or bottom of a cycle. Doing so will build heat in the hydraulic power unit, which may eventually lead to damage and premature component failure.

5.6 Electrical Connection to Truck's Battery

There are three methods to connect the battery. Only one of the following methods is required to complete the wiring installation.

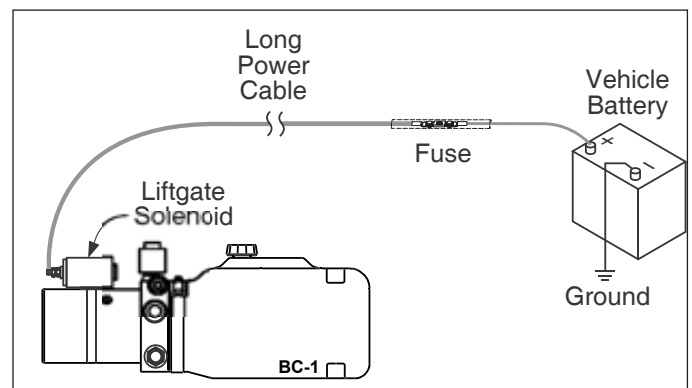
WARNING Never secure the power cable to anything which allows it to contact sharp edges, other wiring, the fuel tank, fuel lines, brake lines, air lines, exhaust system, or any other object that could cause the power cable to wear or be damaged. A cut battery cable can cause sparks resulting in loss of vehicle control, serious injury, or even death.

- Route the supplied power cable (with attached fuse assembly) from the battery to the liftgate power supply using one of the following procedures.
- Only one method is required to complete the wiring installation.
 - Direct Battery Connection (not recommended). Refer to "5.7 Direct Battery Connection (not recommended)" on page 16.
 - Cut-Off Solenoid Connection. Refer to "5.8 Cut-Off Solenoid Connection" on page 17.
 - Cut-Off Switch Connection. Refer to "5.9 Cut-Off Switch Connection" on page 17.

5.7 Direct Battery Connection (not recommended)

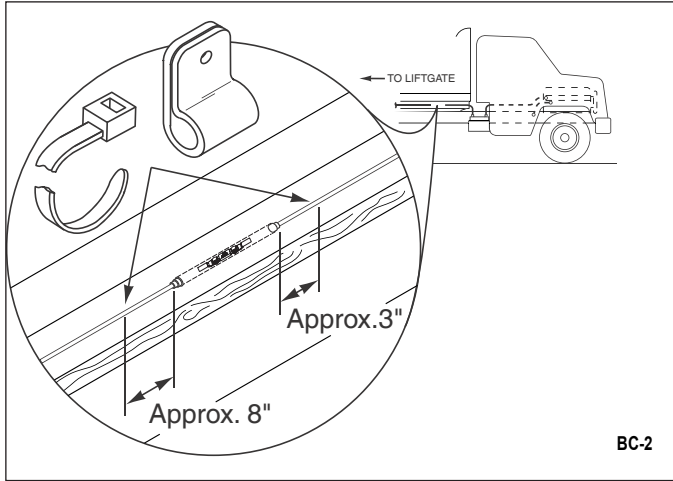
SAFETY INSTRUCTIONS Using the direct wiring connection is not recommended because it does not cut off power to the liftgate when the truck is left unattended. A cut-off switch or cut-off solenoid is recommended in order to disable the use of the liftgate when the truck is not in use.

- Position the fuse assembly end of the cable near the battery.



- Route the cable toward the back of the truck and the liftgate.

- If the area of the fuse assembly is attached to the long sill, locate one fastener or clip (battery side) within 3 inches of the end of the fuse assembly. Locate the other fastener (power unit side) within 8 inches of the fuse assembly. This will allow the fuse to be easily changed.



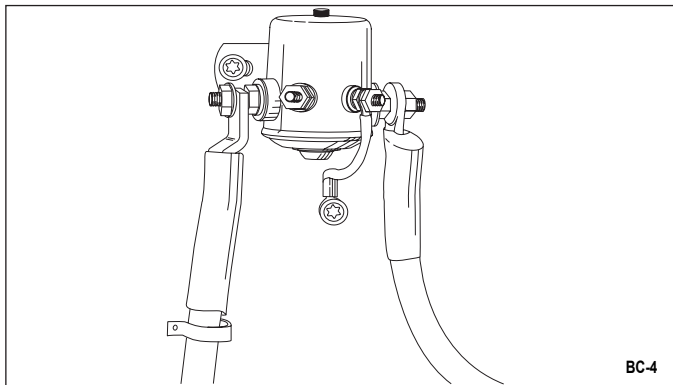
5.8 Cut-Off Solenoid Connection

WARNING Anthony Liftgates strongly recommends the installation of a power cut-off solenoid or cab cutoff switch. Not cutting off power to the liftgate when unattended can result in serious injury or death to unauthorized users or others near the liftgate.

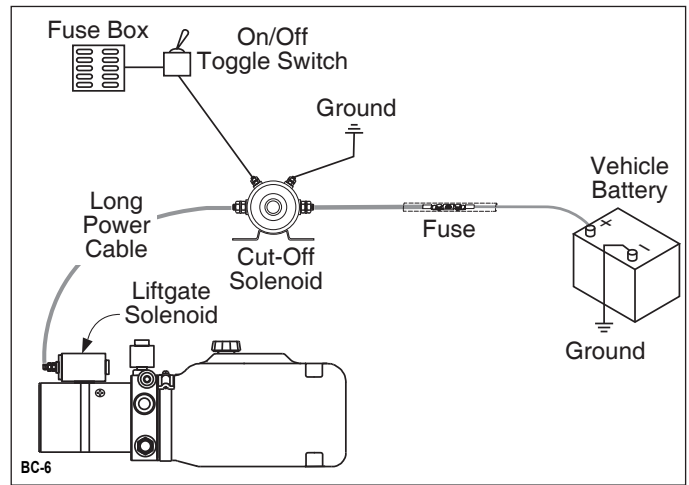
The installation of a cut-off solenoid is a recommended option for all 12 Volt electric liftgates. Installing a cut-off solenoid will help to prevent accidental or unauthorized use of the liftgate.

The optional A-133036 Cut-Off Solenoid Kit can be used in any truck, but is essential for tilt cab applications, as it requires only a lightweight wire running to the cab, not a large cable, as required by the cut-off switch.

Follow the directions on the installation instruction sheet that comes with the kit.



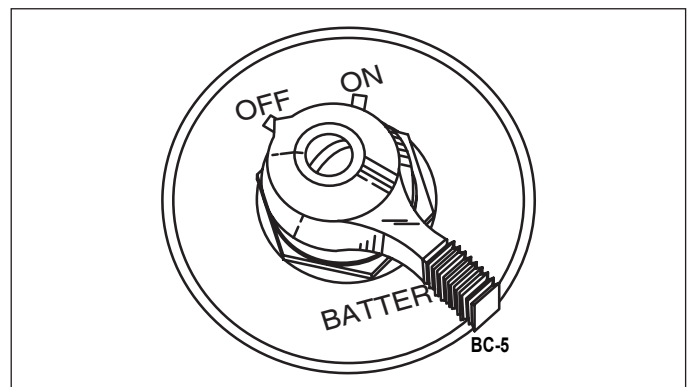
- Locate the cut-off solenoid between the fuse assembly and the power unit.



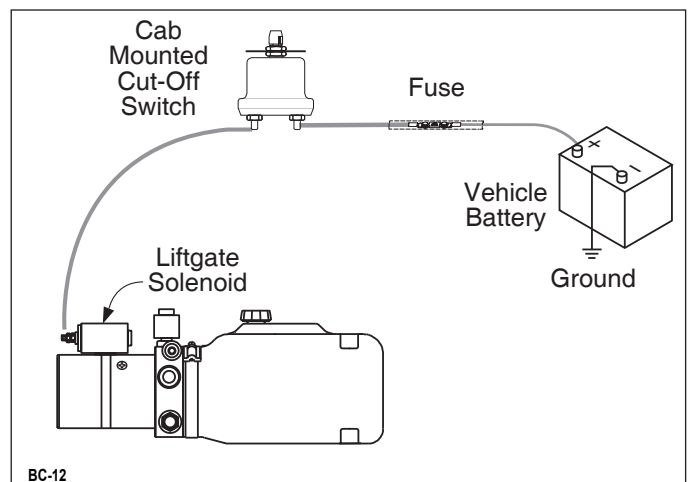
- Cut the power cable and install two new lug connections as described in section "5.10 Cable Lug Assembly" on page 18.

5.9 Cut-Off Switch Connection

The installation of a cut-off switch is also a recommended option for all 12 Volt electric liftgates.



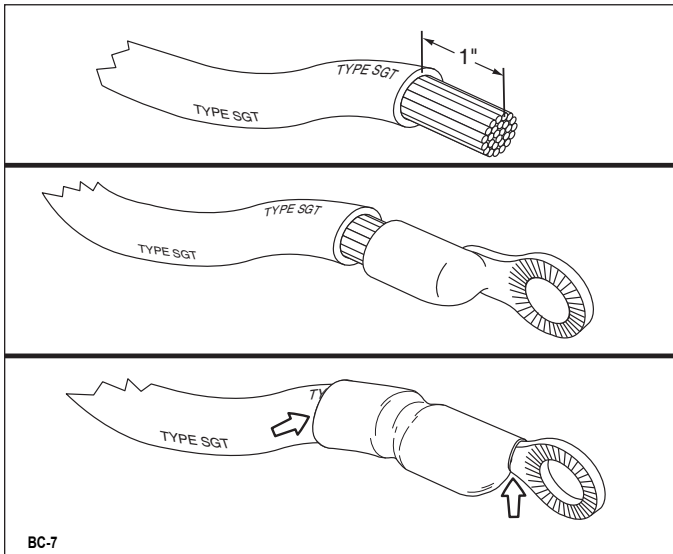
Installing a cut-off switch will help to prevent accidental or unauthorized use of the liftgate. Follow the installation directions on the installation instruction sheet that comes with the kit.



5.10 Cable Lug Assembly

To install new cable lugs on the end of the power cable, use the following directions.

1. Strip the insulation one inch back from the end of the cable to expose the copper wire.

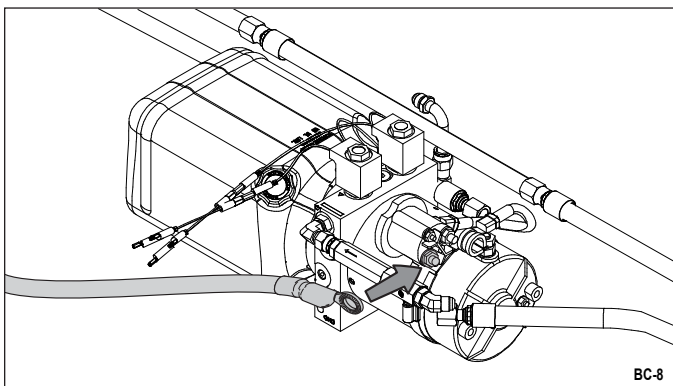


2. Position the cable lug on the exposed wire, as shown. Crimp the cable lug using a cable crimping tool (hydraulic or manual).
3. Use the supplied heat shrink tube to insulate the new connection, leaving only the mounting hole exposed.


NOTICE Proper wire connection is crucial to the life and dependability of the liftgate's electrical components. A poor connection can result in low Voltage causing the liftgate to work improperly. DO NOT crimp (smash) the cable lug with a hammer to secure it to the cable.

5.11 Cable Installation Between Battery and Power Unit

1. Connect the long section of the power cable to the motor start solenoid.




2. If needed, attach a ground strap, the same wire gauge or larger as the liftgate power cable, between the pump box and the truck frame.


WARNING  The liftgate must be properly grounded. A ground wire, the same gauge or larger as the liftgate power cable, must be connected from the negative post of the battery or batteries to the truck's frame. Some trucks may have a properly sized ground wire from the battery to the frame and would require no change. If, however, there is no ground wire or it is undersized, add the correctly sized ground wire.

If this instruction is not followed, damage to the truck chassis may occur. Improper grounding can cause the electrical current to travel through brake lines, steel braided power steering hoses, or other chassis wiring causing failure to these components! Failure of these components could result in loss of vehicle control.

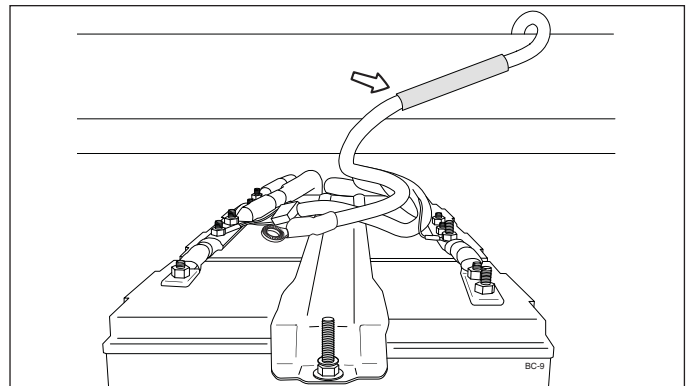
3. Route the power cable to the location for the power cut-off solenoid or the cab-mounted cut-off switch, attaching it with plastic tie wraps or wire clips.

WARNING  Never secure the power cable to anything which allows it to contact sharp edges, other wires, the fuel tank, fuel lines, brake lines, air lines, exhaust system, or any other object that could cause the power cable to wear or be damaged. A cut battery cable can cause sparks, resulting in the loss of vehicle control, serious injury, or even death.

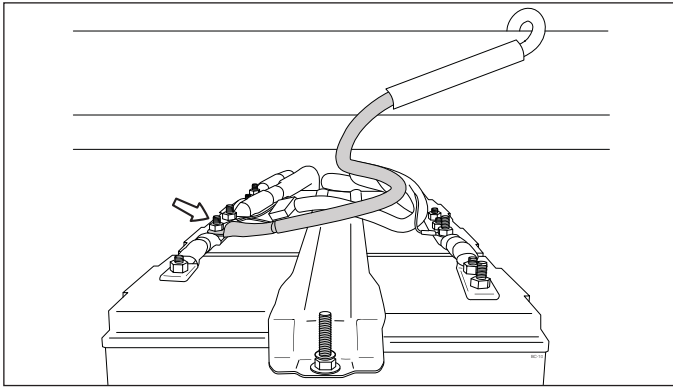
4. Install the power cut-off solenoid "5.8 Cut-Off Solenoid Connection" on page 17 or the cab cut-off switch "5.9 Cut-Off Switch Connection" on page 17.

WARNING  Anthony Liftgates strongly recommends the installation of a power cut-off solenoid or cab cut-off switch. Allowing power to the liftgate when the truck is unattended can result in serious injury or death.

5. Route the remaining length of power cable with the fuse near the battery box.

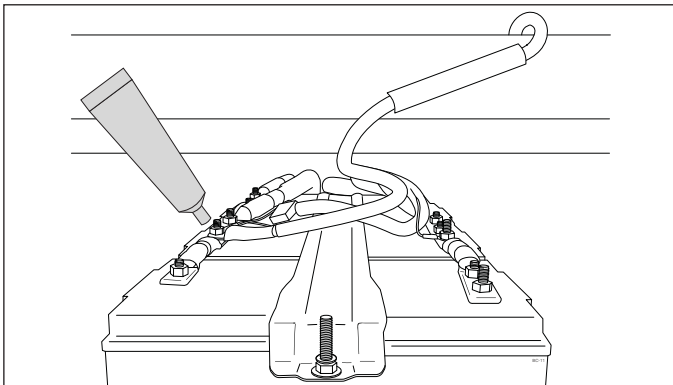


- Route the short, 3-foot section of cable into the battery box and connect the end to the positive (+) post of the truck battery.



- Use the control switch to raise and lower the platform.
- Coat any terminal ends, studs, and nuts in the liftgate electrical system with a suitable corrosion-inhibiting lubricant.

NOTICE Do not apply petroleum-based lubricant to the liftgate motor start solenoid. Use only a dry film lubricant on this component.



- Replace the battery box cover and lock it in place.
- Apply the supplied safety decals to the truck as indicated in "5.13 Decal Placement" on page 20.

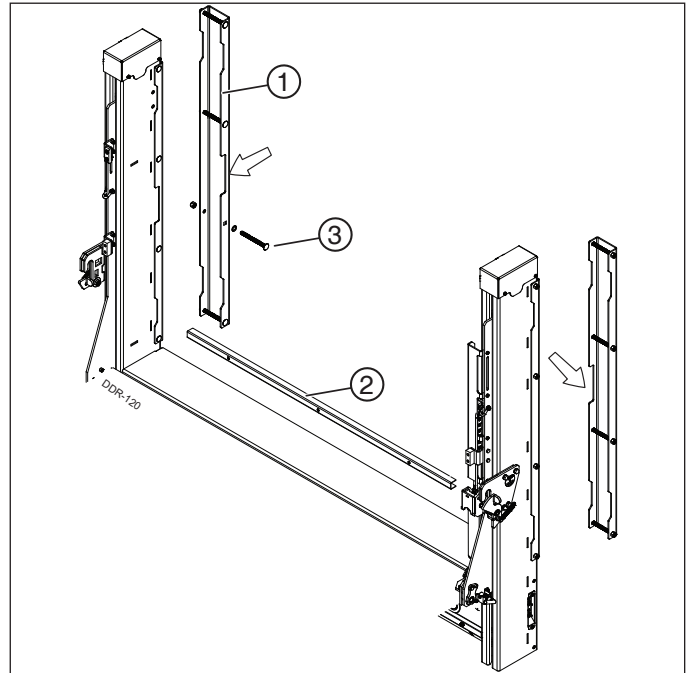
5.12 Bolt-on Kit Installation

All DDR liftgates are designed and manufactured as "bolt-on-ready" with predrilled holes in the H-Frames for the optional A-160504 or A-160504-SS Bolt-on Kit.

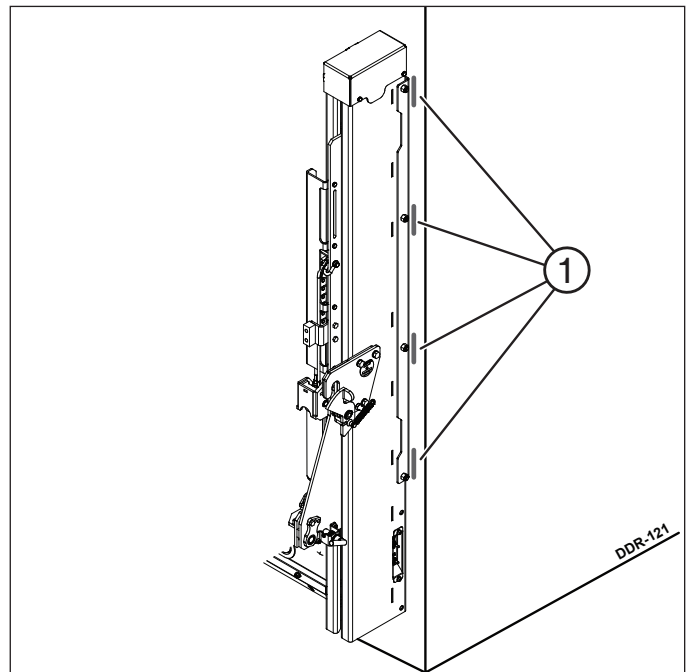
Bolt-on installation is recommended in applications with a galvanized liftgate finish to preserve the integrity of the factory's corrosion-resistant coating. Bolt-on channels also simplify the welding process since welding galvanized steel requires extra caution.

Note: Bolt-on channel kits are optional and may be made of stainless steel, unfinished steel, painted steel, or aluminum, depending on the vehicle design.

- Remove the bolts (3) from channels (1) and (2).



- Attach channels (1) to the H-frame using removed hardware (3). Attach the channels making sure the three notches are facing inward (center notch shown with arrow).
- Insert channel (2) into the pocket on the rear of the H-frame.
- Follow the "standard installation process" for locating and attaching the liftgate to the truck body.
- Weld channels (1) to the truck body with four 3 inch long welds (minimum) at each bolt location, as shown. Weld both sides of the channel to the truck body (eight welds per channel).



6. Slide channel (2) against the truck body and weld it in place using 1-1/2 long welds every 12 inches.
7. Insert and tighten three bolts and related hardware through channel (2) into the liftgate frame.
8. Continue with the standard installation process.

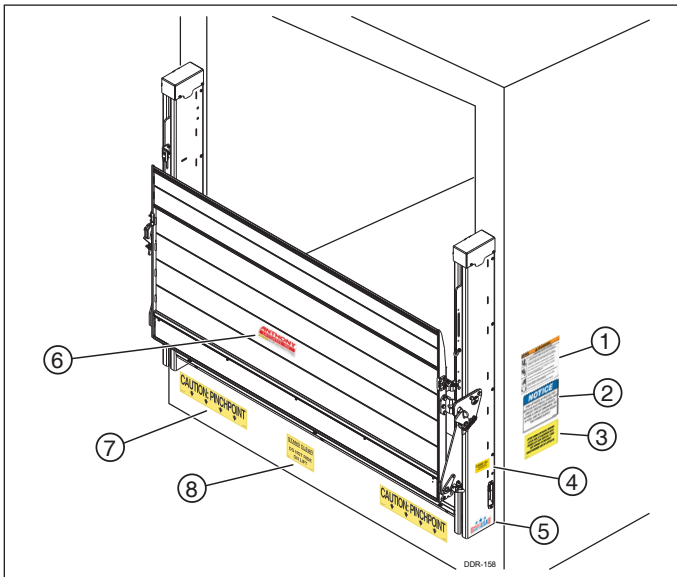
Note: If a bolt-on application calls for the construction of a bolt-on-ready rear truck frame instead of the bolt-on kit, care must be taken to ensure proper alignment of the truck body attachments and liftgate hole patterns. Contact Anthony Liftgates customer service to obtain dimensions if performing this type of installation.

5.13 Decal Placement

SAFETY INSTRUCTIONS

To prevent possible injuries due to improper operation, make sure all decals are attached to the liftgate and truck and are legible.

Attach, factory-supplied, decals to truck's body, as shown.



Item	Part Number	Description
1	A-131115	Warning, Personal Injury
2	A-150238	Notice - Protected With Electrical Overload Circuit Breaker
3	ATU-141	After Using Liftgate
4	A-131061 A-131062 ATU-177	2500 Lb. Maximum Capacity 3000 Lb. Maximum Capacity 3500 Lb. Maximum Capacity
5	A-150601	Made In The USA
6	A-131034	Anthony Label
7	AR-18-76	Caution: Pinch Point
8	ATU-146	Stand Clear - Do Not Ride
9	A-131001	10 Amp Fuse Changing Procedure (attached to control wiring in pump box)
10	A-131028	Weld Warning (mounted inside pump housing)
11	A-131133	Hydraulic Fluid (mounted on hydraulic reservoir)
12	A-131125	Warning, Galvanized Fumes Hazard (galvanized models only)

1. **ANTHONY LIFTGATES, INC. WARNING**

PERSONAL INJURY HAZARD

Operation may require user to stand on platform. To prevent injury or death of operators or bystanders:

- Read and follow operator/owner manual for safety, operation, inspection, and maintenance instructions.
- Do not place unstable or unsafe loads on platform.
- Do not allow loads to extend over edge of platform.
- Do not exceed capacity or use liftgate for anything other than intended purpose.
- Be aware of surroundings when operating liftgate.
- Do not allow body parts to contact moving components.
- Ensure footing is stable and stand away from edge before raising or lowering platform.
- Owner/operators must properly maintain liftgate.

A-131115

2. **NOTICE**

THIS LIFTGATE IS PROTECTED WITH AN ELECTRICAL OVERLOAD CIRCUIT PROTECTION DEVICE, EITHER A CIRCUIT BREAKER, OR A FUSE, AND IS LOCATED NEAR THE POWER SUPPLY


A-150238

3. **AFTER USING LIFTGATE, SECURE LATCH AND, IF EQUIPPED WITH POWER CUT OFF SWITCH, TURN OFF POWER TO PREVENT UNAUTHORIZED USE OF LIFTGATE.**

ATU-141

4. **2500 lb. MAXIMUM CAPACITY**

A-131061

CAUTION  Make sure the proper "MAXIMUM CAPACITY" decal is placed on the truck for the appropriate lifting capacity of the liftgate being installed. Do not put a higher-rated decal on a liftgate with a lower capacity; this could result in liftgate damage or possibly personal injury.

5.



6.



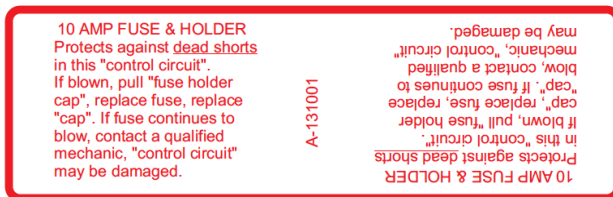
7.



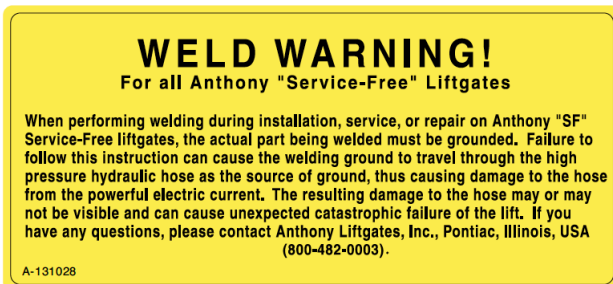
8.



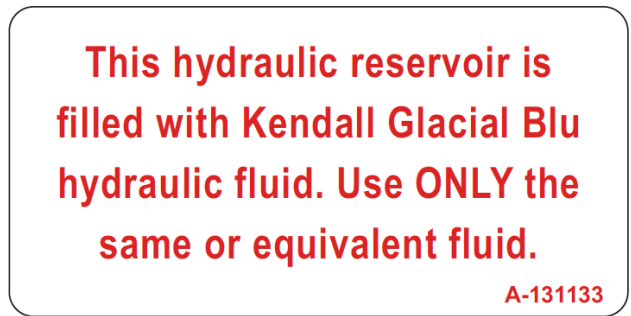
9.



10.



11.



Note: This oil recommendation is used only for the power open/close hydraulic circuit.

12.



6. Maintenance and Inspection

6.1 Maintenance Safety Instructions

SAFETY INSTRUCTIONS

Read and understand the general safety instructions located in section "3.1 General Safety Instructions" on page 8 before operating this liftgate.

It is the responsibility of the maintenance personnel to understand the proper maintenance, parts replacement, and operation procedures. Be aware of the inherent dangers in the use of this product and the tools used to install any replacement parts. Read, understand, and follow all Warnings, Cautions, Notices, Safety Instructions, and Notes in this manual and on the liftgate.

WARNING

Indicates a potentially hazardous situation

which, if not avoided, could result in death or serious injury.



Do not work under the liftgate while it's in a raised position. Failure of the liftgate's structural components, while replacing parts, could cause serious crushing injuries.

CAUTION

The following safety instructions are provided to help prevent potential injury. Not following these instructions may lead to injury.



When maintaining the liftgate or installing replacement parts, wear appropriate personal protective equipment. This list may include, but is not limited to:

- A hard hat.
- Protective shoes with slip resistant soles.
- Protective goggles, glasses, or face shield.
- Protective clothing.



Do not attempt to install replacement parts under the influence of drugs or alcohol.



Do not install a replacement part if it's damaged. If you believe the part has a defect, which could cause it to work improperly, you should immediately stop the installation and remedy the problem before continuing.



Make sure the liftgate will not be damaged or made unsafe by the installation of the replacement part.



Always use genuine, factory OEM replacement parts to restore the liftgate to its original specifications. Anthony Liftgates will not accept responsibility for damages as a result of using unapproved parts.

SAFETY INSTRUCTIONS

The following safety instructions are provided to help prevent injury or limit equipment damage.



To prevent injury, replacement parts should only be installed by a qualified installer having installation knowledge and skill.



Do not modify safety devices. Unauthorized modifications may impair the liftgate's function and/or safety features.



Make sure all replacement parts are in good working condition and properly installed.

6.2 Periodic Inspection Points

All Anthony Liftgates are "Grease-Free", which means they have lubrication-free bushings at the major pivot points.

6.2.1 Daily Inspection

- Make sure the liftgate operates freely and smoothly throughout its entire range of movement.
- Check all pins and pivot points. Make sure they are secured with proper retainers. Replace worn bushings and/or pins.
- Make sure control switches properly operate.

6.2.2 Monthly Inspection

Mechanical Components

1. Make sure the liftgate operates freely and smoothly throughout its entire range of movement.
2. Check for damage to the liftgate, such as bent or distorted parts. Check for excessively worn parts.
3. Check for cracked welds which may have resulted from overload or abuse.
4. Check all pins and pivot points. Secure all pins with proper retainers. Replace worn bushings and pins.
5. Make sure all springs and latches are in good working condition.

Power Units

6. Check for oil leaks in the following areas:
 - a. Hydraulic lift cylinders and open close cylinder.
 - b. Hydraulic hoses. Replace any hose that shows signs of leakage or excessive abrasion of the covering.
 - c. Check all hydraulic fittings for damage or leakage. Tighten fittings to stop leaks or replace if damaged.
7. Check reservoir oil level. Refer to "6.3 Power Module Fluid" on page 23 for additional information.

Electrical Components

8. Make sure all electrical wires, switches, and connections are in good working condition and operate properly.
9. Proper wire connection is crucial to the life and dependability of the liftgate's electrical components. A poor connection can result in low Voltage, causing the liftgate to work incorrectly.
10. Check the fluid level of the vehicle battery. Fill as required.

⚠ WARNING Keep sparks, lighted matches, and open flames away from the top of the battery, because battery gas can explode. Always follow all the manufacturer's safety recommendations when working around the truck's battery.

Safety Signs and Informational Decals

11. Examine all warning, capacity, and operational decals. If they are not readable, replace them. Decals may be obtained free of charge from your authorized dealer.

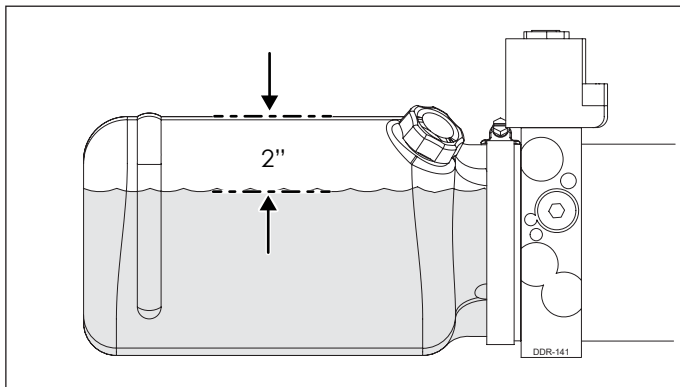
6.2.3 Semi-Annual Inspection

In addition to the items requiring monthly inspection, also inspect the condition of the hydraulic fluid.

If the oil in the hydraulic tank is dirty, drain the oil and flush the entire system. Refill the system with the recommended oil. Refer to "6.3 Power Module Fluid" on page 23 for additional information.

6.3 Power Module Fluid

Liftgate power unit - With the platform fully raised, the oil level should be within 2 inches of the top of the reservoir.



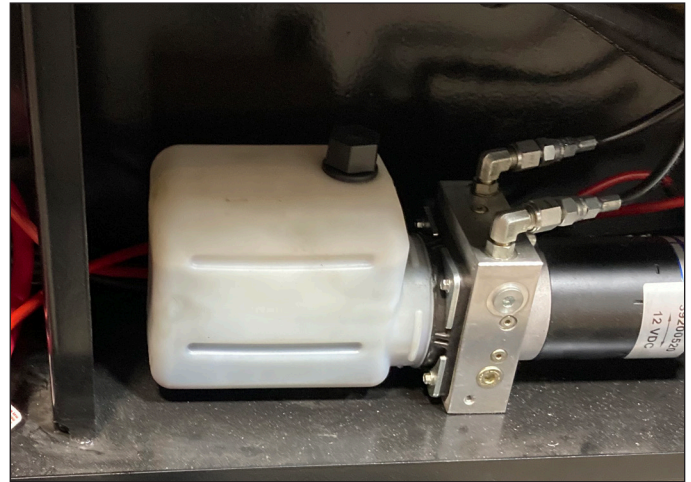
NOTICE To prevent damage to the pump, use only the recommended Hyken Glacial Blu anti-wear, low-viscosity, hydraulic fluid in the power unit reservoir.

In an emergency, use any anti-wear hydraulic fluid, but flush the system and replace it with our recommended fluid soon as reasonably possible. Do not mix hydraulic oil and automatic transmission fluid due to possible compatibility problems.

Use the appropriate viscosity of fluid based on the surrounding climate conditions. Viscosity is important because the pump will not cause a temperature increase to the oil in the reservoir, like a typical closed-loop hydraulic system.

DO NOT use brake fluid in place of our recommended fluids.

Platform power open unit - With the platform open, the oil level should be within 2 inches of the top of the reservoir.



6.4 Rephasing Hydraulic Cylinders

The liftgate drive system consists of two vertical hydraulic cylinders. These cylinders are designed to stay in time with one another, meaning that the platform will remain substantially level from left to right throughout the lift and lower cycle.

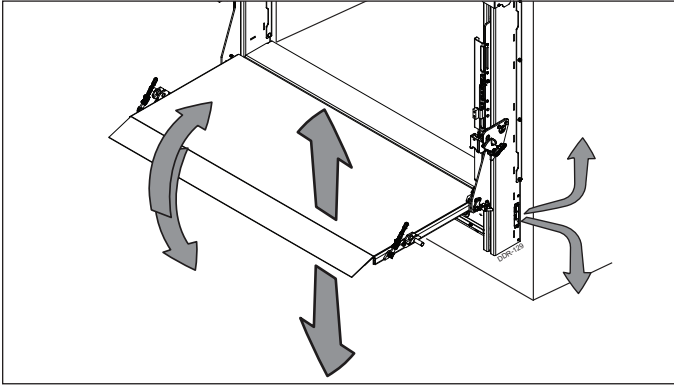
During normal operation, one side of the platform may move slightly ahead of the other. If the platform is uneven by more than one inch from left to right, the cylinders need to be rephased.

To rephase the cylinders:

1. Raise the liftgate to its maximum height.
2. Allow the power unit to continue to operate for an additional ten seconds.
3. Lower the liftgate to its lowest position and observe the angle of the platform.
4. If an unlevel condition persists, contact Anthony Liftgates Customer Service for technical support.

6.5 Checking the Control Switch

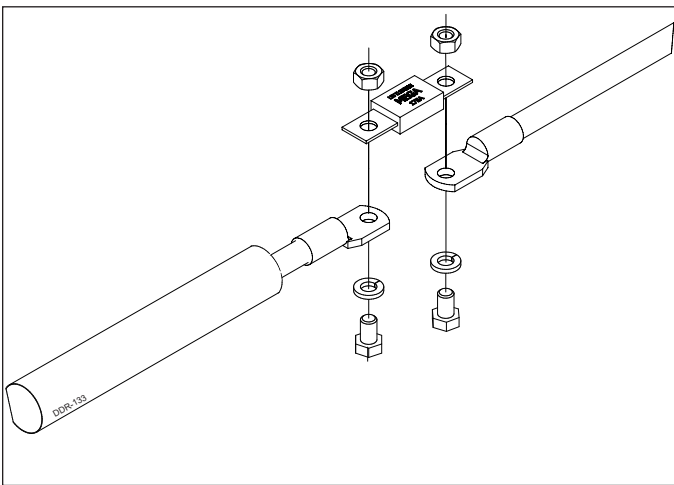
Control switches are permanently sealed (potted) and cannot be checked. If the control switch is not working properly, replace it after checking the 10 Amp fuse as referenced in "6.7 Control Switch Fuse (10 AMP)" on page 24.



6.6 Main Power Cable Fuse (175 AMP)

CAUTION To avoid injury or property damage, disconnect the liftgate's power cable from the battery(ies) before starting to replace the fuse. Do not ignore this instruction or an "arc" can occur, resulting in personal injury or property damage.

1. Cut and remove the heat shrink tube to expose the fuse, mounting hardware, and lugs.
2. Remove the bolt, washer, and lock washer from each end of the fuse.
3. Use the A-133607, 175 Hi-Amp Fuse Replacement Kit for the replacement parts.
4. Slide new heat shrink tube over one side of wiring.
5. Bolt the new fuse to the cable lugs using the bolts, washers, and lock washers, as shown.

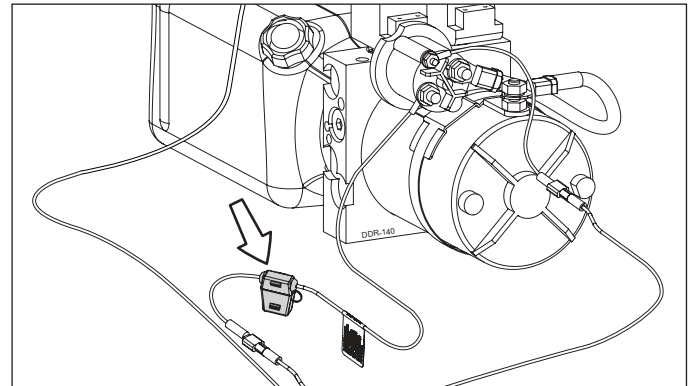
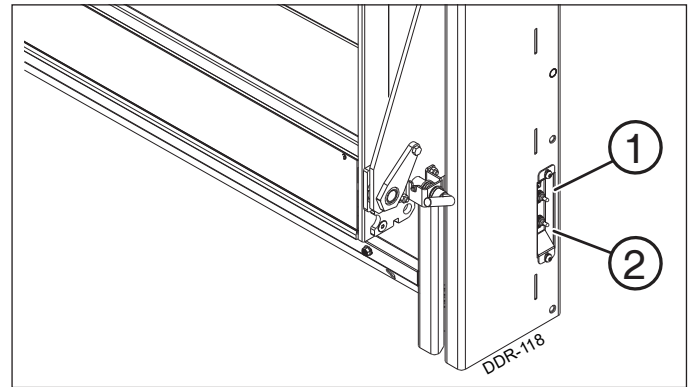


6. Slide the heat shrink tube over the fuse, hardware, and lugs. Using a heat gun apply heat evenly to shrink the tubing.
7. Reconnect the power cable to the battery after making sure the platform area is clear.

Note: If the fuse continues to blow, contact a qualified mechanic to remedy the problem.

6.7 Control Switch Fuse (10 AMP)

If the control switch is not operating the liftgate, check the in-line fuse located on the control cable inside the lower housing.

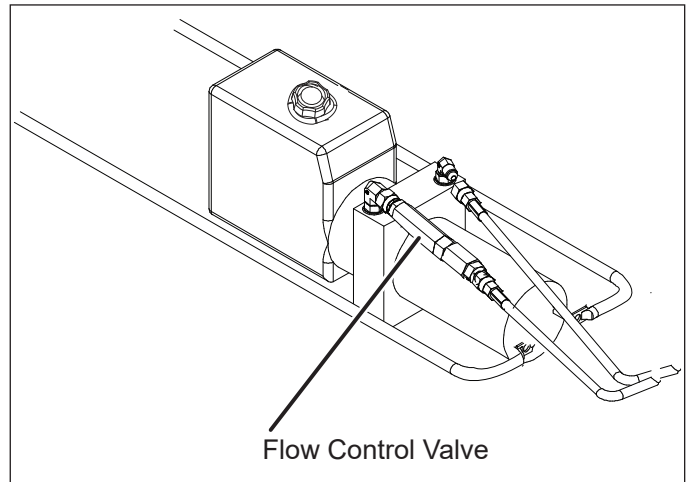
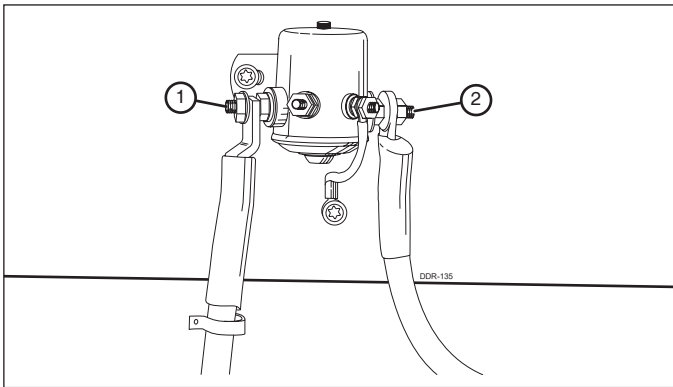
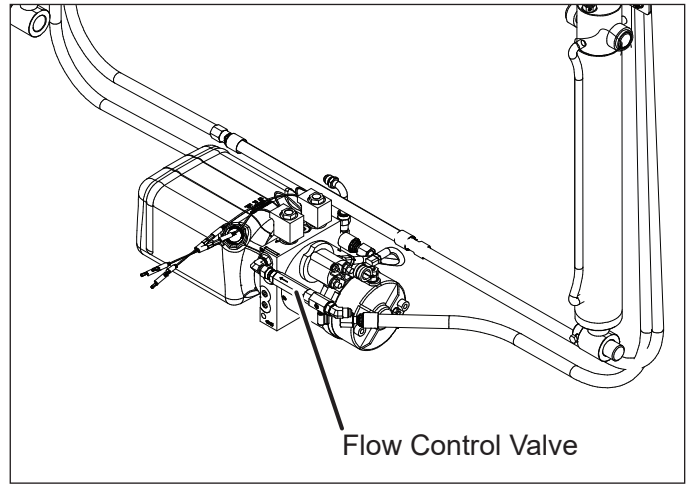
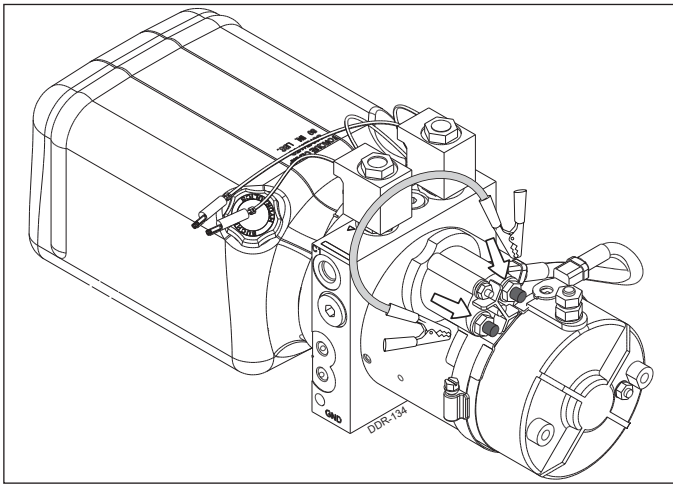


CAUTION Stand clear of the liftgate when checking the control switch. It is possible for the liftgate to activate when testing the switch, which could lead to personal injury.

6.8 Checking Motor Start Solenoid and Power Cut-off Solenoid

Both the motor start solenoid and power cut-off solenoid can be checked by bypassing the solenoid itself.

1. Use jumper cables for this test.
2. Connect one jumper cable to battery side (1) of the solenoid. Connect the other cable to motor side (2) of the solenoid.
3. If the liftgate is activated, the solenoid is defective and should be replaced.



6.9 Checking the Power Cable

To check for a defective power cable, run the motor directly from a spare battery using jumper cables.

1. Remove the battery connection to the motor.
2. Connect the negative jumper cable (ground) directly to the liftgate. Connect the positive cable to the terminal on the motor start solenoid.
3. If the motor operates, the battery cable is defective and should be replaced.

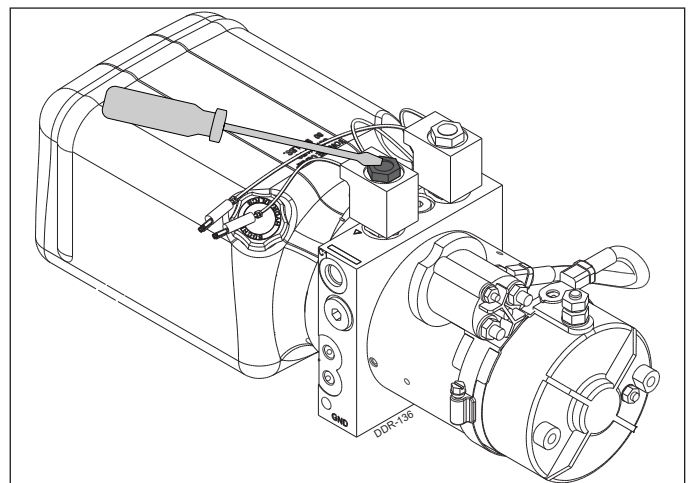
6.10 Checking Flow Control Valve

If the cylinder does not operate or operates slower than normal, remove the flow control valve and hook the hydraulic hose directly to the cylinder. If the cylinder operates properly, replace the flow control valve.

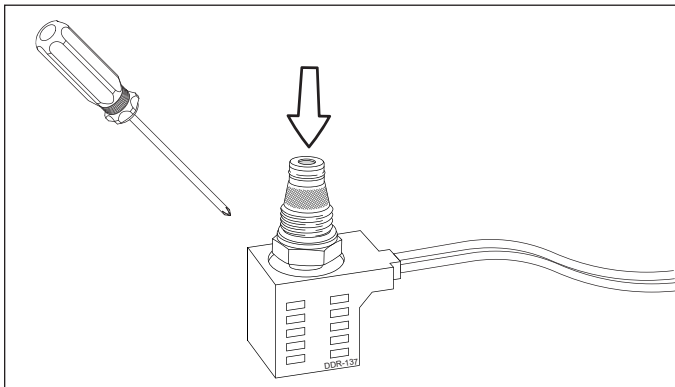
⚠ WARNING Do not operate the liftgate without the flow control valve. Serious injury or death could result if this action is not followed.

6.11 Checking Lowering Valve Cartridge and Solenoid

1. Place the liftgate on the ground in the open position.
2. Place a steel screwdriver over the top of the lowering valve solenoid.

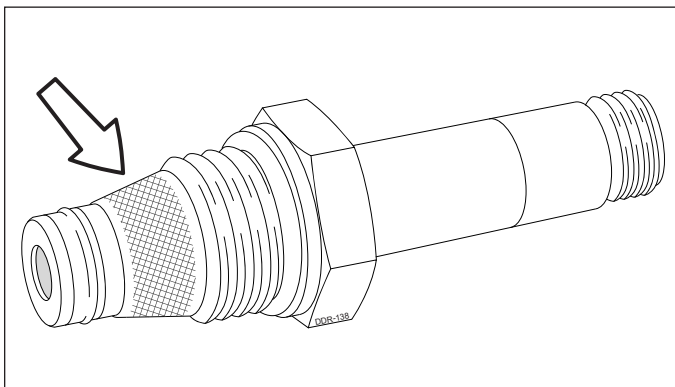


3. Momentarily activate the control switch in the DOWN position. The screwdriver should be attracted to the magnetic field created by the solenoid.
4. If no magnetic pull is produced, the solenoid is defective and should be replaced. If the solenoid is activated, check the cartridge valve.
5. Remove the solenoid from the valve assembly.
6. Remove the valve cartridge from the pump body.
7. Clean the cartridge and blow it dry with compressed air (not greater than 30 psi). Also, blow out the pump body.
8. Use a small screwdriver and carefully press on the spool inside the cartridge. If the spool moves freely, the cartridge is good. If it does not move, replace the cartridge, as the spool could be bent, pitted, or damaged in some other way.



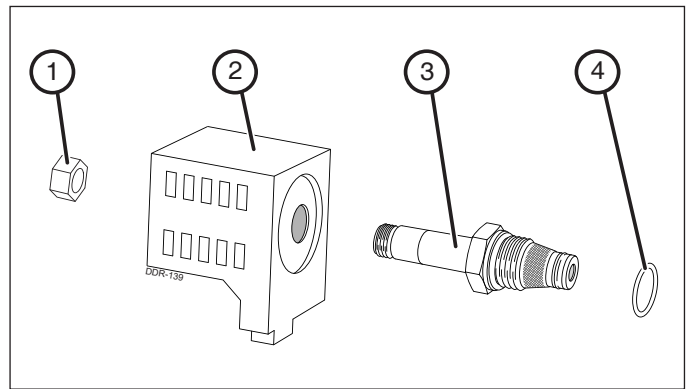
6.12 Solenoid Valve Screen

If the solenoid is working electrically, check the debris screen and clean if dirty.



6.13 Replacing Solenoid Valve

1. While installed in the pump, remove nut (1).
2. Remove coil (2) from cartridge (3).
3. Remove cartridge (3) from pump body.
4. O-ring (4) is not required on current models and can be discarded.
5. Replace the cartridge and reinstall the coil.



6.14 Checking Cylinder Piston Seals (drifting - caused by seal leakage)

Power Down Models

1. Check the lowering valve. Make sure it is operating correctly, and the valve is not sticking or dirty. Refer to "6.11 Checking Lowering Valve Cartridge and Solenoid" on page 25.
2. If the lowering valve is operating properly, then the drifting is most likely caused by worn piston seals. Replace the cylinder.

6.15 Checking System Pressure

To check the "power up" pressure setting:

1. Place the liftgate on the ground and remove the pressure hose from the power-up port of the pump.
2. Install a T-fitting (customer-supplied) into the power-up port.
3. Connect a pressure gauge and reconnect the hydraulic hose.

The pressure gauge must be rated above the maximum pressure of the liftgate. For example, use a 4000 psi pressure gauge on a 3000 psi maximum capacity liftgate.

4. Raise the liftgate and check the pressure on the gauge.

Low-Pressure Threshold Chart			
Model	Power Up	Power Down	Cylinder
2500			
3000			
3500			

WARNING Do not stand or work in the platform's work area while operating the liftgate. Place the pressure gauge so it can be read while operating the liftgate from a safe location. Serious injury or death could result if this action is not followed.

5. Check the power down relief valve pressure in the same way as the gravity down system by installing a T-fitting and pressure gauge.

6.16 Power Module Oil Pickup Tube and Filter

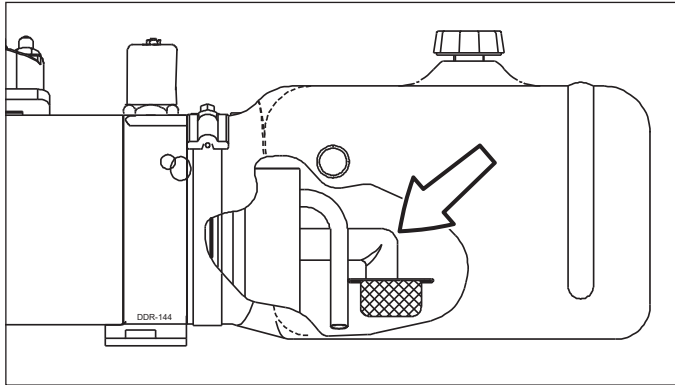
The oil reservoir tank contains a pickup tube and filter screen. If the hydraulic system is working slower than normal, the filter screen may be clogged or the pickup tube may be disconnected.

To clean the filter screen:

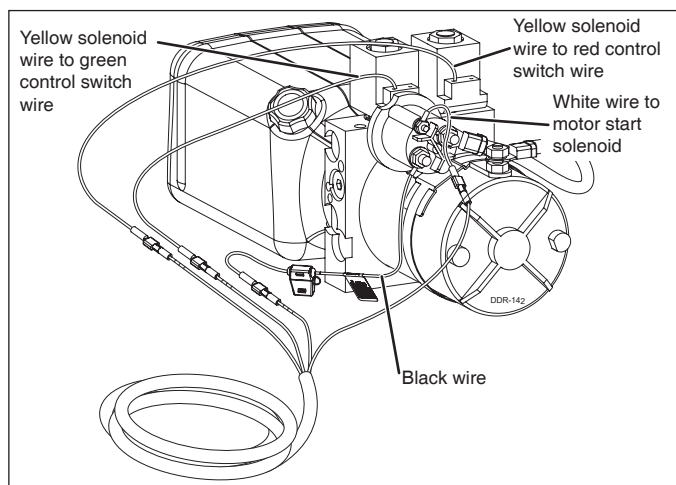
1. Remove the oil from the reservoir. Discard the contaminated oil in a safe manner.
2. Loosen the oil tank band clamp.
3. Slide the oil tank away from the pump housing.
4. Clean the filter and reassemble the unit.

Note: If the tube has turned or fallen out, reinstall it onto the pump housing. Use a center punch to “stake” the tube into position

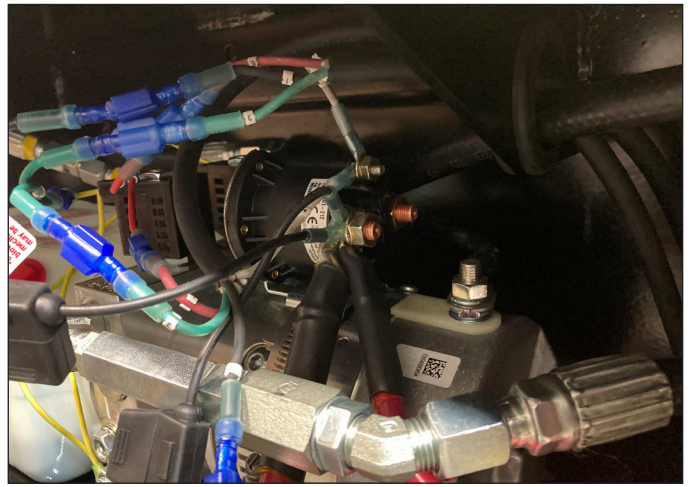
5. Replace the oil with new oil.



6.17 Reattach Control Unit Wires to Appropriate Terminals



Platform raise/lower power unit shown here.



Liftgate / platform-open combination.

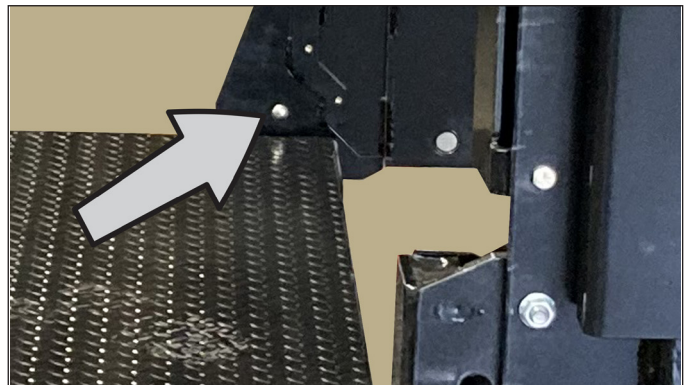
6.18 Platform Spring Assist

6.18.1 Spring Tension Adjustment

The platform uses a spring to prevent it from free-fall when it is opened. The spring tension is factory preset to the highest tension and should not need to be adjusted unless the spring is replaced or it weakens in the course of normal use. Use the following steps to adjust the spring tension.



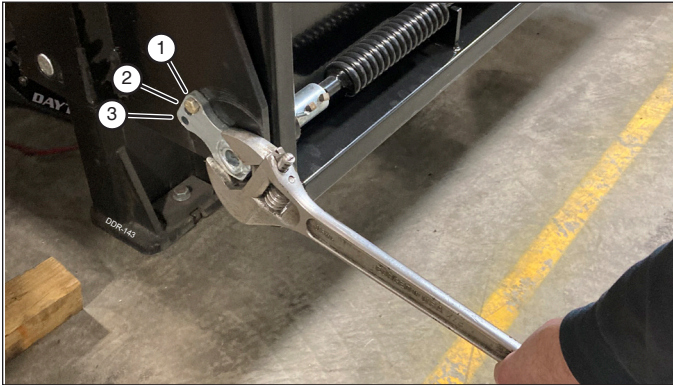
1. Open the platform
2. Remove the locknut from the streetside lobe pin.



3. Close the platform and latch it in the stowed position.
4. Using a large wrench to hold the lobe pin, release the spring tension, and remove the bolt.

SAFETY INSTRUCTIONS

Do not let go of the wrench as the spring is still under tension.

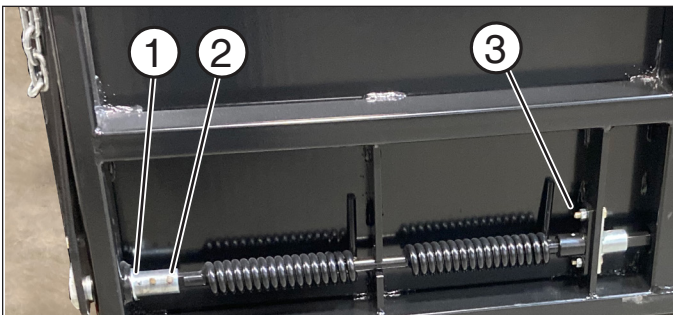


5. Reposition the lobe pin in order to install the retaining bolt in either position (2) medium spring tension or position (3) lowest spring tension.
6. Carefully open the platform and reinstall the locknut.

6.18.2 Spring Replacement (Steel Platform)



1. Refer to the previous section for detailed instructions covering Step 1.
 - a. Open the platform and remove the lobe pin locknut on the streetside.
 - b. Close the platform and place it in the latches.
 - c. Using a large wrench to hold the lobe pin, release the spring tension, and remove the bolt.
 - d. Slowly release the spring tension.
2. Remove cotter pin (1) and two square head set screws (2). For a double spring setup, also remove retaining hardware (3).

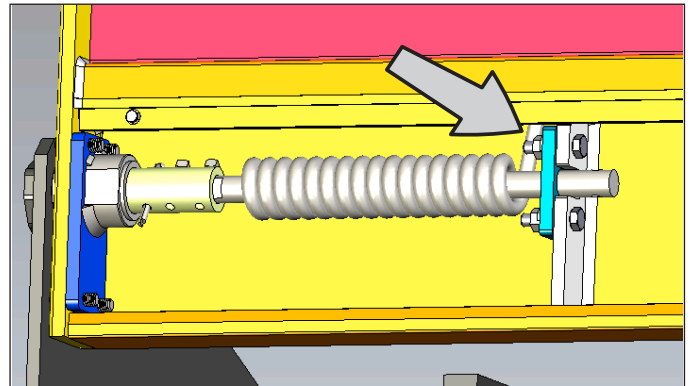


3. Slide the lobe pin outward to allow removal of spring/pin weldment.
4. Replace the spring/pin weldment and reassemble.

Note: Be sure the setscrews tighten against the flat spot on the spring torsion bar, to keep it from rotating.

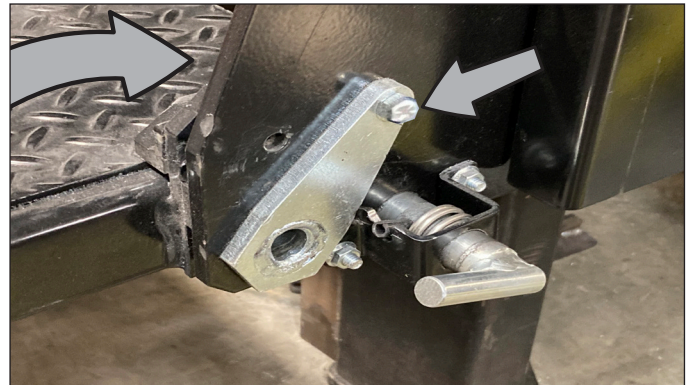
6.18.3 Spring Replacement (Aluminum Platform)

The spring replacement procedure for the aluminum platform is the same as the steel platform with the exception that the long spring tabs will need to be trimmed to fit.



6.19 Torsion Rod Replacement

1. Open the platform and remove the lobe pin locknut from the platform side of the curbside lobe pin.



2. Close the platform and latch it in the stowed position.
3. Using a large wrench to hold the lobe pin, release the spring tension, and remove the bolt.

SAFETY INSTRUCTIONS

Do not let go of the wrench as the spring is still under tension.

4. Slowly release tension.

5. Remove the cotter pins (arrow) at both ends of the torsion rod (the center cotter pin holds the rod in place).

Note: Mark the orientation of the tension bar so it can reassemble in the same orientation.



6. Slide the lobe pin outward to allow removal of the torsion rod.
7. Replace the torsion rod and reassemble.

7. Troubleshooting Section

Problem	Possible Causes	Possible Solutions
Motor does not run when control switch is activated.	Cab cut-off switch.	Turn switch to ON position. Refer to "5.9 Cut-Off Switch Connection" on page 17.
	Power cut-off solenoid, if so equipped.	Check the solenoid. Refer to "6.8 Checking Motor Start Solenoid and Power Cut-off Solenoid" on page 24. Replace if defective.
	Dead or low battery.	Make sure battery is fully charged. Check for loose or corroded battery connections. Replace or recharge battery.
	Main power cable circuit protection fuse.	Replace fuse. Refer to "6.6 Main Power Cable Fuse (175 AMP)" on page 24.
	Control cord fuse (10 Amp) inside power unit enclosure is blown.	Replace, if fuse is blown. Refer to "6.7 Control Switch Fuse (10 AMP)" on page 24. If problem continues, check for shorts in the electrical system.
	Defective control switch.	Check switch, replace if defective. Refer to "6.5 Checking the Control Switch" on page 24.
	Motor start solenoid.	Check the solenoid. Refer to "6.8 Checking Motor Start Solenoid and Power Cut-off Solenoid" on page 24. Replace if defective.
	Defective power cable.	Check power cable for continuity. Refer to "6.9 Checking the Power Cable" on page 25.
	Defective motor.	If the motor is determined to be bad, it should be replaced. Bad motors are often caused by loose connections, corrosion, a poor ground, or low voltage (which is a result of weak batteries).
If the motor does not operate in freezing conditions, make sure the motor housing does not contain water.		
Platform opens too quickly.	Platform assist spring is weak or broken.	Check for broken or weak platform assist spring and replace as necessary. Refer to "6.18 Platform Spring Assist" on page 27.
Motor runs, but liftgate will not lower to the ground.	Structural damage. Check lift cylinders and side rails.	Fix damage. Replace worn parts.
	Defective control switch.	Check the control switch. Refer to "6.5 Checking the Control Switch" on page 24.
	Defective lowering valve coil.	Check the coil using the procedure in "6.11 Checking Lowering Valve Cartridge and Solenoid" on page 25.
	Defective lowering valve cartridge.	Check, remove, and clean valve cartridge using the procedure in "6.11 Checking Lowering Valve Cartridge and Solenoid" on page 25.
	Defective flow control valve.	Replace the flow control valve. Refer to "6.10 Checking Flow Control Valve" on page 25.

Problem	Possible Causes	Possible Solutions	
Motor runs, but platform will not raise, will not raise rated capacity, or raises but drifts down when control switch is released.	Load capacity has been exceeded.	Verify load capacity and adjust load weight.	
	Structural damage.	Replace damaged parts.	
	Low fluid level.	Fill reservoir. Refer to "6.3 Power Module Fluid" on page 23.	
	Low Voltage.	Inspect the battery connection terminals and check the battery's Voltage (9 Volts minimum).	
	Dirty or defective lowering valve.		Coil or cartridge may need replacement. Check, remove, and replace valve cartridge using the procedure in "6.11 Checking Lowering Valve Cartridge and Solenoid" on page 25.
			Cartridge may need cleaning or replacement. Check, remove, and clean valve cartridge using the procedure in "6.12 Solenoid Valve Screen" on page 26.
	Bad piston seals on liftgate cylinder.	Check cylinder for leakage. Refer to "6.14 Checking Cylinder Piston Seals (drifting - caused by seal leakage)" on page 26.	
Hydraulic pump is worn.	Replace hydraulic pump unit.		
Foaming oil.	Air in the hydraulic hose(s).	Check oil level in reservoir. Purge any trapped air from the system.	
	Broken or loose fluid return tube.	Refer to "6.16 Power Module Oil Pickup Tube and Filter" on page 27.	
Liftgate will not open.	Platform operating area is not clear.	Clear platform operating area.	
	Platform is still in the latch brackets.	Activate the "UP" switch. Release the liftgate latch.	
	Platform power-open circuit is not functioning.	Check all electrical and hydraulic connections.	
Platform lowers extremely slow.	Low or improper oil in hydraulic reservoir.	Add oil or change oil to the proper fluid viscosity. See "7.1 Monthly Inspection" on page 32.	
	Damaged or kinked hydraulic hose(s).	Repair or replace.	
	Cylinder rod is scored, pitted, or bent.	Replace cylinder.	
	Defective flow control valve.	Replace the flow control valve. Refer to "6.10 Checking Flow Control Valve" on page 25.	
	Side runners are dirty or damaged. Wear strips are worn.	Clean columns. Replace wear strips if damaged.	
	Dirty or defective lowering valve.		Coil or cartridge may need replacement. Check, remove, and replace valve cartridge using the procedure in "6.11 Checking Lowering Valve Cartridge and Solenoid" on page 25.
Cartridge may need cleaning or replacement. Check, remove, and clean valve cartridge using the procedure in "6.12 Solenoid Valve Screen" on page 26.			
Platform raises partially and stops.	Load capacity has been exceeded.	Verify load capacity and adjust load weight.	
	Structural damage.	Replace damaged parts (lift cylinders, sprockets, slides, cylinder, etc.).	
	Low Voltage.	Recharge battery (if less than 9 volts).	
	Low pressure.	Refill reservoir. Check pump and motor.	

Problem	Possible Causes	Possible Solutions
Platform will not lower.	Platform operating area is not clear.	Clear area.
	Structural damage.	Replace damaged parts (lift chains, sprockets, slides, etc.).
	Low Voltage.	Recharge battery (if less than 9 volts).
	Dirty or defective lowering valve.	Coil or cartridge may need replacement. Check, remove, and replace valve cartridge using the procedure in "6.11 Checking Lowering Valve Cartridge and Solenoid" on page 25.
		Cartridge may need cleaning or replacement. Check, remove, and clean valve cartridge using the procedure in "6.12 Solenoid Valve Screen" on page 26.
Defective hydraulic pump and motor.	Replace power unit.	
Platform is not level from side-to-side.	Lift cylinders are out-of-phase.	Rephase cylinders. Refer to "6.4 Rephasing Hydraulic Cylinders" on page 23.

8. Warranty Section

8.1 Limited Warranty

DDR RailTrac

2 yrs Mechanical + 2 yrs Electric/Hydraulic

Thank you for purchasing an Anthony liftgate. We strive to produce the most trouble free and reliable liftgates in the market. We believe you will experience years of reliable operation and minimum downtime interruptions. To further ensure your confidence in Anthony, this warranty will cover your unit for 2 years or 6,000 cycles (whichever occurs first) on mechanical/structure, electrical, and hydraulic operating parts. This warranty is extended to the original purchaser (user only) and is not transferable. The warranty term begins from the date of shipment from our factory or warehouse.

Anthony Liftgates Inc. will cover all failed components during the warranty period. Labor will be provided under our Flat Rate Warranty Schedule, in effect at the time of the part failure, and includes diagnosis time. Contact Anthony for current reimbursement amounts. For repairs NOT listed on the Flat Rate Warranty Schedule, contact the Anthony Warranty Department for approved reimbursement, prior to performing repairs. Anthony Liftgates Inc. reserves the right of determination of whether a component is defective or has failed. This warranty applies to Anthony liftgates installed, operated, and maintained in accordance with Anthony Liftgates Inc. installation, operation, and maintenance manuals, videos, etc.

Certain Anthony models have published Lifetime Warranties on listed components, as published in current literature. This additional coverage will be detailed on the published operation components, providing the unit has been operated and maintained within the intended usage.

Anthony Liftgates, Inc. will process all claims and determine their eligibility for authorization upon the receipt of the failed part, the identification of the claimant, and the liftgate serial number. All parts must be returned freight prepaid and following the instructions given by the Anthony Warranty Department. Freight collect shipments will not be accepted.

PLEASE NOTE THAT NO CLAIMS WILL BE PROCESSED WITHOUT THE PART, THE CLAIMANT'S INFORMATION, AND THE LIFTGATE SERIAL NUMBER.

Claims not submitted within 30 days of repair date will be denied.

Note: ALL CLAIMS MUST BE COMPLETED ON THE ANTHONY LIFTGATES INC. WARRANTY CLAIM FORM.

This form provides all the necessary information.

Upon approval of the claim, Anthony will, at the direction of the claimant, return a replacement part and labor allowance, or a parts credit based on current distributor net pricing, and the appropriate flat rate labor allowance.

Anthony Liftgates, Inc. is not responsible or liable for loss of time, cost, labor, material, profits, direct or indirect damages caused by failed components, whether due to rights arising under purchase, order, contract of sale or independently thereof, and whether or not such claim is based on contract, tort, or warranty. The sale of products of Anthony Liftgates, Inc. under any other warranty or guarantee express or implied is not authorized. This warranty does not cover misuse, abuse, damage, or product finish, normal wear, maintenance adjustments, careless or negligence of use or maintenance.

Modifications to our product are not covered unless prior authorized by Anthony.

Purchased Parts warranty is 1 year from date of purchase and covers replacement of part only.

If you require assistance or have questions, please contact Anthony Liftgates Inc. at 815-842-3383.

Note: Most (not all) Anthony liftgate models incorporate our Service-Free feature. Service-Free refers to the fact that these models require no routine or scheduled lubrication of the major pivot points that contain our service-free bushings. Normal repair and maintenance of your liftgate, per our instruction, is necessary for ALL Anthony liftgates.

Anthony Liftgates, Inc.
1037 W. Howard St. P.O. Box 615
Pontiac, IL 61764-0615

PH: 815-842-3383

FAX: 815-844-3612

E-Mail: warrantyclaims@anthonyliftgates.com

8.2 Warranty Policy And Procedure

All warranty claims must be completed on the Anthony Liftgates Warranty Claim Form utilizing the Flat Rate Warranty Schedule. See the current rates as listed for each model. Using this process will allow for quick and accurate credit payment.

Claims will not be processed without the failed part returned (pre-paid) to Anthony Liftgates, and the warranty claim form completed.

Note: When returning defective parts for warranty consideration, be sure to call ahead for a Return Authorization Number.

If you require further assistance or have questions, please contact the Anthony Liftgates Warranty Dept. at 815-842-3383 or email warrantyclaims@anthonyliftgates.com.



ANTHONY
LIFTGATES, INC.®



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THE ORIGINAL NAME IN LIFTGATES - SINCE 1941

Form No. L-205-IM/MM (6-24)