

INSTALLATION, OPERATION, AND MAINTENANCE



MODELS

AR-1200

AR-1200-AB AR-1200-AB-DT AR-1200-DT

AR-1800

AR-1800-AB

AR-1800-AB-DT

AR-1800-DT

AR-1800-RT-AB

AR-2000-DT

AR-2500-AB AR-2500-GB*

AR-2500-GB-AB*

AR-2500-RT

AR-2500-RT-AB

HCR-3000

HCR-3000-AB

*See page 4 for details.

Contents

1.	General Information Section	5
	1.1 Introduction	
	1.2 Important Operation Notes	
	1.3 Model Information	
	1.4 Installation Recommendations	
	1.5 Warranty	
	1.6 Decals	
	1.7 Ordering Parts	7
2.	Safety Section	8
	2.1 Safety Is Your Responsibility	
	2.2 Safety Signal Words	
	2.3 Safety Rules	
	2.4 Safety Icons Nomenclature	
	2.4.1 Personal Protection/Important Information	
	2.4.2 Prohibited Actions	
	2.4.3 Hazard Avoidance	. 10
2	Nomenclature	44
J.	3.1 Platform Nomenclature	
	3.2 Power Unit Nomenclature	
4.	Installation Section	
	4.1 Basic Mounting Information	
	4.2 Bolt-on Installation	
	4.2.1 Corner Post Mounting Brackets	
	4.2.2 Rear Sill and Housing Modification	
	4.3 Tools Required	
	4.4 Prior To Installation	
	4.5 Installation Procedure	
	4.7 Installation of RailTrac Liftgates on Flatbed Trucks	
	4.8 Battery Connection	
	4.8.1 Direct Battery Connection (not recommended)	
	4.8.2 Cut-Off Solenoid Connection.	
	4.8.3 Cut-Off Switch Connection	
	4.9 Cable Lug Installation	
	4.10 Final Inspection Checklist	
_	·	
5.	Safety Decals	
	5.1 Decal Locations	
	5.2 Decal Illustrations	
6.	Operation Section	
	6.1 General Operating Safety	. 30
	6.2 Operating Instructions	. 31
	6.2.1 Opening and Closing the Liftgate	31

7.	Maintenance Section	. 32
	7.1 Monthly Inspection	. 32
	7.2 Semi-Annual Inspection	
	7.3 Lift Chains	
	7.3.1 Master Link Replacement	. 33
	7.3.2 Cotter Pin Replacement	
	7.3.3 Sprocket Replacement	
	7.3.4 Lift Chain Replacement	
	7.3.5 Lift Chain Lubrication	34
	7.3.6 Lift Chain Cleaning	. 34
	7.3.7 Lift Chain Inspection	35
	7.4 Replacing the Fuse	
	7.5 Checking Motor Start Solenoid and Power Cut-off Solenoid	. 37
	7.6 Testing Power Cables	. 37
	7.7 Checking Lowering Valve Cartridge and Coil	. 37
	7.8 Checking Cylinder Piston Seals (drifting - caused by seal leakage)	38
	7.9 Checking System Pressure	. 38
	7.10 Flow Control Valve	39
	7.11 Torsion Bar and Spring Replacement	39
	7.12 Checking the Control Switch	40
R	Troubleshooting Section	41
٠.	8.1 Troubleshooting Guide	
_		
9.	Inspection Record	43
10.	. Warranty Section	44
	10.1 Limited Warranty	
	10.2 Warranty Policy And Procedure	

^{*}Some special-purpose platforms and liftgates use special parts that may not be listed in this manual. Contact Anthony Liftgates for exact items if not shown.

1. General Information Section

1.1 Introduction

Congratulations on selecting an Anthony Medium RailTrac™ Liftgate. Anthony liftgates are among the finest liftgates available on the market today. To ensure your liftgate will perform to your expectations, we have designed this manual to furnish you with the necessary instructions and safety precautions to properly install and operate your Anthony Medium RailTrac Liftgate. A parts manual is available in the Manual section of our Website at www.anthonyliftgates.com.



Typical Anthony Liftgates AR Medium RailTrac Liftgate.

1.2 Important Operation Notes

A restraining system may be needed to retain certain types of cargo on the liftgate platform, depending upon the specific application, such as a cart stop, retention ramp, fencing, straps, etc. This should be considered by the purchaser for their particular application so as to prevent the possibility of severe personal injury or death due to cargo shifting and/or falling from the liftgate platform.

All users of this liftgate must be 21 years of age and have read and understood all operation instruction booklets and decals before use.

AWARNING



CRUSH HAZARD

Unsecured loads, when moved on the liftgate, can shift or fall.

To prevent personal injury or death, make sure loads are securely fastened to liftgate or restrained by cart stops, retention ramp, or fencing.

1.3 Model Information

The AR & HCR Medium RailTrac Liftgates provide up to 56 inches of total lift height. On trucks with bed heights that are below typical dock heights, the above bed liftgate allows the cargo to be loaded from the bed of the truck and then raised to a higher dock height. Above bed models of this liftgate, in some cases, can raise a load 18 inches above the truck bed height.

The lifting capacity of the Medium RailTrac Liftgates ranges from 1200 to 3000 pounds, depending on the model.

The Medium RailTrac Liftgates work best on truck bodies with "roll-up" style doors. The liftgate can be installed on "swing-type" doors, but may require modification to the truck body due to interference between the liftgate rails and the location of door latches and hinges. The Medium RailTrac Liftgate can also be installed on flat bed trucks.

All Anthony Medium RailTrac model liftgates are factory assembled, tested, and energized to ensure the highest quality performance standards. The AR and HCR model liftgates ship completely assembled for fast, clean, and easy installation.

With the proper tools and two installers, the Medium RailTrac Liftgate can be installed in one to two hours.

This Installation, Operation, and Maintenance manual will provide you with easy to follow instructions, along with photos and illustrations. All Safety precautions have been clearly identified and detailed throughout each section.

At the bottom of each page is the Anthony Liftgates Inc. Product Support phone number. If you are unclear about any of the instructions, please phone Anthony Liftgates' Product Support.

In addition to the installation instructions, a complete explanation of the safety words and rules are included in the Safety section of this manual. Please turn to the safety section and read it thoroughly before proceeding to the next page.

1.4 Installation Recommendations

Even though the following goes without saying, we feel compelled to state:

Anthony Liftgates should only be installed by those with sufficient skills to understand the installation and operation of the liftgate, along with the equipment required to install the liftgate. The installation instructions in this manual are intended to give typical installation instructions to the installer for both the operation and what we believe to be the most desirable sequence of installation. These instructions cannot replace a qualified person, or clear thinking and the 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 our Pontiac, Illinois, plant to answer any questions that you may have. Sometimes, a detailed discussion on the phone can be 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 our Pontiac, Illinois, plant if you find the liftgate is not operating properly or if you do not know how to make the necessary repair.

If you have any doubts or questions, call us at:

Anthony Liftgates, Inc. 1037 West Howard Street Pontiac, Illinois 61764

(815) 842-3383 or 800-482-0003 Web: www.anthonyliftgates.com Email: Sales@anthonyliftgates.com

AWARNING

PROPER INSTALLATION

The success or failure of this liftgate to properly and efficiently operate will depend on a thorough and proper installation. Failure to read, understand, and follow the installation instructions and safety recommendations in this manual before installing the liftgate can result in serious injury or death. Also read and understand the operating instructions in the Operation Section.

When installed, this liftgate must not alter nor prevent vehicle compliance to any existing state or federal standards, and especially FMVSS 105. Each chassis 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.

1.5 Warranty

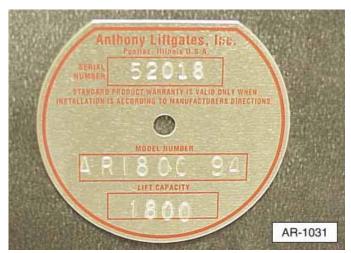
AWARNING

VOIDED WARRANTY

The liftgate must be installed according to the installation instructions or the warranty will be void. Unauthorized modifications of the liftgate may cause it to improperly operate or cause other unforeseen problems or dangers that may cause serious injury or death. If any deviation is deemed necessary, written permission must first be obtained from Anthony Liftgates.

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

Before calling for warranty or other product information, have the <u>serial number</u>, <u>model number</u>, and <u>lift capacity</u> of your liftgate, which is stamped into the identification plate on the back side of the power unit box, facing the rear of the truck. This information will help us verify your warranty information and access a list of all part numbers of components that were used on your specific liftgate.



Identification plate.

Record the serial number, model number, and date of installation for easy reference when contacting Anthony Liftgates with questions.

Serial Number Information		
Serial No.		
Model No.		
Date of Installation		

Refer to "10.1 Limited Warranty" on page 44 of this manual for complete warranty details.

1.6 Decals

SAFETY INSTRUCTIONS



To prevent personal injury from not being aware of safety recommendations, make sure all decals are attached to the liftgate and/or truck and are legible at all times!

Safety decals provide a vital role in helping to reduce injuries and/or possibly even death. To ensure the greatest level of safety, all decals must be in place and legible at all times. Remember, it is the users responsibility to maintain these decals. For a complete part number list and illustration of the decals used on the Anthony Medium RailTrac liftgate, refer to "5. Safety Decals" on page 27.

For decal placement, refer to "5.1 Decal Locations" on page 27.

For replacement decals contact: Anthony Liftgates, Inc. **1037 West Howard Street** Pontiac, Illinois 61764 (815) 842-3383 or 800-482-0003 www.anthonyliftgates.com

1.7 Ordering Parts

We manufacturer a quality liftgate that requires very little maintenance or repair. However, should a part break, become damaged, or worn, our knowledgeable staff can make sure you receive the part(s) to put your liftgate back into operation.

Note: The liftgate's packet of information does not contain a "parts manual." The most current and up-to-date parts manuals can be obtained by accessing our website anytime.

Our website address is www.anthonyliftgates.com Click on "Manual" and choose a model.

If you do not have access to the internet, or just prefer a printed copy of a manual, we can send one to you. Call or write our office listed below.

For questions or to order parts, contact: Anthony Liftgates, Inc. **1037 West Howard Street** Pontiac, Illinois 61764 (815) 842-3383 or 800-482-0003 Web: www.anthonyliftgates.com Email: Sales@anthonyliftgates.com

2. Safety Section

2.1 Safety Is Your Responsibility

It is the responsibility of the installer/operator to understand and perform proper operating procedures. Be aware of the inherent dangers in

the use of this product and the tools used to install it. Read and understand all Danger, Warnings, Cautions, and Important Notices in this manual and on the liftgate or truck.

2.2 Safety Signal Words

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

This manual contains DANGERS, SAFETY INSTRUCTIONS, 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 key words call the readers' attention to potential hazards.

Hazards are identified by the "Safety Alert Symbol" and followed by a signal word such as "DANGER", "WARNING", or "CAUTION".

A DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations.

AWARNING

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

ACAUTION

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 Rules

Most accidents involving the operation maintenance, or repair of products made by Anthony Liftgates occur because the owner/installer/operator faile to observe basic safety rules or operating instructions. Accidents can often be avoided by being alert and recognizing potentially hazardous situations. Any individuals installing, operating, repairing, or maintaining products manufactured by Anthony Liftgates should 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 in an attempt to prevent injury or death.

Anthony Liftgates cannot anticipate every possible circumstance that might involve a potential hazard. The warnings in this manual and on the product itself are, therefore, not all-inclusive. If tools, 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 others. Make sure the liftgate or truck it is mounted onto will not be damaged or made unsafe by any operation, lubrication, maintenance, or repair procedures that you choose.

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

AWARNING



To avoid personal injury or death, carefully read and understand all instructions pertaining to the Anthony Liftgates product.

Do not attempt to install, operate, or maintain our product without fully understanding all of our instructions and safety recommendations.

Do not operate or work on a truck or liftgate unless you read and understand the instructions and warnings in the Installation and Operation manual. If any doubt or question arises about the correct or safe method of performing anything found in this or other Anthony Liftgates' manuals, contact your Anthony Liftgates' dealer or call the Inside Sales and Service representatives at our main headquarters. Proper care is your responsibility.

WARNING







To prevent serious bodily injury, keep sparks, lighted matches, and open flames away from the

top of the battery, because battery gas can explode. Always follow all the manufacturers' safety recommendations when working around the truck's battery.



Take precautions to avoid sparks coming into contact with the truck's fuel tank, brake lines, wooden floor, or other flammable components.

Sparks can cause an explosion of combustible materials, resulting in serious injury or death.

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.







If required for installation, always weld or use a cutting torch in a well ventilated area and, if in an

enclosed area, vent the fumes to the outside. Breathing the smoke and fumes can cause serious injury.

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.

Always follow all State and Federal health and safety laws and/or local regulations when using a welder or 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.





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 welded onto the truck frame.

ACAUTION





To prevent personal injury, clean up any spilled fluids immediately. To avoid tripping, do not leave tools or components laying around in the work area.

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 liftgate when it is operating.



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



Always use/set the truck's parking brake before operating the liftgate. Failure to follow this recommendation can result in injury.



Do not place hands or feet in pinch points.



Do not place your feet under the platform.



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



Most accidents involving the operation, maintenance, or repair of products made by Anthony Liftgates occur because the installer/ owner/ operator failed to observe basic safety rules or operating instructions.

To prevent injury, the liftgate and its related components should only be installed by qualified installers. They should have knowledge and skill in using lifting equipment and a cutting torch.



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

2.4 Safety Icons Nomenclature

This manual and the equipment has numerous safety icons. These safety icons provide important operating instructions which alert you to potential personal injury hazards.

2.4.1 Personal Protection/Important Information



Read the manual



Use proper tools



Inspect equipment



Face shield



Damaged safety sign



Eye protection



Breathing protection



Set parking brake



Use grab handles



Use two people

2.4.2 Prohibited Actions



No smoking



No open flame

2.4.3 Hazard Avoidance



Slipping injury



Tripping injury



Safety alert symbol



Explosion hazard



Pinch point hazard



Dangerous fumes



Adequate ventilation



Crush hazard



Crush hazard (rolling)



Crush hazard



Crush hazard (chock wheels)



Crush hazard (foot)



Fall hazard



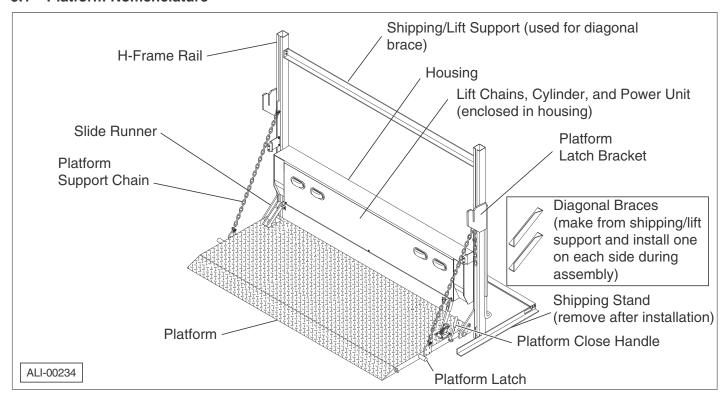
Defective or broken part



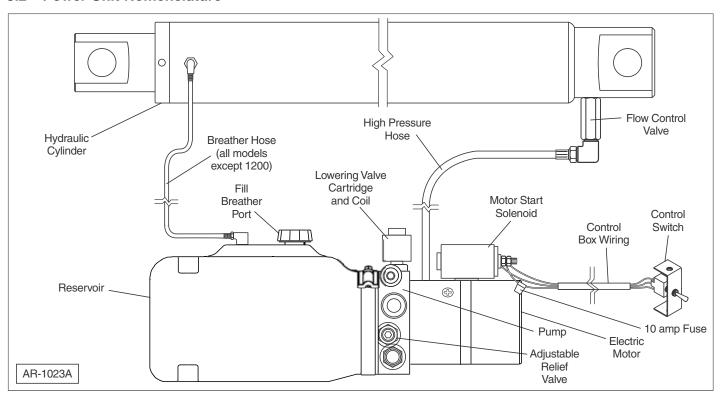
Stay clear

3. Nomenclature

3.1 Platform Nomenclature



3.2 Power Unit Nomenclature



4.1 Basic Mounting Information

- The bed height is measured from the ground to the floor of the truck body. The AR-1200 liftgate fits on trucks with bed heights between 28" and 52". The AR-1800, AR-2500, and HCR-3000 liftgates fit on trucks with bed heights between 28" and 58".
- **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. Standard Medium RailTrac Liftgate models, not having the above bed feature, lift to the floor of the truck bed only.
- 2. The Medium RailTrac Liftgate models covered by this manual can be installed on trucks or trailers with "Swing-Type" doors, but modification to the truck body will be required. Any type of door which would interfere with the installation of this liftgate will require modification of the truck body by the installer.
- 3. The following Platform Travel Height chart provides the maximum travel height for the AR-1200, AR-1800, and AR-2500 and HCR-3000 liftgates depending on the truck bed height.

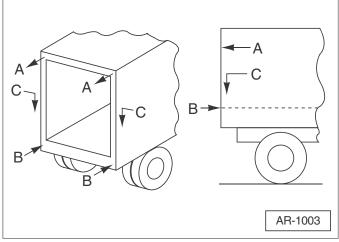
Platform Travel Height for "Above Bed" (AB) Models Only		
Truck Bed Height	Platform Travel Height	
40 to 58"	58"	
39"	57"	
38"	56"	
37"	55"	
36"	54"	
35"	53"	
34"	52"	
33"	51"	
32"	50"	
31"	49"	
30"	48"	
29"	47"	
28"	46"	

Note: The maximum travel height for the AR-1200 is 52".

Note: Standard Medium RailTrac Liftgate models, not having the above bed height feature, lift to the floor of the truck bed only.

4. The Medium RailTrac Liftgates mount directly to the rear corner posts of the truck body. Before installing the liftgate, make sure the corner posts are capable of supporting the load placed on them.

AR-1200 (side walls and corner post) Tension
AR-1800 (side walls and corner post) Tension
AR-2500 (side walls and corner post) Tension
HCR-3000 (side walls and corner post)



Locations of load.
(A) Tension. (B) Compression. (C) Shear.

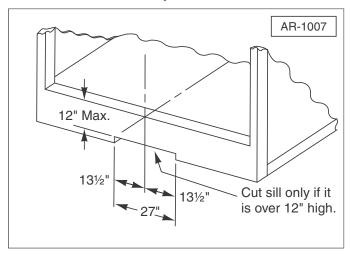
5. If your truck bed height is 31 inches or less it will be necessary to trim the bottom of the rails according to the chart below, before mounting liftgate. Cut the H-frame columns enough to allow the liftgate housing to be mounted flush with the truck bed. The final cutting of these columns will be completed in the installation procedure. Cut rails after installation if bed height is higher than 31 inches, according to the chart below.

Rail Length Chart			
Truck Bed Height	Cut Off Bottom of Rails	Move Pump and Pump Box*	
28 inches	16 inches	Yes	
29 inches	15 inches	Yes	
30 inches	14 inches	Yes	
31inches	13 inches	Yes	
32 inches	12 inches	Yes	
33 inches	10 inches	Yes	
34 inches	9 inches	No	
35 inches	8 inches	No	
36 inches	7 inches	No	
37 inches	6 inches	No	
38 inches	5 inches	No	
39 inches	4 inches	No	
40 inches	3 inches	No	
41 inches	2 inches	No	
42 inches	1 inches	No	
43 to 58 inches	0 inches	No	

Note: "Bed height - (minus) 12 inches = length of rails from bottom of rails to top of liftgate housing." This formula maintains a 12 inch ground clearance.

* If the truck bed height is less than 34", the installer may want to consider moving the pump box from its factory installed location. Relocation is only necessary if ground clearance is a problem.

 If the sill of the truck body is over 12" deep, it will be necessary to cut the sill to provide clearance for the pump box or the pump box can be unbolted and relocated to eliminate cutting the truck body. Modify the rear sill, if necessary.

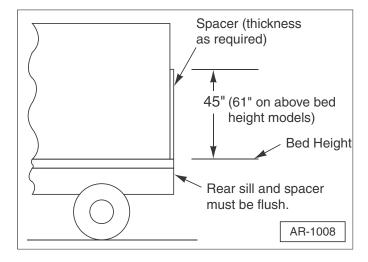


AWARNING

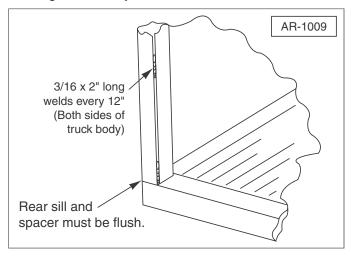
CRUSH HAZARD

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 as shown in the illustration.



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



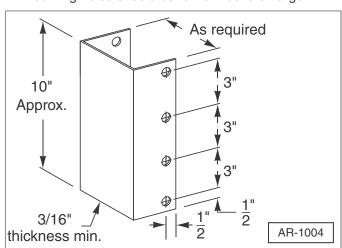
Note: An alternative to one long spacer is using 3" long plates spaced 9" apart. Make sure the last plate is located 45" or 61" above the bed height, depending on the liftgate model being installed.

4.2 Bolt-on Installation

If the truck body corner posts and/or rear sill are not weldable, use this procedure for a bolt-on installation.

4.2.1 Corner Post Mounting Brackets

1. Fabricate six mounting brackets from steel plate at least 3/16" thick. Make the brackets similar to the example shown in the following drawing. The eight mounting holes should be for 1/4" bolts or larger.

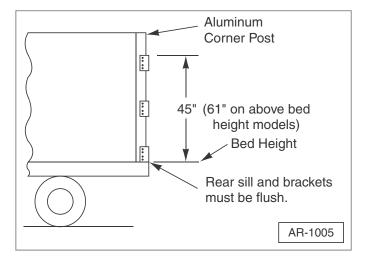


AWARNING

CRUSH HAZARD

It is the responsibility of the installer(s) to make sure the steel mounting brackets will safely hold the liftgate onto the truck. If these brackets fail, possible injury or death may result.

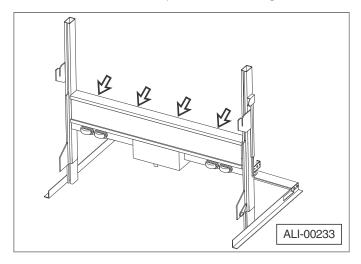
Mount the steel brackets to the aluminum corner posts at the locations shown below. The sill of the truck bed may also require shims to make sure the surface of the mounting brackets and the sill are flush.



4.2.2 Rear Sill and Housing Modification

If the truck's rear sill is not weldable, the housing must be bolted onto the truck.

Remove the housing cover and drill four evenly spaced holes for 3/8 inch diameter bolts through the inside of the housing and into the rear sill. Make sure the bolt heads will not interfere with the operation of the liftgate.



4.3 Tools Required

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

- · Overhead Crane or Forklift
- · Mig or Stick Welder
- Heavy-Duty C-Clamps
- Tape Measure
- · Level (small, magnetic)
- Cutting Torch
- Chain Link-Pin Removal Tool (above bed height models only)
- Two pieces of angle iron or channel, 12" long.

4.4 Prior to Installation

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.

1. Place the truck on a flat, level surface. Block the wheels to prevent possible truck movement during liftgate installation.

AWARNING



CRUSH HAZARD

Failure to prevent the truck from moving during the installation of the result in serious injury or death from

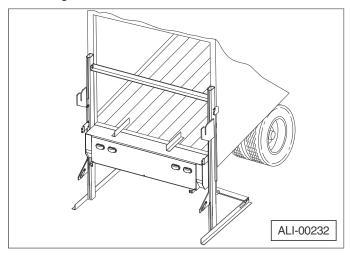
liftgate could result in serious injury or death from crushing of the installer(s).

2. Remove the banding securing the liftgate. Remove the loose parts from the pump box.

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.



- 3. Make sure the bumper of the vehicle does not interfere with pump box. The pump box is bolted onto the liftgate and can be relocated if necessary.
- 4. Remove all obstructions from the rear of the truck that would interfere with the operation or installation of the liftgate. Obstructions may include, dock bumpers, ICC bumpers, tail lights, or any other protrusion.
- 5. Tack weld two pieces of angle iron or channel, approximately 12" long, to the housing. This allows the liftgate to hang from the truck body and positions the liftgate flush with the truck's floor.



ACAUTION

CRUSH HAZARD

The tack welds must be strong enough to hold the weight of the liftgate.

Insufficient welds may not hold the liftgate in place, resulting in possible bodily harm.

4.5 Installation Procedure

SAFETY INSTRUCTIONS

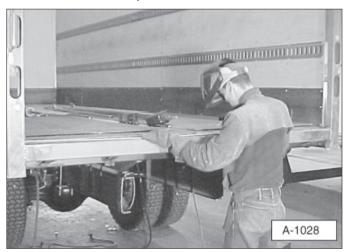


Even though the Anthony liftgate is easy to install, the installation should be done with at least two people.

 Measure and determine the centerline of the liftgate. Mark this point.



2. Measure and determine the centerline of the truck's rear sill. Mark this point.



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 floor. The 12" pieces of angle iron should align the liftgate flush with the floor of the truck.



AWARNING



CRUSH HAZARD

To avoid personal injury, do not work under the platform during installation. Work so that you would not be in the way if the lifting device, clamps, welds, etc. should fail.

Note: Make sure the liftgate is centered side-to-side by measuring between the liftgate H-frame columns and truck body side rails.

4. Clamp the liftgate to the frame of the truck using heavy-duty C-clamp(s) on each side. (Do not remove the lifting device at this time.)



5. Tack weld the liftgate's H-frame columns to the truck's side rails and the housing to the truck's rear sill. Make sure the tack welds can hold at least 800 pounds.



- a. If the truck body corner posts are not weldable, bolt steel mounting brackets to the truck body as shown in "4.2.1 Corner Post Mounting Brackets" on page 14. Weld the H-frame columns to the brackets.
- b. If the truck's rear sill is not weldable, the housing must be bolted onto the truck. Refer to "4.2.2 Rear Sill and Housing Modification" on page 14.

ACAUTION



CRUSH HAZARD

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.

- 6. Temporarily connect the liftgate motor to the truck's battery and check the operation of the platform. When using a temporary battery connection make sure all safety precautions are followed.
 - a. Make sure the platform folds and unfolds smoothly and easily without binding.
 - b. Make sure the up and down movement of the platform works smoothly, without binding.
- 7. Recheck the position of the liftgate and completely weld it to the vehicle.
 - a. Verify that the liftgate is still centered on the truck body.
 - b. Make sure the H-frame columns are tight against the truck body side rails, brackets, or spacers.
 - c. Make sure the housing is flush with the floor and tight against the rear sill.
 - d. Put 2" x 3/16" welds every 12" across the housing. Use approximately seven welds.

e. Put 2" x 3/16" welds every 12" on the inside and outside of the liftgate H-frame columns. Use approximately ten welds on each column.

Note: When welding, be careful not to burn through the H-frame columns, because it can cause the internal aluminum slide rails to bind during operation.

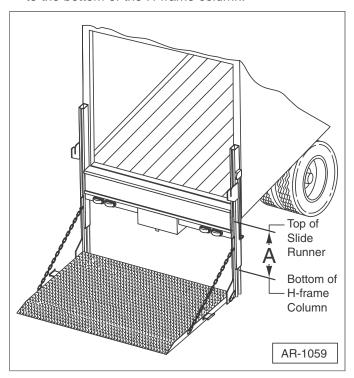
8. Route the supplied power cable (with attached fuse assembly) from the battery to the liftgate power supply using one of the following procedures:



- Direct Battery Connection (not recommended). Refer to "4.8.1 Direct Battery Connection (not recommended)" on page 23.
- Cut-Off Solenoid Connection. Refer to "4.8.2 Cut-Off Solenoid Connection" on page 24.
- Cut-Off Switch Connection. Refer to "4.8.3 Cut-Off Switch Connection" on page 25.

Only one method is required to complete the wiring installation.

 Lower the liftgate platform to the ground, and measure dimension A, from the top of the slide runner to the bottom of the H-frame column.

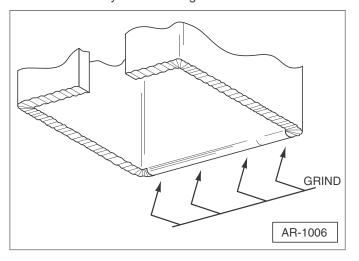


NOTICE

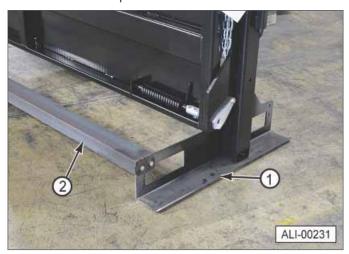
For smooth operation and long liftgate life, the H-frame column should remain as long as possible. On 1200 and 1800 models the **minimum** distance between the top of the slide runner and the bottom of the H-frame column should be 18". On 2000, 2500, and 3000 models the **minimum** distance should be 21".

10. Cut off the excess H-frame column. Leave as much length as possible while still maintaining adequate ground clearance. On 1200 and 1800 models the minimum distance between the top of the slide runner and the bottom of the H-frame column should be 18". On 2000, 2500, and 3000 models the minimum distance should be 21".

 Grind the bottom of the columns smooth and flat.
 Make sure the inside and outside edges are rounded to remove any burrs or slag.



12. Remove shipping stands (1) and cross brace (2) from both sides of the liftgate if not removed in the previous steps. Remove any sharp edges or burrs from the columns after cutting and paint the bare metal areas to prevent rust and corrosion.



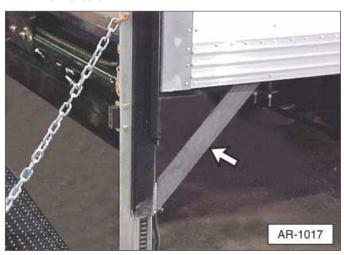
SAFETY INSTRUCTIONS

For safety purposes when using a cutting torch, be careful not too cut the wiring leading to the battery box. Also cover any other parts that could be damaged by the cutting torch.

13. Remove the shipping/lift support. Do not cut into or damage the H-frame columns. This will weaken the structure of the liftgate.



14. Cut a diagonal support brace and weld it to each H-frame column.



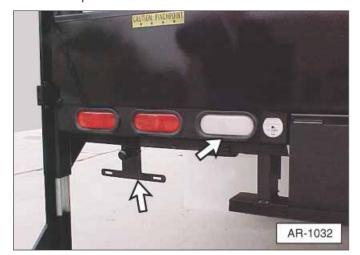
Note: The diagonal support brace can be made from the angle iron used as the shipping/lift support, or from a steel plate which is at least 1/4" thick.

15. For above bed models, refer to "4.6 Chain Adjustment Procedure for Above Bed RailTrac Models" on page 20 for the procedure to cut the lift chain to length and make final adjustments.

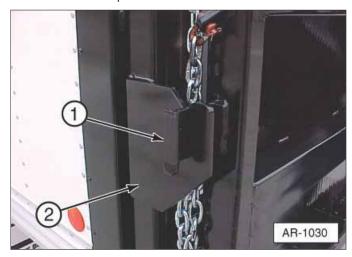
16. Raise and lower the platform to make sure it operates smoothly without binding. The platform should be flush with the truck floor when in the fully raised position (bed height models only).



17. Install lights or other electrical components, if needed. The RailTrac Liftgate has "knock outs" for the tail lights and backup lights. Simply remove the steel plug(s) and install the light(s). Also install a license plate holder.



18. Make a final operation check.



Platform latch (1) positioned in latch plate (2), ready for transit.

ACAUTION



CRUSH HAZARD

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.

- a. Push the "Up" control to raise the platform latches out of the latch brackets.
- b. Manually open and close the platform to make sure it opens and closes smoothly.
- c. Make sure the spring mechanism is properly assisting the platform in opening and closing.
- d. With the platform open, operate the liftgate up and down several times to make sure the Up/Down controls work properly.
- e. Make sure the platform stops flush with the truck bed and is even with the floor across the width of liftgate (bed height models only).
- f. Make sure the platform will travel through a complete cycle, up and down, smoothly and freely, with the platform completely open. (Lubricate the slide runners if necessary).
- g. Make sure the platform spring-assist will hold the platform in a vertical position.

Note: To increase spring tension, shims can be welded behind the long spring leg. DO NOT EXCEED 1/2" thick shim, otherwise over-torquing of the spring may occur.

- h. Make sure the platform will fold up and then lower into a stored position, and latch. The liftgate must fold smoothly and freely.
- 19. Install grab bars or hand rails, as may be necessary.
- Attach all decals, as shown in "5.1 Decal Locations" on page 27.
- 21. Complete "4.10 Final Inspection Checklist" on page 26.

4.6 Chain Adjustment Procedure for Above Bed RailTrac Models



Above Bed RailTrac.

The lift chains must be cut to a specified length to allow the platform to raise to its full height above the bed.

Note: When cutting lift chain, it is better to leave it too long and repeat the procedure to shorten it, than to cut the chain too short. A lift chain that is cut too short must be replaced. Never splice lift chains.

To adjust the length of the lift chains, follow these steps.

- 1. Lower the platform to ground.
- 2. Remove three housing cover screws (2) and then remove housing cover (1).



3. Calculate the proper length of chain to be removed (if any) using the formula below, if the truck bed is between 28" and 49". If the truck bed is between 50" and 58", no chain removal is required.

Formula: 56" – (minus) truck bed height = length of chain to be removed.

Example: With a 40" truck bed height. 56" - 40" = 16" of chain to remove.

Example: With a 30" truck bed height. 56" - 30" = 26" of chain to remove.

Note: When cutting a lift chain to length, it is better to cut it too long and recut it again to the correct length, because a lift chain that is cut too short must be replaced.

- 4. Push the control switch to the Down position and push the cylinder rod into the cylinder (retract) to loosen the chain. Determine the length of chain to be removed and push the cylinder rod in by at least one half of that length.
- 5. Disconnect the power to the liftgate.

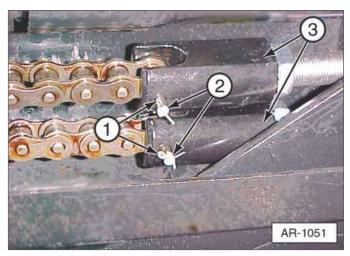
ACAUTION

CRUSH HAZARD

When the platform is on the ground, the cylinder rod is in the retracted position. Turn OFF or disconnect power to the liftgate

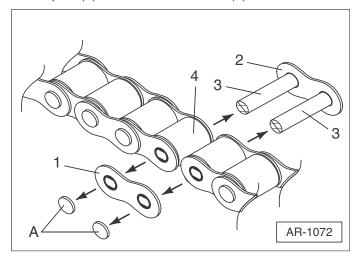
to prevent the cylinder rod from extending. Failure to disconnect the power could result in personal injury.

6. Remove cotter pins (1) from chain anchor pins (2). Remove the chain anchor pins from chain anchors (3) and remove both chains.



7. Measure and mark the location of the length of lift chain calculated using the formula in Step 3.

8. Remove the full link nearest to the required length of chain. Carefully grind heads (A) off of the two chain link pins (3) and remove front link (1).



Grind heads (A) from chain link pins (3). Remove front link (1) and push rear link (2) with chain link pins (3) out.

- 9. Carefully grind heads (A) off of two chain link pins (3) and remove front link (1).
- Push the rear link and pins out. Remove the excess length of chain.

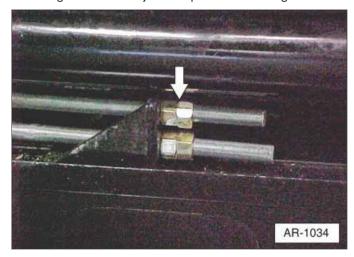


Note: Using a chain link removal tool will greatly reduce the time spent removing these links. These tools are normally available at motorcycle shops or other chain component suppliers.

Note: Some liftgate models may use leaf chains instead of roller chains, however, the same procedures will apply for removing chain links.

- 11. Repeat for the other chain. Make sure equal lengths are removed from both chains.
- 12. Reconnect the chain ends to the chain anchors with the chain anchor pins and **new** cotter pins.
- 13. Reconnect power to the liftgate. Raise the platform to bed height and check the level of the platform from side-to-side. The platform should be parallel with the truck floor.

14. If adjustments are necessary, lower the platform to the ground and adjust the platform leveling nuts.



 Recheck the side-to-side levelness of the platform to the truck bed. Re-adjust the platform leveling nuts, as necessary.

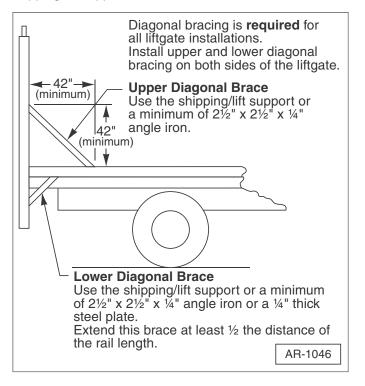
NOTICE

Make sure the two platform leveling nuts (jam nuts) on each of the threaded rods are tightened against each other to prevent loosening. If the jam nuts loosen, the platform can go out of adjustment.

16. Replace the housing cover and secure it with three housing cover screws.

4.7 Installation of RailTrac Liftgates on Flatbed Trucks

When installing the liftgate on flatbed truck bodies, two sets of diagonal braces (two upper and two lower) are required. Diagonal braces can be made from the shipping/lift supports or other recommended materials.



- 1. Weld or bolt the liftgate to the truck bed. Refer to the normal installation procedure for recommendations and safety precautions.
- 2. Cut two upper diagonal braces from the shipping/lift support or from 2 1/2 x 2 1/2 x 1/4" thick angle iron.
- Weld an upper diagonal brace between the H-frame column and the truck bed on each side. The ends of the diagonal brace should be a minimum of 42" above the truck bed and a minimum of 42" from the end of the truck bed.
- 4. Cut two lower diagonal braces from the shipping/lift support or from 2 1/2 x 2 1/2 x 1/4" thick angle iron. A gusset (support plate) can also be made from 1/4" thick steel plate.
- 5. Weld a lower diagonal brace between the H-frame column and the truck bed on each side. The lower diagonal brace or gusset should extend at least one half the length of the H-frame column. For example, if the H-frame column extends 20" below the truck bed, the ends of the diagonal brace should extend at least 10" downward and 10" inward from the end of the truck bed.

4.8 Battery Connection

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

- Direct Battery Connection (not recommended)
- Cut-Off Solenoid Connection
- Cut-Off Switch Connection

AWARNING



PERSONAL INJURY HAZARD

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.

Anthony Liftgates strongly recommends the installation of a power cut-off solenoid or cab cut-off 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.

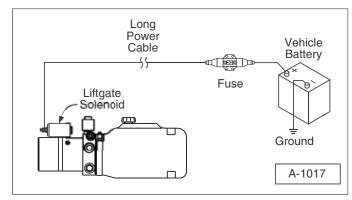
The liftgate must be properly grounded. A ground wire, the same gauge or larger as the liftgate power cable, must be connected from the negative post of the battery or batteries to the truck's frame. Some trucks may have a properly sized ground wire from the battery to the frame and would require no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

If this Warning 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.

4.8.1 Direct Battery Connection (not recommended)

NOTICE

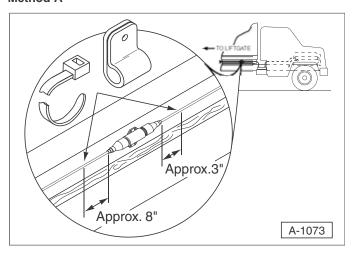
Using the standard wiring hookup is not recommended because it does not cut off power to the liftgate when the truck is left unattended. A cut-off switch or cut-off solenoid will disable the use of the liftgate when the truck is not in use.



Direct battery connection (not recommended).

- 1. Position the fuse assembly near the battery so the short cable end will reach the positive terminal.
- 2. Attach the fuse holder to the truck body longsill using either method shown in this step.

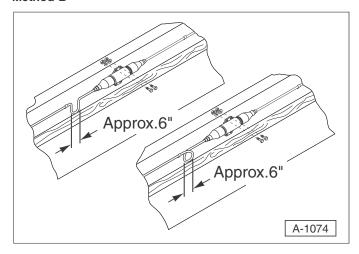
Method A



Fasten the power cable to the truck body. Locate one fastener (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.

Using this method does not require the fuse assembly to be attached to the longsill.

Method B



Attach the fuse holder to the truck body longsill using #10 or #12 self-tapping screws or bolts, washers, and self-locking nuts. Fasten the power cable, as needed, to properly hold it in place. Using this method requires an extra length of cable on one side of the fuse assembly to permit removal of the fuse.

3. Run the long end of the power cable from the fuse to the motor solenoid. If the power cable is longer than required, cut it to the desired length and attach a cable lug according to instructions listed below.



Connect power cable to motor solenoid.

- 4. Connect the power cable to the motor solenoid.

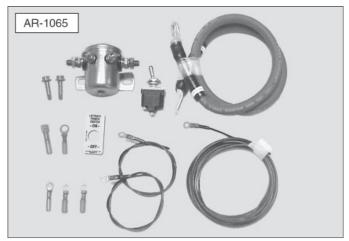
 Make sure the power cable is connected to the correct motor solenoid post (one not connected to the motor housing with a metal strap or wire cable.
- 5. Connect the short end of the power cable to the positive post of the battery. The power unit should now be operational.
- 6. Coat all terminal ends, studs, and nuts with a Teflon lubricant, grease, or other electrical connection sealant to prevent corrosion.

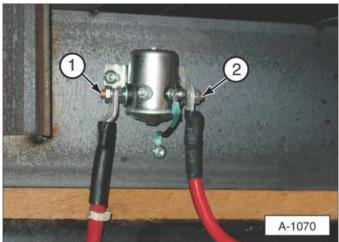
Note: Do not apply undercoating to power cable or fuse holder! The power cable should be clean near the fuse holder to ensure easy removal of the rubber boot seals if fuse needs to be replaced. For fuse replacement, see the instructions in the Maintenance section of this manual.

4.8.2 Cut-Off Solenoid Connection

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

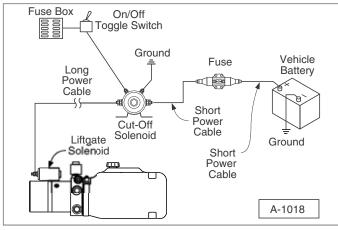
The optional A-133036 Cut-Off Solenoid Kit can be used in any truck, but is essential for tilt cab applications because it requires only a light weight wire running to the cab—not a large cable as required by the cut-off switch.





Cut-off solenoid installed between battery and fuse assembly. (1) Short cable, part of solenoid kit. (2) Short end of power cable leading to fuse.

Follow the installation directions on the Installation Instruction sheet that comes with the kit.



Wiring diagram with cut-off solenoid.

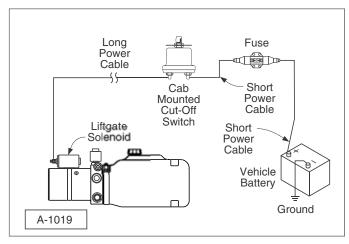
4.8.3 Cut-Off Switch Connection

The installation of a cut-off switch is also a recommended option, by Anthony Liftgates, 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.



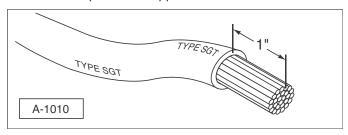
Cut-off switch mounted in cab of truck.



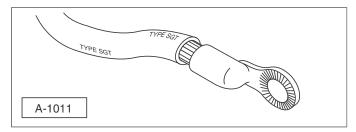
Wiring diagram with cab cut-off switch.

4.9 Cable Lug Installation

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



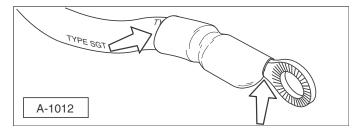
Position the cable lug on the exposed wire, as shown. Crimp the cable lug using a cable crimping tool (hydraulic or manual).



NOTICE

Proper wire connections are crucial to the life of the liftgate's power unit. DO NOT smash the cable lug with a hammer to secure it to the cable. Poor connections can result in low voltage, and any attempt to operate below the minimum required voltage could cause system failure.

 Use the supplied heat shrink tube to insulate the new connection. Heat the shrink tubing using a heat gun or propane torch until it shrinks around the cable insulation and cable lug, leaving only the mounting hole exposed. Do not overheat the heat shrink tubing.



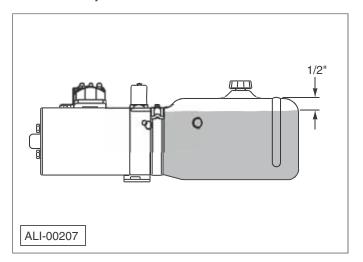
4.10 Final Inspection Checklist

AWARNING

PERSONAL INJURY HAZARD
Do not use the liftgate if any of the items in the Final Inspection Checklist are not checked and verified. Personal injury may result. If you have any questions, contact your nearest Anthony distributor, or the Anthony Liftgates main office.

- Check all welds to make sure they are done properly.
- Make sure all pins are in place and held with proper retainers.
- ☐ Make sure the power unit reservoir is filled. The fluid level should be 1/2" from the top of the reservoir when the liftgate platform is on the ground.

Use only Dexron VI, Dexron III, or Hyken Glacial Blue hydraulic fluid. For cold weather operation, we recommend Hyken Glacial Blue.



NOTICE

Use only Dexron VI, Dexron III, or Hyken Glacial Blue hydraulic fluid in the power unit reservoir. DO NOT thin hydraulic fluid with brake fluid, and DO NOT use brake fluid in place of hydraulic fluid.

If an emergency situation occurs, any anti-wear hydraulic fluid can be used, but the system should be flushed and the fluid changed as soon as reasonably possible. Hydraulic fluids should not be mixed due to possible compatibility problems.

The recommended fluids are compatible and may be mixed, however, the cold weather operating characteristics of Hyken Glacial Blue will be adversely affected.

sure it is secured with a padlock, lock pin, or wire (customer supplied).
Operate the liftgate through its entire operational cycle (Up and Down) several times. Make sure the liftgate operates evenly, freely, and smoothly throughout the entire operating range and that there is no unusual noise or vibration while operating the liftgate.
Make sure all decals are in place and legible.
Make sure the license plate bracket is properly installed, as required by law.
Make sure the truck and/or trailer meet all local, state, and federal regulations; including, but not limited to those required for bumpers, lighting, and reflectors.
Make sure the optional cab cut-off switch or power cut-off solenoid is installed.

☐ Put the Installation, Operation, and Maintenance

manual in the glove compartment of the vehicle.

☐ Install the cover on the power unit box. Make

5.1 **Decal Locations**

SAFETY INSTRUCTIONS

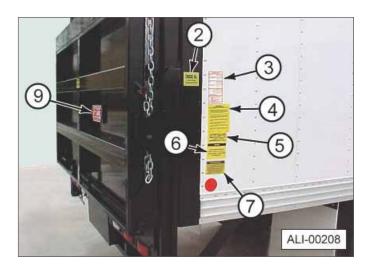


To prevent personal injury from not being aware of safety recommendations, make sure all decals are attached to the liftgate and/or truck and are legible at all times!

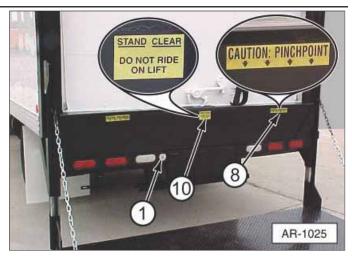
Safety decals provide a vital role in helping to reduce injuries and/or possibly even death. To ensure the greatest level of safety, all decals must be in place and legible at all times. Remember, it is the users responsibility to maintain these decals. For a complete part number list and illustration of the decals used on the Medium RailTrac Liftgate, refer to the online parts manual.

For replacement decals contact: Anthony Liftgates, Inc. 1037 West Howard Street Pontiac, Illinois 61764 (815) 842-3383 or 800-482-0003 Web: www.anthonyliftgates.com

Email: Sales@anthonyliftgates.com



- 2. Maximum Capacity Decal
- 3. Operating Instructions Decal (AR-18-89)
- 4. Urgent Warning Decal (Q-003013)
- 5. After Using Liftgate Decal (ATU-141)
- 6. Notice Decal (A-150238)
- 7. Lift chain—Inspect, lubricate, and replace (A-171448)
- 9. Anthony Hydraulic Lift Gate Label (998420)



- 1. Identification Plate
- 8. Caution: Pinchpoint (AR-18-76)
- 10. Stand Clear Do Not Ride On Lift (ATU-146)

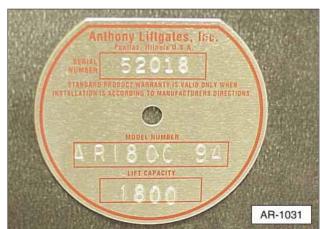
Item	Part no.	Description	
1	_	Identification Plate	
	A-131012	1200 lbs. Maximum Capacity Decal	
	ATU-175	1800 lbs. Maximum Capacity Decal	
2	A-131020	2000 lbs. Maximum Capacity Decal	
	ATU-174	2500 lbs. Maximum Capacity Decal	
	ATU-147	3000 lbs. Maximum Capacity Decal	
3	AR-18-89	Operating Instructions Decal	
4	Q-003013	Urgent Warning Decal	
5	ATU-141	After Using Liftgate Decal	
6	A-150238	Electrical Overload Decal	
7	A-171448	Lift chain - Inspect, Lubricate, Decal	
8	AR-18-76	Caution: PinchPoint Decal	
9	A-131034*	Anthony Liftgate Label	
10	ATU-146	Stand Clear Do Not Ride On Lift Decal	
11	A-131036**	Liftgate Fuse Changing Procedure Decal	

^{*} Factory Installed

^{**}This decal is attached, at the factory, to the power cable/fuse assembly.

5.2 Decal Illustrations

1.



2000 lb.

MAXIMUM
CAPACITY

A-131020
03/2008

ACAUTION

Make sure the proper "maximum capacity" decal goes on the appropriate liftgate. For example, the "1800 Maximum Capacity" decal goes on AR-1800 models only. Do not put a higher rated decal (2500 pound) on a smaller liftgate (model 1800); this could result in liftgate damage or possibly personal injury.

1200 lb. - A-131012 1800 lb. - ATU-175 2000 lb. - A-131020 2500 lb. - ATU-174 3000 lb. - ATU-147

ANTHONY MEDIUM RAILTRAC OPERATING INSTRUCTIONS ACTIVATE CONTROL SWITCH "UP" TO RAISE PLATFORM OFF OF LATCH PLATES 2 UNFOLD PLATFORM TO HORIZONTAL POSITION 3 ACTIVATE CONTROL SWITCH: "UP" TO RAISE PLATFORM "DOWN" TO LOWER PLATFORM TO CLOSE UNIT: RAISE UNIT IN HORIZONTAL POSITION, UP TO TRUCK BED LEVEL FOLD PLATFORM UP TO VERTICAL POSITION - PRESS "DOWN" BUTTON TO SET PLATFORM LATCH PLATES INTO SLOTS ON CATCH PLATES MAKING CERTAIN BOTH SIDES ARE SECURELY IN SLOTS ANTHONY LIFTGATES, INC. 1037 WEST HOWARD ST., PONTIAC, ÍL 61764

4.

3.

WARNING



ELEVATING GATE INSTRUCTIONS Before Operating Lift, Be Sure You Understand the Following.

- Improper operation of this lift can result in serious personal injury. Do not
 operate unless you have been properly instructed and have read and are
 familiar with the operating instructions. If you do not have a copy of the
 instructions, please obtain them from your employer, distributor, or lessor,
 as appropriate, before you attempt to operate the lift.
- 2. Be certain the vehicle is properly and securly braked before using the lift,
- Always inspect this lift for maintenance or damage before using it. If there are signs of improper maintenance, damage to vital parts, or slippery platform surface, do not use the lift. Do not attempt your own repairs, unless you are specifically trained.
- Do not overload. See Mfg, Literature and/or Rating Label on the unit for the rated load. Remember that this limit applies to both raising and lowering operations.
- Each load should be placed in a stable position within the edges of the platform as near as possible to the center of the platform side to side, and as close to the truck sill as possible.
- Never stand in or move through or allow anyone else to stand in or move through the area in which the lift may operate or into which an upset load might fall.
- This is not a passenger lift. This liftgate is intended for loading and unloading of cargo only. Do not use this liftgate for anything but its intended use.

Anthony Liftgate, Inc.

Q-003013

03/2008

5.

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

ATU-141

03/2008

6.

NOTICE

THIS LIFTGATE IS PROTECTED
WITH AN ELECTRICAL OVERLOAD
CIRCUIT BREAKER, LOCATED NEAR
THE POWER SUPPLY.

A-150238

03/2008

7.

AWARNING

INSPECT, LUBRICATE AND REPLACE LIFTGATE DRIVE CHAIN ACCORDING TO MANUFACTURERS RECOMMENDATIONS. FAILURE TO FOLLOW THESE MANUFACTURERS RECOMMENDATIONS MAY RESULT IN SERIOUS BODILY INJURY. FOR INFORMATION CONTACT YOUR NEAREST ANTHONY LIFTGATE DISTRIBUTER OR ANTHONY LIFTGATES, INC., PONTIAC, IL. 61764

171448

9. ANTHONY
LIFT GATES, INC.*

10.

STAND CLEAR DO NOT RIDE ON LIFT



Note: This decal is attached, at the factory, to the power cable/fuse assembly.



6. Operation Section

6.1 General Operating Safety

The following is a list of Do's and Don'ts for the operation of the liftgate.

√ Do's

- Read and follow warning decals, operating decals, and owners manual.
- ✓ Keep all decals in place and legible and retain the owners manual in the vehicle or all Warranties are void.
- Make sure the vehicle is properly and securely braked before using the liftgate.
- ✓ Keep yourself clear of all moving parts.
- Make sure the area in which the platform will travel is clear before opening, closing, raising, or lowering the platform.
- Make sure the platform area, including the area in which loads may fall from the platform, is clear before, during, and at all times while operating the liftgate.
- Always place the load as close to the center of the platform as possible. Also, position the load as close to the center of the truck's rear sill as possible.
- Make sure the slide runners move smoothly inside the H-frame columns with no unusual noise or vibration.
- ✓ Only operate the liftgate with the Up/Down control mounted on the H-frame column or using an optional, hand-held remote control.
- ✓ Check the oil level in the hydraulic tank monthly. Change the oil with Dexron VI, Dexron III, or Hyken Glacial Blue hydraulic fluid if it is contaminated or dirty. For cold weather operation, we recommend Hyken Glacial Blue.
- ✓ Visually inspect your liftgate frequently and keep it properly adjusted.
- √ Visually inspect the lift chains and replace them if signs
 of wear or damage are present.
- ✓ Repair any damage to the liftgate to prevent accidents.
- ✓ Place the liftgate into the storage position with the platform latch and latch bracket when the liftgate is not in use.

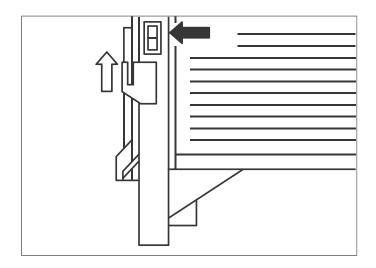
× Don'ts

- Do not overload the platform. The maximum rated capacity is based on an evenly distributed load on the platform's flat surface.
- Do not ride on the liftgate. Always stand clear of the liftgate when it is operating.
- Do not allow children to play around or operate the liftgate.
- Do not allow your liftgate to be used by persons not familiar with its operation.
- Do not use your liftgate if it shows signs of abuse or fails to operate freely and smoothly.
- Do not allow the motor/pump to run after the liftgate is fully raised and has stopped moving.
- ✗ Do not use brake fluid in the hydraulic reservoir.
- Do not bounce the platform by pushing and releasing the control button/switch abruptly.
- Do not use the liftgate for anything other than its intended use of loading and unloading cargo.
- ➤ Do not operate lift trucks on or over any part of the platform.
- Do not stand under or place any object under the liftgate work area.
- Do not operate the liftgate with the housing cover removed.
- Do not drive the truck unless the liftgate is in the stored position and the platform latches are secured inside the latch brackets.

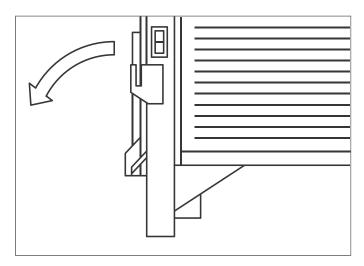
6.2 Operating Instructions

6.2.1 Opening and Closing the Liftgate

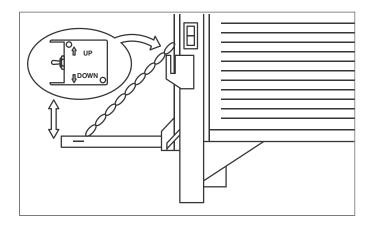
1. Push the control switch Up, on the H-frame column, to raise the platform out of the latch plates.



2. Unfold the platform to a horizontal position. The platform is spring loaded to help the operator lower it to a horizontal position, however care should be taken when lowering the platform.



Push the control switch to Down to lower the platform and/or push the control switch to Up to raise the platform.



- 4. To close the liftgate and secure it into a stored position:
 - a. With the platform in a horizontal position, raise the platform to the truck bed level.
 - b. Lift the platform into a vertical position.
 - c. Push the control switch down to lower the platform latches into the latch plates.
 - d. Make sure both platform latches are securely seated into the latch plates.

WARNING







To prevent serious bodily injury, keep sparks, lighted matches, and open flames away from the

top of the battery, because battery gas can explode. Always follow all the manufacturers' safety recommendations when working around the truck's battery.



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

Never secure the power cable to anything which allows it to contact sharp edges, other wiring, 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.







Always weld in a well ventilated area and, if in an enclosed area, vent the fumes to the outside.

Breathing welding smoke and paint fumes can cause serious injury.



Always follow all State and Federal health and safety laws and/or local regulations when using an arc welder, mig welder, or cutting torch.

Also, follow all manufacturer's safety guidelines. If other people are present during the installation of the liftgate, make sure the welding area is shielded from their view.



To avoid eye injury during welding, always wear a welding helmet with the proper lens to protect your eyes.





To prevent personal injury, clean up any spilled fluids immediately. To avoid tripping, do not leave tools or components laying around in the work area.

7.1 **Monthly Inspection**

The following inspection and maintenance operations should be performed at the recommended intervals or at any time the unit shows signs of abuse, and or improper or abnormal operation. Adherence to these guidelines will help ensure the maximum operator safety and satisfaction with your Anthony Liftgate through preventive maintenance.

- 1. Make sure the liftgate operates freely and smoothly throughout its entire range of movement. Make sure there is no unusual noise or vibration during operation and that the slide runners move smoothly and evenly in the H-frame columns.
- 2. Check for damage to the liftgate such as bent or distorted slide runners or any cracked weld which may have resulted from overload or abuse. Check for excessively worn parts such as the lift chains or platform support chains. Replace bushings and pins if worn.
- 3. Check for excessive wear or damage in the following areas:
 - a. All bearings, pins, and sprockets. Bearings inside of sprockets should be checked for wear and replaced if worn.
 - b. Slide runners.
 - c. Platform retainer.
 - d. Platform hinge.
- 4. Check the platform chains, make sure they are in good shape and the ends are connected properly.
- 5. Inspect the entire length of both lift chains and replace them if they show any damage or wear beyond the tolerance specifications. Refer to "7.3.7" Lift Chain Inspection" on page 35 to determine if the chain requires replacement. Replace only with Anthony approved chains.
- 6. Check all connecting links in the lift chain to make sure they are properly secured with cotter pins.
- 7. Make sure the platform is level when raised to bed height.
- 8. Inspect the platform latches and latch brackets for cracks or damage. Make sure the platform locks securely in place for transit.
- 9. Check the torsion spring assist mechanism, make sure the securing screws are tight.
- 10. Make sure all electrical wires, switches, and connections are in good working condition and operate properly.
- 11. Check for oil leaks in these areas:
 - a. Hydraulic lift cylinder.
 - b. Hydraulic hoses. Replace if they show signs of leakage or excessive abrasion of the covering.
 - c. Check all hydraulic fittings for damage or leaks. Tighten fittings to stop leaks or replace if damaged.

- 12. Check the fluid level in the power unit hydraulic tank. Fill the tank as required with Dexron VI, Dexron III ATF hydraulic oil or Hyken Glacial Blue. For cold weather operation, we recommend Hyken Glacial Blue. Do not use brake fluid.
 - With the platform on the ground, the oil level should be within 1/2 inch of the top of the reservoir
 - b. Fill the tank as required with Dexron VI, Dexron III ATF hydraulic oil or Hyken Glacial Blue. For cold weather operation, we recommend Hyken Glacial Blue. Do not use brake fluid.

NOTICE

Use only Dexron VI, Dexron III, or Hyken Glacial Blue hydraulic fluid in the power unit reservoir. DO NOT thin hydraulic fluid with brake fluid, and DO NOT use brake fluid in place of hydraulic fluid.

If an emergency situation occurs, any anti-wear hydraulic fluid can be used, but the system should be flushed and the fluid changed as soon as reasonably possible. Hydraulic fluids should not be mixed due to possible compatibility problems.

The recommended fluids are compatible and may be mixed, however, the cold weather operating characteristics of Hyken Glacial Blue will be adversely affected.

- 13. Use a 30W motor oil to lubricate the following areas.
 - a. Oil inside of the housing where the sprocket shoe travels when the hydraulic cylinder moves.
 - b. Completely oil the inside of the entire length of both H-frame columns. This helps to prevent oxidation on inside column surfaces.
 - Oil the entire length of both the lift chains. This includes all chain inside the H-frame columns, cylinder housing, and rails.
 - d. Oil the platform hinge points.
 - e. The sprocket bearings are self lubricating and do not need to be lubricated.
- 14. Check the fluid level of the vehicle battery. Fill as required.
- Examine all Warning, Capacity, and Operational Decals. If they are not readable they should be replaced. Decals may be obtained from Anthony Liftgates, Inc.

7.2 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 outlined in Step 12 of the "Monthly Inspection" section.

7.3 Lift Chains

The following section covers the maintenance and repair of the Medium RailTrac lift chains. Make sure you read and follow all the recommendations and safety issues before working on or adjusting the lift chain.

AWARNING



CRUSH HAZARD

Lift chains will break if misused or abused.

NEVER splice lift chains. Always replace the entire length of both lift chains in the event of breakage, damage, or wear.

DO NOT use spring clips to retain the chain link plates when making chain end connections. Use only the recommended cotter pins, described in this section.



You may be seriously injured if you attempt to install lift chains on equipment when it is connected to a power source. Before attempting installation, place the platform

on the ground and shut OFF the power.

7.3.1 Master Link Replacement

Do not use a master link with a spring retaining clip. Only use Anthony approved master links.

7.3.2 Cotter Pin Replacement

The cotter pins used in lift chain master links are special cotter pins which are heat-treated and formed to remain under compression. This will minimize movement in the pin hole when inserted into the master link. After insertion, the prongs should not be spread more than a 90 degree included angle. The cotter pins are hardened for high retention life, and should not be reused once removed.

NOTICE

Do not use ordinary commercial cotter pins in the RailTrac lift chain master links because they will not provide equal service.

7.3.3 Sprocket Replacement

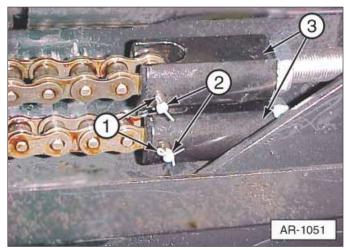
When a lift chain becomes worn and needs replacement, inspect the sprockets for worn, hooked, or deformed teeth. Running a new chain on worn sprockets can lead to shortened chain life and chain failure.

Do not run old chain on new sprockets. A good fit between the lift chain and sprocket is essential for a smooth running liftgate.

7.3.4 Lift Chain Replacement

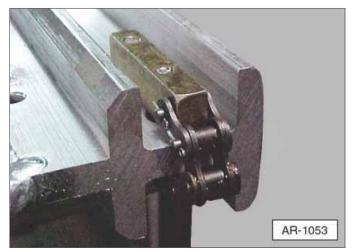
If a lift chain breaks or needs replacing, replace the complete length of chain. **Do Not** splice in new sections to old sections. We also recommend replacing both lift chains and all sprockets at the same time. Do not run one old lift chain and one new lift chain as undue wear on the new chain will occur.

- 1. Lower the platform to the ground.
- 2. Disconnect power to the liftgate.
- 3. Remove the housing cover.
- 4. Remove the chain from the chain anchor inside the housing. Remove the cotter pins from the chain anchor pins and then remove the chain anchor pins.



Remove cotter pins (1) and chain anchor pins (2) from chain anchors (3) to remove both chains.

- 5. Remove the chain from the bottom of the slide runner.
 - Remove the two bolts holding the chain anchor to the slide rail.
 - b. Remove both cotter pins from the master link.
 - c. Remove the front chain link from the master link.
 - d. Remove the master link.



Chain anchor on slide runner.

- 6. Determine the length of the old chain by counting the number of links. Measuring the chain does not accurately determine the length of the chain because of elongation (stretching) of the old chain.
- On above bed lifts, if necessary, cut the new chain to the same length (same number of links) as the old chain.
- 8. Reattach the new chain to both chain anchors. Only use new master links and cotter pins.

ACAUTION

Do not re-use cotter pins and do not use a master link with a spring retaining clip. Only use Anthony approved cotter pins and master links.

AWARNING



CRUSH HAZARD

Never work under a liftgate in the raised position. Serious injury or death can result if the liftgate falls. Make all lift chain

adjustments with the platform on the ground or with wooden blocks under each corner.

7.3.5 Lift Chain Lubrication

The most important consideration in field maintenance of lift chains is **lubrication**.

Maintaining an oil film on all chain surfaces will:

- Minimize joint wear (chain stretch).
- Prevent corrosion.
- · Reduce the possibility of pin turning.
- · Minimize tight joints.
- Promote smooth, quiet chain action.
- Lower chain tension by reducing internal friction in the chain system.

Properly lubricated lift chain joints may acquire a "paste-like" build-up, made of oil and dirt, but joint wear will still be much less than if the chain is allowed to run dry with metal-to-metal contact.

30W motor oil is an excellent chain lubricant. Generally, the heaviest (highest viscosity) oil that will penetrate the joint is the best. Apply oil to chains with a paint brush, flooding the entire length of chain every inspection period.

7.3.6 Lift Chain Cleaning

Only use kerosene or mineral spirits to clean the lift chain.

NEVER USE GASOLINE OR OTHER HIGHLY VOLATILE SOLVENTS. Re-oil the chain with 30W motor oil after cleaning.

7.3.7 Lift Chain Inspection

After each 90 days of operation, (more often in hostile environments), the lift chains should be inspected and lubricated. The inspection should focus on the following:

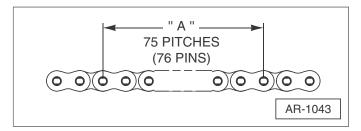
Elongation

ACAUTION

Do not repair lift chains by splicing new links or new sections of chain into used sections of chain. This will cause uneven loads and undue wear resulting in lift chain failure. Both lift chains must be replaced at the same time.

When a length of chain has elongated from wear more than 2% of the pitch, it should be discarded and replaced.

Elongation (A) of the lift chains may be checked by measuring a length of chain. Measure 75 pitches of the chain, or from the center of one pin to the center of the 76th pin. This length should be less than dimension "A" in the Chain Elongation chart. If the dimension is greater than the chart value, replace both chains.

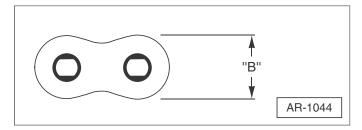


Chain Elongation			
Model	Chain Pitch	Dimension "A"	
AR-1200	5/8	47 13/16	
AR-1800	5/8	47 13/16	
AR-2000	5/8	47 13/16	
AR-2500	3/4	57 3/8	
HCR-3000	5/8	47 13/16	

Note: Measure a section of lift chain that flexes over a sprocket, because this area will be worn the most. Make all measurements with the platform on the ground, so there is no load on the lift chain.

Edge Wear

Check the lift chain for wear on the link plate edges (B) caused by running back and forth over the sheaves. Measure the height (or depth) of the chain link (using a micrometer or calipers) in an area that runs over a sheave. Compare the result to Dimension "B" in the Edge Wear chart. If the chain measures less than the specified dimension, replace the chains.



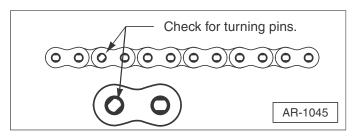
Edge Wear			
Model	Chain Pitch	Dimension "B"	
AR-1200	5/8	N/A	
AR-1800	5/8	N/A	
AR-2000	5/8	0.564"	
AR-2500	3/4	N/A	
HCR-3000	5/8	0.564"	

Protruding or Turning Pins

The pin head rivets in the lift chain should be examined to determine if the flats of the V-heads are still in correct alignment.

Highly loaded chain, operating with inadequate lubrication, can cause forces that result in pin rotation. When the chain is allowed to operate in this condition, a pin(s) can begin to twist out of a chain link, resulting in failure.

Chain with rotated or displaced heads and/or abnormal pin protrusion should be replaced immediately. Turned pins occur in the areas of the chain that ride over sheaves, so inspect these areas carefully. Any wear pattern on the pin heads or sides of the link plates indicates misalignment in the system. This condition damages the chain and should be corrected.



Cracked Link Plates

If any crack is discovered in the chain link plates, the chain should be completely replaced.

Chain Anchors and Sheaves

An inspection of the chain system also includes a close examination of chain anchors and sheaves. Make certain all fasteners are in place and secure.

Check chain anchors for wear, breakage, and cracks. Anchors with worn, broken, or cracked fingers should be replaced.

Sheaves with badly worn flanges and outside diameters should be replaced. Bearings within the sheaves can be replaced separately. If replaced, the bearing should be staked and/or held in place with Locktite.

7.4 Replacing the Fuse

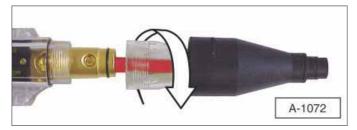
SAFETY INSTRUCTIONS

To avoid injury, disconnect the liftgate power cable from the vehicle battery or batteries before replacing the fuse, or before disassembling the fuse holder. Ignoring this warning can cause an electrical arc, resulting in personal injury or property damage.

1. Pull back the rubber boots from the fuse holder.

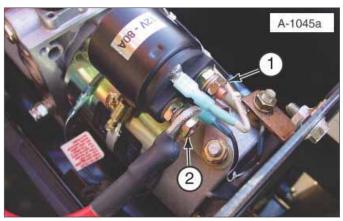


2. Unscrew the fuse holder ends from the fuse holder body and pull it apart.

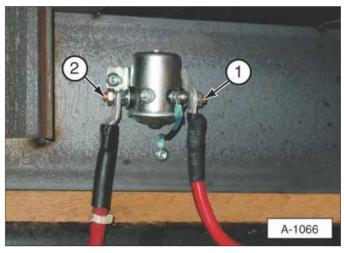


- 3. Slide the fuse holder body one direction (left or right) to expose the blown fuse.
- 4. Loosen the screws from each end of the fuse and remove it. Replace the fuse with the same size (Amperage) fuse as the one removed. If you are unsure of the replacement fuse amperage, contact Anthony for your specific size fuse. Retighten the screws
- Re-assemble the fuse in reverse order. Be sure the rubber boots are sealed around the fuse holder and cable.
- 6. Re-connect power after you are certain the liftgate operating area is clear.

7.5 Checking Motor Start Solenoid and Power Cut-off Solenoid



Motor start solenoid.



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 the battery side (2) of the solenoid. Connect the other cable to the motor side (1) of the solenoid.
- 3. If the liftgate is activated, the solenoid is bad and should be replaced.

7.6 Testing Power Cables

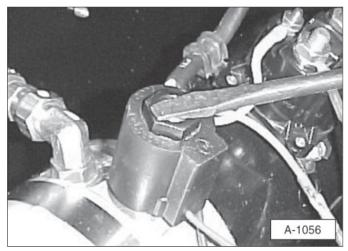
To test the continuity of power cables, connect a voltage meter between the power cable and a ground on the vehicle.

- 1. Attach the positive clip of the voltage meter to the power cable on the motor start solenoid.
- 2. Attach the negative clip of the voltage meter to a ground on the chassis of the vehicle.
- The voltage reading should indicate a minimum of 12 Volts.

- 4. If the voltage meter indicates less than 12 Volts, check the following:
 - a. Make sure power to the liftgate is turned ON.
 - Make sure all connections are clean and tightly connected.
 - Make sure the power source (battery) is fully charged and operational.
- 5. If the Voltage is still below 12 Volts after completing Step 4, replace the power cable.

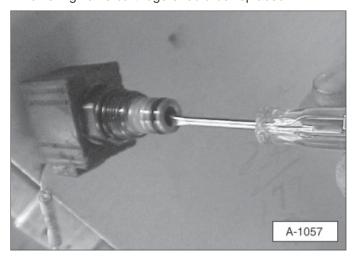
7.7 Checking Lowering Valve Cartridge and Coil

- 1. Place the platform on the ground in the open position.
- 2. Place a steel screwdriver over the top of the lowering valve cartridge coil.



- 3. Momentarily activate the control switch in the DOWN position. The screwdriver should be attracted to the magnetic field created by the coil.
- 4. If no magnetic pull is produced, the coil is bad and should be replaced. If the coil is good, check the lowering valve cartridge.
- 5. Remove the coil from the lowering valve cartridge assembly.
- 6. Remove the lowering valve cartridge from the pump body.
- 7. Clean the lowering valve 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 poppet inside the lowering valve cartridge. The poppet is spring loaded and should move when it is pressed. If the poppet does not move, then the lowering valve cartridge should be replaced.



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

- 1. Remove the breather hose (if so equipped).
- Raise the platform all the way up and hold the switch in the "ON" position while checking for oil coming out of the breather port to the cylinder.
- If a continuous flow of oil comes out of this port (while the platform is all the way up and the switch is held "ON"), then the piston seals are leaking and the cylinder should be replaced.

7.9 Checking System Pressure

For Medium RailTrac Liftgates there is only one relief valve.

To check the pressure setting:

- 1. Place the platform on the ground and remove the pressure hose from the port on the pump.
- 2. Install a tee (customer supplied) into the port.

AWARNING



CRUSH HAZARD

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

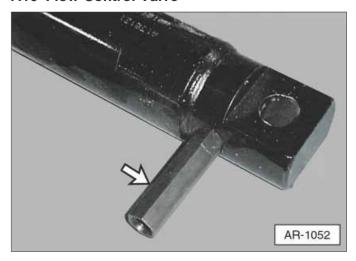
operating the liftgate from a safe location. Serious injury or death could result if this action is not followed.

- 3. Connect a pressure gauge to the tee (with a capacity rating of 4000 psi or above) and reconnect the hydraulic hose. The pressure gauge should be connected to a hose that allows the mechanic to read the gauge without being under the platform.
- Raise the platform and check the pressure. A low pressure threshold is listed for each model in the following chart.

Low Pressure Threshold Chart			
Model	Low Pressure Threshold		
AR-1200	2300 psi		
AR-1800	2300 psi		
AR-2500	3000 psi		
HCR-3000	3000 psi		

5. If the appropriate pressure is not reached, replace the pump.

7.10 Flow Control Valve



AWARNING



CRUSH HAZARD

Do not operate the liftgate without the flow control valve because the platform may lower too rapidly under heavier loads.

Serious injury or death could result if this action is not followed.

The flow control valve is designed to keep the liftgate from lowering too rapidly under a heavier load.

- 1. Test the flow control valve by comparing the lowering speed with and without a load.
- 2. If the lowering speed varies by more than 10 percent:
 - a. Clean the H-frame columns and slide runners.
 - b. Replace the flow control valve and run the test again.

Note: The lowering speed of the liftgate can be affected by dirt and debris in the H-frame columns and slide runners.

7.11 Torsion Bar and Spring Replacement

1. Unfold the liftgate platform.



2. Remove the double nuts from the bolt that secures the platform hinge pin assembly.



ACAUTION



SPRING TENSION

Remove the nuts only. Do not remove or attempt to remove the bolt. Bodily injury can occur, if the bolt is removed with the

platform in the unfolded position.

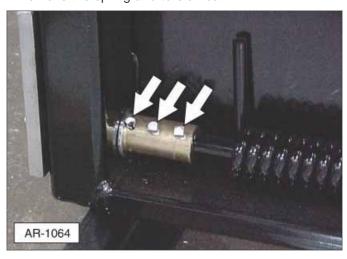
Close the platform and lower it into the latch plates.
 This will prevent the platform from opening or falling.
 There is also the least amount of preset tension on the spring(s) when the platform is in the closed position.



4. Using a large adjustable (crescent) wrench or pipe wrench, and with a firm grip, twist the platform hinge pin assembly slightly to release the tension from the bolt and remove the bolt. Slowly, rotate the platform hinge pin the opposite direction until no tension remains on the spring(s).



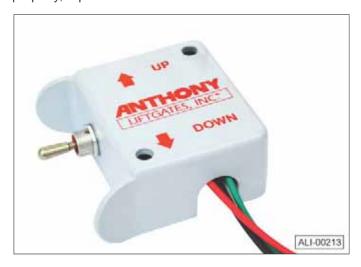
5. Loosen any setscrews that secure the spring, then remove the spring and torsion bar.



- 6. Replace any worn or damaged parts.
- Reassemble the torsion bar and spring in the reverse order. Be sure the setscrews tighten against the flat spot on spring or spring pin, to keep it from rotating in the platform hinge pin.

7.12 Checking the Control Switch

Control switches are permanently sealed (potted) and cannot be checked. If the control switch is not working properly, replace it.



ACAUTION

CRUSH HAZARD
Stand clear of the li

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.

8. Troubleshooting Section

8.1 Troubleshooting Guide

Problem	Possible Causes	Possible Solution	
Motor does not run when control switch is	Cab cut-off switch.	Turn switch to ON position.	
activated.	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 tripped or blown.	Replace fuse or reset breaker.	
	Control cord fuse (10 Amp) inside power unit box is blown.	Replace, if fuse is blown. If problem continues, check for shorts in the electrical system.	
	Defective control box switch.	Check switch, replace if defective. See "7.12 Checking the Control Switch" on page 40.	
	Motor start coil.	Check coil. See "7.5 Checking Motor Start Solenoid and Power Cut-off Solenoid" on page 37. Replace if defective.	
	Power cut-off solenoid, if so equipped.	Check coil. See "7.5 Checking Motor Start Solenoid and Power Cut-off Solenoid" on page 37. Replace if defective.	
	Defective power cable.	Check power cable for continuity. See "7.6 Testing Power Cables" on page 37.	
	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 liftgate is installed on a semi trailer make sure the power cable leading to the battery is two gauge or heavier. Smaller wires can reduce the voltage, resulting in motor failures.		
	If the motor does not operate in freezing conditions, make sure the motor housing does not contain water.		
Platform raises slowly, shakes.	Dirty or worn lift chain and sprockets.	Clean and oil all parts. Replace chain, sprockets, or sprocket bearings if necessary. See "7.3 Lift Chains" on page 33.	
Platform opens too quickly.	Platform assist spring is weak or broken.	Check for broken or weak platform assist spring and replace as necessary.	
Motor runs, but liftgate will not lower to the ground.	Structural damage. Check lift chains, sprockets, and slides.	Fix damage. Replace worn parts.	
	Defective control switch.	Check the control switch. See "7.12 Checking the Control Switch" on page 40.	
	Defective lowering valve coil.	Check the coil using the procedure in "7.7 Checking Lowering Valve Cartridge and Coil" on page 37.	
	Defective lowering valve cartridge.	Check, remove, and clean valve cartridge using the procedure in "7.7 Checking Lowering Valve Cartridge and Coil" on page 37.	
	Defective flow control valve.	Replace the flow control valve. See "7.10 Flow Control Valve" on page 39.	

Problem	Possible Causes	Possible Solution	
Motor runs, but platform will not raise, will not	Load capacity has been exceeded.	Verify load capacity and adjust load weight.	
raise rated capacity, or raises but drifts down when control switch is released.	Structural damage.	Replace damaged parts.	
	Low fluid level.	Fill reservoir (with the platform completely lowered to the ground). See "7.1 Monthly Inspection" on page 32.	
	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 cleaning or replacement. See "7.7 Checking Lowering Valve Cartridge and Coil" on page 37.	
	Bad piston seals.	Check Cylinder for Leakage. See"7.8 Checking Cylinder Piston Seals (drifting - caused by seal leakage)" on page 38.	
	Hydraulic pump is worn.	Replace hydraulic pump.	
Sagging platform.	Bushing wear where slides connect to platform.	Replace bushings.	
	Structural damage.	Replace worn parts.	
	Platform support chains.	Replace.	
Foaming oil.	Air in the hydraulic hose(s).	Check oil level in reservoir.	
	Broken or loose fluid return tube. (Does not apply to AR-1200 with 2" cylinders.)	Remove the oil reservoir and make sure the return tube is below the oil level. If the tube has turned or fallen out, reinstall it into the pump housing. Use a center punch to "stake" the tube into position.	
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. Raise the liftgate out of the latch plates.	
Platform lowers extremely slow.	Improper oil in hydraulic reservoir.	Change it to the proper fluid. See "7.1 Monthly Inspection" on page 32.	
	Damaged or kinked hydraulic hose.	Repair or replace.	
	Cylinder rod is scored, pitted, or bent.	Replace cylinder.	
	Defective flow control valve.	Replace the flow control valve. See "7.10 Flow Control Valve" on page 39.	
	Slide runners are dirty, damaged, or need oil.	Clean columns and oil slide runners with 30W motor oil. Replace slide runners if they are bent or damaged.	
	Defective lowering valve.	Coil or cartridge may need cleaning or replacement. See "7.7 Checking Lowering Valve Cartridge and Coil" on page 37.	
	Chains and sprockets are dirty.	Clean chains and sprockets with kerosene or mineral spirits and re-oil with 30W motor oil.	
Platform raises partially and stops.	Load capacity has been exceeded.	Verify load capacity and adjust load weight.	
	Structural damage.	Replace damaged parts (lift chains, sprockets, slides, cylinder, etc.).	
	Low Voltage.	Recharge battery (if less than 9 volts).	
	Low pressure.	Refill reservoir. Check pump and motor.	
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).	
	Defective lowering valve.	See "7.7 Checking Lowering Valve Cartridge and Coil" on page 37.	
	Defective hydraulic pump and motor.	Replace power unit.	

9. Inspection Record

Anthony Llftgates, Inc. Liftgate Inspection Record				
Date of Inspection	Notes, observations, maintenance performed, etc.			

10. Warranty Section

10.1 Limited Warranty

Medium 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 insure 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 Liftages, 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

10.2 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.



Notes

www.anthonyliftgates.com

800-482-0003



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