

The **Quick Response Team** at DEL Liftgates stands ready to provide you with fast action when you need service, parts or technical assistance. Call our customer service department at 1-800-289-1335 Monday - Friday, 8:00 a.m. to 5:00 p.m., or reach us 7 days a week through our internet home page.

Use this space to insert your liftgate reference numbers for easy access.

<b>Serial #</b>
<b>Model #</b>

**Quick Response** *TEAM*



## **WARNING**

Improper operation of this liftgate may result in severe personal injury or death. **DO NOT** operate this liftgate without proper instruction and a complete understanding of the procedures in this manual.

# Introduction

**Thank you** for purchasing a DEL Liftgate. Your liftgate is an example of the finest engineering in the industry and, with proper care and operation, will serve your needs for years. Not only have you purchased one of our liftgates; we feel you have entered into a partnership with us.

To begin our partnership we welcome you to the DEL Liftgates Team and assure you your continuous satisfaction with our product is most important to us. Our **Quick Response TEAM** at DEL Liftgates stands ready to provide you with fast action when you need sales, parts, or technical assistance. You can call our customer service department Monday - Friday 8 a.m. to 5 p.m. Eastern Time or reach us 24 hours a day, 7 days a week through our internet home page or voice message system. Providing quality, value, and service to our customers is what our business is all about.

Read this manual carefully to learn how to operate and care for your liftgate properly. Maintenance (other than the simple routines we ask you to perform within this manual), inspections, and repairs must be completed by a **DEL Liftgate Authorized Service Center only**. If you do not know who the Authorized Service Center in your area is, please contact us at:

**DEL Liftgates, Inc.**

P. O. Box 6126  
190 Lewis Street  
Buffalo, NY 14240-6126  
Phone: (800) 289-1335 or (716) 853-7994  
Fax: (716) 854-5424  
<http://www.liftgate.com>

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## Scope Of This Manual

DEL Liftgates, Inc. has designed this manual to illustrate the steps needed for the basic operation of our Rail Series liftgates. It also provides safety information and simple preventive maintenance tips.

***NOTE: This manual is not intended for use as a repair or troubleshooting guide.***

This manual has been designed to use in conjunction with the **DL/PT/SB/TG Rail Series liftgates only**. These are rail style liftgates ranging in capacities from 1250 lb. up to and including 3000 lb. capacity. To determine the type of liftgate you have:

- 1) *Refer to the serial number tag on the liftgate. The area labeled "Model Number" (see page 5 of this manual) will have a "DL" denotation in the prefix of the model number if it is a DL series liftgate;*
- 2) *Ask your employer or lessor;*
- 3) *Call your Authorized Service Center for assistance;*
- 4) *Call us for assistance at 1-800-289-1335. You can also contact us by fax, 716-854-5424, or visit our home page at [www.liftgate.com](http://www.liftgate.com)*

If you are experiencing difficulty or are in need of repair, contact the DEL Liftgates Factory for information on the experienced and trained DEL Liftgates Authorized Service Center in your area.

***Free manuals are available, call 1-800-289-1335 & order part # 20659.***

# Scope Of This Manual

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## Model Number

The code and model number of a liftgate are references to its size, type and capacity.

**DL 20 95 36 AF**  
**1 2 3 4 5**



### 1. Liftgate type

DL = Rail Style Liftgate  
PT = Pickup Rail Style Liftgate  
SB = Service Body Rail Style  
Liftgate  
TG = Tool Gate Rail Style Liftgate

### 2. Weight capacity

10 = 1000 lb. capacity  
12 = 1250 lb. capacity  
16 = 1600 lb. capacity  
20 = 2000 lb. capacity  
30 = 3000 lb. capacity

### 3. Width of liftgate

*(from outside of rail to outside of rail)*

95 = 95" overall width

### 4. Depth of Platform

*(not including ramp)*

36 = 36" of platform loading area

### 5. Standard floor height or above the floor lift

TML, ML, AF, M = Above floor  
T = Standard liftgate  
Blank = Standard liftgate

## **DL Series Liftgate Description**

The DL Series liftgate is a *100% level ride*, rail-style liftgate. This style liftgate is available in a range of capacities from 1250 lb. up to and including 3000 lb. Rail-style liftgates have two rails mounted to the rear of your truck, either by welding or by bolting. These rails support the platform on which you raise your cargo.

Depending on what type of DL Series liftgate you have, it may or may not lift above the floor of your truck. Models that will lift above the truck floor will have one of the following denotations at the end of the model number:

<b>DL 20 95 36 AF</b>	M or ML - Multi-lift	
	TML -	Torsion Assist, Multi-lift
	A	
	AF -	Above Floor
	AFA	

The last denotation, AF, is the most current used to indicate above floor lift. This began in October of 1993. (If there is no denotation at the end of the model number, it is a standard liftgate, with **no** above floor lift capability.)

### **Important Safety Features**

- Pressure compensated flow valve
- Treadplate platform
- Toe Guard in housing cover
- Platform locks (safety locks)
- Warning decals and manuals

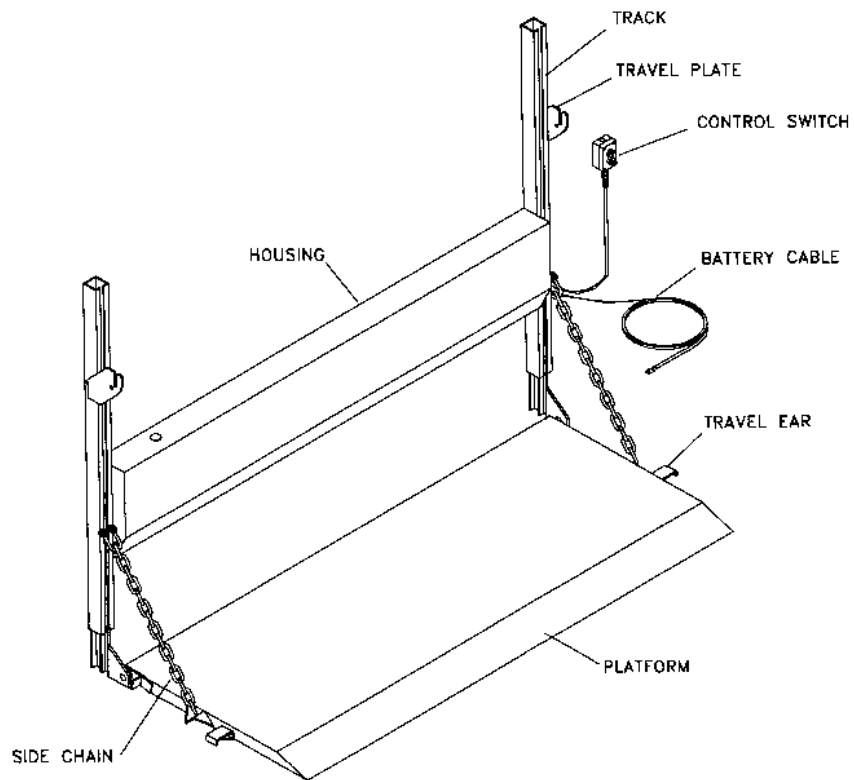
## Theory of Operation

The rail type liftgate is designed to lift cargo vertically from the truck bed to the ground or dock, and vice-versa. Power is provided by a hydraulic power unit and cylinder that activates a chain and sprocket system. Activation of a control switch supplies current from a 12 volt battery to the hydraulic power unit. The hydraulic power unit in turn supplies pressurized hydraulic fluid to the hydraulic cylinder. The cylinder extends, tensioning the chains which are attached to the platform. The resultant upward pull on the platform raises it.

The platform is lowered by gravity. Activation of the control switch releases the hydraulic fluid back to the power unit from the cylinder. The cylinder retracts releasing the tension in the chain and the platform lowers by its own weight.

## Design Detail

This is a drawing of a DL Series liftgate with descriptions of the common parts.

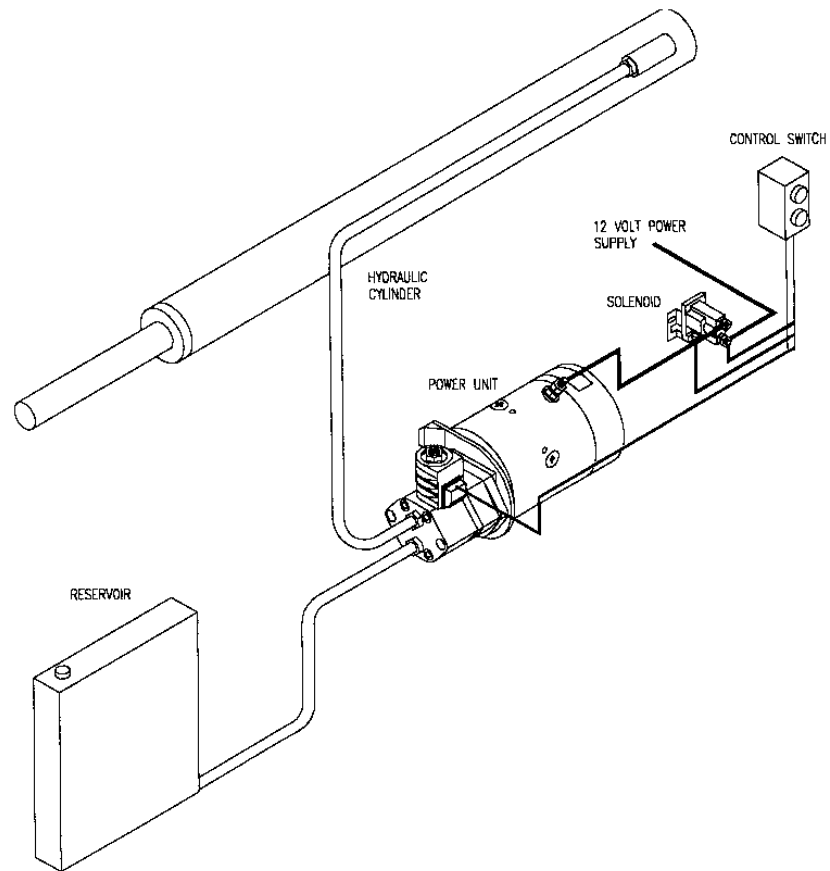


DL Operator  
Rev. 03/00

# Design Detail

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This is a general drawing of the power system for most DL style liftgates.



## Special Features

We have developed the new low maintenance features for our lift-gates by listening to you - our customers. Our low maintenance lift-gates are value engineered to reduce maintenance cost and downtime while increasing productivity. Our special features include:

***Maintenance Free Bushings*** at all major hinge points - These bushings replace grease fittings that were traditionally high maintenance items. The new bushing significantly reduce maintenance cost and downtime.

***Rubber Sealed Push Button Control*** - In order to help prevent freezing and obstacles from jamming the control buttons, all liftgates feature a control switch with rubber sealed push buttons.

***Pressure Compensated Flow Control Valve*** - This valve ensures that the platform descent is controlled at any load capacity or in the event of a damaged hydraulic hose.

We are always interested in hearing your comments and suggestions especially to improve our products, please contact us at **1-800-289-1335** or our internet page anytime. If we are not there leave a message and we will get back to you as soon as possible.

## Limits of Operation & Use

### SAFETY INSTRUCTIONS

**Before operating liftgate be sure to understand these instructions:**

1. 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 securely braked before using the lift.
3. 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.
4. **DO NOT OVERLOAD.** See Maximum Capacity Decal for the rated load. Remember that this limit applies to both raising and lowering operations.
5. Each load should be placed in a stable position as near as possible to the **CENTER** of the platform.

## Limits of Operation & Use

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### SAFETY INSTRUCTIONS

6. Keep people clear of liftgate while operating. **NEVER STAND** in or move through or allow anyone else to stand in or move through the area in which the liftgate may operate or into which the unstable load may fall.
7. **DO NOT RIDE** the liftgate. This is **NOT** a passenger lift. Unstable loads or failure of the liftgate would endanger you. *This liftgate is not equipped with a back-up system to prevent the liftgate from falling in the event of a failure.*
8. Ensure all decals are legible and in their correct locations. If you require replacement decals contact **DEL Liftgates, Inc.** Read all safety decals before operating the liftgate.

## Abnormal & Unsafe Practices



### WARNING

Improper use of the liftgate may result in severe damage to liftgate and/or severe personal injury or death. Never use liftgate for anything other than its designed use of loading/unloading cargo.

The following are unsafe practices that may cause hidden damage to the liftgate creating the risk of serious personal injury or death:

- Using the liftgate as a jack
- Using the liftgate to pull, push, or tow objects
- Using force of the hydraulic system to bend, shear, or break objects
- Using the liftgate to plow snow
- Driving a forklift over the liftgate
- Driving the truck with platform open
- Pulling the platform open from the support chains
- Pulling the platform closed from inside truck by the support chains


The following unsafe practices may result in serious personal injury or death:


- Riding the liftgate
- Using the platform as a step into the truck bed


# Safety

**DANGER, WARNING, and CAUTION** are “signal words” that identify the level of risk or hazard involved in an operation or step. The signal word will accompany a “SAFETY ALERT SYMBOL.”



Immediate hazards which <b>WILL</b> result in severe personal injury or death.	 <b>DANGER</b>
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Hazards or unsafe practices which <b>COULD</b> result in severe personal injury or death.	 <b>WARNING</b>
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Hazards or unsafe practices which <b>COULD</b> result in minor personal injury or product or property damage.	 <b>CAUTION</b>
---	--

# Safety

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## *Operate Safely*

- ⇨ Run liftgate through a full cycle before operating every day; inspect liftgate for missing or loosened fasteners, broken welds, signs of overload and that side chains are well secured; and check that all decals are in their proper place and legible.
- ⇨ Clear area of any objects that may be pinched or crushed. Keep people out of work area. Stop operating liftgate if anyone enters the area.
- ⇨ If you hit anything with the liftgate - STOP immediately! Remove object and inspect damage. Make any repairs before you operate liftgate again.
- ⇨ DO NOT leave liftgate activated or platform open when unattended.
- ⇨ DO NOT allow an untrained person to operate the liftgate.

## *Help Prevent Serious Injury Or Fatal Accidents*

- ⇨ DO NOT ride the liftgate at anytime or use platform when it is not on the ground as a step into the truck. Riders risk the chance of falling off the liftgate.
- ⇨ Disconnect power to the liftgate when it is unattended or once it is in the stored position.

# Safety

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- ⇨ DO NOT run a forklift or other heavy machinery onto the platform at anytime.
- ⇨ DO NOT use the liftgate for any other reason than loading or unloading cargo.
- ⇨ DO NOT operate the liftgate if you are under the influence of drugs or alcohol.

## *Loading And Unloading Safely*

- ⇨ Be sure to operate liftgate on a level surface.
- ⇨ When backing truck up to loading dock, do not hit the dock. Have a second person outside the truck directing you.

## *Using The Control Switch*

- ⇨ DO NOT depress the “UP” button for any longer than necessary to perform the desired function. Release the button immediately once the platform reaches its full height. Failure to release button immediately may cause damage to liftgate components causing the liftgate to fail unexpectedly.
- ⇨ DO NOT “jerk” the liftgate by pressing the “Up/Down” buttons too quickly. The sudden movement may cause the cargo to become unstable and/ or fall.

## Activating Liftgate

To provide power to the liftgate;



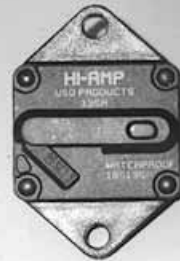
### WARNING

Improper operation of this liftgate may result in serious injury or death. DO NOT operate this liftgate without being properly instructed and understanding this manual.

### *Using the 135 AMP Circuit Breaker:*

**Step 1**

“SLIDE” the Reset Lever **UPWARDS** until it snaps into position.



### *Using the Master Disconnect Switch:*

**Step 1**

“TURN” the knob to the **ON** position.



## Normal Operating Procedures

### Opening Liftgate Platform;

**NOTICE:** There are *two* types of locks. Either the *Snap Lock Design* or the *Drop In Style Travel Plates* will be on your liftgate. Use the steps pertaining to your specific liftgate lock.

*Snap Lock Design:*



### WARNING

Platform may crush or pinch. Keep people clear of liftgate while operating.



#### Step 1

On models equipped with the Snap Lock Design, you must first remove the safety pin. Once removed, pull lever down until the top of the lock clears the travel ear.



#### Step 2

Continue holding lever down while using the grab handle to pull the platform towards you.

# Normal Operating Procedures

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*Drop In Travel Plate Design:*



**⚠ WARNING**

Platform may crush or pinch. Keep people clear of liftgate while operating.

**Step 1**

On models equipped with the Drop In Design, align travel ear with vertical opening of drop in plate by pulling on grab handle and releasing lock.



**Step 2**

Continue holding handle while pressing “UP” button on the two button switch located on the outside of the truck to raise the platform until travel ear clears the drop-in plate.



# Normal Operating Procedures

## Opening Platform Continued:



### **Step 3**

Carefully lower the platform to its horizontal position.



### **Step 4**

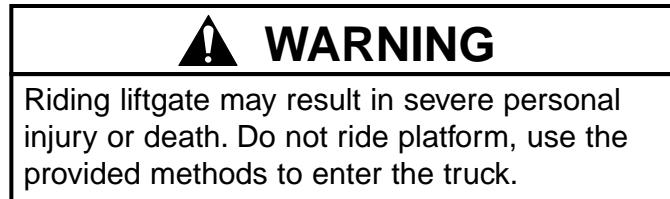
Press the "DOWN" button on the two button switch located on the outside of the truck to lower the platform to the ground.

### **Step 5**

Begin loading the truck. See "Proper Cargo Handling Procedures" under **Normal Operating Procedures (pages 21-29)**.

## Normal Operating Procedures

### Proper Cargo Handling Procedures;



To avoid riding the liftgate, two operating procedure methods have been designed to fit your particular situation. They are as follows:

***Preferred Method:*** With this method, you will have an operator and an assistant to load and unload the truck. The operator is on the ground loading and the assistant is inside the truck unloading,

***Single Operator Method:*** With this method, you will only use one operator to load and unload the truck. This procedure requires you to have two switches; one mounted inside the truck and one mounted outside the truck.

*(Contact the DEL Liftgate Factory if you do not have a second switch.)*

# Normal Operating Procedures

## Proper Cargo Handling Procedures;

*Preferred Method:*



### **WARNING**

Platform may crush or pinch. Keep people clear of liftgate when operating.

#### **Step 1**

Open the platform. See “Opening Liftgate Platform” under **Normal Operating Procedures (Pages 18-20)**.



#### **Step 2**

With platform on the ground, the assistant enters the truck by using the provided methods.

# Normal Operating Procedures

## CAUTION

Cargo placed near the edge of the platform may fall and/or cause excessive wear to the lifting components. Place cargo in the center of the platform to reduce risk of falling and evenly distribute cargo weight.

### Step 3

The operator loads the platform, placing cargo in the center and making sure it is stable. Secure load to prevent cargo from falling while platform is moving.



## CAUTION

Depressing the "UP" button too long may result in personal injury & damage lifting components. Release button immediately once stopped.

### Step 4

The operator raises the platform to the bed of the truck by pressing the "UP" button on the two button switch located on the outside of the truck.



# Normal Operating Procedures

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## Step 5

The assistant now unloads cargo from platform into the truck.



## Step 6

Once complete, the assistant advises the operator to lower platform to the ground.



## Step 7

Once use of the liftgate is complete, with the platform on the ground, the assistant climbs out of the truck using the provided method.

# **Normal Operating Procedures**

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**Step 8**

Place the platform in its stored position. See  
“Closing and Storing” under **Normal  
Operating Procedures (pages 30-31)**.

# Normal Operating Procedures

## Proper Cargo Handling Procedures;

### *Single Operator Method:*



### **WARNING**

Platform may crush or pinch. Keep people clear of liftgate while operating.

#### **Step 1**

Open the platform. See “Opening Liftgate Platform” under **Normal Operating Procedures (Pages 18-20)**.

# Normal Operating Procedures

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## WARNING

Cargo placed near the edge of platform may fall and/or cause excessive wear to the lifting components. Place cargo in center to reduce risk of falling and to evenly distribute the weight.

### Step 2

With platform on the ground, begin loading. Place cargo in the center and make sure it is stable. Secure load to help prevent cargo from falling while platform is moving.



## WARNING

Riding liftgate may result in severe personal injury or death. Do not ride platform, use the provided methods to enter the truck.

### Step 3

Climb into the truck using the provided methods.



# Normal Operating Procedures

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## CAUTION

Depressing the “UP” button too long may result in personal injury & damage lifting components. Release button immediately once stopped.



### Step 4

Once inside, raise the platform to the bed of truck by pressing “UP” button on the two button switch located on the **inside** of the truck.



### Step 5

Unload the cargo into the truck.

# Normal Operating Procedures

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## Step 6

When unloading is complete, lower platform to ground by pressing the “DOWN” button on the two button switch on the **inside** of the truck.



## Step 7

With platform on the ground, climb out of the truck using the provided methods.



## Step 8

Once use of the liftgate is complete, place the platform in its stored position. See “Closing and Storing” under **Normal Operating Procedures (pages 30-31)**.

## Normal Operating Procedures

### Closing and Storing the Platform;

*Remember: Use appropriate steps pertaining to your specific lock.*



#### **WARNING**

Platform may crush or pinch. Keep people clear of liftgate while operating.



#### **Step 1**

To prepare for travel, raise platform to a comfortable lifting position and lift to its vertical position.

*Snap Lock Design:*



#### **Step 2**

Use the “Up/Down” buttons on the two button switch to adjust platform until the travel ear can be placed into the snap lock with the jaw closed around it.

# Normal Operating Procedures

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## Step 3

Once lock is in place, reinsert the safety pin.



*Drop In Travel Plate Design:*



## Step 2

Press the “UP” button to raise the platform so the ear of the lock clears the travel plate. Once cleared, press the “DOWN” button so the travel ear drops into the travel plate.









































## **THREE YEAR LIMITED WARRANTY**

DEL Liftgates, Inc. (herein called the "Company") warrants to Distributor and/or to original purchaser for use, that it will repair F.O.B. its factory in Buffalo, New York or furnish without charge, freight prepaid, a similar genuine part to replace any part of any liftgate sold (herein called the "Liftgate") by the Company which, within twenty four (24) months after the date of sale by Distributor in the case of hydraulic and electrical parts, and within thirty six (36) months after the date of sale by Distributor in the case of all other parts, is proven to the satisfaction of the Company to have been defective at the time it was sold, provided that all parts claimed defective shall be returned, properly identified, to said factory, freight prepaid. Charges for labor to install such parts shall be paid only with respect to parts which, within twelve (12) months after the date of sale by Distributor, are proven to the satisfaction of the Company to have been defective at the time they were sold and shall be paid in accordance with the Company's Flat Rate Schedule and will be reimbursed at a rate to be set by the Company from time to time. This warranty shall be in effect as of May 1, 1995 and will cover only Liftgates sold after that date. The Company's obligation under this warranty shall not include any costs incurred by anyone for consequential damages in any form and, in particular, without restricting the generality of the foregoing, shall not include costs for vehicle towing, road calls or travel time. This warranty is expressly in lieu of all other warranties, expressed or implied, upon which Liftgates are sold. No other warranty has been made or exists.

This warranty applies only to new and unused Liftgates which, after shipment from said factory, have not been altered, changed, repaired or treated in any manner whatsoever. No warranty of any kind applies to Liftgates, or parts thereof, which have been damaged or have failed because of neglect, lack of maintenance, or service, or lubrication, wear, misuse, overloading, accident, or improper installation. No warranty of any kind, statutory, implied or otherwise, shall apply to second-hand or used Liftgates or to new and unused Liftgates which, after shipment from said factory, have been altered, changes, repaired or treated in any manner whatsoever. The integral parts of the Liftgates not manufactured by the Company are covered only by the standard warranty, if any, of the maker of same and the Company assumes no responsibility with respect thereto. No person has any authority to change this warranty in any manner whatsoever and no attempt to repair or promise to repair or improve, any Liftgate made by any representative of the Company shall waive any provision or term of this warranty, or change or extend this warranty in any manner whatsoever.

No claim under this warranty shall be valid unless such claim is submitted to the Company in writing and received by the Company within thirty six (36) months after date of sale by Distributor or within thirty (30) days after the discovery of the defect which is the basis of such claim, whichever event shall occur first.