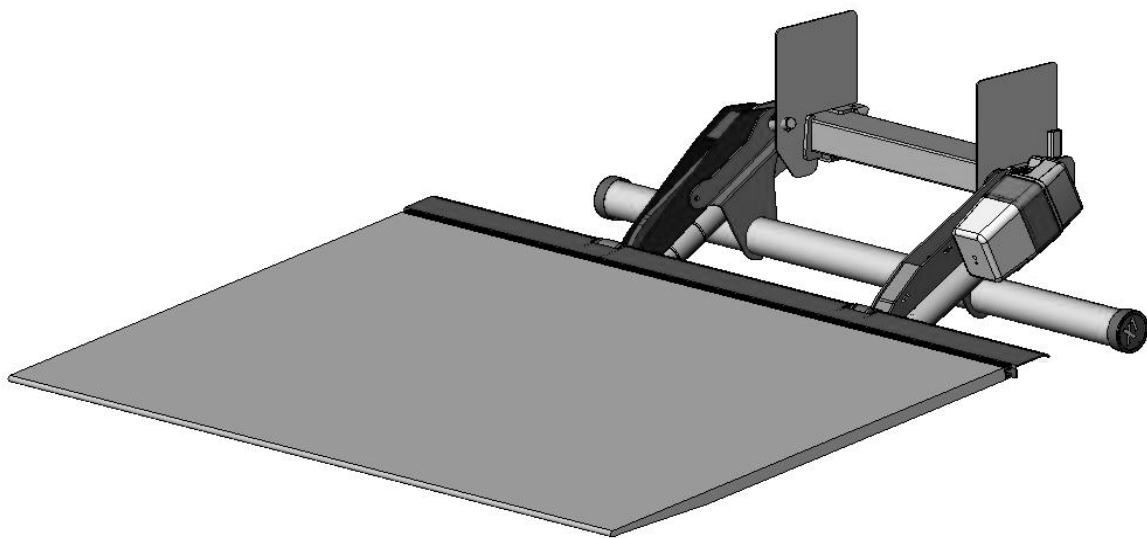


# **MAXON<sup>®</sup>**

## **USER-, MAINTENANCE MANUAL**

**GPC 17 X-1, GPC 22 X-1,**

**GPC 33 X-4, GPC 44 X-4**



**MAXON<sup>®</sup>**  
**LIFT CORP.**

11921 Slauson Avenue  
Santa Fe Springs, CA 90670-2221  
P 800.227.4116 / 562.464.0099  
F 888.771.7713

Date 12.2020  
Part-no. S 20 912 525



## Contact information

### **MAXON LIFT CORP.**

#### **Corporate Office**

11921 Slauson Avenue  
Santa Fe Springs, CA 90670-2221  
P 800.227.4116 / 562.464.0099  
F 888.771.7713

#### **Customer Service / Parts**

USA/Canada

Mexico

P 800.227.4116

F 888.771.7713

P 01.664.231.6039

## Contents

Contact information .....	II
Contents .....	III
<b>1 General</b> .....	<b>1</b>
1.1 Purpose of the user and maintenance manual .....	1
1.2 Accompanying documents .....	1
1.3 Description of the MAXON liftgate .....	1
1.4 Overview of the MAXON GPC 17 X-1 liftgate .....	2
1.5 Overview of the MAXON GPC 22 X-1 liftgate .....	3
1.6 Overview of the MAXON GPC 33 X-4 liftgate .....	4
1.7 Overview of the MAXON GPC 44 X-4 liftgate .....	5
1.8 Description of the MAXON liftgate components .....	6
1.9 Information, spare parts ordering, and warranty services using the liftgate serial number and rating plate .....	7
1.10 The liftgate serial number and the rating plate .....	7
<b>2 Safety</b> .....	<b>8</b>
2.1 Presentation of warning notices .....	8
2.2 Safety .....	8
2.3 Fundamental hazards (hazards caused by the liftgate) .....	9
2.4 Emergency procedure .....	10
2.5 Safety devices on the liftgate .....	10
2.6 Intended use .....	10
2.7 Responsibilities of operating company and requirements for operator .....	11
2.8 Commissioning .....	12
2.9 Handling and behavior during operation .....	15
2.10 Danger notice sticker “Safe handling of the liftgate” .....	19
2.11 Permissible loads .....	20
2.12 Load diagram GPC 17 X-1, GPC 22 X-1, GPC 33 X-4, GPC 44 X-4 .....	21
<b>3 Operation of the liftgate</b> .....	<b>22</b>
3.1 Activating the liftgate .....	22
3.2 Operation using the control panel (membrane switch) .....	22
3.3 Operation using the optional 2-button control panel (et series 11) .....	23
3.4 Optional control box (toggle switches) .....	24
3.5 Operating using the optional foot controls .....	25
3.6 Operation using the optional handheld control with spiral cable .....	26
3.6.1 Operating positions and safety distances when using the optional handheld control with spiral cable .....	27
3.7 Using the bridge plate or plates (if present) .....	27
<b>4 Maintenance</b> .....	<b>28</b>
4.1 Daily visual inspections .....	28
4.2 Annual inspection .....	28
4.3 Care, maintenance, testing, and repair .....	28
<b>5 Fault diagnosis and fault elimination</b> .....	<b>32</b>

5.1	Explanation of diagnostic LED in the control unit .....	32
5.2	Checking the tilt sensor in the platform .....	32
5.3	Checking pressure switch S4 .....	32
5.4	Support for fault diagnostics and elimination .....	33
5.5	When electric motor is operated continuously “liftgate cannot be switched off” .....	35
5.6	Emergency! Platform moved by mechanical means .....	36
5.7	Malfunction .....	36
<b>6</b>	<b>Decommissioning, disassembly, and disposal .....</b>	<b>37</b>
<b>7</b>	<b>Electrical circuit diagram .....</b>	<b>40</b>
<b>8</b>	<b>Hydraulic circuit diagram .....</b>	<b>41</b>
<b>9</b>	<b>Warranty, liability exclusions, copyright .....</b>	<b>42</b>
9.1	Warranty .....	42
9.2	Purchase Part Warranty .....	43
9.3	Liability exclusions .....	43
9.4	Copyright .....	43
<b>10</b>	<b>Notes .....</b>	<b>44</b>

**This user and maintenance manual applies to the following liftgates:**

**GPC 17 X-1**  
**GPC 22 X-1**  
**GPC 33 X-4**  
**GPC 44 X-4**

## 1 General

### 1.1 Purpose of the user and maintenance manual

This user manual is intended for owners and operators of the liftgate. Read this user and maintenance manual carefully before operating the MAXON liftgate. The manual will help familiarize you with the liftgate's mode of operation and warn you against misuse. The purpose of the instructions it contains is to increase safety and improve product maintenance. These instructions cover commissioning, operation, cleaning, maintenance, repair, decommissioning, disassembly, and disposal.

- Read this manual before working on or operating the liftgate.
- Do not deviate from the instructions contained in this manual. By doing so, you risk injury, damage to property, and voiding of the warranty.
- Make sure that this manual always remains with the liftgate or vehicle.

#### **IMPORTANT**

For information on maintenance and annual inspections, see the inspection record book.

#### **IMPORTANT**

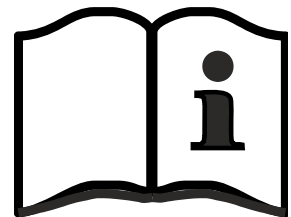
The Declaration of Conformity is supplied separately and is part of the user manual.

#### **IMPORTANT**

This user manual must be kept in the driver's cab as reference.

### 1.2 Accompanying documents

- |                               |                       |
|-------------------------------|-----------------------|
| ▪ User and maintenance manual | Part no. S 20 912 525 |
| ▪ Electrical circuit diagram  | see page 40           |
| ▪ Hydraulic circuit diagram   | see page 41           |

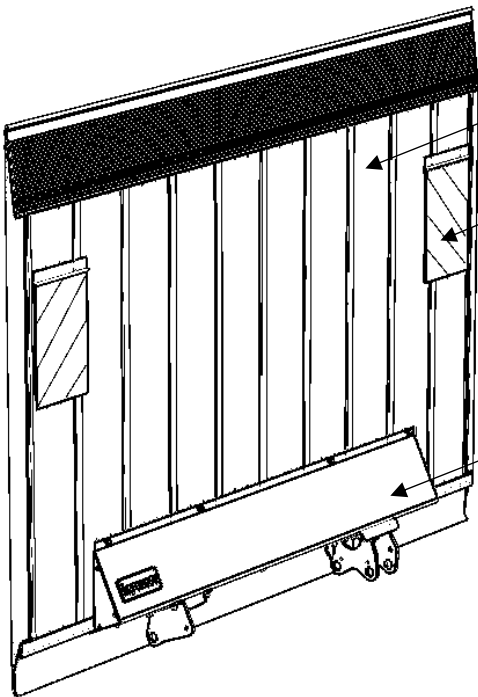


### 1.3 Description of the MAXON liftgate

You have chosen a liftgate of the highest quality. MAXON liftgates comply with the EU Machinery Directive 2008/42/EG as well as DIN EN 1756 – 1. The MAXON liftgate is simple to use. It is equipped with maintenance-free bearings and requires no lubrication throughout its service life.

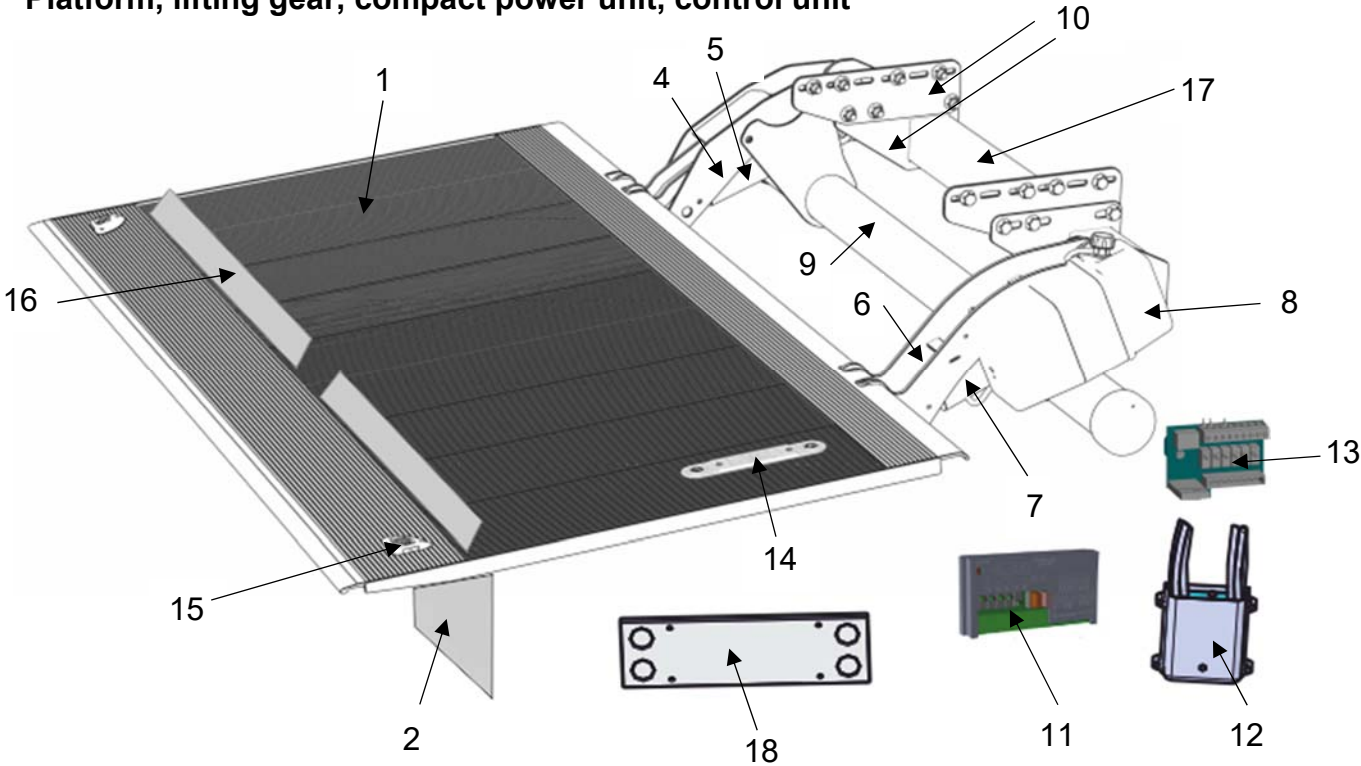
## 1.4 Overview of the MAXON GPC 17 X-1 liftgate

**IMPORTANT:** The illustration shows the liftgate in the driving position



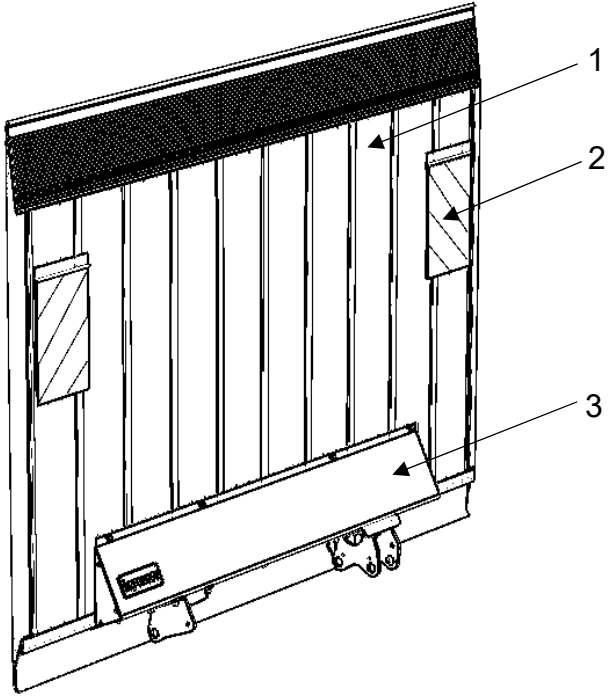
- 1 Platform
- 2 Warning flags
- 3 Torsion box
- 4 Lifting arm
- 5 Lifting cylinder
- 6 Closing arm
- 7 Closing cylinder
- 8 Compact power unit
- 9 Underbody impact guard
- 10 Mounting bracket (depending on vehicle and liftgate)
- 11 Control unit with Service switch series 11
- 12 Control unit series 10
- 13 Service switch series 10
- 14 Foot controls
- 15 Warning lights
- 16 Cart stop
- 17 Axle assembly
- 18 Control panel

### Platform, lifting gear, compact power unit, control unit



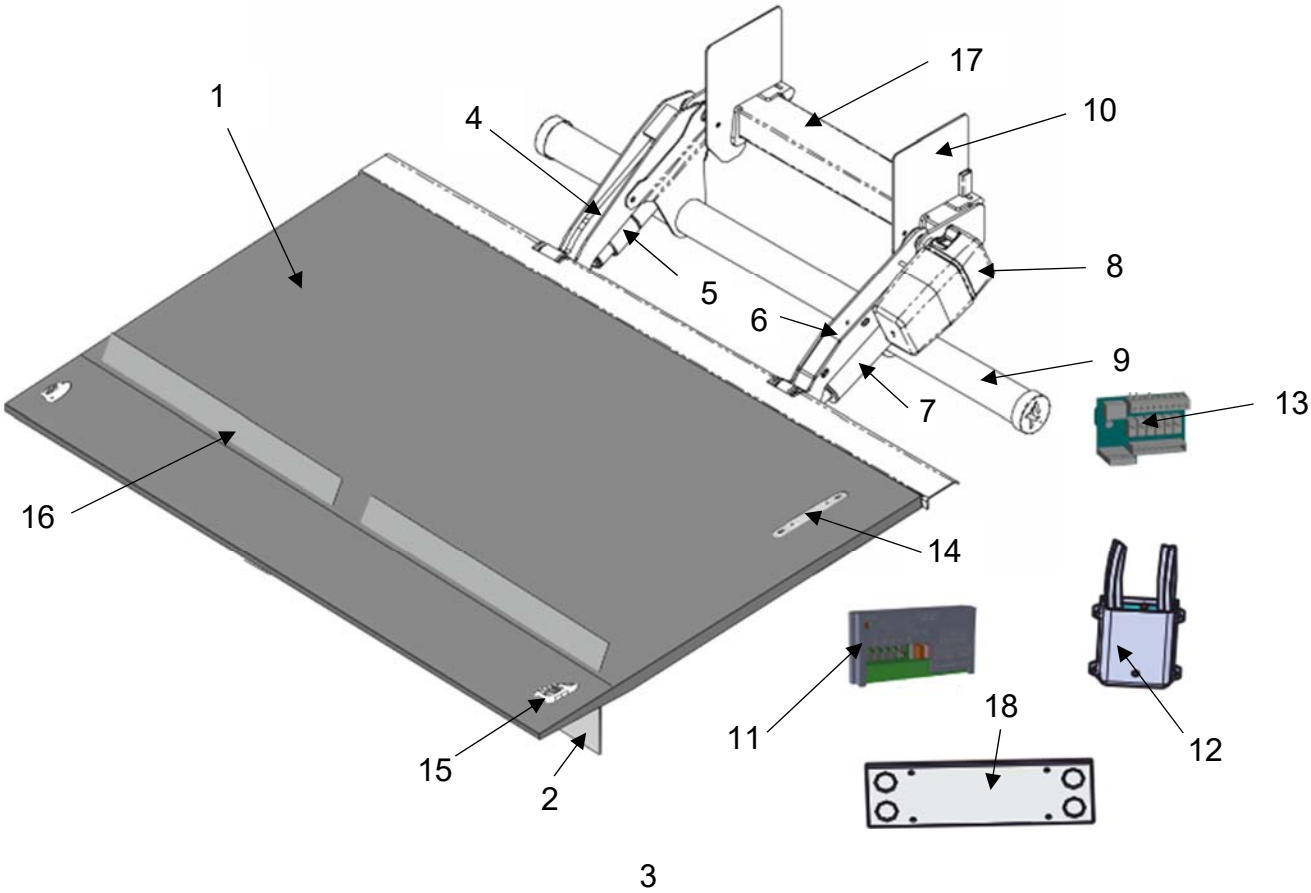
## 1.5 Overview of the MAXON GPC 22 X-1 liftgate

**IMPORTANT:** The illustration shows the liftgate in the driving position



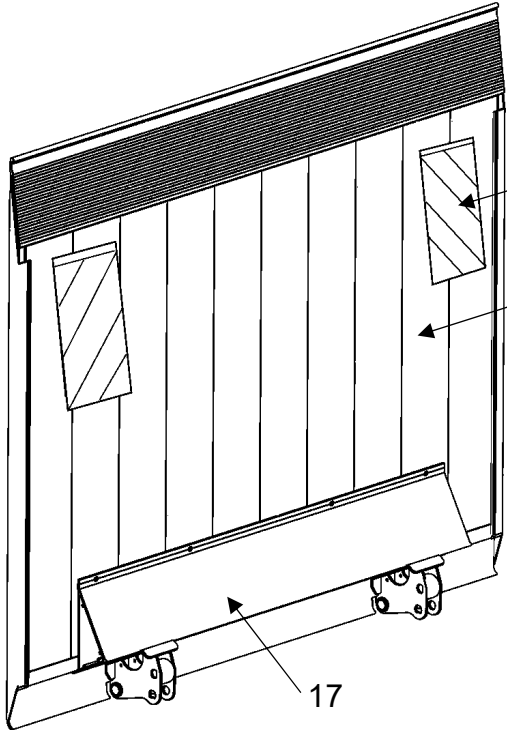
- 1 Platform
- 2 Warning flags
- 3 Torsion box
- 4 Lifting arm
- 5 Lifting cylinder
- 6 Closing arm
- 7 Closing cylinder
- 8 Compact power unit
- 9 Underbody impact guard
- 10 Mounting bracket
- 11 Control unit with Service switch series 11
- 12 Control unit series 10
- 13 Service switch series 10
- 14 Foot controls
- 15 Warning lights
- 16 Cart stop
- 17 Axle assembly
- 18 Control panel

### Platform, lifting gear, compact power unit, control unit



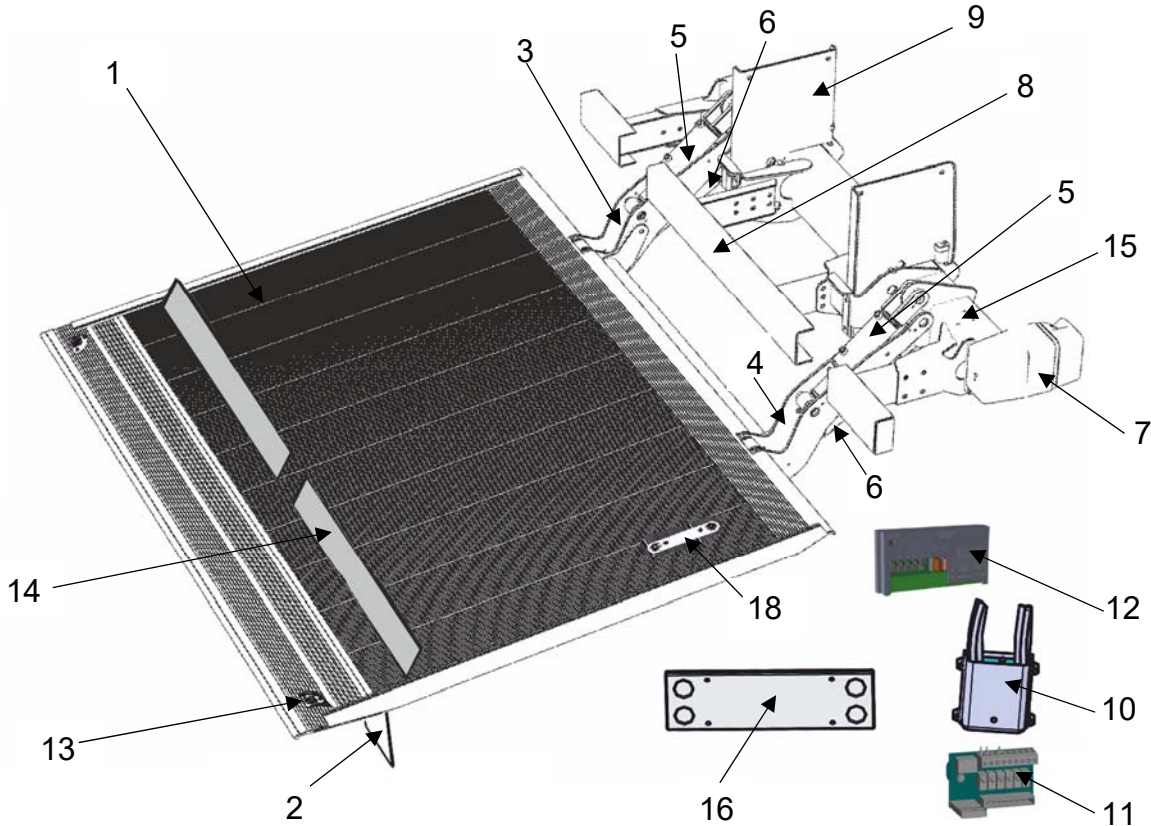
## 1.6 Overview of the MAXON GPC 33 X-4 liftgate

**IMPORTANT:** The illustration shows the liftgate in the driving position



- 1 Platform
- 2 Warning flags
- 3 Lifting gear, left
- 4 Lifting gear, right
- 5 Lifting cylinder
- 6 Closing cylinder
- 7 Compact power unit (integrated in axle assembly)
- 8 Underbody impact guard
- 9 Mounting bracket
- 10 Control unit series 10
- 11 Service switch series 10
- 12 Control unit with Service switch series 11
- 13 Warning lights
- 14 Cart stop
- 15 Axle assembly
- 16 Control panel
- 17 Torsion box
- 18 Foot controls

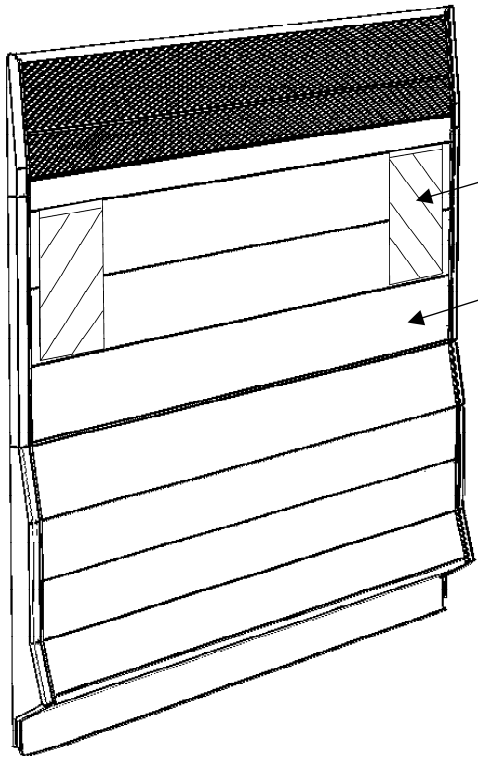
### Lifting gear, compact power unit, platform, control unit





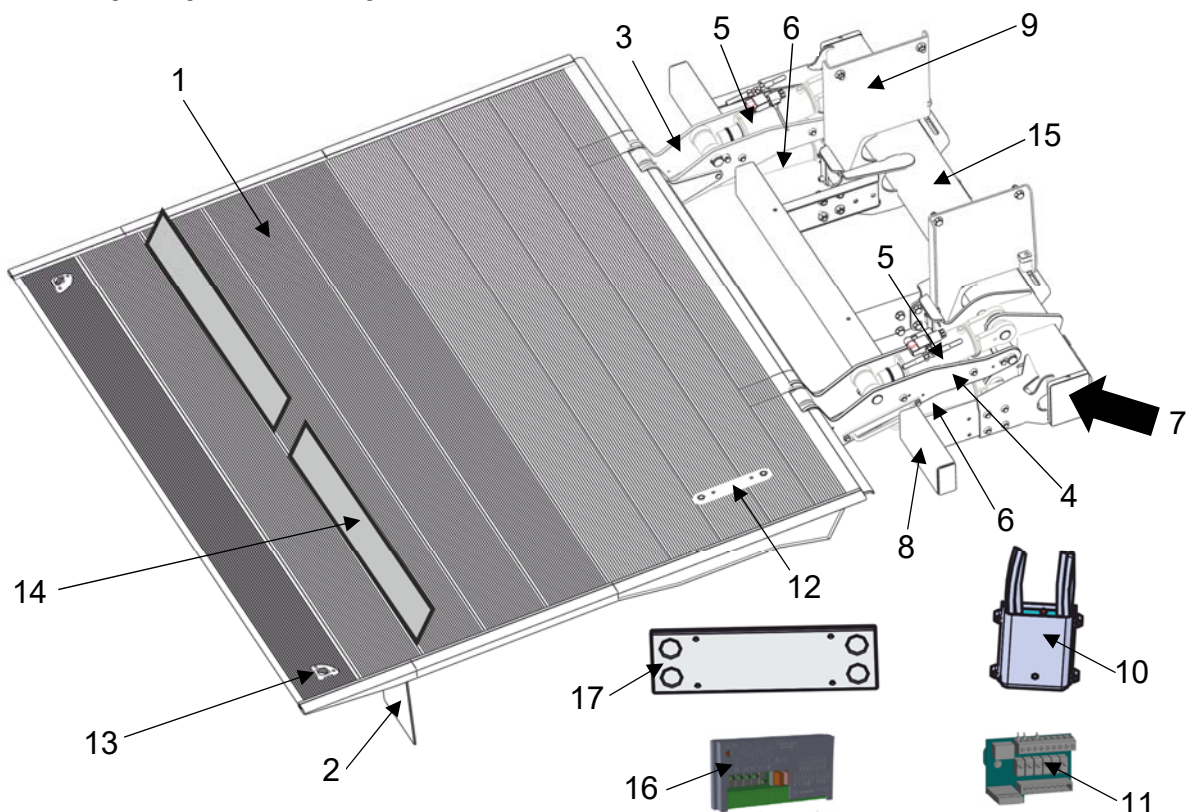
## 1.7 Overview of the MAXON GPC 44 X-4 liftgate

**IMPORTANT:** The illustration shows the liftgate in the driving position



- 1 Platform (with integrated Torsions box)
- 2 Warning flags
- 3 Lifting gear, left
- 4 Lifting gear, right
- 5 Lifting cylinder
- 6 Closing cylinder
- 7 Compact power unit (integrated in axle assembly)
- 8 Underbody impact guard
- 9 Mounting bracket
- 10 Control unit series 10
- 11 Service switch series 10
- 12 Foot controls
- 13 Warning lights
- 14 Cart stop
- 15 Axle assembly
- 16 Control unit with Service switch series 11
- 17 Control panel

### Lifting gear, compact power unit, platform, control unit



## **1.8 Description of the MAXON liftgate components**

### **Electrical system/operating unit**

The individual functions are controlled via a very flat control panel with four membrane switches (see page 22). Optionally for some models, the functions are initiated via the 2-button control panel (see page 23) or the version with two lateral toggle switches (see page 24) or via a handheld control (see page 26). The interface between the liftgate and the vehicle complies with ETMA guidelines.

### **Foot controls (option)**

The foot controls (option) on the platform (see page 25) are mounted inside a protective, die-cast aluminum housing. They can be used to lower the liftgate to the ground and lift it to the height of the vehicle floor. The platform automatically tilts up and down to a position horizontal with the ground.

### **Priority control**

The foot controls are a priority control. When the liftgate is operated via the foot controls, other control options (control panel, handheld control) are automatically locked out electrically.

### **Hydraulics**

The liftgate is driven by a compact power pack mounted on the supporting structure or directly on the closing cylinder or integrated in the axle assembly. This power pack serves to move the lifting or closing cylinder(s) to the desired position as well as the two cylinders of the optional hydraulic supports. The hydraulic cylinder's connecting rods are nitrided.

### **Lifting gear**

The lifting gear (flange brackets as well as lifting and closing arms) comes with its final surface ex works and is painted black (RAL 9005). All bearing points are maintenance-free and require no lubrication. The flange brackets and installation adapters are adapted to the frame of the vehicle type ex works. The interface complies with the ETMA standard. Each liftgate type is tested with 80,000 load changes before being approved for production.

The lifting gear (flange brackets, lifting and closing arms, and underbody impact guard) comes with its final surface ex works and is painted black (RAL 9005). All bearing points are maintenance-free and require no lubrication. The flange brackets are adapted to the vehicle's frame width. The underbody impact guard is a single part. Each liftgate type is tested with 80,000 load changes before being approved for production.

### **Platform**

The platform comprises clipped-together aluminum hollow sections that are stabilized by means of welded tip and end sections. The platform has a smooth back for optimally accommodating advertising labels.

## 1.9 Information, spare parts ordering, and warranty services using the liftgate serial number and rating plate

You can order spare parts, submit warranty claims, and find technical information online at <https://www.maxonlift.com/support> or you can send an e-mail to:

[techservice@maxonlift.com](mailto:techservice@maxonlift.com), or contact our service personnel by calling

**800-227-4116**. You will need to give the liftgate serial number (see page 7).

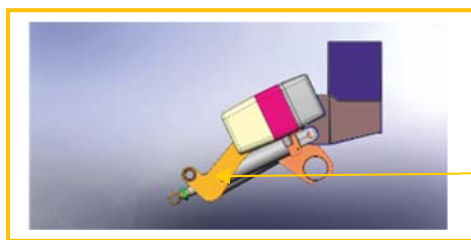
You'll find information for the electrical circuit diagram on page 40 and for the hydraulic circuit diagram on page 41.

## 1.10 The liftgate serial number and the rating plate

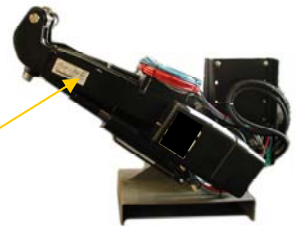
The liftgate serial number is the liftgate's most important ID number. It is required for all technical support, spare parts orders, and warranty claims and is found on every device on a rating plate located in three positions:

### Position 1

The rating plate with the loading diagram and serial number is affixed to the closing arm on the right side of the vehicle as viewed in the forward direction of travel.

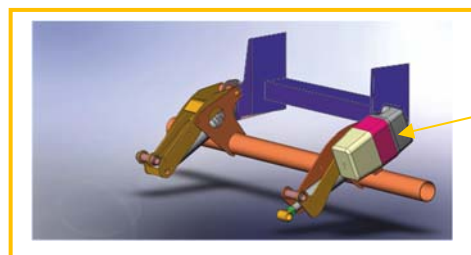


Serial no. on the closing arm



### Position 2

The same rating plate is also affixed to the inside of the power pack cover.

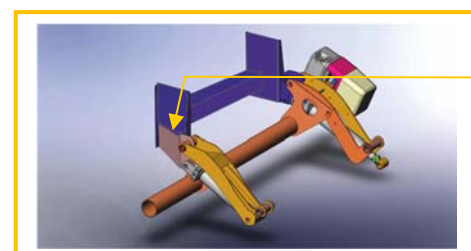


Inside the power pack cover

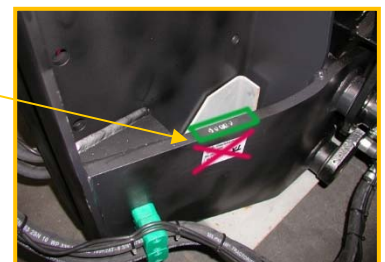


### Position 3

The serial number is also stamped into the mounting flange on the left as viewed in the forward direction of travel.



Stamped serial number



## 2 Safety

### 2.1 Presentation of warning notices

The following types of notices are used in this manual to identify hazards and complications:

---

 **DANGER**

- Failure to heed this notice can result in death or serious injury.

---

 **WARNING**

- Failure to heed this notice can result in death or serious injury.

---

 **CAUTION**

- Failure to heed this notice can result in minor or moderate injury.

---

**NOTICE**

- Failure to heed this notice can result in damage to property or the environment.

And:

**IMPORTANT**

- Important information or useful tip for correct use.

### 2.2 Safety

The “Safety” section describes the safe operation of the MAXON liftgate. Correct operation of the liftgate will guard against misuse and prevent injury and damage to property.

---

 **WARNING**

Do not deviate from the instructions contained in this manual for safely operating the liftgate. By doing so, you risk injury, damage to property, and voiding of the warranty.

## 2.3 Fundamental hazards (hazards caused by the liftgate)

### DANGER

#### **Electrical system with on-board voltage:**

The liftgate receives electrical power from the vehicle's on-board power supply (max. 48 V DC). The electrical system is designed using state-of-the-art technology.

- Do not damage or modify electrical components or wiring.

Fire and explosion hazard. Excessive current may damage the battery or cable harness. To prevent this, visually inspect the electrical system (maintenance schedule).

### DANGER

#### **High-pressure hydraulic system:**

The liftgate's hydraulic system operates at high pressure (max. 220 bar). The hydraulic system is designed using state-of-the-art technology.

- Do not damage or modify hydraulic components or hoses.

Danger from pressurized liquids and gases.

Hydraulic components/lines can burst and cause injury.

- Inspect hydraulic components/lines at regular intervals (maintenance schedule).
- Install only state-of-the-art hydraulic components/lines.

### DANGER

#### **Moving parts with crushing points:**

All parts that move in close proximity to one another can potentially crush fingers.

- Watch out for the unexpected movement of moving parts.

### DANGER

#### **Moving parts with points where objects can be pulled in and/or trapped:**

Parts of the body, long hair, and clothing are at risk of being caught and pulled in by moving parts. This can result in fatal injuries.

- Always secure long hair
- Do not wear loose-fitting clothing

### WARNING

#### **Hinges with crushing points (on liftgate with platform foldover section):**

Fingers are at risk of being crushed in the hinge area when the platform is folded and unfolded.

- Be careful when folding and unfolding the platform.

## 2.4 Emergency procedure

If you or another person working on or operating the liftgate experience a dangerous situation: Immediately stop what you're doing and seek expert help.

## 2.5 Safety devices on the liftgate

### Hose rupture valves

If a hose, pipe, or screw connection bursts, the liftgate lowers or tilts in a controlled manner at the permitted speed for as long as a function is being performed via one of the control units (control panel, handheld control, manual control box, or foot controls). Once the control unit is no longer being activated, the liftgate stops immediately.

### Safety valve

The factory-set safety valve protects the liftgate against lifting loads that are heavier than the specified load-carrying capacity. This valve may be adjusted only by a qualified specialist using a test weight and a manometer.

### Fuses

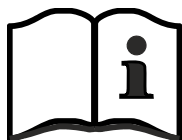
Defective fuses may only be replaced by fuses that correspond to the values specified in the circuit diagram and on the control unit. Larger fuses may not be triggered by malfunctions, which could result in cables catching fire.

## 2.6 Intended use

Depending on the type, the MAXON liftgate was developed for vehicles ranging from trucks to trailers, including semitrailers. The liftgate is used for both loading and unloading the vehicle and for transferring loads. Do not use the liftgate to lift any person other than the operator. Any other use is prohibited.

### WARNING

Incorrect or improper use or handling of the liftgate or, for example, errors caused by its being operated by unqualified personnel can create risks for operators and bystanders that may result in serious or fatal injuries.



### IMPORTANT

To ensure safe operation of the liftgate, read the safety instructions and warnings in the user manual provided.

## **2.7 Responsibilities of operating company and requirements for operator**

The operating company must comply with occupational safety regulations. The operating company is responsible for providing personal protective equipment such as protective footwear and protective clothing for operators and maintenance personnel. Valid accident prevention regulations, legal and operational guidelines, occupational safety regulations, and environmental regulations must be observed.

The operating company is responsible for annual inspections and the technologically fault-free condition of the liftgate. An annual inspection must be carried out by qualified personnel and the results of this inspection must be entered in the inspection record book.

Any defects must be corrected and missing parts replaced immediately.

The operating company is responsible for the prompt repair of known defects.

### **IMPORTANT**

Additional regulations are printed in the inspection record book. The inspection record book is part of this user manual.

### **IMPORTANT**

The inspection report dealing with the static and dynamic inspection performed before commissioning the liftgate is kept in the inspection record book.

The liftgate must be operated in accordance with the user manual. The liftgate may be operated, maintained, and serviced only by personnel who have received appropriate training and have been specifically instructed in the dangers associated with its operation.

Only persons aged 18 years or older who have been instructed in the operation and maintenance of the liftgate and have proven their capability to the company are allowed to independently operate and maintain the liftgate. They must be expressly assigned to its operation and maintenance. The assignment for operating and maintaining the liftgate must be issued in writing.

If more than one person is working on the liftgate, the operating company must appoint a supervisor.

Liftgate maintenance may be performed by specially trained personnel only.

### **WARNING**

Incorrect or improper use or handling of the liftgate or, for example, errors caused by its being operated by unqualified personnel can create risks for operators and bystanders that may result in serious or fatal injuries.

The liftgate may be operated only by qualified personnel.



## 2.8 Commissioning

- (1) Do not use the liftgate before it is properly installed.
- (2) Never operate the liftgate with the vehicle in motion.
- (3) Operate the liftgate at your own risk.
- (4) When operating the liftgate, secure the vehicle against unexpected movement.
- (5) Portable lifting platforms such as liftgates must be stable to avoid creating crushing and shearing points between the liftgate and objects around it. Pay particular attention to potential crushing and shearing points between the platform and the vehicle cargo area, and between the platform and the ground.

### **WARNING**

Risk of crushing or shearing caused by moving parts on the liftgate. Watch out for potential crushing points. Define and observe the danger zone, including for third parties.

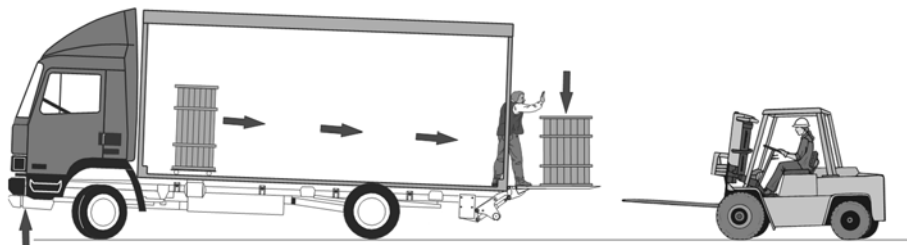
- (6) Check that supports are correct positioned on a suitable surface before commissioning the liftgate.

When using power-operated supports, be careful when extending and retracting them.

### **WARNING**

Risk of the vehicle losing stability/tipping. The front end of the vehicle can potentially lift and create a risk of injury. If supports are available, they must be used.

- (7) For vehicles without built-in supports, under certain circumstances there is a risk that the front axle of the vehicle will lift when the liftgate is loaded or unloaded. The incline created may cause unsecured loads to slide and endanger the operator.



The sticker describing safe handling of the liftgate (see page 19) also points out this hazard.



## **⚠ WARNING**

Risk of the vehicle losing stability/tipping. The front end of the vehicle can potentially lift and create a risk of injury. Refer to the safety sticker for instructions on correct operation.

- (8) Keep people and objects way from all moving parts of the liftgate.

## **⚠ WARNING**

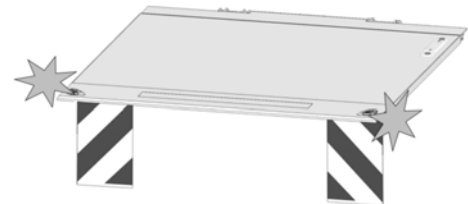
Slipping, tripping, or falling hazard (involving the liftgate). In the fully lowered position, the platform may cause people to trip, resulting in injury.

### **IMPORTANT**

**Affix warning label: Watch out!** Tripping hazard when platform is fully lowered.

- (9) Activities involving the lifting device or loads must be performed without obstructions and according to the equipment's intended purpose.
- (10) Liftgates operated in areas of vehicle traffic or where the liftgate extends into these areas must be suitably protected against danger from vehicles.

- (11) During operation, the liftgate platform must be made clearly visible to vehicles approaching from behind by means of warning flags and flashing lights. The warning lights flash as soon as the liftgate is activated.



### **IMPORTANT**

Keep safety devices clean and in perfect working order.

### **IMPORTANT**

Keep safety devices clean and in perfect working order.

## **⚠ WARNING**

When the platform is open and at loading height, it poses a danger for approaching street traffic. Use warning flags and flashing lights for safety and as a warning. Observe local requirements.

- (12) During operation, make sure that the loading area has sufficient lighting.

- (13) Before starting to work on the lifting device, make sure that safety devices are in place to prevent people and objects from falling.

## **⚠ WARNING**

There is a risk of falling from the platform, especially in cold and wet conditions. Outside influences such as gravity, wind, snow, dirt, etc. increase the risk of slipping on the platform.

- (14) Do not modify, cover, or remove product labels (warning labels, instructions, rating plates). They must be undamaged and clearly visible.

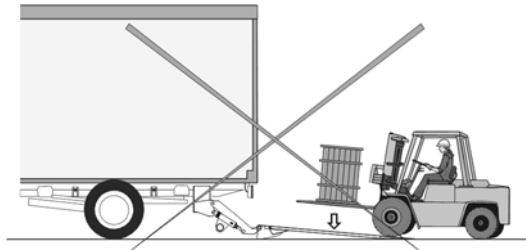
 **WARNING**

The absence of warning notice stickers on the vehicle or the absence of a load diagram (missing rating plate) may make it more difficult to recognize hazards and result in injuries. Regularly check the condition of warning labels/stickers (maintenance schedule). Replace damaged or illegible product labels (warning labels, instructions, rating plates) immediately.

- (15) Before the vehicle is moved, the liftgate must be moved to the driving position. The liftgate is in the driving position when the platform is perpendicular to the vehicle (see figure on page 2, 3 for GPC X-1 or page 4 and 5 for GPC X-4).

## 2.9 Handling and behavior during operation

- (1) Secure the vehicle against unexpected movement when performing any kind of loading or unloading operation (use handbrake or chocks).
- (2) Do not place loads on the liftgate that exceed the rated capacity (comply with loading distance and load, see load diagram).
- (3) Never drive a forklift onto the liftgate platform!  
(Exception: the weight of the forklift plus the weight of the load being transported is less than the liftgate's maximum carrying capacity). The platform must be completely lowered (including platform tip).



- (4) Do not unnecessarily stand within the liftgate's range of movement.
- (5) Do not stand under the lifting device and load.
- (6) Do not stand on the lifting device (except for operator).
- (7) No one other than the operator may ride on the lifting device.
- (8) Step onto or off the liftgate only at designated access points.
- (9) Control the liftgate only from the designated control positions (see figure on page 27).
- (10) During all functions that are operated via a control, the liftgate must be constantly monitored

### **WARNING**

Because the device cannot be seen from the control panel, there is a risk that the operator or a third party could be shut inside. Make sure that no one is in the cargo area when the liftgate is closed.

(11) Operating personnel must ensure that neither they nor any other person is endangered by any movement of the liftgate.

**⚠ WARNING**

Because the device cannot be seen from the control panel, there is a risk that the operator or a third party could be shut inside. Make sure that no one is in the cargo area when the liftgate is closed.

(12) When loading or unloading the platform, make sure that there is sufficient standing room on the liftgate platform to permit safe operation and riding on the platform (see notices 24 and 26 and the illustration for maintaining a safe distance during operation when using the handheld control on page 27).

(13) Do not deliberately cause the lifting device to vibrate.

(14) Do not throw objects onto or from the lifting device.

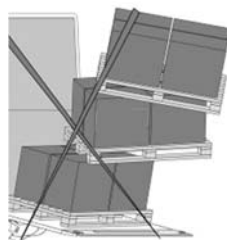
(15) Place loads on the lifting device in such a way that they will not change position unexpectedly.

**⚠ WARNING**

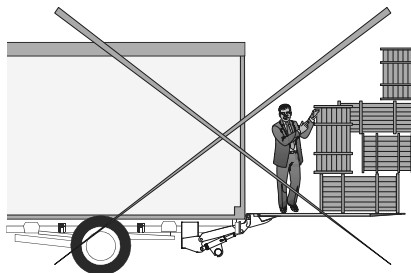
Load the platform correctly and do not overload. Overloading the platform may cause components to fail and result in injury.

(16) Lift and lower cargo only with the platform in the horizontal position.

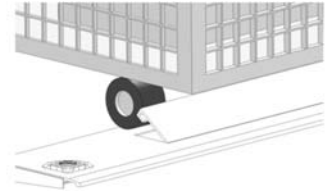
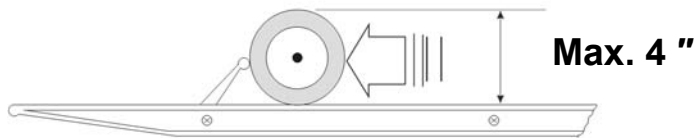
(17) Do not tilt down the platform when it is raised and carrying a load.



(18) Secure the load against toppling over and sliding.



- (19) Rolling and sliding loads must be secured to the platform. Rolling loads must not be transported on the platform without a cart stop. On request, MAXON liftgates come equipped cart stops that reliably secure rolling loads (wheels with max. 4 " diameter). If roll containers are used, the liftgate must be equipped with cart stops.



## WARNING

Unsecured rolling loads can fall from the platform and injure the operator or bystanders. Before transporting rolling loads, flip up the cart stops. Observe the danger zone.

### IMPORTANT

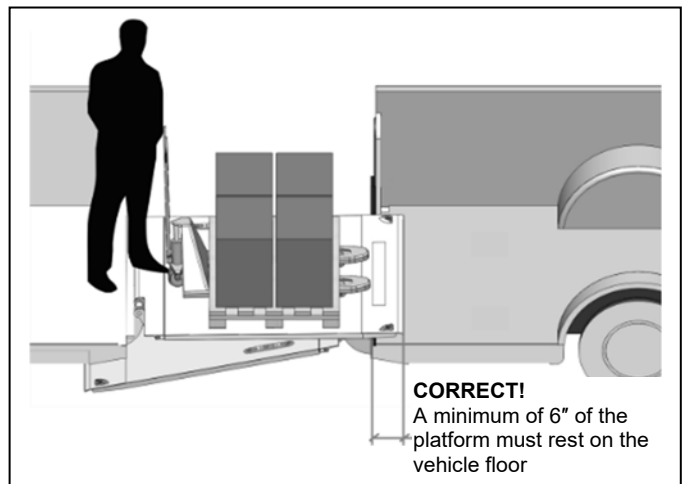
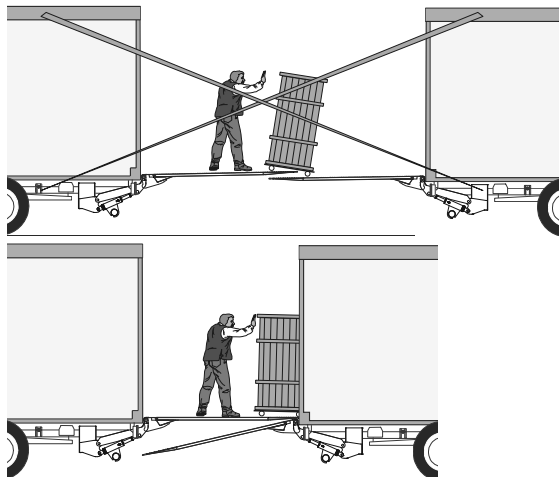
For liftgates without a support, the danger notice sticker regarding unsecured loads applies.

### IMPORTANT

Dirt can impair the functioning of cart stops.

The operating company must keep these safety devices clean at all times.

- (20) When transferring loads from vehicle to vehicle, only one of the two platforms should be used as a dock. A minimum of 6" of the platform must rest on the floor of the opposite vehicle and may be traversed only with loads that do not exceed its maximum load-carrying capacity.



### IMPORTANT

If the platform is used as a dock to transfer loads from vehicle to vehicle or from the vehicle to a ramp, the maximum load capacity for lifting/lowering must not be exceeded (see rating plate/load diagram).

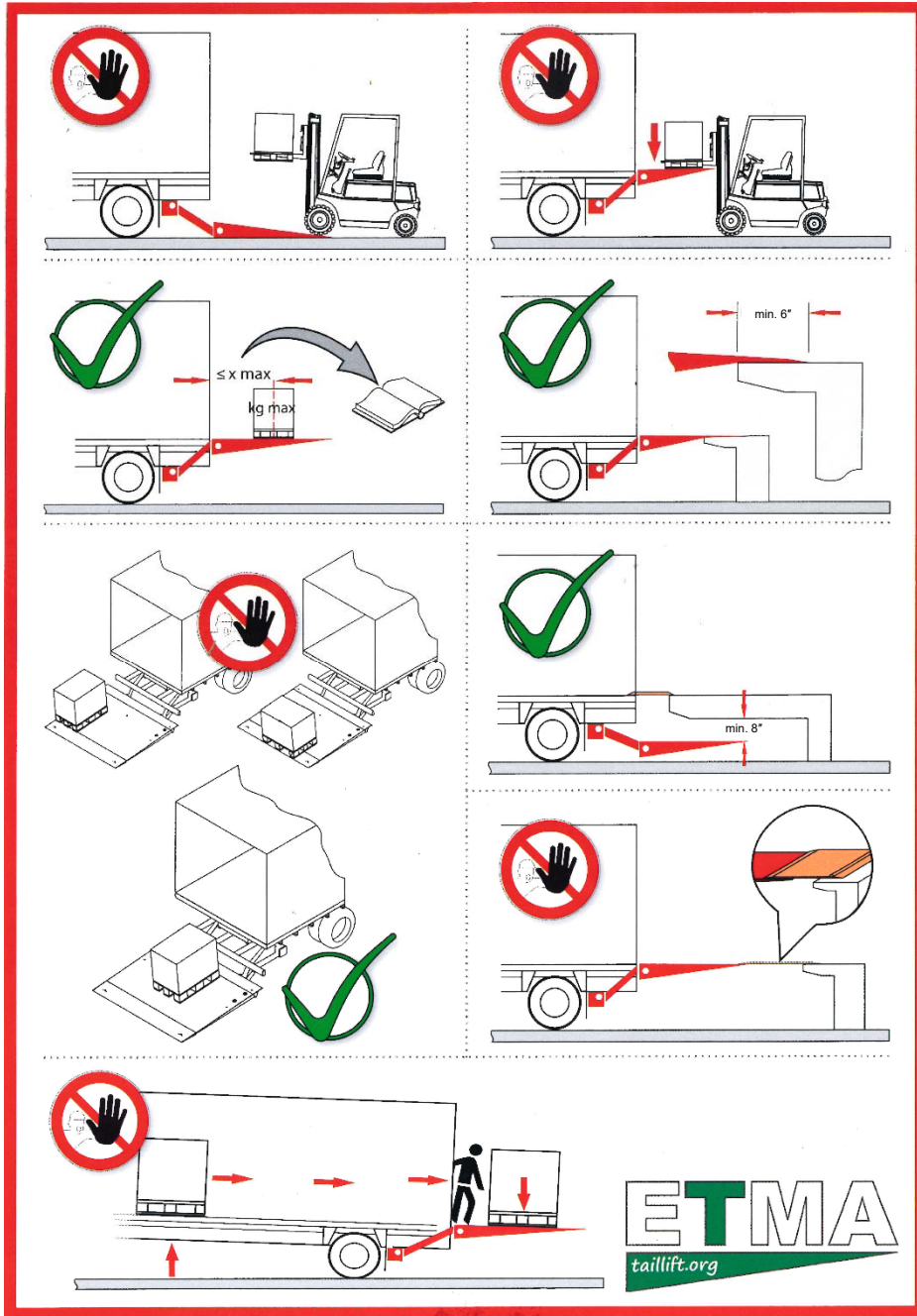
(21) A moveable liftgate may be moved only when the lifting device is in the driving position (see pages: 2, 3, 4 and 5).

The one exception is when the necessary stability is guaranteed and certified in the inspection record book.

## 2.10 Danger notice sticker “Safe handling of the liftgate”

The danger notice sticker uses individual pictograms to indicate potential incorrect and correct usage of the liftgate.

This sticker is supplied with all new liftgates. The installing company must place it in a clearly visible location on the inside of the vehicle cargo area.



### IMPORTANT

If the sticker is missing or no longer legible, you must order a new sticker (article no. S 20 909 238).

## 2.11 Permissible loads

### IMPORTANT

Do not allow any load to exceed the rated capacity for the liftgate. The load diagram on the rating plate must be observed. A one-sided load must not exceed 50% of the load-carrying capacity. The center of the load should be as centered as possible between the lifting arms. The greater the distance of the load from the center, the lower the rated loading capacity.

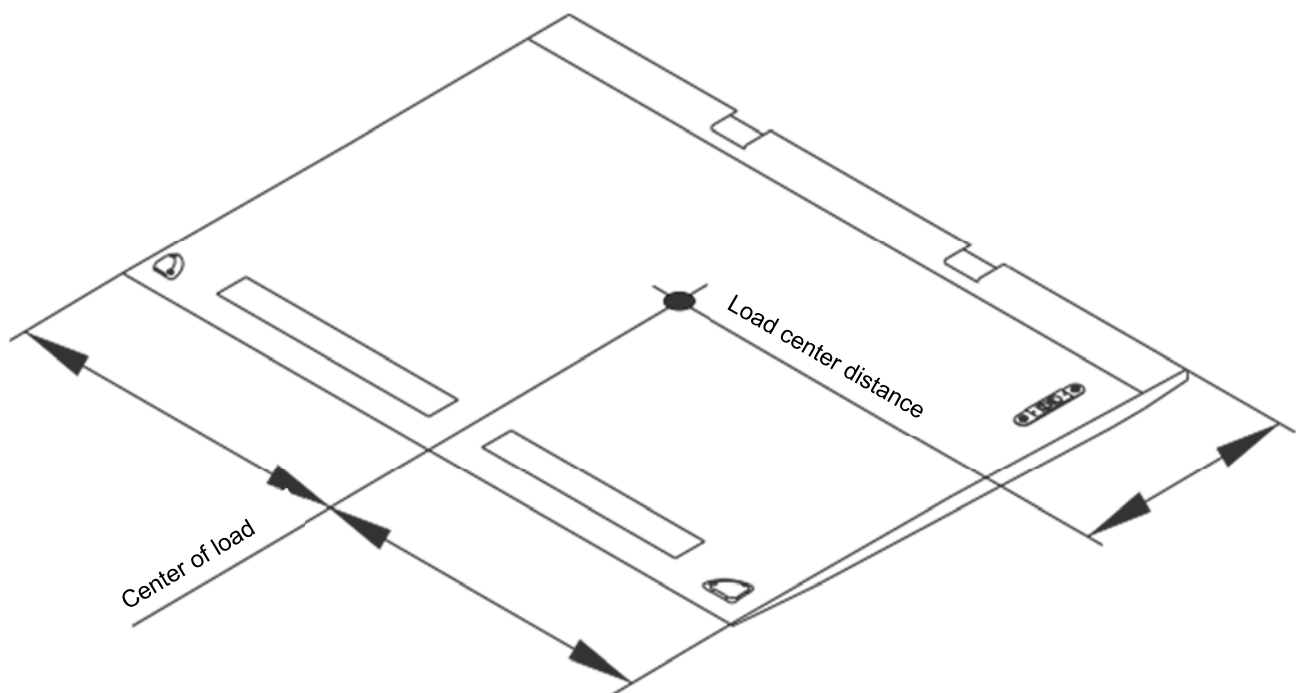
### Moving loads from the vehicle to the liftgate

#### IMPORTANT

There is no built-in protection against loads that exceed the rated capacity or that are not within the correct loading distance and are moved from the vehicle to the platform. Overloading of this type can, for example, cause the platform to break. The operator is responsible for ensuring that the platform is traversed/loaded only with loads that comply with the liftgate's load diagram.

#### **WARNING**

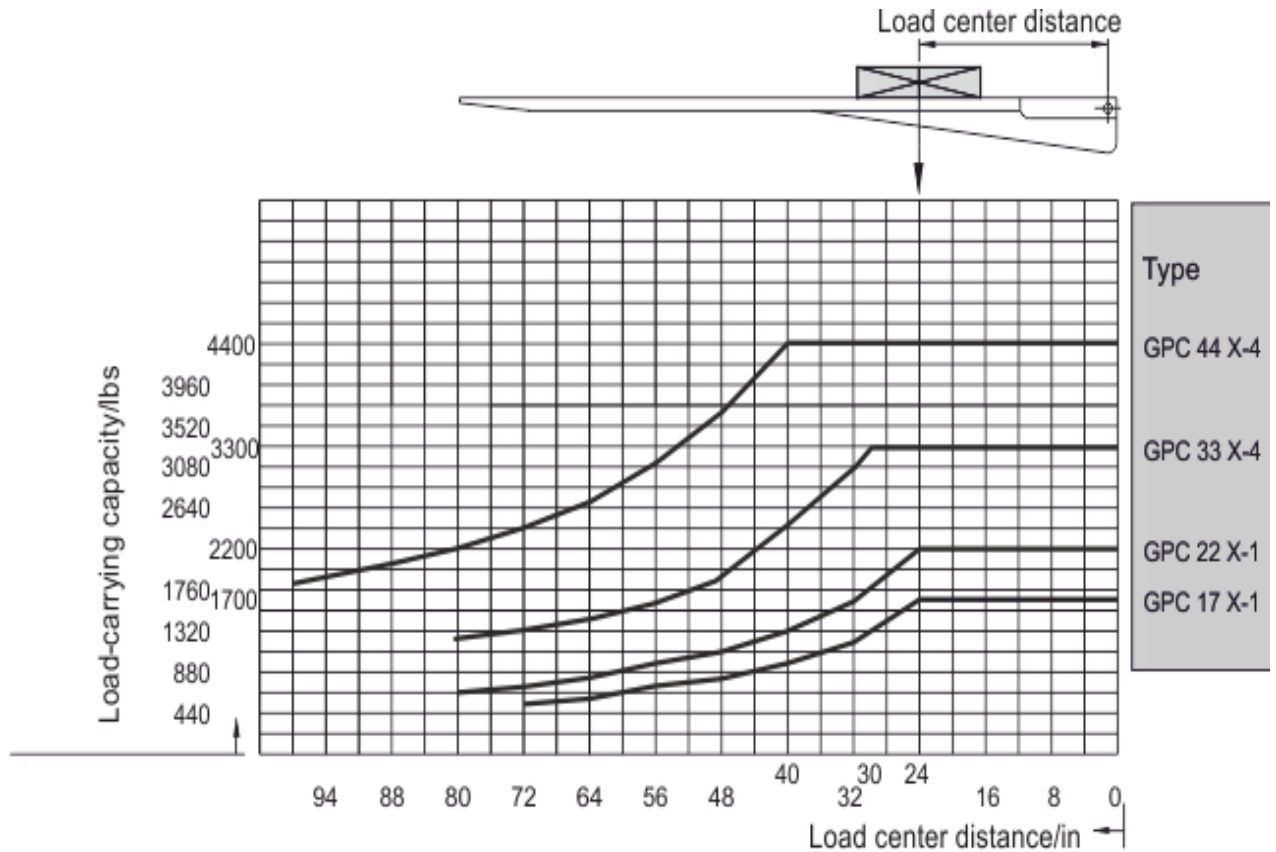
Load the platform correctly and do not overload. Overloading the platform may cause components to fail due to a breakage of mechanical components during operation. This can result in serious or fatal injuries, serious damage to property, and voiding of the warranty.





## 2.12 Load diagram GPC 17 X-1, GPC 22 X-1, GPC 33 X-4, GPC 44 X-4

Depending on load-carrying capacity, load center distance = 24", 30" or 40"



### IMPORTANT

Do not exceed the maximum load-carrying capacity specified in the load diagram. When the platform is completely lowered, it may be traversed/loaded only with loads that do not exceed its rated capacity.

Operate the lifting and lowering functions only with the platform in the horizontal position. Do not tilt the platform down when it is loaded and in the raised position.

## 3 Operation of the liftgate

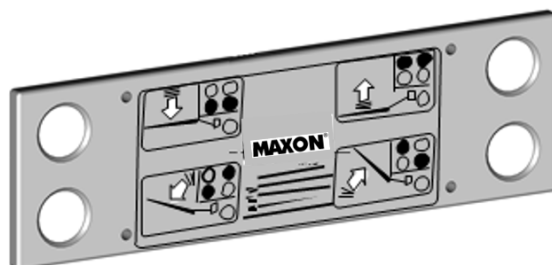
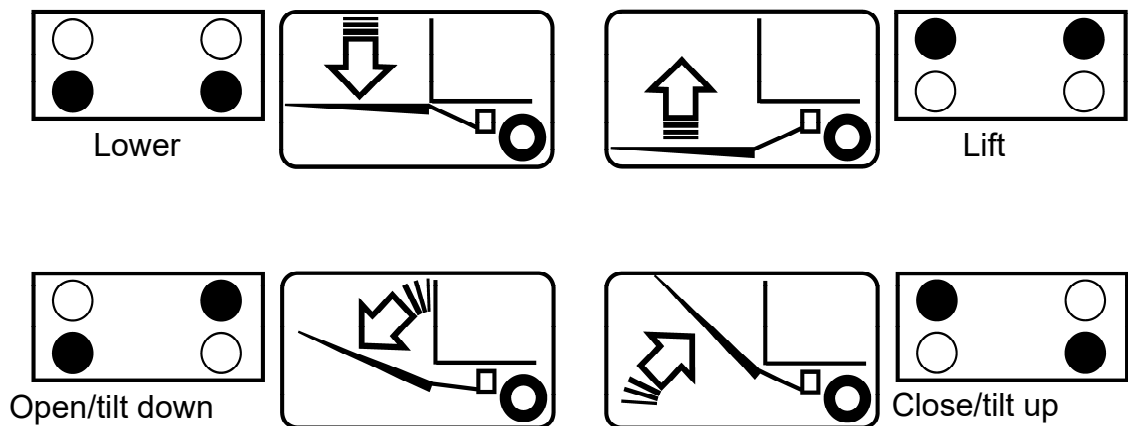
### 3.1 Activating the liftgate

Switch on the liftgate control unit using the pushbutton in the driver's cabin. When the red indicator light is illuminated, the liftgate is ready to operate.



### 3.2 Operation using the control panel (membrane switch)

From the control panel, all functions are initiated by pressing two different pushbuttons simultaneously. The diagram shows which buttons are responsible for each individual function.

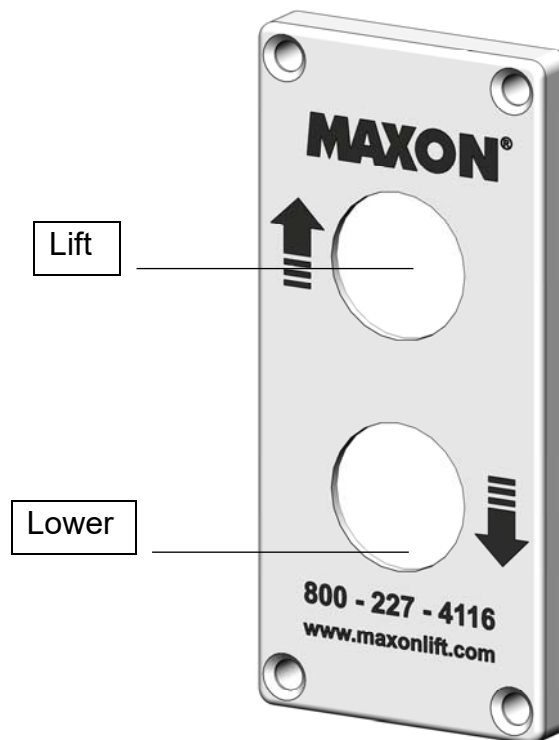


### WARNING

Be careful not to confuse the control elements for tilt up/tilt down and lift/lower. Incorrect operation could injure third parties. Define and observe the danger zone, including for third parties.

### 3.3 Operation using the optional 2-button control panel (et series 11)

After the platform has been opened via the control panel (membrane switch), the 2-button control panel can be used to operate the lifting and lowering functions.

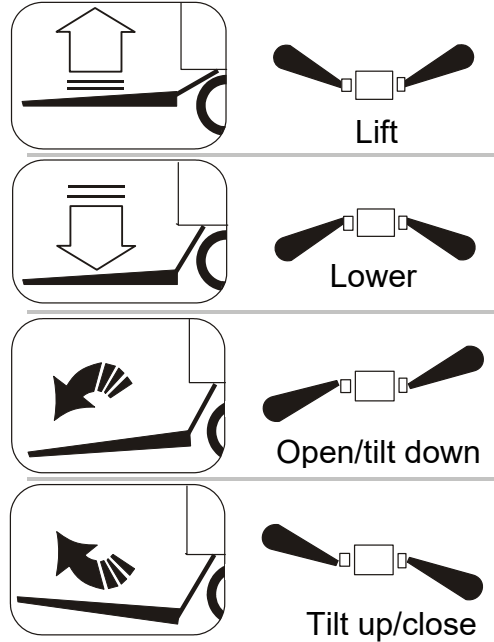
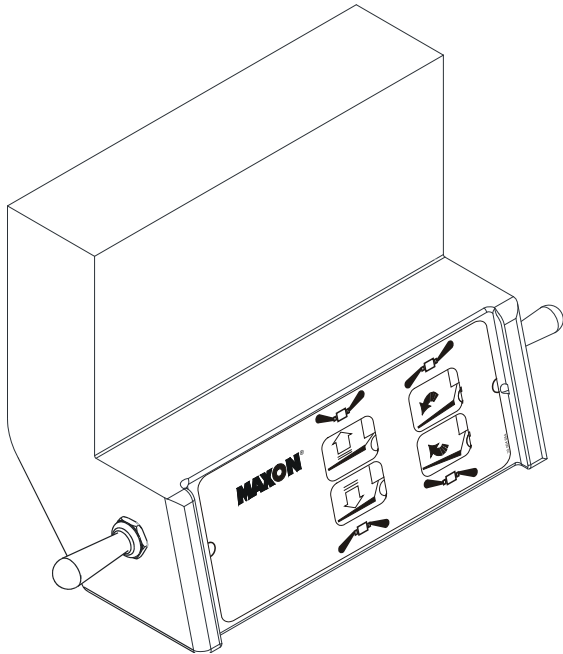


#### **WARNING**

Be careful not to confuse the control elements for tilt up/tilt down and lift/lower. Incorrect operation could injure third parties. Define and observe the danger zone, including for third parties.

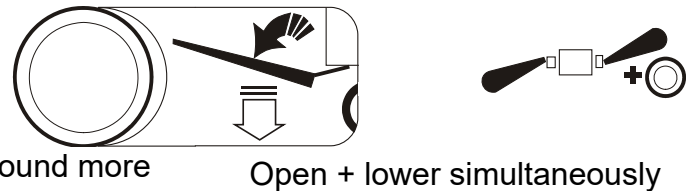
### 3.4 Optional control box (toggle switches)

From the control box, all functions are activated by simultaneously operating the two toggle switches on the left-hand and right-hand sides of the control box using both hands.



#### Optional ExpressControl button

Simultaneously activating the **ExpressControl** button and the Open function causes the liftgate to open and lower simultaneously so that it reaches the ground more quickly.



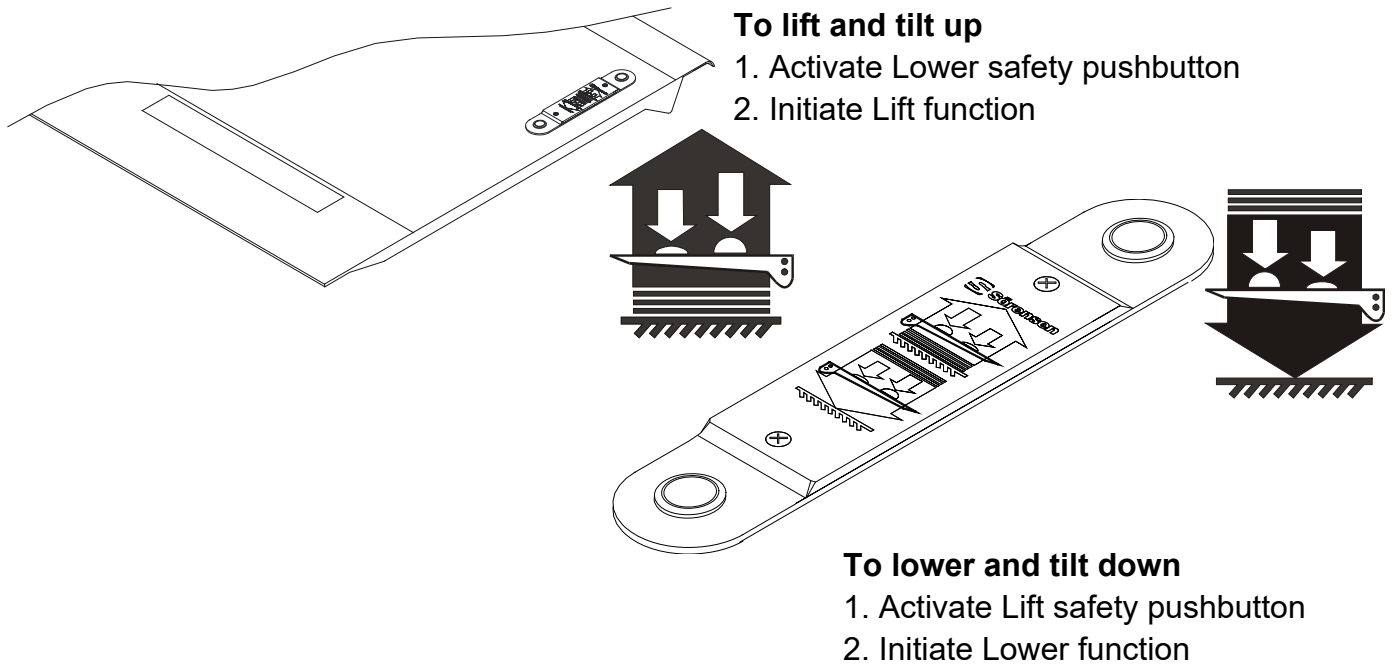
Open + lower simultaneously

#### **WARNING**

Be careful not confuse the control elements for tilt up/tilt down and lift/lower. Incorrect operation could injure third parties. Define and observe the danger zone, including for third parties.

## 3.5 Operating using the optional foot controls

The foot controls are configured in such a way that the two foot controls must always be operated one after the other:



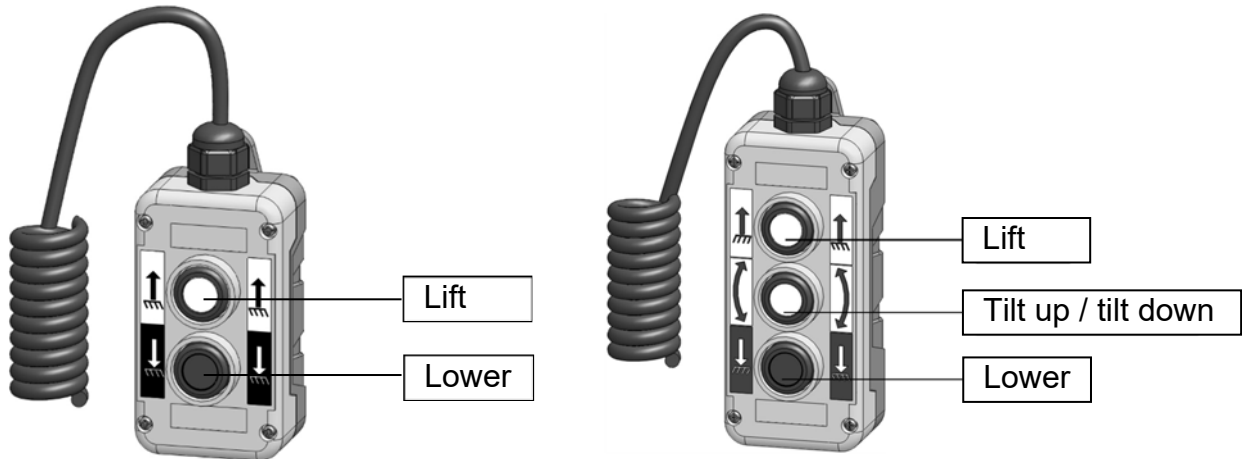
### **WARNING**

Be careful not to confuse the control elements for tilt up/tilt down and lift/lower. Incorrect operation could injure third parties. Define and observe the danger zone, including for third parties.

## 3.6 Operation using the optional handheld control with spiral cable

After the platform has been opened via the control panel, the 2-button handheld control can be used to operate the lifting and lowering functions.

When the platform is open the 3-button handheld control can also be used to operate the tilt up and tilt down functions.



### **⚠ WARNING**

Be careful not to confuse the control elements for tilt up/tilt down and lift/lower. Incorrect operation could injure third parties.

Define and observe the danger zone, including for third parties.

### **⚠ WARNING**

Crushing or shearing hazard. Observe the specified operating position and comply with the safety distances from the operating position (see page 27). All moving parts of the liftgate are crushing and shearing hazards. Define and observe the danger zone, including for third parties. Make sure that you have a good view of the entire loading area and that no one is near the platform.

## 3.6.1 Operating positions and safety distances when using the optional handheld control with spiral cable

### IMPORTANT

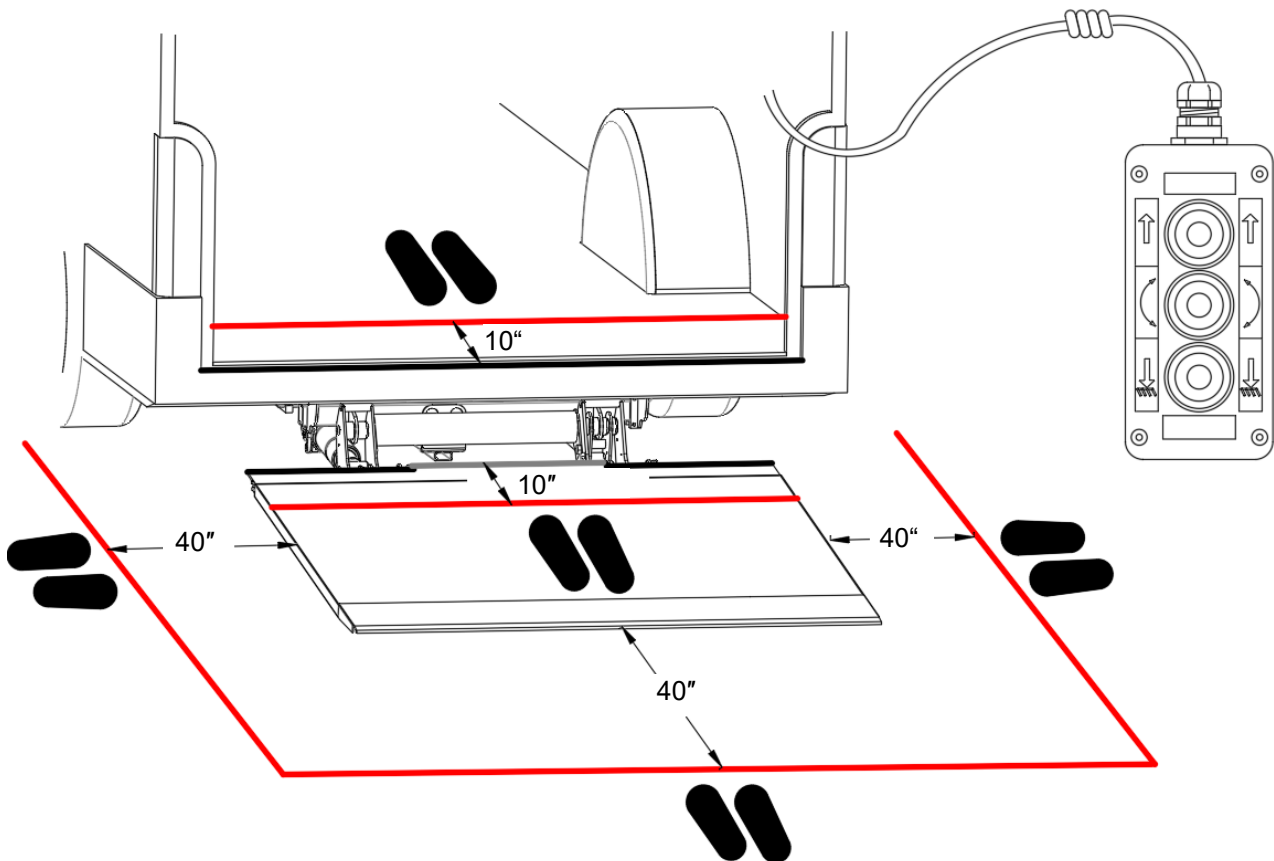
When using a handheld control with a spiral cable, the operator may initiate liftgate functions only while standing in the positions shown in the illustration.

#### Operating position on the platform or vehicle floor

The operator must stand a minimum of 10" from the front edge of the platform or rear edge of the vehicle floor.

#### Operating position from the ground

When operating the platform from the ground, the operator must stand at least 40" from all edges of the platform and from the crushing edge between the platform and vehicle.



## 3.7 Using the bridge plate or plates (if present)

The bridge plate(s) are made of non-skid, knurled sheet metal. The bridge plate(s) serve to bridge the gap between the platform and vehicle when the liftgate is in the loading/unloading position. During loading and unloading of the platform, the bridge plate(s) must be folded open (position: with the platform completely lowered). After use, the bridge plate(s) must be folded closed to their original position.

## **4 Maintenance**

### **4.1 Daily visual inspections**

Check functioning and completeness of the operating and safety devices.

Check that all warning and instruction labels are legible. Check for damage and completeness of pins and check that pins are securely tightened. Check cylinders for damage to/tightness of hoses, screw connections, and valves. Check warning lights for damage and functioning.

Check functioning of battery master switch (optional equipment).

### **4.2 Annual inspection**

After commissioning, the liftgate must be inspected at least once a year by trained personnel. The results of this inspection must be entered in the inspection record book.

### **4.3 Care, maintenance, testing, and repair**

Before starting maintenance, secure the liftgate against unexpected movement. Check that all screw connections are tight.

Check that cables and hoses are able to move freely. Correct shearing and chafing points on cables and hoses. Immediately replace damaged hydraulic hoses with new hoses of the same quality and note the replacement in the inspection record book.

During cleaning, make sure that no moisture penetrates the power pack, control panel, or handheld control. Do not clean the bearing areas with high-pressure or steam jets because this may allow dirt and moisture to penetrate the bearing.

Check the hydraulic unit for leaks. With the liftgate lowered, check the oil level in the unit's reservoir (dipstick on the oil filler neck cover). If necessary, top up with hydraulic fluid of class HLPD 22 (temperature range 5°F to +122°F).

The maximum oil level has been reached when the dipstick dips 3/8" into the oil.

Carry out an annual oil change and clean the suction filter. Carry out the oil change before any period of frost, in order to prevent the hydraulic unit from freezing.



## Hydraulic fluid recommendations

Use HLPD 22 (ISO-VG 22) "detergent" so that free water remains emulsified (e.g. to prevent ice formation in winter) and to improve oil film adhesion.

In colder regions, use HLPD 10 grade hydraulic fluid.

## OIL SPECIFICATIONS

Grade ISO - (32)

Gravity, API - 29.5 degrees

Pour Point, F - (-54 degrees)

## VISCOSITY

@ 40 degrees C - 31.2 cSt

@ 100 degrees C - 6.2 cSt

VISCOSITY INDEX - 154 VI

Flash Point, F - 325 degrees

## WARNING

Risk of poisoning through contact with hydraulic fluid (e.g. when changing).

- Wear protective gloves when handling hydraulic fluid.
- Handle and dispose of hydraulic fluid in accordance with local regulations.

## Maintenance and repair

### IMPORTANT

Repairs to load-bearing components are to be carried out only by an authorized repair shop. The components must be tested by a qualified specialist and the results entered in the inspection record book.

(1) After breakage of a load-carrying device, inspect the supporting structures and power pack, including safety devices, to prevent the lifting device from falling or lowering when a cable, chain, gear unit, or bearing nut breaks or when the hydraulic or pneumatic system leaks. Replace damaged components.

(2) Replace pressure hoses as needed but no later than 6 years.

In the case of spindle-type lifting gear units with a bearing nut that is secured with an unloaded, rotating secondary nut, the secondary nut must always be replaced along with the bearing nut.

Enter pressure hose, bearing nut, and secondary nut replacements in the inspection record book.

## WARNING

Be careful when restoring the power supply after an interruption. Maintenance personnel may be injured by an unintentional restart.

## IMPORTANT

Do not make changes to the liftgate without written permission from MAXON construction management. Use only original spare parts for repairs.

### WARNING

Do not modify, bypass, or remove safety devices. Removing, modifying, or bypassing safety devices can result in injury.

### WARNING

**Warning!** Route the cable from the control panel to the power pack only from below. Penetration of moisture into the control panel connector can be caused by external influences (gravity, wind, water, snow, contaminants, etc.). This may cause unexpected movement that results in injury.

### WARNING

Replace electrical system components only with approved original electrical components with EMC approval. External influences on electrical equipment may cause false signals/voltage in the power network and result in malfunction. Absence of EMC immunity can cause the control unit to malfunction, resulting in injury to people near the liftgate or driving behind the vehicle.

### Battery capacity

The battery capacity necessary for operating liftgates is normally specified by the vehicle manufacturer. Follow the vehicle manufacturer's installation guidelines.

### WARNING

Electrical hazard for persons coming into contact with live parts. Risk of short-circuiting the battery when connecting the liftgate to the vehicle battery.

- Use only trained personnel.
- Follow the vehicle manufacturer's instructions when handling the battery.

### Our recommendation for battery capacity:

We strongly recommend installing a heavy-duty alternator and an additional battery. The operating company is responsible for the battery capacity and charge status.

Load-bearing capacity 1100 to 1650 pounds	Battery capacity 12 volts - 1 x 88 Ah	24 volts - 2 x 66 Ah
Load-bearing capacity 2200 to 3300 pounds	Battery capacity 12 volts - 1 x 143 Ah	24 volts - 2 x 110 Ah
Load-bearing capacity 4400 to 5500 pounds	Battery capacity 24 volts - 2 x 143 Ah	

## IMPORTANT

If you believe that the batteries are draining too quickly, have the batteries and the cables to the power pack inspected by a specialist. It may be necessary to repair or replace the cables, ground connection, or batteries.

## IMPORTANT

Make sure that the battery charging intervals between individual loading and unloading operations are sufficient.

### Electric motor

The electric motor of the hydraulic power pack has a capacity of 0.8 kW to 3 kW, depending on the liftgate's load-carrying capacity.

At full operating voltage, the current is as follows:

At 12 volts, the current is up to 150 amperes. If the operating voltage drops to 9 volts, the current doubles to 300 amperes.

At 24 volts, the current is up to 150 amperes. If the operating voltage drops to 12 volts, the current doubles to 300 amperes.

## WARNING

This high current accompanied by a low voltage causes the copper winding to overheat. As a result, the protective coating on the copper winding melts, possibly resulting in a short circuit or motor burnout.

### How to prevent damage to the electric motor and power relay

You can prevent damage to the electric motor and power relay by ensuring that there is sufficient voltage to operate the liftgate at all times. If you notice that the electric motor has difficulty with a load that is normally easy to lift, stop the lifting operation immediately and charge the batteries.

## DANGER

### Electrical system with on-board voltage:

The liftgate receives electrical power from the vehicle's on-board power supply (max. 48 V DC). The electrical system is designed using state-of-the-art technology.

- Do not damage or modify electrical components or wiring.

Fire and explosion hazard. Excessive current may damage the battery or cable harness. To prevent this, visually inspect the electrical system (maintenance schedule).

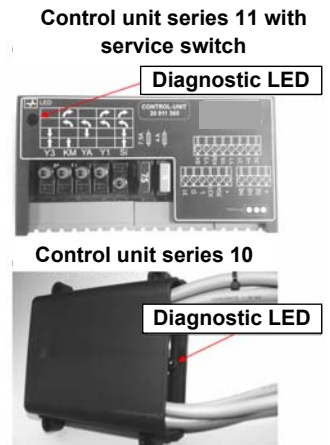
## 5 Fault diagnosis and fault elimination

### 5.1 Explanation of diagnostic LED in the control unit

The control unit is the central control unit for the liftgate's electrical system. An LED (monitoring and diagnostic LED) integrated in the control unit serves as an operating state and fault diagnosis indicator.

#### Explanation of diagnostic LED in the control unit (central electrical circuit, central control unit with service control) in Series 10 and 11

LED monitoring function	Switch in driver's cabin or key switch	LED off	LED on	LED flashing
Platform closed (90°)	Off	X		
Platform closed	On		X	
Platform open (90° to 60°)	On		X	
Platform open (60° to 0°)	On	X		
Platform tilted down (0° to -10°)	On		X	
Switch being actuated*	On			X



#### Description of platform status:

90° = Platform is closed

0° = Platform is open to the horizontal position

-10° = Tip of platform is tilted down

\*If a control element on the handheld control (pushbutton, toggle switch, remote control pushbutton, or foot controls) is actuated, the monitoring LED flashes

### 5.2 Checking the tilt sensor in the platform

Platform closed and liftgate activated: LED on  
Power supply is functioning correctly.

Platform position 0° to approx. 60°: LED off  
Tilt sensor S1 in switching position is functioning correctly.  
Corner lights are activated.

Platform position 0° to -10° (tilted down): LED on  
Tilt sensor in switching position is functioning correctly.  
The switchover occurs in the horizontal position, making it possible to configure the automatic tilt-up function.

### 5.3 Checking pressure switch S4

Begin lowering the platform using the two foot controls: LED flashes.  
As soon as the platform reaches the ground and the pressure switch is actuated, the flashing changes to continuous on – LED is on and the platform tilts down.  
This indicates that the pressure switch was actuated. If it doesn't occur, the pressure switch is defective.

## 5.4 Support for fault diagnostics and elimination

Problem	Possible cause
1. Power pack's electric motor does not work	Battery cable or ground cable is not connected or is defective
	Cable to driver's cabin is disconnected
	Main fuse is defective
	Fuse in power pack is defective
	Main battery switch is not switched on
	Switch in driver's cabin is not switched on
	Power relay is defective and does not operate
2. The motor does not work when the pushbuttons or toggle switch are pressed	Motor is defective
	Power relay is defective
	Cable from control panel (control cabinet) to power pack is defective
	Control lines in power pack are defective
3. Liftgate does not open or opens slowly	Control panel (control cabinet) is defective
	Platform sticks at the vehicle cargo area
	Power pack motor does not start
	Cable feed to solenoid valve is defective
	Solenoid valve from closing cylinder is defective
4. Liftgate does not lower or lowers slowly	Valve YA does not operate
	Reactor in the closing cylinder is defective or blocked
	Solenoid valve Y3 is not triggered or is defective
5. Liftgate tilts down instead of up when operated with the foot controls or handheld control	Valve YA does not operate
	Reactor in the lifting cylinder is defective or blocked
	Pressure switch S4 does not operate
	Cable is defective
	Mechanical damage to lifting cylinder

6. Platform tilts down independently without the function being activated	Solenoid valve from closing cylinder is defective
7. Platform does not tilt down when touching the ground	Cable feed to pressure switch is defective Pressure switch is defective
8. Liftgate does not lift	Power pack does not work Too little fluid in reservoir Voltage is too low
9. Liftgate does not lift the rated weight	Load is not within the loading distance Load is too heavy Safety valve is incorrectly set Pump is defective Voltage is too low
10. Platform does not tilt up from ground when unloaded	Control panel is defective Microswitch does not operate
11. Platform does not tilt up from the ground when loaded	Load is not within the loading distance Load is too large Safety valve is incorrectly set
12. Platform tilts up from the ground to beyond the horizontal position	Position switch S2 is defective or incorrectly set Cable to switch S2 is defective
13. Liftgate does not close	Control panel is defective Hydraulic fluid is low

## 5.5 When electric motor is operated continuously “liftgate cannot be switched off”

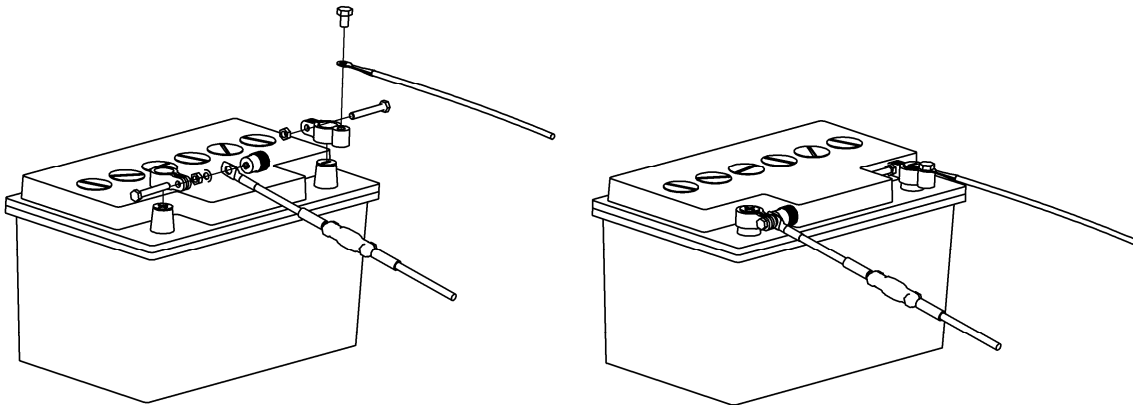
**Tip:** Turn the nut on the battery’s positive terminal to the left until contact is interrupted or disconnect using battery main switch to stop the motor from running. Then take the liftgate to the nearest authorized repair shop or call our customer service so that the defect can be corrected.

### **WARNING**

Electrical hazard for persons coming into contact with live parts. Risk of short-circuiting the battery by connecting the liftgate to the vehicle battery.

- Use only trained personnel.

Follow the vehicle manufacturer’s instructions when handling the battery.



## 5.6 *Emergency! Platform moved by mechanical means*

In an emergency – for example, the liftgate breaks down while open – lifting and/or closing the liftgate by mechanical means instead of hydraulically causes the hydraulic cylinders to be filled with air. This means that the safety valves (solenoid valves) are out of order. Under these circumstances, the careless and/or incorrect opening and lowering of the liftgate could result in serious injury or death due to the liftgate free-falling to the ground. In this case, secure the liftgate using ropes, straps, or chains and affix a **clear warning notice**:

 **DANGER**



### **Caution! Serious risk of death or injury!**

The liftgate is unsecured and must be operated only by trained personnel. All the safety devices are out of order.

The platform was closed by mechanical means and opening it could result in death!

### **IMPORTANT**

If the liftgate breaks down in this way, contact customer service or an authorized repair shop for more information.

 **DANGER**

### **Danger! Serious risk of death or injury!**

When the liftgate is unsecured and the safety devices (e.g. solenoid valves) are out of order, the operator can lose control of the liftgate. Under these circumstances, the careless and/or incorrect opening and lowering of the liftgate could result in serious injury or death due to the liftgate free-falling to the ground.

The platform must be secured against opening.

Drive no further than the nearest repair shop.

The platform may be opened only with the aid of a crane or forklift.

## 5.7 *Malfunction*

In the event of a malfunction, call our customer service or the nearest authorized repair shop. You'll find an up-to-date list of our customer service repair shops on the Internet under <https://www.maxonlift.com/MaxonTechServiceAdvisor>. For additional technical information, visit <https://www.maxonlift.com/support/technical-service>.

To contact Technical Service, please call **1-800-227-4116** or email us at [techservice@maxonlift.com](mailto:techservice@maxonlift.com).



## 6 Decommissioning, disassembly, and disposal

After decommissioning, secure power-operated and power-assisted liftgates against unauthorized use (see Section 5.6 Emergency! Platform moved by mechanical means). Be particularly careful when removing the solenoid valves (safety valves). Before unscrewing the solenoid valves, make sure the platform is secured against sudden lowering and opening, e.g. using ropes, straps, or chains.

### DANGER

#### **Danger! Serious risk of death or injury!**

When the liftgate is unsecured and the safety devices (e.g. solenoid valves) are out of order, the operator can lose control of the liftgate. Under these circumstances, the careless and/or incorrect opening and lowering of the liftgate could result in serious injury or death due to the liftgate free-falling to the ground.

The platform must be secured against opening using ropes, straps, or chains.

The platform may be opened only with the aid of a crane or forklift.

When disposing of the liftgate, the hydraulic system (lifting and closing cylinders, reservoir, hydraulic pump, solenoid valves, cables, high-pressure hoses, etc.) must be completely drained of fluid. Components lubricated with oil and grease must be cleaned using a pressure washer before disposal.

Dispose of hydraulic fluid in accordance with local regulations, especially those related to environmental protection, e.g. at a recycling center or specialized dealer.

Remove and dispose of electrical components and cables in accordance with local regulations.

Remove plastic and elastomer components and dispose of separately in accordance with local regulations.

### WARNING

Decommissioning may be hazardous if the liftgate could not be shut down under optimal conditions. Malfunctioning control elements can cause injury. Be sure to perform regular inspections (maintenance schedule) of the control elements.

### WARNING

Decommissioning may be hazardous if the liftgate could not be shut down under optimal conditions. A missing or non-functional emergency stop button can result in injury.

---

**⚠ WARNING**

Risk of unexpected startup. Incorrectly functioning control elements (handheld control, control panel, foot controls) can result in injury if the liftgate could not be shut down under optimal conditions. Be sure to perform regular inspections (maintenance schedule) of the control elements.

---

**⚠ WARNING**

Risk of control system failure/malfunction, resulting in a restart after a malfunction or power failure.

Without shutdown signals, the liftgate can enter a critical state. People on or near the liftgate could be injured.

---

**⚠ WARNING**

Risk of injury during disassembly caused by sudden release of pretensioned springs.

Use only trained and qualified maintenance personnel.

---

**⚠ WARNING**

Risk of injury during disassembly/assembly (particularly of safety devices, e.g. removing solenoid valves) due to improper or incorrect assembly/disassembly  
Use only trained and qualified maintenance personnel.

MAXON offers training in assembly, maintenance, and accident prevention regulations (UVV).

---

**⚠ WARNING**

Risk of unexpected startup. If the priority circuit is defective, the liftgate can be unexpectedly activated from a second control point, resulting in injury.

---

**⚠ WARNING**

Removing, modifying, or bypassing safety devices can result in injury. Do not modify, bypass, or remove safety devices.

---

**⚠ WARNING**

Fingers are at risk of being crushed or sheared when the lifting gear is disassembled or assembled.

Be careful at the connecting points between the lifting gear and vehicle.

 **WARNING**

When transport locks are removed, parts may fall or the platform may tip over, resulting in injury.

After disposing of packing materials, store all parts in a secured manner and carefully remove transport locks.

 **WARNING**

When transport locks are removed, parts may fall.

If parts fall, fluid can escape.

Carefully remove transport locks and secure loose parts before removal.

Always transport the lifting gear in an upright position using suitable lifting points.

## 7 Electrical circuit diagram

### IMPORTANT

The electrical circuit diagram is supplied with the liftgate as a separate document and is part of this user manual.

### IMPORTANT

The electrical circuit diagram must always remain with the liftgate.

You can also get the circuit diagram from the Technical Service.

For this you will need the liftgate serial number (see page 7) or the drawing number from the relevant circuit diagram.

For additional technical information, visit <https://www.maxonlift.com/support/technical-service>. To contact Technical Service, please call **1-800-227-4116** or email us at [techservice@maxonlift.com](mailto:techservice@maxonlift.com).

## 8 Hydraulic circuit diagram

### IMPORTANT

The hydraulic circuit diagram is supplied with the liftgate as a separate document and is part of this user manual.

### IMPORTANT

The hydraulic circuit diagram must always remain with the liftgate.

You can also get the circuit diagram from the Technical Service.

For this you will need the liftgate serial number (see page 7) or the drawing number from the relevant circuit diagram.

For additional technical information, visit <https://www.maxonlift.com/support/technical-service>. To contact Technical Service, please call **1-800-227-4116** or email us at [\*\*techservice@maxonlift.com\*\*](mailto:techservice@maxonlift.com).

## 9 Warranty, liability exclusions, copyright

### 9.1 Warranty

MAXON LIFT CORP.

11921 Slauson Ave.

Santa Fe Springs, CA. 90670

CUSTOMER SERVICE:

(562) 464-0099

(800) 227-4116

FAX: (888) 771-7713

TECHNICAL SERVICE:

(800) 8-MAXTEK (862-9835)

WARRANTY POLICY & PROCEDURE

NEW LIFTGATE WARRANTY

Term of Warranty: 2 Years from Date of In-Service

Type of Warranty: Full Parts and Labor

MAXON agrees to replace any components which are found to be defective during the first 2 years of service, and will reimburse for labor based on Maxon's Liftgate Warranty Flat Rate Labor Schedule.

All claims for warranty must be received within 30 Days of the repair date, and include the following information:

1. Liftgate Model Number
2. Liftgate Serial Number
3. Description of Problem
4. Corrective Action Taken, and Date of Repair.
5. Parts used for Repair, Including MAXON Part Number(s).
6. MAXON R.M.A. # and/or Authorization # if applicable (see below).
7. Person contacted at MAXON if applicable.

## **9.2 Purchase Part Warranty**

Term of Warranty: 1 Year from Date of Purchase Type of Warranty: Part Replacement and Replacement Labor

MAXON will guarantee all returned genuine replacement parts upon receipt, and inspection of parts and invoice. All Warranty repairs must be performed by an authorized MAXON warranty station.

For major repairs, Maxon's Warranty Department must be notified, and an "Authorization Number" received. Major repairs would generally be considered repairs made to the structural assembly of the liftgate and/or repairs not outlined in the Maxon liftgate Warranty Flat Rate Schedule.

Major components (i.e. hydraulic pumps, cylinders, valves, or failed structural parts) must be returned, freight pre-paid, prior to the claim being processed. To ensure timely processing of these warranty claims, an R.G.A. (Returned Goods Authorization) number must be obtained from Maxon's Warranty Department prior to the return of any defective part. Defective Parts must be returned within 60 days of the claim date for consideration to:

Warranty Department, MAXON Lift Corp.  
5920 Alameda St., Huntington Park, CA. 90255

Maxon's warranty policy does not include the reimbursement for travel time; towing; vehicle rental; service calls; fabrication of parts which are available from MAXON; oil; defects due to misuse or abuse; loss of income due to downtime.

Maxon's Flat Rate Labor Schedule times takes into consideration time required for diagnosis of problem.

Warranty and Technical Information is available by calling Maxon's Customer Service Department.

NOTE: Check with Customer Service Department for updated versions of Manuals on an annual basis.

## **9.3 Liability exclusions**

Our liability excludes: damages assigned to wrong installation or operation of the liftgate, as well as overloading, improper use, insufficient battery charge or capacity, accidents or damages do to ground contact (e.g. rough terrain at building sites).

## **9.4 Copyright**

This user and maintenance manual is intended for owners and operators of the MAXON liftgate. It may not be reproduced or made available to third parties without the express permission of MAXON. Any violation is punishable by law.

**10 Notes**