M-98-09 REV. ~ APRIL 1998

## OPERATION MANUAL **(**R) TUK-A-WAY **LIFT GATE SERIES TKL-25 IMPORTANT! KEEP IN CAB OF VEHICLE** THIS MANUAL CONTAINS INFORMATION FOR OPERATING YOUR UNIT 11921 Slauson Avenue. Santa Fe Springs, CA. 90670 (800) 227-4116 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)

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

## **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. (Call MAXON Customer Service for a copy).

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.G.A. # and/or Authorization # if applicable (see below).
- 7. Person contacted at MAXON if applicable.

#### 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 Waranty 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 Dapartment, 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.

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## WARNING

1. Read the **Operator's Manual** and understand it thoroughly before operating this unit.

**2.** Read the urgent warning decal on the side of the vehicle close to the unit before operating.

**3.** If decals are dirty, clean them. If decals are defaced or missing, replace them. **Free replacements** are available from the manufacturer. See information at the end of the Warnings !

**4.** Be aware that the safety and location of other people or objects should be considered before operation of this unit. Stand to one side of platform while operating this unit.

**5.** Do not stand under, or have any foreign object under the Platform when lowering. **Be** sure that the lowering of the Platform and/or Flipover will miss your feet!

**6.** Keep fingers, hands, arms, legs, and feet clear of moving parts when operating this unit.

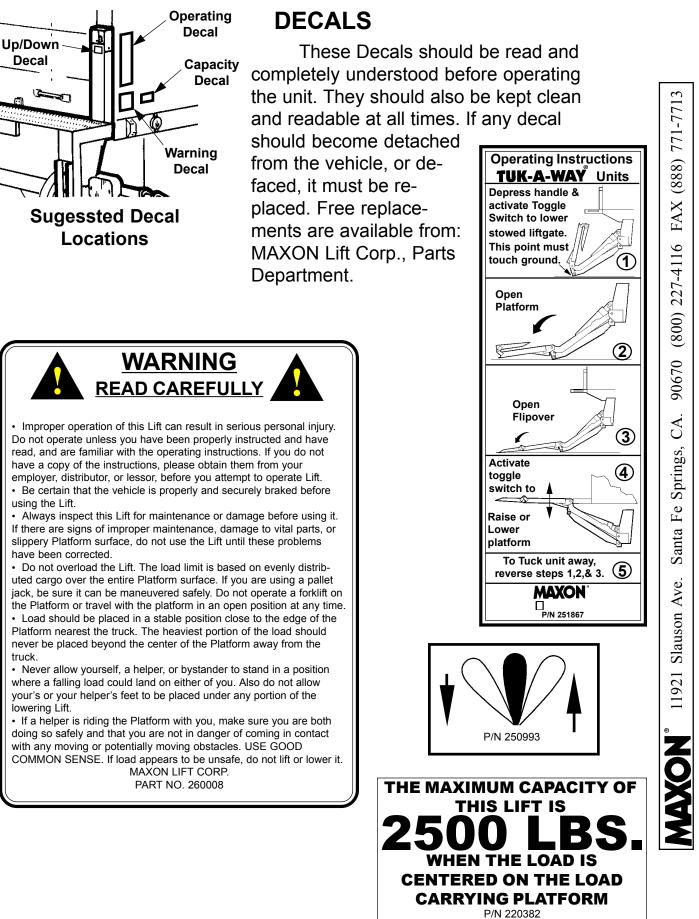
7. Do not allow children to ride, play with, or operate this unit.

**8.** In the event of an emergency while operating the unit, release the toggle switch and the unit will stop immediately.

**9.** A properly installed Lift should operate smoothly and the only noise during the operation of this unit should be from the Pump Unit during the raising of the Platform. Any scraping, grating or audible indications of rough operation will need investigating. The cause will need resolving before any further deterioration of performance occurs.

Use only **Maxon Authorized Parts** for replacement. Replacement parts should be ordered from:

MAXON LIFT CORP. Parts Department 11921 Slauson Ave., Santa Fe Springs, Ca. 90670 Phone: (800) 227-4116

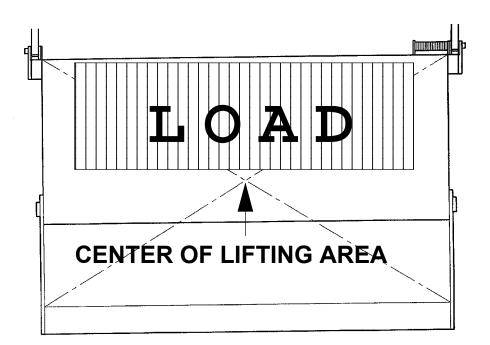


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truck.

## **POSITION OF LOAD**

All loads must be placed as close to the edge of the Platform nearest to the vehicle floor as possible, with the heaviest part of the load toward the vehicle. No part of any load should be allowed to extend over the edges of the Platform. Do not place unstable loads on the Platform. Do not allow any load to exceed the rated capacity for the unit. If standing on the Platform, do not allow your feet to protrude beyond the edges.



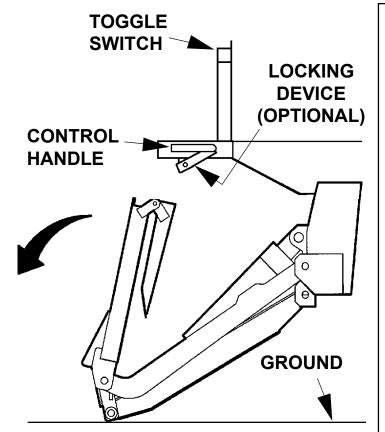
## **OPERATION**

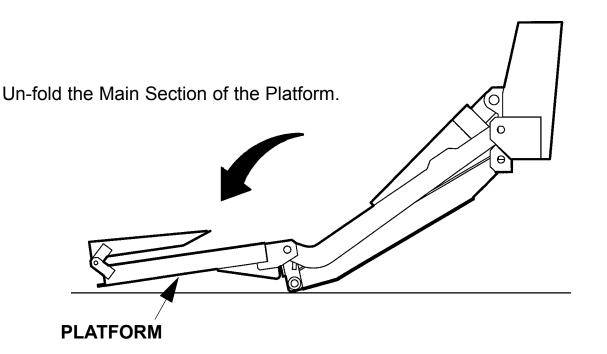
**1.** If a locking device is installed, it must be unlocked before attempting to operate the unit.

**2.** Standing clear of Platform, depress the Control Handle and activate the Toggle Switch to the "down" position. The Control Handle can be released after the Locking Hook clears the Platform. (Approx. 2" down from the "Stowed" position.)

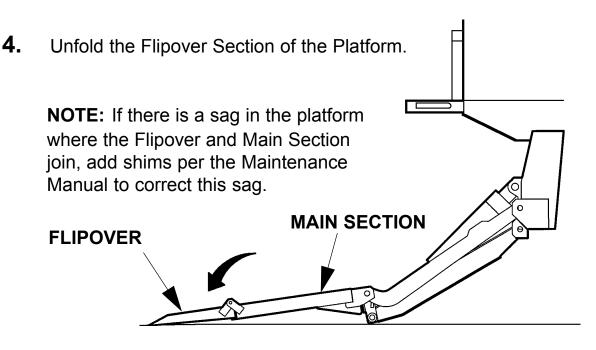
When liftgate touches the ground, release the Toggle Switch.

3.



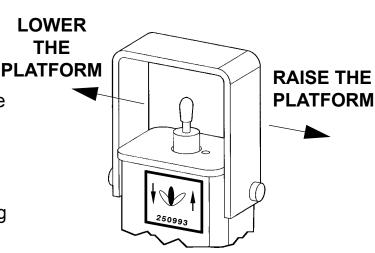


## **OPERATION**



**5.** Raise or lower the liftgate by holding the Toggle Switch in the desired function. Once the platform reaches the bed height, or the ground, release the switch. Should an emergency occur at any time during the operation of

any time during the operation of this unit, the platform can be stopped immediately by releasing the Toggle Switch.



**6.** To fold the liftgate for transport, reverse steps 1 through 4. **NOTE:** It will not be necessary to hold the control handle in an "up" position to raise the liftgate. The spring loaded Hook should snap and lock onto the platform for proper storage.

### GLOSSARY OF TERMS (TUK-A-WAY SERIES)

#### STRUCTURAL COMPONENTS: Main Frame The Main Frame is the Main Section of the liftgate welded under the Truck Body or Trailer which the Lift Frame, Parallel Arms, Cylinders, Pump Assembly is attached. Lift Frame The Lift Frame is consists of the Lift Arms and connected to each other and to the Main Frame and Cylinder(s). The Lift Frame raises or lowers the Platform. Lift Arm The Lift Arm is part of the Lift Frame Assembly. The Lift Arms (Right and Left) are connected to Platform one end and the Main Frame on the other. Parallel Arm The Parallel Arm is connected to Main Frame on one end and to the Platform on the other. The Parallel Arm is used to keep the Platform in the level or usable position when raising or lowering a Platform. Shackle The Shackle is used to connect the Lift Arm and Parallel Arm to the Platform with Pins. Platform The Platform is usually made up of two sections. The Main Section and the Flip Over Section. The Platform is the flat loadable surface area. For example: 72" wide by 35" deep. Main Section The Main Section is the section attached to the runners and is the first part of the Platform. Flip Over Section The Foldover Section is the second part of the Platform. This section is attached to the Main Section with hinges and folds for storing. The Butt End Flip Over is the second part of the Platform and is an optional way of Butt End Flip Over ordering some models. Instead of having a built in ramp the Flip Over has a butt end with no ramp. Wedge Flip Over The Wedge Flip Over is the second part of the Platform and is an optional way of ordering some models. Instead of having a built in ramp the whole Flip Over is the ramp. The Wedge is cut on the bottom of the Flip Over. Ramps Ramps are attached to the Platform to allow access to the Platform from the ground. Several types of Ramps: 4" built in fixed steel Ramp; 5" built in fixed steel Ramp or 10" Aluminum Retention Ramp. Different types of ramps go with different type of models and platform options. 4" or 5" Fixed Ramp A Fixed Steel Ramp that attaches to the Flip Over Section of the Platform. The 4" or 5" Built In Ramp is used for transition from ground to platform and return. 10" Aluminum Ramp A 10" Aluminum hinged Ramp with retention capability. The 10" A.R.R. us used for holding back carts and pallets in the retention mode and also for transition from ground to platform and return. Lift Cylinder A Lift Cylinder is attached to the Main Frame and Lift Frame Assemblies. The Lift Cylinder is different sizes for different capacities. Platform Pins Pins used to connect to the Runner Assembly.

# **GLOSSARY OF TERMS**

**Torsion Spring** 

(TUK-A-WAY SERIES) The Platform Torsion Spring is located in the Main Section of the Platform Hinge. The Torsion Spring helps the Platform Open.

**Closing Arms** The Closing Arms help the Platform rotate into the storing position.

#### HYDRAULIC COMPONENTS:

Pump Enclosure	The plastic or steel box used to house the Pump Assembly and related items such as Batteries, Circuit Breakers, Master Disconnect and Emergency Hand Pumps.
Pump Assembly	The Motor, Motor Solenoid, Pump, Reservoir, Manifold Block and Solenoid Cartridges used for this model of liftgate.
Auxiliary Hand Pump	Auxiliary (also known as Emergency Hand Pump) is a manual pump to raise or lower platform manually if the hydraulic system is still intact.
Motor	The Motor is a 12-volt, XOT Prestolite Motor. The Motor is attached to the Drive Plate of the Pump Assembly.
Motor Solenoid	The Motor Solenoid is the 12-volt starting switch for the Pump Assembly. The Motor Solenoid is attached to the Motor.
Drive Plate	The Drive Plate is rectangular steel block which the Motor and Pump and Reservoir attaches. The Drive Plate is also the attaching point for the Pump Enclosure.
Pump	The Pump is a hydraulic gear driven pump located inside the Reservoir and attached to the Drive Plate.
Pick Up Filter	Inside the Reservoir and attached to the Pump is a Pick Up Filter to filter the larger contaminants prior to entering the Pump.
Manifold Block	The Manifold Block is an aluminum block with ports drilled to allow Solenoid Valves to be used to direct or restrict flow of hydraulic oil. Used only on the Power Down models.
Solenoid Valve	A Solenoid Valve is consists of a Cartridge Valve (2 Position/Normally Closed Solenoid Valve or a 4-Way/2 Position Spool Valve) and a 12 volt Solenoid Coil.
Cartridge Valve	A Cartridge Valve is either a 2 Position/Normally Closed Solenoid Valve which acts as a check or holding valve or a 4-Way/2 Position Spool Valve which is used to change flow direct or flow from one port to another.
Solenoid Coil	A Solenoid Coil is a 12 volt magnetic coil that activates the armature inside Cartridge Valves.
Port	A hole in or outlet where you connect either a Cartridge Valve or Hose. This can be on the Manifold Block, Drive Plate or cylinder.
"A" Valve	The "A" Valve is a 2 Position/Normally Closed Solenoid Valve. It is located on the Drive Plate on Gravity Down Models and located on a Manifold Block on Power Down Models.

### GLOSSARY OF TERMS (TUK-A-WAY SERIES)

"B" Valve	The "B" Valve is a 2 Position/Normally Closed Solenoid Valve. It is located on the Mani- fold Block and controls the RAISE/LOWER function of the Platform. The "B" Valve is only used on Power Down Models.
"E" Valve	The "E" Valve is a 4-Way/2 Position Spool Valve located in the Manifold Block. This valve allows the flow of hydraulic fluid to change from RAISE/LOWER to CLOSE.
Pump Relief Valve	The Pump Relief Valve is located on the side of the Drive Plate of the Motor/Pump Assembly. The Pump Relief Valve controls the pressure of the pump.
Flow Control Valve	The Flow Control Valve is a one-direction control needle valve. The arrow on the valve body shows the direction the flow is controlled.
Needle Valve	The Needle Valve is two-direction control needle valve. Used on all RC models to control flow while using an Emergency Hand Pump.

#### **ELECTRICAL COMPONENTS:**

Circuit Breaker	Electrical circuit protection device. The most common is 150 Amp manual reset Circuit Breaker. Should not be used between Motor Solenoid and Batteries. Should be used on the charging circuit only.
Master Disconnect	Electrical circuit protection device. Manual connection between batteries and Motor Solenoid of the Motor/Pump Assembly.
Cab Cutoff Switch	The Cab Cutoff Switch is a Wiring Harness Assembly consisting of a Switch in the Cab and a Solenoid usually mounted on the Frame of the Truck. The Assembly is used to cut off the 12 volts to the Pump/Motor Assembly to prevent unauthorized operation.
Switch Assembly	The Switch Assembly is a Wiring Harness and Switch that operates the RAISE/LOWER functions of the Pump Assembly.
Charge Line	The Charge Line is usually found on Trailers. The Charge line runs between the Batter- ies, through a 150 Circuit Breaker, and the Trailer Single Pole Plug at the nose of the Trailer. When connected to the Tractor batteries, via another Single Pole Plug con- nected to the Tractor Batteries, the Trailer batteries are charged.
Power Line	The Power Line is usually for Truck Bodies and is not used in conjunction with batteries. The Power Line is the electrical source for the Motor/Pump Assembly.
Tractor Line	The Tractor Line is the source for power and charging. The Tractor Line is from the Tractor batteries, through a 150 Circuit Breaker, to a Single Pole Plug that is plugged into the Trailer Single Pole Plug. The Tractor Line has two electrical cables, one for positive and the other for negative.

### FORKLIFT

