GLOSSARY OF TERMS, MAXON COLUMNLIFT (BMR)

1. STRUCTURAL COMPONENTS:

6” Fixed Ramp

A 6” Fixed Steel Ramp that attaches to the Folding Section of a two piece Platform or attaches to the Main Section of one piece Platform. The 6” Fixed Ramp is used for transition from ground to platform and return.

12” Fixed Ramp

A 12” Fixed Steel Ramp that attaches to the Folding Section of a two piece Platform or attaches to the Main Section of one piece Platform. The 6” Fixed Ramp is used for transition from ground to platform and return.

12” Ramp/Cart Stop

A 12” fixed steel Ramp with built in Cart Stop. The 12” Ramp/Cart Stop can be either single or dual control stops. The Cart Stop is used for holding back carts and pallets in the retention mode and transition from ground to platform and return.

16” Aluminum Ramp

A 16” Aluminum hinged Ramp with retention capability. The 16” A.R.R. is used for holding back carts and pallets in the retention mode and also for transition from ground to platform and return.

Chain Anchor

The Chain Anchor is attached to the end of the Platform on the side. The Platform Chains are attached via an “H” Connector.

Closing Cylinder

The Platform Closing Cylinder is attached to the Runner and the Inside Coupling. This cylinder is used, when activated, to open and close the Platform.

Column Assembly

The upright columns fixed to either the Trailer or Truck Body Corner Posts. Column and Runner Assemblies combined with all subassemblies included.

Extension Plate

The Extension Plate is attached to both Column Assemblies and to vehicle floor. Spacing between vehicle floor and folded platform sections.

Foldover Section

The Foldover Section is the second part of the platform section. This section is attached to the Main Section with hinges and folds for storing. The usual size is 80” wide by 30”, 36” or 42” deep. Any folding Section that is equal to the Main Section the Platform (30” X 30”; 36” x 36”; 42” X 42”) should use the 16” Aluminum Retention Ramp Option.

Greaseless Bushing

All pivot points have Greaseless Bushings. No grease is required when using this type of bushing.

Inside Coupler RH

Coupler attached to the Closing Cylinder and connected to the Runner Assembly via the Platform Pin. Inside Coupler is also bolted to Platform Pin.

Lift Cylinder

A Lift Cylinder is part of the Column Assembly. The Cylinder is between the Runner and Column Guide and is attached to the Runner and Column with 1” pins. The Lift Cylinder, when activated, is part of the Hydraulic System used to raise the Platform.

Main Section

The Main Section is the section attached to the runners and is the first part of the Platform. The usual size is size is 80” wide by 42” deep. For 102” wide applications, the size would be 86” wide by 42” deep. For low bed height applications, the Main Section can be 80” wide and 36” or 30” deep.

Opener Weldment

Perpendicular upright Weldment attached to the Main Section on a pivot point. The upper end has a chain fastener and a chain link catcher. The Opener Weldment is used to unfold the Foldover Section of the Platform. The Chain Link Catcher is used to hold the Chain in the stored position.

Outside Coupler RH

Coupler attached to the Main Section of the Platform with a special small-head bolt and connected to the Inside Coupler RH via the Platform Pin.

Platform

Platform is usually made up of two sections. The Main Section and the Folding Section. The Platform is the flat loadable surface area. For example: 80” wide by 72” deep.

Platform Pins

Pins used to connect the Platform, through the Couplers, to the Runner Assembly.

Ramps

Ramps are attached to the Platform to allow access to the Platform from the ground. Several types of Ramps include: 6” fixed steel Ramp; 12” fixed steel Ramp; 12” fixed Ramp with built-in Cart Stop (single or dual stops); and 16” Aluminum Retention Ramp.

Rollers and Axles

Plastic Rollers with greaseless roller bearings attached to Axles in the Tandem Assembly. The Rollers roll on the Roller Guides welded to the front and back inside surface of the Column.

Runner Assembly

The Runner Assembly (including Runner, tandem assemblies, plastic slides, etc.) is inside the Column, and Runner is attached to the Main Section of the Platform and to the Lift Cylinder.

Tandem Assembly

The Tandem Assembly consists of Plastic Rollersattached to two tandem plates. Used to guide the runner up and down the column.

Tear Drop Assembly

The Tear Drop Assembly attaches to the Runner Assembly and is connected to the Chain via an “H” Connector. This allows the Chain to fold into the Opener Weldment and Chail Link Catcher.

2. HYDRAULIC COMPONENTS:

“A” Valve

The “A” Valve is a 2-Position Normally Closed Solenoid Valve. It is located on the Manifold Block and controls the OPEN/CLOSE function of the Platform. On 1997 Model BMR’s, the Manifold Block is labeled “A”.

Auxiliary Hand Pump

The Auxiliary Hand Pump (also known as Emergency Hand Pump) is a manual pump to raise or lower Platform manually if the Hydraulic System is still intact.

“B” Valve

The “B” Valve is a 2-Position Normally Closed Solenoid Valve. It is located on the Manifold Block and controls the RAISE/LOWER function of the Platform. On 1997 Models, the Manifold Block is labeled “B”.

“C” Valve

The “C” Valve, on pre-1997 Model BMR’s, is a 2-Position Normally Closed Solenoid Valve located in the “C” Valve Body on the back wall of the Pump Enclosure. On the 1997 Model BMR’s, the “C” Valve is a 4-Way/2-Position Spool Valve located in the Manifold Block and labeled “C”. The “C” Valve allow hydraulic fluid to flow back to the Reservoir faster. In Power Down Models, it reverse the flow of fluid to the Lifting Cylinders.

Cartridge Valve

A Cartridge Valve is either a 2-Position Normally Closed Solenoid Valve acting as a check (holding) valve or a 4-Way/2-Position Spool Valve used to change direction of fluid flow to Lifting Cylinders or flow between ports on Manifold Block.

Cartridge Valve

A Cartridge Valve is either a 2-Position Normally Closed Solenoid Valve acting as a check (holding) valve or a 4-Way/2-Position Spool Valve used to change direction of fluid flow to Lifting Cylinders or flow between ports on Manifold Block.

Closer Valve Adjustment

The Closer Valve Adjustment is a Pump adjustment that controls the CLOSE speed of the Platform on 1997 Model BMR's. The adjustment, labeled "C", is located on top of the Manifold Block.

"D" Valve

The "D" Valves (also called Lock Valves) are 2-Position Normally Closed Solenoid Valves with manual override. A "D" Valve is located in the "D" Valve Body on top of each Lifting Cylinder.

Drive Plate

The Drive Plate is a rectangular steel block attaching Motor, Pump, Pump Enclosure and hydraulic fluid Reservoir.

Dual Pump Assembly

The Dual Pump Assembly is two Pump Assemblies combined with a common Hydraulic Fluid Reservoir. The second Pump, with its own Motor, Motor Solenoid, Manifold Block and Valves can function as an emergency or auxiliary electrical Pump.

"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 Lifting Cylinders to Closing Cylinder. On 1997 Model BMR's, the Manifold Block is labeled "E".

Flow Control Valve

The Flow Control Valve is a one-direction control needle-type valve. The arrow on the valve body shows the direction the flow is controlled. Used on the pre-1997 Model BMR's to control the OPEN/CLOSE speed of the Platform.

Gravity Down

The Pump Assembly is wired and plumbed to lift with hydraulic pressure and lower by the weight of the Platform under gravity.

In-Line Filter

The In-Line Filter is located on the Hydraulic Fluid Reservoir Tank and connected to the "C" Valve Block on the back wall of the Pump Enclosure. The In-Line Filter was used on 1995 and 1996 Model BMR's.

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 fluid.

Motor

The Motor is a 12 Volt, Heavy-Duty 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 Motor. The Motor Solenoid is attached to the Motor.

Needle Valve

The Needle Valve is a two-direction control, needle-type valve. Used on all BMR models to control flow while using an Emergency Hand Pump.

Opener Valve Adjustment

The Opener Valve Adjustment is a Pump adjustment to control the OPEN speed of the Platform on 1997 Model BMR's. The adjustment, labeled "O", is located on top of the Manifold Block.

Pick Up Filter

Located inside the Reservoir and attached to the Pump, the Pick Up Filter is used to filter out the larger contaminants before hydraulic fluid enters the Pump.

Port

A hole (or outlet) for connecting either a Cartridge Valve or Hydraulic Hose. Port may be on the Manifold Block, Drive Plate or Cylinder.

Power Down

The Pump Assembly is wired and plumbed to lift and lower Platform with hydraulic pressure.

Pump

The Pump is a gear-driven hydraulic pump located inside the Reservoir and attached to the Drive Plate.

Pump Assembly

Consists of the Motor, Motor Solenoid, Pump, Reservoir, Drive Plate, Manifold Block and Cartridges Valves used for the this model of liftgate.

Pump Enclosure

The steel box used to house the Pump Assembly and supporting components such as Batteries, Circuit Breakers, Master Disconnect (for battery power) and Emergency Hand Pumps.

Pump Relief Valve

The Pump Relief Valve is located on the side of the Drive Plate of the Pump Assembly. The Pump Relief Valve controls the pressure of the pump.

Relief Valve

The Relief Valve is a 2400 PSI valve located in the "C" Valve Body on pre-1997 Model BMR's. On 1997 Model BMR's, the Relief Valve is located on the Manifold Block. The Relief Valve controls pressure to Ride Equalizer and the Cylinders.

Ride Equalizer

The Ride Equalizer is a gear-driven hydraulic fluid flow divider. The Ride Equal izer is in line with the Raise Port in the Hydraulic System.

Solenoid Coil

A Solenoid Coil is a 12 volt magnetic coil used to open or close a Cartridge Valve.

Solenoid Valve

A Solenoid Valve 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.

Spin On Filter

The Spin On Filter is located on the back wall of the Pump Enclosure. It filters 100% of the hydraulic fluid returning to Reservoir. The Spin On Filter is used on 1997 Model BMR's.

3. ELECTRICAL COMPONENTS:

Ride Equalizer

The Ride Equalizer is a gear-driven hydraulic fluid flow divider. The Ride Equal izer is in line with the Raise Port in the Hydraulic System.

3-Wire Extension

The 3-Wire Extension is used on Trailer Applications. It extends the "D" Valve Wiring Harness to the Pump Enclosure. Comes in ten foot lengths.

4-Pin Connector

The 4-Pin Connector is the connector for the wiring harness of the Inside Control Switch. On pre-1997 Model BMR's, connector is located inside the Pump Enclosure. On 1997 Models, the 4-Pin Connector is located on the outside wall of the Pump Enclosure.

4-Wire Extension

The 4-Wire Extension is used on Trailer Applications. Extends the Inside Control Wiring Harness to the Pump Enclosure. Comes in ten foot lengths.

5-Pin Connector

The 5-Pin Connector is the connector for the wiring harness of the Outside Control Switch. On pre-1997 Model BMR's, connector is located inside the Pump Enclosure. On 1997 Models, the 5-Pin Connector is located on the outside wall of the Pump Enclosure.

5-Wire Extension

The 5-Wire Extension is used on Trailer Applications. Extends the Outside Control Wiring Harness to the Pump Enclosure. Comes in ten foot lengths.

Charge Line

The Charge Line is usually found on Trailers. Charge Line runs between the Batteries, through a 150 amp Circuit Breaker, and the Trailer Single Pole Plug at the nose of the Trailer. When connected to the Tractor electrical charging system via another Single Pole Plug, batteries installed on the Trailer can be charged.

Circuit Breaker

Electrical circuit protection device. The most common is 150 amp manual reset Circuit Breaker. Should be used in the charging circuit, only. (Should not be used between Motor Solenoid and Batteries.)

Hand Held Control

The Hand Held Control is a walk-around control wired (via "T" Connector) to the Inside Control 4-Pin Connector.

Inside Control

Three-piece Wiring Harness that travels with the Runner Assembly. Switch is used for operating liftgate UP or DOWN.

Master Disconnect

Electrical safety device. Manually removes battery power to prevent Pump Assembly from operating.

Outside Control

Small electrical box containing the Outside Control (switches for operating liftgate UP/DOWN and OPEN/CLOSE).

Power Line

The Power Line provides electrical power from vehicle batteries to the Pump Assembly (on liftgate) when liftgate is not equipped with separate batteries.

Stationary Control

A Stationary Control is used, instead of the Three-piece Wiring Harness, for operating liftgate UP/DOWN from the inside position.

"T" Connector

The "T" Connector is a T-shaped adapter with a connector on each leg (3 connectors). Typically, this adapter is used to connect "D" Valve wiring and add-on controls (such as Hand-held Control) to liftgate main wiring harness.

Tractor Line

The Tractor Line is a source of vehicle battery power for liftgate and for charging separate liftgate batteries. The Tractor Line is routed from Tractor charging system (or batteries) to liftgate through a Tractor-mounted Single-Pole Plug, Trailer-mounted Single Pole Plug, and 150 amp Circuit Breaker. The Tractor Line consists of two electrical cables - one positive (+) polarity and one negative (-) polarity.