II. OPERATING INSTRUCTIONS

This chapter contains safety precautions, daily safety check instructions, control and indicator descriptions, and operating instructions that apply to RICON S-Series and K-Series Public Use wheelchair lifts. This chapter must be thoroughly understood by the operator before using lift.

A. SAFETY PRECAUTIONS

The following safety precautions must be complied with at all times when operating lift:

- Refer to Figure 2-1. Deploying lift when vehicle is on sloped ground is hazardous. Operate lift with vehicle parked on level ground.

![Figure 2-1: SLOPED PARKING HAZARD](image)

- Vehicle must be safely parked with parking brake ON before using lift.
- Inspect lift before use. Do not use lift if any unsafe condition exists, or unusual noises or movements are noticed, and contact an authorized Ricon service technician for repair.
- Read and comply with all warning labels and symbols affixed to wheelchair lift.
- Refer to Figure 2-2. Wheelchair occupant should face outward on platform when entering or exiting vehicle to minimize the possibility of the large rear wheels rolling up and over the front rollstop.

![Figure 2-2: EXITING BACKWARDS IS HAZARDOUS](image)

- Do not rely on a threshold-warning device (audible, or other) to confirm that it is safe for a passenger to exit backwards. This device may be inoperative or unheard, and they might exit backwards when the platform is on the ground!
- When exiting vehicle, verify that platform is at same height as floor and front rollstop is up and locked.
- Do not place equipment or furniture inside vehicle that may prevent pivoting of your wheelchair. Being able to pivot assures that you can safely exit facing outward.
- Be certain wheelchair fits safely on platform; it must not extend beyond edges or interfere with operation of rollstop.
- The raised front rollstop prevents slow and unintentional rolling off of the platform. It is not intended to stop a fast-moving wheelchair, which might tip forward if the small front wheels collide with the rollstop.
- Do not operate with a load in excess of 800 lbs (364 kgs).
- Keep arms, legs, and clothing away from moving lift parts.
- The lift is intended for one wheelchair and its occupant or one standee. Do not overload lift.
- Refer to Figure 2-3. Do not stand in front of lift while deploying platform.

![FIGURE 2-3: STAND CLEAR OF LIFT](image)

- Keep others clear while operating lift.
- Do not allow an untrained person to operate lift.
- Careful supervision is necessary if used near children.
- Do not allow anyone to stand on bridgeplate. A bent bridgeplate can interfere with the platform as it raises and lowers.
- Lock wheelchair brakes before moving platform (power chair users should turn off power and set brake).
- Use great care in wet conditions, because the wheelchair brakes are less effective if wheels or platform are wet.
- Never leave platform outside of vehicle. Return platform to stowed position after use.
- Do not load an oversize wheelchair into vehicle if it is too large to pivot freely inside vehicle.

Read and understand these safety precautions. Review them periodically and ask other operators to read them as well. Contact an authorized Ricon service technician or call Ricon Product Support if there are questions.

**B. DAILY SAFETY CHECK**

Inspect lift before use and meet the following conditions:
- All functions operate properly. Do not use lift if unusual noises or movements exist, and contact an authorized Ricon service technician for repair.
- Vehicle interlock is operating properly.
- Objects that may interfere with operation are not present.
- General appearance and lubrication are satisfactory and fasteners are tight.
### C. PLATFORM MOTIONS

#### TABLE 2-1: PLATFORM MOTIONS

<table>
<thead>
<tr>
<th>MOVEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEPLOY</td>
<td>Platform unfolds, or deploys, out of vehicle from stowed position to floor level position. If equipped with a power door operator, the doors automatically open before lift deploys.</td>
</tr>
<tr>
<td>DOWN</td>
<td>Platform lowers from vehicle floor level towards ground level. The front rollstop automatically lowers (opens) when platform reaches ground level.</td>
</tr>
<tr>
<td>UP</td>
<td>Platform rises from ground level towards vehicle floor level. The front rollstop automatically rises (closes) when platform leaves ground level.</td>
</tr>
<tr>
<td>STOW</td>
<td>Platform folds, or stows, from vehicle floor level to the stowed position. If equipped with a power door operator, the doors automatically close after lift stows.</td>
</tr>
</tbody>
</table>

#### NOTE:

The up and down functions do not operate if platform is in stowed position.

![Figure 2-4: Platform Positions](image-url)

**NOTE:** HANDRAILS AND PINCH POINT SHIELDS REMOVED FOR CLARITY.
D. CONTROLS AND INDICATORS

WARNING

THE LIFT CAN OPERATE ONLY WHEN THE VEHICLE MANUFACTURER INTERLOCK CIRCUITRY IS ACTIVATED. IF NECESSARY, REFER TO VEHICLE OPERATOR MANUAL FOR INTERLOCK INSTRUCTIONS. DO NOT ATTEMPT TO OPERATE LIFT WITH INTERLOCK BYPASSED.

- CONTROL PENDANT

Refer to Figure 2-5. The lift is operated with four rocker switches and an ON-OFF switch located on the hand-held, hard-wired remote-control pendant. Turn on the POWER switch and then press an appropriate rocker switch to control each lift motion.

The POWER switch enables the pendant by providing power to it and must be turned on before the lift can be operated. When turned on, the power switch will illuminate.

Pressing the DEPLOY rocker switch unfolds the platform from the vehicle, and pressing the STOW rocker switch folds the platform back into the vehicle. Pressing the DOWN rocker switch lowers the platform towards the ground, and pressing the UP rocker switch raises the platform towards the floor.

A rocker switch must be held depressed until the motion is completed. Movement of the platform can be halted at any time by releasing the rocker switch.

The pendant is typically stowed on a wall-mounted clip inside the vehicle, near the lift.

---

**Figure 2-5: Control Pendant**

![Diagram of control pendant with labels for POWER, ENABLE, DEPLOY, STOW, DOWN, UP]
CIRCUIT BREAKERS AND LED STATUS INDICATORS

Pump Solenoid LED Status Indicators

Refer to Figure 2-6. The pump has two solenoids that provide a margin of safety if one of them fails with its contacts closed. Green and red LED status indicators monitor the condition of the two solenoids, and are located between two 8A circuit breakers. The green LED is normally off when the pump is not operating and will illuminate when the pump operates. When the pump is not operating and the second solenoid has failed the red LED will illuminate. The green LED will illuminate if the first solenoid has failed. For more information on both indicator lights refer to Service manual 32DSKL02.

Main Circuit Breaker

Refer to Figure 2-7. The main circuit breaker is located in the vehicle engine compartment and is used to interrupt electrical power to the lift electrical system when a major short circuit occurs. In such event, the circuit breaker reset tab will “flip-down”. If pressing reset tab back up (as shown by arrow) and releasing it does not reset power, do not press and hold tab. Contact a Ricon authorized service technician for repair.
Handrail Lights Circuit Breaker
Refer to Figure 2-6. The circuit breaker for the handrail lights is located on the hydraulic pump assembly. In the event of a short circuit in the handrail lights, the circuit breaker button will "pop-out". If pressing and releasing button does not reset power, DO NOT press and hold. Contact a Ricon authorized service technician for repair.

Control System Circuit Breaker
Refer to Figure 2-6. The Control System Circuit Breaker is located on the hydraulic pump assembly. In the event of a short circuit in the control system, the circuit breaker button will "pop-out". If pressing and releasing button does not reset power, DO NOT press and hold. Contact a Ricon authorized service technician for repair.

BRIDGEPLATE LOAD SENSOR
Refer to “Major Lift Components” section in Chapter I for the location of the sensor switch that detects the presence of a load on the bridgeplate. When the sensor detects that an object is present on the bridgeplate it inhibits lowering of the platform. This protects the passenger from possible injury when the bridgeplate rises, and also protects the bridgeplate from damage, which could later interfere with proper operation of the lift.

THRESHOLD SAFETY WARNING SYSTEM
Refer to Figure 2-8 for the location of threshold warning system components. The lift incorporates two light beams that detect when a passenger (or object, such as a wheelchair) is in the vicinity of the baseplate or bridgeplate (threshold area). The beams are enabled when the platform is one inch, or more, below the vehicle floor. If someone passes through either of the beams when the platform is one inch below the floor an audible alarm and flashing red light are actuated. This system provides a margin of safety for lift users by warning them if the platform is below floor level. The platform must be at floor level when boarding the platform prior to exiting the vehicle.
MANUAL BACK-UP PUMP
Refer to Figure 2-9. The manual backup pump is used to operate the lift if electrical power is not functioning. Controls for the pump are located inside housing of hydraulic unit and consist of a pump handle to raise platform, and a pump pressure release valve to lower it. Instructions for operating manual pump are provided in the "Manual Operation" section later in this chapter.

LIFT CYCLE COUNTER
Refer to Figure 2-10. The cycle counter is located inside the hydraulic pump housing and visible through a slot on the rear side. The counter advances each time the platform moves through a complete cycle, which consists of the platform moving from the vehicle floor to the ground and back to the floor. The number of cycles displayed is used to schedule maintenance operations. For maintenance schedule refer to Chapter III of this document.
E. NORMAL LIFT OPERATION

<table>
<thead>
<tr>
<th>WARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>- IMPROPER USE OF LIFT CAN RESULT IN PERSONAL INJURY. USERS MUST READ AND FOLLOW OPERATING INSTRUCTIONS. ADDITIONAL COPIES OF OPERATOR MANUAL ARE AVAILABLE FROM:</td>
</tr>
<tr>
<td>RICON CORPORATION</td>
</tr>
<tr>
<td>7900 NELSON ROAD</td>
</tr>
<tr>
<td>PANORAMA CITY, CA 91402</td>
</tr>
<tr>
<td>(800) 322-2984 or (818) 267-3000</td>
</tr>
<tr>
<td>- DO NOT EXCEED RATED LOAD CAPACITY OF 800 POUNDS (364 KGS).</td>
</tr>
<tr>
<td>- PRIOR TO USE, INSPECT WHEELCHAIR LIFT FOR PROPER FUNCTION, REQUIRED MAINTENANCE, OR DAMAGE. IF A PROBLEM EXISTS, DO NOT USE LIFT AND CONTACT A RICON AUTHORIZED SERVICE TECHNICIAN FOR REPAIR.</td>
</tr>
<tr>
<td>- THIS LIFT IS FOR USE BY WHEELCHAIR OCCUPANTS AND STANDEES. RICON CORPORATION DISCLAIMS LIABILITY FOR DAMAGE OR PERSONAL INJURY RESULTING FROM MODIFICATION TO LIFT, LACK OF MAINTENANCE OR REPAIR, NEGLIGENCE, ABUSE, OR FAILURE TO FOLLOW LIFT OPERATING INSTRUCTIONS.</td>
</tr>
</tbody>
</table>

- Before operating lift, be certain vehicle is safely parked on a level area away from traffic. Provide space for lift operation and passenger boarding.
- The lift operator must take special care to be certain that area is clear before deploying lift. Be certain there are no obstacles beneath platform.
- Open doors completely if lift is not equipped with a power door operator. If so equipped, the vehicle doors will automatically open before platform deploys and close after platform is stowed.
- If equipped with a safety interlock mechanism (e.g. transmission, parking brake, etc) be certain that it is properly engaged before attempting to operate lift. The lift will not operate until this feature has been engaged properly.
- A person that uses the wheelchair lift while standing (does not require mobility aid equipment) is referred to in this manual as a Standee.

<table>
<thead>
<tr>
<th>WARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATTENDANT MUST REMAIN NEAR PASSENGER TO RENDER IMMEDIATE ASSISTANCE WHEN NECESSARY.</td>
</tr>
</tbody>
</table>

1. ENTERING VEHICLE:

**NOTE:** The occupant restraint belt must be fastened to enable the DEPLOY, DOWN, UP, and STOW motions; the platform will not operate unless this safety mechanism is connected. Turn the pendant power switch on.

a. **DEPLOY PLATFORM** - Push and hold DEPLOY rocker switch until platform is completely unfolded from vehicle and stops at floor level.

b. **LOWER PLATFORM** - Push and hold DOWN rocker switch until platform is at ground level and front rollstop is fully lowered.
c. Unfasten occupant restraint belt, carefully place wheelchair in center of platform, preferably facing outward (away from vehicle), and lock wheelchair brakes. If a power wheelchair is used, turn power off.

⚠️ CAUTION
Be certain wheelchair is clearly within perimeter of platform and does not interfere with operation of rollstop.

* A Standee must stand near the center of the platform, facing in the direction of travel (into vehicle), and firmly grasp handrails.

d. Fasten occupant restraint belt.

e. RAISE PLATFORM - Push and hold UP rocker switch until platform rises and stops automatically at floor level.

f. Release wheelchair brakes. If a power wheelchair is used, turn power back on. Carefully board passenger into vehicle, and secure wheelchair.

g. Refer to “Stowing Platform” section below to stow platform.

2. EXITING VEHICLE:

**NOTE:** The occupant restraint belt must be fastened to enable the DEPLOY and DOWN motions. The platform will not operate unless this safety mechanism is connected. Turn the pendant power switch on.

a. DEPLOY PLATFORM - Push and hold DEPLOY rocker switch until platform is completely unfolded from vehicle and stops at floor level.

⚠️ WARNING
VERIFY THAT PLATFORM IS AT VEHICLE FLOOR LEVEL AND THAT FRONT ROLLSTOP IS UP AND LOCKED IN POSITION.

b. Fasten occupant restraint belt.

c. Carefully place wheelchair in center of platform, preferably facing outward (away from vehicle), and lock wheelchair brakes. If a power wheelchair is used, turn power off.

⚠️ CAUTION
Do not stand on bridgeplate as platform lowers.

* A Standee must stand near the center of the platform, facing in the direction of travel (away from vehicle), and firmly grasp handrails.

d. LOWER PLATFORM - Push and hold DOWN rocker switch until platform is at ground level and front rollstop is fully lowered.

e. Unfasten occupant restraint belt and release wheelchair brakes. If a power wheelchair is used, turn power back on. Carefully assist passenger off platform.

f. Refer to “Stowing Platform” section on next page to stow platform.

3. STOWING PLATFORM:

**NOTE:** The occupant restraint belt must be fastened to enable the UP and STOW motions. The platform will not operate unless this safety mechanism is connected.
NOTE: If platform is at ground level, push and hold UP rocker switch until platform rises and stops automatically at floor level.

Push and hold STOW rocker switch until platform folds completely into vehicle.

CAUTION
Verify that platform has folded completely before closing doors. To avoid damage to doors, do not release switch until lift has folded completely and lift pump motor has stopped automatically.

h. Close vehicle doors if lift is not equipped with a power door operator. If so equipped, the vehicle doors may close automatically after platform is stowed.

F. MANUAL OPERATION
The lift can be operated manually if the lift electrical power source is absent. Ricon recommends that manual operation be used only for exiting passengers from vehicle.

Preparation:
- Be certain vehicle is on a level area and away from traffic. Allow space for platform movement plus space to exit from platform.
- The vehicle operator must summon assistance to move vehicle to a safe area if a breakdown situation exists where vehicle cannot be moved under its own power.
- Open doors manually if vehicle is not equipped with a power door operator. If equipped with a power door operator, refer to its operator manual for manual operation directions.

WARNING
FOLLOW PRECAUTIONS IN "LIFT OPERATION" SECTION WHEN USING MANUAL BACKUP SYSTEM TO ENTER OR EXIT VEHICLE.

NOTE: The threshold warning system is not active during manual operation and cannot be used to indicate platform height.

1. DEPLOY PLATFORM
   a. Refer to Figure 2-11. Override the Stow-Lock feature by lifting bridgeplate by hand. This will separate the Stow-Lock catch (fastened to underside of bridgeplate) from Stow-Lock latch (fastened to baseplate). If Stow-Lock is difficult to separate, use manual backup pump to raise platform slightly to remove tension from catch; refer to "Stowing Platform" paragraph in this section.

   ![Figure 2-11: Raise Bridgeplate](image-url)
b. Refer to Figure 2-12. Remove hydraulic unit cover to locate pump handle. Insert notched end of pump handle into shaft with roll pin crossing on hydraulic pump unit and engage pump release valve while holding bridgeplate. Once platform starts to deploy, release bridgeplate.

!CAUTION

Do not open pump release valve more than ¼ turn. Opening valve further may cause it to completely disengage from pump body, which will disable its pumping ability.

c. Refer to Figure 2-12. Turn valve 1/4 turn counter-clockwise to begin lowering platform.

d. Refer to Figure 2-13. When platform reaches level of interior floor turn valve clockwise to close; do not over-tighten valve. Do not lower platform below vehicle floor level. The rear edge of bridgeplate must rest flat on vehicle floor.
e. Fasten occupant restraint belt.

f. Load passenger. Carefully place wheelchair in center of platform, facing outward (away from vehicle), and lock wheelchair brakes. If a power wheelchair is used, turn power off.

---

**CAUTION**

Do not stand on bridgeplate as platform lowers.

- A Standee must stand near the center of the platform, facing in the direction of travel (away from vehicle), and firmly grasp handrails.

---

2. **LOWER PLATFORM**

   a. Refer to Figure 2-12. Turn valve 1/4 turn counter-clockwise to begin lowering platform.
   
   b. Hold valve open until platform settles at ground level. Turn handle clockwise to close valve; do not over-tighten valve.
   
   c. Unfasten occupant restraint belt and release wheelchair brakes. If a power wheelchair is used, turn the power back on. Carefully assist passenger off platform.

---

3. **STOW PLATFORM**

   a. Fasten occupant restraint belt.
   
   b. Refer to Figure 2-12. Verify that pump release valve is closed; do not over-tighten valve.
   
   c. Refer to Figure 2-14. Insert notched end of pump handle into pump shaft with roll pin crossing. Operate pump to begin raising and folding platform.
d. Operate pump until platform is completely folded inside vehicle and Stow-Lock has engaged.

e. Stow pump handle and replace pump cover.

f. Close vehicle doors.

G. MAINTENANCE AND REPAIR NOTE

Follow the lubrication, cleaning, and maintenance instructions in the following chapter, “Maintenance”. These instructions apply to Ricon S-Series and K-Series Public Use wheelchair lifts. The instructions are meant to optimize the operating condition of the wheelchair lift.