

Owner Manual

*International  
Inboard Lift*

# **E Series**

Solid Platform

Public Use  
Wheelchair Lifts



[www.braunability.com/international](http://www.braunability.com/international) ISO 9001:2015

631 West 11th Street, Winamac, IN 46996, USA

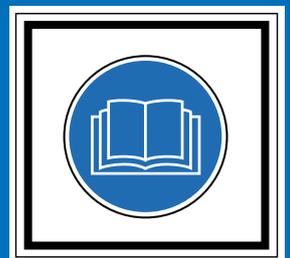
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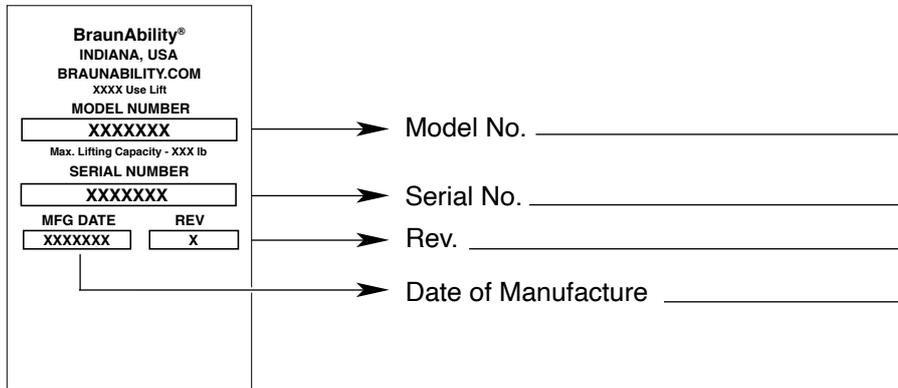
Translation of the  
Original Instructions



# Warranty

Consult your local BraunAbility® dealer regarding warranty policy.

[www.braunability.com/international](http://www.braunability.com/international)



Sample Serial Number Identification Tag

## Contents

Installation and Service Safety .....	2, 3
Lift Operation Safety .....	4-6
Specifications .....	7
Lift Terminology .....	8
Lift Installation	
Position Lift .....	9, 10
Secure Lift .....	11
Power Cable and Ground Cable .....	12-13
Platform Angle Adjustment .....	14
Tower Microswitch Adjustment .....	15-16
Installer Verification .....	18-19
Lift Operation Safety .....	20-22
Lift Operating Instructions .....	23-25
Manual Operating Instructions .....	26, 27
Maintenance and Lubrication .....	28-32
Declaration of Conformity .....	33

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### Document Cross Reference

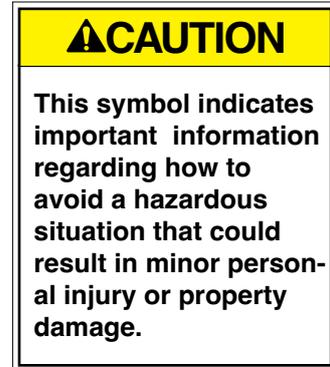
Service Manuals 403907, 405286, 406254, 406255, 407036, 407037, 407038

# Installation and Service Safety

## Safety Symbols

### SAFETY FIRST! Know That ....

The information contained in this manual and supplements (if included), is provided for your use and safety. Familiarity with proper installation, operation, maintenance and service procedures is necessary to ensure safe, trouble-free lift operation. Safety precautions are provided to identify potentially hazardous situations and provide instruction on how to avoid them.



### NOTICE

Additional information provided to help clarify or detail a specific subject.



These symbols will appear throughout this manual as well as on the labels posted on your lift. **Recognize the seriousness of this information.**

## Installation and Service Safety

### Installation and Service Safety Precautions

#### **⚠️ WARNING**

If installation, maintenance or repair procedures cannot be completed exactly as provided in this manual or if the instructions are not fully understood, contact BraunAbility immediately. Failure to do so may result in serious bodily injury and/or property damage.

- ⚠️ WARNING** Read this manual, supplement(s) and lift-posted operating instructions decals before performing installation, operation, or service procedures.
- ⚠️ WARNING** Use appropriate personal protective equipment when installing and servicing lift.
- ⚠️ WARNING** Remove any obstructions within the lift mounting/operating area prior to beginning installation procedures.
- ⚠️ WARNING** Install lift and power platform to fully folded position before removing shipping straps.
- ⚠️ WARNING** Do not fold or unfold the platform prior to positive securement of base plate mounting hardware.
- ⚠️ WARNING** Check for obstructions such as gas lines, wires, exhaust, etc. before drilling or cutting during installation procedures.

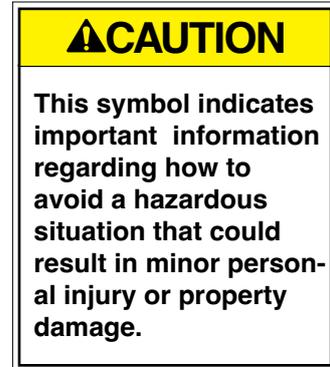
- ⚠️ WARNING** Route all cables clear of exhaust system, other hot areas, moving parts, wet areas, etc.
- ⚠️ WARNING** Risk of electrical shock or fire! Use extra care when making electrical connections. Connect and secure as outlined in Installation Instructions and Wiring Diagrams.
- ⚠️ WARNING** Adjust platform angle and floor level positioning of bridge plate before operating lift with passenger.
- ⚠️ WARNING** Maintenance and repairs must be performed only by authorized service personnel.
- ⚠️ WARNING** Perform maintenance and lubrication procedures exactly as outlined in the Maintenance and Lubrication Schedule contained in this manual.
- ⚠️ WARNING** Disconnect the power cable at the battery prior to servicing.
- ⚠️ WARNING** Never modify (alter) a BraunAbility lift.
- ⚠️ WARNING** Replacement parts must be BraunAbility authorized replacements.
- ⚠️ WARNING** Never install screws or fasteners (other than factory equipped).
- ⚠️ WARNING** Whenever replacing a hydraulic cylinder or seals, lower platform fully.
- ⚠️ WARNING** Failure to follow these safety precautions may result in serious bodily injury and/or property damage.

# Lift Operation Safety

## Safety Symbols

### SAFETY FIRST! Know That ....

The information contained in this manual and supplements (if included), is provided for your use and safety. Familiarity with proper installation, operation, maintenance and service procedures is necessary to ensure safe, trouble-free lift operation. Safety precautions are provided to identify potentially hazardous situations and provide instruction on how to avoid them.



### NOTICE

Additional information provided to help clarify or detail a specific subject.



This symbol indicates that there are dangerous energy levels present inside the enclosure of this product. To reduce the risk of fire or electric shock, do not attempt to open the enclosure or gain access to areas where you are not instructed to do so. Refer servicing to qualified service personnel only.



This symbol indicates that a condition where damage to the equipment resulting in injury to the operator could occur if operational procedures are not followed. To reduce the risk of damage or injury, refer to accompanying documents, follow all steps or procedures as instructed.



This symbol indicates a condition where injury or damage could occur if contact is made with the hot surface.



This symbol indicates an area to avoid bodily contact to prevent injury.



This symbol indicates the presence of high pressure hydraulic hoses. Use appropriate personal protective equipment when working on hydraulic system.



This symbol indicates the presence of a fire hazard. Avoid open flames or sparks when working with flammable materials to prevent injury or damage.



This symbol indicates a device weighs in excess of 139kg (306 lbs). Use of a fork lift or hoist is required.

These symbols will appear throughout this manual as well as on the labels posted on your lift. **Recognize the seriousness of this information.**

# Lift Operation Safety

## Lift Operation Safety Precautions

### **⚠️ WARNING**

If the lift operating instructions, manual operating instructions and/or lift operation safety precautions are not fully understood, contact BraunAbility immediately. Failure to do so may result in serious bodily injury and/or property damage.

- ⚠️ WARNING** Read manual and supplement(s) before operating lift. Read and become familiar with all safety precautions, operation notes and details, operating instructions and manual operating instructions before operating the lift.
- ⚠️ WARNING** Load and unload on level surface only.
- ⚠️ WARNING** Engage vehicle parking brake before operating lift.
- ⚠️ WARNING** Provide adequate clearance outside the vehicle to accommodate the lift before opening lift door(s) or operating lift.
- ⚠️ WARNING** Inspect lift before operation. Do not operate lift if you suspect lift damage, wear or any abnormal condition.
- ⚠️ WARNING** Do not use as a link bridge.

- ⚠️ WARNING** Keep operator and bystanders clear of area in which the lift operates.
- ⚠️ WARNING** Lift attendant must observe passenger at all times during lift operation.
- ⚠️ WARNING** Ensure adequate lighting exists in the lift operating area.
- ⚠️ WARNING** Whenever a wheelchair passenger (or standee) is on the platform, the:
  - Passenger must be positioned fully inside yellow boundaries facing outward.
  - Wheelchair brakes must be locked
  - Bridge plate and roll stop must be up (vertical)
  - Roll Stop latch must be fully engaged
  - Passenger should grip both handrails (if able).
- ⚠️ WARNING** Wheelchair lift attendants should be instructed on any special needs and/or procedures required for safe transport of wheelchair passengers.
- ⚠️ WARNING** Load and unload clear of vehicular traffic.
- ⚠️ WARNING** Do not attempt to load or unload a passenger in a wheelchair or other apparatus that does not fit on the platform area.
- ⚠️ WARNING** The lift attendant shall not ride on the platform with the passenger. The lift is intended for use by a single passenger.
- ⚠️ WARNING** Do not overload or abuse. The load rating applies to both the raising and lowering functions.
- ⚠️ WARNING** Use caution when operating this equipment out of doors during electrical storms or similar electrical phenomena.
- ⚠️ WARNING** Use caution when operating this equipment in severe weather or environmental conditions (fog, rain, snow, ice, dust, etc.)
- ⚠️ WARNING** Discontinue lift use immediately if any lift or vehicle interlock does not operate properly.
- ⚠️ WARNING** Do not operate or board the lift if you or your lift operator are intoxicated.

## Lift Operation Safety

### Lift Operation Safety Precautions

- ▲WARNING** Do not raise front wheelchair wheels (pull wheelie) when loading, boarding, or riding on the platform.
- ▲WARNING** Open lift door(s) fully and secure before operating lift.
- ▲WARNING** Position and secure (buckle, engage, fasten, etc.) the wheelchair-equipped occupant seat belt (torso restraint) before loading onto the wheelchair lift platform.
- ▲WARNING** Lift attendants must ensure that lift occupants keep hands, arms and all other body parts within the lift occupant area and clear of moving parts.
- ▲WARNING** Platform must be positioned at floor level (bridging position) when loading or unloading in and out of vehicle.
- ▲WARNING** Do not use platform bridge plate or roll stop as a brake. Stop and brake wheelchair when loading onto the platform (manually stop and brake manual wheelchairs — stop powered wheelchairs with the wheelchair controls).
- ▲WARNING** Turn powered (electric) wheelchairs off when on lift platform.
- ▲WARNING** Press the DOWN switch until the entire platform rests on ground level (lowered fully) and the roll stop is fully unfolded (ramp position) before loading or unloading a passenger at ground level.
- ▲WARNING** Roll stop must be fully unfolded (ramp position) until front and rear wheelchair wheels cross the barrier when loading or unloading at ground level.
- ▲WARNING** Accidental activation of control switch(es) may cause unintended operation(s).
- ▲WARNING** Maintenance and lubrication procedures must be performed as specified in this manual by authorized (certified) service personnel.
- ▲WARNING** Replace missing, worn or illegible decals.
- ▲WARNING** Never modify (alter) a BraunAbility lift.
- ▲WARNING** Do not use accessory devices not authorized by BraunAbility.
- ▲WARNING** Do not remove any guards or covers.
- ▲WARNING** Keep clear of any hydraulic leak.
- ▲WARNING** Failure to follow these safety precautions may result in serious bodily injury and/or property damage.

# Specifications



The lift must be installed, operated, and maintained as detailed in applicable manuals. Any use of equipment other than instructed in this manual is prohibited.

The specifications below reflect CE standards. Lifts meet or exceed these requirements.

## Operating Temperature

This equipment will operate in its intended ambient at a minimum between -30°C and 65°C.

## Relative Humidity

This equipment will operate correctly within an environment at 50% RH, at 40°C.

## Altitude

This equipment will operate correctly up to 1000m above mean sea level.

## Sound Pressure Level

The emission sound pressure level at the operator's position is expected not to exceed 70 db(A).

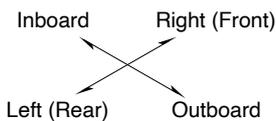
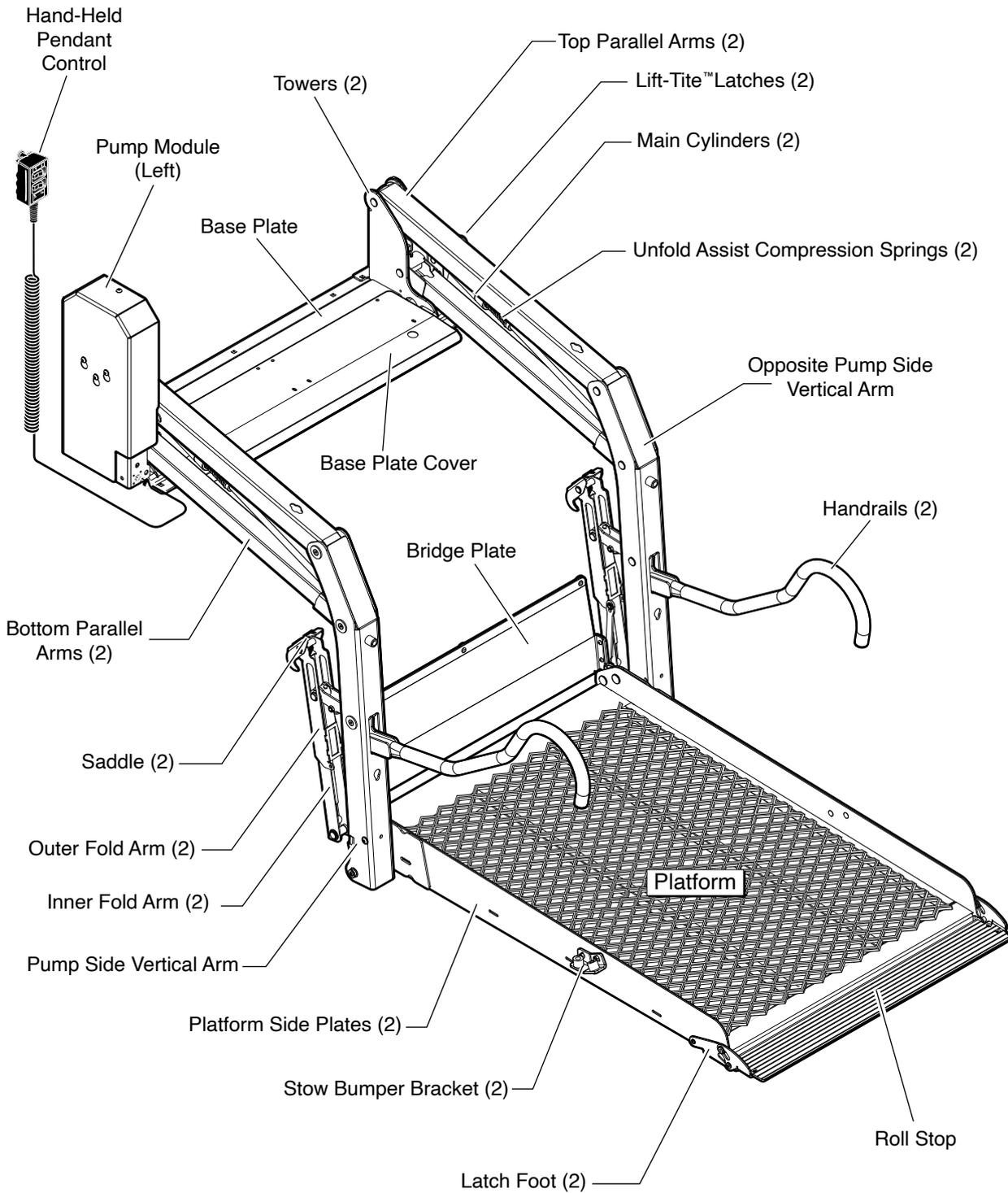
## Transportation and Storage

This equipment will withstand, or has been protected against, transportation and storage temperatures of -25°C to +55°C, and for short periods of up to +70°C.

The lift has been packaged to prevent damage from the effects of normal humidity, vibration, and shock.

<b>Lift Model</b>	<b>Maximum Load Capacity</b>	<b>Power Requirement</b>	<b>Lift Weight</b>
EDEC08S74105L	400kg (880lbs)	12 VDC	120.6kg (266lbs)
EDEC08S74105R	400kg (880lbs)	12 VDC	120.6kg (266lbs)
EDEC08S86132L	400kg (880lbs)	12 VDC	136.8kg (301lbs)
EDEC08S86132R	400kg (880lbs)	12 VDC	136.8kg (301lbs)

# Lift Terminology

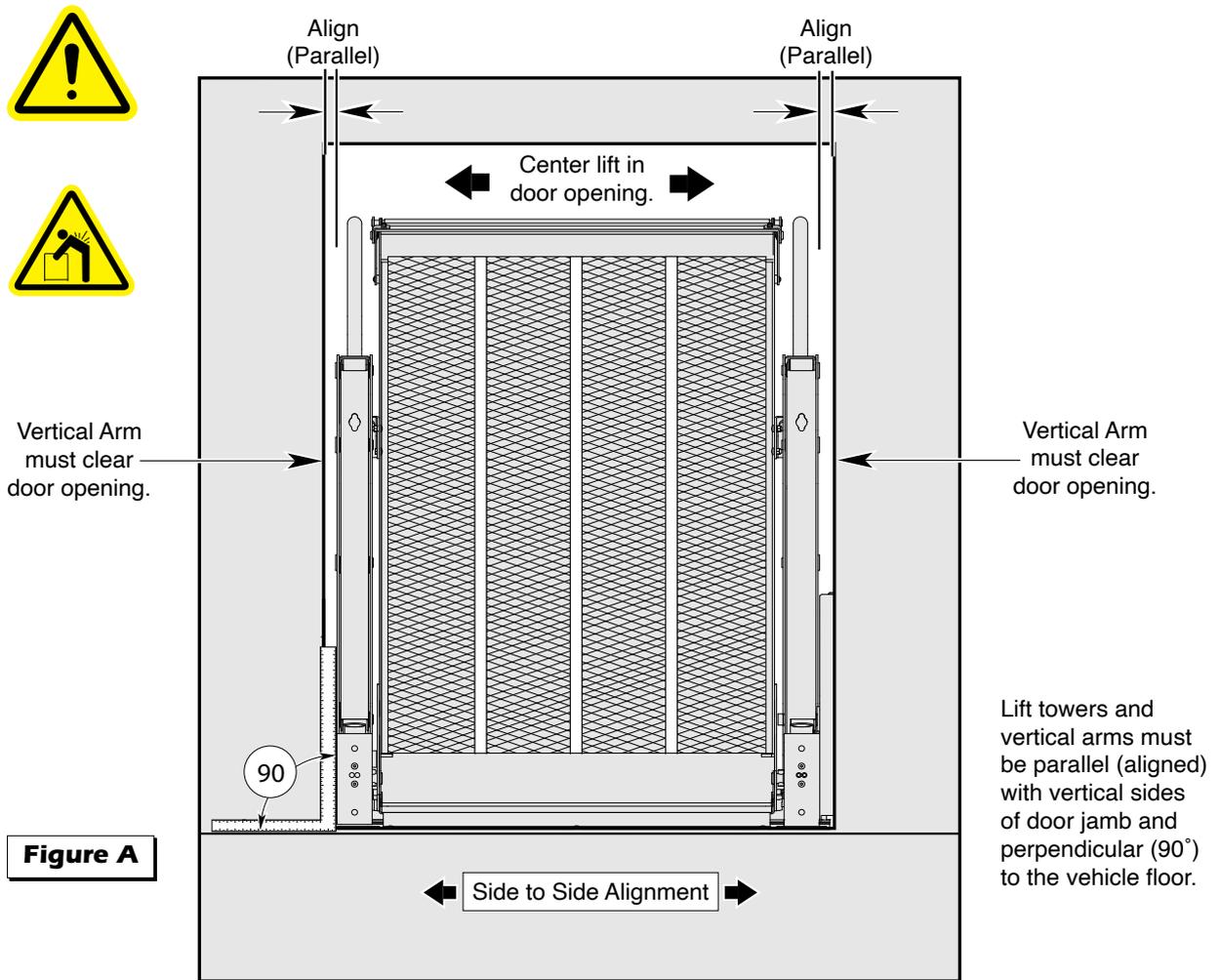


BraunAbility wheelchair lifts provide a method of boarding and exiting applicable motor vehicles. BraunAbility wheelchair lifts accommodate wheelchair passengers, standees, and other mobility aid users.



The lift must be installed, operated, and maintained as detailed in this manual. Any use of equipment other than instructed in this manual is prohibited.

## Lift Installation Position Lift



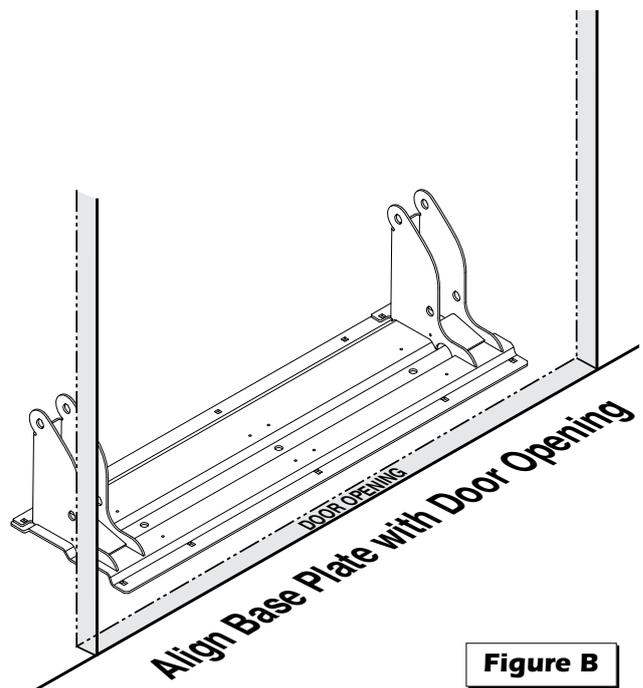
**Figure A**

### Clearance:

Center the lift in the opening. See Figure A. Position the base plate parallel to (aligned with) the door opening as shown in Figure B. Close the vehicle door(s).

Position lift as close to the door opening as possible while maintaining a minimum clearance of 12 mm between the lift and the door or wall. See Figure C.

**Lift-Tite® Latches:** When checking vehicle wall clearance - allow the lift to drift fully into the Lift-Tite® latches to ensure clearance (should drift occur). See Figure D. Using the hand pump handle, stroke the hand pump to stow the lift fully. Then open the valve slightly (1/2 turn only), and allow the Lift-Tite® latches to engage the vertical arm pins fully. Close pump valve.



**Figure B**

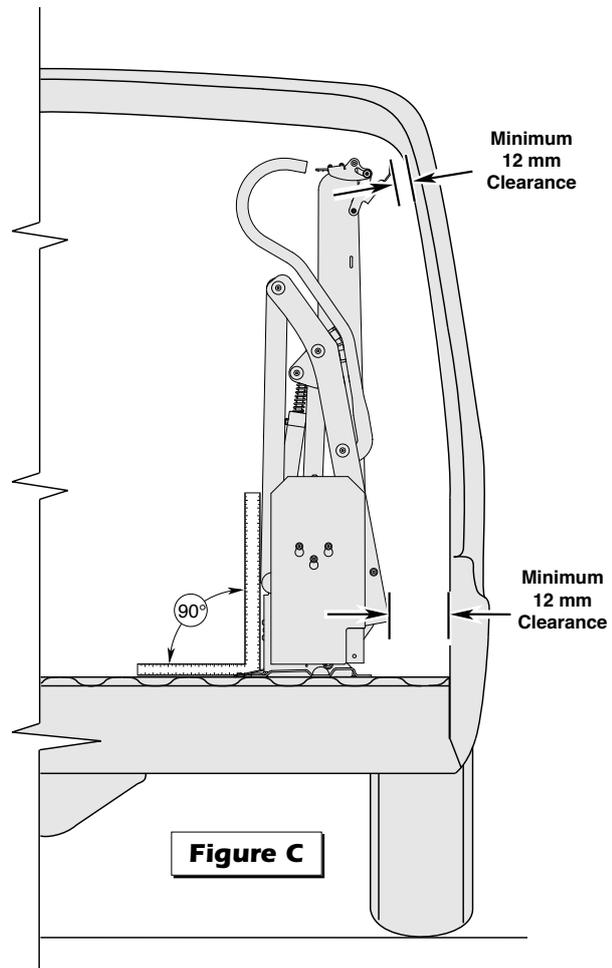
## Lift Installation Position Lift

### Alignment:

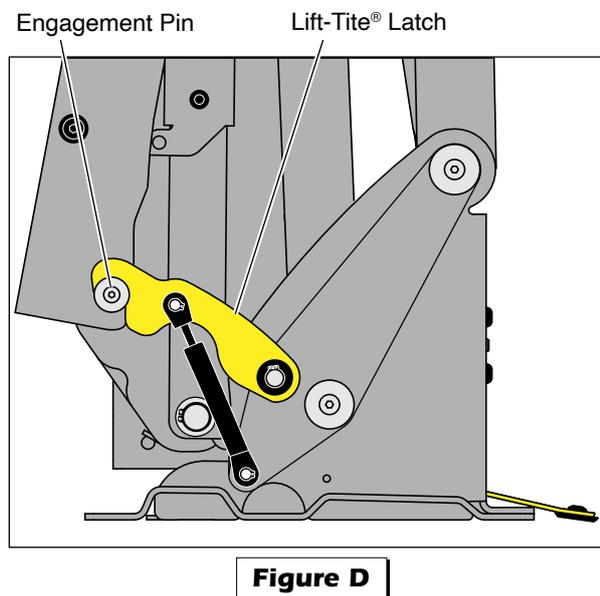
**Side-to-Side Alignment:** See Figure A on previous page. The lift vertical arms and platform should be perpendicular ( $90^\circ$ ) to the vehicle floor and parallel (aligned) with the vertical sides of door jamb. The vertical arms and the parallel arms must clear the door opening when the lift folds and unfolds.

**Inboard-to-Outboard Alignment:** See Figure C. The vertical arms and parallel arms must be aligned and parallel to each other. The lift towers should be perpendicular ( $90^\circ$ ) to the vehicle floor.

**Step well Installations:** It is not permissible for the base plate to overhang the step well. Base plate support must be constructed in the step well for lift support. The structure must be level with the existing floor and of equivalent construction (structural strength).

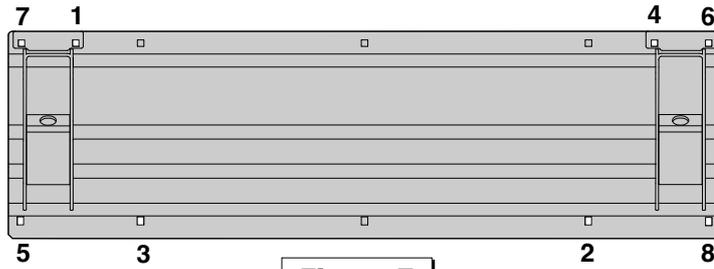


**Lift-Tite® Latches:** When checking vehicle wall clearance - allow the lift to drift fully into the Lift-Tite® latches to ensure proper clearances.



# Lift Installation

## Secure lift

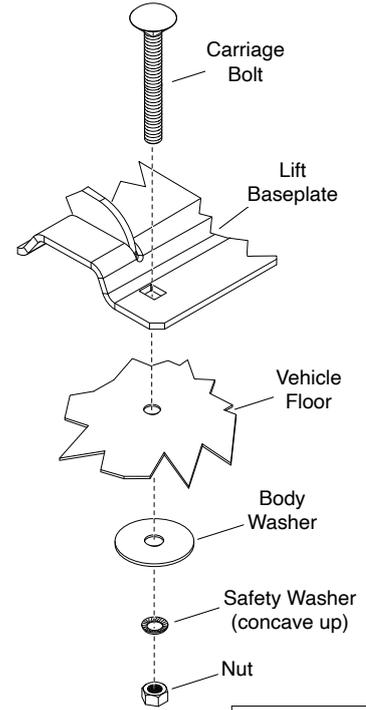


**Figure E**

**⚠ WARNING**

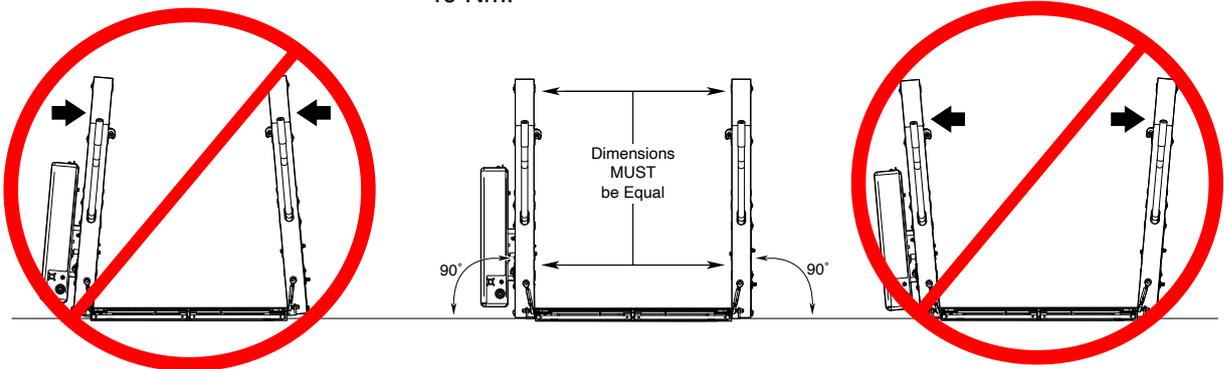
Check for obstructions such as gas lines, wires, exhaust, etc. before drilling or cutting. Failure to do so may result in serious bodily injury and/or property damage.

1. Drill two mounting holes (holes 6 and 7).
  2. Temporarily secure lift using supplied hardware in (holes 6 and 7). See Figures E & F.
  3. Manually deploy lift and check lift clearance. Drill remaining mounting holes.
  4. Install remaining below floor mounting hardware as shown in Figure F.
- If the lift was ordered with a vehicle specific hardware kit, follow the instructions included in the kit.
5. Tighten mounting bolts 1 through 8 per sequence detailed above. Note deflection detail in Figure G.



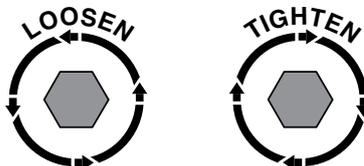
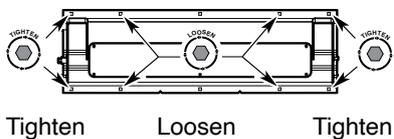
**Figure F**

**Mounting Bolt Torque Target:**  
40 Nm.

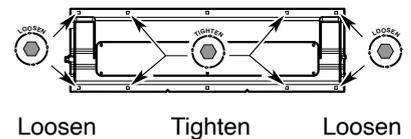


**Figure G**

To Correct:



To Correct:



## Lift Installation

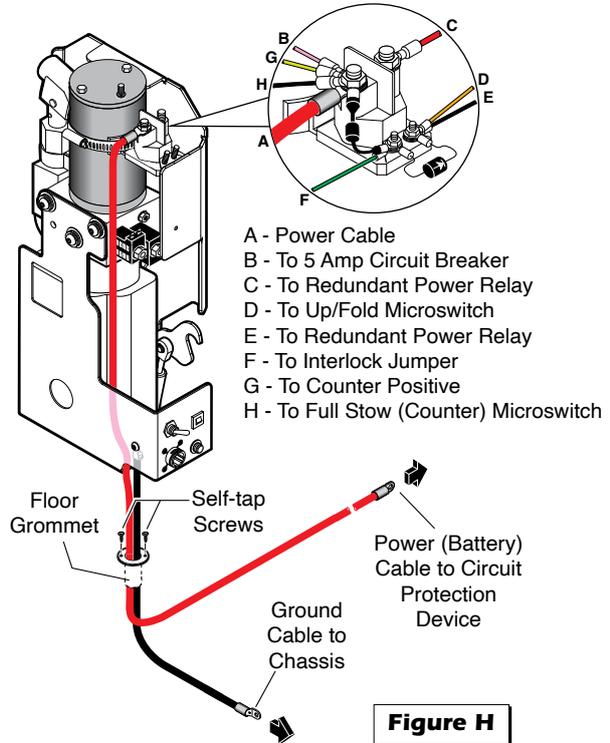
### Power Cable and Ground Cable



Left pump up solenoid wiring shown below. Right pump is a mirror image.

#### Floor Grommet:

1. Check under the vehicle for obstructions and drill a 28.5mm diameter grommet access hole.
2. Insert grommet. Secure grommet with two self-tap screws. See Figure H.
3. Attach power cable to up solenoid and route through housing per model shown in Figure H.
3. Route ground and power cables through grommet.



#### Vehicle Battery Positive Cable:

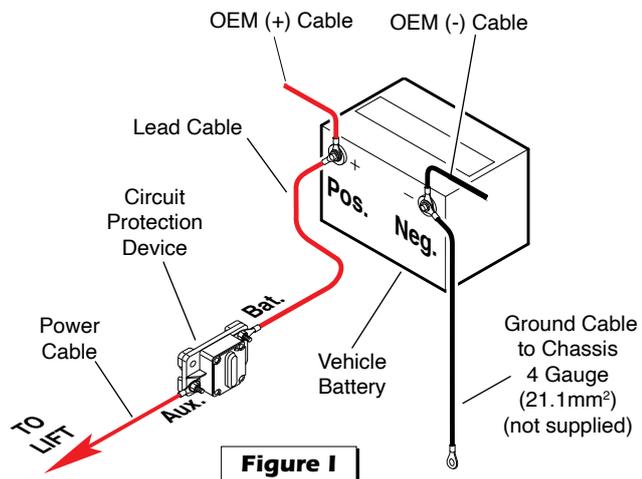
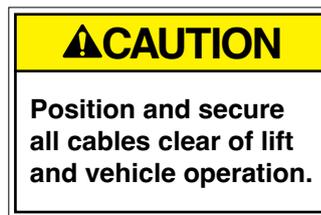
Install in-line circuit protection device as shown in Figure I. Attach power cable and lead cable as shown. Route cables clear of exhaust, other hot areas and moving parts.

#### Pump Ground Cable:

Route ground cable clear of exhaust, other hot areas and moving parts and connect to a vehicle framing member as shown. See Figure J. Note: Must be same framing member as vehicle battery ground cable installed in the next step.

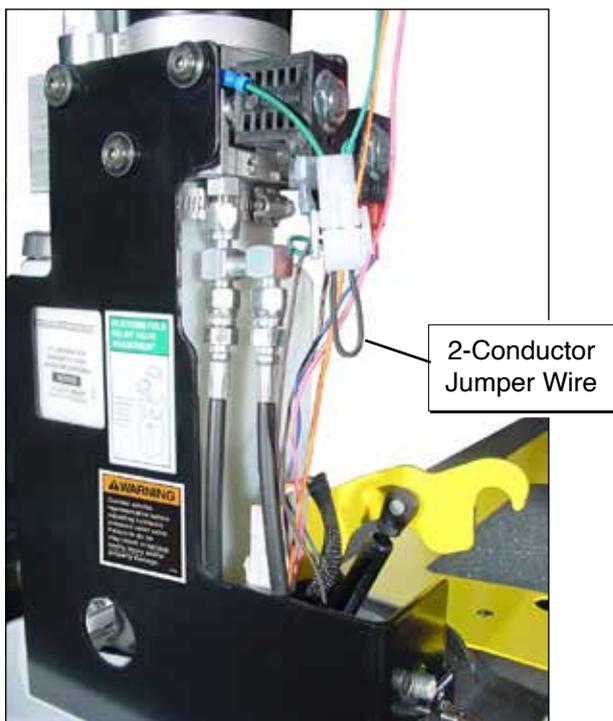
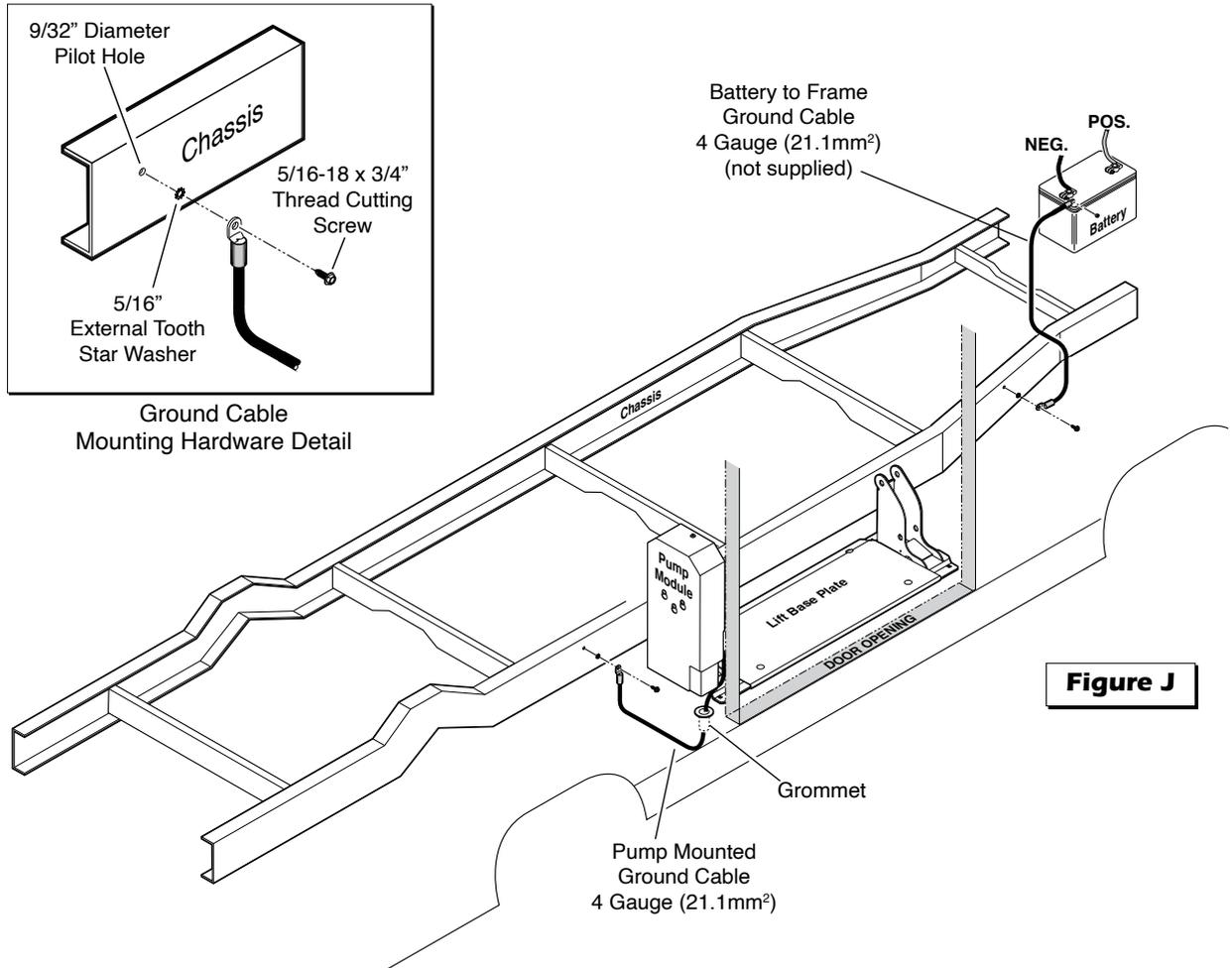
#### Vehicle Battery Ground Cable:

A 4 gauge (21.1mm<sup>2</sup>) ground cable must be connected from vehicle battery negative post to the same vehicle framing member as the pump ground cable. See Figures I and J.



## Lift Installation

### Power Cable and Ground Cable



#### Vehicle Battery Positive Cable:

Install in-line circuit protection device as shown in Figure I. Attach power cable and lead cable as shown.

#### Interlock Instructions EU:

The lift shall be installed in such way that the lift cannot be operational unless the vehicle is immobilized. Install a microswitch to the hand brake that provides signal when the hand brake is engaged (installer provided). Verify that the lift is not operational unless the hand brake is engaged.

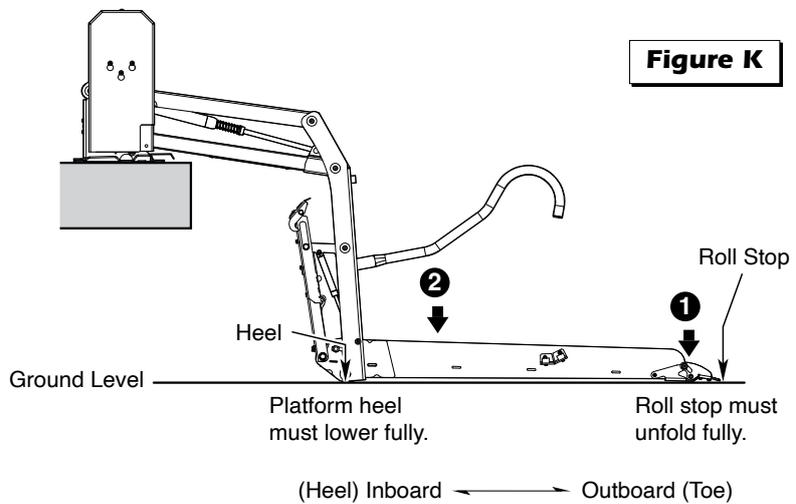
The E-Series pump module is equipped with 2-conductor jumper wire that is available for interlock (see photo at left). See service manual electrical schematic for details.

## Lift Installation Platform Angle Adjustment



### Lowering Sequence Requirements

1. The outboard end (toe) of the platform must contact the ground first to ensure the spring-loaded roll atop unfolds fully. See Figure K.
2. The inboard end (heel) of the platform must lower fully (vertical arms must contact ground when fully lowered). See Figure K.



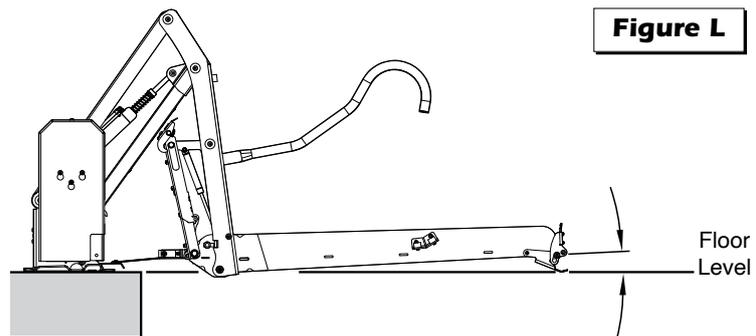
**Figure K**

The angle of the platform at ground level directly affects the angle of the platform when positioned at floor level.

Raise the platform to floor level. Note the angle of the platform.

The platform at floor level should have a slight upward angle as shown in Figure L.

Adjust platform angle as detailed below.



**Figure L**

### Adjustment Procedure:

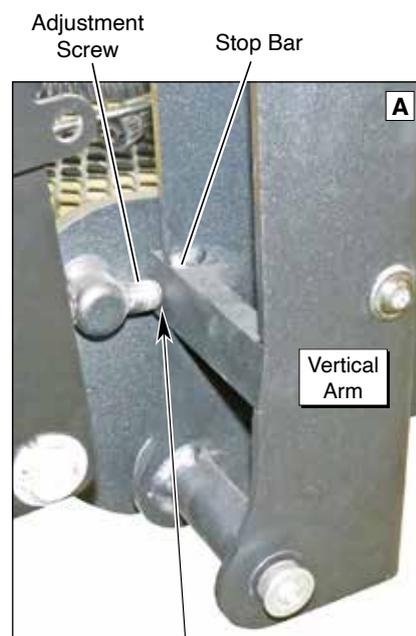
Platform angle adjustment Allen screws are provided on each side of the platform (see Photo A at right).

Turn adjustment screws clockwise to raise the outboard end of the platform. Turn adjustment screws counterclockwise to lower the outboard end of the platform.

Both adjustment screws must make full contact with the stop blocks (bars) in the vertical arms (see Photo A at right).

### Floor Level Adjustment:

Following platform angle adjustment, set platform floor level positioning as detailed in Tower Microswitch Adjustment. Check platform angle again after performing Tower Microswitch Adjustment procedures.



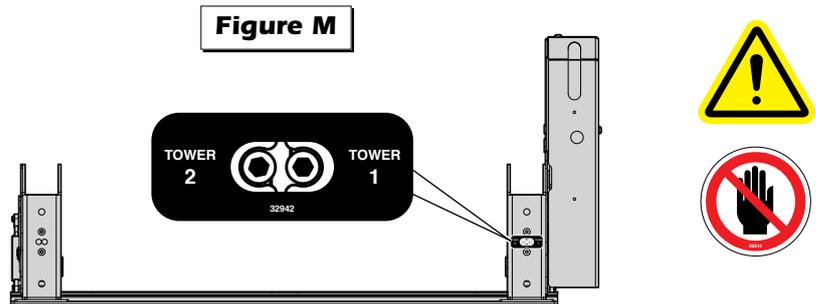
Adjustment screws must make full contact on both sides.

# Lift Installation

## Tower Microswitch Adjustment



Review adjustment procedures below and adjust as needed only.



Left (rear) pump lift depicted. Right (front) pump lift is a mirrored image.

### Tower 1 (Unfold) Switch Adjustment

Floor Position from Stow

1. Position platform at the fully stowed position using the manual hand pump or pendant control.
2. Turn switch adjustment screw clockwise 3 full turns.
3. Press pendant UNFOLD switch (continue pressing switch until platform stops unfolding).
4. When platform stops unfolding, turn switch adjustment screw counterclockwise while pressing the pendant UNFOLD switch. Platform position will change. Repeat adjustment until criteria below is met.

#### Proper Adjustment Criteria:

- Handrail pin should be at the top of the slot in outer fold arm. See Figure N.
- Bridge plate should rest on base plate cover and should overlap a minimum 25 mm (1 in). See Photo B.
- Both platform angle adjustment Allen screws are making full contact with vertical arm stop block bars. See Photo A.

Handrail pin at top of slot.

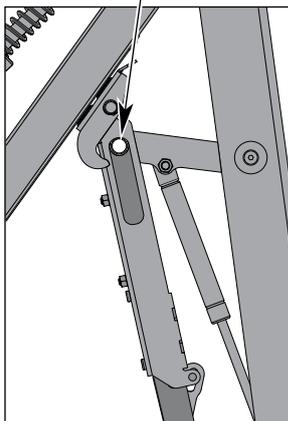


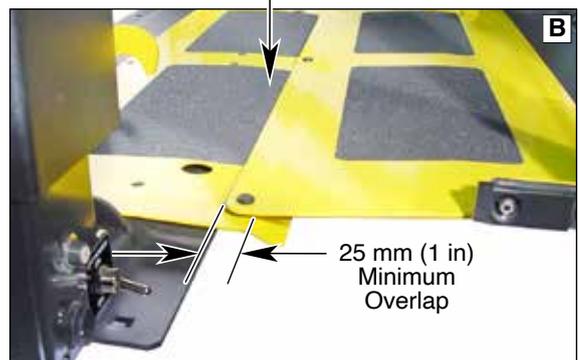
Figure N

### Tower 2 (Up) Switch Adjustment

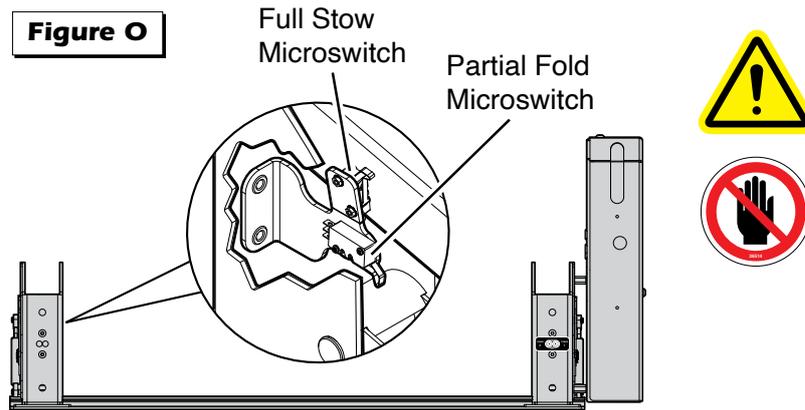
Floor Position from Below Floor

1. Lower platform a minimum of 15.25 cm below floor level position using the manual hand pump or pendant control.
2. Turn switch adjustment screw counterclockwise 3 full turns.
3. Press pendant UP switch (continue pressing switch until platform stops).
4. When platform stops, turn switch adjustment screw clockwise while pressing the pendant UP switch. Platform position will change. Adjust platform to meet criteria listed for Tower 1 Switch "Proper Adjustment Criteria".

Bridge plate should rest on base plate cover.



# Tower Microswitch Adjustment



Left pump lift depicted. Right pump lift microswitches are mirror image.

## Partial Stow Switch

Partial Stow to Full Stow Position

The partial stow microswitch (Figure O) is located in the lower position of the tower microswitch bracket inside the opposite pump side tower and is not adjustable.

The switch is deactivated (unpressed) once the platform has been stowed to approximately a 45° angle. Full fold pressure is activated at this position and will allow the platform to stow securely.

## Full Stow Switch

Cycle Counter

The full stow microswitch is located in the upper position of the tower microswitch bracket located inside the opposite pump side tower. See Figure O. This switch is also not adjustable.

This switch is activated (pressed) when the platform is fully stowed. This will send a positive signal to increment the number of lift cycles on the electronic counter mounted on the pump module.

## **Notes**

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# **Installer Verification**

## **Compatibility between the lift and the vehicle**

The installer shall confirm the compatibility between the lift and the vehicle.

## **Static Test**

### **Deformation**

The unladen platform is positioned mid-way between ground level and vehicle floor level and measurements are taken of the height of the platform and its angular attitude relative to the vehicle floor.

A load of 500 kg is applied to the platform and subsequently removed.

By repeating measurements of the height and attitude of the platform, verify that no permanent deformation has occurred in any part of the lift or its attachment to the vehicle which could affect the function of the lift.

### **Drift**

A load of 500 kg is applied to the platform, positioned at floor level. Measurements are taken of the height of the platform and its angular attitude relative to the vehicle floor. These measurements are repeated after a 15 minute test period.

Verify that the vertical drift of the platform between the two measurements has not exceeded 15mm.

Verify that the angular drift of the platform between the two measurements has not exceeded 2°.

### **Test to Verify that the Lift Cannot Lift Excessive Load**

A load of 440 kg is applied to the platform, positioned at ground level. Actuate the UP control and verify that the platform does not lift (tilt is permissible).

1. Lower platform to the ground.
2. Place 440 kg at center of platform.
3. Press UP switch and verify platform does not lift (tilt is permissible).
4. If platform does not lift, proceed to Dynamic Test. If platform does lift, proceed to step 5, PLATFORM UP relief valve adjustment is necessary.
5. Access PLATFORM UP relief valve (see illustration on following page). Loosen 9/16" hex nut on the relief valve adjustment screw (do not remove hex nut).
6. Turn adjustment screw counterclockwise 1/8 turn.
7. Press UP switch and verify platform does not lift (tilt is permissible).
8. If platform does not lift, tighten 9/16" hex nut (do not turn relief valve adjustment screw while tightening hex nut). If platform does lift, repeat steps 6 through 8

# Installer Verification

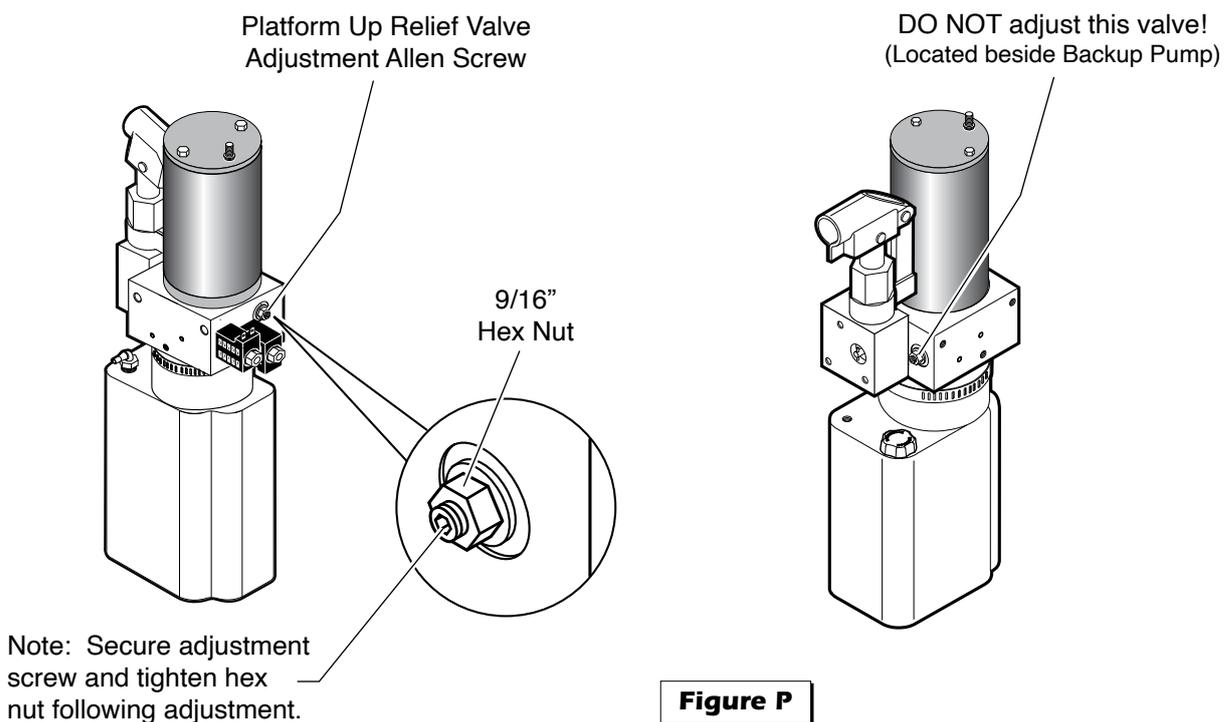
## Dynamic Test

With 400 kg applied to the platform, verify that the lift is able to operate throughout its full range of normal lifting and lowering.

1. Lower platform to the ground.
2. Place 400 kg at center of platform.
3. Verify lift is able to operate throughout its full range of normal lifting and lowering movements.
4. If platform is able to operate throughout its full range of normal lifting and lowering movements, no adjustment is necessary. If platform does not lift, proceed to step 5, PLATFORM UP relief valve adjustment is necessary.
5. Access PLATFORM UP relief valve (see Figure P). Loosen 9/16" hex nut on the relief valve adjustment screw (do not remove hex nut).
6. Turn adjustment screw clockwise 1/8 turn.
7. Verify lift is able to operate throughout its full range of normal lifting and lowering movements.
8. If lift does not operate throughout its full range, repeat steps 6 through 8. If lift does operate throughout its full range, tighten 9/16" hex nut (do not turn relief valve adjustment screw while tightening hex nut).
9. Repeat the "Test to Verify that the Lift Cannot Lift Excessive Load" on previous page.

## Test of Operations and Safety Functions

All functions of the lift and operations of all safety devices are verified after the static and dynamic tests have been completed. These tests do not apply to pipe break valves nor non-resettable safety devices such as electrical fuses (These items are the subject of a manufacturer's type test).

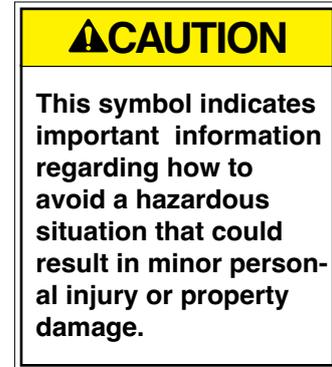


# Lift Operation Safety

## Safety Symbols

### SAFETY FIRST! Know That ....

The information contained in this manual and supplements (if included), is provided for your use and safety. Familiarity with proper installation, operation, maintenance and service procedures is necessary to ensure safe, trouble-free lift operation. Safety precautions are provided to identify potentially hazardous situations and provide instruction on how to avoid them.



### NOTICE

Additional information provided to help clarify or detail a specific subject.



This symbol indicates that there are dangerous energy levels present inside the enclosure of this product. To reduce the risk of fire or electric shock, do not attempt to open the enclosure or gain access to areas where you are not instructed to do so. Refer servicing to qualified service personnel only.



This symbol indicates that a condition where damage to the equipment resulting in injury to the operator could occur if operational procedures are not followed. To reduce the risk of damage or injury, refer to accompanying documents, follow all steps or procedures as instructed.



This symbol indicates a condition where injury or damage could occur if contact is made with the hot surface.



This symbol indicates an area to avoid bodily contact to prevent injury.



This symbol indicates the presence of high pressure hydraulic hoses. Use appropriate personal protective equipment when working on hydraulic system.



This symbol indicates the presence of a fire hazard. Avoid open flames or sparks when working with flammable materials to prevent injury or damage.



This symbol indicates a device weighs in excess of 139kg (306 lbs). Use of a fork lift or hoist is required.

These symbols will appear throughout this manual as well as on the labels posted on your lift. **Recognize the seriousness of this information.**

# Lift Operation Safety

## Lift Operation Safety Precautions

### **⚠️ WARNING**

If the lift operating instructions, manual operating instructions and/or lift operation safety precautions are not fully understood, contact BraunAbility immediately. Failure to do so may result in serious bodily injury and/or property damage.

- ⚠️ WARNING** Read manual and supplement(s) before operating lift. Read and become familiar with all safety precautions, operation notes and details, operating instructions and manual operating instructions before operating the lift.
- ⚠️ WARNING** Load and unload on level surface only.
- ⚠️ WARNING** Engage vehicle parking brake before operating lift.
- ⚠️ WARNING** Provide adequate clearance outside the vehicle to accommodate the lift before opening lift door(s) or operating lift.
- ⚠️ WARNING** Inspect lift before operation. Do not operate lift if you suspect lift damage, wear or any abnormal condition.
- ⚠️ WARNING** Do not use as a link bridge.

- ⚠️ WARNING** Keep operator and bystanders clear of area in which the lift operates.
- ⚠️ WARNING** Lift attendant must observe passenger at all times during lift operation.
- ⚠️ WARNING** Ensure adequate lighting exists in the lift operating area.
- ⚠️ WARNING** Whenever a wheelchair passenger (or standee) is on the platform, the:
  - Passenger must be positioned fully inside yellow boundaries facing outward.
  - Wheelchair brakes must be locked
  - Bridge plate and roll stop must be up (vertical)
  - Roll Stop latch must be fully engaged
  - Passenger should grip both handrails (if able).
- ⚠️ WARNING** Wheelchair lift attendants should be instructed on any special needs and/or procedures required for safe transport of wheelchair passengers.
- ⚠️ WARNING** Load and unload clear of vehicular traffic.
- ⚠️ WARNING** Do not attempt to load or unload a passenger in a wheelchair or other apparatus that does not fit on the platform area.
- ⚠️ WARNING** The lift attendant shall not ride on the platform with the passenger. The lift is intended for use by a single passenger.
- ⚠️ WARNING** Do not overload or abuse. The load rating applies to both the raising and lowering functions.
- ⚠️ WARNING** Use caution when operating this equipment out of doors during electrical storms or similar electrical phenomena.
- ⚠️ WARNING** Use caution when operating this equipment in severe weather or environmental conditions (fog, rain, snow, ice, dust, etc.)
- ⚠️ WARNING** Discontinue lift use immediately if any lift or vehicle interlock does not operate properly.
- ⚠️ WARNING** Do not operate or board the lift if you or your lift operator are intoxicated.

## Lift Operation Safety

### Lift Operation Safety Precautions

- ▲WARNING** Do not raise front wheelchair wheels (pull wheelie) when loading, boarding, or riding on the platform.
- ▲WARNING** Open lift door(s) fully and secure before operating lift.
- ▲WARNING** Position and secure (buckle, engage, fasten, etc.) the wheelchair-equipped occupant seat belt (torso restraint) before loading onto the wheelchair lift platform.
- ▲WARNING** Lift attendants must ensure that lift occupants keep hands, arms and all other body parts within the lift occupant area and clear of moving parts.
- ▲WARNING** Platform must be positioned at floor level (bridging position) when loading or unloading in and out of vehicle.
- ▲WARNING** Do not use platform bridge plate or roll stop as a brake. Stop and brake wheelchair when loading onto the platform (manually stop and brake manual wheelchairs — stop powered wheelchairs with the wheelchair controls).
- ▲WARNING** Turn powered (electric) wheelchairs off when on lift platform.
- ▲WARNING** Press the DOWN switch until the entire platform rests on ground level (lowered fully) and the roll stop is fully unfolded (ramp position) before loading or unloading a passenger at ground level.
- ▲WARNING** Roll stop must be fully unfolded (ramp position) until front and rear wheelchair wheels cross the barrier when loading or unloading at ground level.
- ▲WARNING** Accidental activation of control switch(es) may cause unintended operation(s).
- ▲WARNING** Maintenance and lubrication procedures must be performed as specified in this manual by authorized (certified) service personnel.
- ▲WARNING** Replace missing, worn or illegible decals.
- ▲WARNING** Never modify (alter) a BraunAbility lift.
- ▲WARNING** Do not use accessory devices not authorized by BraunAbility.
- ▲WARNING** Do not remove any guards or covers.
- ▲WARNING** Keep clear of any hydraulic leak.
- ▲WARNING** Failure to follow these safety precautions may result in serious bodily injury and/or property damage.

## Lift Operating Instructions



Before lift operation, park the vehicle on a level surface, away from traffic. Place the vehicle transmission in “Park” and engage the parking brake. Vehicle engine must be running.

Lift Operating Instructions address operation of the lift only.

Vehicle Doors and Vehicle Interlocks: Transit vehicle lift doors and interlocks vary. Procedures to operate them vary also. Lift operators (attendants) must become familiar with the vehicle lift access door system and vehicle interlock(s).

Manual Door(s): Open manual doors fully and secure in full open position before operating the lift.

Do not operate the lift if you suspect lift damage, wear, or any abnormal condition. Refer to the Manual Operating Instructions to manually operate lift.

**Lift Power ON/OFF Switch:** This switch must be in the ON position in order to activate the lift. The lift power switch is in the upper left corner of the control panel. The control panel is located at the lower outboard base of the pump module.

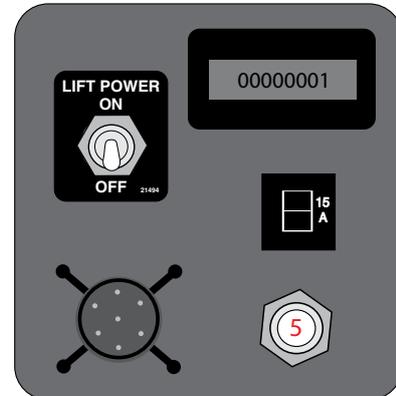
The hand-held pendant control plugs in just below the power switch.

Beside the ON/OFF switch is a smaller circuit breaker marked “15 A.” This breaker can be reset by pressing the rocker switch up.

The 5 amp circuit breaker marked “5” located beside the hand control plug can be reset by pressing the button.

The digital counter will track lift cycles to help with the maintenance and lube schedule.

**Hand-held Pendant Control:** The hand-held attendant’s pendant control is equipped with two rocker switches.



### Control Switch Functions:

↑ **UP:** From ground level, the UP function will raise (rotate) the roll stop to the vertical position. The platform then raises to floor level position.

↓ **DOWN:** From floor level, the DOWN function lowers the platform to ground level and then unfolds (lowers) the roll stop to the ramp (horizontal) position.

↶ **FOLD:** From floor level, the FOLD function folds the platform inward to the stowed position.

↷ **UNFOLD:** From stowed position, the UNFOLD function unfolds the platform outward to the floor position.

**Note:** If any functions do not occur as described, discontinue lift use immediately.

# Lift Operating Instructions

Before lift operation, park on a level surface, away from vehicular traffic. Place the vehicle

transmission in "Park" and engage the parking brake. Vehicle engine must be running. Refer

to the Manual Operating Instructions to manually operate lift.



## OPEN DOOR(S) AND SECURE

### TO UNFOLD PLATFORM:

Stand clear and press the UNFOLD switch until the platform stops (reaches floor level - unfolds fully). Release switch.

Notice: In event platform does not unfold, press FOLD switch to release Lift-Tite™ latches.

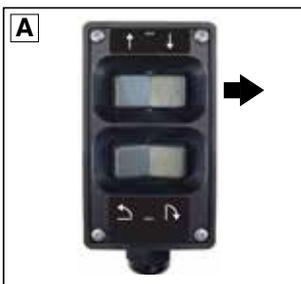
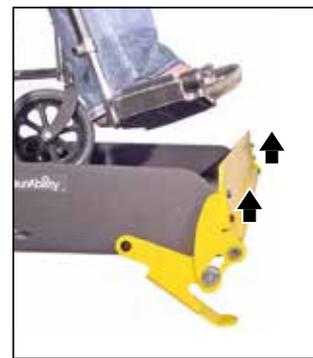
### TO UNLOAD PASSENGER:

1. Read Notice below! Load passenger onto platform and lock wheelchair brakes.

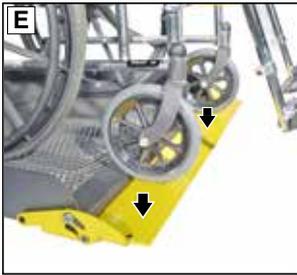
Notice: Passenger must be positioned fully inside yellow boundaries, and roll stop must be UP.

2. Press DOWN switch until the entire platform reaches ground level (see Photo B) and the roll stop unfolds fully (ramp position). See Photo C. Release switch.

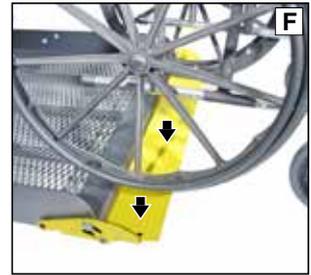
3. Unlock wheelchair brakes and unload passenger from platform.



# Lift Operating Instructions



Notice: Roll stop must be fully unfolded (ramp position) until the entire wheelchair (or standee) has crossed the roll stop. See Photos E and F.



## TO LOAD PASSENGER:



1. Read Notices below! Load passenger onto platform and lock wheelchair brakes. See Photo G.

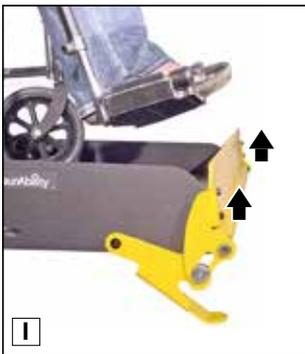
Notice: Roll stop must be fully unfolded (ramp position) until the entire wheelchair (or standee) has crossed the roll stop. See Photos E and F.

Notice: Passenger must be positioned fully inside yellow boundaries.



2. Press ↑ UP switch (Photo H) to fold roll stop UP fully (vertical - see Photo I), and raise the platform to floor level. See Photo J. Release switch.

3. Unlock wheelchair brakes and unload passenger from platform.



## TO FOLD PLATFORM:

- Press ↶ FOLD (In) switch until platform stops (fully folded). See Photos K and L. Release switch



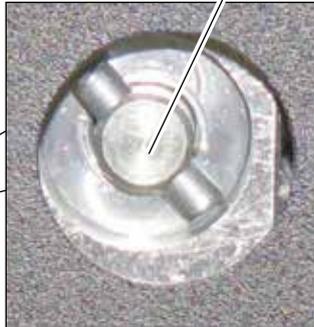
## CLOSE DOOR(S)



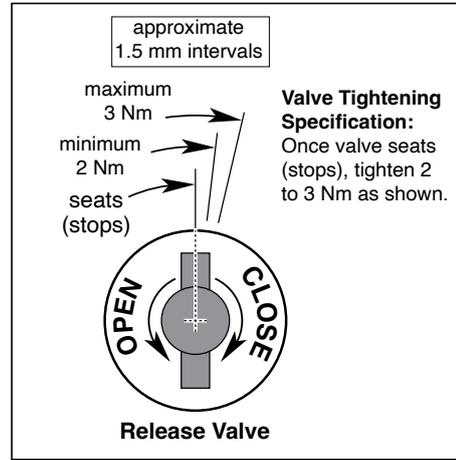
# Manual Operating Instructions



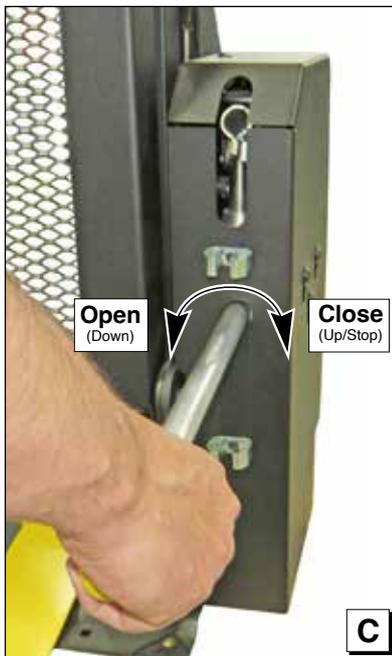
Release Valve



Notice: Close backup pump release valve securely before operating electric pump.



Hand Pump Handle



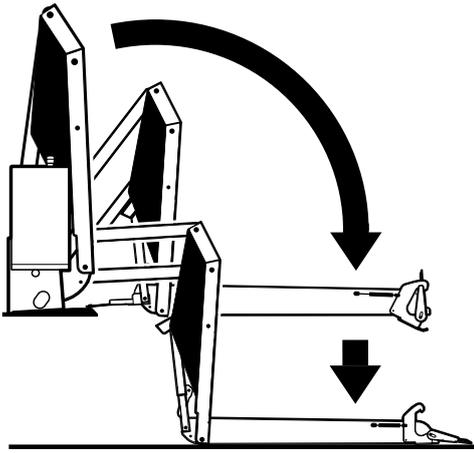
Open (Down)

Close (Up/Stop)



Notice: Bridge plate and roll stop automatically function during manual operations.

## Manual Operating Instructions



### To Unfold Platform (Out):

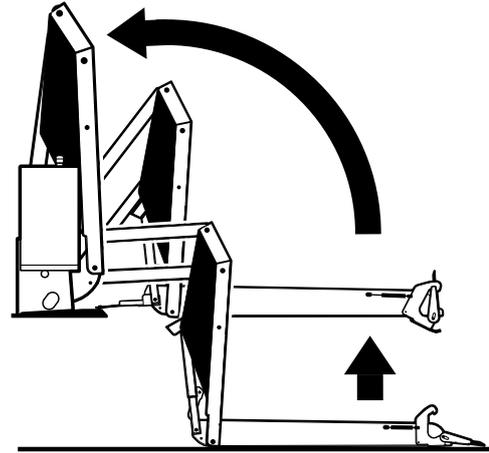
Using hand pump handle (Photo B):

1. Close hand pump valve (place slotted end of pump handle onto release valve and turn clockwise). See Photo C.
2. Insert handle in pump and stroke until platform folds fully (stops). See Photo D.
3. Open hand pump valve (turn counterclockwise) until platform reaches floor level. Open 1/4 turn only.
4. Close hand pump valve (turn clockwise).

Notice: Valve must be tight, but do not overtighten.

### Down (To Lower):

Place slotted end of pump handle onto release valve and turn counterclockwise (open 1/4 turn only) until the platform reaches ground level and the roll stop unfolds. See Photo C.



### Up (To Raise):

Using hand pump handle:

- a. Place slotted end of pump handle onto release valve and turn clockwise to close securely. See Photo C.

Notice: Valve must be tight, but do not overtighten.

- b. Insert handle into back-up pump and stroke until platform reaches floor level (see Photo D).

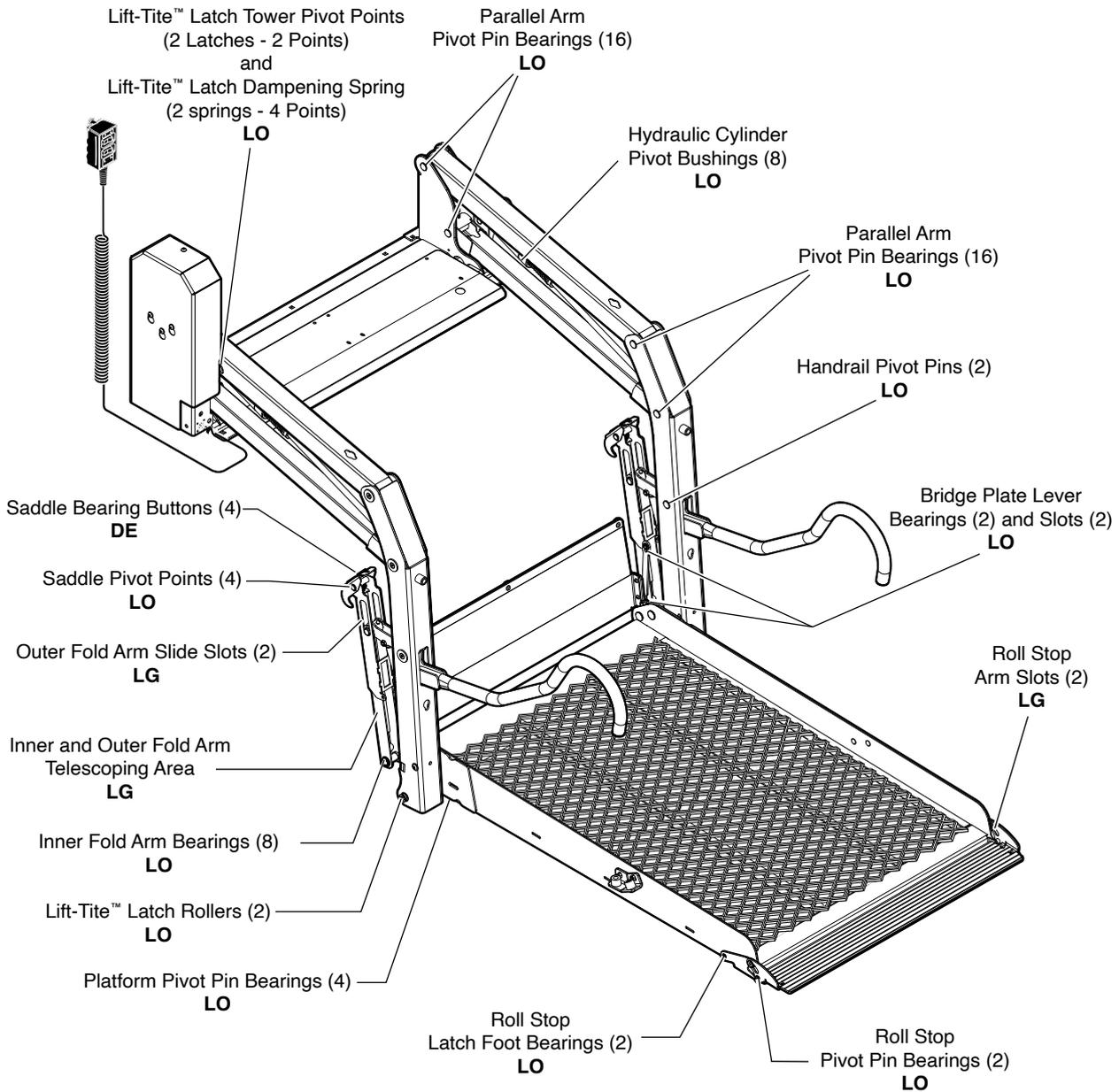
### To Fold Platform (In):

Insert handle in pump and stroke until platform stops (folds fully). See Photo D.

Notice: Close release valve securely before operating electric pump. Store pump handle in clamps shown in Photo B.

# Maintenance and Lubrication

## Lubrication Diagram



See the Maintenance/Lubrication Schedule for recommended applications per number of cycles.

Lubricant	Type	Specified (recommended) Lubricant	Available Amount	Braun Part No.
<b>LO - Light Oil</b>	Light Penetrating Oil (30 weight or equivalent)	LPS2, General Purpose Penetrating Oil	11 oz. Aerosol Can	15807
<b>DE - Door-Ease</b>	Stainless Stick Style (tube)	Door-Ease Stick (tube)	1.68 oz.	15806
<b>LG - Light Grease</b>	Light Grease (Multipurpose)	Lubriplate	14 oz. Can	15805

## Maintenance and Lubrication Schedule



Proper maintenance is necessary to ensure safe, trouble-free lift operation. Inspecting the lift for any wear, damage or other abnormal conditions should be a part of the transit agency daily service program. Simple inspections can detect potential problems.

Park vehicle on a level surface clear of traffic and bystanders. Place vehicle transmission in “Park” and engage parking brake. Deploy lift to ground level. Provide adequate work space around fully-deployed lift. Perform specified maintenance and lubrication procedures (position lift as required).

**Pump Module:** When cleaning the exterior of the pump module, first disconnect the unit from its power source. Do not use liquid cleaners, aerosols, abrasive pads, scouring powders or solvents, such as benzine or alcohol. Use a soft cloth lightly moistened with a mild detergent solution. Ensure the surface cleaned is fully dry before reconnecting power.

**Other Components:** Clean components and the surrounding area before applying lubricants. Clean only with mild detergent and water. Do not clean with solvents. Allow the lift to dry thoroughly and apply lubricants as specified after every cleaning.

LPS2 General Purpose Penetrating Oil is recommended where Light Oil is called out. Use of improper lubricants can attract dirt or other

contaminants which could result in wear or damage to components. Platform components exposed to contaminants when lowered to the ground may require extra attention.

Perform maintenance and lubrication procedures at the scheduled

intervals according to the number of cycles. When servicing the lift at the recommended intervals, inspection and lubrication procedures specified in the previous sections should be repeated.

These intervals are a general guideline for scheduling maintenance procedures and will vary according to lift use and conditions. Lifts exposed to severe conditions (weather, environment, contamination, heavy usage, etc.) may require inspection and maintenance procedures to be performed more often than specified. Records of maintenance and service procedures should be maintained.

Discontinue lift use if maintenance and lubrication procedures are not properly performed, or if there is any sign of wear, damage or any abnormal condition. Contact your authorized representative.

**⚠ WARNING**

**Maintenance and lubrication procedures must be performed as specified by an authorized service technician. Failure to do so may result in serious bodily injury and/or property damage.**

<b>750 Cycles</b>	Roll stop pivot pin bearings (2)	Apply Light Oil - See Lubrication Diagram
	Roll stop latch foot bearings (2)	Apply Light Oil - See Lubrication Diagram
	Roll slot arm slots (2)	Apply Light Grease - See Lubrication Diagram
	Lift-Tite™ latches (tower pivot points - 2)	Apply Light Oil - See Lubrication Diagram
	Lift-Tite™ latch gas (dampening) spring pivot points (2 springs - 4 points)	Apply Light Oil - See Lubrication Diagram
	Inspect Lift-Tite™ latches and gas springs for wear or damage (bent, deformed or misaligned), positive securement (external snap rings) and proper operation	Resecure, replace damaged parts or otherwise correct as needed. <b>Note:</b> Apply Light Grease to Lift-Tite™ latch tower pivot point if replacing latch.
	Lift-Tite™ latch rollers (2)	Apply Light Oil - See Lubrication Diagram
continued	Inspect roll stop for proper operation	Correct or replace damaged parts.

## Maintenance and Lubrication Schedule

<b>750 Cycles</b>	Inspect roll stop latch feet for proper operation, positive securement and detached or missing torsion springs	Correct, replace damaged parts and/or relubricate
	Inspect lift for wear, damage or any abnormal condition	Correct as needed.
	Inspect lift for rattles	Correct as needed.

<b>1500 Cycles</b>	<b>Perform all procedures listed in previous section also</b>	
	Inner/Outer fold arm telescoping areas (2)	Apply Light Grease to contact areas between inner/outer fold arms. See Lubrication Diagram
	Platform pivot pin bearings (4)	Apply Light Oil - See Lubrication Diagram
	Inner fold arm bearings (8)	Apply Light Oil - See Lubrication Diagram
	Outer fold arm slide slots (2)	Apply Light Grease - See Lubrication Diagram
	Bridge plate lever bearings (2)	Apply Light Oil - See Lubrication Diagram
	Bridge plate lever slots (2)	Apply Light Oil - See Lubrication Diagram
	Saddle pivot points (4)	Apply Light Oil - See Lubrication Diagram
	Parallel arm pivot pin bearings (16)	Apply Light Oil - See Lubrication Diagram
	Handrail pivot pins (2)	Apply Light Oil - See Lubrication Diagram
	Hydraulic cylinder pivot bushings (8)	Apply Light Oil - See Lubrication Diagram
	Inspect bridge plate for: • Wear or damage • Proper operation. Bridge plate should just rest on top surface of the base plate cover. • Positive securement (both ends)	Resecure, replace or correct as needed. See Platform Angle Instructions and Platform Floor Level Microswitch Adjustment Instructions.
	Inspect handrail components for wear or damage, and for proper operation	Replace damaged parts.
	Inspect microswitches for securement and proper adjustment.	Resecure, replace or adjust as needed. See Tower Microswitch Adjustment Instructions.
	Make sure lift operates smoothly	Realign towers and vertical arms. Lubricate or correct as needed.
Inspect external snap rings: • Inner fold arm pivot pins (2) • Outer fold arm pivot pins (2) • Bridge plate levers (4) • Lift-Tite™ latch gas (dampening) springs (4) • Lift-Tite™ latch pivot pins (2)	Resecure or replace if needed.	
Remove pump module cover and inspect: • Hydraulic hoses, fittings and connections for wear or leaks • Harness cables, wires, terminals and connections for securement or damage • Circuit breaker, power switch and solenoids for securement or damage	Resecure, replace or correct as needed.	

## Maintenance and Lubrication Schedule

<b>4500 Cycles</b>	Perform all procedures listed in previous section also	
	Hydraulic Fluid (Pump) - Check level. <b>Note:</b> Fluid should be changed if there is visible contamination. Inspect the hydraulic system (cylinder, hoses, fittings, seals, etc.) for leaks if fluid level is low.	Use BraunAbility 406415 hydraulic fluid (Duragard® Hi-Tek Ultra HVI-26). Do not mix with Exxon® Unavis HVI 26 or other hydraulic fluids. Check fluid level with ramp deployed fully. Fill to within 1/2" of the bottom of the 1-1/2" fill tube (neck).
	Inspect cylinders, fittings and hydraulic connections for wear, damage or leaks	Tighten, repair or replace if needed.
	Inspect parallel arms, bearings and pivot pins for visible wear or damage	Replace if needed.
	Inspect parallel arm pivot pin mounting screws (8)	Tighten or replace if needed.
	Inspect platform pivot pins, bearings and vertical arms for wear, damage and positive securement	Replace damaged parts and resecure as needed. Apply Light Grease during reassembly procedures.
	Inspect vertical arms, handrails and pivot pins for visible wear or damage	Replace damaged parts and relubricate if needed
	Inspect inner/outer fold arms, saddle, saddle support and associated pivot pins, bushings, and bearings for visible wear or damage	Replace if needed.
	Inspect gas springs (cylinders - 2) for wear or damage, proper operation and positive securement	Tighten, replace or correct as needed
	Inspect saddle bearing buttons (4)	Apply Door-Ease or replace if needed. See Lubrication Diagram.
	Inspect saddle springs (2)	Resecure or replace if needed.
	Inspect power cable	Resecure, repair or replace if needed.
Mounting	Check to see that the lift is securely anchored to the vehicle and there are no loose bolts, broken welds, or stress fractures.	
Decals and Antiskid	Replace decals if worn, missing or illegible. Replace antiskid if worn or missing.	
<b>Consecutive 750 Cycle Intervals</b>	Repeat all previously listed inspection, lubrication and maintenance procedures at 750 cycle intervals.	
<b>Lift Disposal Procedure</b>	<p>2000-53-EC Disassembly and Disposal Guidelines</p> <p>No lift components contain unacceptable amounts of lead, cadmium, mercury, or hexavalent chromium.</p> <p>1. Lower platform to ground.</p>	
continued		

## Maintenance and Lubrication Schedule

<b>Lift Disposal Procedure</b>	<ol style="list-style-type: none"><li>2. Open pump module manual relief valve.</li><li>3. Disconnect power from lift.</li><li>4. Capture and recycle hydraulic fluid.</li><li>5. Disassemble lift and recycle components.</li></ol> <p>Refer to exploded views in manual.</p>
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## Declaration of Conformity

Issued by BraunAbility Safety Centre in Stenkullen, Sweden.

**Manufacturer:** The Braun Corporation  
**Address:** 631 West 11th Street, Winamac, IN 46996 United States

### Authorized Representative and Importer into EU:

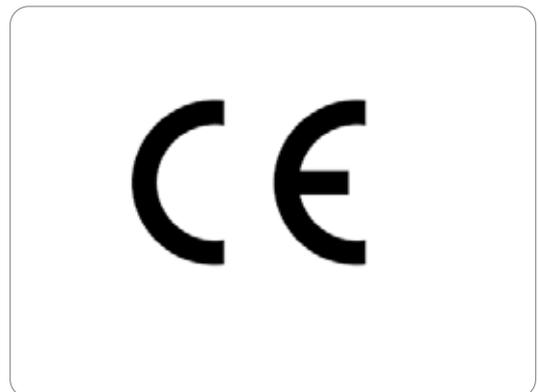
**Manufacturer:** BraunAbility Europe AB  
**Address:** Åkerivägen 7, 443 61 Stenkullen, Sweden  
**Telephone:** +46 302 254 00  
**E-mail:** info@braunability.eu  
**Internet:** www.braunability.eu

### Declares that the Product:

**Product name:** Braun Double Parallel Arm lift  
**Model:** All versions 12/24 volts system

### Conforms to the following Directives, Standards and Regulations

2006/42  
ECE R-10  
ECE R-17  
EN 1756-2:2004 + A1 2009  
EN 50489: 2010  
ISO EN 12100-1/2  
ISO 7637-2: 2011  
CISPR 25:2008  
ECE R-107 Rev. 5  
EN 60204  
ISO 14121-2: 2012  
EN 11202  
REACH  
GADSL  
RoHS



Stenkullen, 2019-03-19  
**BraunAbility Europe AB**



Jan M Jensen  
Managing Director

Owner Manual

*International  
Inboard Lift*

# E Series

Solid Platform

Public Use  
Wheelchair Lifts

BraunAbility® Limited Warranty

Consult your local BraunAbility® dealer regarding warranty policy.

[www.braunability.com/international](http://www.braunability.com/international)



[www.braunability.com/international](http://www.braunability.com/international) ISO 9001:2015

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