

**"DOT — Public Use Lift"**

**NHTSA Vehicle Physical Requirements**

**Cutaway Chassis Floor Requirements**

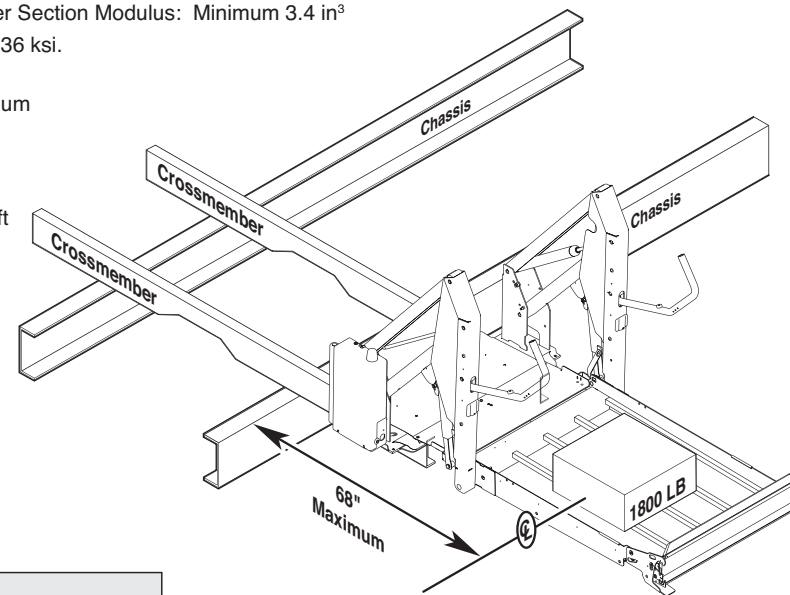
Combined Crossmember Section Modulus: Minimum 3.4 in<sup>3</sup>  
 Steel: Minimum yield of 36 ksi.

Load must be evenly distributed over a minimum of 2 crossmembers.

Alternative floor structures are allowed providing the installed lift system passes all FMVSS 403 requirements.

**OEM (Van) Chassis Floor Requirements**

Installation kits per vehicle application are available to meet requirements. Detailed instructions supplied in kits.



**Figure A**

**Door Opening Dimensions**

Vehicle lift access door opening must meet specified dimensions.

	917	918	919
<b>A</b> Minimum Clear Door Opening Height	57"	55-1/4"	57"
<b>B</b> Clear Door Opening Width	42"	42"	43"
<b>C</b> Maximum Floor-to-Ground	48"	42"	48"

**Figure B**

**1 Position Lift**

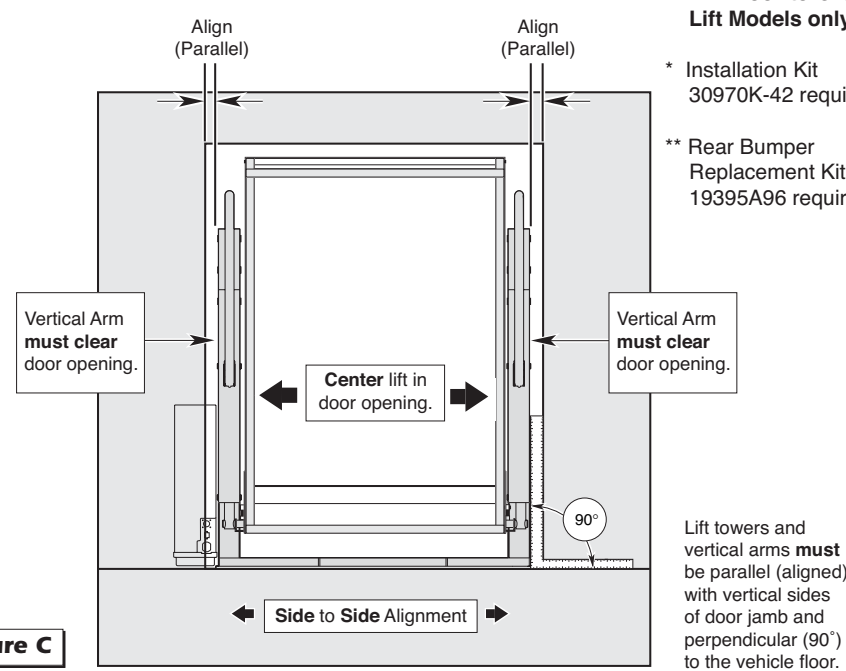
Vehicle	Installation Kits		Extended Length Chassis
	Side Door	Rear Door	Rear Door
Ford	30956K	30957K	*30970K
GM/Chevy	30958K	**30959K	**30981K

Installation Kit 30955K supplied for Cutaway Chassis Floor applications. Detailed instructions supplied in kits.

**42" Floor-to-Ground Lift Models only:**

\* Installation Kit 30970K-42 required.

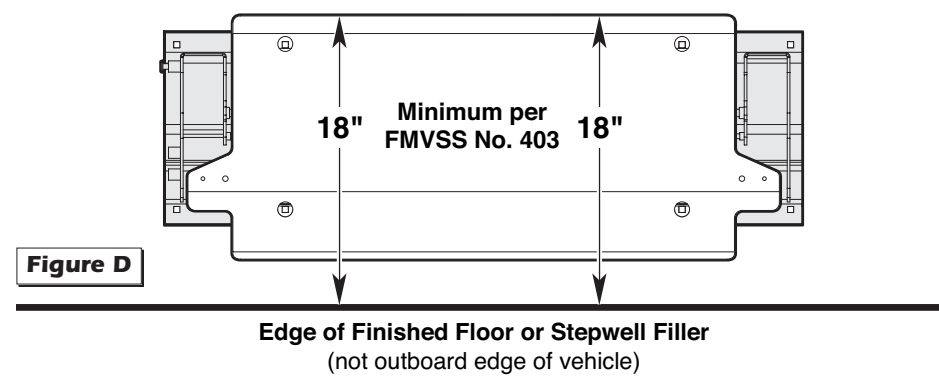
\*\* Rear Bumper Replacement Kit 19395A96 required.



**Figure C**

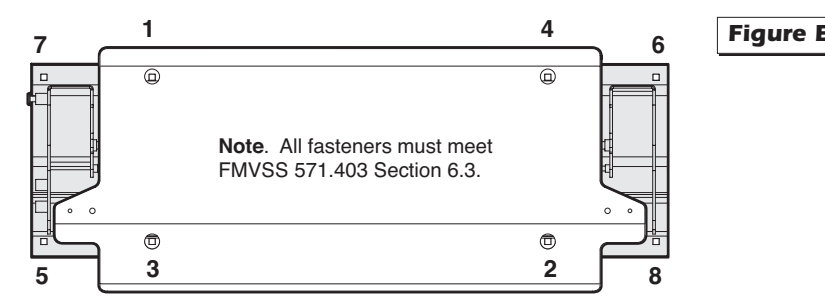
Lift towers and vertical arms must be parallel (aligned) with vertical sides of door jamb and perpendicular (90°) to the vehicle floor.

**Inboard Edge of Threshold Warning (Top) Plate**



**Figure D**

**2 Secure Lift**

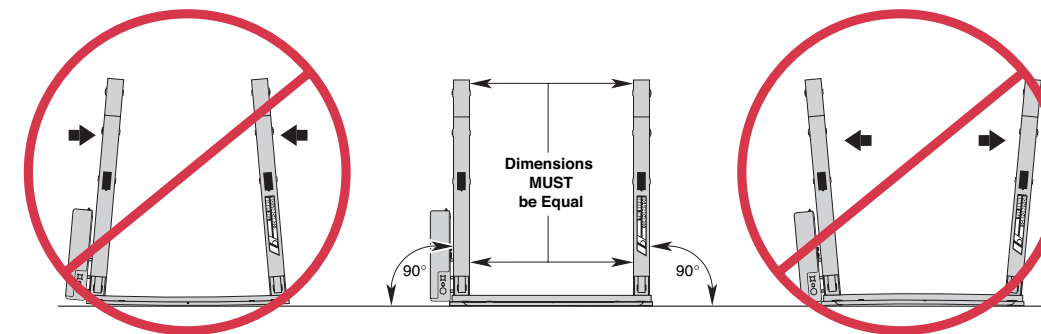


**Figure E**

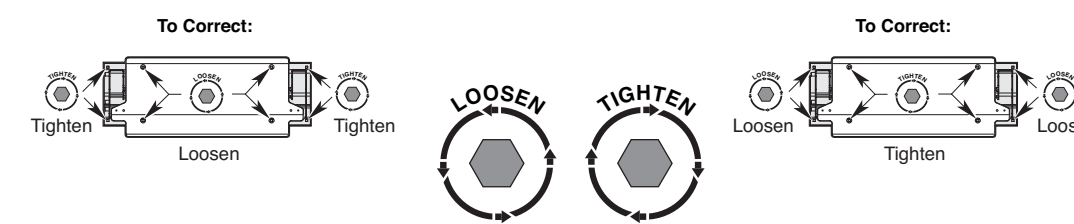
**WARNING**  
 Check for obstructions such as gas lines, wires, exhaust, etc. before drilling or cutting. Failure to do so may result in serious bodily injury and/or property damage.

1. Drill two mounting holes (holes 6 and 7).
2. Temporarily secure lift using two mounting bolts (holes 6 and 7).
3. Manually deploy lift and check lift clearance. Drill remaining mounting holes.
4. Install below floor mounting hardware per instructions supplied in kit.
5. Tighten mounting bolts per sequence detailed above. Note deflection detail below.

**Mounting Bolt Torque**  
 Target: 30 foot pounds.

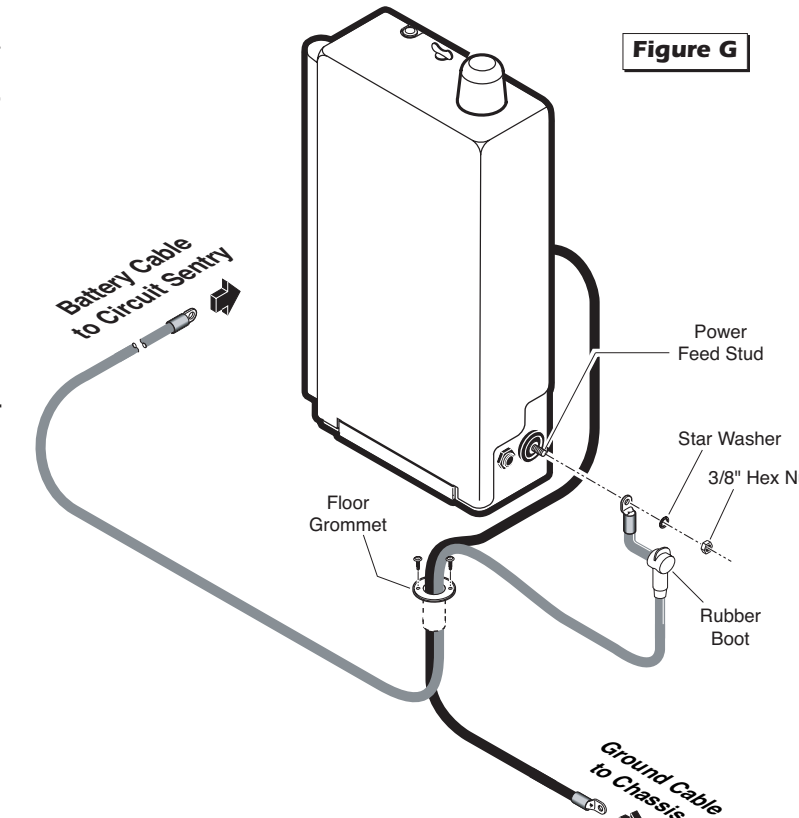


**Figure F**



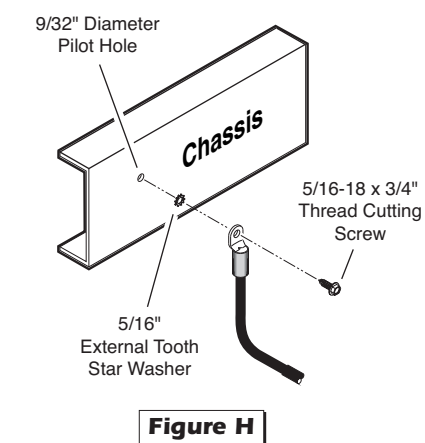
**3 Attach Power and Ground Cables**

1. Drill 1-1/8" diameter grommet access hole. Check under the vehicle for obstructions.
2. Insert grommet. Secure grommet with two self-tap screws.
3. Route ground and power cables through grommet. Route cables clear of exhaust, other hot areas and moving parts.
4. Connect ground and power cables.



**Figure G**

**Ground Cable Mounting**



**Figure H**

**Ground Cables**

Pump mounted ground cable must be routed and mounted directly to a vehicle framing member. Failure to do so will void warranty of certain electrical components.

**Ground Cable Corrosion:**  
 When mounting ground cables, remove undercoating, dirt, rust, etc. from framing member around mounting holes (minimum 5/8" diameter area). Apply protective coating to mounting holes to prevent corrosion. Failure to do so will void warranty of certain electrical components.

**CAUTION**

Position and secure ground cable clear of lift operation.

**4 Connect Interlocks**

**Vehicle and Lift Interlocks**

The pump module is equipped with a lift interface 9-circuit connector (female socket). A mating 9-circuit connector (male plug) is supplied.

To meet minimum NHTSA requirements, connect to vehicle interlock harness as outlined below (Steps 1-5)

**Optional Interlock Kits**

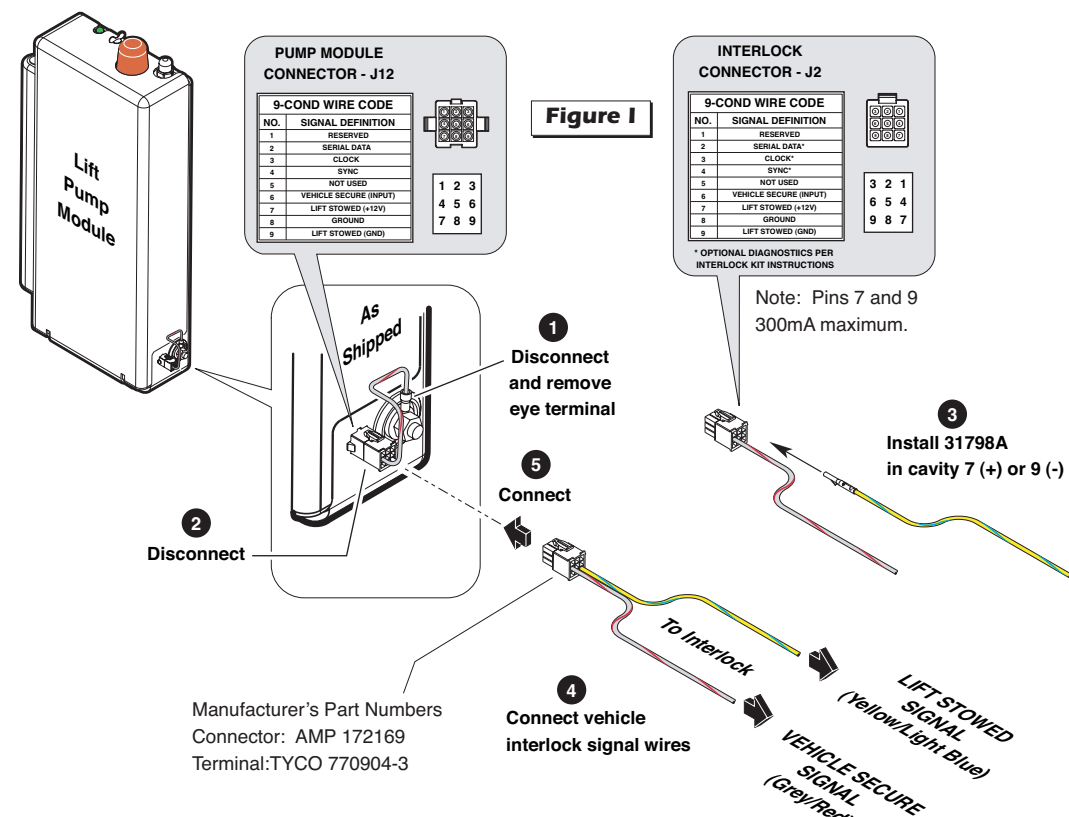
Universal Interlock Kit 30940K is available for easy interface with vehicle OEM electronic signals.

Instrument Panel Display Kit 30938K provides an LED Panel Display that interfaces with Braun Universal Interlock Kit 30940K.

Detailed installation instructions are supplied with interlock kits.

**Note:** All Braun Corporation interlocks require a positive (+12V) Lift Stowed signal (Pin 7).

**WARNING**  
 Install and verify proper operation of all NHTSA mandated interlocks as specified. Failure to do so will result in a non-compliant installation and may result in serious bodily injury and/or property damage.

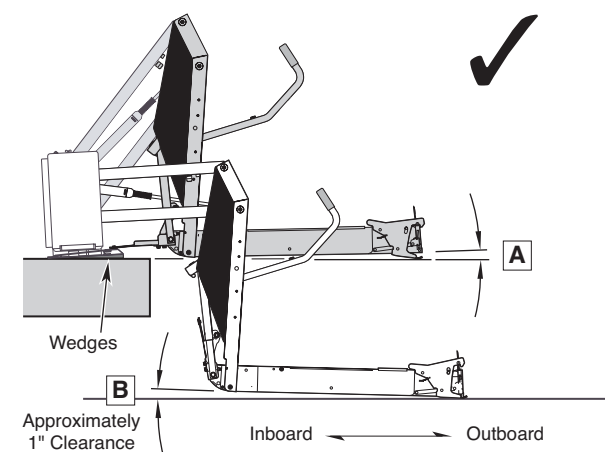


**Figure I**

**5 Adjust Platform Angle**

Adjustments to platform angle may be required if base plate wedges are used.

Angle A equals Angle B.

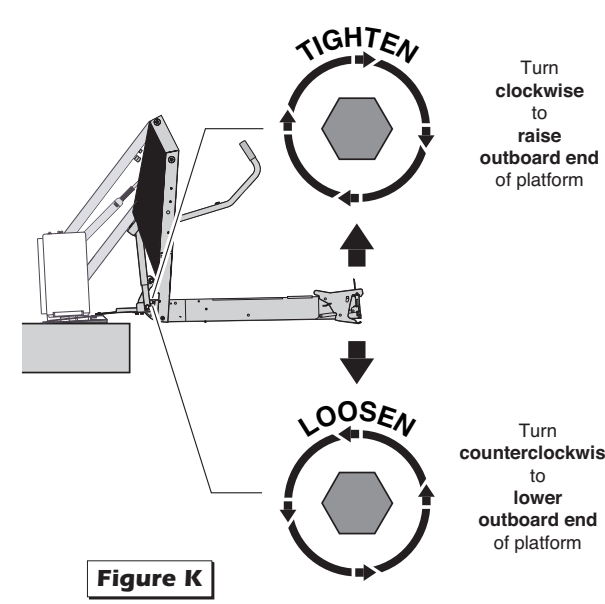


**Figure J**

**Floor Level Positioning:**

Reset floor level positioning if wedges are used. See Microswitch Adjustment Instructions at right.

**WARNING**  
 Reset floor level position as specified in Microswitch Adjustment Instructions if wedges are used. Failure to do so may result in serious bodily injury and/or property damage.



**Figure K**

**6 Platform Floor Level Adjustment**

**Platform Floor Level Position Adjustment:**

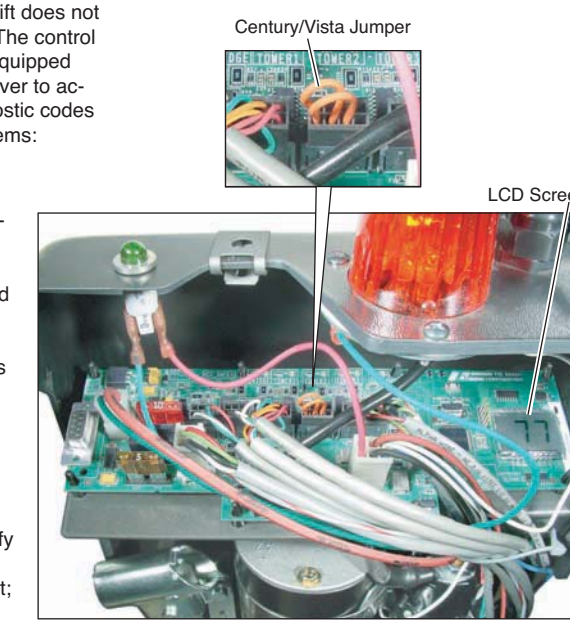
1. Position platform at desired floor level position (passenger loading/unloading height).  
 Note: Position platform such that:  
 a. the inner roll stop is laying flat on the threshold plate  
 b. platform has **not** begun to fold
2. Turn Lift Power switch Off.
3. Press Floor Position Set button (located between pump housing and lift tower).
4. While pressing the Floor Position Set button, turn the Lift Power switch On.
5. Continue pressing the Floor Position Set button until the lift sounds three "beeps."
6. Release the Floor Position Set button.
7. Cycle lift to verify that platform stops at the set floor level position.



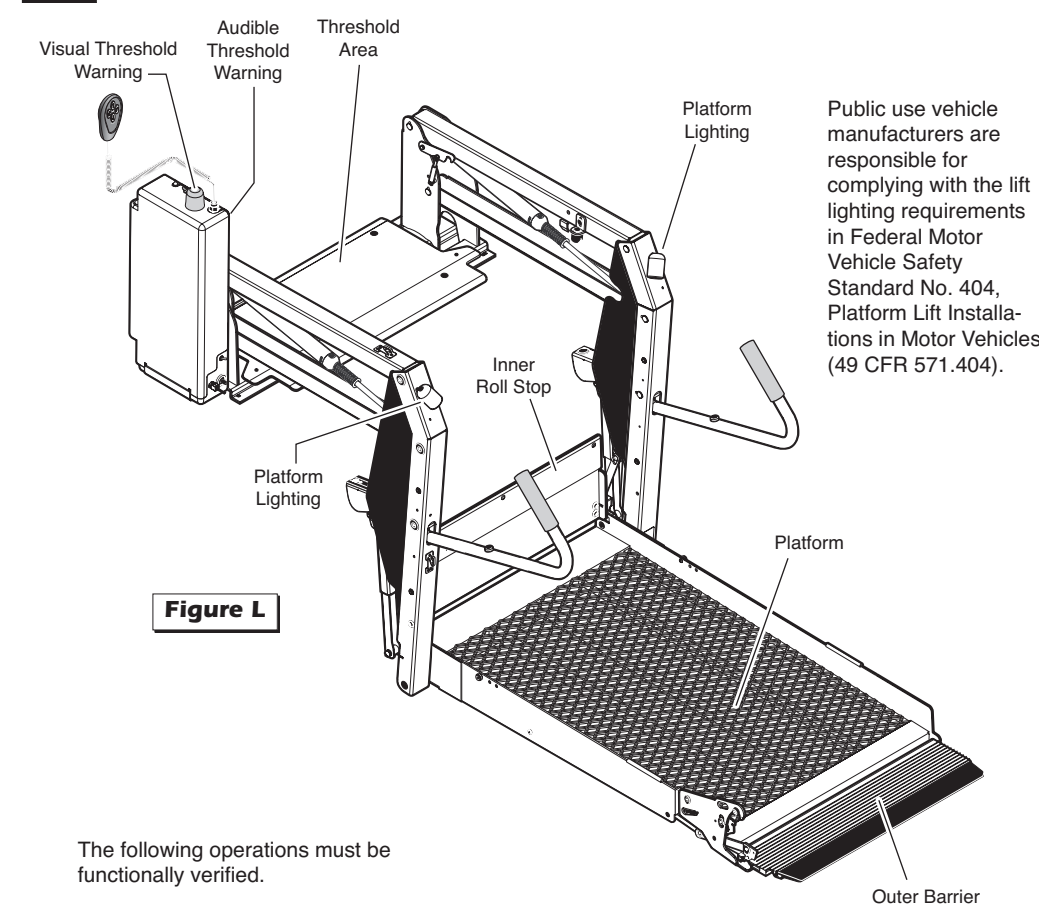
**Floor Level Set Button**

Diagnostic codes have been established in event the lift platform floor position does not set (the lift does not sound three "beeps" - see Step 5 above). The control board located inside the pump housing is equipped with an LCD screen. Remove the pump cover to access the LCD screen. The following diagnostic codes will help resolve floor position setting problems:

- 91 - The platform position is out of a predetermined acceptable range
- 92 - The Bridge Microswitch is not activated (adjust switch or lower the platform)
- 93 - The Inner Roll Stop Occupied switch is not activated (adjust switch)
- 94 - The Outer Barrier Up switch is not activated (adjust switch)
- 95 - The Outer Barrier Latched sensor is not activated (Century and Vista: Verify jumper is installed on the outboard barrier latch switch - see photo at right; Millennium: Check latch)



**7 FMVSS 403/404 Certification Checklist**



**Figure L**

- The following operations must be functionally verified.
- Vehicle movement is prevented unless the lift door is closed, ensuring the lift is stowed.
  - Lift operation shall be prevented unless the vehicle is stopped and vehicle movement is prevented.
  - The platform will not fold/stow if occupied.
  - The inner rollstop will not raise if occupied.
  - The outer barrier will not raise if occupied.
  - Verify platform lighting when lift is deployed and pendant illumination when lift is powered.
  - An audible warning (and visual warning for public lifts) will activate if the threshold area is occupied when the platform is at least one inch below floor level.
  - Lowering the platform beyond the inner rollstop locking position is allowed only when the inner rollstop is locked in position.
  - Lift platform movement shall be interrupted unless the outer barrier is raised and the outer barrier latch is positively engaged.

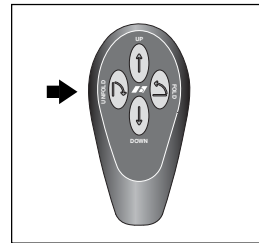
# Lift Operating Instructions

## 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.



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

## TO UNLOAD PASSENGER:

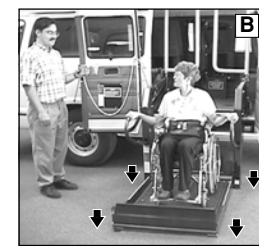
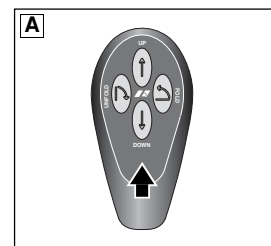


1. Read Note below! Load passenger onto platform and lock wheelchair brakes.

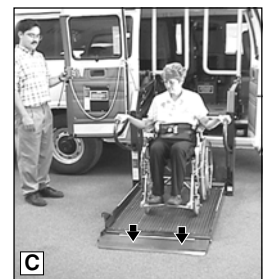


**Note:** Passenger must be positioned fully inside yellow boundaries, outer barrier must be UP and outer barrier latch must be engaged.

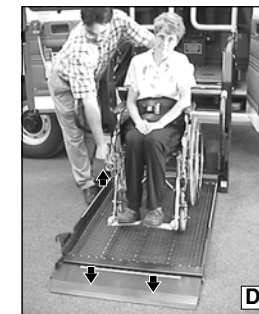
2. Press DOWN switch until the entire platform reaches ground level (see Photo B) and the outer barrier unfolds fully (ramp position). See Photo C. Release switch.



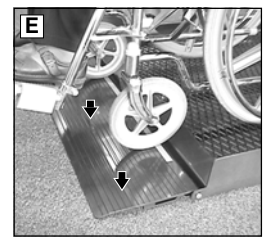
3. Unlock wheelchair brakes and unload passenger from platform.



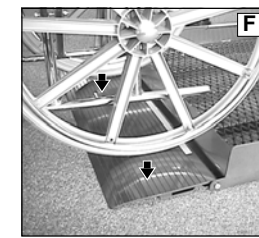
**Note:** Outer barrier must be fully unfolded (ramp position) until the entire wheelchair (or standee) has crossed the outer barrier. See Photos E and F.



## TO LOAD PASSENGER:



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

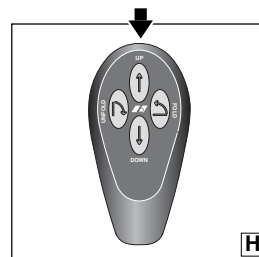


**Note:** Outer barrier must be fully unfolded (ramp position) until the entire wheelchair (or standee) has crossed the outer barrier. See Photos E and F.

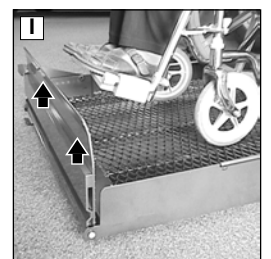
**Note:** Passenger must be positioned fully inside yellow boundaries.



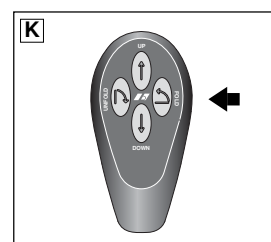
2. Press UP switch (Photo H) to fold outer barrier UP fully (vertical - see Photo I), and raise the platform to floor level. See Photo J. Release switch.



3. Unlock wheelchair brakes and unload passenger from platform.



## TO FOLD PLATFORM:



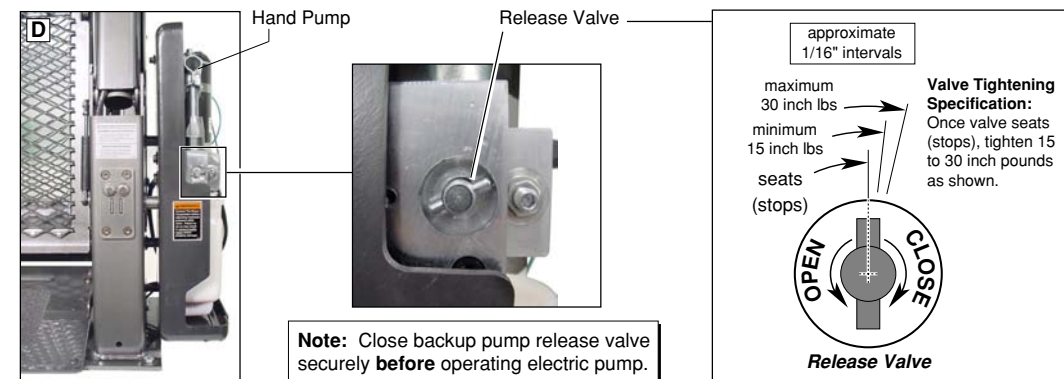
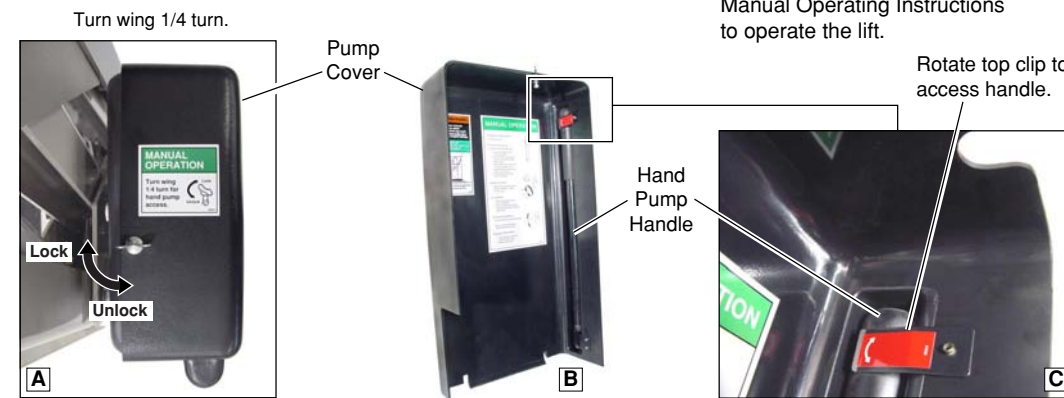
Press FOLD (In) switch until platform stops (fully folded). See Photos K and L. Release switch.

## CLOSE DOOR(S)



# Manual Operating Instructions

If you experience power or equipment failure, refer to the Manual Operating Instructions to operate the lift.



## TO REMOVE PUMP COVER:

Turn wing nut located on top 1/4 turn and lift pump cover off. See Photo A.

## TO REMOVE PUMP HANDLE:

Rotate top clip to remove pump handle. See Photos B and C.

## TO UNFOLD PLATFORM (OUT):

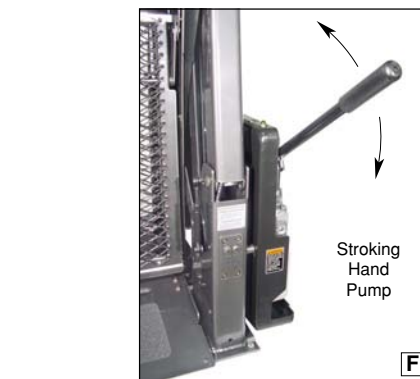
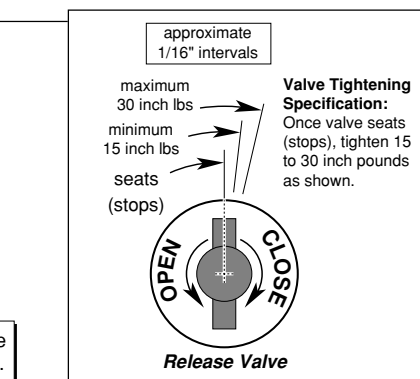
Using hand pump handle (Photo E):

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

**Note:** Valve must be tight, but do not overtighten.

## DOWN (TO LOWER):

Place slotted end of pump handle onto backup pump release valve and turn counterclockwise (open — 1/2 turn only) until the platform reaches ground level and outer barrier unfolds.



## UP (TO RAISE):

Using hand pump handle:

1. Place slotted end of pump handle onto backup pump release valve and turn clockwise to close securely. See Photo E.

**Note:** Valve must be tight, but do not overtighten.

## TO FOLD PLATFORM (IN):

Insert handle into backup pump and stroke until platform stops (folds fully). See Photo F.

## TO STORE PUMP HANDLE:

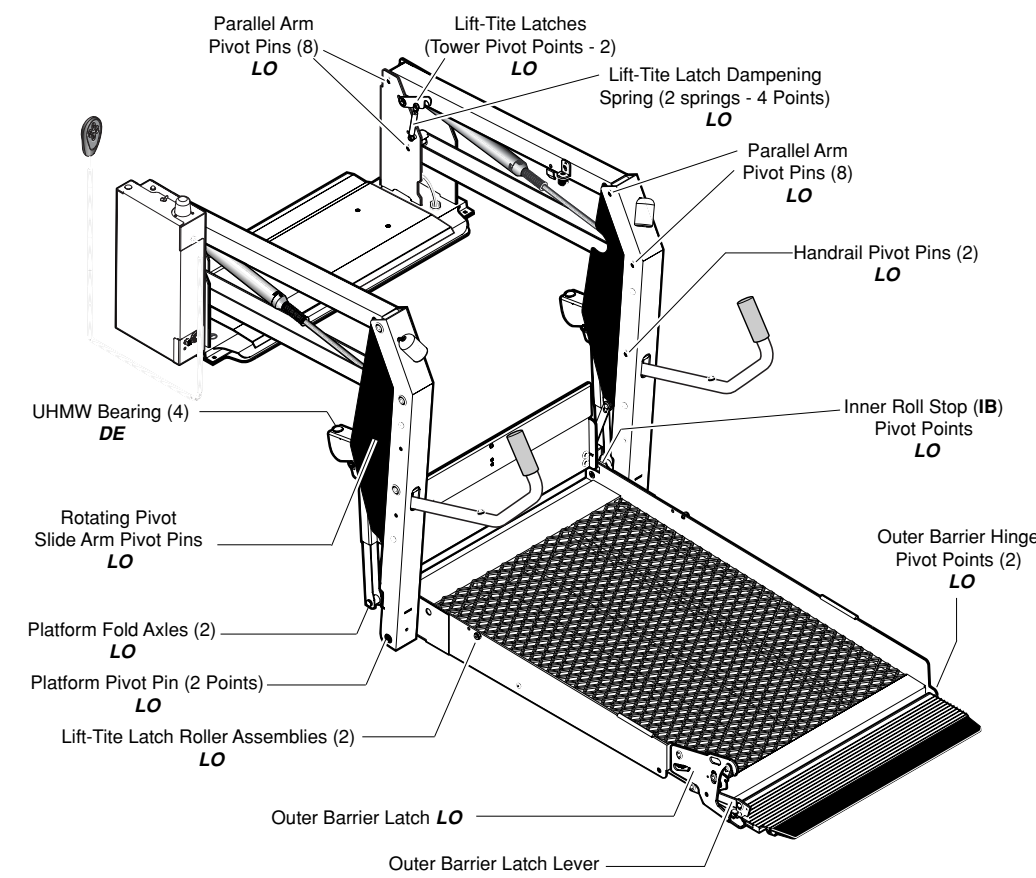
1. Insert bottom of handle behind bottom clip. See Photo B.
2. Rotate top clip to secure (lock) handle. See Photo C.

## TO INSTALL PUMP COVER:

1. Position cover over module back cover. See Photo G.
2. Align outside cover lip with bottom cover offset and insert outside cover. See Photo H.
3. Insert wing stud and rotate 1/4 turn to lock cover. See Photo I.

# 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.
LO - Light Oil	Light Penetrating Oil (30 weight or equivalent)	LPS2, General Purpose Penetrating Oil	11 oz. Aerosol Can	15807
DE - Door-Ease	Stainless Stick Style (tube)	Door-Ease Stick (tube)	1.68 oz.	15806
LG - Light Grease	Light Grease (Multipurpose)	Lubriplate	14 oz. Can	15805

## Maintenance and Lubrication Schedule

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

The maintenance and lubrication procedures specified in this schedule must be performed by a Braun authorized service representative at the scheduled intervals according to the number of cycles.

Braun dual parallel arm lifts are equipped with hardened pins and self-lubricating bushings to decrease wear, provide smooth operation and extend the service life of the lift.

When servicing the lift at the recommended intervals, inspection and lubrication procedures specified in the previous sections should be repeated. Clean the components and the surrounding area before applying lubricants. 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 the components. Platform components exposed to contaminants when lowered to the ground may require extra attention.

Lift components requiring grease are lubricated during assembly procedures. When these

components are replaced, grease must be applied during installation procedures. Specified lubricants are available from The Braun Corporation (part numbers provided above).

All listed inspection, lubrication and maintenance procedures should be repeated at "750 cycle" intervals following the scheduled "4500 Cycles" maintenance. 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.

Discontinue lift use immediately if maintenance and lubrication procedures are not properly performed, or if there is any sign of wear, damage or improper operation. Contact your sales representative or call The Braun Corporation at 1-800-THE LIFT. One of our national Product Support representatives will direct you to an authorized service technician who will inspect your lift.

Outer barrier hinge pivot points (2)	Apply Light Oil - See Lubrication Diagram
Outer barrier latch (pivot/slide points)	Apply Light Oil - See Lubrication Diagram
Outer barrier latch lever pivot points	Apply Light Oil - 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 defective parts or otherwise correct as needed. <b>Note:</b> Apply Light Grease to Lift-Tite™ latch tower pivot point if replacing latch.
Inspect outer barrier for proper operation	Correct or replace defective parts.
Inspect outer barrier latch for proper operation, positive securement, and detached or missing spring	Correct or replace defective parts and/or relubricate. See Lubrication Diagram

## Maintenance and Lubrication Schedule

750 Cycles	Inspect lift for wear, damage or any abnormal condition	Correct as needed.
	Inspect lift for rattles	Correct as needed.
<b>Perform all procedures listed in previous section also</b>		
1500 Cycles	Platform pivot pin bearings (2)	Apply Light Oil - See Lubrication Diagram
	Platform fold axles (2)	Apply Light Oil - See Lubrication Diagram
	Inner roll stop (IB) lever bearings (2)	Apply Light Oil - See Lubrication Diagram
	Inner roll stop (IB) lever slot (2)	Apply Light Oil - See Lubrication Diagram
	Rotating pivot slide arm pivot pins (2)	Apply Light Oil - See Lubrication Diagram
	Parallel arm pivot bearings (16)	Apply Light Oil - See Lubrication Diagram
	Handrail pivot pin bearings (4)	Apply Light Oil - See Lubrication Diagram
	Hydraulic cylinder bushings (8)	Apply Light Oil - See Lubrication Diagram
	Inspect Lift-Tite™ latch rollers for wear or damage, positive securement and proper operation (2)	Correct, replace defective parts and/or relubricate.
	Inspect inner roll stop (IB) for:	Resecure, replace or correct as needed. See Platform Angle Instructions and Microswitch Adjustment Instructions.
	• Wear or damage	
	• Proper operation. Rollstop should just rest on top surface of the base plate.	
• Positive securement (both ends)		
Inspect handrail components for wear or damage, and for proper operation	Replace defective parts.	
Inspect microswitches for securement and proper adjustment.	Resecure, replace or adjust as needed. See Microswitch Adjustment Instructions.	
Make sure lift operates smoothly	Realign towers and vertical arms. Lubricate or correct as needed.	
Inspect external snap rings:	Resecure or replace if needed.	
• Handrail pivot pins (2 per pin)		
• Platform slide/rotate pivot pins (2 per pin)		
• Platform fold axles (1 per axle)		
• Inner roll stop (IB) lever bracket pins (1 per pin)		
• Lift-Tite™ latch gas (dampening) spring (2 per spring)		
Inspect platform fold axles and bearings for wear or damage and positive securement	Replace defective parts and resecure as needed. Apply Light Oil.	

## Maintenance and Lubrication Schedule

1500 Cycles	Remove pump module cover and inspect:	Resecure, replace or correct as needed.	
	• Hydraulic hoses, fittings and connections for wear or leaks		
	• Harness cables, wires, terminals and connections for securement or damage		
	• Control board, circuit breaker, power switch and lights for securement or damage		
<b>Perform all procedures listed in previous section also</b>			
	Inspect cotter pins on platform pivot pin (2)	Resecure, replace or correct as needed	
	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 Dextron III transmission fluid. Check fluid level with platform lowered fully and roll stop unfolded 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 outer barrier cylinder hose assembly (hose, fasteners, connections, etc.) for wear, damage or leakage	Tighten, repair or replace if needed.	
	Inspect parallel arms, bushings and pivot pins for visible wear or damage	Replace if needed.	
	Inspect parallel arm pivot pin mounting bolts (8)	Tighten or replace if needed.	
4500 Cycles	Inspect platform pivot pin, bushings and vertical arms for wear, damage and positive securement	Replace defective parts and resecure as needed. Apply Light Grease during reassembly procedures.	
	Inspect upper/lower fold arms, rotating pivot slide arms, slide support arms and associated pivot pins, bushings, and bearings for visible wear or damage	Replace if needed.	
	Inspect gas springs (cylinders) for wear or damage, proper operation and positive securement (IB)	Tighten, replace or correct as needed	
	Inspect rotating pivot slide arm UHMW slide bearings (buttons)	Apply Door-Ease or replace if needed. See Lubrication Diagram.	
	Inspect vertical arm plastic covers	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.	
	Consecutive 750 Cycle Intervals	Repeat all previously listed inspection, lubrication and maintenance procedures at 750 cycle intervals.	