Service Manual for:

UVL855EVOM

Under-Vehicle Lift®

BRAUN UVL SERIES™

Commercial Wheelchair Lifts

Series 03

THE BRAUN CORPORATION®

www.braunability.com/international ISO 9001:2008

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38044

November

2012

Original Instructions

CE

Congratulations

We at The Braun Corporation wish to express our fullest appreciation on your new purchase. With you in mind, our skilled craftsmen have designed and assembled the finest lift available.

This manual provides maintenance and service-related material. Braun UVL Series™ lifts are built for dependability and will provide years of pleasure and independence as long as the lift is properly maintained and operated by an instructed person.

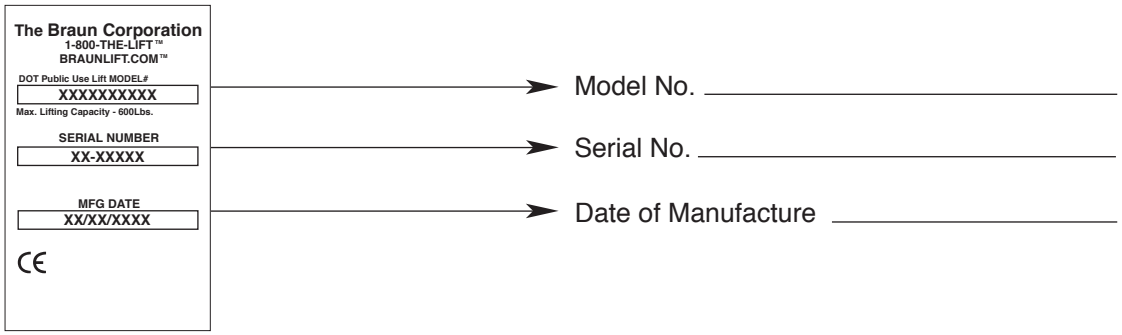
Sincerely,
THE BRAUN CORPORATION

Ralph W. Braun
Chief Executive Officer

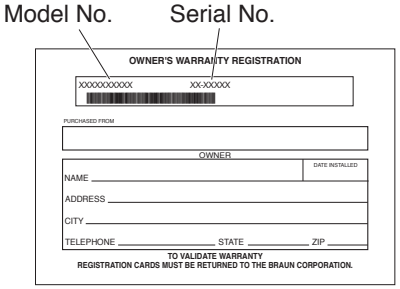
Warranty

Consult your local Braun dealer regarding warranty policy.

www.braunlift.com/international



Sample Serial No./Series No. Identification Tag



Sample Warranty/Registration Card

Contents

Document Cross Reference

Owner Manual 38052

Service Safety Precautions

Safety Symbols

SAFETY FIRST! Know That....

A 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, troublefree lift operation. Safety precautions are provided to identify potentially hazardous situations and provide instruction on how to avoid them.

B

⚠WARNING

This symbol indicates important safety information regarding a potentially hazardous situation that could result in serious bodily injury and/or property damage.

C

⚠CAUTION

This symbol indicates important information regarding how to avoid a hazardous situation that could result in minor personal injury or property damage.

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

E 

This symbol indicates that there are dangerous high voltages 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 personel only.

F 

This symbol indicates that a condition where damage to the equipment resulting injury 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.

G 

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

H 

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

I 

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

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

Service Safety Precautions

Service Safety Precautions

⚠WARNING

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

⚠WARNING Read this manual, supplement(s) and operating instructions decals before performing operation or service procedures.

⚠WARNING Use appropriate personal proper protective equipment when servicing the lift.

⚠WARNING Check for obstructions such as gas lines, wires, exhaust, etc. before drilling or cutting on vehicle.

⚠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 vehicle 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 Braun Corporation lift.

⚠WARNING Replacement parts must be Braun 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 Specifications

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

The UVL855EVOM Series 03 has completed 15,600 cycles with a 363kg (800 lb.) load and a static load test with a 1082 kg (2400 lb) load.

Operating Temperature

This equipment will operate in its intended ambient at a minimum between +5ºC and +40ºC.

Relative Humidity

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

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 -25ºC to +55ºC, and for short periods of up to +70ºC.

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

Power Requirements

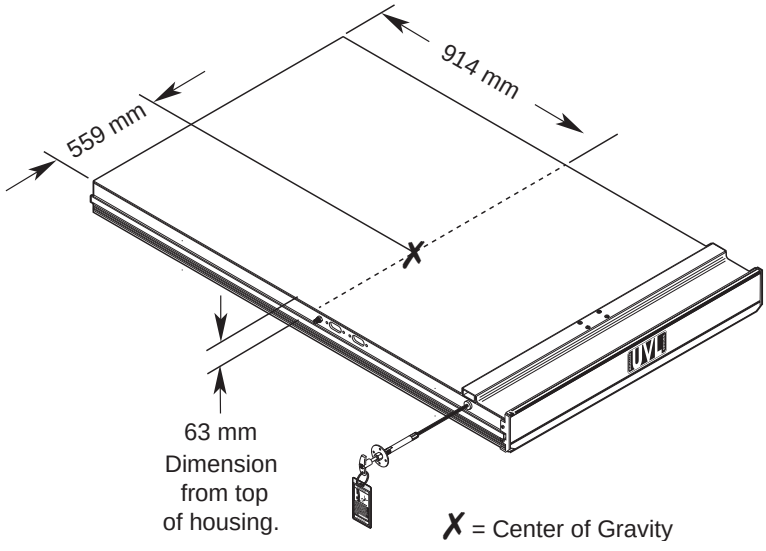
24 VDC

Lift Weight (Installed)

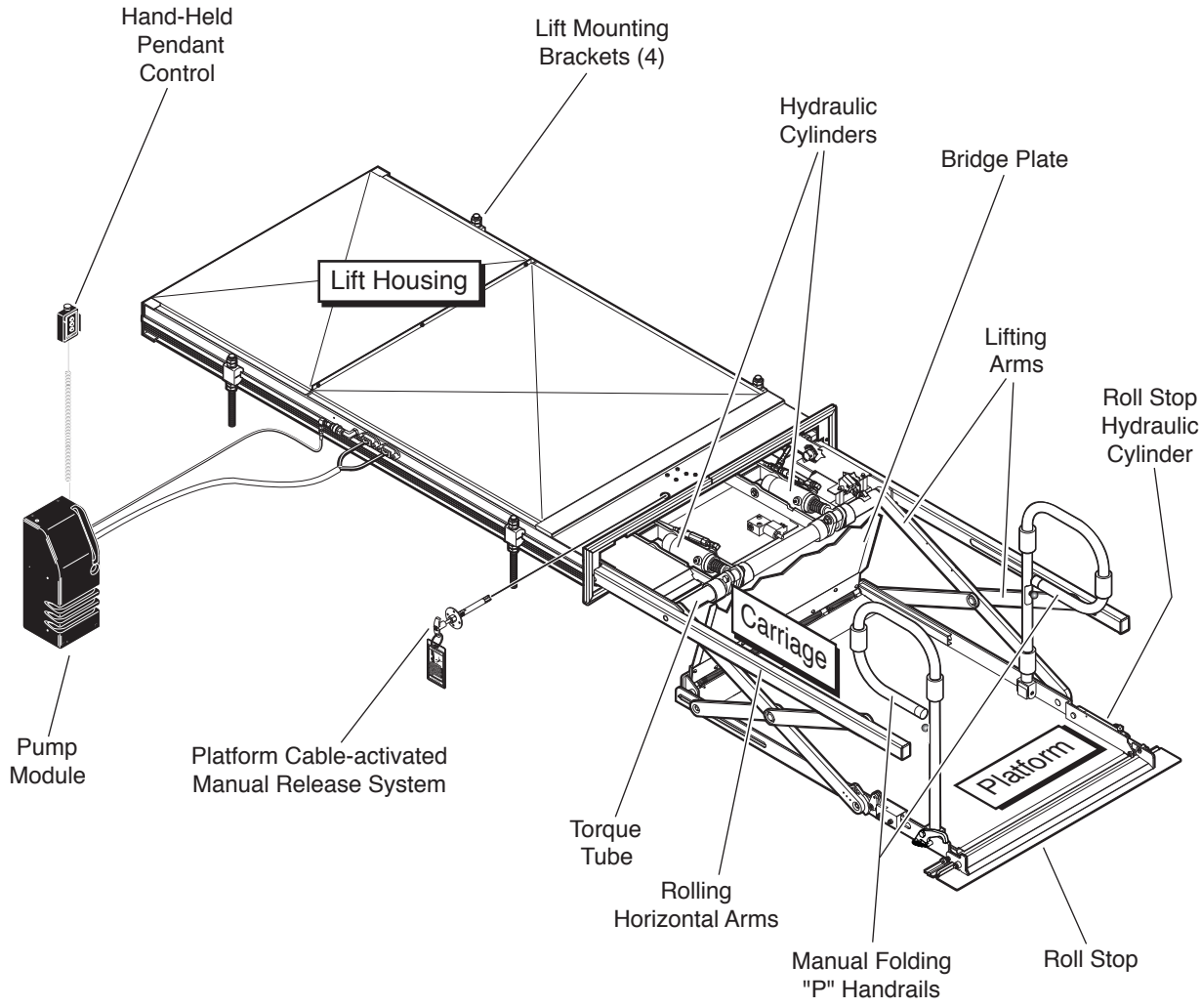
248 kg (545 lbs.)

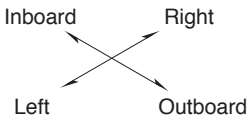
Lifting Capacity

Maximum 363 kg (800 lbs.)

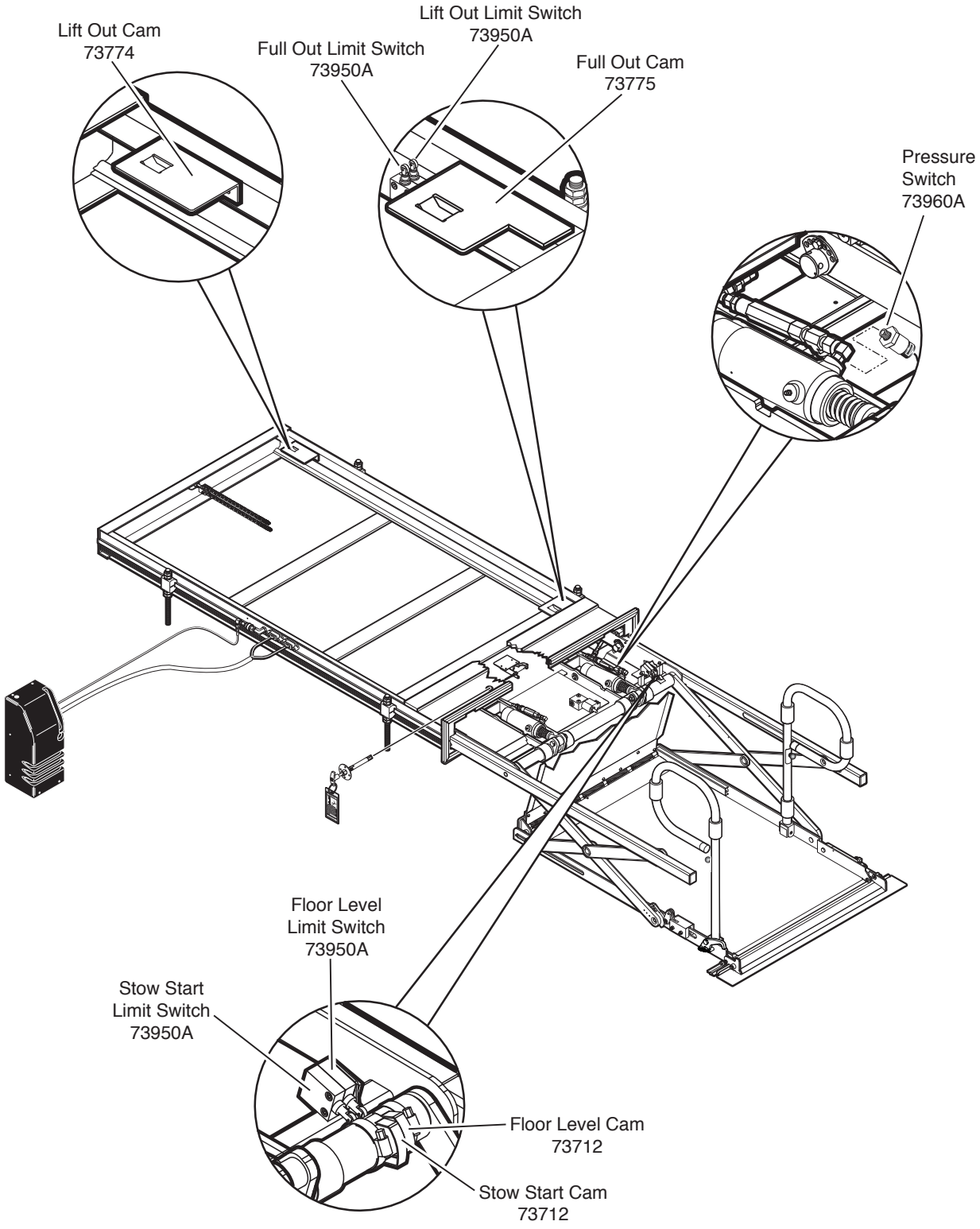


Lift Terminology





Switch and Sensor Locations



Switch LED Diagnostics

Lift Out Switch: The Lift Out Switch stops inward travel of the carriage/platform during Stow function (activated by the housing-mounted Lift Out Cam). Move cam in to increase inward travel. Move cam out to decrease inward travel. Diagnostic LED “LIFT OUT” will be illuminated when the switch is not contacting the cam.

Full Out Switch: The Full Out Switch stops outward travel of the carriage/platform during Deploy (Up/Down) functions (activated by the housing-mounted Full Out Cam). Move cam in to decrease outward travel. Move cam out to increase outward travel. Carriage rollers must be inside housing a minimum 1.3 cm (1/2"). The platform will not raise or lower until this switch is activated. Diagnostic LED “FULL OUT” will be illuminated when the switch is contacting the cam.

Floor Level Switch: Diagnostic LED “FL LVL” will be illuminated when the switch is contacting the cam. Detailed on page 8.

Below Stow (Stow Start) Switch: The Below Stow Switch controls the height of the carriage/platform before it moves inward during the Stow function (activated by the torque tube-mounted Stow Start Cam). Rotate the cam in to decrease platform height. Rotate the cam out to increase platform height. Adjust cam so bottom of platform is flush with the horizontal arms when switch is activated. Diagnostic LED “BELOW” will be illuminated when platform is at stow start height or below.

Carriage Adjustments

Carriage Ride Height Adjustment

The carriage horizontal arms move (roll) in and out of the housing tracks on roller bearings. Following installation or extensive lift operation, clearance between horizontal arms and tracks may diminish. The eccentric shaft mounting plate allows height adjustment.

Remove eccentric plate mounting screw. Using screwdriver or small rod, rotate the shaft clockwise to increase carriage height. Rotate the shaft counterclockwise to decrease carriage height. Reinstall mounting screw in nearest retainer hole. Adjust left and right side eccentric shafts (screw positions may vary from side to side). Adjust height such that horizontal arms do not contact top or bottom of tracks (align center).

Drive Chain Adjustment

In event the drive chain sags 1.3 cm (1/2") or more, adjust tension as detailed. Tighten to eliminate visible sag but do not overtighten.

1. Unlock and pull the manual release cable and lock in released position.
2. Manually extend platform carriage 2/3 full out.
3. Remove adjustment bolt (tensioner) access cover.
4. Use deep well socket (long key sleeve) to loosen outside jam nut. Tighten inside jam nut to eliminate visible chain sag but do not overtighten.
5. Lock jam nuts together. Unlock and push the manual cable in fully. Lock release cable. Move the platform in and out until platform chain release assembly engages chain.

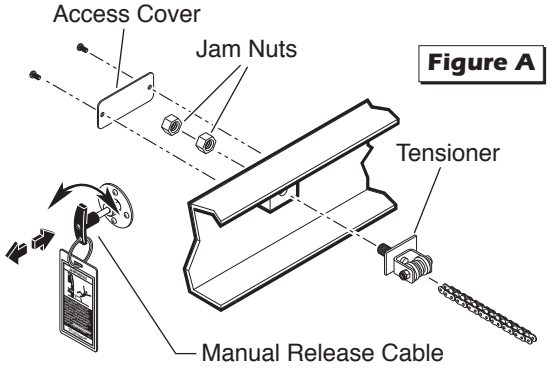


Figure A

Floor Level and Bridge Plate Adjustments

Achieving proper floor level positioning of the platform and bridge plate requires a combination of Floor Level switch adjustment and bridge plate adjustment. Both are factory set, but floor level positioning must be inspected during installation procedures (will vary per vehicle application).

Floor Level Requirements: When the lift is positioned at floor level (raised fully), the bottom of the platform must be above floor level and the bridge plate must rest solidly on vehicle floor with a minimum of 38 mm (1.5") of overlap (see full out switch adjustment).

Ensure the lift is positioned and secured as specified in the instructions supplied with the lift.

Adjust the Floor Level switch first (detailed below). If the bridge plate does not rest solidly on vehicle floor, adjust the bridge plate cam as detailed in Cam Adjustment (adjust cam only if necessary).

⚠CAUTION

Do not adjust bridge plate linkage rod. Linkage rod adjustment may result in lift damage.

Do not adjust the bridge plate linkage rod (see Photo J on page 11). The linkage rod should be adjusted to increase usable platform length only (following all other procedures).

Floor Level Switch Adjustment

The Floor Level switch stops upward travel of the platform during the Up function (activated by the torque tube-mounted Floor Level cam).

1. Position the bottom of the lift platform 3.8 cm (1 1/2") above floor level using the manual hand pump. See Figure B.

   If bridge plate does not rest on floor, continue to pump up platform to a maximum of 6.4 cm (2 1/2") above floor level.

2. Loosen the clamp securing the torque tube-mounted Floor Level cam. See Photo A. Rotate the cam until the Floor Level switch is activated (cam depresses switch). Tighten the clamp securing the cam.

   Hydraulic pressure may affect platform height slightly. Fine tuning adjustment (tweaking) of the Floor Level switch (cam) may be required.

3. Using the control pendant, check floor level position by lowering the platform to stow level and then pressing the UP button until the platform raises fully (stops).

   If the bridge plate rests solidly on vehicle floor, move to page 10 and check the usable platform length as outlined.

4. If the bridge plate does not rest on the vehicle floor (hovers above floor) - adjust the cam as detailed in the following section.

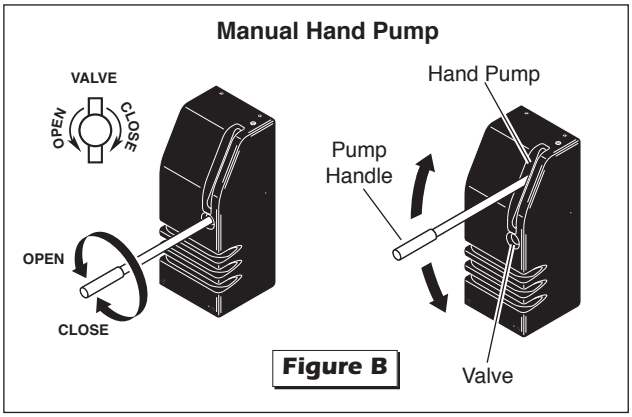
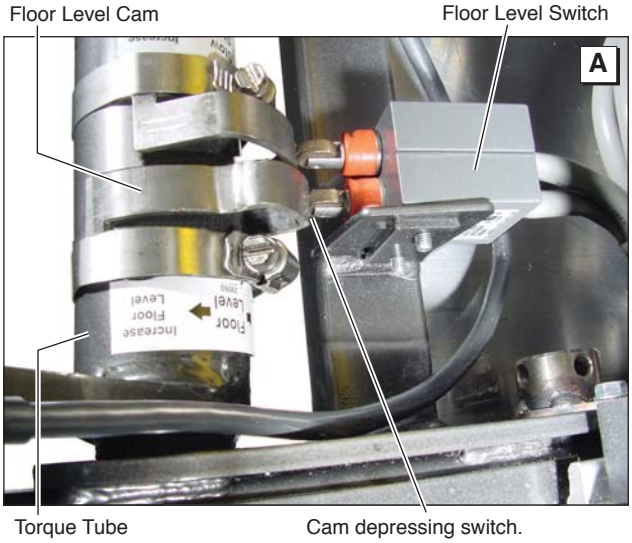


Figure B



Floor Level and Bridge Plate Adjustments

Bridge Plate Cam Adjustment

Adjust the Floor Level switch first (detailed in previous section). If the Floor Level Requirements (at right) are not met - adjust the Bridge Plate cam as detailed in the following procedures.

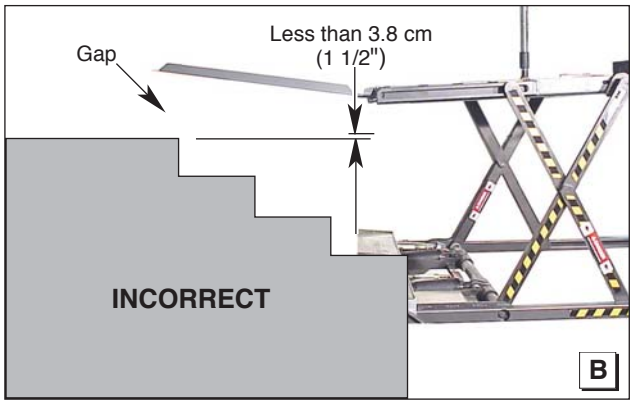
Notice: Adjustment of the bridge plate cam affects the timing of bridge plate deployment and torque tube/vehicle clearance.

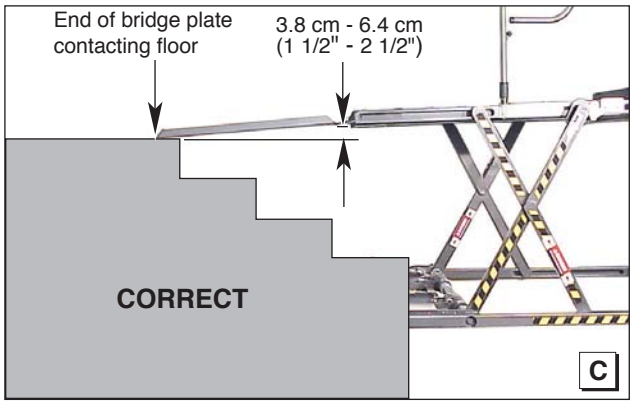
1. Raise the lift platform fully to previously set floor level position 3.8 cm - 6.4 cm (1 1/2"-2 1/2") above floor level). Switch off lift main power.

2. Measure the height between the top of the rolling horizontal carriage arm and the bottom of the platform. See Photo D.

3. Lower platform to a comfortable working level (stow level or slightly higher).

Floor Level Requirements: When the lift is positioned at floor level (raised fully), the bottom of the platform must be above floor level and the bridge plate must rest solidly on vehicle floor. See Photos B and C.





Continued on Following Page

Floor Level and Bridge Plate Adjustments

Bridge Plate Cam Adjustment

4. Remove the cam securement nut (Figure D). Partially fold bridge plate to take pressure off the cam to ease cam bolt removal.

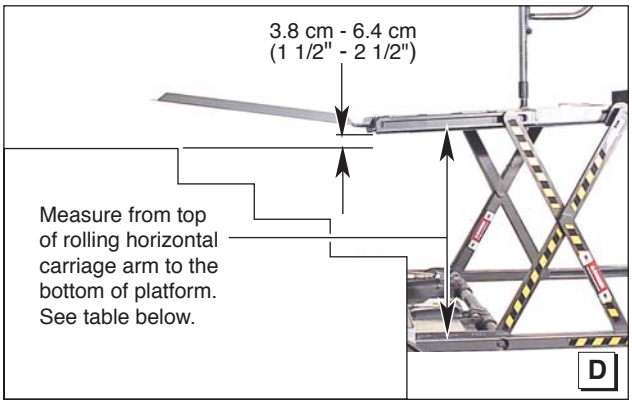
5. Carefully unfold bridge plate to rest on vehicle floor.

6. Using dimension taken in step 2, replace cam securement bolt in the hole that corresponds to the height dimensions in table below.

   Notice: Approximate dimensions in below table. Dimensions between listings - try two nearest holes for optimum setting.

7. Secure cam bolt with nut as shown in Figure D. Tighten securely.

8. Switch on lift main power and raise the platform to floor level to verify correct position of bridge plate.



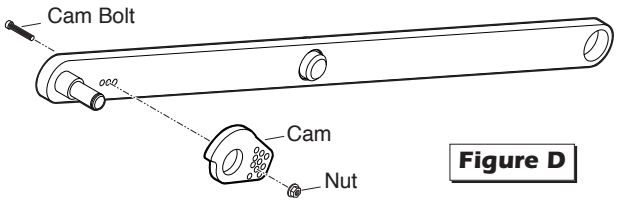
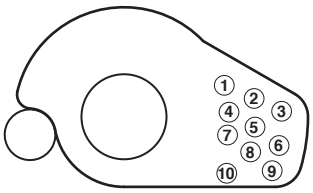


Figure D

Cam Hole Selection Table

Cam Hole #	Height (in)	Height (cm)	Cam Hole Number Layout
1*	11.5	29	
2*	15	38	
3	18.5	47	
4	19	48	
5	22	56	
6	23.5	60	
7	24.5	62	
8	26	66	
9	27.5	70	
10	29	74	

*Not used without kit 75400ROAS

Floor Level and Bridge Plate Adjustments

Usable Platform Length

⚠CAUTION

Improper bridge plate linkage rod adjustment may result in lift damage.

Do not adjust the bridge plate linkage rod unless extra usable platform length is needed. See Photo I.

If the angle of the bridge plate (when in the vertical position) restricts the usable platform length for the wheelchair passenger, adjustment of the linkage rod will change the angle.

Adjust the bridge plate as detailed in the previous procedures. Then, adjust the linkage rod as detailed (only if necessary). If the linkage rod is over adjusted (too long or too short), it will exceed the travel of the slider block resulting in damage to the cam follower bearing, the cam and/or other components.

Linkage rod adjustment affects angle of bridge plate (vertical position).

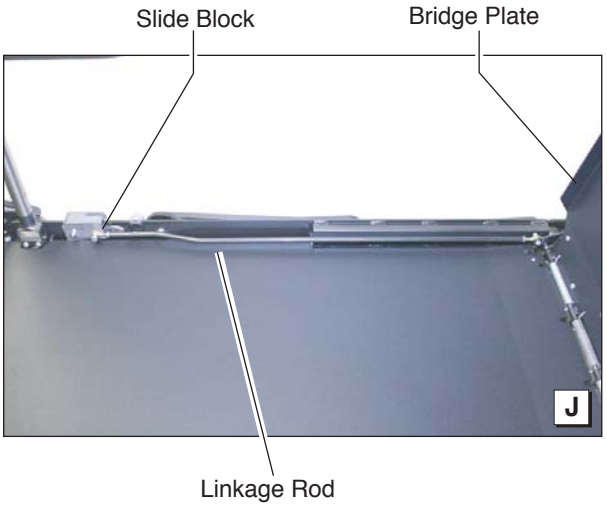
Linkage Rod Adjustment

1. Position the lift platform below stow level using the manual hand pump (turn valve counterclockwise). Do not operate the lift with the electric pump during adjustment procedures.

2. Loosen the jam nuts at each end. Unbolt linkage rod from slide block. Adjust rod length as needed. Minimize adjustment.

3. Carefully check the bridge plate angle and operation using the manual hand pump. Ensure the rod has not been over adjusted resulting in pressure on components (damage will result).

4. Reattach linkage rod to slide block. Tighten the linkage rod jam nuts.



Static and Dynamic Tests

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 454kg 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 454kg 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 2º.

If lift does drift:

1. Deploy lift to ground level.

2. Press circuit board manual override buttons L-UP and L-DN for 20 seconds.

3. Open manual down valve 1 turn and press “UP”  on hand pendant for 20 seconds. Close valve.

Test to Verify that the Lift Cannot Lift Excessive Load

A load of 454kg 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 454kg 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, pump relief valve adjustment is necessary.

5. Access relief valve through circuit board mounting plate access hole. Loosen 9/16" hex nut on the relief valve adjustment screw (do not remove hex nut).

6. Turn adjustment screw counterclockwise1/8 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

Static and Dynamic Tests

Dynamic Test

With 363kg 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 363kg at center of platform.

3. Press up switch and verify that the 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, pump relief valve adjustment is necessary.

5. Access relief valve through circuit board mounting plate access hole. Loosen 9/16" hex nut on the relief valve adjustment screw (do not remove hex nut).

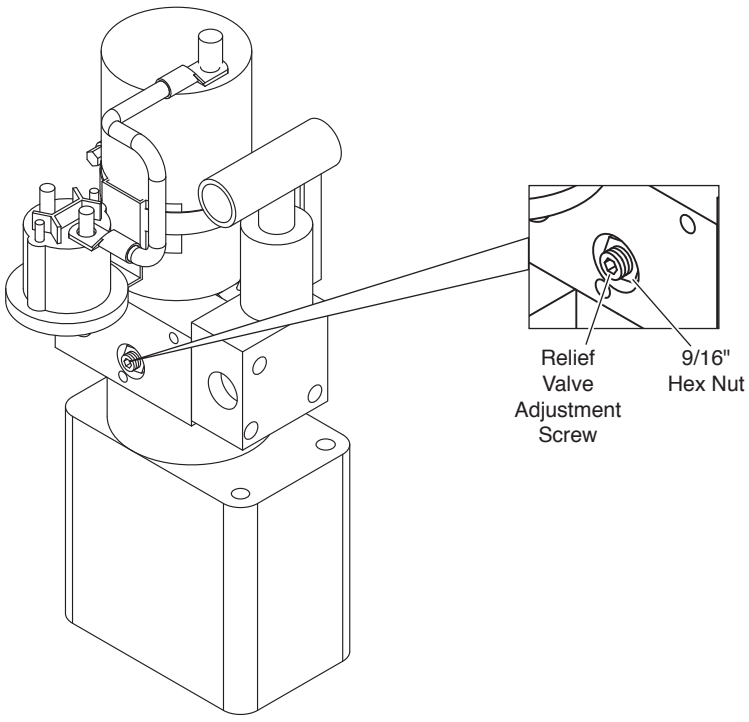
6. Turn adjustment screw clockwise 1/8 turn.

7. Press up switch and verify lift is able to operate throughout its full range of normal lifting and lowering movement.

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).

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).



Maintenance and Lubrication

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.

⚠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.

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.

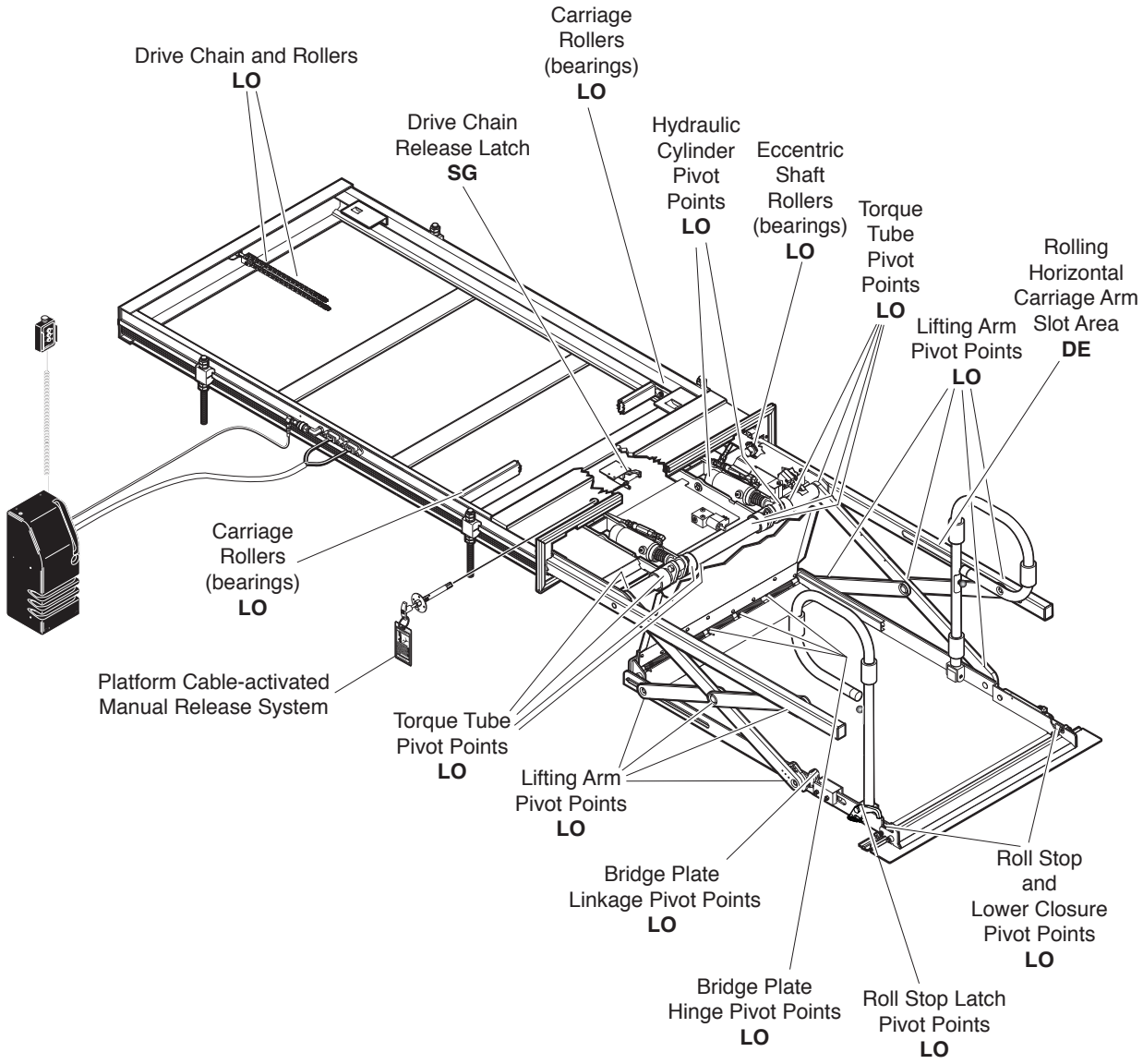
These intervals are a general guideline for scheduling maintenance procedures and will vary according to lift use and conditions. Lifts exposed to severe conditions (weather, environment, contamination, heavy usage, etc.) may require inspection and maintenance procedures to be performed more often than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

Records of maintainence 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 improper operation. Contact your authorized representative.

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	16 oz. Aerosol Can	15807
DE - Door-Ease	Stainless Stick Style (tube)	Door-Ease Stick (tube)	1.68 oz.	15806
SG - Synthetic Grease	Synthetic Grease (Multipurpose)	Mobiltemp SHC32	12.5 oz. Tube	28598

750 Cycles	Roll stop and lower closure pivot points (2)	Apply Light Oil - See Lubrication Diagram
	Inspect roll stop and lower closure for proper operation	Correct or replace damaged parts.
	Inspect roll stop seal and lower closure gasket	Resecure, replace or correct as needed
	Roll Stop latch pivot point	Apply Light Oil - See Lubrication Diagram
	Roll stop latch spring	Resecure, replace or correct as needed.
	Bridge plate hinge pivot points	Apply Light Oil - See Lubrication Diagram
	Bridge plate linkage pivot points	Apply Light Oil - See Lubrication Diagram
	Lifting arm pivot points and rollers (bearings)	Apply Light Oil - See Lubrication Diagram
	Inspect lift for wear, damage or any abnormal condition	Correct as needed.
	Inspect lift for rattles	Correct as needed.
	Check drive chain tension.	Pull out and lock manual release cable. Adjust chain tension as needed. See Drive Chain Adjustment.
	Inspect bridge plate and linkage for: • Proper operation • Positive securement • Wear or damage • Proper adjustment	Resecure, replace or correct as needed. See Floor Level and Bridge Plate Adjustment Instructions.
	Check carriage ride height in housing	Adjust as needed. See Carriage Ride Height Adjustment.
	Check stow height/lifting arm alignment	Lifting arms should be horizontal, aligned with each other and aligned with carriage. Adjust as needed. See Below Stow Switch.
	Inspect wiring harnesses for securement, wear or other damage	Resecure, replace or correct as needed
	Check lower pan securement	Resecure, replace damaged parts or correct as needed.
	Torque tube pivot points (8 places)	Apply Light Oil - See Lubrication Diagram

1500 Cycles	Carriage rollers (bearings)	Apply Light Oil - See Lubrication Diagram
	Eccentric shaft rollers (bearings)	Apply Light Oil - See Lubrication Diagram
	Rolling horizontal carriage arm slot area	Apply Door-Ease - See Lubrication Diagram. Apply to the surface area around both slots and wipe off excess.
	Hydraulic cylinder pivot points (4 per cylinder)	Apply Light Oil - See Lubrication Diagram
	Drive chain and chain rollers	Apply Light Oil - See Lubrication Diagram
	Drive chain release latch mechanism	Apply Synthetic Grease - See Lubrication Diagram
	Deploy lift, remove upper pan and blow out housing and clean housing tracks.	Use compressor and nozzle to remove all debris from housing. Use clean cloth and solvent to clean tracks.
	Check drive chain tensioner, jam nuts and connecting link for securement and/or misalignment.	Correct or replace damaged parts and/or relubricate. See Drive Chain Adjustment.
	Inspect drive chain release latch mechanism for proper operation, positive securement, wear or other damage.	Correct or replace damaged parts and/or relubricate.
	Inspect platform cable-activated manual release system (T-handle/cable assembly and carriage movement).	Ensure T-handle release and cable assembly operate properly. Ensure carriage can be manually extended and retracted freely.
	Inspect limit switches and cams for securement and proper adjustment	Resecure, replace or adjust as needed. See Switch Adjustment.
	Inspect carriage, lifting arm and eccentric shaft rollers (bearings) for wear or damage, positive securement and proper operation	Resecure, replace or correct as needed.
	Inspect external snap rings (e-clips): • Carriage roller bearings (4) • Lower lifting arm pins (4) • Eccentric shaft track roller bearing (3) • Roll Stop Cylinder (1)	Resecure, replace damaged parts, lubricate or correct as needed.
	Inspect lower lifting arm pins for wear or damage, positive securement and proper adjustment	Resecure, replace damaged parts, lubricate or correct as needed. See Carriage Ride Height Adjustment.

Maintenance and Lubrication

1500 Cycles	Inspect eccentric shaft pins, bearing mounting screw, washers and securement hardware for wear or damage, positive securement and proper operation	Resecure, replace or correct as needed.
	Inspect torque tube cams for securement, wear or damage	Resecure, replace or correct as needed.
	Inspect housing cam brackets for securement, wear or damage	Tighten, repair or replace if needed.
	Inspect cylinder(s), hoses, fittings and hydraulic connections for wear, damage or leaks	Resecure, repair or replace if needed.
	Inspect power cable	Resecure, repair or replace if needed.
	Inspect handrails for securement	Resecure, repair or replace if needed.

4500 Cycles	Hydraulic Fluid (Pump) - Check level. Notice: 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 5606 aviation fluid only (part 87010R). Do not mix with Dextron III or other hydraulic fluids. Check fluid level with platform lowered fully. Fill to maximum fluid level indicated on reservior (specified on decal). Do not overfill. If fluid level decal is not present - measure 22 mm (7/8") from the bottom of the fill tube to locate fluid level.
	Inspect lifting arm bushings and pivot pins for visible wear or damage	Replace if needed.
	Inspect roll stop pivot pin mounting bolts (2)	Tighten 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.

Lift Disposal Procedure	1. Return lift to an authorized dealer for draining of the hydraulic system. 2. Transport lift to a recycling center for recycling.

Troubleshooting Diagnosis Chart

⚠WARNING

Troubleshooting and repair procedures must be performed as specified by authorized service personnel only. Failure to do so may result in serious bodily injury and/or property damage.

If a problem occurs with your lift, discontinue operation immediately! Do not attempt repairs yourself. Contact your sales representative. The cause of the problem can be determined by locating the lift function and related symptom in the Troubleshooting Diagnosis Charts. The specific cause and remedy can then be determined by process of elimination.

An Electrical Schematic and Hydraulic Diagram are provided to aid in troubleshooting.

A Repair Parts section with exploded views and corresponding parts lists is also provided. Correct the problem if possible. If the problem continues, contact your sales representative.

FUNCTION	POSSIBLE CAUSE	REMEDY
1.00 NO OPERATION	1.11 Low Battery	Vehicle engine must be running during lift operation. Check condition of vehicle battery.
	1.12 Bad ground	Check for good ground between vehicle chas sis and aluminum manifold on power pack.
	1.13 Poor plug connections	Check all plugs for proper contact.
	1.14 Blown fuse	Check inline fuse on “24 V” wire from P.C. board. Check P.C. board mounted fuse. Check for power on terminal 8 of terminal block on P.C. board.
	1.15 Defective circuit breaker	Reset or replace if necessary.
	1.16 Improper terminal block wiring	Check for proper wiring of terminal block.
2.00 PUMP RUNS BUT WILL NOT LIFT PLATFORM	2.11 Hydraulic valve open	Flush valve by operating manual override switches UP and DOWN at same time for 4 to 5 seconds several times.
	2.12 Manual valve open	Close manual valve. Flush valve by running UP with manual override. Open valve 4 to 5 seconds several times.
	2.13 Pump mounted horizontal	Power pack must be mounted vertically.
	2.14 No oil (low)	Check fluid level.
	2.15 Hydraulic hose not connected	Check hose connection between pump and cassette.

Troubleshooting Diagnosis Chart

FUNCTION	POSSIBLE CAUSE	REMEDY
3.00 PUMP DOES NOT RUN WITH MANUAL OVERRIDE OR HAND-HELD PENDANT	3.11 Up Solenoid	Check for power on pump “T” wire going to solenoid.
	3.12 Bad power and ground	See 1.00
4.00 LIFT WILL GO UP WITH OVERRIDE SWITCH BUT NOT WITH HAND-HELD PENDANT	4.11 FULL OUT diagnostic LED not illuminated	Check full out switch for proper operation/adjustment. Replace or adjust as necessary.
	4.12 Hand-held pendant not working properly	Check for UP diagnostic LED when hitting UP button on hand control. Replace control box as necessary.
	4.13 See 12.0	
5.00 LIFT WILL NOT GO DOWN WITH MANUAL OVERRIDE OR WITH HAND-HELD PENDANT OR GOES DOWN SLOWLY OR DRIFTS DOWN BY ITSELF	5.11 Hydraulic down valve bad	Check for power on valve ”T” wire going to solenoid when pushing manual override or remote button. Replace if necessary.
	5.12 Dirty down valve (clogged)	Flush valve by pushing manual override up and down buttons at same time for 4 to 5 seconds several times.
6.00 LIFT WILL GO DOWN WITH OVERRIDE BUT NOT WITH HAND-HELD PENDANT	6.11 FULL OUT diagnostic LED not illuminated.	Check for proper operation of Full Out switch with diagnostic LED. Replace or adjust switch as necessary.
	6.12 See 12.0	
7.00 LIFT WILL NOT GO OUT WITH OVERRIDE OR HAND-HELD PENDANT	7.11 Defective circuit breaker	Reset or replace if necessary.
	7.12 No power on terminal 8	Check vehicle door full open switch and wiring.
	7.13 Interlock circuit incomplete	Verify interlock installation
	7.14 Poor plug connections	Check harness connections E1, E2, B1 and B2
	7.15 Bad in/out motor	Check power at motor. Replace motor if necessary.
	7.16 Bad power and ground	See 1.00

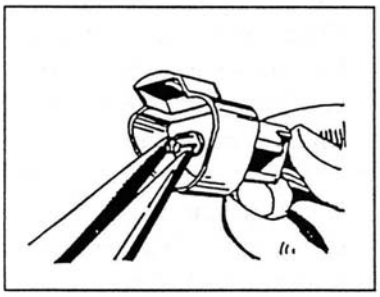
Troubleshooting Diagnosis Chart

FUNCTION	POSSIBLE CAUSE	REMEDY
8.00 LIFT WILL NOT STOW WITH HAND-HELD PENDANT	8.11 Faulty Below Stow switch. BELOW STOW (BELOW) diagnostic LED not illuminated	Check for proper operation of Below Stow switch. Replace or adjust switch as necessary.
	8.12 See 12.0	
9.00 OUTBOARD ROLL STOP WILL NOT OPERATE UP OR DOWN WITH HAND-HELD PENDANT OR OVERRIDES Notice: Down and Barrier Down override switches must be pressed at same time to lower outboard barrier.	9.11 Ground Sensor pressure switch	Reset or replace if necessary.
	9.12 See 5.0	
	9.13 Hydraulic poppet valve bad	Check for power on "BAR DN" wire going to solenoid when pushing manual override or remote button while platform is on the ground. Replace if necessary.
	9.14 Dirty poppet valve (clogged)	Replace
	9.11 Defective circuit breaker	Reset or replace if necessary.
	9.13 Bad relay(s)	Check Barrier Up and Barrier Down power relays. Replace if necessary.
10.00 OUTBOARD ROLL STOP OPERATES WITH OVERRIDES BUT WILL NOT GO UP WITH HAND-HELD PENDANT	10.11 Hand-held pendant not working properly	Check for UP diagnostic LED when hitting UP button on hand control. Replace control box as necessary.
	10.12 See 12.0	
11.00 OUTBOARD ROLL STOP OPERATES WITH OVERRIDES BUT WILL NOT GO DOWN WITH HAND-HELD PENDANT	11.11 GROUND SENSOR (GND SENS) diagnostic LED not illuminated	Check Ground Sensor pressure transducer. Replace or adjust as necessary.
	11.12 BELOW STOW (BELOW) diagnostic LED not illuminated	Check Below Stow switch for proper operation. Replace or adjust as necessary.
	11.13 FULL OUT diagnostic LED not illuminated	Check Full Out switch for proper operation. Replace or adjust as needed.
	11.14 See 12.0	
12.00 SWITCHES DO NOT ACTIVATE LED(S)	12.11 Improper terminal block wiring	Check terminal block for correct wiring configuration.
	12.12 No power going to switches	Check power on connector A1, pins 1 and 2.
	12.13 Faulty wiring	Check continuity of wires from switches to connector A2.
	12.14 Faulty connections	Check for proper connections on each switch and on each connector on the harnesses. Replace contact if necessary. See diagram at right.

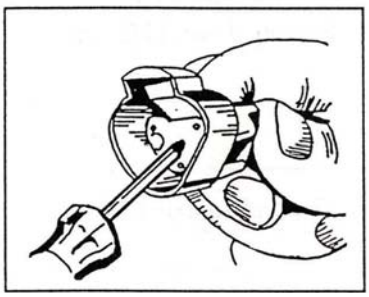
Troubleshooting Diagnosis Chart

13.00 DOORS DO NOT OPEN	13.11 Faulty wiring	Check for proper wiring to door openers.

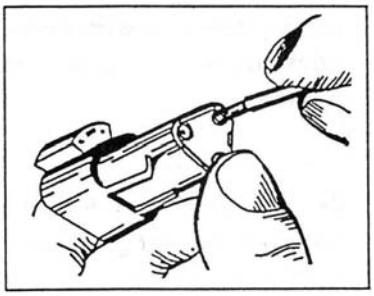
CONTACT REMOVAL



1. Remove orange wedge using needle nose pliers or a hook shaped wire to pull wedge straight out.

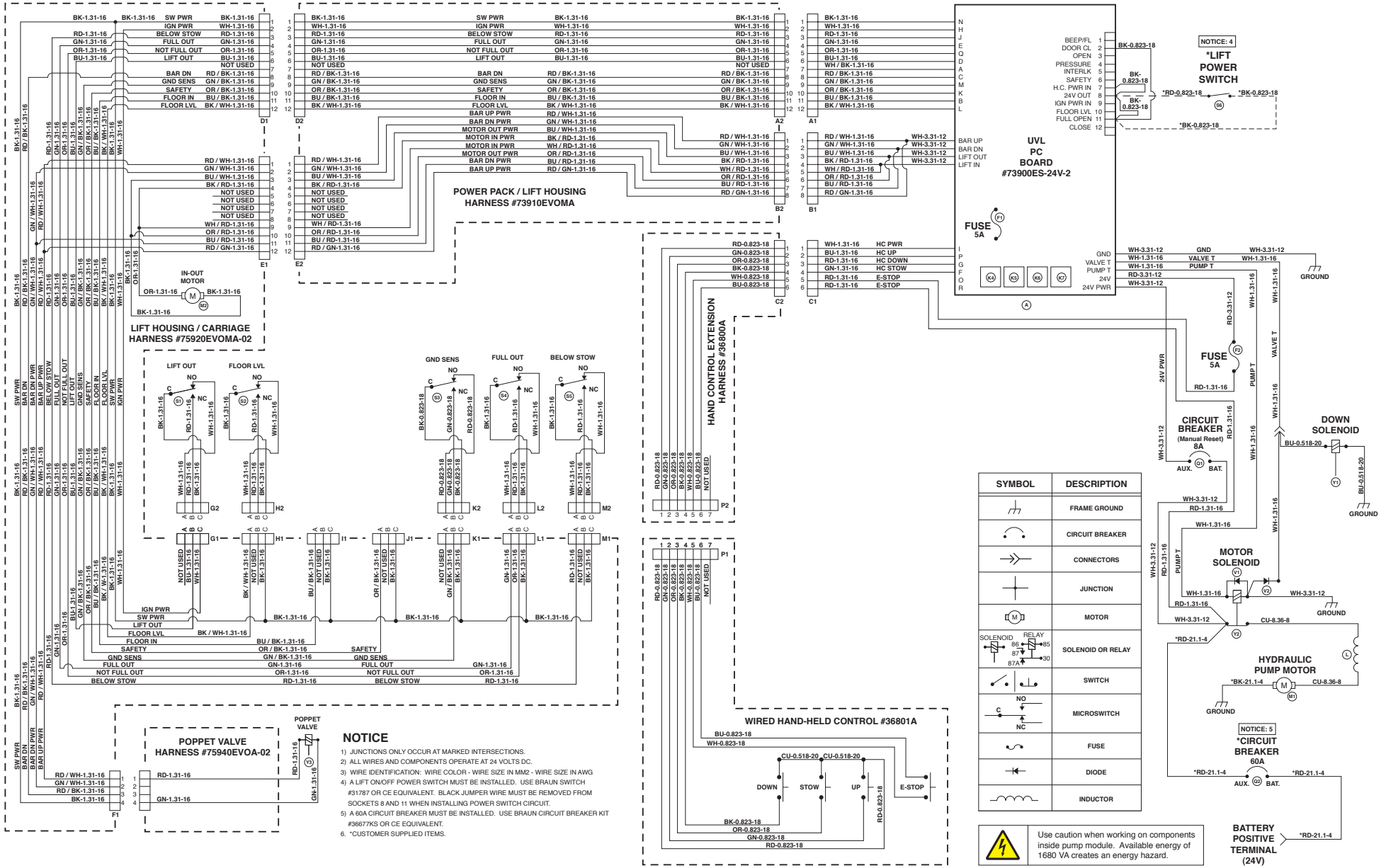


2. To remove the contacts, gently pull wire backwards, while at the same time releasing the lock ing finger by moving it away from the contact with a screwdriver.



3. Hold the rear seal in place, as removing the contact will displace the seal

Lift Electrical Schematic



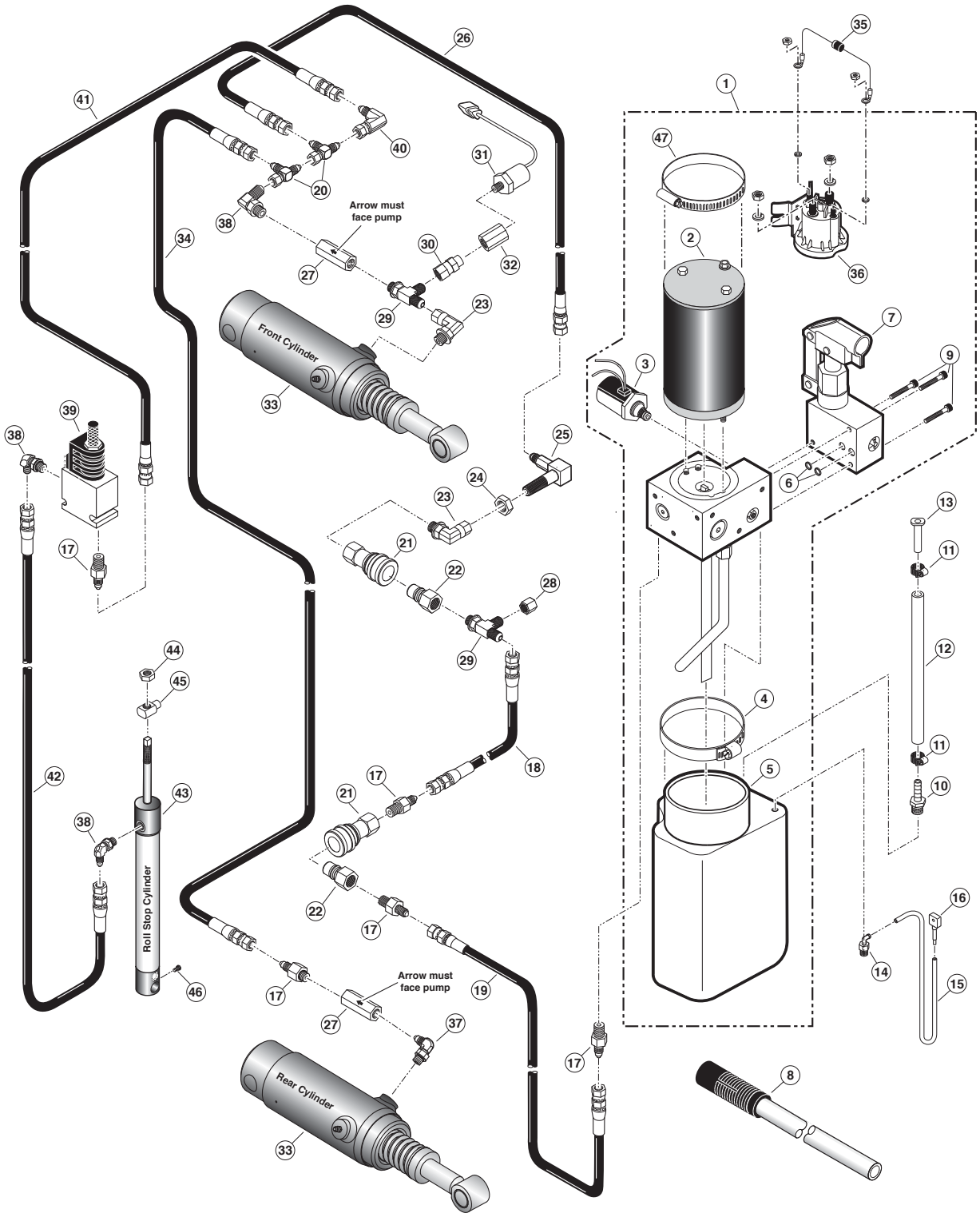
NOTICE

1) JUNCTIONS ONLY OCCUR AT MARKED INTERSECTIONS.
2) ALL WIRES AND COMPONENTS OPERATE AT 24 VOLTS DC.
3) WIRE IDENTIFICATION: WIRE COLOR - WIRE SIZE IN MM2 - WIRE SIZE IN AWG
4) A LIFT ON/OFF POWER SWITCH MUST BE INSTALLED. USE BRAUN SWITCH #31787 OR CE EQUIVALENT. BLACK JUMPER WIRE MUST BE REMOVED FROM SOCKETS 8 AND 11 WHEN INSTALLING POWER SWITCH CIRCUIT.
5) A 60A CIRCUIT BREAKER MUST BE INSTALLED. USE BRAUN CIRCUIT BREAKER KIT #36677KS OR CE EQUIVALENT.
6. *CUSTOMER SUPPLIED ITEMS.

Hydraulic Parts List

Item	Qty.	Description	Part No.
1	1	Pump Assembly, UVL Power Pack - 24 Volt - Mod	37454-24V
2	1	Motor, Pump	16504-IS
3	1	Valve, “Down” (with Solenoid)	16505
4	1	Clamp, Reservoir - H-48	17069
5	1	Reservoir Replacement Kit (Includes Item #10)	88188K
6	2	O-Ring (only), Hand Pump Mounting	17351
7	1	Hand Pump (Backup) with O-Rings (Includes Item #6)	87065
8	1	Handle with Angle Bracket and Grip	17206W
9	3	Screw, 1/4-20 x 1 3/4", Allen Head	17352
10	1	Fitting, 3/8" Male NPT x 3/8" Barbed	87618
11	2	Clamp, Hose - 5/8" O.D. - Worm Drive	84325
12	1	Tubing, 3/8" x 5/8", Tygothane - Clear	82066R012
13	1	Plug, 3/8" Plastic Hose	81580
14	1	Fitting, 90°-1/8" Male Pipe x 1/8" Barbed	87563
15	1	Tube, 1/4" O.D. x 1/8” I.D. - Plastic	81557R014
16	1	Plug, 1/8" Plastic Tube	81583
17	6	Fitting - 7/16 O Ring X 4JICM (FG6400)	24504
18	1	Hose Assembly, 1/4" - 7/16-20 JIC 37° x 16"	32785A-210
19	1	Hose Assembly, 3/16" - 7/16-20 JIC 37° x 16"	35262A-16
20	2	Fitting, Tee - 7/16-20 Male JIC 37° (2) x 7/16-20 JIC 37° Female Swivel	87587
21	2	Coupling, Hydraulic Quick 1/4" NPT	37466
22	2	NIPPLE-HYDRAULIC QUICK CONNECT 7/16-20	37467
23	2	O-Ring to JIC Swivel Elbow (FG6809)	37472
24	1	Nut, 9/16-18, Hex Jam	83077
25	1	Fitting Assembly, Bulk Head	37335
26	1	Hose Assembly, 3/16" - 7/16-20 JIC 37° x 72"	35262A-72
27	2	Valve, Flow Control	37473
28	1	Cap - Fitting - 7/16-20 JIC 37°	16028
29	2	Fitting, Tee - 7/16-20 / 37 JIC (FG6804)	37471
30	1	O-Ring to JIC Swivel (FG6402)	37469
31	1	Switch, Pressure Sensing with Harness	37475A
32	1	O-Ring Coupling (FG6425)	37470
33	2	Cylinder, Retracting	87055N-SR
34	1	Hose Assembly, 3/16" - 7/16-20 JIC 37° x 35"	35262A-35
35	1	Diode Assembly, Up Solenoid	73906A
36	1	Solenoid, Motor UVL - 24V	32930
37	1	Fitting, Elbow-Male 7/16-20 SAE 90° (FG6807)	26576
38	3	Fitting, Elbow - 7/16-20 M/O-Ring / 37° (FG6801)	25085
39	1	Valve, Power Poppet w/Manual Override	37474
40	1	Fitting, 90° - Female Swivel 7/16-20 JIC 37° x Male 7/16-20 JIC 37°	87592
41	1	Hose Assembly, 1/8" - 7/16-20 JIC 37° x 33"	35261A-033
42	1	Hose Assembly, 1/8" - 7/16-20 JIC 37° x 100"	35261A-100
43	1	Cylinder, Roll Stop UVL (Includes Items 37, 44, 45 & 46)	35386
44	1	Nut, 1/2-20 Jam - Hex	83022
45	1	Adapter, Cylinder/Roll Stop Lever	915-0344
46	1	Plug, Drain w/Gasket	35679
47	1	Clamp, Hose	17069

Hydraulics Diagram



	Use caution when working on components inside pump module. Available energy of 1680 VA creates an energy hazard.

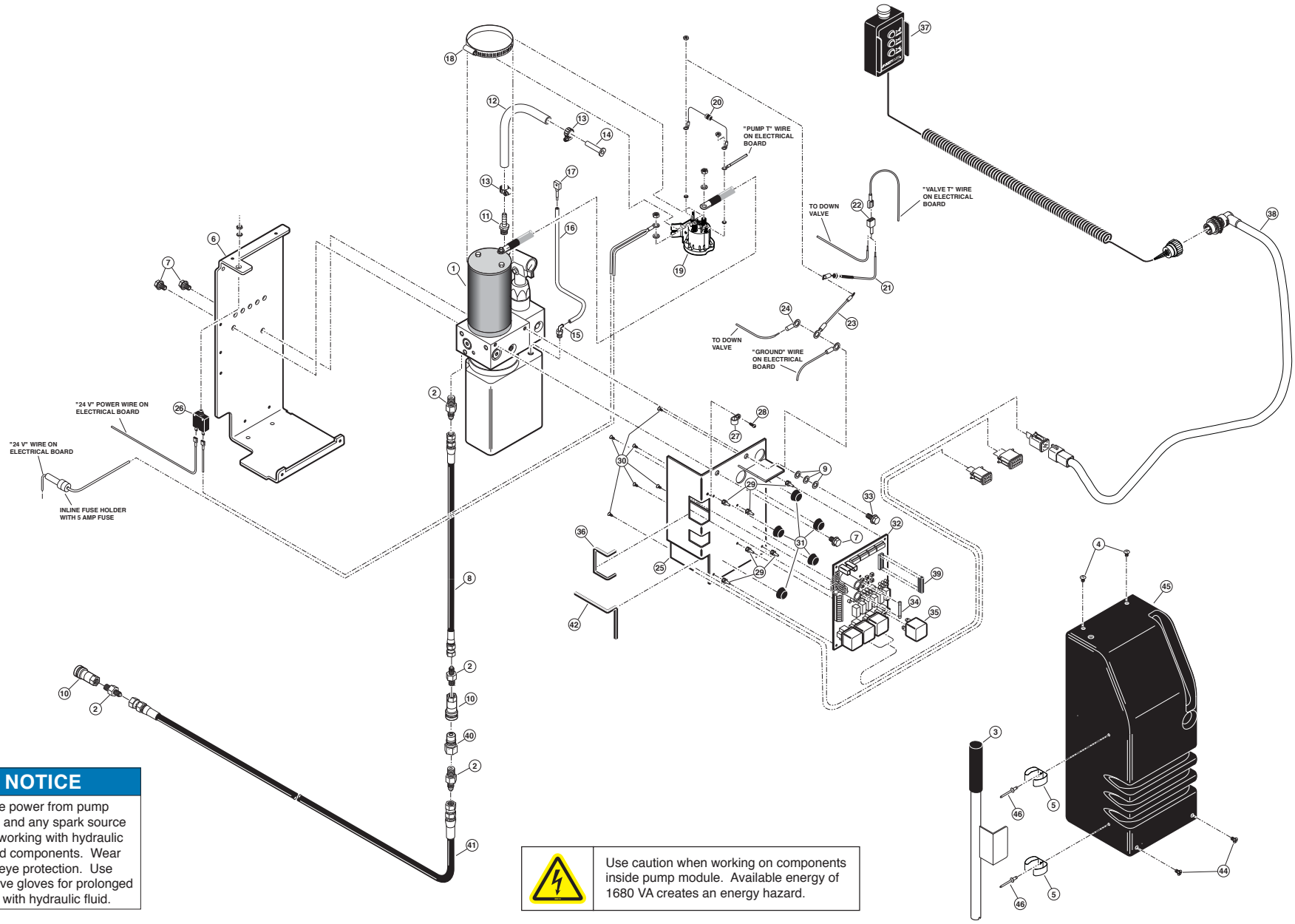
NOTICE

Remove power from pump module and any spark source before working with hydraulic fluid and components. Wear proper eye protection. Use protective gloves for prolonged contact with hydraulic fluid.

Pump Module Parts List

Item	Qty.	Description	Part No.
1	1	Pump Assembly, UVL Power Pack - 24 Volt	37454-24V
2	4	Fitting - 7/16-20/ 7/16-20 / 37°	24504
3	1	Handle, Pump w/Bracket	17206W
4	6	Screw, 1/4-20 x 3/8", Pan Head Phillips	82769
5	3	Clamp-Spring-Pump Handle	12350
6	1	Plate, Power Pack Mounting	73822W
7	3	Screw, 5/16-18 x 1/2", Serrated Washer Head, Hex	82881
8	1	Hose Assembly, 3/16"- 7/16-20 JIC 37° x 16"	35262A-16
9	3	Washer, Flat - M8	27462
10	2	Coupling, Hydraulic Quick Connect x 7/16" SAE O-Ring	37466
11	1	Fitting, NIPPLE-HYDRAULIC QUICK CONNECT 7/16-20	37467
12	1	Tubing, 3/8" x 5/8", Tygothane - Clear	82066R012
13	2	Clamp, Hose - 5/8" O.D. - Worm Drive	84325
14	1	Plug, 3/8" Plastic Tubing	81580
15	1	Fitting, 90°-1/8" Male Pipe x 1/8" Barbed	87563
16	1	Tube, 1/4" O.D. x 1/8" I.D. - Plastic	81557R014
17	1	Plug, 1/8" Plastic Tube	81583
18	1	Clamp, Hose	17069
19	1	Solenoid, Motor UVL - 24V	32930
20	1	Diode Assembly, Up Solenoid	73906A
21	1	Diode Assembly, Down Valve Solenoid	73907A
22	1	Terminal, 1/4" Male Spade - Fully Insulated - 14/16 Gauge	78036
23	1	Jumper Assembly, 12 Gauge x 4"	73943A
24	1	Eyelet, 5/16" Insulated - Red	86267
25	1	Bracket, PC Board Mounting	73824IRSW-02
26	1	Circuit Breaker, 8 Amp - Manual Reset	30364
27	1	Clip, Cable - 7/16" Plastic	15777
28	1	Screw, #10-32 x 3/8", Pan Head, Phillips, Thread Cut	82755
29	6	Standoff, .25" PCB - Nylon	86739
30	6	Screw, #6 x 3/8" Self Tap, Flat Head	82764
31	5	Bumper, 1/2" Dia. x 1/4" Tall - Rubber	82064
32	1	UVL CONTROLLER ASSY 24V FOR HC E-STOP	73900ES-24V-2
33	1	Screw, 5/16-18 x 3/4" Serrated Hex Head	32464
34	1	Fuse, 5 Amperes	85835
35	4	Relay, 10/20 Amperes, 24 Volt	168001-1416
36	2	Edge Liner, 1/8", Q-Trim	13910R006
37	1	Hand Control Assembly - Coiled	36801A
38	1	Harness - Hand Control Extension	36800A
39	1	Chip, UVL 600 Program No Stow-Lock	85900-102
40	1	Nipple, Hydraulic Quick Connect x 1/4" Female NPT	87615
41	1	Hose Assembly, 1/4"- 7/16-20 JIC 37° x 210"	32785A-210
42	1	Harness, Terminal Strip	35342A
43	1	Pump Cover (Complete 36675A Includes 43-50)	73820IRSCE
44	1	Decal, Manual Operation - UVL (Not Shown)	35514-FR
45	1	Decal, UVL Patent & Trademark (Not Shown)	29884
46	1	Decal, Warn Damage Control Board-ESD (Not Shown)	30787
47	1	Decal, Electrical Components-Module-Intl-UVL	36649
48	1	Decal, Electrical Components-Lift-Intl-UVL	36650
49	1	Decal, Fuse Specifications-Intl-UVL	36644
50	1	Decal, Hazard-Electrical Shock-Intl-PI (not Shown)	36513
51	1	Kit, Fuse Replacement (Not Shown)	36676K
52	1	Tag, Vent Tube Plug Removal - UVL (Not Shown)	25807
53	1	Cable Tie, 3 3/4" x .09", White (Not Shown)	86003
54	1	Tag, Caution Do Not Connect - Red (Not Shown)	81796
55	1	Harness, Pump Module/Housing (Not Shown)	73910A-1800
56	1	Cable Tie, 14 1/2" (Not Shown)	24534
57	5	Cable Tie, 11" (Not Shown)	10091

Pump Module Diagram



NOTICE

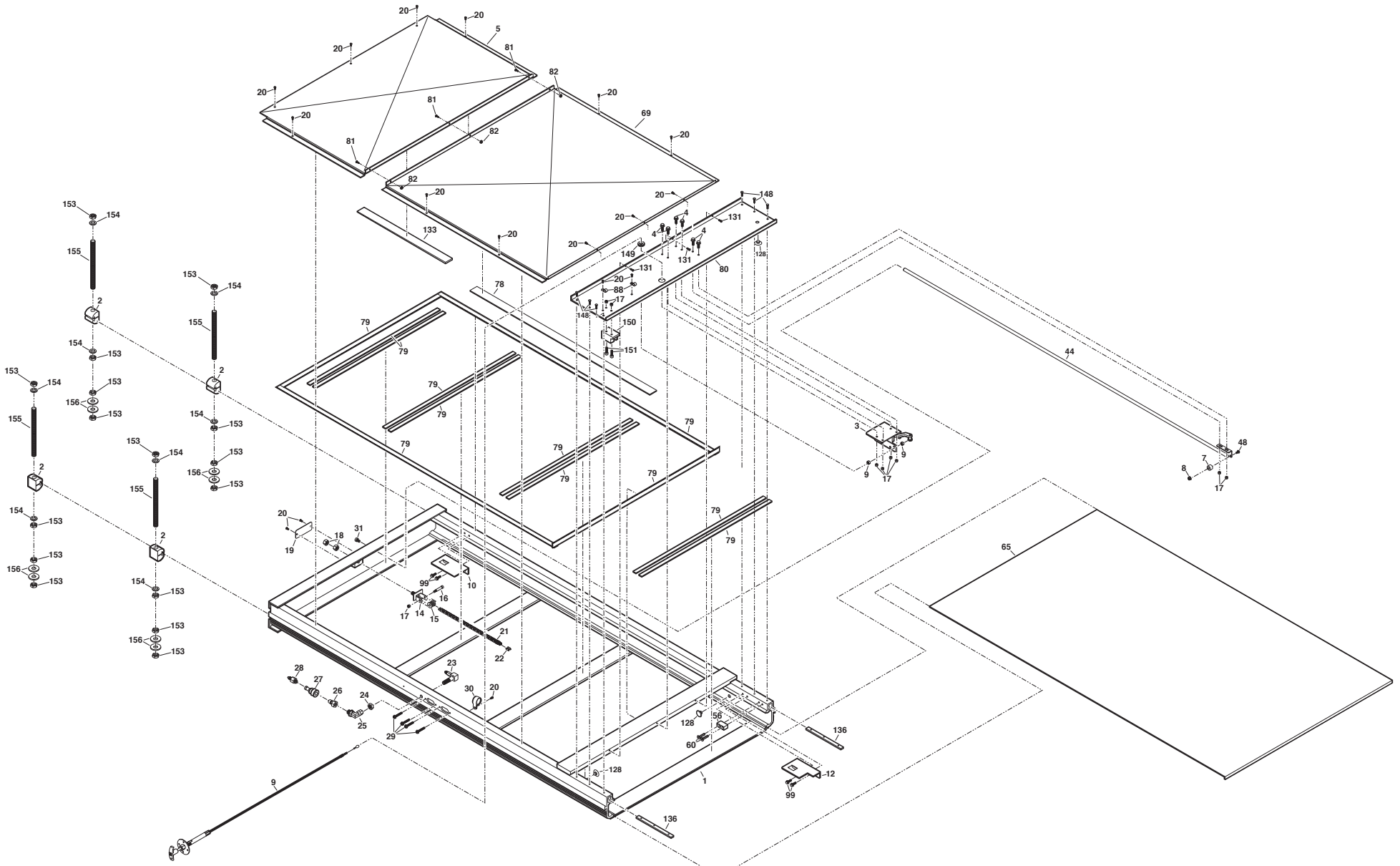
Remove power from pump module and any spark source before working with hydraulic fluid and components. Wear proper eye protection. Use protective gloves for prolonged contact with hydraulic fluid.

Use caution when working on components inside pump module. Available energy of 1680 VA creates an energy hazard.

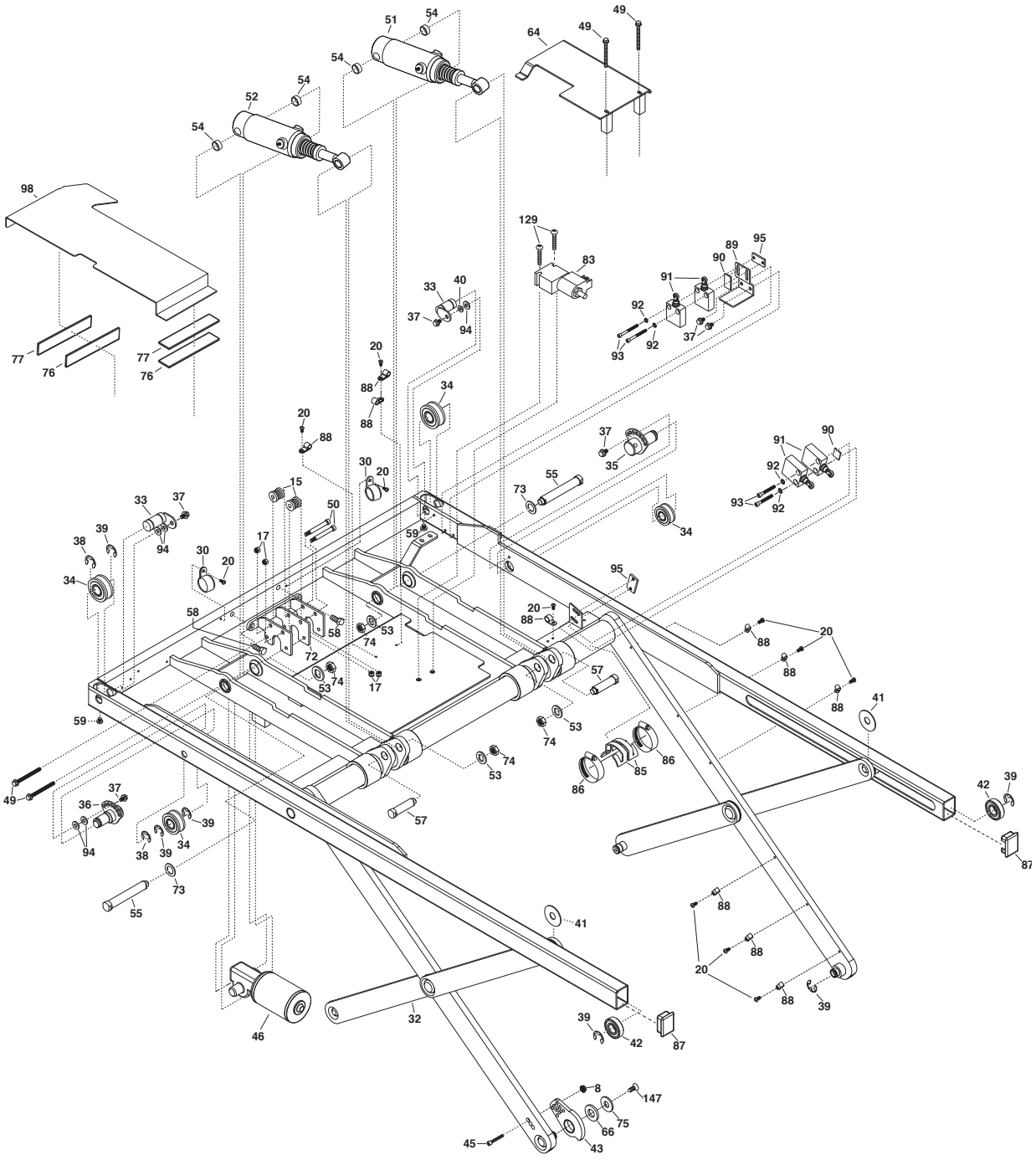
Repair Parts List - UVL855EVOM Series 03

Item	Qty.	Description	Part No.
1	1	Housing Weldment	75101EVOMW-03
2	6	Clamp, Lift Mounting	73733
3	1	Chain Release Assembly	73760EVOMA-02
4	6	Screw, 1/4-20 x 3/4", Serrated Hex	82768
5	1	Upper Cover - Inboard	35021
6	1	Screw, 1/4-20 x 1", Serrated Hex	82760
7	1	Cam, 7/8" UVL Follower	84392
8	3	Nut, 1/4-20, Serrated, Hex	83064
9	1	Manual Release Cable Assembly Kit	73770-600EVOM
10	1	Bracket, In/Out Cam, Inboard	73774
11	4	Nut, 5/16-18 Nylock - Plated	25639
12	1	Bracket, In/Out Cam, Outboard	73775
13	1	Cylinder, Roll Stop w/Jam Nut	35386
14	1	Chain Tensioner Weldment	75750EVOW
15	3	Roller, Chain Idler, Nylon	73706
16	1	Screw, 5/16" x 1 1/4" Shoulder, Soc. Hd., 1/4-20	82751
17	15	Nut, 1/4-20 Nylock, Full Thread	83070
18	3	Nut, 1/2-20, Jam, Hex	83022
19	1	Cover, Chain Tensioner	71754
20	30	Screw, 10-32 x 3/8", Pan Hd., Self-Tap	82755
21	1	Chain, Nickel Plated, #35 Roller	84314R142.92
22	1	Connector Link, #35 Roller Chain	84317
23	1	Fitting Assembly, Bulk Head	37335
24	1	Nut, 9/16-18 Hex Jam	83077
25	1	O-Ring to JIC Swivel Elbow	37472
26	1	Nipple, Hydraulic Quick Disconnect	37467
27	1	Coupling, Hydraulic Quick Disconnect	37466
28	1	Fitting, 7/16 O-Ring X 4 JICM	24504
29	4	Screw, 1/4-20 x 1 1/2" Washer Head	24751
30	4	Clamp, Insulate, 1"	29765
31	1	Bolt, 5/16-18 X 1/2" Nylock-Hex/Auto-Bk	10012
32	1	Carriage Weldment	75201EVOMW-03
33	2	Shaft Bearing Weldment	73230W
34	4	Bearing Track Roller, 20mm x 52mm	84305
35	1	Shaft, Eccentric Bearing Weldment, Front	73233W
36	1	Shaft, Eccentric Bearing Weldment, Rear	73233MW
37	6	Screw, 1/4-20 x 3/8", Serrated, Hex	82761
38	2	E-Clip, 3/4" Bowed x .580" Groove	84377
39	8	E-Clip, 3/4" x .580" Groove	84376
40	1	Washer, .281" I.D. x .625" O.D. x .055"	83511
41	4	Washer, Front Scissor Arm	73748
42	4	Bearing, Scissor/Carriage Tube	84004
43	1	Bridge Plate Cam	75403EVOMA
44	1	Weldment, Bridgeplate Guide	36164W
45	1	Screw, 1/4-20 x 3/4", SHCS w/ Nylock Patch	29895
46	1	Motor, Electric, In/Out	73780A24
47	1	Screw, 1/2" x 3/8" SHLD SKT HD 3/8-16 SS	32881
48	1	Screw, 1/4-20 x 1", BHSC SS	81064-000
49	4	Screw, 1/4-20 x 2 3/4", Serrated, Hex	82759
50	2	Screw, 5/16" x 2" Shoulder, Soc. Hd., 1/4-20	82758
51	1	Cylinder Assembly - Front	75801MFA-03
52	1	Cylinder Assembly - Rear	75801MRA-03
53	2	Washer, UVL Cylinder Rod Pin	31137-03
54	4	Bushing, 3/4" I.D. x 3/8" Long	29122
55	2	Pin, Cylinder Mounting	75700N-03
56	1	Block, Carriage Stop	74781N
57	2	Pin, Cylinder Rod Mounting	75701N
58	2	Bolt, 1/2-13 x 3/4", Hex	17726
59	2	Screw, 1/4-20 x 1/4", Pan Head, Nylon	82773
60	2	Screw, 3/8-16 x 1 1/4" FHSCS	32022
61	1	Ring, 1/2" Ext. Snap/Auto Bk	20946
62	2	Washer, UVL Cylinder Rod Pin	31137
63	3	Nut, 10-32 Serrated Flange ZP	83080
64	1	Weldment, Cover Carriage/Switch	75295EVOW-03
65	1	Cover Lower	75732EVOM-02
66	1	Nylon Spacer	37779
67	1	Rod End, 5/16-24, Male	84384
68	1	Nut, 5/16-24, Jam, Hex	83075
69	1	Upper Cover - Outer	35020
70	1	Nut, 5/16-24, Left Hand Thread, Hex	83076
71	1	Rod End, 5/16-24, Left Hand Thread, Male	84385
72	1	Weldment, Support Drive Idler	75210EVOW
73	2	Washer, .758" I.D. x 1.245" O.D. x .06"	37511
74	4	Nut, 9/16-18 x 5/16" Thick, Jam	31176
75	1	Washer, 1/2" Flat/Auto-Bk	25346
76	2	Velcro - (Loop) 1", Adhesive Back	13355R
77	2	Velcro - (Hook) 1", Adhesive Back	13354R
78	1	Tape, 1/8" x 1 1/2" x 48"	82054R048
79	1	Tape, Double Face, 1/16" x 3/4" x 524"	82033R524
80	1	Lid, Upper Edge Seal	75746EVOM-02
81	3	Screw, 10-32 x 1/2" Pan Head, Phillips	82744
82	2	Nut, 10-32, Serrated Flange	83080
83	1	Valve, Poppet w/Manual Release	37474
84	3	Nut, 5/16-18, Nylock	25639
85	2	Cam, Torque Shaft Actuator	73712
86	2	Clamp, Worm Drive, Heavy Duty	26400
87	2	Plug, 1 1/2" x 2" x 11 Gauge Tube	81582
88	10	Clamp, 1/4" I.D. Nylon Loop, Black	84396
89	1	Bracket, In/Out Switch Mounting	73719
90	2	Tape, Limit Switch Mounting Pad	73747
91	4	Limit Switch Assembly	73950
92	4	Washer, #10 Internal Tooth	11540
93	4	Screw, 10-32 x 1 1/2" Socket Cap	82717
94	5	Washer, .328" x .562" x .042" SS	83583
95	2	Plate, Switch Bracket, Tap	68280-1
96	1	Handrail Assembly, Rear w/Mounting Bolts	73381EVOMA-02
97	1	Handrail Assembly, Front w/Mounting Bolts	73380EVOMA
98	1	Cover, Carriage, Rear	31243
99	4	Screw, 1/4-20 x 3/4", Self Tap, Washer Head	24750
100	1	Bolt, 1/4-20 x 1/2", Socket, Low Head	82335
101	1	Washer, .281" I.D. x .75" O.D. x .06", Brass	83592
102	1	Pin, .25" x .81" Dowel	74412
103	1	Platform Weldment	75301EVOMW-02
104	1	Rocker, Bridge Plate	74404A
105	1	Plate, Platform Floor	75306EVOM-02DS
106	2	Bearing, Flange, 3/4" x 1/4" Long, 12FDU04	24012
107	1	Roll Stop Weldment	75321EVOMW-02
108	1	Bolt, 5/16-24 x 2 1/4" Flat Head Socket	82346
109	1	Link Assembly, Bridge Plate	74406A
110	1	Bolt, 5/16-24 x 2", Flat Head Socket - Plated	82347
111	1	Block, Bridge Plate Slider	74408
112	1	Screw, 1/2" x 1/4" Shoulder Socket Hd x 3/8-16	82771
113	1	Spring, Lower Closure, Torsion	73335
114	1	Block, Nylon Slider Inside	74410-02
115	2	Washer, .390" I.D. X .625" O.D. X .073"	83585
116	1	Block, Nylon Slider Outside	74409
117	1	Tie Rod, Bridge Plate	75407EVOM
118	1	Bolt, 5/16-24 x 1", Socket, Button Head	82348
119	1	Skid, Bridge Plate x 27"	74402-27
120	8	Screw, 1/4-20 x 1/2", BUT HD SOC/AUTO BK	15733
121	1	Plate, Bridge	74401-31-A3DS
122	1	Hinge Weldment, Bridge Plate	75420EVOMW
123	4	Spring, Torsion	85101EVO
124	1	Spring, Torsion	85101
125	1	Shaft, Barrier Hinge	75413
126	2	E-Clip, 3/8" Shaft	84383
127	1	Catch Weldment, Bridge Plate	74415MW
128	3	Bearing, UHMW Flat - 1.5" Diameter	29592
129	2	Screw, 1/4-20 x 1 3/4" Allen Button Head	40-2880-0
130	2	Nut, 3/8-16 UNC Hex Lock Jam	20926
131	3	Screw, #10-32 x 1/2", Pan Hd., Self-Tap	36307
132	1	Assembly Closure, UVL855EVO	75330EVOA-02
133	1	Tape, 1/8" x 1 1/2" x 25"	82054R025
134	1	Adapter-Cyl/Roll Stop Lever	915-0344
135	4	Bearing, UHMW Flat-Black	35354
136	2	Block, Lid Attachment	36167
137	4	Bolt, 5/16-18 x 3/4" BHSC	29863
138	1	Bolt, HR Block/Spring Attach	30917-02
139	1	Latch, Roll Stop	30918-02
140	1	Washer, .63" x .8" x .06" Nylon	83584
141	2	Bearing, Flange-1/2" x 1/4"-08FDV04	24442
142	1	Bolt, 5/16-24 x 5/8" x 1/2" Dia. Shoulder	30921-02
143	1	Spring, .5" O.D. x .075" WD x 2.73" EXT x 38.2SR/SS	31016
144	1	Cam-7/8" UVL Follower	84052
145	1	Adapter, Cylinder/Roll Stop Lever - Out	990-0341
146	1	Screw, #10-32 x 3/8" Fl Hd - Hx Skt / Auto-Bk	24537
147	1	Screw, 5/16-18 x 3/4" FHS Auto-Bk	25527
148	6	Bolt, 1/4-20 x 1" Hex -SS	21987
149	1	Grommet, Rubber - 1 1/2" ID x 2 1/8" OD x 1/8" Gr	32392
150	1	Spacer, UHMW-Roll Stop	75335EVO
151	2	Screw, 1/4-20 x 1" - Socket Head Cap	24221
152	2	Screw, 10-32 X 5/8" PH PAN SS	82884
153	16	Nut, M20-2.5 Zinc Plated Jamb	32958
154	8	Washer, M21-33 X 2.5 ZP	83530
155	4	Threaded Rod, M20-2.5 X 177.8mm (7")	32973
156	8	Washer, 3/4" Flat	10066

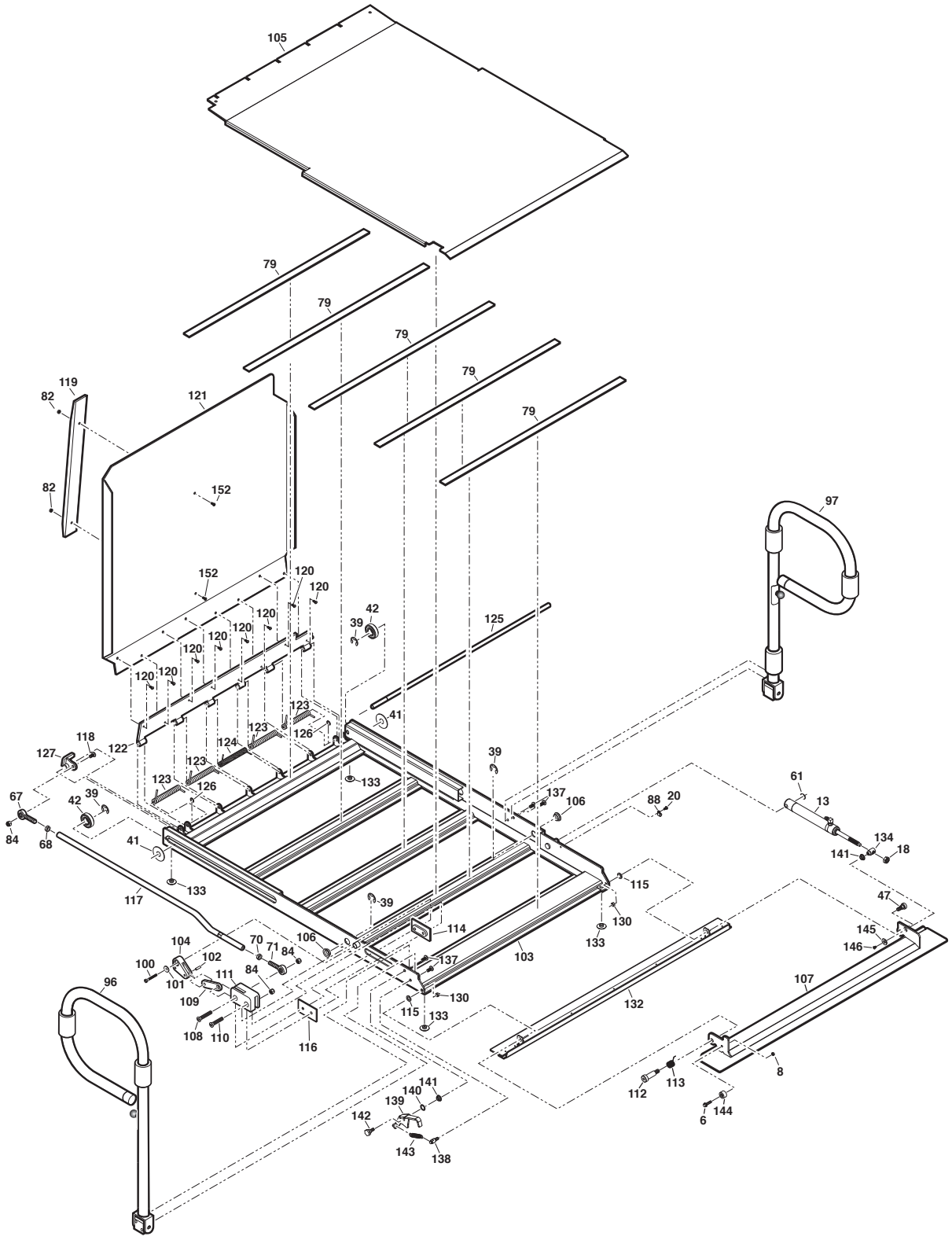
Housing Exploded View Detail - UVL855EVOM Series 03



Carriage Exploded View Detail - UVL855EVOM Series 03



Platform Exploded View Detail - UVL855EVOM Series 03



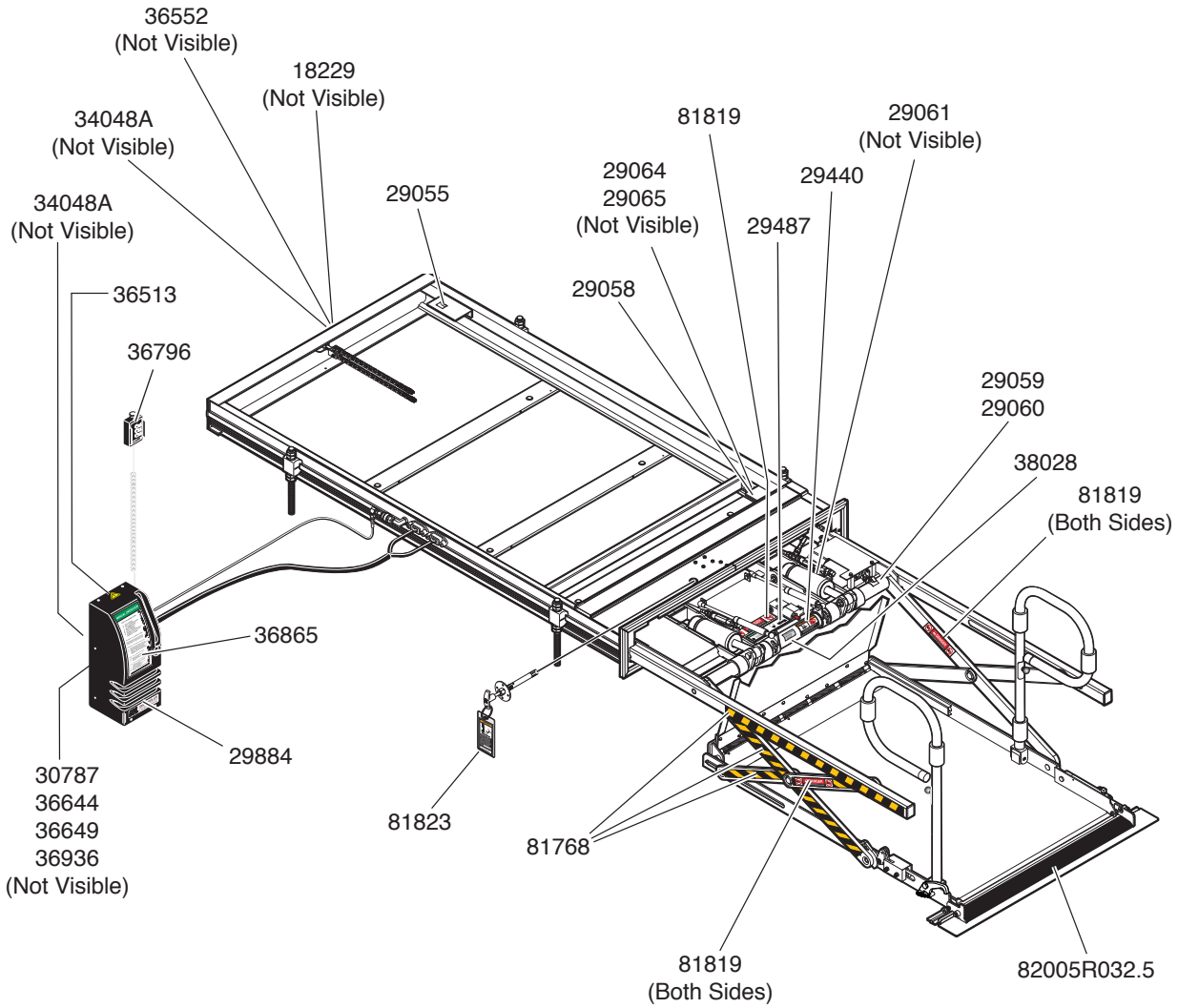
Decals and Antiskid

⚠WARNING

Replace missing, worn or illegible decals. Failure to do so may result in serious bodily injury and/or property damage.

Notice: Clean surfaces with isopropyl alcohol before decal or antiskid application. Use a clean cloth or paper towels. Do not use oily shop rags. Wipe surface free of residue with dry portion of cleaning cloth.

Graphics of decals appear on pages 34 - 38.



Additional Decals Supplied with Lift Parts Box: 26551, 27057, 81813, 81814

Decals and Antiskid

Part No.	Description
18229	Inspect/ Made in America
26551	Oper UVL, Auto IB Manual HR
27057	Logo, UVL 42.375” x 3.625”
38028	Lift Rating UVL 800LB (363KGS)
29055	Lift Out Cam, UVL
29058	Full Out Cam, UVL
29059	Stow Start Cam, UVL
29060	Floor Level Cam, UVL
29061	Ground Pressure Sensor, UVL
29064	Lift Out Microswitch, UVL
29065	Full Out Microswitch, UVL
29440	Warning, Face Out/Lock Brakes, UVL
29487	Instr Pop Valve
29884	UVL Patent and Trademark Correct
30787	Warning, Damage Control Board, ESD
34048A	Tag, Serial No./Identification Assembly
36513	Electrical Shock, International, Pictoral
36552	Authorized Representative, International, CE
36644	Fuse Specifications, International, UVL-2
36649	Electrical Components, Module, International, UVL-2
36936	Electrical Components, Lift, International, UVL-2
36796	Pendant Operation
36865	Manual Operation, UVL, Hydraulic Roll Stop w/o Stow Catch
81768	Caution Stripe 1” x 30”
81813	UVL Caution, Stepwell
81814	UVL Caution, Lock Brakes
81819	Danger, Keep Clear
81823	Tag, Warning/Cable Release, UVL
82005R032.5	Antiskid, 3” x 32 1/2” Black

Decals and Antiskid

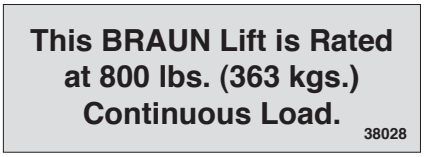
Antiskid

Antiskid		
Size	**Color**	**Part No.**
3" x 32.5"	Black	82005R032.5

Decals

Caution Stripe, 1” x 30”
81768

Danger, Keep Clear
81819



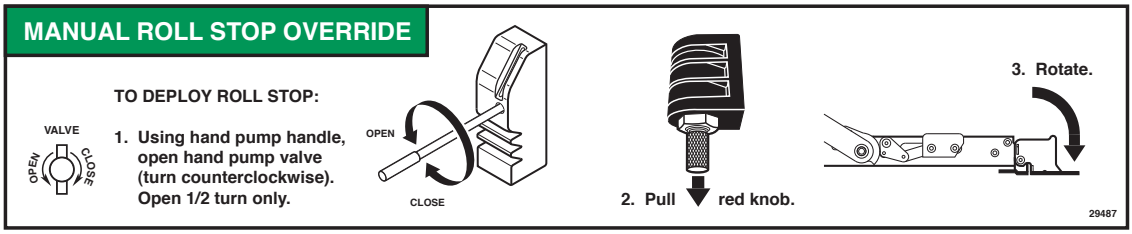
Lift Rating
38028

UVL Patent and Trademark
29884

Lift Out Microswitch
29064

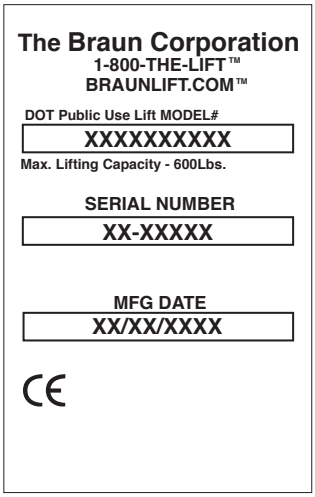
Full Out Microswitch
29065

Decals and Antiskid



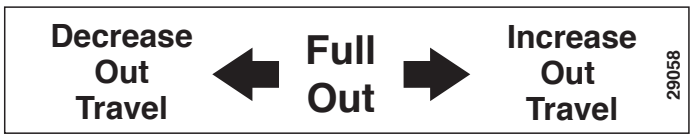
Instructions, Pop Valve
29487

Warning/Cable Release
81823

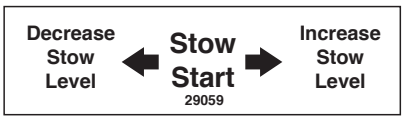


Serial Number/
Identification Tag
34048A

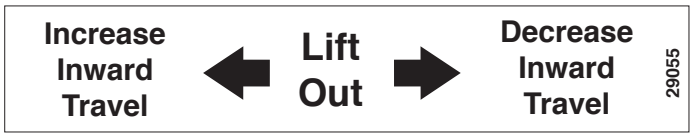
Warning, Control
Board Damage
30787



Full Out Cam
29058

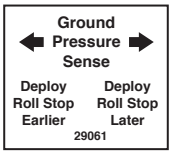


Stow Start Cam
29059



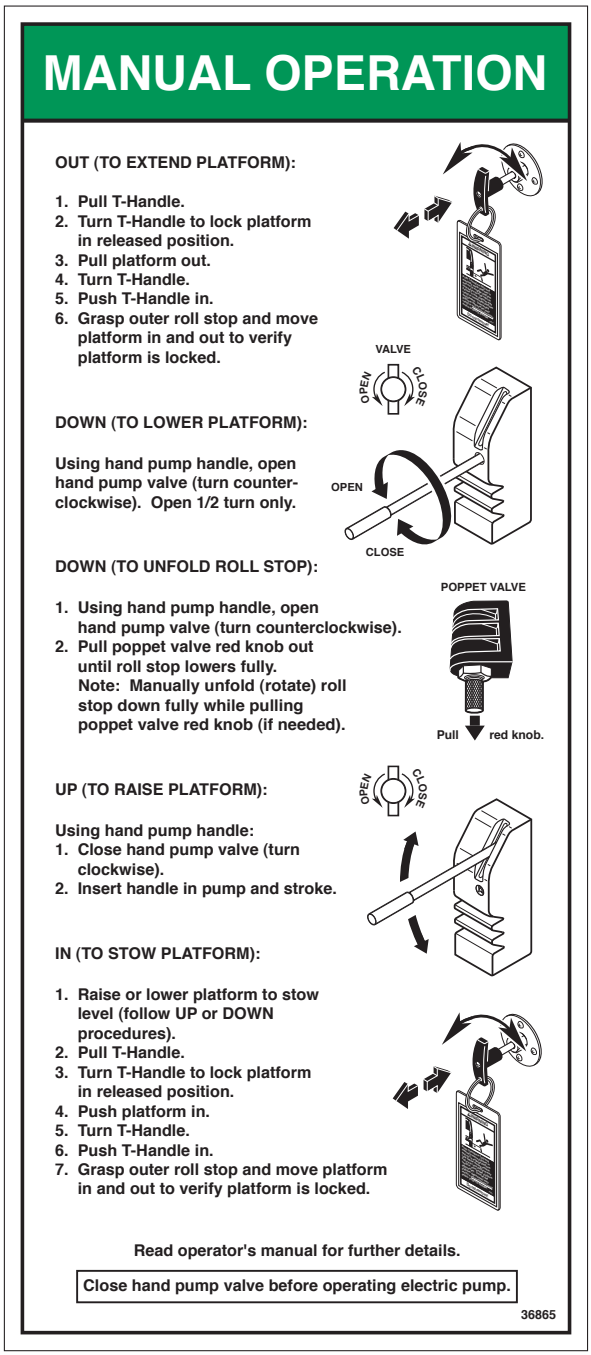
Lift Out Cam
29055

Floor Level Cam
29060

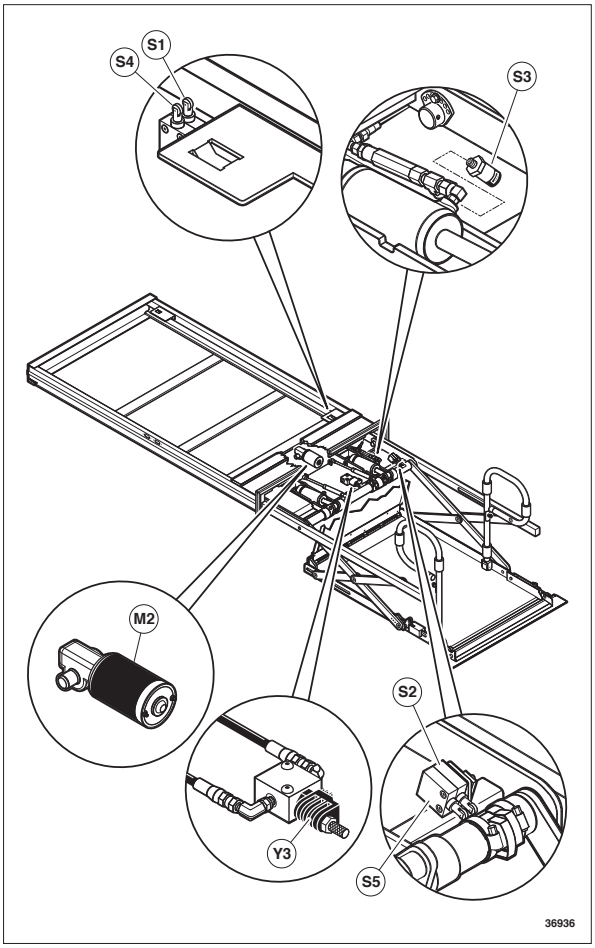


Ground Pressure Sensor
29061

Decals and Antiskid



Manual Operation
36865

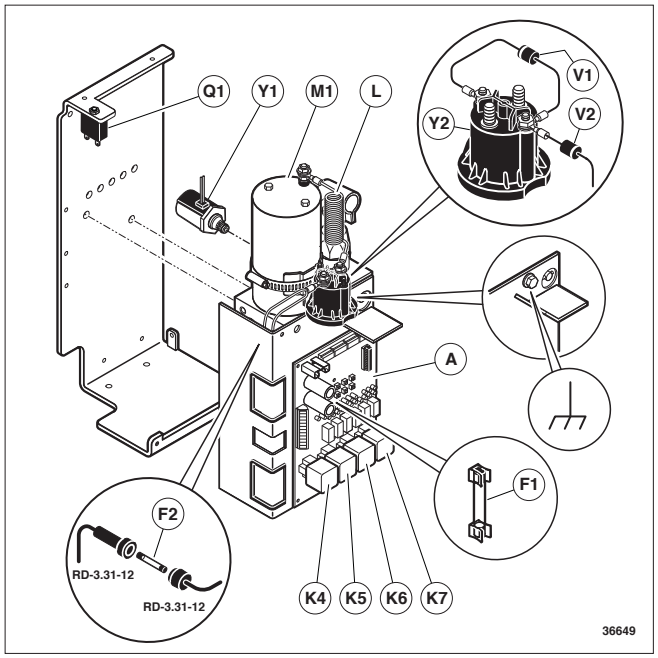


Electrical Components - Lift
36936

Fuse No.	Voltage	Amperage	SC I/R	Type	Size	
F1 & F2	250 VDC	5 Ampere	200A @ 250VDC	FF	1.25"L x 0.25"W x 0.25"H	36644
F3	32 VDC	3 Ampere	1000A @ 32VDC	FF	0.75"L x 0.2"W x 0.488"H	

Fuse Specifications
36644

Decals and Antiskid



Electrical Components - Module
36649

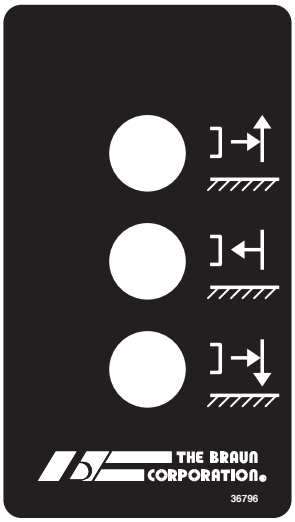
The Braun Corporation
Authorized Representative

UVL-Lift AB
Åkerivägen 7
S-443 61 Stenkullen
SWEDEN
Telephone: +46-302 254 00
E-mail: contact@autoadapt.se
Internet: www.autoadapt.se

36552

Authorized Representative
36552

Hazard
Electrical
Shock
36513



Pendant Operation
36796

Face Out/Lock Brakes
29440

Inspection/ Made
in America
18229

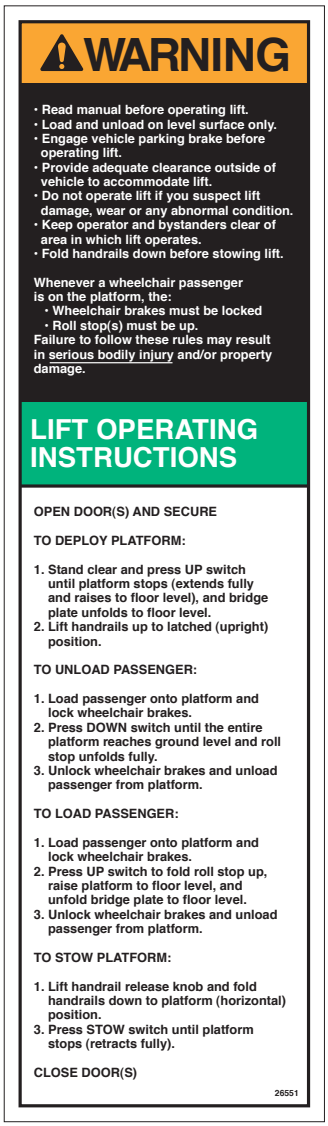
Decals and Antiskid

Additional Decals Supplied with Lift Parts Box

Logo
27057

Caution Lock Brakes
81814

Caution Stepwell
81813



Lift Operating Instructions
26551

THE BRAUN CORPORATION®

EC Declaration of Conformity With Council Directive 2006/42/EC	CE
Date of Issue:	16 February 2011
Directive:	Machinery Directive on machinery safety, 2006/42/EC
Conforming Machinery:	Hydraulic Lift System UVL855EVOM Series A2 and Newer International Lifts
Manufacturer:	Braun Corporation 631 West 11th Street Winamac, IN 46996 USA
Authorized Representative:	Braun Corporation Authorized Representative UVL-Lift AB Åkerivägen 7 S-443 61 Stenkullen SWEDEN Telephone: +46-302 254 00 E-mail: contact@autoadapt.se Internet: www.autoadapt.se
Harmonized Standards Referenced or Applied:	BS EN 13857:2008, BS EN ISO 13850:2008, EN ISO 14121-1:2007, BS EN 349:1993+A1:2008, BS EN 953:1997+A1:2009, BS EN 1037:1995+A1:2008, BS EN 982:1996+A1:2008, BS EN 614-1:2006+A1:2009, EN 60204-1:2006, BS EN 1756-2:2004+A1:2009
Specifications with which Conformity is Declared:	Essential Health and Safety Requirements of Annex 1 of the Machinery Directive
We hereby certify that the machinery described above conforms with the essential health and safety requirements of Council Directive 2006/42/EC on the approximation of the laws of the Member States relating to the safety of machinery.	
Technical File Reference Number	SF10999A1.BC

Notes on Declared Standards referenced in the Declaration.

BS EN 13857:2008	Safety of machinery. Safety distances to prevent hazard zones being reached by upper and lower limbs.
BS EN ISO 13850:2008	Safety of machinery - Emergency stop - Principles for design.
EN ISO 14121-1:2007	Safety of machinery - Risk assessment - Part 1: Principles.
BS EN 349:1993+A1:2008	Safety of machinery. Minimum gaps to avoid crushing of parts of the human body.
BS EN 953:1997+A1:2009	Safety of machinery. Guards. General requirements for the design and construction of fixed and moveable parts.
BS EN 1037:1995+A1:2008	Safety of machinery. Prevention of unexpected start-up.
BS EN 982:1996+A1:2008	Safety of machinery. Safety requirements for fluid power systems and their components. Hydraulics.
BS EN 614-1:2006+A1:2009	Safety of machinery - Ergonomic design principles - Part 1: Terminology and general principles.
EN 60204-1:2006	Safety of machinery. Electrical equipment of machines. General requirements.
BS EN 1756-2:2004+A1:2009	Tail Lifts-Platform lifts for mounting on wheeled vehicles-Safety Requirements-Part 2: Tail lifts for passengers.

Declaration of Noise Emission

The Braun Corporation UVL855EVOM International Series System Sound Pressure Levels per EN ISO 11202 as based on testing on similar models are as follows:

	Operating	Idle
L_{pAm} (Operator Position)	75 dB (A)	68 dB (A)
L_{pAm} (Bystander Position)	73 dB (A)	69 dB (A)

Ambient Correction Factor K3A calculated according to EN ISO 11204 Appendix A. 4 dB (A)

Measurements were made at a height of 1.5 m and 1 m from the Operator Position and Bystander positions.

The difference between the extraneous noise level and the sound intensity level at each measuring point is: $L_{pAm}\ \Delta$ = 6 dB (A)

The figures quoted are emission levels and are not necessarily safe working levels. While there is a correlation between the emission and exposure levels this cannot be used reliably to determine whether or not further precautions are required.

Factors that influence the actual level of exposure of the workforce include characteristics of the work room, the other sources of noise, etc. such as the number of machines and other adjacent processes. Also, the permissible level of exposure can vary from country to country.

This information, however, will enable the user of the machine to make a better evaluation of the hazard and risk.

Braun Corporation
631 W. 11th Street
Winamac, IN 46996
USA

CE

THE BRAUN CORPORATION®

Declaration of Conformity With Directive 2004/108/EC CE	
Date of Issue:	20 December 2010
Directive:	Radio Interference of Vehicles 2004/108/EC
Conforming Machinery:	Hydraulic Lift System UVL855EVOM Series A2 and Newer International Lifts
Manufacturer:	Braun Corporation 631 West 11th Street Winamac, IN 46996 USA
Authorized Representative:	Braun Corporation Authorized Representative UVL-Lift AB Åkerivägen 7 S-443 61 Stenkullen SWEDEN Telephone: +46-302 254 00 E-mail: contact@autoadapt.se Internet: www.autoadapt.se
Harmonized Standards Referenced or Applied:	EN50498:2010
We hereby certify that the machinery described above conforms with Directive 2004/108/EC.	
Technical File Reference Number	SF10999A1.BC

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"Providing Access to the World"

International Corporate Hdqrs: P.O. Box 310 Winamac, IN 46996 USA
1-800-THE LIFT® (574) 946-6153 FAX: (574) 946-4670

Service Manual for:

UVL855EVOM

Under-Vehicle Lift®

Commercial Wheelchair Lifts

Series 03

Braun Limited Warranty

Consult your local Braun dealer regarding warranty policy.

www.braunlift.com/international

Patent #5,305,486

38044
November
2012

THE BRAUN CORPORATION®

www.braunability.com/international ISO 9001:2008

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Phone: +1 574 946 6153 Fax: +1 574 946 4670

CE

Original Instructions