

Service Manual for:

UVL855R

UVL855R24

Under-Vehicle Lift®



www.braunability.com/international ISO 9001:2008

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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

The Braun Corporation® INDIANA, USA	
MODEL NUMBER XXXXXXXXXX	→ Model No. _____
SERIAL NUMBER XX-XXXXX	→ Serial No. _____
MFG DATE XX/XX/XXXX	→ Date of Manufacture _____
CE	

Sample Serial No./Series No. Identification Tag

Model No. Serial No.

OWNER'S WARRANTY REGISTRATION	
XXXXXXXXXX XX-XXXXX	
PURCHASED FROM _____	
OWNER _____	
NAME _____	DATE INSTALLED _____
ADDRESS _____	
CITY _____	
TELEPHONE _____	STATE _____ ZIP _____
TO VALIDATE WARRANTY REGISTRATION CARDS MUST BE RETURNED TO THE BRAUN CORPORATION	

Sample Warranty/Registration Card

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Document Cross Reference

Owner Manual 37272

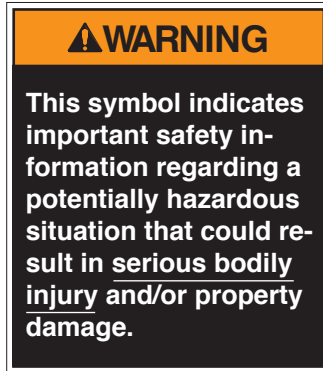
Service Safety Precautions

Safety Symbols

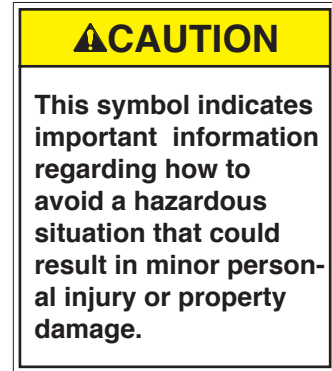
SAFETY FIRST! Know That....

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





C





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 personnel 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 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 UVL855R and UVL855R24 have completed 15,600 cycles with a 340kg (750 lb.) load and a static load test with a 1020 kg (2250 lb) load.

Operating Temperature

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

Power Requirements

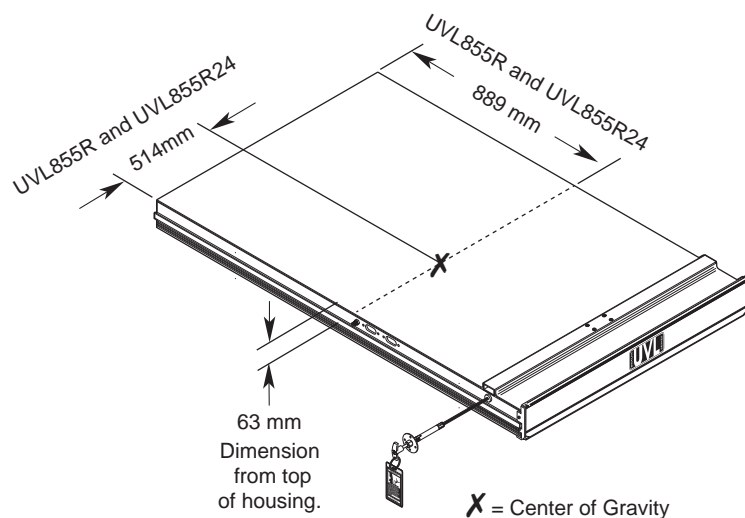
12 VDC -- UVL855R 24 VDC -- UVL855R24

Lift Weight (Installed)

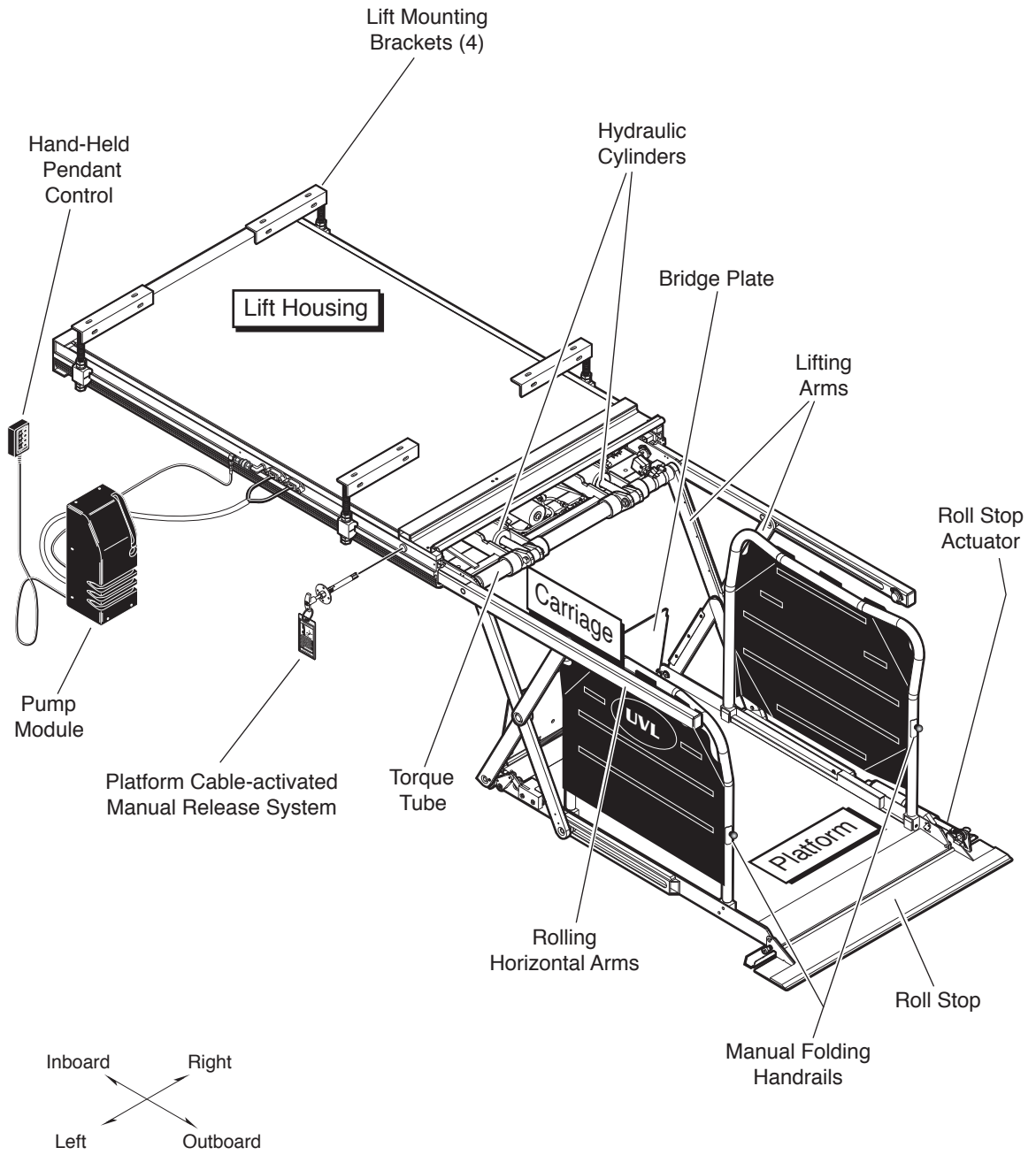
UVL855R -- 263 kg (580 lbs) UVL855R24 -- 263 kg (580 lbs)

Lifting Capacity

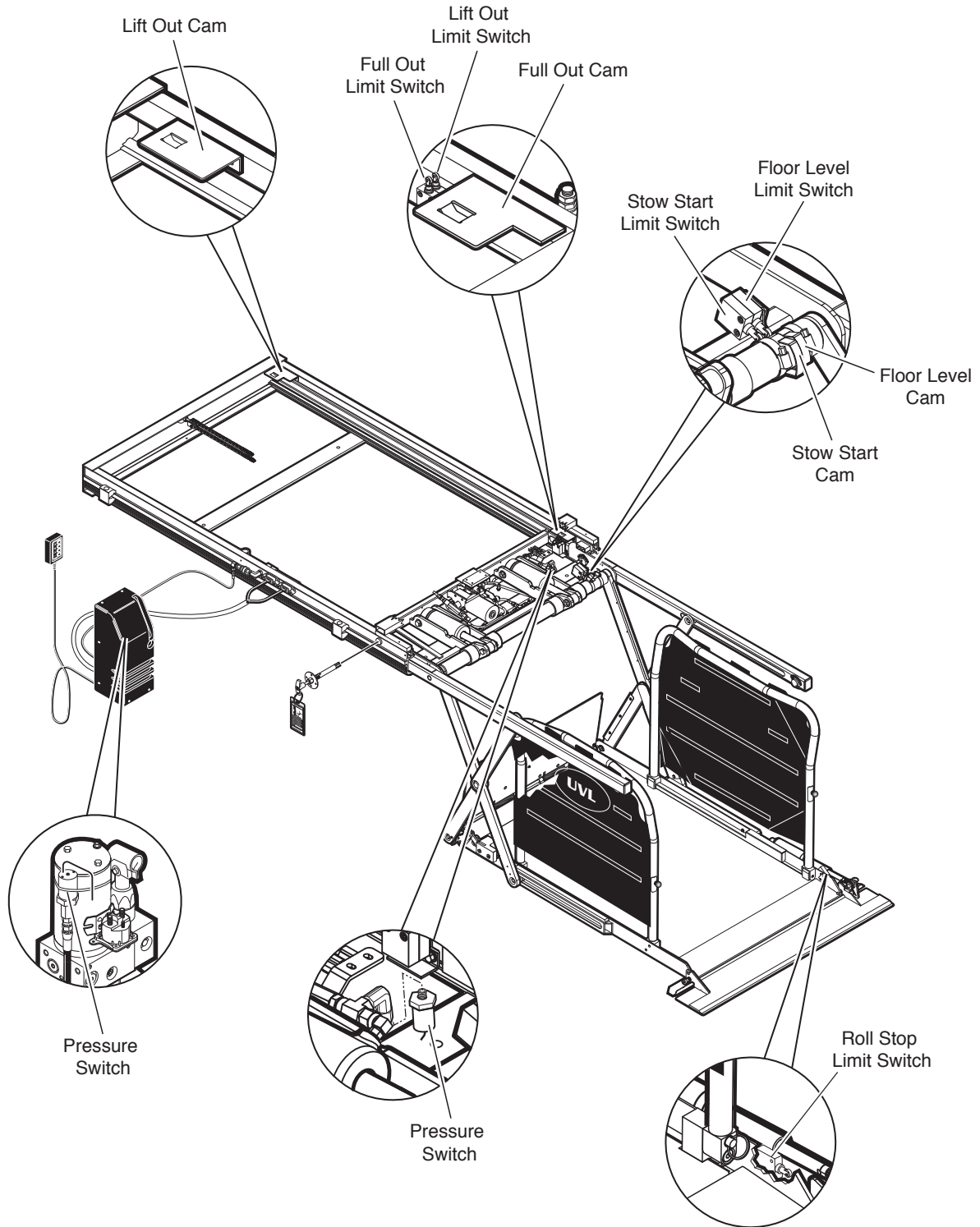
Maximum 340 kg (750 lbs.)



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

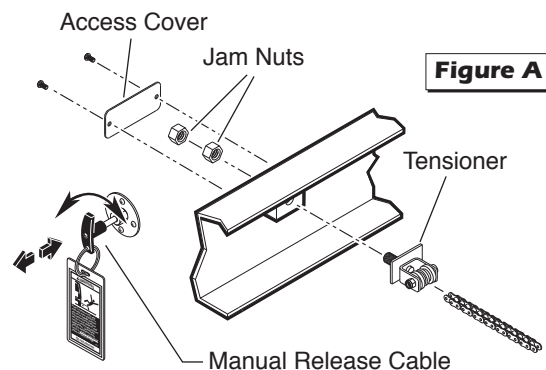
The carriage horizontal arms move (roll) in and out of the housing tracks on roller bearings. Following installation or extensive lift operation, clearance between horizontal arms and tracks may diminish. The eccentric shaft mounting plate allows height adjustment.

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.



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 3.8 cm (1.5") of overlap.

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.

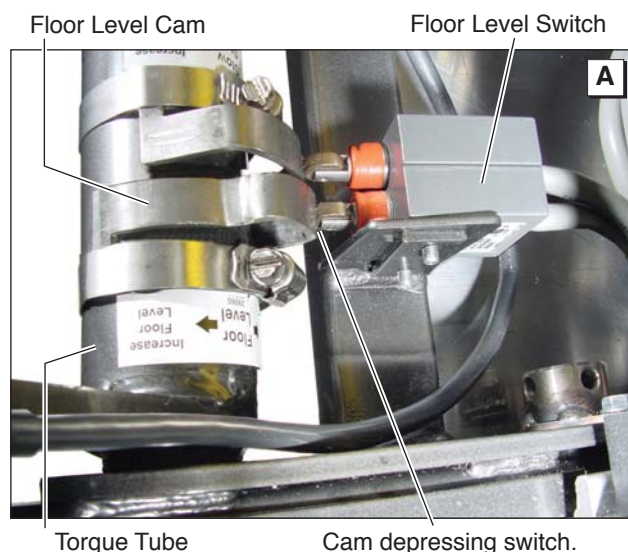
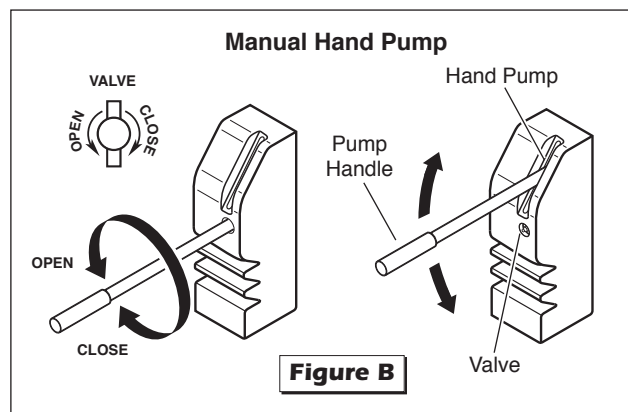
2. Loosen the clamp securing the torque tube-mounted Floor Level cam. See Photo A. Rotate the cam until the Floor Level switch is activated (cam depresses switch). Tighten the clamp securing the cam.

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 and has a minimum of 3.8 cm (1.5") of vehicle floor overlap, 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.



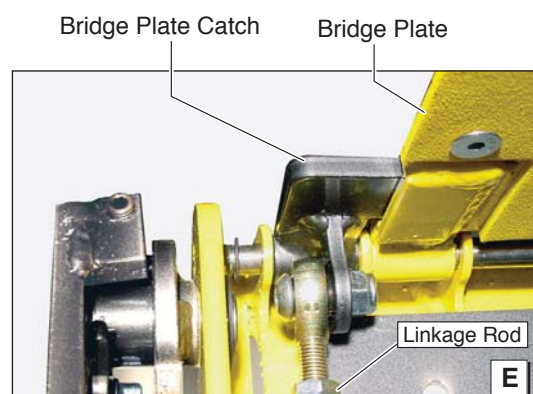
Floor Level and Bridge Plate Adjustments

Bridge Plate Cam Adjustment

Adjust the Floor Level switch first (detailed in previous section). If the above Floor Level Requirements are not met - adjust the bridge plate cam as detailed in the following procedures (lift in photos is not a UVL855R).

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

1. Position the lift platform approximately 12" above stow level. See Photo B. Raising the platform will allow access to the cam securement screw and nut. See Photo C.
2. Use an Allen wrench to prevent the cam locking screw from turning and loosen the 3/8" serrated flange nut securing the bridge plate cam. See Photos C and D. Do not remove the screw or nut.
3. Using the control pendant, press the UP button until the platform raises fully (stops).
4. Turn the cam adjustment screw counter-clockwise until the bridge plate rests on the vehicle floor. See Photo D.
5. Verify there is no gap between the inner roll stop and the roll stop catch. See Photo E. Turn the adjustment screw clockwise to bring the bridge plate catch back in contact with the bridge plate. Do not remove the gap by adjusting the linkage rod.
6. While holding the cam locking screw, tighten the 3/8" serrated flange nut securely. See Photos C and D.
7. Verify bridge plate overlaps vehicle floor a minimum of 3.8 cm (1 1/2"). Adjust full out cam and/or lift housing positioning to meet this requirement.



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 F.

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.

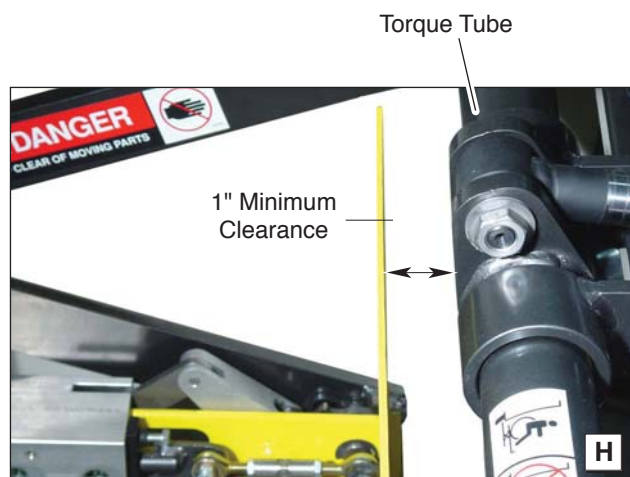
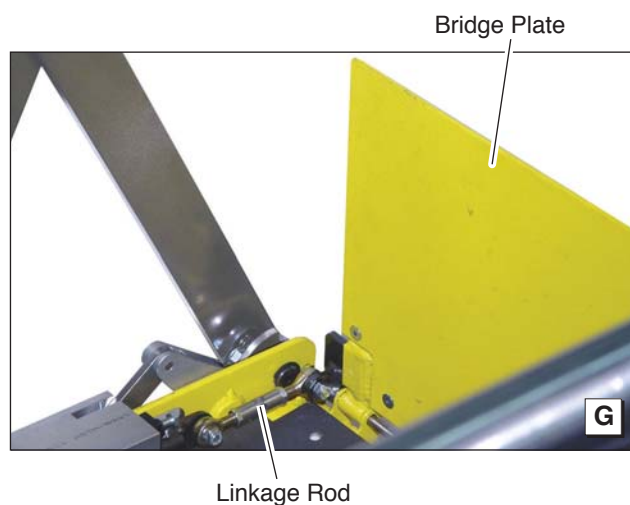
Adjust the bridge plate as detailed in the previous procedures. Then, adjust the linkage rod as detailed (only if necessary). If the linkage rod is over adjusted (too long or too short), it will exceed the travel of the slider block resulting in damage to the cam follower bearing, the cam and/or other 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 of the linkage rod. Adjust rod length as needed. Minimize adjustment. Provide a minimum of 1" clearance between bridge plate and torque tube (bridge plate must clear cylinder mount). See Photo H.
3. Carefully check the bridge plate angle and operation using the hand pump. Ensure the linkage rod has not been over adjusted resulting in pressure on components (damage will result).
4. 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 425k 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 425kg 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°.

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 425kg 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 425kg 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 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

Static and Dynamic Tests

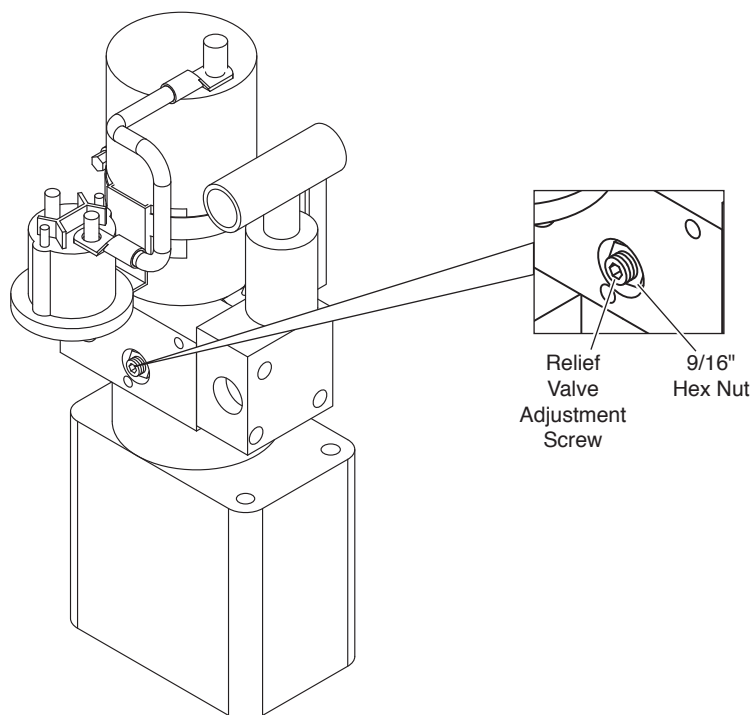
Dynamic Test

With 340kg 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 340kg 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.

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.

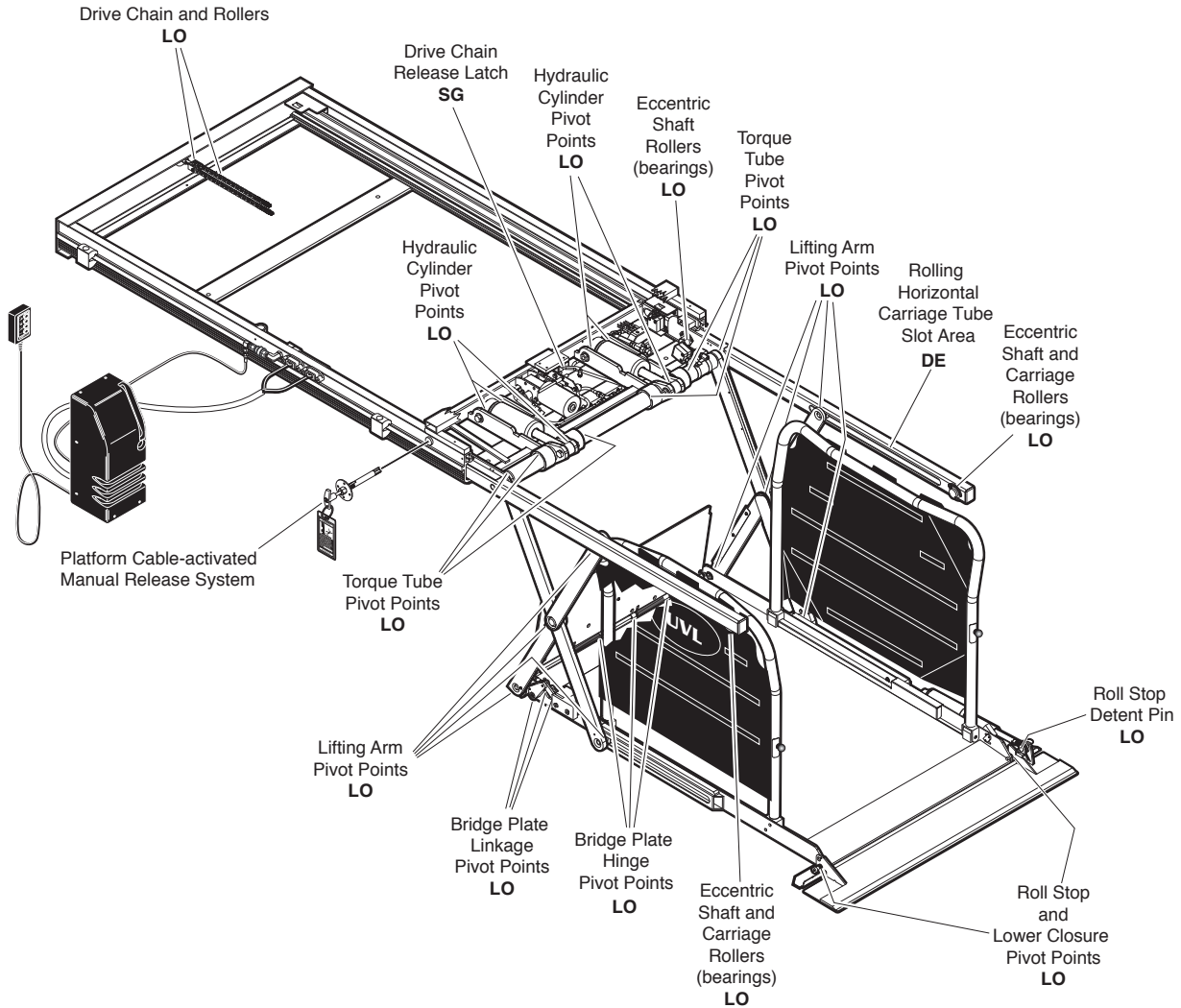
Discontinue lift use if maintenance and lubrication procedures are not properly performed, or if there is any sign of wear, damage or improper operation. Contact your authorized representative.

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.

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

Maintenance and Lubrication

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 lower closure gasket	Resecure, replace or correct as needed
	Roll stop detent pin	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: <ul style="list-style-type: none"> • 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.

Maintenance and Lubrication

1500 Cycles	Carriage rollers (bearings)	Apply Light Oil - See Lubrication Diagram
	Eccentric shaft rollers (bearings)	Apply Light Oil - See Lubrication Diagram
	Rolling horizontal carriage tube 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)
 - Bridge plate pivot pin (2)
 - Eccentric shaft track roller bearing (4)
 - Handrail pivot pins (8)
 - Roll stop actuator (1)
 - Hydraulic cylinder pins (4)

Inspect lower lifting arm pins for wear or damage, positive securement and proper adjustment

Resecure, replace damaged parts, lubricate or correct as needed.

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 reservoir (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	<ol style="list-style-type: none"> 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.

A 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 1.12 Bad ground 1.13 Poor plug connections 1.14 Blown fuse 1.15 Defective circuit breaker 1.16 Improper terminal block wiring	Vehicle engine must be running during lift operation. Check condition of vehicle battery. Check for good ground between vehicle chassis and aluminum manifold on power pack. Check all plugs for proper contact. 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. Reset or replace if necessary. Check for proper wiring of terminal block.
2.00 PUMP RUNS BUT WILL NOT LIFT PLATFORM	2.11 Hydraulic valve open 2.12 Manual valve open 2.13 Pump mounted horizontal 2.14 No oil (low) 2.15 Hydraulic hose not connected	Flush valve by operating manual override switches UP and DOWN at same time for 4 to 5 seconds several times. Close manual valve. Flush valve by running UP with manual override. Open valve 4 to 5 seconds several times. Power pack must be mounted vertically. Check fluid level. 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 3.12 Bad power and ground	Check for power on pump "T" wire going to solenoid. 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 4.12 Hand-held pendant not working properly 4.13 See 12.0	Check full out switch for proper operation/adjustment. Replace or adjust as necessary. Check for UP diagnostic LED when hitting UP button on hand control. Replace control box as necessary.
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 5.12 Dirty down valve (clogged)	Check for power on valve "T" wire going to solenoid when pushing manual override or remote button. Replace if necessary. 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. 6.12 See 12.0	Check for proper operation of Full Out switch with diagnostic LED. Replace or adjust switch as necessary.
7.00 LIFT WILL NOT GO OUT WITH OVERRIDE OR HAND-HELD PENDANT	7.11 Defective circuit breaker 7.12 No power on terminal 8 7.13 Interlock circuit incomplete 7.14 Poor plug connections 7.15 Bad in/out motor 7.16 Bad power and ground	Reset or replace if necessary. Check vehicle door full open switch and wiring. Verify interlock installation Check harness connections E1, E2, B1 and B2 Check power at motor. Replace motor if necessary. See 1.00

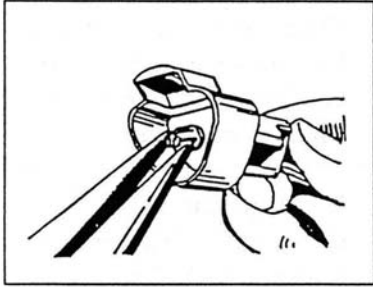
Troubleshooting Diagnosis Chart

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 8.12 See 12.0	Check for proper operation of Below Stow switch. Replace or adjust switch as necessary.
9.00 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 roll stop.	9.11 Ground Sensor pressure switch 9.12 See 5.0 9.13 Hydraulic poppet valve bad 9.14 Dirty poppet valve (clogged) 9.11 Defective circuit breaker 9.13 Bad relay(s)	Reset or replace if necessary. 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. Replace Reset or replace if necessary. Check Barrier Up and Barrier Down power relays. Replace if necessary.
10.00 ROLL STOP OPERATES WITH OVERRIDES BUT WILL NOT GO UP WITH HAND-HELD PENDANT	10.11 Hand-held pendant not working properly 10.12 See 12.0	Check for UP diagnostic LED when hitting UP button on hand control. Replace control box as necessary.
11.00 ROLL STOP OPERATES WITH OVERRIDES BUT WILL NOT GO DOWN WITH HAND-HELD PENDANT	11.11 GROUND SENSOR (GND SENS) diagnostic LED not illuminated 11.12 BELOW STOW (BELOW) diagnostic LED not illuminated 11.13 FULL OUT diagnostic LED not illuminated 11.14 See 12.0	Check Ground Sensor pressure transducer. Replace or adjust as necessary. Check Below Stow switch for proper operation. Replace or adjust as necessary. Check Full Out switch for proper operation. Replace or adjust as needed.
12.00 SWITCHES DO NOT ACTIVATE LED(S)	12.11 Improper terminal block wiring 12.12 No power going to switches 12.13 Faulty wiring 12.14 Faulty connections	Check terminal block for correct wiring configuration. Check power on connector A1, pins 1 and 2. Check continuity of wires from switches to connector A2. Check for proper connections on each switch and on each connector on the harnesses. Replace contact if necessary. See diagram at right.

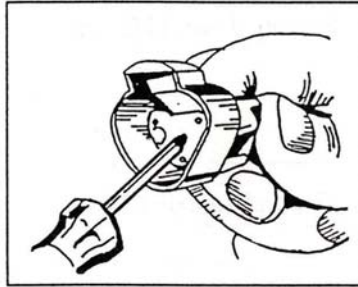
Troubleshooting Diagnosis Chart

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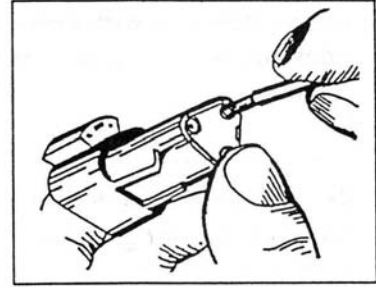
CONTACT REMOVAL



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

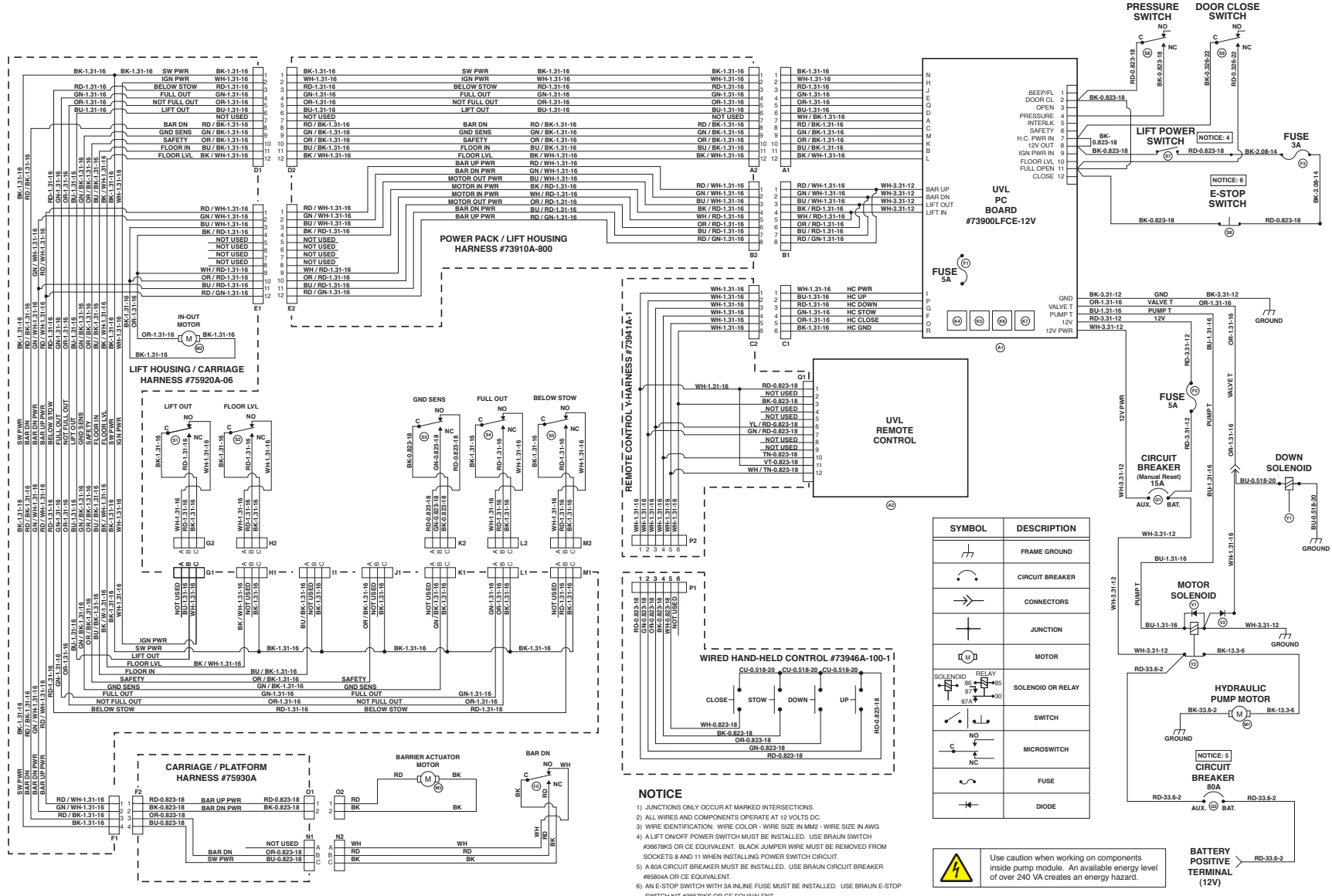


2. To remove the contacts, gently pull wire backwards, while at the same time releasing the locking finger by moving it away from the contact with a screwdriver.

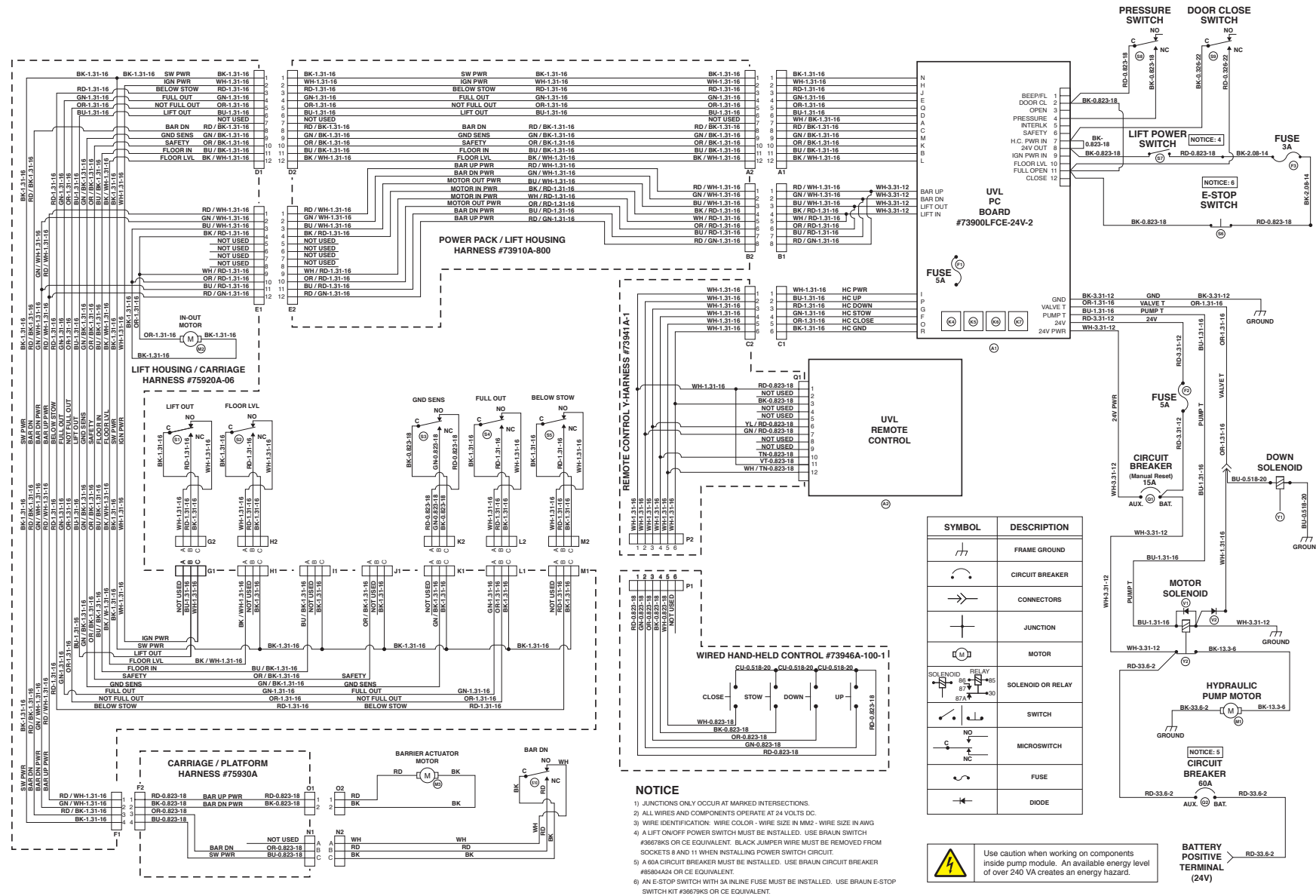


3. Hold the rear seal in place, as removing the contact will displace the seal

UVL855R (12V) Lift Electrical Schematic



UVL855R24 (24V) Lift Electrical Schematic



SYMBOL	DESCRIPTION
	FRAME GROUND
	CIRCUIT BREAKER
	CONNECTORS
	JUNCTION
	MOTOR
	SOLENOID OR RELAY
	SWITCH
	MICROSWITCH
	FUSE
	DIODE

- 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 #3667RKS 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 #8580A42 OR CE EQUIVALENT.
 - 6) AN E-STOP SWITCH WITH 3A INLINE FUSE MUST BE INSTALLED. USE BRAUN E-STOP SWITCH KIT #3667RKS OR CE EQUIVALENT.

Use caution when working on components inside pump module. An available energy level of over 240 VA creates an energy hazard.

Hydraulic Parts List

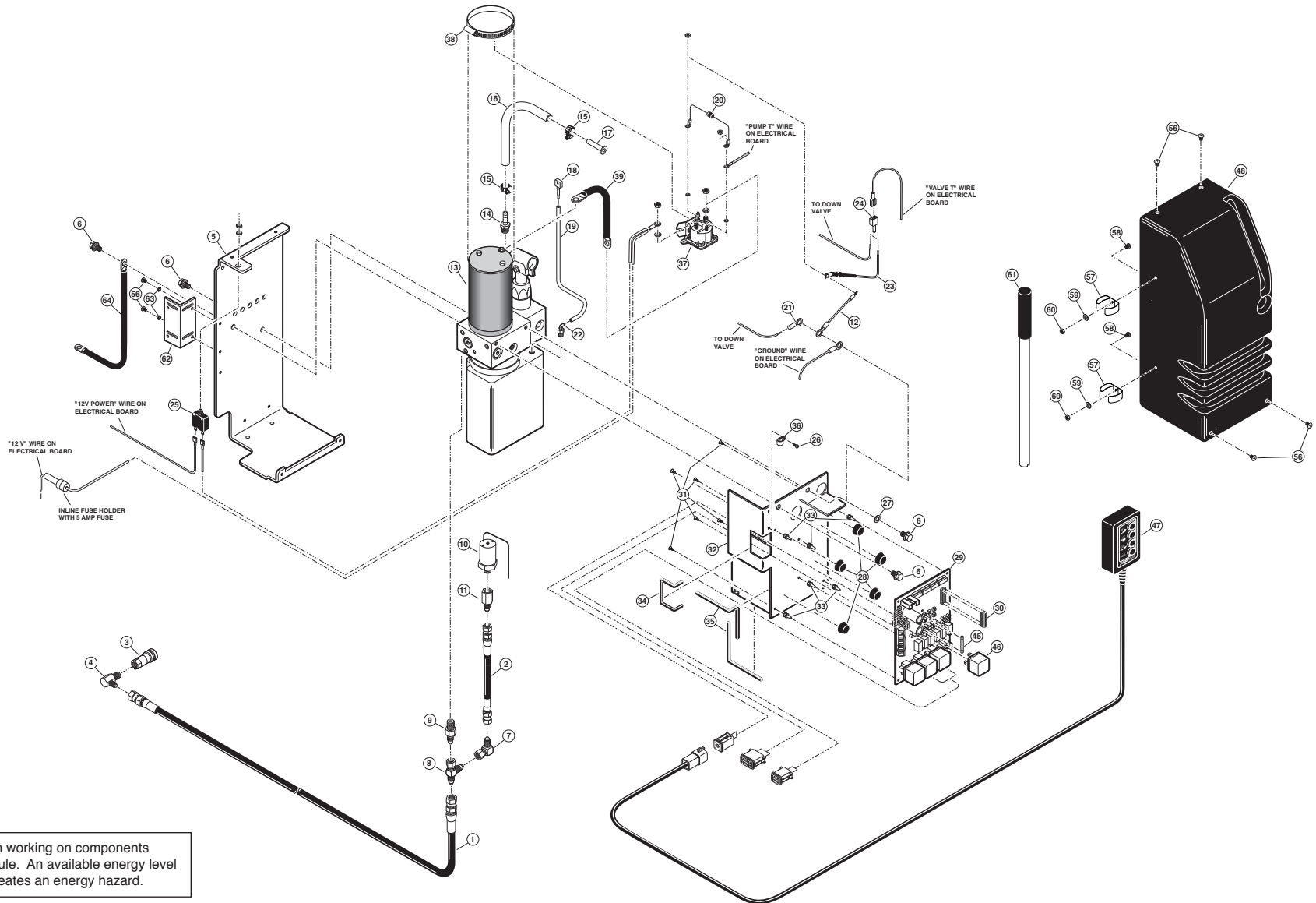
UVL855R / UVL855R24

Item	Qty.	Description	
1	1	Pump Assembly UVL Power Pack - 12V (shown)	36383
	1	Pump Assembly, UVL Power Pack - 24V	87060-24V
2	1	Motor, Pump	14785-IS
	1	Motor, Pump - 24V	16504-IS
3	1	Valve, "Down" (with Solenoid) - 12V	35080
	1	Valve, "Down" (with Solenoid) - 24V	35081
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 Grip	17206A
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	1	Adapter, 1/4" Male NPT x 7/16-20 Male JIC 37°	10130
18	1	Fitting, Tee, 7/16-20 Male JIC 37° (3)	30793
19	1	Hose Assembly, 1/4" - Female Swivel 7/16-20 JIC 37°	32785A-106
20	2	Fitting, 90° - 9/16-18 Male O-Ring x 7/16-20 JIC 37° Male	87622
21	1	Coupling, Hydraulic Quick Connect x 1/4" Female NPT	87614
22	1	Nipple, Hydraulic Quick Connect x 1/4" Female NPT	87615
23	2	Elbow, 90° - 1/4" NPT Street	10114
24	1	Nut, 9/16-18, Hex Jam	83077
25	1	Fitting Assembly, Bulk Head	73777A
26	1	Hose Assembly, 3/16" - Female Swivel 7/16-20 JIC 37°	35262A-66
27	1	Adaptor, Hydraulic Internal	87560
28	2	Valve, Flow Control	87053
29	1	Adaptor, 9/16-18 Male O-Ring to 1/4" Male NPT	31646
30	1	Fitting, Tee - 1/4" Male NPT (2) x 1/4" Female NPT	26786
31	1	Adapter, 1/8" Female NPT to 1/4 Male NPT	10113
32	1	Pressure Switch	73960A
33	2	Fitting, 90° - 1/4" Female Swivel NPT x 7/16-20 Male JIC 37°	26789
34	2	Cylinder, UVL Retracting	87055N
35	2	Hose Assembly, 1/8" - Female Swivel 7/16-20 JIC 37°	35261A-020
36	1	Fitting, Tee, 7/16-20 Male JIC 37° (2) x 7/16-20 Female JIC 37° Swivel	87587
37	1	Fitting, 90° - 7/16-20 Female JIC 37° Swivel x 7/16-20 Male JIC 37°	87592
38	1	Hose Assembly, 4" x 1/8" Dia.	16004A-004
39	1	Fitting, 90° - 7/16-20 Male JIC 37° x 1/4" Male NPT	87569
40	1	Fitting, 1/8" Female NPT x 7/16-20 Male JIC 37°	87623
41	1	Pressure Switch	87052
42	1	Clamp, Hose	17069
43	1	Solenoid, Motor - Prestolite - 12V (shown)	28308
	1	Solenoid, Motor - Trombetta - 24V	32930
44	1	Diode Assembly, Up Solenoid	73907A
45	1	Power Cable, Up Solenoid to Motor	29049

UVL855R (12V) Pump Module Parts List


Item	Qty.	Description	Part No.
		Pump Module, Complete (Items 1-46)	75800AR-09
1	1	Hose Assembly, 3/16" Diameter x 106"- Female 7/16-20 JIC 37°-SW/SW	32785A-106
2	1	Hose Assembly, 1/8" Diameter x 4"- Female 7/16-20 JIC 37°-SW/SW	16004A-004
3	1	Coupling, Hydraulic Quick Connect x 1/4" Female NPT	87614
4	1	Fitting, 90°- Male 7/16-20 JIC 37° x 1/4" Male NPT	87569
5	1	Plate, Power Pack Mounting	73822-2
6	4	Screw, 5/16-18 x 1/2", Serrated Washer Head, Hex	82881
7	1	Fitting, 90°-Female Swivel 7/16-20 JIC 37° x Male 7/16-20 JIC 37°	87592
8	1	Fitting, Tee - Female Swivel 7/16-20 JIC 37° x Male 7/16-20 JIC 37° x 2	87587
9	1	Adapter, 1/4" Male NPT x 7/16-20 Male JIC 37°	10130
10	1	Switch, Pressure 250/1000 PSI	87052
11	1	Fitting, 1/8" Female NPT x Male 7/16-20 JIC 37°	87623
12	1	Jumper Assembly, 12 Gauge x 4"	73943A
13	1	Pump Assembly, UVL Power Pack - 12 Volt	36383
14	1	Fitting, 3/8" Male NPT x 3/8" Barbed	87618
15	2	Clamp, Hose - 5/8" O.D. - Worm Drive	84325
16	1	Tubing, 3/8" x 5/8", Tygothane - Clear	82066R012
17	1	Plug, 3/8" Plastic Tube	81580
18	1	Plug, 1/8" Plastic Tubing	81583
19	1	Tube, 1/4" O.D. x 1/8" I.D. - Plastic	81557R014
20	1	Diode Assembly, Up Solenoid	73906A
21	1	Eyelet, 5/16" Insulated - Red	86267
22	1	Fitting, 90°-1/8" Male Pipe x 1/8" Barbed	87563
23	1	Diode Assembly, Down Valve Solenoid	73907A
24	1	Terminal, 1/4" Male Spade - Fully Insulated - 14/16 Gauge	78036
25	1	Circuit Breaker, 15 Amp - Manual Reset	35046
26	1	Screw, #10-32 x 3/8", Pan Head, Phillips, Thread Cut	82755
27	1	Washer, .326" X .562" X .042"-SS	83583
28	5	Bumper, 1/2" Dia. x 1/4" Tall - Rubber	82064
29	1	Electrical Board Assembly / 12 Volt / RoHS	73900RLFCE-12V
30	1	Chip, UVL 600 Program Stow Lock	85900-102
31	6	Screw, #6 x 3/8" Self Tap, Flat Head	82764
32	1	Bracket, PC Board Mounting	73824NW-02
33	6	Standoff, .25" PCB - Nylon	86739
34	1	Edge Liner, 1/8", Q-Trim	13910R006
35	2	Edge Liner, 1/8", Q-Trim	13910R008
36	1	Clip, Cable - 7/16" Plastic	15777
37	1	Solenoid, Motor UVL - Prestolite - 12V	28308
38	1	Clamp, Hose	17069
39	1	Power Cable, Up Solenoid to Motor	29049
40	1	Tag, Vent Tube Plug Removal - UVL (Not Shown)	25807
41	1	Cable Tie, 3 3/4" x .09", White (Not Shown)	86003
42	1	Tag, Caution Do Not Connect - Red (Not Shown)	81796
43	1	Cable Tie, 14 1/2" (Not Shown)	24534
44	1	Kit, Fuse Replacement (Not Shown)	36676K
45	1	Fuse, 5 Amperes	85835
46	4	Relay, 20 Amperes, 12 Volt	13259
47	1	Hand Control Assembly	73946A-100-1
48	1	Pump Cover (Cover Assembly 75820A-09 Includes Items 48-55)	75820-09
49	1	Decal, UVL Patent & Trademark (Not Shown)	29884
50	1	Decal, Electrical Components-Lift-Intl-UVL (Not Shown)	36650
51	1	Decal, Fuse Specifications-Intl-UVL (Not Shown)	36644
52	1	Decal, Electrical Components-Module-Intl-UVL (Not Shown)	36649
53	1	Decal, Hazard-Electrical Shock-Intl-Pictorial (Not Shown)	36513
54	1	Decal, Warn Damage Control Board-ESD (Not Shown)	30787
55	1	Decal, Manual Operation - UVL (Not Shown)	28461
56	6	Screw, 1/4-20 x 3/8", Pan Head Phillips	82769
57	2	Clamp-Spring-Pump Handle	12350
58	2	Screw, 10-32 x 3/8" Flat Head Phillips	82767
59	2	Washer, #10 Flat	11541
60	2	Nut, #10-32 Hex	11542
61	1	Handle, Pump	17206A
62	1	Bracket, Power Pack Mounting	73825
63	2	Washer, 1/4" External Star Tooth Lock	83588
64	1	Ground Cable - Black	68874

UVL855R (12V) Pump Module Diagram



NOTICE

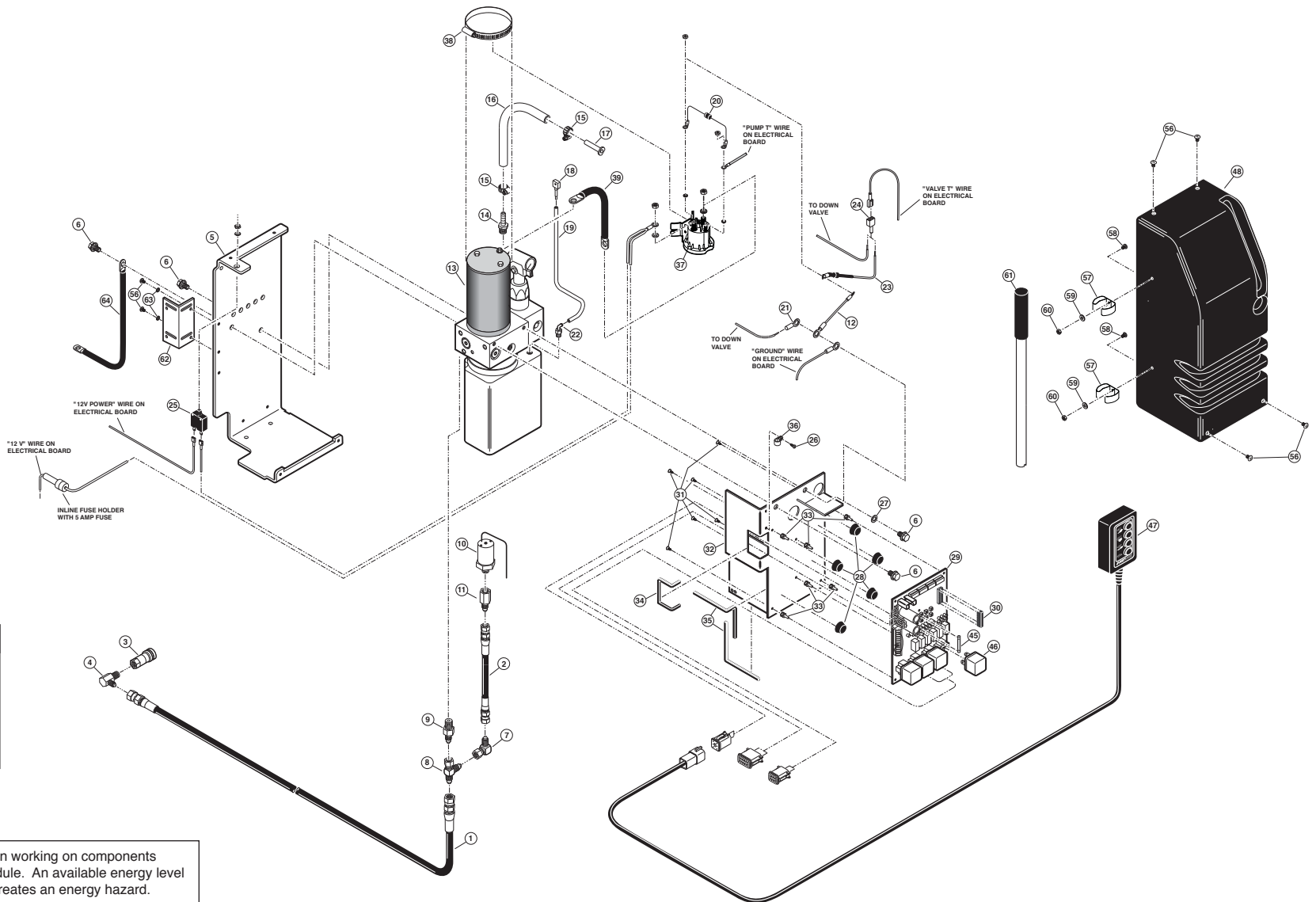
Remove power from pump module and any spark source before working with hydraulic fluid and components. Wear proper eye protection. Use protective gloves for prolonged contact with hydraulic fluid.

 Use caution when working on components inside pump module. An available energy level of over 240 VA creates an energy hazard.


UVL855R24 (24V) Pump Module Parts List

Item	Qty.	Description	Part No.
		Pump Module, Complete (Items 1-46)	75800AR24-09
1	1	Hose Assembly, 3/16" Diameter x 106"- Female 7/16-20 JIC 37°-SW/SW	32785A-106
2	1	Hose Assembly, 1/8" Diameter x 4"- Female 7/16-20 JIC 37°-SW/SW	16004A-004
3	1	Coupling, Hydraulic Quick Connect x 1/4" Female NPT	87614
4	1	Fitting, 90°- Male 7/16-20 JIC 37° x 1/4" Male NPT	87569
5	1	Plate, Power Pack Mounting	73822-2
6	4	Screw, 5/16-18 x 1/2", Serrated Washer Head, Hex	82881
7	1	Fitting, 90°-Female Swivel 7/16-20 JIC 37° x Male 7/16-20 JIC 37°	87592
8	1	Fitting, Tee - Female Swivel 7/16-20 JIC 37° x Male 7/16-20 JIC 37° x 2	87587
9	1	Adapter, 1/4" Male NPT x 7/16-20 Male JIC 37°	10130
10	1	Switch, Pressure 250/1000 PSI	87052
11	1	Fitting, 1/8" Female NPT x Male 7/16-20 JIC 37°	87623
12	1	Jumper Assembly, 12 Gauge x 4"	73943A
13	1	Pump Assembly, UVL Power Pack - 24 Volt	87060-24V
14	1	Fitting, 3/8" Male NPT x 3/8" Barbed	87618
15	2	Clamp, Hose - 5/8" O.D. - Worm Drive	84325
16	1	Tubing, 3/8" x 5/8", Tygothane - Clear	82066R012
17	1	Plug, 3/8" Plastic Tube	81580
18	1	Plug, 1/8" Plastic Tubing	81583
19	1	Tube, 1/4" O.D. x 1/8" I.D. - Plastic	81557R014
20	1	Diode Assembly, Up Solenoid	73906A
21	1	Eyelet, 5/16" Insulated - Red	86267
22	1	Fitting, 90°-1/8" Male Pipe x 1/8" Barbed	87563
23	1	Diode Assembly, Down Valve Solenoid	73907A
24	1	Terminal, 1/4" Male Spade - Fully Insulated - 14/16 Gauge	78036
25	1	Circuit Breaker, 8 Amp - Manual Reset	30364
26	1	Screw, #10-32 x 3/8", Pan Head, Phillips, Thread Cut	82755
27	1	Washer, .326" X .562" X .042"-SS	83583
28	5	Bumper, 1/2" Dia. x 1/4" Tall - Rubber	82064
29	1	Electrical Board Assembly / 24 Volt / RoHS	73900LFC-24V-2
30	1	Chip, UVL 600 Program Stow Lock	85900-102
31	6	Screw, #6 x 3/8" Self Tap, Flat Head	82764
32	1	Bracket, PC Board Mounting	73824NW-02
33	6	Standoff, .25" PCB - Nylon	86739
34	1	Edge Liner, 1/8", Q-Trim	13910R006
35	2	Edge Liner, 1/8", Q-Trim	13910R008
36	1	Clip, Cable - 7/16" Plastic	15777
37	1	Solenoid, Motor UVL - Trombetta - 24V	32930
38	1	Clamp, Hose	17069
39	1	Power Cable, Up Solenoid to Motor	29049
40	1	Tag, Vent Tube Plug Removal - UVL (Not Shown)	25807
41	1	Cable Tie, 3 3/4" x .09", White (Not Shown)	86003
42	1	Decal, Inspection Label (Not Shown)	17463
43	1	Cable Tie, 14 1/2" (Not Shown)	24534
44	1	Kit, Fuse Replacement (Not Shown)	36676K
45	1	Fuse, 5 Amperes	85835
46	4	Relay, 10/20 Amperes, 24 Volt	168001-1416
47	1	Hand Control Assembly	73946A-100-1
48	1	Pump Cover (Cover Assembly 75820A-09 Includes Items 48-55)	75820-09
49	1	Decal, UVL Patent & Trademark (Not Shown)	29884
50	1	Decal, Electrical Components-Lift-Intl-UVL (Not Shown)	36650
51	1	Decal, Fuse Specifications-Intl-UVL (Not Shown)	36644
52	1	Decal, Electrical Components-Module-Intl-UVL (Not Shown)	36649
53	1	Decal, Hazard-Electrical Shock-Intl-Pictorial (Not Shown)	36513
54	1	Decal, Warn Damage Control Board-ESD (Not Shown)	30787
55	1	Decal, Manual Operation - UVL (Not Shown)	28461
56	6	Screw, 1/4-20 x 3/8", Pan Head Phillips	82769
57	2	Clamp-Spring-Pump Handle	12350
58	2	Screw, 10-32 x 3/8" Flat Head Phillips	82767
59	2	Washer, #10 Flat	11541
60	2	Nut, #10-32 Hex	11542
61	1	Handle, Pump	17206A
62	1	Bracket, Power Pack Mounting	73825
63	2	Washer, 1/4" External Star Tooth Lock	83588
64	1	Ground Cable - Black	68874

UVL855R24 (24V) 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. An available energy level of over 240 VA creates an energy hazard.

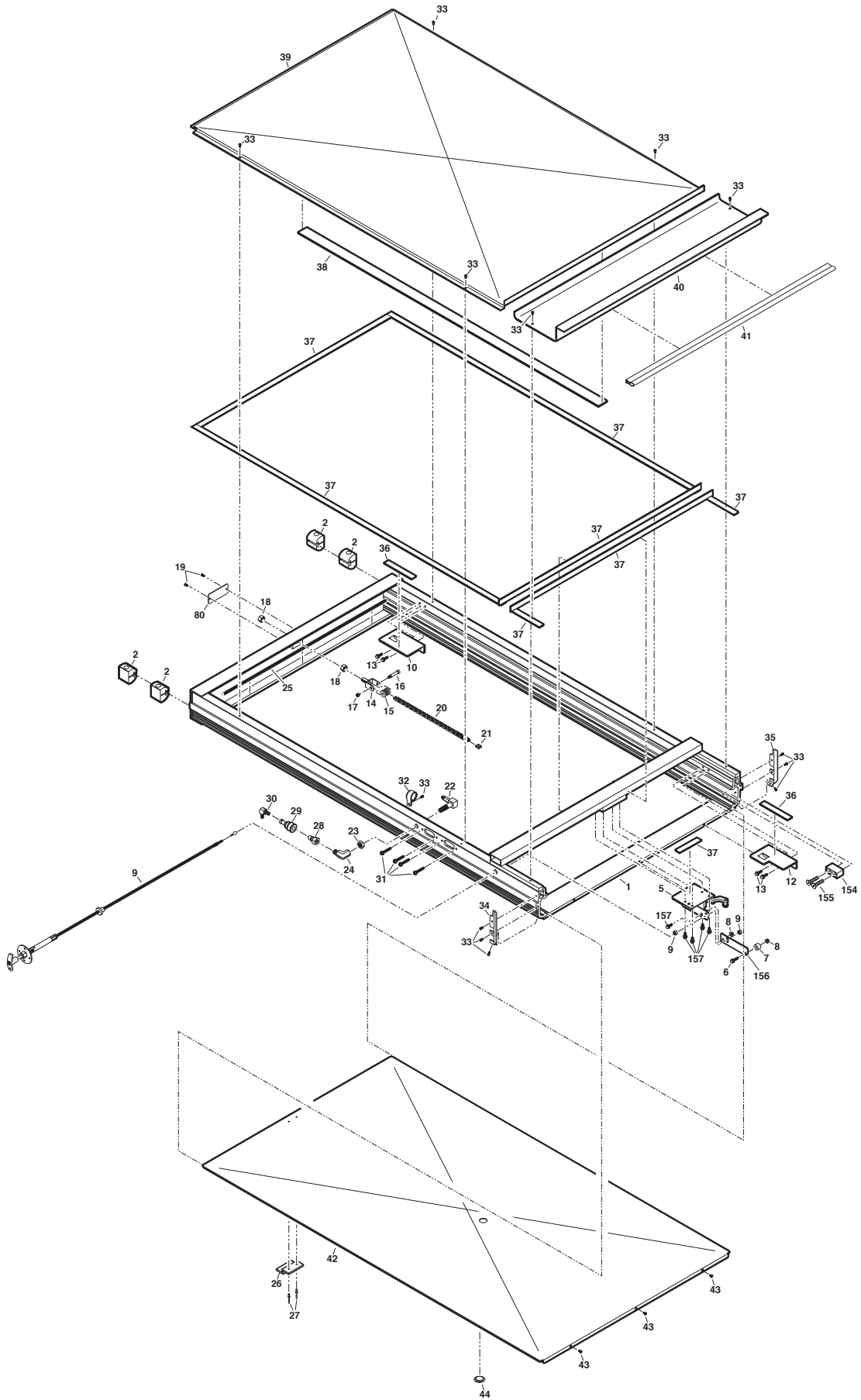
Repair Parts List

UVL855R / UVL855R24

Item	Qty.	Description	Part No.	Item	Qty.	Description	Part No.
1	1	Housing Weldment	75101RNW	80	1	Cover, Chain Tensioner	71754
2	4	Clamp, Lift Mounting	73733	81	2	Bearing, Split, 3/4" x 1/4" Long	84282
3	2	Spring, Torsion	85101	82	1	Guard, Handrail / Lift Chain	75388
4	1	Skid, Rear Barrier	75414C	83	2	Bearing, 1 5/8" O.D. x 3/4" I.D.	84004
5	1	Chain Release Assembly	73760A	84	6	Limit Switch Assembly	73950AS
6	1	Screw, 1/4-20 x 1", Serrated Hex	82760	85	6	Washer, #10 Internal Tooth	11540
7	1	Cam, 7/8" UVL Follower	84052	86	2	Screw, 10-32 x 2" Socket Head, Cap	82779
8	2	Nut, 1/4-20, Serrated, Hex	83064	87	2	Screw, 10-32 x 1 1/2", Socket Cap	82717
9	1	Manual Release Cable Assembly Kit	73770-600	88	2	Screw, 10-32 x 7/8", Socket Cap	82778
10	1	Bracket, In/Out Cam, Inboard	73774	89	3	Tape, Limit Switch Mounting Tab	73747
11	1	Skid, Rear Barrier	75402	90	1	Bracket, In/Out Switch Mounting	73719
12	1	Bracket, In/Out Cam, Outboard	73775	91	3	Plate, Switch Bracket, Tap	68280-1
13	5	Screw, 1/4-20 x 3/4", Washer Head, Self-Tap	24750	92	1	Pulley, Spring Tensioner	75749N
14	1	Chain Tensioner Weldment	76750W	93	1	Bracket, Pulley Spring Tension	75748
15	3	Roller, Chain Idler, Nylon	73706	94	1	Spring, 1/2" x 5" x .063"	26367
16	1	Screw, 5/16" x 1 1/4" Shoulder, Soc. Hd., 1/4-20	82751	95	1	Cover, Pulley Spring Tensioner	75740RN
17	7	Nut, 1/4-20 Nylock, Full Thread	83070	96	1	Cover, Lift Arm Wiring	75741
18	2	Nut, 1/2-20, Lock, Hex	10365	97	1	Cover, Idler Arm Wiring	75742
19	2	Screw, 10-32 x 3/8", Pan Head, Phillips	82755	98	2	Plug, 1 1/2" x 2" x 11 Gage Tube	81582
20	1	Chain, Nickel Plated, #35 Roller	84314R132.5	99	1	Cylinder Assembly - Rear	75801FA-06
21	1	Connector Link, #35 Roller Chain	84317	100	1	Cylinder Assembly - Front	75801CFNA
22	1	Fitting Assembly, Bulk Head	73777A	101	2	Cam, Torque Shaft Actuator	73712
23	1	Nut, 9/16-18 Hex Jam	83077	102	2	Clamp, Worm Drive Heavy Duty	84318
24	1	Elbow, 1/4" NPT 90° Street	10114	103	7	Clamp, 1/4" I.D. Nylon Loop (2 Shown)	84396
25	1	Sponge Strip, 1/2" Wide x 1/4" Thick	82062R036	104	1	Platform Weldment	753011BW-06
26	1	Bracket, Lower Housing Cover	73108	105	1	Tape, Double Face, 1/16" x 3/4" x 108"	82033R108
27	2	Rivet, Pop, SD64BS - 3/16"	11513	106	1	Plate, Platform Floor	753061B
28	1	Nipple, Hydraulic Quick Disconnect	87615	107	1	Roll Stop Weldment	32997W
29	1	Coupling, Hydraulic Quick Disconnect	87614	108	1	Closure Weldment	75330W
30	1	Fitting, 90° JIC Male x 1/4" Male Pipe	87569	109	1	Sponge Strip, .61" Wide x .36" Thick w/o Glue	82063R
31	4	Screw, 1/4-20 x 1 1/2" Washer Head	24751	110	1	Screw, 1/2" x 1 1/4" Shoulder Socket Hd., 3/8-16	82771
32	4	Clamp, Insulate, 1 1/8"	20535	111	1	Spring, Lower Closure, Torsion	73335
33	38	Screw, 10-32 x 3/8", Pan Head, Self-Tap (32 Shown)	82755	112	2	Washer, .390" I.D. x .625" O.D. x .073"	83585
34	1	Lip, Side Shield - Left	75743	113	1	Shield, Handrail Cover - Right	75386-04
35	1	Lip, Side Shield - Right	75744	114	1	Shield, Handrail Cover - Left	75385-04
36	1	Plate, Rear Barrier	75411NYL	115	21	Screw, 8-18 x 1/2" Phillips, Pan Head, Self-Drill	18533
37	1	Tape, 1/16" x 3/4", Double Face	82033R108	116	8	Bolt, 5/16-24 x 3/4"	17391
38	1	Tape, 1/8" x 1 1/2" Foam Adhesive	82054R048	117	1	O-Ring, 7/16" I.D. x 5/8" O.D.	87861
39	1	Upper Cover	75730-2	118	1	Actuator Assembly	74340-2
40	1	Lip, Upper Edge Seal	75746-8	119	1	Ring, 5/8" Retaining	84189
41	1	Seal, Crimp on Edge	82071R036	120	1	Pin, Barrier Clevis Release	73741-2
42	1	Lower Cover	75732-2	121	2	Ring, 15/16" Clevis Pin (1 Shown)	11390
43	3	Screw, 10-32 x 3/8", Flat Head, Phillips	82767	122	1	Clip, Hairpin, 5/16" Diameter Shaft	84382
44	1	Plug, 1", Poly Finish, Black	81576	123	2	Grommet, 1 1/4" Diameter x 1/4" Wide	84386
45	1	Carriage Weldment, UVL855R	75201RNW-08	124	1	Cover, Platform Wire Harness	757381B-06
46	2	Shaft Bearing Weldment	73230W	125	2	Knob, Lever	84269
47	4	Bearing Track Roller, 20mm x 52mm	84305	126	2	O-Ring, 1/2" x 1/16"	87838
48	2	E-Clip, 3/4" Bowed x .580" Groove	84377	127	2	Washer, 3/8" I.D. x 5/8" O.D. x .093"	27230
49	11	E-Clip, 3/4" x .580" Groove	84376	128	1	Shaft, Rear Barrier Hinge, RR	75413
50	2	Shaft, Eccentric Bearing Weldment	73233W	129	2	Cover, Handrail Slot	70359
51	3	Washer, .281" ID x .625" OD x .055" (1 Shown)	83511	130	8	Ring, Snap - 5/16" External	24570
52	6	Screw, 1/4-20 x 3/8", Serrated, Hex	82761	131	1	Handrail Weldment, Left	75381CW
53	2	Washer, Front Scissor Arm	73748	132	1	Handrail Weldment, Right	75382CW
54	2	Bearing, Scissor/Carriage Tube	84320	133	2	Block, Handrail Mounting	73372-1
55	1	Motor, Electric, In/Out	85815	134	2	Block, Handrail Latch Mounting	73372-06
56	1	Sprocket, #35, 9 Tooth with Hub	84312	135	4	Pin, Handrail Clevis - .312" O.D. x 2.125" Long	73374
57	1	Pin, 3/16" x 1" Dowel	29188	136	1	Washer, Stow, Lock	75275
58	2	Screw, 1/4-20 x 2 3/4", Serrated, Hex	82759	137	1	Block, Nylon Slider (Outside)	74409
59	2	Screw, 5/16" x 2" Shoulder, Soc. Hd., 1/4-20	82758	138	1	Block, Nylon Slider (Inside)	74410
60	2	Bearing, Scissor Arm Pin	75248	139	3	Nut, 5/16-24 Nylock Plated	83079
61	1	Shaft, Barrier Hinge, RR	75413	140	1	Block, Rear Barrier Slider	74408
62	4	Bushing, 3/4" I.D. x 3/8" Long	900-0455	141	1	Bolt, 5/16-24 x 2 1/4 SKT FLAT	82346
63	1	Hinge Weldment, Rear Barrier	75420CNW	142	1	Bolt, 5/16-24 x 2 SKT FLAT PLTD	82347
64	1	Screw, 10-32 x 1/2 PH PN ZP	82744	143	1	Rocker, Rear Barrier	75412
65	3	Nut, 10-32 Serrated Flange ZP	83080	144	1	Washer, .281 x .75 x .06 Brass	83592
66	1	Screw, 1/4-20 x 3/4", Serrated, Hex	82768	145	1	Bolt, 1/4-20 x 1/2 Socket Low HD	82335
67	2	Screw, 1/4-20 x 1/4", Pan Head, Nylon	82773	146	1	Pin, Dowel, .25" x .81"	74412
68	2	Pin, Cylinder Rod Mounting, Black Oxide	75701N	147	1	Screw, 5/16-24 x 1" SKT BTN Zinc	82348
69	2	Pin, Cylinder Rod Mounting, Long, Black Oxide	75700N	148	1	Rod End, 5/16-24 LH Male	84385
70	2	Washer, .758 I.D. x 1.245 O.D. x .06	25141	149	1	Rod End, 5/16-24 LH Male x 1 1/2" Long	31773
71	2	Screw, 10-32 x 1 1/2" NF SKT CAP ZP	82717	150	1	Nut, 5/16-24 LH Hex Jam ZP	83076
72	4	Washer, UVL Cylinder Rod Pin	31137	151	1	Tie Rod, Rear Barrier	75407CFS
73	4	Nut, 9/16-18 x 5/16 Thick Stainless Jam	31176	152	1	Nut, 5/16-24 Hex Jam ZP	83075
74	2	Screw, #10-32 x 1/2 FHDHXS, Auto Black, w/Patch	17192P	153	1	Link, Rear Barrier	74406
75	9	Screw, 1/4-20 x 3/8 FL SOC CAP HD	23471	154	1	Block, Carriage Stop	75781N
76	2	E-Clip, 3/8 Shaft	84383	155	2	Screw, 3/8-16 x 1 3/4" SS 18-8 FHSC	30385
77	1	Catch Weldment	75415CW	156	1	Cam, Rear Barrier Fold	73414
78	1	Screw, 5/16 x 1 1/4 SHLD SKT HD 1/4-20 ZP	82751	157	5	Bolt, 1/4-20 x 1/2" Hex	21988
79	1	Spring, Extension, 1/2" x 5" x .075"	25717				

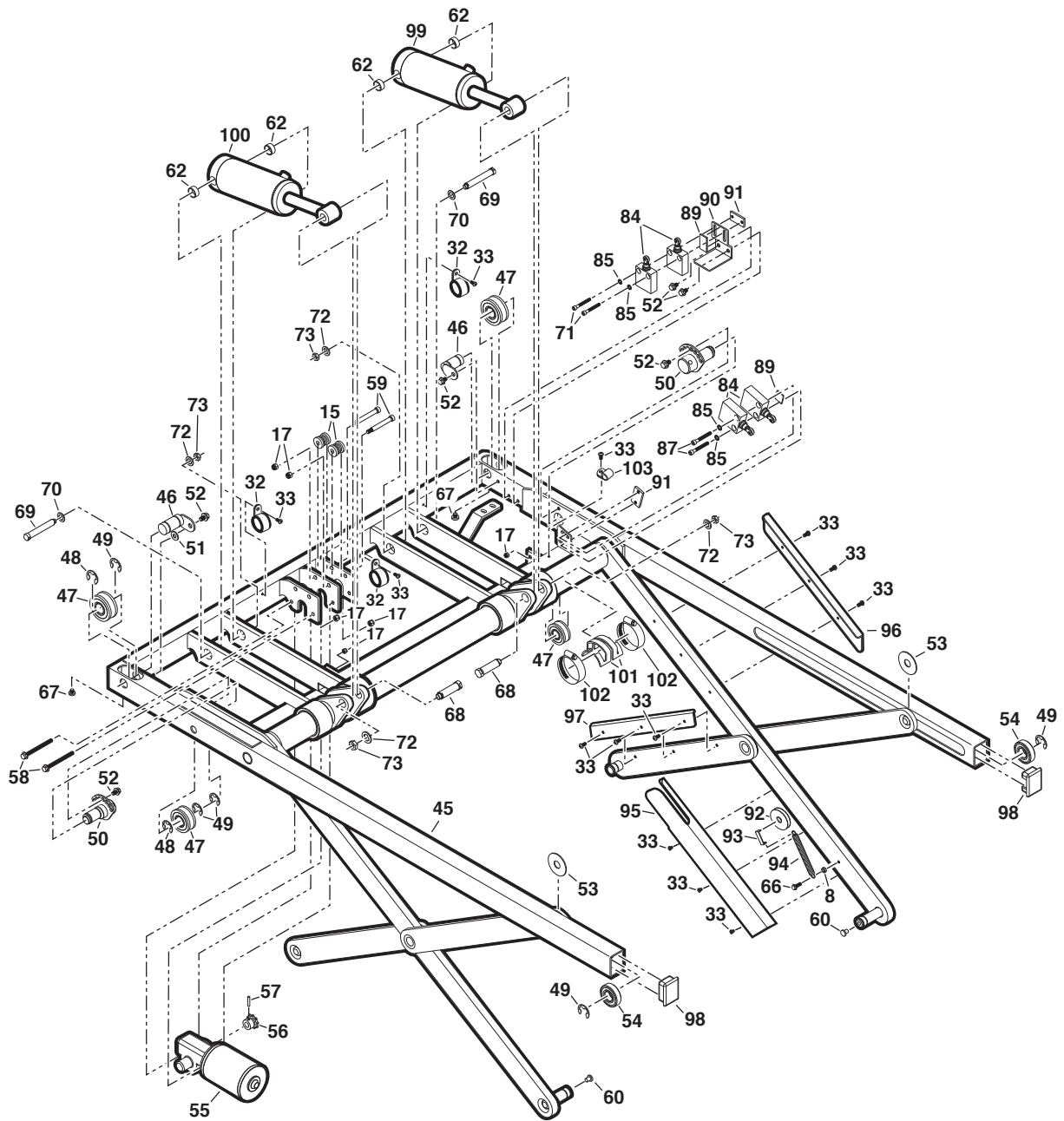
Housing Exploded View Detail

UVL855R / UVL855R24



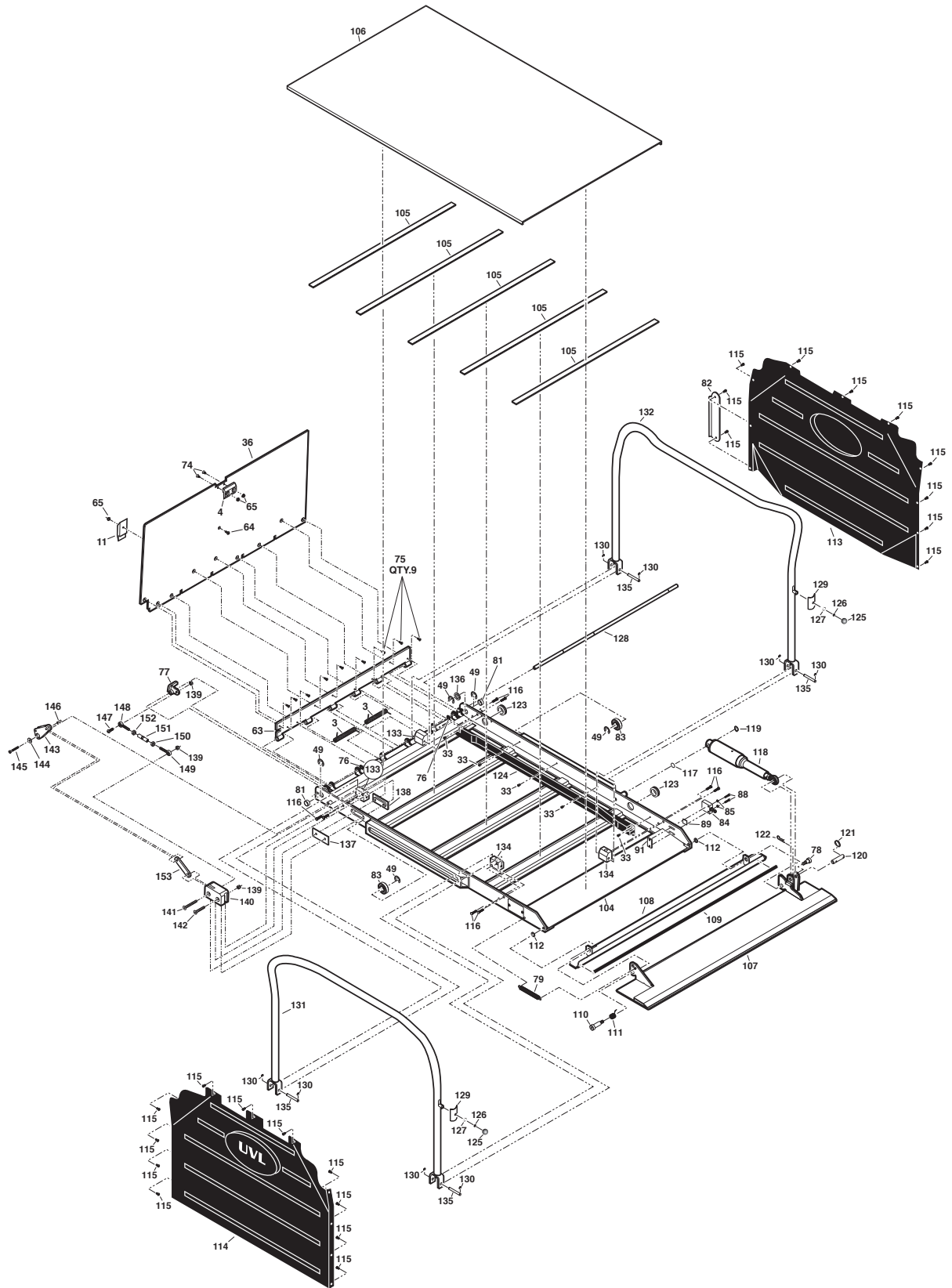
Carriage Exploded View Detail


UVL855R / UVL855R24



Platform Exploded View Detail

UVL855R / UVL855R24



EC Declaration of Conformity With Council Directive 2006/42/EC		
Date of Issue:	1 December 2011	
Directive:	Machinery Directive on machinery safety, 2006/42/EC	
Conforming Machinery:	Hydraulic Lift System UVL601C Series 04 and Newer International Lifts UVL603C Series 04 and Newer International Lifts UVL603C24 Series 04 and Newer International Lifts UVL855R Series 09 and Newer International Lifts UVL855R24 Series 09 and Newer International Lifts	
Manufacturer:	Braun Corporation 631 West 11 th Street Winamac, IN 46996 USA	
Authorized Representative:	Braun Corporation Authorized Representative AUTOADAPT AB Åkerivägen 7 S-443 61 Stenkullen SWEDEN Telephone: +46 (0) 302 254 00 E-mail: contact@autoadapt.se AUTOADAPT UK LTD Unit 1, Windsor Industrial Estate, Rupert Street Aston, Birmingham B7 4PR, UK Phone: +44 (0) 121 33 35 170 E-mail: contact@autoadapt.co.uk	
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 UVL International Series System Sound Pressure Levels per EN ISO 11202 as based on testing on similar models are as follows:

	Operating	Idle
LpAm (Operator Position)	75 dB (A)	68 dB (A)
LpAm (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:		LpAm Δ = 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	

Declaration of Conformity With Directive 2004/108/EC		
Date of Issue:	1 December 2011	
Directive:	Radio Interference of Vehicles 2004/108/EC	
Conforming Machinery:	Hydraulic Lift System UVL601C Series 04 and Newer International Lifts UVL603C Series 04 and Newer International Lifts UVL603C24 Series 04 and Newer International Lifts UVL855R Series 09 and Newer International Lifts UVL855R24 Series 09 and Newer International Lifts	
Manufacturer:	Braun Corporation 631 West 11 th Street Winamac, IN 46996 USA	
Authorized Representative:	Braun Corporation Authorized Representative AUTOADAPT AB Åkerivägen 7 S-443 61 Stenkullen SWEDEN Telephone: +46 (0) 302 254 00 E-mail: contact@autoadapt.se AUTOADAPT UK LTD Unit 1, Windsor Industrial Estate, Rupert Street Aston, Birmingham B7 4PR, UK Phone: +44 (0) 121 33 35 170 E-mail: contact@autoadapt.co.uk	
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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Service Manual for:

UVL855R

UVL855R24

Under-Vehicle Lift®

Series 09

Braun Limited Warranty

Consult your local Braun dealer regarding warranty policy.

www.braunlift.com/international

Patent #5,305,486

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www.braunability.com/international ISO 9001:2008

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All illustrations, descriptions and specifications in this manual are based on the latest product information available at the time of publication. The Braun Corporation reserves the right to make changes at any time without notice.



Original Instructions

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